SUN VALLEY PARKWAY NORTH
FLOOD INSURANCE STUDY.

APPENDIX A
HEC-2 INPUT/OUTPUT

APPENDIX A

100-YEAR FLOODPLAIN/FLOODWAY ANALYSIS

HEC-2 INPUT/OUTPUT

FLOOD INSURANCE STUDY

SUN VALLEY PARKWAY NORTH

MARICOPA COUNTY, ARIZONA

Prepared for:

Flood Control District of Maricopa County
3335 West Durango Street
Phoenix, Arizona 85009

September, 1991

Prepared by:

A-N WEST, INC.
7600 North 15th Street, Suite 200
Phoenix, Arizona 85020
(602)861-2200

Property of
od Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

Registered Professional Engineer (Civil)
CERTIFICATE NO. 15290
GREGORY J. SCHUELKE '91
Date Signed 9/6/91
ARIZONA, U.S.A.

FCD No. 90-04

A-N West, Inc. Job No. 7158-01

APPENDIX A

Table of Contents

HEC-2 Input/Output - 100-Year Floodplaon/Floodway Analysis.

Wash NO. 1 and Tributary	Computer Input File: Wash 1-7.DAT (Rev. 8/14/91)
Wash No. 2 and Tributary	Computer Input File: Wash 2-4.DAT (Rev. 8/14/91)
Wash No. 3 and Tributaries	Computer Input File: Wash 3-4.DAT (Rev. 8/15/91)
Wash No. 4 and Tributaries	Computer Input File: Wash 4-8.DAT (Rev. 8/12/91)
Wash No. 5 and Tributary	Computer Input File: Wash 5-2.DAT (Rev. 8/06/91)
Wash No. 6 and Tributary	Computer Input File: Wash 6-2.DAT (Rev. 8/05/91)
Wash No. 7	Computer Input File: Wash 7-1.DAT (Date 7/25/91)
Wash No. 8 and Tributaries	Computer Input File: Wash 8-2.DAT (Date 7/25/91)

THIS RUN EXECUTED 29AUG91 14:41:46

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
************************************


T1      SUN VALLEY PARKWAY NORTH FIS.   CONTRACT:FCDMC NO.90-04    FILE:WASH1-7
T2      100-YEAR WATER SURFACE PROFILE                  A-N WEST INC. PHX. AZ.
T3      WASH NO. 1  100-YEAR PROFILE                   DATE:5\15\91;REV.8\14\91

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0        2                   0      .004                                    1504.13

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43         1         2        26        39        21        22        27        28
    53        54         0        38        13        14        15        55        26        56
    63         1        51         4        42        57         0        38        39        33
     3        10        11        12         5         7         8        16        17        18
     0       200

NC     .054      .054      .042        .1        .3
QT        2      2731      2731
ET                          9.1                                                   10086.67     10186.4
        FLOODWAY MODEL WITH FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        EQUAL CONVEYANCE REDUCTION (METHOD 4) FOR INITIAL ANALYSIS.
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE-AREA METHOD
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH 5 WEST ALONG BASELINE
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
X1    .0805        61   10133.4   10186.4
GR   1507.9    9677.2    1507.4    9698.3    1507.1    9723.4    1506.8    9743.3    1506.0    9758.9
GR   1504.9    9782.8    1504.5    9815.9    1503.9    9839.4    1503.2    9856.0    1502.8    9866.1
GR   1501.3    9872.5    1502.4    9886.9    1502.8    9907.7    1503.0    9935.2    1503.2    9955.3
GR   1503.7    9975.7    1503.9    9995.3    1504.2   10000.0    1504.2   10000.1    1504.5   10021.2
GR   1504.4   10039.4    1504.2   10058.1    1503.7   10079.1    1502.7   10097.5    1502.0   10116.0
GR   1501.2   10133.4    1500.3   10147.1    1496.8   10155.3    1497.2   10173.3    1500.7   10179.5
GR   1501.5   10186.4    1499.8   10197.5    1502.4   10204.5    1502.8   10216.7    1503.6   10228.4
```

```
GR   1505.2   10240.8   1506.8   10250.6   1507.2   10263.7   1506.7   10278.9   1506.2   10289.9
GR   1505.9   10304.1   1506.4   10316.4   1507.6   10324.4   1507.4   10338.8   1508.5   10361.0
GR   1509.1   10372.5   1509.2   10384.9   1509.7   10399.2   1509.9   10411.4   1510.5   10422.1
GR   1510.5   10437.5   1510.0   10451.2   1510.2   10465.4   1510.3   10479.2   1510.4   10495.0
GR   1510.8   10508.3   1511.1   10519.1   1511.5   10531.7   1512.1   10541.4   1512.6   10551.6
GR   1512.8   10551.7

ET                          9.1                                                    9929.7   10016.6
X1    .2159        67   9929.7     10000       700       800       750
GR   1511.9    9650.5   1511.2    9667.2    1510.5    9679.9    1509.0    9689.8   1509.2    9705.7
GR   1508.8    9722.9   1509.2    9739.4    1508.1    9752.6    1507.9    9759.3   1507.9    9770.9
GR   1507.2    9781.1   1507.5    9789.2    1507.2    9801.6    1507.1    9817.4   1506.2    9836.0
GR   1505.8    9847.3   1506.6    9855.9    1506.0    9867.3    1505.8    9877.8   1505.4    9889.7
GR   1505.1    9901.5   1505.2    9909.1    1505.0    9929.7    1503.8    9938.1   1499.1    9946.6
GR   1499.7    9960.7   1500.2    9972.0    1503.1    9976.1    1504.1    9991.1   1504.8   10000.0
GR   1504.8   10000.1   1505.2   10019.3    1506.1   10035.6    1506.1   10050.6   1506.0   10061.4
GR   1505.2   10070.9   1504.8   10077.9    1505.7   10091.7    1506.0   10105.0   1506.7   10120.5
GR   1506.8   10138.5   1506.1   10153.2    1506.1   10166.9    1506.4   10176.6   1505.5   10184.0
GR   1505.8   10197.2   1506.7   10207.6    1506.2   10214.6    1505.6   10222.1   1506.7   10237.5
GR   1507.1   10250.6   1508.2   10262.7    1508.4   10277.0    1508.1   10289.8   1508.2   10304.9
GR   1508.8   10320.0   1509.1   10334.3    1509.6   10352.8    1510.2   10370.7   1510.5   10387.4
GR   1510.6   10403.9   1510.9   10420.8    1511.2   10434.2    1511.5   10453.7   1511.7   10474.0
GR   1512.2   10489.5   1511.8   10500.9

QT       2       2157      2157
ET                          9.1                                                    9787.1    9908.5
        CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.3, DECREASE DISCHARGE.
X1    .3589        55   9787.1    9908.5       850       775       850
GR   1519.8    9591.0   1519.3    9611.8    1518.9    9633.8    1518.2    9652.3   1517.0    9679.0
GR   1516.6    9697.7   1516.0    9711.3    1514.6    9716.3    1513.7    9726.3   1512.3    9737.9
GR   1511.2    9749.0   1508.0    9763.2    1508.2    9774.2    1507.9    9787.1   1507.5    9801.1
GR   1507.2    9814.3   1504.9    9828.7    1502.4    9845.1    1501.8    9859.0   1502.2    9869.9
GR   1506.8    9877.7   1507.8    9893.4    1507.8    9908.5    1508.8    9925.3   1510.1    9942.6
GR   1510.3    9953.4   1510.3    9967.0    1511.4    9997.3    1512.0   10000.0   1512.0   10000.1
GR   1511.4   10023.6   1511.3   10037.7    1511.3   10051.1    1511.0   10063.2   1511.4   10073.4
GR   1511.2   10088.1   1511.2   10099.7    1511.6   10122.6    1512.2   10134.6   1512.3   10146.2
GR   1512.2   10161.1   1512.6   10177.4    1512.5   10194.2    1513.1   10209.9   1513.1   10224.5
GR   1513.4   10240.0   1513.6   10256.2    1514.1   10270.7    1514.4   10284.8   1515.5   10300.7
GR   1516.3   10314.8   1516.9   10330.1    1517.1   10344.5    1517.5   10357.7   1517.9   10361.8

ET                          9.1                                                   10000.0   10100.0
X1    .5028        60  10026.1   10057.6       750       800       900
GR   1520.0    9480.7   1519.2    9507.4    1518.6    9540.8    1518.1    9560.2   1518.4    9582.4
GR   1518.0    9605.7   1517.2    9632.2    1516.9    9663.5    1516.4    9694.7   1516.9    9711.2
GR   1516.3    9732.9   1516.3    9756.9    1516.7    9788.1    1516.5    9806.7   1516.7    9827.4
GR   1516.9    9849.8   1518.0    9867.8    1517.7    9883.7    1516.6    9904.3   1516.6    9923.7
GR   1515.2    9942.6   1512.8    9962.0    1510.8    9982.1    1511.0   10000.0   1510.8   10000.1
GR   1510.8   10000.2   1511.1   10010.8    1510.2   10026.1    1505.3   10030.5   1505.3   10037.4
GR   1510.4   10044.1   1511.5   10057.6    1511.7   10073.4    1511.9   10086.2   1512.0   10101.0
GR   1512.3   10110.9   1512.2   10121.8    1511.7   10128.5    1512.7   10135.0   1512.1   10145.3
GR   1512.8   10150.7   1513.1   10169.1    1513.6   10179.7    1513.5   10191.1   1514.1   10205.0
GR   1514.0   10215.0   1514.2   10226.6    1514.0   10253.8    1514.1   10264.0   1514.0   10277.1
GR   1514.6   10290.6   1514.7   10303.4    1516.4   10320.5    1516.5   10338.0   1515.3   10350.6
GR   1515.8   10362.1   1516.8   10370.9    1517.4   10381.6    1518.2   10390.3   1518.8   10401.4
```

ET			9.1						10110.0	10255.0
X1	.6363	84	10118.3	10147.1	740	900	980			
GR	1522.6	9866.2	1522.2	9887.4	1521.9	9903.9	1521.5	9912.0	1521.0	9923.7
GR	1521.0	9936.4	1520.7	9947.9	1519.8	9965.0	1518.8	9978.0	1518.6	9988.3
GR	1518.6	10000.0	1518.2	10000.1	1518.2	10000.2	1517.6	10021.7	1517.5	10039.8
GR	1516.6	10050.4	1515.9	10057.4	1516.0	10069.2	1516.1	10077.4	1515.7	10089.8
GR	1514.5	10101.5	1514.6	10110.9	1514.4	10118.3	1512.0	10127.9	1508.8	10132.6
GR	1508.4	10137.4	1513.9	10147.1	1515.2	10157.0	1515.9	10168.0	1516.1	10173.9
GR	1515.7	10182.4	1515.5	10189.5	1515.0	10198.0	1514.1	10202.9	1513.7	10209.0
GR	1514.6	10215.7	1514.9	10226.1	1514.9	10241.1	1514.6	10241.2	1514.6	10243.7
GR	1512.3	10248.3	1515.2	10251.6	1515.4	10259.2	1515.4	10265.9	1515.2	10271.7
GR	1515.5	10277.9	1515.7	10285.0	1516.3	10291.6	1517.0	10298.7	1516.6	10307.8
GR	1517.0	10319.6	1517.2	10331.0	1517.7	10343.9	1517.8	10358.2	1518.4	10369.0
GR	1517.5	10379.7	1517.5	10394.0	1517.3	10406.0	1516.6	10415.6	1516.9	10424.8
GR	1517.2	10435.9	1518.4	10446.4	1518.4	10461.1	1518.5	10473.3	1518.1	10483.9
GR	1517.7	10504.6	1518.1	10513.1	1518.3	10525.3	1518.7	10538.0	1518.9	10549.6
GR	1519.0	10562.2	1519.0	10576.7	1519.2	10591.2	1519.4	10608.8	1519.6	10624.7
GR	1520.2	10654.7	1520.4	10669.1	1520.6	10682.5	1520.1	10701.8	1520.2	10713.7
GR	1520.6	10725.7	1520.7	10737.2	1520.5	10748.7	1520.7	10754.8		

ET			9.1						9994.3	10059.7
X1	.7783	95	10000.1	10046.7	770	730	760			
GR	1530.1	9464.3	1530.1	9493.5	1530.1	9509.5	1529.8	9520.7	1529.9	9527.3
GR	1529.5	9545.8	1528.6	9564.0	1528.4	9574.6	1528.4	9587.9	1527.8	9601.4
GR	1529.2	9612.3	1528.7	9628.3	1529.3	9640.2	1529.8	9650.1	1529.8	9659.1
GR	1529.9	9669.7	1529.9	9682.7	1529.9	9696.0	1529.9	9709.6	1530.0	9723.5
GR	1529.9	9738.1	1529.5	9755.0	1528.4	9777.1	1528.1	9786.9	1527.5	9799.1
GR	1526.4	9808.7	1525.8	9816.9	1526.5	9827.7	1526.6	9837.5	1526.2	9862.5
GR	1526.2	9869.6	1526.5	9878.9	1526.7	9888.8	1526.7	9898.4	1525.9	9910.1
GR	1524.2	9920.0	1521.3	9931.9	1518.6	9940.4	1519.4	9952.4	1518.1	9962.6
GR	1518.7	9969.5	1518.3	9978.4	1518.1	9986.2	1517.9	9994.2	1518.1	10000.0
GR	1518.1	10000.1	1517.2	10009.8	1512.1	10016.6	1511.9	10024.1	1516.4	10028.6
GR	1517.5	10035.3	1518.1	10046.7	1518.1	10056.0	1517.3	10065.5	1517.9	10077.2
GR	1517.8	10085.9	1519.6	10097.0	1520.7	10118.6	1520.8	10125.9	1521.1	10135.8
GR	1521.1	10146.9	1521.4	10156.0	1521.7	10163.8	1522.4	10171.9	1522.8	10180.5
GR	1522.8	10188.4	1522.8	10198.7	1524.3	10221.3	1525.3	10243.2	1525.9	10253.2
GR	1526.5	10260.9	1526.6	10269.1	1527.3	10277.5	1528.2	10284.9	1528.9	10293.4
GR	1527.8	10301.6	1528.1	10315.9	1528.6	10325.9	1528.6	10336.0	1528.7	10345.2
GR	1528.5	10354.1	1528.4	10364.3	1528.4	10375.0	1528.4	10387.0	1528.4	10399.5
GR	1528.6	10412.7	1528.7	10429.3	1528.6	10444.3	1528.5	10457.1	1528.8	10469.2
GR	1528.8	10483.0	1528.9	10494.2	1528.8	10506.0	1528.6	10517.2	1528.4	10535.6

ET			9.1						9897.7	10036.0
X1	.9639	77	9902.7	9958.0	1010	950	1050			
GR	1531.2	9611.8	1531.1	9630.8	1530.9	9653.4	1530.8	9685.2	1530.3	9710.9
GR	1530.0	9731.2	1530.5	9745.4	1530.1	9758.8	1530.4	9773.8	1530.1	9790.9
GR	1529.3	9805.9	1528.5	9815.9	1528.0	9831.8	1527.4	9849.2	1524.0	9863.0
GR	1522.2	9875.1	1521.6	9890.0	1521.6	9902.7	1520.3	9912.7	1517.1	9920.6
GR	1516.4	9926.8	1516.9	9930.7	1520.7	9935.8	1521.8	9949.0	1522.1	9958.0
GR	1522.3	9966.9	1522.6	9974.9	1522.6	9980.2	1522.1	9986.0	1522.4	9997.0
GR	1521.7	10000.0	1521.7	10000.1	1522.0	10015.7	1520.7	10023.5	1517.9	10029.3
GR	1521.6	10036.2	1522.1	10049.8	1522.3	10062.3	1522.3	10072.0	1522.3	10084.6
GR	1522.8	10100.6	1523.7	10109.8	1523.8	10116.8	1524.5	10126.2	1525.7	10132.8

```
GR   1525.7   10140.1   1525.7   10147.2   1526.2   10157.6   1526.2   10167.5   1526.2   10176.7
GR   1526.6   10188.6   1525.6   10202.2   1525.6   10213.3   1526.1   10225.5   1525.4   10237.0
GR   1525.4   10243.7   1525.8   10255.4   1525.8   10265.8   1525.8   10276.4   1526.0   10288.0
GR   1526.2   10300.6   1527.0   10315.4   1527.4   10326.0   1527.1   10339.9   1527.5   10349.9
GR   1527.5   10361.2   1527.9   10372.3   1527.9   10382.7   1527.9   10395.1   1528.3   10407.8
GR   1528.5   10418.7   1528.9   10430.6   1529.8   10441.0   1529.9   10450.4   1530.1   10460.0
GR   1531.1   10468.2   1531.2   10470.9

ET                          9.1                                                    9989.8   10130.7
X1   1.1116        36   10100.2   10130.7       775       800       800
GR   1533.3    9677.7   1532.8    9694.9   1531.8    9719.4   1530.5    9741.6   1529.6    9762.1
GR   1528.9    9778.6   1528.7    9795.9   1528.1    9815.9   1528.4    9835.2   1527.5    9848.8
GR   1527.1    9867.9   1526.2    9887.7   1525.9    9902.4   1525.4    9922.2   1525.6    9946.6
GR   1522.4    9950.2   1525.2    9951.8   1525.4    9964.9   1525.4    9981.3   1525.5    9998.8
GR   1525.2   10000.0   1525.2   10000.1   1525.7   10020.3   1526.1   10042.9   1526.2   10056.8
GR   1526.1   10073.5   1526.2   10088.4   1526.1   10100.2   1525.4   10111.0   1522.5   10119.9
GR   1522.4   10127.6   1526.1   10130.7   1526.3   10140.5   1527.8   10151.4   1530.6   10160.7
GR   1529.6   10167.2

ET                          9.1                                                    9876.9   10024.1
X1   1.2205        26    9940.6   10024.1       600       600       650
GR   1532.5    9736.0   1532.4    9754.0   1531.8    9769.9   1530.0    9787.9   1529.8    9798.5
GR   1529.9    9812.7   1529.3    9830.0   1527.9    9841.5   1527.9    9899.3   1528.1    9940.6
GR   1528.6    9979.2   1528.6    9991.8   1526.9    9999.2   1526.9   10000.0   1526.9   10000.1
GR   1528.2   10005.1   1529.3   10024.1   1528.8   10041.3   1529.2   10060.5   1529.4   10070.5
GR   1530.9   10093.5   1532.3   10102.7   1531.6   10114.2   1531.8   10124.4   1531.7   10134.2
GR   1531.7   10134.3

NC     .05       .05       .05
QT       2       912       912
ET                          9.1                                                   10046.7   10135.6
        CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.2, DECREASE DISCHARGE.
X1   1.3768        51   10046.7   10135.6       810       810       810
GR   1535.4    9772.7   1535.4    9792.7   1535.4    9812.8   1534.9    9830.7   1534.1    9855.6
GR   1534.1    9885.7   1533.5    9908.3   1532.5    9915.8   1533.1    9930.6   1533.1    9943.7
GR   1533.0    9957.3   1532.9    9972.0   1532.8    9987.4   1532.5    9999.8   1532.3   10000.0
GR   1532.3   10000.1   1532.4   10023.8   1532.2   10038.3   1532.1   10046.7   1531.4   10067.6
GR   1530.0   10080.8   1529.2   10085.6   1530.8   10092.6   1531.2   10101.8   1531.7   10111.4
GR   1531.9   10122.3   1531.4   10128.4   1532.0   10135.6   1532.2   10151.2   1532.5   10162.5
GR   1532.5   10172.8   1532.8   10186.2   1532.9   10209.2   1533.0   10229.8   1533.1   10241.1
GR   1533.0   10251.7   1533.4   10261.7   1534.0   10284.3   1534.1   10295.3   1534.2   10310.0
GR   1534.3   10323.7   1534.1   10337.3   1534.1   10348.2   1534.1   10358.7   1534.1   10367.5
GR   1534.2   10394.4   1534.2   10412.4   1534.5   10422.7   1534.7   10442.7   1534.9   10463.4
GR   1534.9   10468.4

ET                          9.1                                                   10038.4   10149.5
        243RD AVENUE AT-GRADE ROAD CROSSING 120 FT. DOWNSTREAM OF THIS SETION.
X1   1.4904        33   10047.0   10149.5       600       630       630
GR   1537.6    9733.9   1537.5    9751.1   1537.1    9772.0   1537.1    9789.2   1537.1    9803.4
GR   1536.8    9822.4   1536.6    9834.9   1536.8    9847.6   1536.7    9857.2   1536.4    9872.0
GR   1535.9    9886.8   1535.5    9898.4   1535.1    9913.6   1534.6    9929.9   1534.9    9944.0
GR   1534.5    9955.1   1534.5    9974.4   1534.4    9989.1   1533.4   10000.0   1533.4   10000.1
GR   1533.5   10047.0   1532.9   10102.9   1533.8   10149.5   1534.4   10211.9   1534.6   10238.0
GR   1534.8   10255.3   1535.8   10267.8   1536.2   10279.8   1536.8   10293.5   1535.9   10305.5
```

```
GR   1536.3    10321.0    1537.0    10353.3    1536.9    10363.2

ET                        9.1                                          9919.0    10087.1
X1   1.6363        39    9919.0    10087.1     770       770       770
GR   1541.6    9649.8    1541.9    9672.7    1541.7    9692.8    1541.1    9715.7    1541.0    9736.4
GR   1540.5    9760.9    1539.8    9786.4    1538.8    9804.8    1537.8    9824.5    1537.4    9843.1
GR   1536.6    9859.3    1537.6    9891.8    1537.6    9919.0    1537.1    9948.5    1535.1    9987.7
GR   1534.9   10000.0    1534.9   10000.1    1535.9   10031.1    1537.0   10058.1    1537.4   10087.1
GR   1536.9   10119.9    1537.1   10158.0    1537.1   10173.4    1537.9   10188.6    1538.1   10203.7
GR   1538.0   10216.8    1538.3   10235.0    1538.8   10253.9    1539.3   10287.0    1539.5   10304.9
GR   1539.8   10337.0    1539.9   10352.2    1540.0   10371.2    1540.3   10388.3    1540.7   10405.2
GR   1541.7   10423.5    1541.8   10441.1    1541.8   10453.4    1541.8   10453.5

ET                        9.1                                          9946.8    10045.5
X1   1.7783        61    9946.8    10045.5     750       750       750
GR   1543.8    9657.4    1543.8    9680.2    1543.4    9705.4    1542.7    9722.6    1542.3    9741.7
GR   1542.3    9755.7    1541.9    9769.7    1541.7    9783.4    1541.4    9800.7    1541.8    9816.7
GR   1541.5    9831.5    1541.1    9846.4    1539.9    9861.9    1539.8    9875.6    1539.7    9888.4
GR   1539.7    9903.5    1539.9    9920.6    1539.6    9932.1    1539.9    9946.8    1539.6    9958.9
GR   1539.6    9969.6    1539.7    9983.0    1539.2    9997.1    1538.8   10000.0    1538.8   10000.1
GR   1537.0   10008.0    1536.6   10016.5    1536.5   10022.6    1537.3   10029.4    1538.5   10038.5
GR   1540.1   10045.5    1540.6   10057.0    1539.9   10064.5    1539.2   10072.5    1539.4   10080.2
GR   1540.1   10088.3    1540.1   10098.8    1539.8   10109.4    1539.5   10120.9    1540.0   10133.1
GR   1539.5   10141.2    1540.1   10153.9    1540.1   10162.9    1540.2   10175.2    1539.5   10180.7
GR   1540.2   10186.5    1540.2   10193.2    1539.7   10201.2    1540.7   10211.0    1540.8   10223.3
GR   1540.6   10235.9    1540.8   10247.8    1541.4   10272.8    1542.4   10287.5    1542.7   10298.6
GR   1542.6   10310.9    1542.8   10324.1    1542.8   10337.8    1543.4   10363.2    1543.6   10393.6
GR   1543.6   10399.7

ET                        9.1                                          9842.0    10059.0
        STOCK POND AND LEVEE UPSTREAM OF THIS SECTION.
        PRIVATE LEVEE IS OVERTOPPED OR WITHOUT ADEQUATE FREEBOARD (I.E. 3 FT.)
        AT SOUTH END.  LEVEE ASSUMED BREACHED FOR THIS ANALYSIS.
X1   1.8929        33    9842.0    10059.0     600       560       600
GR   1545.8    9607.8    1545.0    9632.4    1544.8    9658.2    1545.0    9684.4    1544.5    9706.2
GR   1544.2    9729.3    1544.1    9758.7    1543.5    9779.6    1542.7    9802.2    1542.1    9819.9
GR   1542.7    9842.0    1542.4    9863.9    1542.3    9883.1    1542.8    9931.0    1542.8    9965.2
GR   1542.6   10000.0    1542.6   10000.1    1542.2   10011.9    1543.0   10027.1    1542.2   10044.6
GR   1542.4   10059.0    1542.4   10078.7    1542.4   10100.1    1542.4   10117.2    1542.5   10132.4
GR   1543.9   10147.9    1544.2   10166.9    1544.4   10187.3    1545.0   10208.0    1545.5   10244.0
GR   1545.7   10256.2    1545.6   10270.2    1545.8   10275.6

NC    .049      .049      .045
QT       2       349       349
ET                        9.1                                          9934.3    10058.6
X1   2.0037        56    9973.6    10000       750       450       560
GR   1548.3    9705.8    1548.3    9728.3    1548.2    9749.6    1548.1    9771.2    1548.1    9781.7
GR   1548.0    9791.8    1547.9    9804.8    1547.6    9824.4    1547.6    9838.9    1547.6    9854.6
GR   1547.4    9867.6    1547.3    9886.4    1547.1    9893.9    1547.4    9903.7    1547.4    9911.7
GR   1547.4    9921.9    1546.9    9934.8    1546.7    9943.0    1547.4    9953.9    1547.2    9973.6
GR   1546.4    9982.9    1547.2    9990.6    1546.9    9998.8    1547.6   10000.0    1547.6   10000.1
GR   1547.3   10011.4    1547.3   10021.6    1547.3   10034.5    1546.9   10041.5    1547.2   10050.5
GR   1547.2   10058.8    1547.0   10067.4    1546.8   10073.5    1547.4   10077.4    1547.3   10086.5
GR   1547.2   10095.8    1546.8   10102.8    1547.1   10117.6    1547.0   10126.1    1547.4   10134.2
```

GR	1547.3	10144.5	1547.3	10155.5	1547.3	10165.8	1547.5	10177.6	1547.7	10186.7
GR	1548.0	10196.8	1548.2	10205.7	1548.6	10218.0	1548.6	10228.7	1548.8	10241.6
GR	1548.9	10253.2	1548.6	10267.9	1549.0	10282.5	1549.0	10296.0	1549.0	10310.4
GR	1549.1	10322.9								
ET			9.1						9960.0	10034.0
X1	2.1259	89	9984.8	10034.0	625	650	640			
GR	1554.8	9361.5	1554.2	9390.4	1554.5	9413.8	1554.4	9430.5	1554.7	9446.8
GR	1554.7	9459.6	1554.9	9480.8	1554.9	9493.0	1554.7	9508.6	1554.7	9520.0
GR	1554.4	9553.8	1554.3	9564.3	1554.5	9578.7	1554.3	9592.2	1554.3	9601.1
GR	1554.3	9613.4	1554.1	9644.9	1554.3	9664.8	1554.2	9676.6	1554.2	9690.4
GR	1554.2	9703.8	1554.2	9733.1	1554.0	9748.0	1554.0	9764.8	1554.2	9778.8
GR	1554.0	9791.5	1554.1	9804.0	1554.2	9812.6	1554.1	9830.6	1554.1	9842.4
GR	1553.9	9850.5	1554.0	9850.6	1554.0	9877.2	1553.9	9901.2	1553.6	9924.8
GR	1553.5	9945.4	1553.4	9960.7	1553.4	9977.5	1553.2	9984.8	1552.4	9990.0
GR	1553.3	9999.7	1554.1	10000.0	1554.1	10000.1	1554.2	10009.2	1554.1	10019.8
GR	1552.8	10028.2	1552.3	10030.5	1553.6	10034.0	1553.5	10042.2	1553.6	10053.3
GR	1552.5	10058.1	1553.5	10066.8	1554.6	10075.7	1553.6	10084.9	1553.3	10096.6
GR	1552.8	10104.2	1554.2	10112.3	1554.3	10124.0	1554.2	10134.2	1554.1	10161.9
GR	1554.5	10174.4	1554.3	10183.6	1554.6	10206.7	1554.4	10216.4	1554.6	10229.8
GR	1554.5	10240.4	1554.9	10254.1	1554.8	10264.4	1554.9	10275.5	1554.9	10286.6
GR	1554.7	10296.0	1554.5	10312.1	1554.8	10331.0	1555.3	10340.3	1555.2	10349.2
GR	1555.0	10362.2	1555.2	10375.1	1554.9	10385.3	1554.9	10395.4	1554.7	10406.5
GR	1554.7	10417.3	1554.7	10432.5	1554.9	10444.2	1554.9	10454.4	1554.9	10467.5
GR	1554.9	10485.9	1555.0	10497.7	1555.0	10508.9	1555.0	10509.0		
ET			9.1						9863.2	9974.0
X1	2.2442	84	9922.1	9947.5	650	650	650			
GR	1560.2	9405.5	1560.2	9432.3	1559.9	9452.6	1559.9	9469.6	1560.1	9488.8
GR	1560.0	9502.9	1560.1	9517.5	1559.8	9530.3	1559.6	9538.6	1559.7	9554.3
GR	1559.7	9565.6	1559.7	9578.0	1559.5	9594.6	1559.5	9603.2	1559.6	9615.0
GR	1559.4	9626.2	1559.8	9644.2	1559.8	9658.7	1559.8	9679.2	1559.9	9700.4
GR	1559.9	9716.0	1559.9	9732.5	1559.8	9748.1	1559.8	9764.7	1560.0	9785.7
GR	1559.9	9803.2	1559.7	9825.1	1560.0	9839.4	1559.8	9856.7	1559.8	9871.5
GR	1560.0	9886.6	1559.9	9910.9	1558.8	9918.2	1559.9	9922.1	1559.7	9934.0
GR	1557.9	9938.8	1560.3	9947.5	1560.2	9957.0	1559.4	9967.7	1559.6	9980.0
GR	1559.2	9989.3	1558.8	9994.4	1560.1	10000.0	1559.7	10000.1	1559.7	10000.2
GR	1560.1	10014.7	1560.1	10027.5	1560.1	10038.8	1560.3	10051.3	1560.2	10066.7
GR	1560.2	10080.8	1559.9	10100.6	1560.1	10117.8	1559.8	10132.4	1559.8	10145.7
GR	1559.6	10163.3	1559.9	10183.1	1559.6	10191.0	1559.9	10203.3	1559.9	10215.1
GR	1559.9	10228.7	1560.0	10243.7	1560.1	10255.6	1560.0	10270.3	1560.2	10288.1
GR	1560.2	10320.9	1560.0	10333.1	1560.1	10345.5	1559.9	10357.7	1560.1	10371.7
GR	1560.2	10395.0	1560.4	10407.6	1560.0	10422.9	1559.9	10435.6	1560.1	10450.7
GR	1560.1	10462.2	1560.0	10467.1	1560.0	10478.7	1560.0	10494.1	1560.2	10514.1
GR	1560.1	10527.8	1560.0	10540.2	1560.3	10555.9	1560.3	10556.0		
ET			9.1						9958.84	10108.8
X1	2.379	95	9991.6	10014.9	720	720	720			
GR	1566.9	9276.4	1566.9	9294.6	1566.9	9311.3	1567.1	9321.6	1566.8	9333.7
GR	1566.5	9343.7	1566.8	9356.3	1566.5	9365.8	1567.1	9375.2	1566.6	9389.7
GR	1566.8	9403.1	1566.7	9413.3	1566.7	9422.4	1565.9	9431.5	1565.9	9439.2
GR	1566.5	9445.7	1565.8	9453.0	1566.5	9463.7	1566.5	9474.1	1566.2	9487.1
GR	1566.3	9499.3	1566.0	9510.3	1565.2	9514.3	1566.5	9530.4	1565.9	9536.2
GR	1566.1	9548.2	1565.6	9557.2	1564.9	9560.9	1566.1	9566.6	1566.2	9575.6

GR	1566.1	9584.9	1566.5	9593.9	1566.2	9603.6	1566.4	9613.6	1566.4	9623.3
GR	1566.2	9633.2	1566.6	9647.2	1566.2	9656.2	1566.7	9668.5	1566.2	9679.4
GR	1566.2	9689.5	1566.1	9703.0	1566.5	9714.2	1566.2	9730.1	1566.5	9741.8
GR	1566.2	9750.0	1566.5	9765.0	1566.0	9782.0	1566.2	9794.1	1566.2	9809.1
GR	1566.0	9827.6	1566.0	9841.4	1566.0	9854.6	1566.2	9868.7	1565.9	9879.4
GR	1566.2	9889.6	1566.4	9899.7	1566.3	9911.1	1566.3	9927.6	1566.4	9942.3
GR	1566.4	9955.5	1566.9	9972.2	1566.7	9981.8	1566.1	9991.6	1565.9	9996.9
GR	1564.3	10000.0	1564.3	10000.1	1563.8	10002.2	1566.0	10005.9	1566.9	10014.9
GR	1565.8	10021.5	1566.6	10027.9	1566.3	10039.1	1566.8	10046.3	1566.2	10056.5
GR	1566.4	10062.1	1566.4	10072.4	1566.1	10080.0	1566.2	10089.9	1566.2	10092.5
GR	1566.2	10099.7	1565.4	10102.8	1566.8	10111.5	1566.6	10120.7	1567.1	10132.5
GR	1567.0	10145.2	1567.0	10156.1	1567.2	10165.1	1567.0	10176.7	1567.3	10186.2
GR	1567.2	10200.1	1567.2	10209.0	1567.1	10217.3	1566.9	10223.4	1566.6	10229.2
QT	2	179.4	179.4							
ET			9.1						9898.7	9971.0
X1	2.5009	67	9905.7	9971.0	660	660	660			
GR	1573.4	9170.8	1573.5	9190.5	1573.7	9213.0	1573.5	9222.9	1573.2	9236.0
GR	1573.6	9250.9	1573.4	9268.9	1573.4	9282.2	1573.2	9294.5	1573.1	9307.7
GR	1573.2	9321.8	1573.2	9335.4	1572.8	9345.9	1572.7	9357.2	1571.4	9363.7
GR	1571.8	9369.8	1572.7	9376.3	1572.8	9384.0	1572.8	9395.5	1573.0	9407.0
GR	1572.9	9417.6	1572.7	9430.6	1572.9	9452.6	1572.5	9467.7	1572.9	9484.6
GR	1572.9	9498.5	1572.7	9511.0	1572.8	9525.8	1572.7	9543.1	1572.6	9559.6
GR	1572.6	9577.6	1572.7	9596.9	1572.5	9612.5	1572.5	9627.2	1572.5	9645.6
GR	1572.5	9665.7	1572.3	9684.8	1572.3	9706.1	1572.2	9725.4	1572.2	9745.5
GR	1572.3	9764.1	1572.3	9779.1	1572.4	9801.7	1572.4	9818.7	1572.5	9834.1
GR	1572.6	9851.0	1572.6	9867.2	1572.6	9882.9	1572.0	9905.7	1571.1	9914.1
GR	1572.5	9919.9	1572.8	9933.6	1572.9	9944.5	1572.5	9958.9	1571.0	9962.8
GR	1573.6	9971.0	1571.9	9985.3	1572.2	10000.0	1572.2	10000.1	1572.1	10014.8
GR	1572.9	10035.3	1572.7	10052.7	1572.7	10065.3	1572.7	10074.8	1572.7	10087.1
GR	1572.4	10096.7	1573.1	10110.4						
ET			9.1						10000.0	10059.4
X1	2.6296	85	10000.0	10059.4	680	680	680			
GR	1580.6	9226.3	1580.5	9240.9	1580.5	9255.3	1580.9	9269.4	1580.2	9277.7
GR	1580.3	9287.5	1579.9	9303.8	1579.9	9315.6	1579.8	9325.4	1579.4	9337.3
GR	1578.9	9346.2	1578.0	9356.4	1577.8	9363.0	1578.5	9368.0	1578.3	9376.7
GR	1577.7	9381.6	1578.2	9390.6	1577.9	9398.3	1577.7	9402.6	1578.4	9406.1
GR	1579.5	9413.3	1580.5	9420.3	1580.4	9432.0	1580.2	9441.7	1580.7	9452.3
GR	1579.4	9463.3	1579.5	9478.5	1579.5	9491.5	1579.6	9513.9	1579.5	9527.6
GR	1579.3	9542.8	1579.6	9559.2	1579.8	9578.2	1579.6	9597.2	1579.8	9611.0
GR	1579.3	9621.6	1579.5	9642.3	1579.3	9652.5	1579.3	9669.6	1579.3	9679.7
GR	1579.5	9693.3	1579.6	9711.8	1579.6	9728.1	1579.6	9745.0	1579.3	9759.5
GR	1579.2	9774.9	1579.4	9791.5	1579.2	9807.4	1579.2	9821.5	1579.2	9832.4
GR	1579.1	9849.7	1579.0	9877.2	1578.9	9892.0	1578.7	9912.3	1578.5	9925.7
GR	1578.5	9937.1	1579.1	9946.7	1578.8	9960.2	1579.2	9974.9	1579.1	9990.0
GR	1578.9	10000.0	1578.9	10000.1	1578.9	10000.2	1578.4	10014.2	1578.3	10034.1
GR	1578.4	10049.3	1578.9	10059.4	1579.4	10069.3	1579.5	10081.0	1579.9	10092.9
GR	1579.7	10104.0	1579.6	10113.4	1578.8	10133.6	1578.8	10148.7	1579.1	10160.5
GR	1578.8	10179.4	1579.1	10189.5	1579.1	10199.0	1579.2	10213.3	1579.2	10226.7
GR	1579.2	10239.5	1579.4	10249.6	1579.7	10262.2	1579.7	10272.9	1579.7	10283.4

```
ET                7.1       9.1                                   9364.5    10245.6    9888.69    10043.2
        251ST AVENUE AT-GRADE ROAD CROSSING 100 FT. UPSTREAM OF THIS SECTION.
X1   2.7584        95   10015.9   10043.2       660       700       700
GR   1588.4    9044.0    1587.6    9076.2    1588.0    9098.6    1587.9    9117.3    1587.6    9133.1
GR   1586.9    9149.1    1586.3    9157.8    1586.2    9164.4    1586.8    9174.3    1586.6    9182.9
GR   1586.8    9197.4    1585.9    9208.6    1585.9    9216.6    1586.9    9225.9    1586.7    9240.4
GR   1586.1    9252.0    1586.7    9262.0    1586.7    9272.8    1586.7    9287.8    1586.4    9301.4
GR   1586.4    9314.3    1586.4    9330.4    1586.6    9350.4    1586.3    9355.4    1586.7    9364.5
GR   1586.6    9369.5    1585.9    9375.4    1586.6    9384.0    1587.3    9393.2    1587.1    9402.5
GR   1586.0    9409.9    1585.7    9413.7    1586.6    9418.4    1586.2    9424.1    1585.1    9431.7
GR   1586.6    9438.1    1587.2    9450.6    1587.3    9478.7    1587.3    9491.1    1587.0    9507.3
GR   1586.8    9522.5    1586.5    9537.5    1585.7    9554.8    1585.7    9568.5    1585.7    9583.9
GR   1585.5    9593.4    1586.0    9603.8    1586.0    9615.9    1585.9    9631.6    1585.4    9643.0
GR   1585.1    9652.9    1586.1    9665.4    1586.1    9677.4    1586.3    9691.4    1586.5    9709.5
GR   1586.4    9726.7    1586.5    9741.1    1586.2    9764.2    1586.5    9784.8    1587.0    9799.6
GR   1586.7    9815.3    1587.0    9832.2    1586.6    9852.1    1586.4    9871.5    1585.9    9882.0
GR   1587.2    9904.0    1586.7    9918.5    1586.9    9932.7    1586.5    9962.1    1586.5    9970.4
GR   1586.5    9984.4    1587.0    9998.5    1587.0   10000.0    1587.0   10000.1    1587.0   10015.9
GR   1585.7   10026.8    1585.7   10034.7    1586.9   10043.2    1586.8   10055.5    1586.5   10068.0
GR   1586.1   10083.3    1586.1   10094.2    1586.4   10110.1    1586.4   10121.1    1586.0   10134.5
GR   1585.7   10143.0    1585.9   10157.9    1585.5   10169.3    1585.6   10173.5    1585.9   10179.9
GR   1585.3   10185.3    1586.3   10196.0    1586.3   10212.6    1586.3   10226.5    1586.3   10245.6

ET                          9.1                                                       9989.0    10054.4
X1   2.8920        66    9989.0   10054.4       700       700       700
GR   1593.5    9544.3    1593.5    9567.6    1593.7    9582.1    1593.3    9600.4    1593.5    9619.0
GR   1593.3    9636.6    1593.3    9648.7    1593.5    9664.5    1593.5    9678.1    1593.2    9693.7
GR   1593.5    9727.0    1593.1    9760.7    1592.8    9776.3    1592.8    9790.9    1592.9    9806.5
GR   1592.8    9820.0    1592.9    9839.2    1592.8    9852.4    1592.8    9860.0    1593.2    9866.2
GR   1593.0    9885.5    1593.2    9899.0    1593.2    9907.2    1592.5    9916.6    1592.5    9925.5
GR   1591.9    9934.9    1592.9    9945.6    1593.1    9958.4    1592.7    9967.4    1593.5    9977.5
GR   1593.3    9989.0    1592.5   10000.0    1593.1   10000.2    1593.1   10000.3    1593.3   10008.1
GR   1592.7   10017.4    1592.6   10032.0    1592.9   10043.7    1593.3   10054.4    1593.0   10067.3
GR   1593.2   10078.9    1593.2   10090.1    1593.0   10102.6    1592.9   10120.3    1592.9   10139.4
GR   1593.1   10169.9    1593.1   10183.8    1593.1   10201.2    1593.1   10219.7    1593.2   10233.5
GR   1593.1   10248.7    1593.5   10266.6    1593.2   10283.7    1592.9   10308.1    1593.8   10325.1
GR   1593.8   10345.2    1593.6   10361.9    1593.5   10375.7    1593.4   10391.7    1593.4   10423.7
GR   1593.6   10446.0    1593.4   10461.1    1593.7   10475.9    1593.7   10488.6    1593.7   10501.4
GR   1594.2   10513.2

QT        2     140.7     140.7
ET                          9.1                                                      10017.7    10071.5
X1   3.0170        95   10017.7   10071.5       680       640       680
GR   1600.4    9610.6    1600.2    9620.5    1600.7    9628.0    1600.0    9640.1    1600.2    9656.0
GR   1600.2    9667.7    1599.9    9678.4    1599.6    9689.1    1599.6    9698.7    1599.7    9711.2
GR   1599.7    9729.2    1600.1    9740.4    1599.8    9752.7    1600.0    9765.4    1599.8    9775.7
GR   1599.9    9789.9    1599.9    9804.5    1599.5    9818.3    1599.9    9834.0    1599.9    9850.3
GR   1600.2    9869.0    1600.2    9882.4    1600.2    9896.2    1600.1    9913.6    1600.0    9926.7
GR   1599.9    9941.1    1599.9    9954.1    1599.9    9973.0    1600.0    9983.6    1600.1    9996.9
GR   1599.8   10000.0    1599.8   10000.1    1600.1   10017.7    1597.6   10025.1    1598.8   10030.2
GR   1598.8   10037.2    1598.4   10038.9    1599.4   10042.9    1599.5   10053.9    1599.8   10071.5
GR   1599.9   10084.1    1599.9   10093.4    1600.0   10112.1    1599.8   10119.4    1599.9   10124.7
GR   1597.6   10130.5    1599.4   10139.4    1600.1   10149.3    1599.9   10160.2    1599.8   10164.6
```

GR	1598.1	10169.1	1599.5	10176.5	1599.5	10183.3	1598.7	10189.2	1599.4	10196.2
GR	1599.7	10202.8	1599.5	10212.3	1599.9	10224.3	1600.1	10232.8	1599.6	10239.9
GR	1600.0	10248.5	1600.0	10259.9	1599.8	10264.1	1600.1	10264.2	1600.1	10278.2
GR	1599.5	10281.0	1598.5	10284.9	1600.0	10291.3	1600.2	10301.3	1600.3	10314.9
GR	1600.1	10318.9	1599.6	10320.9	1600.1	10327.1	1600.1	10341.1	1600.1	10356.2
GR	1600.0	10371.0	1600.3	10383.5	1600.3	10402.4	1600.1	10418.6	1600.1	10431.2
GR	1600.1	10447.0	1600.1	10464.8	1600.2	10477.9	1600.2	10491.7	1600.3	10506.6
GR	1600.3	10528.0	1600.2	10536.7	1600.2	10549.1	1600.4	10563.6	1600.4	10573.5
GR	1600.0	10585.3	1600.3	10592.3	1600.4	10604.3	1600.4	10619.8	1600.6	10632.2
ET			9.1						9951.0	9991.6
X1	3.1514	85	9951	9991.6	720	700	720			
GR	1608.9	9666.7	1608.7	9688.6	1608.5	9708.6	1608.6	9726.5	1608.2	9741.2
GR	1608.2	9762.7	1608.6	9778.7	1609.0	9788.8	1608.3	9797.7	1608.5	9824.5
GR	1608.4	9839.5	1608.4	9854.8	1608.1	9870.0	1607.8	9881.8	1608.2	9893.6
GR	1608.2	9905.0	1608.2	9917.1	1608.3	9933.7	1608.2	9951.0	1607.8	9963.6
GR	1607.3	9972.7	1607.8	9982.9	1608.4	9991.6	1608.4	10000.0	1608.4	10000.1
GR	1608.5	10022.1	1608.6	10042.9	1608.6	10067.3	1608.4	10090.3	1608.2	10112.4
GR	1608.2	10127.8	1608.2	10144.9	1608.0	10158.6	1608.3	10180.9	1608.1	10199.3
GR	1608.1	10216.9	1608.2	10237.2	1608.3	10257.9	1608.3	10280.0	1608.1	10294.5
GR	1608.1	10310.3	1608.2	10329.0	1608.2	10343.6	1608.4	10356.7	1608.0	10363.0
GR	1609.2	10377.6	1608.5	10389.7	1608.5	10403.9	1608.2	10420.0	1608.2	10427.9
GR	1608.1	10428.0	1608.1	10450.6	1608.1	10468.5	1608.5	10483.8	1608.0	10495.0
GR	1608.4	10511.7	1608.6	10524.9	1607.9	10532.3	1608.2	10536.5	1608.7	10543.0
GR	1608.3	10556.3	1608.5	10568.1	1608.7	10580.2	1608.2	10601.9	1608.4	10622.7
GR	1608.5	10639.2	1608.7	10658.5	1608.8	10680.8	1609.0	10705.2	1609.1	10725.2
GR	1609.0	10746.1	1609.0	10772.8	1609.0	10792.0	1609.0	10816.2	1609.2	10838.8
GR	1609.3	10859.1	1609.4	10883.3	1609.6	10900.3	1609.4	10918.2	1609.6	10936.9
GR	1609.5	10953.1	1609.8	10965.2	1609.6	10980.5	1609.8	10994.9	1609.7	11008.0
ET			9.1						10014.9	10120.0
X1	3.2812	94	10014.9	10070.6	700	630	680			
GR	1617.4	9782.1	1617.4	9808.8	1617.2	[illegible]	1617.9	9856.2	1617.2	9874.0
GR	1617.4	9888.2	1617.4	9900.3	1617.2	9912.1	1617.6	9926.4	1617.3	9940.3
GR	1616.9	9952.4	1617.1	9966.8	1616.8	9978.7	1616.1	9997.8	1616.0	10000.0
GR	1615.9	10000.1	1615.8	10014.9	1614.9	10019.8	1617.1	10026.2	1617.1	10037.4
GR	1616.6	10048.7	1614.8	10054.8	1614.6	10063.8	1617.5	10070.6	1616.6	10078.7
GR	1616.4	10090.4	1616.4	10100.6	1616.6	10115.1	1616.6	10125.1	1616.6	10137.1
GR	1616.7	10151.9	1616.5	10163.0	1616.3	10173.2	1616.3	10185.8	1616.2	10201.7
GR	1616.2	10216.8	1616.1	10229.8	1616.6	10244.6	1616.4	10259.1	1617.1	10269.7
GR	1616.9	10278.1	1616.9	10286.9	1617.5	10294.0	1616.3	10304.8	1617.3	10317.7
GR	1616.8	10332.3	1616.9	10346.2	1616.6	10361.5	1616.5	10375.1	1616.1	10388.1
GR	1616.0	10398.4	1615.6	10414.8	1615.1	10428.8	1614.7	10441.5	1615.5	10450.8
GR	1615.2	10463.0	1616.0	10472.9	1615.5	10487.8	1615.9	10500.4	1615.5	10512.6
GR	1615.5	10525.3	1615.5	10534.4	1615.2	10548.8	1615.5	10562.3	1615.5	10575.6
GR	1615.8	10591.9	1615.6	10606.1	1615.6	10621.6	1615.8	10635.9	1615.8	10653.4
GR	1615.9	10668.0	1616.1	10682.9	1616.1	10691.6	1615.9	10691.7	1616.0	10714.1
GR	1616.0	10736.3	1616.2	10747.5	1616.0	10753.6	1616.4	10760.6	1615.7	10769.8
GR	1616.4	10778.5	1616.4	10796.7	1616.6	10812.5	1616.4	10819.4	1617.1	10835.4
GR	1617.0	10850.3	1617.2	10868.4	1616.8	10886.4	1616.8	10902.6	1617.0	10919.1
GR	1617.0	10935.7	1617.1	10951.1	1617.2	10969.5	1617.2	10989.3		

ET			9.1						9924.0	10035.0
X1	3.4081	90	9924.0	9987.9	680	680	680			
GR	1625.5	9826.9	1625.9	9847.2	1625.9	9864.1	1625.7	9878.0	1625.6	9889.1
GR	1625.5	9892.9	1625.7	9899.9	1624.8	9908.0	1625.8	9915.3	1625.8	9924.0
GR	1624.3	9931.6	1624.9	9938.5	1625.4	9946.9	1624.9	9957.5	1625.2	9975.3
GR	1624.3	9980.3	1625.7	9987.9	1625.9	10000.0	1625.9	10000.1	1625.5	10013.6
GR	1625.7	10033.3	1625.4	10048.4	1625.6	10062.2	1625.6	10074.2	1625.8	10089.0
GR	1625.5	10101.4	1625.4	10113.9	1625.2	10130.9	1625.4	10146.0	1625.4	10164.2
GR	1625.4	10175.9	1625.8	10185.2	1625.5	10199.5	1625.6	10211.6	1624.5	10219.4
GR	1625.9	10226.7	1625.3	10237.0	1625.3	10249.9	1625.5	10262.8	1625.4	10276.1
GR	1625.4	10300.8	1625.5	10311.4	1625.6	10324.4	1625.6	10337.1	1625.4	10350.4
GR	1625.2	10361.6	1625.4	10377.8	1625.2	10392.2	1624.9	10407.7	1625.2	10422.0
GR	1625.1	10438.2	1624.9	10454.2	1625.3	10465.6	1624.8	10477.4	1623.7	10492.4
GR	1624.6	10506.8	1623.2	10516.5	1624.5	10524.2	1624.4	10532.7	1624.8	10540.3
GR	1624.8	10552.2	1624.5	10567.9	1625.0	10587.4	1624.8	10602.1	1624.8	10620.9
GR	1624.9	10635.5	1624.6	10651.8	1624.9	10665.1	1624.7	10679.6	1625.1	10694.2
GR	1625.0	10711.2	1624.8	10723.8	1625.5	10736.4	1624.4	10741.9	1625.2	10750.0
GR	1625.2	10760.7	1625.6	10772.5	1625.5	10783.2	1625.8	10797.1	1625.8	10812.5
GR	1625.9	10827.4	1625.8	10844.4	1626.1	10860.1	1626.1	10865.2	1626.5	10865.3
GR	1626.6	10880.9	1626.5	10897.9	1626.4	10907.2	1625.6	10914.8	1626.5	10919.9
UT	2	102	102							
ET			9.1						9947.1	10075.0
X1	3.5473	80	9953.7	10000	740	720	750			
GR	1634.6	9878.2	1634.7	9903.8	1635.1	9922.9	1634.4	9939.4	1634.1	9946.9
GR	1633.1	9949.0	1635.0	9953.7	1634.5	9965.8	1634.4	9979.0	1634.2	9995.3
GR	1633.1	9999.9	1633.6	10000.0	1633.6	10000.1	1634.7	10008.4	1634.6	10020.0
GR	1635.1	10031.7	1634.8	10040.7	1634.5	10050.2	1634.8	10064.3	1634.6	10079.2
GR	1634.5	10092.2	1634.4	10112.0	1633.9	10125.0	1634.1	10141.2	1634.1	10162.9
GR	1633.1	10176.2	1634.2	10188.1	1634.0	10203.4	1634.4	10225.5	1634.0	10235.1
GR	1634.4	10243.4	1634.3	10255.5	1634.1	10279.5	1634.7	10290.7	1634.3	10302.0
GR	1634.5	10315.7	1634.6	10333.8	1634.8	10349.0	1634.8	10363.7	1635.0	10380.8
GR	1635.4	10399.7	1635.3	10417.8	1635.4	10441.9	1635.4	10457.7	1635.0	10479.6
GR	1635.2	10500.2	1634.9	10515.9	1634.5	10533.1	1634.7	10554.8	1634.5	10571.2
GR	1634.5	10592.1	1634.2	10615.7	1634.1	10633.7	1634.0	10655.5	1634.4	10672.0
GR	1634.0	10684.6	1633.2	10697.7	1633.8	10705.6	1633.2	10714.9	1633.6	10721.8
GR	1633.2	10729.5	1633.7	10739.2	1633.8	10745.5	1633.2	10755.6	1633.7	10767.7
GR	1633.4	10775.8	1634.6	10787.3	1634.3	10793.3	1633.5	10805.2	1633.2	10815.2
GR	1633.8	10823.7	1633.9	10829.4	1633.8	10840.4	1634.2	10852.9	1634.6	10872.5
GR	1634.6	10886.1	1635.0	10902.4	1634.7	10922.5	1634.9	10938.9	1634.6	10957.2
ET			9.1						9967.0	10043.4
X1	3.6306	65	10000	10044.1	450	460	450			
GR	1641.7	9896.6	1641.8	9913.0	1641.0	9934.0	1641.8	9952.3	1641.5	9961.8
GR	1640.0	9968.3	1640.5	9975.4	1640.3	9987.2	1640.3	10000.0	1640.0	10000.1
GR	1639.8	10000.2	1640.1	10017.6	1640.1	10031.9	1640.7	10044.1	1639.9	10050.7
GR	1640.4	10060.0	1640.0	10069.4	1640.2	10080.9	1640.3	10091.0	1640.2	10106.4
GR	1640.0	10119.8	1640.3	10135.5	1640.3	10149.6	1640.1	10164.3	1640.2	10176.5
GR	1640.2	10190.3	1640.1	10204.7	1640.1	10220.2	1640.1	10239.9	1640.3	10248.5
GR	1640.3	10260.1	1640.3	10276.8	1640.1	10302.0	1641.2	10319.0	1641.6	10334.0
GR	1641.9	10348.7	1641.2	10365.1	1641.1	10381.2	1641.3	10403.8	1641.3	10420.8
GR	1641.0	10438.4	1641.2	10457.3	1641.1	10475.6	1641.2	10500.4	1640.0	10512.5
GR	1641.2	10521.8	1641.5	10532.0	1640.8	10543.2	1641.3	10550.9	1640.8	10562.3

```
GR   1640.7   10573.5   1641.4   10580.9   1640.7   10594.7   1640.9   10613.5   1640.1   10626.9
GR   1640.8   10634.0   1640.8   10643.8   1640.8   10658.8   1641.7   10675.0   1641.7   10691.0
GR   1641.9   10708.4   1642.2   10728.1   1642.1   10749.4   1641.8   10774.7   1641.4   10789.0

ET                      9.1                                                       9984.1   10100.0
X1   3.7613       50   9984.1   10020.7    680      680      680
GR   1649.9    9893.0   1650.1    9913.2   1650.4    9935.2   1650.7    9949.9   1649.5    9957.8
GR   1650.0    9968.4   1650.0    9984.1   1649.8    9998.9   1648.2   10000.0   1648.2   10000.1
GR   1648.2   10005.4   1648.2   10009.1   1650.8   10020.7   1650.1   10037.6   1649.7   10066.0
GR   1650.3   10082.0   1650.3   10098.7   1650.3   10117.0   1650.2   10138.7   1650.6   10147.8
GR   1650.4   10168.8   1650.4   10190.0   1650.4   10213.0   1650.5   10238.5   1650.1   10253.2
GR   1650.1   10274.5   1649.8   10291.4   1649.8   10327.4   1649.7   10345.3   1649.5   10357.2
GR   1648.2   10363.6   1648.0   10369.6   1649.9   10374.7   1649.0   10383.5   1648.6   10390.4
GR   1648.0   10396.3   1647.9   10399.9   1648.8   10406.5   1648.5   10416.9   1649.4   10429.3
GR   1649.8   10442.2   1650.4   10452.5   1650.4   10468.2   1651.3   10484.9   1651.7   10501.1
GR   1652.1   10515.7   1652.6   10530.9   1652.9   10549.7   1653.8   10570.7   1652.9   10588.9

ET                      9.1                                                       9967.0   10033.9
X1   3.8872       23  10012.8   10035.0    700      600      690
GR   1658.4    9848.7   1658.5    9871.1   1658.4    9890.3   1658.4    9918.0   1658.4    9947.0
GR   1657.7    9967.7   1657.2    9974.1   1657.8    9985.2   1657.3    9991.7   1657.7   10000.0
GR   1657.7   10000.1   1657.9   10012.8   1656.4   10021.1   1656.3   10029.4   1658.1   10035.0
GR   1658.8   10047.4   1659.3   10058.0   1660.3   10069.1   1659.5   10082.3   1659.8   10098.2
GR   1659.9   10113.1   1660.5   10128.7   1660.6   10148.1

ET                      9.1                                                       9987.0   10021.2
X1   4.0548       24  10000     10021.2    940      940      940
GR   1671.7    9936.0   1671.4    9953.7   1669.6    9968.7   1667.9    9984.1   1666.7    9998.3
GR   1666.9   10000.0   1666.9   10000.1   1665.9   10014.0   1667.0   10021.2   1668.1   10032.8
GR   1668.7   10045.2   1669.1   10058.5   1669.4   10071.3   1668.4   10085.5   1669.4   10100.2
GR   1668.6   10116.6   1668.3   10127.7   1668.8   10137.7   1668.7   10147.7   1669.7   10154.8
GR   1670.2   10165.0   1670.5   10176.8   1671.2   10196.1   1671.6   10212.2

NC     .03       .03       .03       .3        .5
       BEGIN 3-49"X33" C.S.P.A. CULVERTS UNDER SUN VALLEY PARKWAY (STRUC.#2)
X1   4.0662       10    9992      10008      60       60       60
X3      10                                                     1672.7   1672.7
GR    1674     9905     1673      9922     1670     9943     1669     9951  1667.94     9992
GR  1667.9    10008     1670     10040     1672    10095     1673    10160   1673.5    10200

NC    .012      .012      .012
SB    1.25      4.83      2.63              16.0      6.5     26.1        0  1669.07  1667.94
       END CULVERTS (STRUC. #2).
X1   4.0938       10    9992      10008     146      146      146
X2                           1   1671.82   1672.7
X3      10                                                     1672.7   1672.7
BT      13    10000   1675.14             10280.8   1674.3            10380.8  1674.15
BT   10480   1674.3             10608    1674.68            10677.9    1474.8            10678
BT  1474.3             10718   1473.5               10726   1473.1             10730   1472.7
BT            10735   1472.7             10743    1474.7             10783     1475
GR    1674     9940     1673      9950     1672     9960   1671.8     9991  1669.07     9992
GR  1669.1    10008   1671.8     10009     1672    10040     1673    10050    1674    10070
```

```
NC      .03       .03       .03
        FLOODPLAIN\FLOODWAY DELINEATED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
        FLOW LIMITS IS POSSIBLE AND PRESERVATION OF DETENTION UPSTREAM OF ROAD
        IS REQUIRED.
X1   4.1013         6      9990     10010        40        40        40
GR     1675      9940      1672      9970      1670      9990      1670     10010      1672     10023
GR     1675     10077

NC     .049      .049      .045        .1        .3
QT        2       349       349
ET                          9.1                                                   9958.84   10108.8
        REPEAT CROSS-SECTION FOR START OF WASH 1 TRIBUTARY ANALYSIS
X1   -2.379        95    9991.6   10014.9       720       720       720
GR   1566.9    9276.4    1566.9    9294.6    1566.9    9311.3    1567.1    9321.6    1566.8    9333.7
GR   1566.5    9343.7    1566.8    9356.3    1566.5    9365.8    1567.1    9375.2    1566.6    9389.7
GR   1566.8    9403.1    1566.7    9413.3    1566.7    9422.4    1565.9    9431.5    1565.9    9439.2
GR   1566.5    9445.7    1565.8    9453.0    1566.5    9463.7    1566.5    9474.1    1566.2    9487.1
GR   1566.3    9499.3    1566.0    9510.3    1565.2    9514.3    1566.5    9530.4    1565.9    9536.2
GR   1566.1    9548.2    1565.6    9557.2    1564.9    9560.9    1566.1    9566.6    1566.2    9575.6
GR   1566.1    9584.9    1566.5    9593.9    1566.2    9603.6    1566.4    9613.6    1566.4    9623.3
GR   1566.2    9633.2    1566.6    9647.2    1566.2    9656.2    1566.7    9668.5    1566.2    9679.4
GR   1566.2    9689.5    1566.1    9703.0    1566.5    9714.2    1566.2    9730.1    1566.5    9741.8
GR   1566.2    9750.0    1566.5    9765.0    1566.0    9782.0    1566.2    9794.1    1566.2    9809.1
GR   1566.0    9827.6    1566.0    9841.4    1566.0    9854.6    1566.2    9868.7    1565.9    9879.4
GR   1566.2    9889.6    1566.4    9899.7    1566.3    9911.1    1566.3    9927.6    1566.4    9942.3
GR   1566.4    9955.5    1566.9    9972.2    1566.7    9981.8    1566.1    9991.6    1565.9    9996.9
GR   1564.3   10000.0    1564.3   10000.1    1563.8   10002.2    1566.0   10005.9    1566.9   10014.9
GR   1565.8   10021.5    1566.6   10027.9    1566.3   10039.1    1566.8   10046.3    1566.2   10056.5
GR   1566.4   10062.1    1566.4   10072.4    1566.1   10080.0    1566.2   10089.9    1566.2   10092.5
GR   1566.2   10099.7    1565.4   10102.8    1566.8   10111.5    1566.6   10120.7    1567.1   10132.5
GR   1567.0   10145.2    1567.0   10156.1    1567.2   10165.1    1567.0   10176.7    1567.3   10186.2
GR   1567.2   10200.1    1567.2   10209.0    1567.1   10217.3    1566.9   10223.4    1566.6   10229.2

QT        2     131.9     131.9
ET                          9.1                                                  10178.6   10217.2
        ADD 10 TO CROSS-SECTION I.D. NO. FOR TRIBUTARY.  I.D. NUMBER IN RIVER
        MILES ALONG TRIBUTARY BASELINE.   STATION 10175 = TRIB. BASELINE.
X1   12.510        32   10178.6   10199.4       660       650       700
GR   1573.3   10124.9    1573.2   10140.7    1573.1   10151.2    1573.1   10159.7    1572.0   10167.5
GR   1572.9   10178.6    1571.5   10185.1    1572.0   10188.6    1572.4   10199.4    1572.5   10216.6
GR   1572.2   10231.8    1572.2   10241.1    1572.2   10249.6    1572.3   10261.1    1572.4   10272.5
GR   1573.1   10292.6    1573.2   10299.1    1573.3   10305.1    1573.3   10319.8    1573.3   10333.0
GR   1573.3   10347.3    1573.4   10363.3    1573.4   10379.5    1573.5   10392.8    1573.5   10409.2
GR   1573.6   10428.9    1573.5   10445.6    1573.6   10463.1    1573.8   10487.2    1573.8   10503.4
GR   1573.8   10525.3    1574.0   10533.0

ET                          9.1                                                  10504.2   10620.0
        STATION 10535 = TRIB. BASELINE.
X1   12.639        46   10598.3   10636.3       700       620       700
GR   1579.5   10295.9    1579.5   10310.5    1579.0   10326.1    1578.1   10330.5    1578.9   10336.2
GR   1578.6   10342.1    1578.3   10347.7    1578.1   10351.8    1578.4   10357.3    1579.1   10364.5
GR   1579.1   10369.5    1578.2   10374.4    1578.5   10379.7    1578.7   10388.3    1578.5   10400.0
GR   1578.7   10410.6    1578.7   10423.6    1578.8   10434.6    1578.5   10442.0    1578.6   10448.5
```

```
GR   1578.7   10462.5   1578.7   10475.4   1578.6   10489.4   1578.5   10504.2   1578.4   10522.1
GR   1579.0   10535.6   1579.0   10544.3   1579.2   10555.6   1579.3   10569.4   1579.8   10585.2
GR   1579.8   10598.3   1578.5   10609.3   1578.5   10622.8   1579.9   10636.3   1579.4   10648.6
GR   1579.3   10658.9   1579.5   10670.8   1579.4   10682.2   1579.2   10694.6   1579.3   10703.9
GR   1579.3   10717.7   1579.4   10734.6   1579.3   10749.7   1579.7   10773.6   1579.8   10787.2
GR   1580.0   10796.2

ET                          9.1                                                   10903.3   10929.6
        STATION 10940 = TRIB. BASELINE.
X1   12.761        67   10919.6   10929.6       625       650       720
GR   1586.3   10262.5   1586.0   10274.8   1586.2   10289.1   1586.2   10310.2   1586.0   10324.6
GR   1586.0   10339.4   1586.0   10353.1   1586.0   10375.7   1586.0   10390.8   1586.0   10406.6
GR   1586.0   10422.3   1585.9   10436.6   1585.2   10449.4   1585.2   10465.5   1585.4   10479.4
GR   1585.2   10489.5   1585.8   10501.8   1585.5   10516.2   1585.6   10532.4   1585.4   10545.1
GR   1585.3   10559.4   1585.2   10576.8   1585.8   10587.7   1585.7   10602.6   1585.3   10617.5
GR   1585.8   10632.7   1585.6   10649.5   1585.6   10665.6   1585.8   10678.6   1585.9   10691.0
GR   1586.0   10704.8   1585.6   10718.3   1585.6   10733.8   1585.6   10749.5   1585.6   10763.4
GR   1585.3   10777.6   1585.4   10797.9   1585.8   10812.9   1586.3   10834.7   1583.6   10841.8
GR   1586.8   10845.1   1586.6   10859.4   1586.3   10866.7   1586.2   10876.7   1586.4   10884.9
GR   1585.9   10893.8   1585.2   10906.9   1584.0   10913.2   1585.6   10919.6   1584.1   10924.1
GR   1585.5   10929.6   1585.7   10948.6   1585.1   10958.3   1585.0   10961.3   1585.9   10970.2
GR   1586.0   10981.2   1586.0   10994.3   1586.1   11007.7   1586.1   11027.7   1586.1   11039.1
GR   1586.1   11050.9   1586.1   11064.2   1586.1   11078.3   1586.1   11093.0   1586.2   11108.8
GR   1586.3   11122.3   1586.3   11122.4

ET                          9.1                                                   11277.3   11345.0
        STATION 11295 = TRIB. BASELINE.
X1   12.904        67   11299.0   11310.0       770       740       770
GR   1594.1   10589.7   1594.2   10604.0   1593.8   10622.5   1593.7   10633.0   1593.7   10649.9
GR   1593.7   10659.9   1593.7   10676.6   1593.5   10690.0   1593.9   10703.5   1593.7   10722.5
GR   1593.8   10736.6   1593.8   10747.9   1593.8   10763.4   1593.8   10798.5   1593.9   10811.2
GR   1593.9   10829.1   1593.9   10840.5   1593.8   10854.3   1593.6   10867.0   1593.5   10882.6
GR   1593.4   10894.1   1593.1   10911.3   1593.3   10925.9   1593.1   10941.8   1593.2   10961.9
GR   1592.8   10969.8   1593.4   10974.8   1593.4   10987.8   1593.2   11000.6   1593.3   11014.9
GR   1593.0   11019.8   1592.3   11025.3   1593.0   11027.9   1593.3   11037.6   1593.3   11050.4
GR   1593.3   11059.5   1592.5   11063.3   1591.7   11068.5   1593.3   11074.2   1593.3   11087.4
GR   1593.3   11104.3   1593.3   11118.1   1593.3   11135.3   1593.4   11154.0   1593.5   11173.0
GR   1593.5   11194.1   1593.5   11220.6   1593.7   11238.2   1593.7   11253.5   1593.3   11269.6
GR   1593.1   11274.2   1593.4   11280.2   1593.0   11283.0   1593.5   11286.8   1593.5   11289.0
GR   1592.5   11303.6   1593.4   11310.0   1593.4   11317.4   1592.7   11321.2   1593.9   11329.1
GR   1593.3   11339.8   1593.4   11352.2   1594.0   11369.8   1594.1   11389.6   1594.1   11409.6
GR   1594.1   11433.2   1594.2   11437.1

QT        2      105.6      105.6
ET                          9.1                                                   11630.9   11697.7
        STATION 11695 = TRIB. BASELINE.
X1   13.023        81   11686.4   11697.7       600       625       625
GR   1600.4   10707.7   1600.1   10716.5   1600.4   10725.8   1600.7   10737.6   1600.7   10750.9
GR   1600.7   10766.6   1601.1   10783.4   1601.2   10796.9   1600.9   10811.9   1600.9   10824.6
GR   1600.7   10838.5   1601.1   10851.2   1600.8   10859.7   1601.2   10872.9   1601.1   10890.6
GR   1601.2   10906.2   1600.9   10932.4   1600.9   10946.3   1600.8   10964.2   1600.5   10977.0
GR   1600.7   10993.2   1600.5   11010.0   1600.8   11020.8   1600.8   11036.8   1600.5   11049.0
GR   1600.1   11061.0   1600.0   11072.2   1600.2   11081.5   1600.0   11089.6   1600.4   11105.0
GR   1600.1   11119.2   1600.2   11129.0   1600.1   11143.5   1600.2   11155.4   1600.1   11169.8
```

```
GR  1600.2  11186.1  1600.1  11198.2  1600.0  11211.1  1599.0  11222.3  1599.3  11236.4
GR  1598.8  11241.2  1599.3  11247.9  1598.9  11258.5  1599.4  11271.2  1599.2  11285.3
GR  1599.2  11300.7  1599.4  11316.2  1599.1  11330.9  1599.5  11342.9  1599.5  11351.9
GR  1599.2  11365.1  1599.6  11382.8  1599.1  11394.0  1599.4  11406.6  1599.5  11418.3
GR  1599.8  11431.9  1599.8  11446.8  1599.7  11462.3  1599.4  11480.0  1599.4  11502.3
GR  1599.5  11513.8  1599.6  11526.5  1599.6  11541.8  1599.5  11556.7  1599.4  11571.1
GR  1599.4  11589.5  1599.5  11602.7  1599.5  11615.4  1598.9  11619.9  1599.6  11630.8
GR  1599.7  11643.2  1599.8  11656.4  1599.8  11666.8  1599.5  11680.0  1599.6  11686.4
GR  1598.8  11691.8  1600.0  11697.7  1599.7  11707.4  1599.9  11724.6  1600.0  11739.3
GR  1600.2  11739.4

ET                        9.1                                          11690.0  11739.7
      STATION 11735 = TRIB. BASELINE.
X1  13.170        51  11725.9  11739.7     675     825     850
GR  1609.7  11029.4  1609.5  11052.1  1609.4  11070.2  1609.5  11092.3  1609.2  11108.0
GR  1609.4  11125.6  1609.3  11141.8  1609.4  11157.7  1609.3  11177.9  1609.6  11198.5
GR  1609.5  11214.4  1609.6  11234.3  1609.7  11252.0  1609.8  11270.9  1609.7  11288.9
GR  1608.7  11299.8  1609.6  11306.1  1609.1  11316.5  1609.1  11329.6  1609.0  11341.5
GR  1608.1  11355.6  1608.3  11369.0  1608.6  11377.5  1609.0  11390.0  1609.5  11406.4
GR  1609.4  11423.0  1609.8  11439.9  1609.9  11456.2  1610.3  11471.3  1609.9  11488.3
GR  1610.4  11503.5  1610.1  11518.4  1609.5  11535.2  1609.7  11550.5  1609.6  11562.8
GR  1609.9  11575.0  1609.9  11591.4  1609.9  11607.1  1609.8  11621.8  1609.5  11642.1
GR  1609.5  11656.0  1609.8  11671.4  1609.6  11689.5  1609.3  11703.1  1609.3  11719.1
GR  1609.1  11725.9  1608.4  11735.1  1609.2  11739.7  1609.4  11753.3  1609.4  11769.6
GR  1609.1  11778.2

ET                        9.1                                          11606.0  11655.5
      STATION 11640 = TRIB. BASELINE.
X1  13.277        51  11640.7  11655.5     550     575     600
GR  1618.0  11118.2  1617.7  11136.6  1617.1  11156.5  1616.8  11171.4  1616.9  11184.0
GR  1616.8  11196.1  1616.8  11212.2  1616.7  11222.5  1616.8  11234.4  1616.9  11247.5
GR  1616.4  11255.2  1615.1  11264.9  1616.2  11271.0  1616.8  11282.5  1616.9  11293.3
GR  1616.9  11306.5  1616.9  11319.0  1616.6  11336.0  1617.0  11369.2  1617.1  11382.6
GR  1617.3  11400.4  1617.1  11419.6  1617.9  11432.6  1617.8  11446.8  1617.6  11461.1
GR  1617.7  11474.3  1617.6  11489.7  1617.7  11501.7  1617.6  11512.2  1617.5  11520.3
GR  1615.7  11526.5  1617.5  11532.0  1617.7  11542.2  1617.3  11550.7  1617.2  11563.2
GR  1616.8  11575.3  1616.0  11583.4  1616.9  11590.7  1616.7  11601.9  1615.9  11606.3
GR  1617.1  11612.9  1617.1  11628.6  1617.3  11640.7  1615.8  11647.6  1616.8  11655.5
GR  1616.7  11665.4  1617.5  11675.2  1617.6  11688.3  1618.0  11699.9  1617.9  11707.9
GR  1617.9  11708.0

ET                        9.1                                          11374.2  11389.1
      STATION 11375 = TRIB. BASELINE.
X1  13.408        53  11374.2  11389.1     700     680     710
GR  1626.6  10930.7  1626.5  10940.4  1626.1  10948.1  1626.6  10964.6  1626.7  10977.3
GR  1626.9  10982.7  1626.1  10989.7  1626.4  10998.5  1626.3  11006.4  1626.9  11014.7
GR  1626.9  11025.4  1627.1  11035.7  1626.9  11048.1  1627.1  11058.7  1627.2  11068.2
GR  1626.9  11078.8  1626.6  11088.7  1626.6  11096.3  1626.8  11104.5  1626.8  11111.7
GR  1627.4  11124.2  1627.0  11129.3  1626.5  11135.6  1626.1  11139.1  1627.2  11145.4
GR  1627.1  11164.6  1627.1  11177.5  1627.2  11188.7  1627.0  11203.0  1627.1  11215.1
GR  1626.9  11230.5  1627.5  11246.8  1627.3  11260.9  1627.5  11275.2  1627.7  11292.2
GR  1627.6  11306.5  1627.6  11326.6  1627.5  11343.2  1626.9  11351.4  1627.0  11366.2
GR  1626.4  11374.2  1624.0  11381.6  1626.6  11389.1  1626.9  11406.2  1626.5  11426.9
GR  1626.6  11446.6  1625.8  11455.1  1626.8  11461.5  1626.6  11470.6  1626.3  11480.2
```

```
GR   1626.5    11495.1     1626.8    11507.3     1626.8     11509.1

QT        2       79.3       79.3
ET                            9.1                                                    11195.0    11213.0
        STATION 11205 = TRIB. BASELINE.
X1   13.536         35    11197.0    11210.4        690        675        750
GR   1634.9    10985.4     1634.9    11003.0     1634.6    11017.9     1634.4    11030.8     1634.4    11046.8
GR   1634.4    11061.8     1635.0    11076.2     1635.0    11089.6     1634.9    11103.4     1635.2    11121.5
GR   1634.8    11141.4     1635.0    11156.0     1635.0    11169.6     1634.3    11171.8     1635.8    11180.2
GR   1636.2    11188.3     1635.0    11197.0     1633.4    11203.2     1635.0    11210.4     1636.0    11218.1
GR   1635.7    11226.6     1635.0    11235.8     1634.0    11243.8     1635.5    11254.1     1634.8    11263.4
GR   1635.5    11274.7     1635.4    11288.2     1635.0    11303.3     1635.1    11315.3     1634.8    11326.4
GR   1635.1    11347.5     1635.0    11361.7     1635.5    11380.7     1635.3    11397.9     1635.3    11409.0

ET                7.1        9.1                                     11016.6    11329.0    11215.5    11227.9
QT        2        94         94
        STATION 11215 = TRIB. BASELINE.
        BASED ON FLOW DISTRIBUTION FOR THIS SECTION APPROX. 14.7 CFS SPLITS
        FROM TRIBUTARY AND JOINS MAIN WASH #1 DOWNSTREAM OF THIS SECTION.
X1   13.616         34    11215.5    11227.9        440        400        450
X2                                                                                                                15
GR   1641.1    10817.5     1640.9    10833.0     1640.7    10848.6     1640.0    10856.1     1640.8    10868.3
GR   1640.2    10878.8     1641.3    10893.7     1641.1    10912.5     1640.8    10930.7     1641.1    10953.3
GR   1641.5    10973.9     1641.5    10998.0     1641.7    11016.6     1641.5    11042.2     1641.5    11061.5
GR   1640.8    11077.8     1640.9    11096.5     1640.1    11116.6     1638.9    11120.3     1641.0    11129.8
GR   1640.3    11149.8     1640.5    11169.4     1640.4    11187.2     1639.9    11202.9     1638.8    11215.5
GR   1638.4    11220.4     1640.6    11227.9     1640.2    11242.4     1639.9    11260.7     1640.9    11273.4
GR   1640.9    11286.3     1641.3    11307.4     1641.0    11319.4     1640.9    11329.0

ET                            9.1                                                    11112.3    11124.7
        STATION 11115 = TRIB. BASELINE.
X1   13.743         59    11112.3    11124.7        650        650        660
GR   1652.9    10610.6     1652.8    10630.0     1652.7    10650.7     1652.8    10670.3     1652.6    10687.5
GR   1652.0    10709.5     1651.2    10724.0     1650.1    10734.1     1651.9    10743.8     1652.0    10753.6
GR   1651.6    10765.5     1652.2    10778.6     1651.6    10792.9     1651.3    10809.7     1649.9    10822.9
GR   1649.1    10835.9     1650.3    10847.9     1650.0    10857.6     1649.8    10869.4     1650.4    10877.3
GR   1649.2    10882.7     1649.4    10889.8     1649.8    10900.9     1649.6    10909.7     1650.3    10918.7
GR   1650.1    10931.0     1650.2    10957.9     1649.9    10970.5     1649.0    10981.4     1648.7    10994.0
GR   1647.8    11007.6     1648.2    11015.4     1649.1    11026.3     1649.4    11053.3     1649.5    11067.4
GR   1649.1    11081.9     1648.1    11105.2     1647.4    11112.3     1646.5    11116.2     1647.8    11124.7
GR   1648.5    11131.6     1647.8    11139.5     1646.8    11145.9     1649.0    11161.5     1648.8    11173.1
GR   1648.4    11184.9     1647.5    11194.8     1648.7    11206.2     1648.8    11217.4     1648.9    11231.2
GR   1648.8    11249.0     1649.1    11265.3     1649.2    11281.2     1649.2    11300.5     1649.2    11316.6
GR   1649.3    11332.4     1649.4    11346.0     1649.0    11356.3     1649.0    11362.1

ET                            9.1                                                    11275.1    11296.5
        STATION 11245 = TRIB. BASELINE.
X1   13.875         45    11274.1    11296.5        640        690        725
GR   1659.3    10988.5     1659.4    11004.2     1658.9    11019.9     1659.0    11038.8     1659.2    11051.6
GR   1659.1    11071.0     1658.4    11086.3     1657.9    11101.4     1657.0    11118.7     1656.1    11130.8
GR   1657.2    11143.6     1658.2    11151.9     1657.6    11161.6     1657.5    11171.6     1658.4    11183.6
GR   1658.2    11193.7     1657.9    11209.9     1657.6    11222.5     1658.3    11239.0     1658.3    11249.1
GR   1657.7    11262.7     1657.2    11274.1     1654.9    11283.4     1656.9    11296.5     1658.4    11311.8
GR   1658.4    11320.2     1657.8    11329.3     1658.0    11340.5     1658.1    11347.7     1657.7    11358.5
```

```
GR   1657.5    11366.5     1657.5    11376.8     1657.4    11384.8     1657.6    11398.7     1658.0    11408.8
GR   1658.2    11425.2     1658.4    11439.6     1658.9    11453.3     1659.6    11465.2     1659.6    11477.3
GR   1659.4    11494.3     1659.8    11509.6     1660.1    11526.0     1660.7    11540.4     1661.2    11548.0

ET                            9.1                                                             11011.0    11022.7
        STATION 11025 = TRIB. BASELINE.
X1   14.000         23    11011.0    11022.7         690         640         700
GR   1670.4    10893.6     1670.5    10902.2     1670.2    10905.1     1670.8    10911.6     1669.9    10920.0
GR   1669.3    10934.2     1669.0    10944.9     1669.6    10955.9     1669.2    10971.6     1669.1    10994.4
GR   1668.9    10994.5     1667.8    11002.9     1666.3    11011.0     1665.7    11016.6     1667.3    11022.7
GR   1667.0    11032.8     1667.7    11039.7     1668.4    11049.8     1669.6    11061.0     1670.3    11063.8
GR   1669.7    11068.4     1670.3    11078.5     1670.4    11082.0

NC      .03        .03        .03         .3         .5
        BEGIN SUN VALLEY PARKWAY CULVERT (1-10'X 3'X 134' RCB; STRUC.NO 3)
X1   14.009          6     9994.5    10005.5         45         45         45
X3       10                                                                  1670.7     1670.7
GR    1671       9940       1670     9994.5     1666.7     9994.5     1666.7    10005.5       1670    10005.5
GR   1670.5      10060

NC     .012       .012       .012
SC    1.012         .2        3.0          0          3         10        134       12.1     1667.7     1666.7
        END CULVERT (STRUC. #3).  NO WEIR FLOW EXPECTED.
X1   14.034          6     9994.5    10005.5        134        134        134
X2                             2     1670.7     1672.0
X3       10                                                                  1672       1672
BT        8       9900    1674.65                10000     1674.1               10021.9     1673.9
BT    10022     1673.4                10062     1672.6                10068     1672.2                10085
BT     1672                10188       1673
GR     1672       9982       1671     9994.5     1667.7     9994.5     1667.7    10005.5       1671    10005.5
GR     1672      10025

NC      .03        .03        .03
X1   14.042          7       9996     10010         40         40         40
GR     1673       9976       1672      9988       1670       9996       1669       9998       1669      10002
GR     1671      10010       1672     10030
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .080

3265 DIVIDED FLOW

        FLOODWAY MODEL WITH FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        EQUAL CONVEYANCE REDUCTION (METHOD 4) FOR INITIAL ANALYSIS.
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE-AREA METHOD
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH 5 WEST ALONG BASELINE
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
     .080      7.33   1504.13       .00   1504.13   1504.61       .48       .00       .00   1501.20
   2731.0     634.4    1804.8     291.8     273.3     273.4      90.5        .0        .0   1501.50
     .00      2.32      6.60      3.23      .054      .042      .054      .000   1496.80   9830.39
  .004073       0.        0.        0.         0         0         0       .00    339.98  10232.51


*SECNO  .216
     .216      7.86   1506.96       .00       .00   1507.37       .40      2.75       .01   1505.00
   2731.0     260.9    2027.1     443.0     131.0     349.0     244.9      11.7       6.6   1504.80
     .04      1.99      5.81      1.81      .054      .042      .054      .000   1499.10   9820.18
  .003321      700.      750.      800.         2         0         0       .00    426.01  10246.19


*SECNO  .359
        CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.3, DECREASE DISCHARGE.
     .359      7.70   1509.50       .00       .00   1509.77       .27      2.39       .01   1507.90
   2157.0      62.9    2061.8      32.3      39.0     482.5      23.3      23.8      12.2   1507.80
     .10      1.61      4.27      1.39      .054      .042      .054      .000   1501.80   9756.56
  .002361      850.      850.      775.         2         0         0       .00    177.99   9934.55


*SECNO  .503

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     .503      7.79   1513.09   1513.09       .00   1513.96       .87      3.77       .18   1510.20
   2157.0     569.8    1283.0     304.2     125.9     141.3     102.0      32.9      15.9   1511.50
     .13      4.52      9.08      2.98      .054      .042      .054      .000   1505.30   9959.65
  .010432      750.      900.      800.         9         5         0       .00    208.85  10168.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .636

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.18

.636	9.13	1517.53	.00	.00	1517.76	.23	3.75	.06	1514.40
2157.0	307.6	950.4	899.0	144.0	179.8	403.6	44.0	21.6	1513.90
.21	2.14	5.29	2.23	.054	.042	.054	.000	1508.40	10034.39
.002191	740.	980.	900.	5	0	0	.00	364.57	10438.79

*SECNO .778

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .54

.778	8.12	1520.02	.00	.00	1520.68	.66	2.79	.13	1518.10
2157.0	310.6	1445.5	400.8	95.6	192.1	103.7	53.6	26.2	1518.10
.24	3.25	7.52	3.87	.054	.042	.054	.000	1511.90	9935.92
.007578	770.	760.	730.	3	0	0	.00	169.40	10105.32

*SECNO .964

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.84

.964	7.96	1524.36	.00	.00	1524.56	.20	3.83	.05	1521.60
2157.0	199.8	1096.3	860.9	87.1	247.0	361.8	66.1	31.1	1522.10
.32	2.29	4.44	2.38	.054	.042	.054	.000	1516.40	9861.55
.002248	1010.	1050.	950.	4	0	0	.00	262.73	10124.28

*SECNO 1.112

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .49

1.112	5.01	1527.41	.00	.00	1527.80	.39	3.19	.06	1526.10
2157.0	1433.1	680.0	43.9	381.4	96.8	16.4	76.9	36.1	1526.10
.37	3.76	7.02	2.68	.054	.042	.054	.000	1522.40	9852.90
.009267	775.	800.	800.	3	0	0	.00	295.69	10148.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.220

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.66

1.220	4.00	1530.90	.00	.00	1531.06	.17	3.24	.02	1528.10
2157.0	1126.3	807.1	223.6	371.6	211.9	101.5	85.2	40.4	1529.30
.42	3.03	3.81	2.20	.054	.042	.054	.000	1526.90	9778.90
.003368	600.	650.	600.	2	0	0	.00	314.60	10093.50

*SECNO 1.377

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .46

CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.2, DECREASE DISCHARGE.

1.377	4.36	1533.56	.00	.00	1533.65	.09	2.58	.01	1532.10
912.0	181.9	574.0	156.1	119.2	207.8	104.1	95.6	46.7	1532.00
.52	1.53	2.76	1.50	.050	.050	.050	.000	1529.20	9905.93
.002801	810.	810.	810.	3	0	0	.00	361.90	10267.83

*SECNO 1.490

243RD AVENUE AT-GRADE ROAD CROSSING 120 FT. DOWNSTREAM OF THIS SETION.

1.490	2.36	1535.26	.00	.00	1535.32	.07	1.67	.00	1533.50
912.0	270.0	486.6	155.3	146.5	203.8	102.8	101.9	51.7	1533.80
.60	1.84	2.39	1.51	.050	.050	.050	.000	1532.90	9907.67
.002584	600.	630.	630.	3	0	0	.00	353.33	10261.00

*SECNO 1.636

1.636	2.98	1537.88	.00	.00	1537.98	.10	2.64	.01	1537.60
912.0	82.5	698.7	130.7	52.6	256.5	75.4	109.3	58.1	1537.40
.69	1.57	2.72	1.73	.050	.050	.050	.000	1534.90	9822.91
.004785	770.	770.	770.	4	0	0	.00	365.33	10188.24

*SECNO 1.778

3265 DIVIDED FLOW

1.778	4.26	1540.76	.00	.00	1540.84	.08	2.86	.00	1539.90
912.0	141.6	559.5	210.9	88.3	206.9	138.3	116.3	64.6	1540.10
.78	1.60	2.70	1.52	.050	.050	.050	.000	1536.50	9850.90
.003110	750.	750.	750.	3	0	0	.00	385.04	10244.92

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.893

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

STOCK POND AND LEVEE UPSTREAM OF THIS SECTION.
PRIVATE LEVEE IS OVERTOPPED OR WITHOUT ADEQUATE FREEBOARD (I.E. 3 FT.)
AT SOUTH END. LEVEE ASSUMED BREACHED FOR THIS ANALYSIS.

1.893	1.42	1543.52	.00	.00	1543.63	.11	2.79	.01	1542.70
912.0	143.0	525.5	243.5	54.3	205.2	87.6	121.6	69.6	1542.40
.84	2.63	2.56	2.78	.050	.050	.050	.000	1542.10	9778.76
.008005	600.	600.	560.	3	0	0	.00	364.98	10143.74

*SECNO 2.004

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

2.004	1.39	1547.79	1547.55	.00	1547.84	.05	4.20	.01	1547.20
349.0	110.3	56.9	181.8	69.8	23.5	105.0	125.1	74.5	1547.60
.93	1.58	2.42	1.73	.049	.045	.049	.000	1546.40	9812.02
.006340	750.	560.	450.	19	14	0	.00	377.69	10189.71

*SECNO 2.126

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

2.126	1.59	1553.89	1553.89	.00	1554.17	.28	7.53	.07	1553.20
349.0	84.0	136.1	128.9	29.5	26.0	34.2	127.2	78.6	1553.60
.97	2.85	5.23	3.76	.049	.045	.049	.000	1552.30	9902.06
.028846	625.	640.	650.	20	11	0	.00	174.90	10110.50

*SECNO 2.244

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.53

2.244	2.27	1560.17	.00	.00	1560.19	.02	6.00	.03	1559.90
349.0	192.9	38.7	117.4	171.4	20.4	112.5	130.2	87.3	1560.30
1.12	1.13	1.90	1.04	.049	.045	.049	.000	1557.90	9434.21
.004490	650.	650.	650.	18	0	0	.00	993.64	10549.19

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.379

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

2.379	2.58	1566.38	1566.38	.00	1566.52	.15	6.29	.04	1566.10
349.0	239.6	82.0	27.4	101.7	17.2	12.9	133.8	99.5	1566.90
1.19	2.36	4.76	2.12	.049	.045	.049	.000	1563.80	9426.07
.023890	720.	720.	720.	11	12	0	.00	489.71	10108.87

*SECNO 2.501

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

2.501	1.73	1572.73	.00	.00	1572.75	.02	6.21	.01	1572.00
179.4	113.1	34.5	31.8	122.8	26.0	30.5	136.1	107.6	1573.60
1.37	.92	1.33	1.04	.049	.045	.049	.000	1571.00	9353.75
.003165	660.	660.	660.	6	0	0	.00	571.10	10103.17

*SECNO 2.630

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.630	.99	1578.69	1578.69	.00	1578.89	.20	4.95	.05	1578.90
179.4	143.8	35.6	.0	38.3	14.1	.0	137.9	113.1	1578.90
1.43	3.76	2.53	.00	.049	.045	.000	.000	1577.70	9348.56
.031238	680.	680.	680.	7	14	0	.00	135.97	10055.20

*SECNO 2.758

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.37

3470 ENCROACHMENT STATIONS= 9364.5 10245.6 TYPE= 1 TARGET= 881.100
251ST AVENUE AT-GRADE ROAD CROSSING 100 FT. UPSTREAM OF THIS SECTION.

2.758	1.16	1586.26	.00	.00	1586.30	.03	7.39	.02	1587.00
179.4	121.6	9.3	48.5	81.2	6.8	35.3	139.3	116.5	1586.90
1.55	1.50	1.36	1.37	.049	.045	.049	.000	1585.10	9372.38
.005580	660.	700.	700.	10	0	0	.00	308.67	10195.55

*SECNO 2.892

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .51

2.892	1.19	1593.09	.00	.00	1593.18	.09	6.86	.02	1593.30
179.4	131.8	33.6	14.1	53.2	14.8	12.1	140.9	121.7	1593.30
1.64	2.48	2.26	1.16	.049	.045	.049	.000	1591.90	9760.84
.021548	700.	700.	700.	6	0	0	.00	332.05	10311.83

*SECNO 3.017

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.63

3.017	2.13	1599.73	.00	.00	1599.78	.05	6.60	.00	1600.10
140.7	2.2	52.6	85.9	5.0	30.8	47.7	142.2	125.8	1599.80
1.74	.45	1.71	1.80	.049	.045	.049	.000	1597.60	9684.52
.004976	680.	680.	640.	5	0	0	.00	202.17	10322.49

*SECNO 3.151

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED
    3.151      1.01   1608.31   1608.31       .00   1608.38       .07      6.23       .01   1608.20
    140.7      22.7      60.1      57.9      15.9      20.3      47.2     143.5     131.7   1608.40
     1.84      1.43      2.97      1.22      .049      .045      .049      .000   1607.30   9737.33
  .019488      720.      720.      700.         5        12         0       .00    526.69  10612.85


*SECNO 3.281

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.61

    3.281      1.19   1615.79       .00       .00   1615.84       .05      7.46       .00   1615.80
    140.7        .0      37.9     102.8        .0      16.6      68.0     144.8     137.4   1617.50
     1.95       .00      2.28      1.51      .000      .045      .049      .000   1614.60  10014.91
  .007498      700.      680.      630.         7         0         0       .00    239.07  10771.01


*SECNO 3.408

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.408      1.55   1624.75   1624.75       .00   1624.92       .17      8.69       .04   1625.80
    140.7        .0       5.4     135.3        .0       2.8      40.2     145.8     140.2   1625.70
     2.01       .00      1.97      3.37      .000      .045      .049      .000   1623.20   9929.33
  .026522      680.      680.      680.         6        11         0       .00    124.22  10745.42


*SECNO 3.547

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.50

    3.547       .87   1633.97       .00       .00   1634.00       .03      9.07       .01   1635.00
    102.0       2.3       2.3      97.4       1.8       1.7      69.1     146.7     142.7   1633.60
     2.15      1.30      1.38      1.41      .049      .045      .049      .000   1633.10   9947.16
  .006156      740.      750.      720.         9         0         0       .00    184.25  10845.93
```

```
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 3.631

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.631      .52   1640.32   1640.32      .00   1640.40      .08      6.01      .02   1640.30
    102.0      1.9      30.0      70.0      1.2      10.1      36.0     147.4    145.4   1640.70
     2.20     1.57      2.96      1.94     .049      .045      .049      .000  1639.80   9966.91
  .044820     450.      450.      460.        5        14         0       .00   322.72  10629.13


*SECNO 3.761

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.71

    3.761     1.30   1649.20       .00       .00   1649.27      .06      8.86      .00   1650.00
    102.0       .0      25.7      76.3       .0      11.7      38.6     148.1    148.5   1650.80
     2.30      .00      2.20      1.98     .000      .045      .049      .000  1647.90   9999.31
  .006109     680.      680.      680.         8         0         0       .00    73.45  10426.57


*SECNO 3.887

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.887     1.44   1657.74   1657.74      .00   1658.02      .28      6.58      .06   1657.90
    102.0     13.5      88.5        .0       8.0      19.8        .0     148.7    149.5   1658.10
     2.34     1.70      4.47       .00      .049      .045      .000      .000  1656.30   9966.45
  .019340     700.      690.      600.         5         8         0       .00    54.72  10033.89


*SECNO 4.055

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.72

    4.055     1.81   1667.71       .00       .00   1667.84      .14      9.81      .01   1666.90
    102.0     12.8      85.9       3.2       7.6      27.3       2.6     149.4    150.5   1667.00
     2.43     1.70      3.15      1.22     .049      .045      .049      .000  1665.90   9986.37
  .006517     940.      940.      940.         7         0         0       .00    42.30  10028.67
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 4.066
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1672.70 ELREA= 1672.70

BEGIN 3-49"X33" C.S.P.A. CULVERTS UNDER SUN VALLEY PARKWAY (STRUC.#2)

4.066	1.10	1669.00	1669.00	.00	1669.54	.54	.54	.20	1667.94
102.0	.0	102.0	.0	.0	17.2	.0	149.5	150.5	1667.90
2.43	.00	5.92	.00	.000	.030	.000	.000	1667.90	9992.00
.012966	60.	60.	60.	20	14	0	.00	16.00	10008.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1668.58 , NOT 1669.00 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	4.83	2.63	.00	16.00	6.50	26.10	.00	1669.07	1667.94

*SECNO 4.094

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 9.73

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1670.03 BRIDGE VELOCITY= 7.02 CALCULATED CHANNEL AREA= 9.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELTIC	ELTRD	WEIRLN
.00	1671.62	.00	0.	102.	26.	26.	1671.82	1672.70	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1672.70 ELREA= 1672.70

END CULVERTS (STRUC. #2).

4.094	2.45	1671.52	.00	.00	1671.62	.11	2.08	.00	1669.07
102.0	.0	102.0	.0	.0	38.9	.0	149.5	150.6	1669.10
2.45	.00	2.62	.00	.000	.012	.000	.000	1669.07	9992.00
.000137	146.	146.	146.	0	0	0	.00	16.00	10008.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 4.101

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .34

       FLOODPLAIN\FLOODWAY DELINEATED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS IS POSSIBLE AND PRESERVATION OF DETENTION UPSTREAM OF ROAD
       IS REQUIRED.
    4.101      1.58   1671.58       .00       .00   1671.65       .07       .01       .01   1670.00
    102.0      18.0      72.4      11.6      12.5      31.7       8.1     149.6     150.6   1670.00
     2.46      1.43      2.29      1.43      .030      .030      .030      .000   1670.00   9974.17
  .001153       40.       40.       40.         2         0         0       .00     46.13  10020.29


CCHV=     .100 CEHV=     .300
*SECNO -2.379
START TRIB COMP
    -2.379     2.379  1566.377

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
       REPEAT CROSS-SECTION FOR START OF WASH 1 TRIBUTARY ANALYSIS
   -2.379      2.58   1566.38   1566.36       .00   1566.52       .15      5.30     -5.30   1566.10
    349.0     239.6      82.0      27.4     101.5      17.2      12.9     151.1     155.1   1566.90
     2.52      2.36      4.76      2.13      .049      .045      .049      .000   1563.80   9426.08
  .023959      720.      720.      720.         0        14         0       .00    489.32  10108.87


*SECNO 12.510
       ADD 10 TO CROSS-SECTION I.D. NO. FOR TRIBUTARY.  I.D. NUMBER IN RIVER
       MILES ALONG TRIBUTARY BASELINE.   STATION 10175 = TRIB. BASELINE.
   12.510      1.63   1573.13       .00       .00   1573.16       .03      6.62       .01   1572.90
    131.9      13.8      35.2      82.9      12.3      20.8      62.7     152.8     159.8   1572.40
     2.66      1.13      1.69      1.32      .049      .045      .049      .000   1571.50  10148.43
  .002633      660.      700.      650.         8         0         0       .00    136.67  10285.11


*SECNO 12.639

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

```
      STATION 10535 = TRIB. BASELINE.
   12.639      .70   1578.80   1578.80      .00   1578.92      .12      4.63      .03   1579.80
    131.9    118.2      13.7       .0     42.5      4.8       .0     153.9     162.5   1579.90
     2.72     2.78      2.84      .00     .049      .045     .000      .000   1578.10  10327.09
  .045966     700.      700.     620.        6        12        0       .00    209.93  10625.67


*SECNO 12.761

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.15

      STATION 10940 = TRIB. BASELINE.
   12.761     2.10   1585.70      .00      .00   1585.72      .03      6.80      .01   1585.60
    131.9    105.5      17.5      8.9     90.5      8.7      9.1     155.1     166.7   1585.50
     2.86     1.17      2.00      .98     .049      .045     .049      .000   1583.60  10440.31
  .004627     625.      720.     650.       13         0        0       .00    367.83  10968.19


*SECNO 12.904

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      STATION 11295 = TRIB. BASELINE.
   12.904     1.64   1593.34   1593.34      .00   1593.45      .11      6.93      .03   1593.50
    131.9    114.3      12.0      5.5     43.0      4.2      2.6     156.5     172.3   1593.40
     2.94     2.66      2.89     2.13     .049      .045     .049      .000   1591.70  10897.40
  .024775     770.      770.     740.        7        17        0       .00    268.40  11345.05


*SECNO 13.023

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.80

      STATION 11695 = TRIB. BASELINE.
   13.023      .82   1599.62      .00      .00   1599.63      .02      6.17      .01   1599.60
    105.6    100.5       5.1       .0     99.5      4.0       .0     157.5     176.9   1600.00
     3.11     1.01      1.28      .00     .049      .045     .000      .000   1598.80  11215.31
  .004904     600.      625.     625.        9         0        0       .00    396.85  11695.85
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 13.170

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
       STATION 11735 = TRIB. BASELINE.
   13.170      .90   1609.00   1609.00      .00   1609.22      .22      7.08      .06   1609.10
    105.6     96.3      9.3       .0     25.1      3.4       .0     158.6     180.5   1609.20
     3.16     3.84      2.72      .00     .049      .045     .000      .000   1608.10  11296.52
  .033967     675.      850.     825.        4         8        0       .00     65.41  11738.56


*SECNO 13.277

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.13

       STATION 11640 = TRIB. BASELINE.
   13.277     1.76   1616.86       .00       .00   1616.92      .05      7.68      .02   1617.30
    105.6     91.5      13.4       .8     50.4      7.0      1.3     159.1     182.3   1616.80
     3.24     1.82      1.90      .60     .049      .045     .049      .000   1615.10  11168.29
  .007452     550.      600.     575.        8         0        0       .00    211.00  11667.39


*SECNO 13.408

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
       STATION 11375 = TRIB. BASELINE.
   13.408     2.56   1626.56   1626.56      .00   1626.75      .19      6.34      .04   1626.40
    105.6     15.8      78.6     11.2     12.9      19.5      8.7     159.9     185.0   1626.60
     3.30     1.22      4.04     1.29     .049      .045     .049      .000   1624.00  10934.96
  .011128     700.      710.     680.        4        15        0       .00    128.27  11497.38


*SECNO 13.536
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

STATION 11205 = TRIB. BASELINE.

13.536	1.46	1634.86	.00	.00	1634.94	.07	8.17	.01	1635.00
79.3	43.3	25.6	10.4	25.4	9.0	5.9	160.6	186.9	1635.00
3.40	1.71	2.84	1.78	.049	.045	.049	.000	1633.40	11004.72
.011648	690.	750.	675.	3	0	0	.00	116.13	11331.00

*SECNO 13.616

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 11016.6 11329.0 TYPE= 1 TARGET= 312.400

STATION 11215 = TRIB. BASELINE.

BASED ON FLOW DISTRIBUTION FOR THIS SECTION APPROX. 14.7 CFS SPLITS FROM TRIBUTARY AND JOINS MAIN WASH #1 DOWNSTREAM OF THIS SECTION.

13.616	1.72	1640.12	.00	.00	1640.30	.18	5.33	.03	1638.80
94.0	42.2	50.4	1.5	16.3	12.5	1.9	160.9	187.8	1640.60
3.44	2.59	4.01	.79	.049	.045	.049	.000	1638.40	11115.97
.012474	440.	450.	400.	4	0	0	.00	56.90	11263.56

FLOW DISTRIBUTION FOR SECNO= 13.62 CWSEL= 1640.12

STA=	11116.	11120.	11126.	11203.	11216.	11228.	11261.	11264.
PER Q=	5.9	8.7	.7	29.6	53.6	1.3	.3	
AREA=	2.3	3.4	.8	9.8	12.5	1.5	.3	
VEL=	2.4	2.4	.8	2.9	4.0	.8	.8	
DEPTH=	.5	.6	.0	.8	1.2	.0	.1	

*SECNO 13.743

3265 DIVIDED FLOW

STATION 11115 = TRIB. BASELINE.

13.743	1.63	1648.13	.00	.00	1648.28	.14	7.97	.00	1647.40
94.0	6.8	48.0	39.2	4.8	13.0	17.1	161.4	188.7	1647.80
3.50	1.44	3.68	2.29	.049	.045	.049	.000	1646.50	11002.49
.011872	650.	660.	650.	5	0	0	.00	68.22	11200.86

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 13.875

3265 DIVIDED FLOW

       STATION 11245 = TRIB. BASELINE.
   13.875     2.01   1656.91       .00       .00   1657.10       .19      8.81       .01   1657.20
     94.0     15.1      78.9        .0       8.0      21.2        .0     161.9     189.6   1656.90
     3.55     1.88      3.73       .00      .049      .045      .000      .000   1654.90  11120.05
  .013052     640.      725.      690.         4         0         0       .00     41.25  11296.50


*SECNO 14.000
       STATION 11025 = TRIB. BASELINE.
   14.000     1.80   1667.50   1667.47       .00   1667.83       .34     10.69       .04   1666.30
     94.0     11.2      73.7       9.1       3.9      14.5       4.7     162.4     190.2   1667.30
     3.60     2.89      5.09      1.93      .049      .045      .049      .000   1665.70  11004.53
  .018361     690.      700.      640.         7        15         0       .00     33.18  11037.71


CCHV=     .300 CEHV=     .500
*SECNO 14.009

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1670.70 ELREA=     1670.70

       BEGIN SUN VALLEY PARKWAY CULVERT (1-10'X 3'X 134' RCB; STRUC.NO 3)
   14.009     1.38   1668.08       .00       .00   1668.68       .60       .71       .13   1670.00
     94.0       .0      94.0        .0        .0      15.2        .0     162.4     190.2   1670.00
     3.60      .00      6.20       .00      .000      .030      .000      .000   1666.70   9994.50
  .013766      45.       45.       45.         2         0         0       .00     11.00  10005.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    1          .012      .20      3.00       .00      3.00     10.00     134.00     12        1       1667.70   1666.70

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 14.034

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1669.914  EGOC =   1669.940  PCWSE=   1668.079  ELTRD=   1672.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.23
```

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1669.91	1669.94	1.26	0.	94.	4.380	30.0	1672.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1672.00 ELREA= 1672.00

END CULVERT (STRUC. #3). NO WEIR FLOW EXPECTED.

14.034	1.94	1669.64	.00	.00	1669.94	.30	1.26	.00	1671.00
94.0	.0	94.0	.0	.0	21.5	.0	162.4	190.2	1671.00
3.61	.00	4.38	.00	.000	.012	.000	.000	1667.70	9994.50
.000769	134.	134.	134.	2	0	0	.00	11.00	10005.50

*SECND 14.042
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

14.042	1.73	1670.73	1670.73	.00	1671.26	.54	.08	.12	1670.00
94.0	2.9	91.1	.0	1.1	15.3	.0	162.4	190.2	1671.00
3.61	2.71	5.95	.00	.030	.030	.000	.000	1669.00	9993.10
.012035	40.	40.	40.	20	11	0	.00	15.80	10008.90

```
T1      SUN VALLEY PARKWAY NORTH FIS   CONTRACT:FCDMC NO. 90-04  FILE:SEE PG. 1
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX.AZ
T3      WASH #1 FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

    -10        3                          0                                1505.13

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15                 -1
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 2



CCHV=     .100 CEHV=     .300
*SECNO  .080

3470 ENCROACHMENT STATIONS=    10086.7   10186.4  TYPE=      1  TARGET=       99.730
       FLOODWAY MODEL WITH FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
       EQUAL CONVEYANCE REDUCTION (METHOD 4) FOR INITIAL ANALYSIS.
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE-AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH 5 WEST ALONG BASELINE
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
     .080      8.33   1505.13       .00   1504.13   1505.78       .65       .00       .00   1501.20
   2731.0     475.0    2256.0        .0     136.0     326.4        .0        .0        .0 100000.00
     .00      3.49      6.91       .00      .054      .042      .000      .000   1496.80  10086.67
  .003842       0.        0.        0.         0         0         0       .00     99.73  10186.40


*SECNO  .216

3470 ENCROACHMENT STATIONS=     9929.7   10016.6  TYPE=      1  TARGET=       86.899
     .216      8.75   1507.85       .00   1506.96   1508.44       .59      2.66       .01   1505.00
   2731.0        .0    2592.6     138.4        .0     411.1      47.8       7.9       1.6   1504.80
     .03       .00      6.31      2.90      .000      .042      .054      .000   1499.10   9929.70
  .003313      700.      750.      800.         2         0         0       .00     86.90  10016.60


*SECNO  .359

3470 ENCROACHMENT STATIONS=     9787.1    9908.5  TYPE=      1  TARGET=      121.400
       CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.3, DECREASE DISCHARGE.
     .359      8.41   1510.21       .00   1509.50   1510.43       .22      1.96       .04   1507.90
   2157.0        .0    2157.0        .0        .0     568.1        .0      17.9       3.6 100000.00
     .10       .00      3.80       .00      .000      .042      .000      .000   1501.80   9787.10
  .001575      850.      850.      775.         2         0         0       .00    121.40   9908.50


*SECNO  .503

3301 HV CHANGED MORE THAN HVINS
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 10000.0 10100.0 TYPE= 1 TARGET= 100.000

.503	8.03	1513.33	1513.33	1513.09	1514.57	1.25	3.00	.31	1510.20
2157.0	378.1	1513.0	265.9	66.7	148.7	65.9	26.4	5.8	1511.50
.12	5.67	10.17	4.04	.054	.042	.054	.000	1505.30	10000.00
.012219	750.	900.	800.	20	10	0	.00	100.00	10100.00

*SECNO .636

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.44

3470 ENCROACHMENT STATIONS= 10110.0 10255.0 TYPE= 1 TARGET= 145.000

.636	9.82	1518.22	.00	1517.53	1518.51	.29	3.84	.10	1514.40
2157.0	85.4	1093.2	978.5	30.7	199.5	355.3	35.5	8.3	1513.90
.19	2.78	5.48	2.75	.054	.042	.054	.000	1508.40	10110.00
.002051	740.	980.	900.	5	0	0	.00	145.00	10255.00

*SECNO .778

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .46

3470 ENCROACHMENT STATIONS= 9994.3 10059.7 TYPE= 1 TARGET= 65.400

.778	8.58	1520.48	.00	1520.02	1521.70	1.22	2.91	.28	1518.10
2157.0	56.1	1960.3	140.5	14.4	213.3	31.5	42.8	10.1	1518.10
.21	3.91	9.19	4.46	.054	.042	.054	.000	1511.90	9994.30
.009829	770.	760.	730.	3	0	0	.00	65.40	10059.70

*SECNO .964

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.30


3470 ENCROACHMENT STATIONS=     9897.7   10036.0  TYPE=      1  TARGET=      138.300
     .964      8.87   1525.27       .00   1524.36   1525.51       .25      3.72       .10   1521.60
   2157.0      35.9    1360.5     760.6      18.3     297.5     280.1      52.7      12.5   1522.10
     .28      1.96      4.57      2.72      .054      .042      .054      .000   1516.40   9897.70
  .001862     1010.     1050.      950.         3         0         0       .00    138.30  10036.00


*SECNO 1.112

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .38


3470 ENCROACHMENT STATIONS=     9989.8   10130.7  TYPE=      1  TARGET=      140.900
    1.112      5.58   1527.98       .00   1527.41   1528.76       .77      3.09       .16   1526.10
   2157.0    1149.2    1007.8        .0     229.4     114.2        .0      61.3      15.0 100000.00
     .32      5.01      8.82       .00      .054      .042      .000      .000   1522.40   9989.80
  .012649      775.      800.      800.         3         0         0       .00    140.90  10130.70


*SECNO 1.220
3280 CROSS SECTION      1.22 EXTENDED       .19 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.09


3470 ENCROACHMENT STATIONS=     9876.9   10024.1  TYPE=      1  TARGET=      147.199
    1.220      4.98   1531.88       .00   1530.90   1532.14       .25      3.33       .05   1528.10
   2157.0     887.1    1269.9        .0     249.8     294.3        .0      67.6      17.0 100000.00
     .36      3.55      4.31       .00      .054      .042      .000      .000   1526.90   9876.90
  .002905      600.      650.      600.         3         0         0       .00    147.20  10024.10
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 1.377

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .42


3470 ENCROACHMENT STATIONS=    10046.7   10135.6  TYPE=      1  TARGET=       88.899
       CROSS-SECTION UPSTREAM OF CONFLUENCE WITH WASH NO.2, DECREASE DISCHARGE.
    1.377      5.13   1534.33       .00   1533.56   1534.50       .17      2.36       .01   1532.10
    912.0        .0     912.0        .0        .0     276.2        .0      75.2      19.2 100000.00
      .43       .00      3.30       .00      .000      .050      .000      .000   1529.20  10046.70
  .002927      810.      810.      810.         4         0         0       .00     88.90  10135.60


*SECNO 1.490

3470 ENCROACHMENT STATIONS=    10038.4   10149.5  TYPE=      1  TARGET=      111.100
       243RD AVENUE AT-GRADE ROAD CROSSING 120 FT. DOWNSTREAM OF THIS SETION.
    1.490      3.19   1536.09       .00   1535.26   1536.23       .13      1.72       .00   1533.50
    912.0      53.4     858.6        .0      22.4     289.8        .0      79.5      20.7 100000.00
      .49      2.39      2.96       .00      .050      .050      .000      .000   1532.90  10038.40
  .002560      600.      630.      630.         1         0         0       .00    111.10  10149.50


*SECNO 1.636

3470 ENCROACHMENT STATIONS=     9919.0   10087.1  TYPE=      1  TARGET=      168.100
    1.636      3.45   1538.35       .00   1537.88   1538.47       .11      2.24       .00   1537.60
    912.0        .0     912.0        .0        .0     336.8        .0      85.2      23.2 100000.00
      .57       .00      2.71       .00      .000      .050      .000      .000   1534.90   9919.00
  .003334      770.      770.      770.         2         0         0       .00    168.10  10087.10


*SECNO 1.778

3470 ENCROACHMENT STATIONS=     9946.8   10045.5  TYPE=      1  TARGET=       98.700
    1.778      4.69   1541.19       .00   1540.76   1541.40       .21      2.90       .03   1539.90
    912.0        .0     912.0        .0        .0     249.8        .0      90.3      25.4 100000.00
      .62       .00      3.65       .00      .000      .050      .000      .000   1536.50   9946.80
  .004549      750.      750.      750.         3         0         0       .00     98.70  10045.50


*SECNO 1.893
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9842.0   10059.0  TYPE=      1  TARGET=      217.000
       STOCK POND AND LEVEE UPSTREAM OF THIS SECTION.
       PRIVATE LEVEE IS OVERTOPPED OR WITHOUT ADEQUATE FREEBOARD (I.E. 3 FT.)
       AT SOUTH END.  LEVEE ASSUMED BREACHED FOR THIS ANALYSIS.
    1.893      2.02   1544.12       .00   1543.52   1544.23       .12      2.83       .01   1542.70
    912.0        .0     912.0        .0        .0     333.2        .0      94.3      27.6 100000.00
      .69       .00      2.74       .00      .000      .050      .000      .000   1542.10   9842.00
  .004880      600.      600.      560.         3         0         0       .00    217.00  10059.00


*SECNO 2.004

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .18


3470 ENCROACHMENT STATIONS=     9934.3   10058.6  TYPE=      1  TARGET=      124.300
    2.004      1.46   1547.86   1547.80   1547.79   1548.11       .25      3.84       .04   1547.20
    349.0     110.5     121.2     117.3      29.0      25.4      35.5      97.0      29.8   1547.60
      .73      3.81      4.78      3.31      .049      .045      .049      .000   1546.40   9934.30
  .022371      750.      560.      450.        17        18         0       .00    124.30  10058.60


*SECNO 2.126

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.87


3470 ENCROACHMENT STATIONS=     9960.0   10034.0  TYPE=      1  TARGET=       74.000
    2.126      2.60   1554.90       .00   1553.89   1555.06       .16      6.94       .01   1553.20
    349.0     120.3     228.7        .0      37.8      70.3        .0      98.5      31.3 100000.00
      .78      3.18      3.26       .00      .049      .045      .000      .000   1552.30   9960.00
  .006426      625.      640.      650.         7         0         0       .00     74.00  10034.00


*SECNO 2.244
3280 CROSS SECTION      2.24 EXTENDED       .33 FEET


3470 ENCROACHMENT STATIONS=     9863.2    9974.0  TYPE=      1  TARGET=      110.800
    2.244      2.73   1560.63       .00   1560.17   1560.84       .20      5.77       .01   1559.90
    349.0     152.1     137.8      59.1      48.6      31.9      19.9     100.0      32.7   1560.30
      .83      3.13      4.32      2.98      .049      .045      .049      .000   1557.90   9863.20
  .013037      650.      650.      650.         7         0         0       .00    110.80   9974.00
```

PROFNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	GLOSS	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*SECNO 2.379
3280 CROSS SECTION      2.38 EXTENDED       .60 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9958.8   10108.8  TYPE=      1  TARGET=      149.960
     2.379      3.40   1567.20   1566.87   1566.38   1567.31       .11      6.46       .01   1566.10
     349.0      31.7     119.2     198.1      18.4      35.0      85.2     102.0      34.8   1566.90
       .91      1.72      3.40      2.33      .049      .045      .049      .000   1563.80   9958.84
   .006554      720.      720.      720.        15        12         0       .00    149.96  10108.80


*SECNO 2.501

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .30


3470 ENCROACHMENT STATIONS=     9898.7    9971.0  TYPE=      1  TARGET=       72.300
     2.501      2.04   1573.04       .00   1572.73   1573.24       .20      5.90       .03   1572.00
     179.4      25.1     154.3        .0       6.6      43.3        .0     103.4      36.5 100000.00
       .96      3.79      3.56       .00      .049      .045      .000      .000   1571.00   9898.70
   .019706      660.      660.      660.         6         0         0       .00     70.52   9969.22


*SECNO 2.630

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.88


3470 ENCROACHMENT STATIONS=    10000.0   10059.4  TYPE=      1  TARGET=       59.400
     2.630      1.91   1579.61       .00   1578.69   1579.72       .11      6.48       .01   1578.90
     179.4        .0     179.4        .0        .0      67.7        .0     104.4      37.5 100000.00
      1.03       .00      2.65       .00      .000      .045      .000      .000   1577.70  10000.00
   .005592      680.      680.      680.         6         0         0       .00     59.40  10059.40


*SECNO 2.758

3265 DIVIDED FLOW
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3280 CROSS SECTION      2.76 EXTENDED      .71 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9888.7   10043.2  TYPE=      1  TARGET=      154.510
       251ST AVENUE AT-GRADE ROAD CROSSING 100 FT. UPSTREAM OF THIS SECTION.
    2.758      1.91   1587.01   1587.01   1586.26   1587.22       .21      6.83       .03   1587.00
    179.4      75.0     104.4       .0      33.4      23.7        .0     105.3      39.1 100000.00
     1.08      2.25      4.41       .00      .049      .045      .000      .000   1585.10   9888.69
  .021905      660.      700.      700.         4         5         0       .00    145.92  10043.20


*SECNO 2.892

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99


3470 ENCROACHMENT STATIONS=     9989.0   10054.4  TYPE=      1  TARGET=       65.400
    2.892      2.08   1593.98       .00   1593.09   1594.08       .10      6.85       .01   1593.30
    179.4        .0     179.4        .0        .0      70.7        .0     106.4      40.8 100000.00
     1.16       .00      2.54       .00      .000      .045      .000      .000   1591.90   9989.00
  .005517      700.      700.      700.         8         0         0       .00     65.40  10054.40


*SECNO 3.017

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .41


3470 ENCROACHMENT STATIONS=    10017.7   10071.5  TYPE=      1  TARGET=       53.800
    3.017      2.27   1599.87       .00   1599.73   1600.08       .21      5.97       .03   1600.10
    140.7        .0     140.7        .0        .0      38.2        .0     107.2      41.7 100000.00
     1.21       .00      3.69       .00      .000      .045      .000      .000   1597.60  10018.38
  .019716      680.      680.      640.         7         0         0       .00     53.12  10071.50


*SECNO 3.151

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.52


3470 ENCROACHMENT STATIONS=     9951.0    9991.6  TYPE=      1  TARGET=       40.600
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.151	1.60	1608.90	.00	1608.31	1609.06	.16	8.97	.01	1608.20
140.7	.0	140.7	.0	.0	44.3	.0	107.9	42.5	100000.00
1.27	.00	3.18	.00	.000	.045	.000	.000	1607.30	9951.00
.008578	720.	720.	700.	4	0	0	.00	40.60	9991.60

*SECNO 3.281

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 10014.9 10120.0 TYPE= 1 TARGET= 105.100

3.281	1.82	1616.42	.00	1615.79	1616.71	.29	7.62	.04	1615.80
140.7	.0	140.6	.1	.0	32.5	.3	108.5	43.1	1617.50
1.32	.00	4.33	.26	.000	.045	.049	.000	1614.60	10014.90
.015245	700.	680.	630.	3	0	0	.00	41.19	10102.20

*SECNO 3.408

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9924.0 10035.0 TYPE= 1 TARGET= 111.000

3.408	2.53	1625.73	.00	1624.75	1625.86	.13	9.13	.02	1625.80
140.7	.0	137.6	3.1	.0	46.9	3.7	109.2	44.2	1625.70
1.38	.00	2.93	.83	.000	.045	.049	.000	1623.20	9924.33
.011926	680.	680.	680.	6	0	0	.00	95.10	10035.00

*SECNO 3.547

3265 DIVIDED FLOW

3280 CROSS SECTION 3.55 EXTENDED .28 FEET

3470 ENCROACHMENT STATIONS= 9947.1 10075.0 TYPE= 1 TARGET= 127.900

3.547	1.77	1634.87	.00	1633.97	1634.96	.09	9.09	.00	1635.00
102.0	19.3	53.4	29.2	6.4	22.5	16.6	110.0	45.9	1633.60
1.47	3.01	2.38	1.76	.049	.045	.049	.000	1633.10	9947.10
.012628	740.	750.	720.	5	0	0	.00	112.56	10075.00

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 3.631

3470 ENCROACHMENT STATIONS=    9967.0   10043.4  TYPE=      1  TARGET=      76.400
    3.631      .94   1640.74      .00   1640.32   1640.84      .10      5.88      .01   1640.30
    102.0     27.1      74.9       .0      13.8      27.0       .0     110.4     46.9 100000.00
     1.52     1.97      2.77      .00      .049      .045     .000      .000   1639.80   9967.00
  .013429     450.      450.     460.         3         0        0       .00     76.40  10043.40


*SECNO 3.761

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    9984.1   10100.0  TYPE=      1  TARGET=     115.900
    3.761     2.14   1650.04      .00   1649.20   1650.21      .17      9.34      .02   1650.00
    102.0       .0      94.4      7.6        .0      27.8      6.8     111.0     48.1   1650.80
     1.58      .00      3.40     1.12      .000      .045     .049      .000   1647.90   9984.10
  .014067     680.      680.     680.         5         0        0       .00     72.51  10080.60


*SECNO 3.887

3470 ENCROACHMENT STATIONS=    9967.0   10033.9  TYPE=      1  TARGET=      66.900
    3.887     1.61   1657.91      .00   1657.74   1658.05      .15      7.84      .00   1657.90
    102.0     23.2      78.8       .0      15.0      23.4       .0     111.6     49.2 100000.00
     1.64     1.54      3.38      .00      .049      .045     .000      .000   1656.30   9967.00
  .009430     700.      690.     600.         5         0        0       .00     66.90  10033.90


*SECNO 4.055

3470 ENCROACHMENT STATIONS=    9987.0   10021.2  TYPE=      1  TARGET=      34.200
    4.055     1.66   1667.56      .00   1667.71   1667.76      .20      9.69      .02   1666.90
    102.0     11.4      90.6       .0       5.6      24.1       .0     112.3     50.2 100000.00
     1.72     2.02      3.75      .00      .049      .045     .000      .000   1665.90   9988.14
  .011317     940.      940.     940.         5         0        0       .00     33.06  10021.20


CCHV=     .300 CEHV=     .500
*SECNO 4.066
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1672.70 ELREA= 1672.70

BEGIN 3-49"X33" C.S.P.A. CULVERTS UNDER SUN VALLEY PARKWAY (STRUC.#2)

4.066	1.10	1669.00	1669.00	1669.00	1669.54	.54	.73	.17	1667.94
102.0	.0	102.0	.0	.0	17.2	.0	112.4	50.3	1667.90
1.72	.00	5.92	.00	.000	.030	.000	.000	1667.90	9992.00
.012966	60.	60.	60.	20	14	0	.00	16.00	10008.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1668.58 , NOT 1669.00 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	4.83	2.63	.00	16.00	6.50	26.10	.00	1669.07	1667.94

*SECNO 4.094

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 9.73

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1670.03 BRIDGE VELOCITY= 7.02 CALCULATED CHANNEL AREA= 9.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1671.62	.00	0.	102.	26.	26.	1671.82	1672.70	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1672.70 ELREA= 1672.70

END CULVERTS (STRUC. #2).

4.094	2.45	1671.52	.00	1671.52	1671.62	.11	2.08	.00	1669.07
102.0	.0	102.0	.0	.0	38.9	.0	112.4	50.3	1669.10
1.74	.00	2.62	.00	.000	.012	.000	.000	1669.07	9992.00
.000137	146.	146.	146.	0	0	0	.00	16.00	10008.00

*SECNO 4.101

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .34

       FLOODPLAIN\FLOODWAY DELINEATED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS IS POSSIBLE AND PRESERVATION OF DETENTION UPSTREAM OF ROAD
       IS REQUIRED.
    4.101      1.58   1671.58       .00   1671.58   1671.65       .07       .01       .01   1670.00
    102.0      18.0      72.4      11.6      12.5      31.7       8.1     112.5      50.3   1670.00
     1.74      1.43      2.29      1.43      .030      .030      .030      .000   1670.00   9974.17
  .001153       40.       40.       40.         2         0         0       .00     46.13  10020.29


CCHV=     .100 CEHV=     .300
*SECNO -2.379
START TRIB COMP
    -2.379     2.379  1567.197
3280 CROSS SECTION     -2.38 EXTENDED       .60 FEET


3470 ENCROACHMENT STATIONS=     9958.8   10108.8  TYPE=      1  TARGET=      149.960
       REPEAT CROSS-SECTION FOR START OF WASH 1 TRIBUTARY ANALYSIS
   -2.379      3.40   1567.20       .00   1566.38   1567.31       .11       .00       .00   1566.10
    349.0      31.6     119.4     198.0      18.3      35.0      84.9     114.1      52.0   1566.90
     1.82      1.73      3.42      2.33      .049      .045      .049      .000   1563.80   9958.84
  .006623      720.      720.      720.         0         0         0       .00    149.96  10108.80


*SECNO 12.510
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10178.6   10217.2  TYPE=      1  TARGET=       38.601
       ADD 10 TO CROSS-SECTION I.D. NO. FOR TRIBUTARY.  I.D. NUMBER IN RIVER
       MILES ALONG TRIBUTARY BASELINE.   STATION 10175 = TRIB. BASELINE.
   12.510      1.54   1573.04   1573.04   1573.13   1573.38       .33      6.01       .07   1572.90
    131.9        .0      95.7      36.2        .0      19.1      10.6     115.3      53.4   1572.40
     1.86       .00      5.00      3.43      .000      .045      .049      .000   1571.50  10178.60
  .026187      660.      700.      650.        20        13         0       .00     38.60  10217.20


*SECNO 12.639
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.39


3470 ENCROACHMENT STATIONS=    10504.2   10620.0  TYPE=      1  TARGET=      115.800
       STATION 10535 = TRIB. BASELINE.
   12.639      1.54   1579.64       .00   1578.80   1579.69       .05      6.29       .03   1579.80
    131.9      96.9      35.0        .0      53.2      17.8        .0     116.1      54.5 100000.00
     1.96      1.82      1.97       .00      .049      .045      .000      .000   1578.10  10504.20
  .004593      700.      700.      620.         6         0         0       .00     96.47  10620.00


*SECNO 12.761

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .37


3470 ENCROACHMENT STATIONS=    10903.3   10929.6  TYPE=      1  TARGET=       26.300
       STATION 10940 = TRIB. BASELINE.
   12.761      2.15   1585.75   1585.73   1585.70   1586.21       .46      6.40       .12   1585.60
    131.9      80.7      51.2        .0      15.0       9.3        .0     116.9      55.4 100000.00
     1.99      5.37      5.49       .00      .049      .045      .000      .000   1583.60  10903.30
  .033091      625.      720.      650.         9        14         0       .00     26.30  10929.60


*SECNO 12.904
3280 CROSS SECTION     12.90 EXTENDED       .04 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.54


3470 ENCROACHMENT STATIONS=    11277.3   11345.0  TYPE=      1  TARGET=       67.700
       STATION 11295 = TRIB. BASELINE.
   12.904      2.54   1594.24       .00   1593.34   1594.32       .08      8.07       .04   1593.50
    131.9      35.1      38.4      58.4      18.4      14.0      29.8     117.6      56.2   1593.40
     2.09      1.91      2.75      1.95      .049      .045      .049      .000   1591.70  11277.30
  .005134      770.      770.      740.        10         0         0       .00     67.70  11345.00
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 13.023
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11630.9   11697.7  TYPE=      1  TARGET=       66.800
       STATION 11695 = TRIB. BASELINE.
   13.023      1.30   1600.10   1600.10   1599.62   1600.31       .21      5.66       .04   1599.60
    105.6      63.9      41.7        .0      22.6       9.0        .0     118.3      57.2 100000.00
     2.14      2.82      4.65       .00      .049      .045      .000      .000   1598.80  11630.90
  .027858      600.      625.      625.         8         8         0       .00     66.80  11697.70


*SECNO 13.170
3280 CROSS SECTION     13.17 EXTENDED       .92 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.93


3470 ENCROACHMENT STATIONS=    11690.0   11739.7  TYPE=      1  TARGET=       49.700
       STATION 11735 = TRIB. BASELINE.
   13.170      1.92   1610.02       .00   1609.00   1610.13       .11      9.82       .01   1609.10
    105.6      50.5      55.1        .0      24.6      17.3        .0     118.9      58.1 100000.00
     2.22      2.05      3.18       .00      .049      .045      .000      .000   1608.10  11690.00
  .007497      675.      850.      825.         9         0         0       .00     49.70  11739.70


*SECNO 13.277
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11606.0   11655.5  TYPE=      1  TARGET=       49.500
       STATION 11640 = TRIB. BASELINE.
   13.277      2.28   1617.38   1617.38   1616.86   1617.66       .28      7.10       .05   1617.30
    105.6      37.5      68.1        .0      12.8      14.3        .0     119.4      58.7 100000.00
     2.26      2.92      4.78       .00      .049      .045      .000      .000   1615.10  11606.00
  .023579      550.      600.      575.         8        17         0       .00     49.50  11655.50


*SECNO 13.408
3280 CROSS SECTION     13.41 EXTENDED       .17 FEET
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64


3470 ENCROACHMENT STATIONS=    11374.2   11389.1  TYPE=      1  TARGET=       14.899
       STATION 11375 = TRIB. BASELINE.
   13.408      2.96   1626.96       .00   1626.56   1627.23       .26      9.57       .00   1626.40
    105.6        .0     105.6        .0       .0      25.6        .0     119.8      59.3 100000.00
     2.31       .00      4.12       .00      .000      .045      .000      .000   1624.00  11374.20
  .008747      700.      710.      680.         7         0         0       .00     14.90  11389.10


*SECNO 13.536
3280 CROSS SECTION     13.54 EXTENDED       .11 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54


3470 ENCROACHMENT STATIONS=    11195.0   11213.0  TYPE=      1  TARGET=       18.000
       STATION 11205 = TRIB. BASELINE.
   13.536      2.01   1635.41       .00   1634.86   1635.76       .35      8.50       .03   1635.00
     79.3        .8     77.5        .9       .5      16.2        .6     120.1      59.5   1635.00
     2.35      1.57      4.80      1.48      .049      .045      .049      .000   1633.40  11195.00
  .017088      690.      750.      675.         6         0         0       .00     18.00  11213.00


*SECNO 13.616
3280 CROSS SECTION     13.62 EXTENDED       .06 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.59


3470 ENCROACHMENT STATIONS=    11215.5   11227.9  TYPE=      1  TARGET=       12.400
       STATION 11215 = TRIB. BASELINE.
       BASED ON FLOW DISTRIBUTION FOR THIS SECTION APPROX. 14.7 CFS SPLITS
       FROM TRIBUTARY AND JOINS MAIN WASH #1 DOWNSTREAM OF THIS SECTION.
   13.616      2.57   1640.97       .00   1640.12   1641.24       .27      5.47       .01   1638.80
     94.0        .0     94.0        .0       .0      22.5        .0     120.4      59.7 100000.00
     2.38       .00      4.18       .00      .000      .045      .000      .000   1638.40  11215.50
  .009510      440.      450.      400.         0         0         0       .00     12.40  11227.90
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


FLOW DISTRIBUTION FOR SECNO=     13.62          CWSEL=   1640.97

STA=   11216.   11228.
  PER Q=    100.0
   AREA=     22.5
    VEL=      4.2
  DEPTH=      1.8

*SECNO 13.743

3470 ENCROACHMENT STATIONS=    11112.3   11124.7  TYPE=      1  TARGET=       12.400
       STATION 11115 = TRIB. BASELINE.
    13.743      2.15   1648.65       .00   1648.13   1649.02       .36      7.75       .03   1647.40
      94.0        .0      94.0        .0        .0      19.4        .0     120.7      59.9 100000.00
      2.42       .00      4.84       .00      .000      .045      .000      .000   1646.50  11112.30
   .014855      650.      660.      650.         5         0         0       .00     12.40  11124.70


*SECNO 13.875

3470 ENCROACHMENT STATIONS=    11275.1   11296.5  TYPE=      1  TARGET=       21.400
       STATION 11245 = TRIB. BASELINE.
    13.875      2.24   1657.14       .00   1656.91   1657.34       .19      8.30       .02 100000.00
      94.0        .0      94.0        .0        .0      26.5        .0     121.1      60.2 100000.00
      2.48       .00      3.54       .00      .000      .045      .000      .000   1654.90  11275.10
   .009100      640.      725.      690.         5         0         0       .00     21.40  11296.50


*SECNO 14.000

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54


3470 ENCROACHMENT STATIONS=    11011.0   11022.7  TYPE=      1  TARGET=       11.700
       STATION 11025 = TRIB. BASELINE.
    14.000      1.85   1667.55   1667.51   1667.50   1668.15       .61     10.69       .12   1666.30
      94.0        .0      94.0        .0        .0      15.0        .0     121.4      60.4 100000.00
      2.51       .00      6.25       .00      .000      .045      .000      .000   1665.70  11011.00
   .030781      690.      700.      640.         7        15         0       .00     11.70  11022.70
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .300 CEHV=     .500
#SECNO 14.009

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.09


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1670.70 ELREA=     1670.70

        BEGIN SUN VALLEY PARKWAY CULVERT (1-10'X 3'X 134' RCB; STRUC.NO 3)
   14.009      1.72   1668.42       .00   1668.08   1668.80       .39       .58       .07   1670.00
    94.0        .0      94.0        .0        .0      18.9        .0     121.4      60.4   1670.00
    2.51       .00      4.98       .00      .000      .030      .000      .000   1666.70   9994.50
  .007070      45.       45.       45.         2         0         0       .00     11.00  10005.50



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
     1         .012      .20      3.00       .00      3.00      10.00     134.00    12        1         1667.70   1666.70

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

#SECNO 14.034

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1669.914  EGOC =   1669.936  PCWSE=   1668.416  ELTRD=   1672.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.02

SPECIAL CULVERT

     EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
   1669.91   1669.94     1.14       0.       94.     4.392      30.0   1672.00       0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1672.00 ELREA=     1672.00

        END CULVERT (STRUC. #3).  NO WEIR FLOW EXPECTED.
   14.034      1.94   1669.64       .00   1669.64   1669.94       .30      1.14       .00   1671.00
    94.0        .0      94.0        .0        .0      21.4        .0     121.5      60.5   1671.00
    2.52       .00      4.39       .00      .000      .012      .000      .000   1667.70   9994.50
  .000775     134.      134.      134.         2         0         0       .00     11.00  10005.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*SECNO 14.042
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

14.042	1.73	1670.73	1670.73	1670.73	1671.26	.54	.08	.12	1670.00
94.0	2.9	91.1	.0	1.1	15.3	.0	121.5	60.5	1671.00
2.52	2.71	5.95	.00	.030	.030	.000	.000	1669.00	9993.10
.012030	40.	40.	40.	20	11	0	.00	15.81	10008.90

THIS RUN EXECUTED 29AUG91 14:44:03

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO. 1 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.080	2731.00	1504.13	.00	6.60	.00	10133.40	10186.40	.00	.00	9830.39	10232.51
	.080	2731.00	1505.13	.00	6.91	.00	10133.40	10186.40	10086.67	10186.40	10086.67	10186.40
	.216	2731.00	1506.96	.00	5.81	750.00	9929.70	10000.00	.00	.00	9820.18	10246.19
	.216	2731.00	1507.85	.00	6.31	750.00	9929.70	10000.00	9929.70	10016.60	9929.70	10016.60
	.359	2157.00	1509.50	.00	4.27	850.00	9787.10	9908.50	.00	.00	9756.56	9934.55
	.359	2157.00	1510.21	.00	3.80	850.00	9787.10	9908.50	9787.10	9908.50	9787.10	9908.50
*	.503	2157.00	1513.09	1513.09	9.08	900.00	10026.10	10057.60	.00	.00	9959.65	10168.50
*	.503	2157.00	1513.33	1513.33	10.17	900.00	10026.10	10057.60	10000.00	10100.00	10000.00	10100.00
*	.636	2157.00	1517.53	.00	5.29	980.00	10118.30	10147.10	.00	.00	10034.39	10438.79
*	.636	2157.00	1518.22	.00	5.48	980.00	10118.30	10147.10	10110.00	10255.00	10110.00	10255.00
*	.778	2157.00	1520.02	.00	7.52	760.00	10000.10	10046.70	.00	.00	9935.92	10105.32
*	.778	2157.00	1520.48	.00	9.19	760.00	10000.10	10046.70	9994.30	10059.70	9994.30	10059.70
*	.964	2157.00	1524.36	.00	4.44	1050.00	9902.70	9958.00	.00	.00	9861.55	10124.28
*	.964	2157.00	1525.27	.00	4.57	1050.00	9902.70	9958.00	9897.70	10036.00	9897.70	10036.00
*	1.112	2157.00	1527.41	.00	7.02	800.00	10100.20	10130.70	.00	.00	9852.90	10148.60
*	1.112	2157.00	1527.98	.00	8.82	800.00	10100.20	10130.70	9989.80	10130.70	9989.80	10130.70
*	1.220	2157.00	1530.90	.00	3.81	650.00	9940.60	10024.10	.00	.00	9778.90	10093.50
*	1.220	2157.00	1531.88	.00	4.31	650.00	9940.60	10024.10	9876.90	10024.10	9876.90	10024.10
*	1.377	912.00	1533.56	.00	2.76	810.00	10046.70	10135.60	.00	.00	9905.93	10267.83
*	1.377	912.00	1534.33	.00	3.30	810.00	10046.70	10135.60	10046.70	10135.60	10046.70	10135.60
	1.490	912.00	1535.26	.00	2.39	630.00	10047.00	10149.50	.00	.00	9907.67	10261.00
	1.490	912.00	1536.09	.00	2.96	630.00	10047.00	10149.50	10038.40	10149.50	10038.40	10149.50

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	1.636	912.00	1537.88	.00	2.72	770.00	9919.00	10087.10	.00	.00	9822.91	10188.24
	1.636	912.00	1538.35	.00	2.71	770.00	9919.00	10087.10	9919.00	10087.10	9919.00	10087.10
	1.778	912.00	1540.76	.00	2.70	750.00	9946.80	10045.50	.00	.00	9850.90	10244.92
	1.778	912.00	1541.19	.00	3.65	750.00	9946.80	10045.50	9946.80	10045.50	9946.80	10045.50
*	1.893	912.00	1543.52	.00	2.56	600.00	9842.00	10059.00	.00	.00	9778.76	10143.74
	1.893	912.00	1544.12	.00	2.74	600.00	9842.00	10059.00	9842.00	10059.00	9842.00	10059.00
*	2.004	349.00	1547.79	1547.55	2.42	560.00	9973.60	10000.00	.00	.00	9812.02	10189.71
*	2.004	349.00	1547.86	1547.80	4.78	560.00	9973.60	10000.00	9934.30	10058.60	9934.30	10058.60
*	2.126	349.00	1553.89	1553.89	5.23	640.00	9984.80	10034.00	.00	.00	9902.06	10110.50
*	2.126	349.00	1554.90	.00	3.26	640.00	9984.80	10034.00	9960.00	10034.00	9960.00	10034.00
*	2.244	349.00	1560.17	.00	1.90	650.00	9922.10	9947.50	.00	.00	9434.21	10549.19
	2.244	349.00	1560.63	.00	4.32	650.00	9922.10	9947.50	9863.20	9974.00	9863.20	9974.00
*	2.379	349.00	1566.38	1566.38	4.76	720.00	9991.60	10014.90	.00	.00	9426.07	10108.87
*	2.379	349.00	1567.20	1566.87	3.40	720.00	9991.60	10014.90	9958.84	10108.80	9958.84	10108.80
*	2.501	179.40	1572.73	.00	1.33	660.00	9905.70	9971.00	.00	.00	9353.75	10103.17
*	2.501	179.40	1573.04	.00	3.56	660.00	9905.70	9971.00	9898.70	9971.00	9898.70	9969.22
*	2.630	179.40	1578.69	1578.69	2.53	680.00	10000.00	10059.40	.00	.00	9348.56	10055.20
*	2.630	179.40	1579.61	.00	2.65	680.00	10000.00	10059.40	10000.00	10059.40	10000.00	10059.40
*	2.758	179.40	1586.26	.00	1.36	700.00	10015.90	10043.20	9364.50	10245.60	9372.38	10195.55
*	2.758	179.40	1587.01	1587.01	4.41	700.00	10015.90	10043.20	9888.69	10043.20	9888.69	10043.20
*	2.892	179.40	1593.09	.00	2.26	700.00	9989.00	10054.40	.00	.00	9760.84	10311.83
*	2.892	179.40	1593.98	.00	2.54	700.00	9989.00	10054.40	9989.00	10054.40	9989.00	10054.40
*	3.017	140.70	1599.73	.00	1.71	680.00	10017.70	10071.50	.00	.00	9684.52	10322.49
*	3.017	140.70	1599.87	.00	3.69	680.00	10017.70	10071.50	10017.70	10071.50	10018.38	10071.50
*	3.151	140.70	1608.31	1608.31	2.97	720.00	9951.00	9991.60	.00	.00	9737.33	10612.85
*	3.151	140.70	1608.90	.00	3.18	720.00	9951.00	9991.60	9951.00	9991.60	9951.00	9991.60
*	3.281	140.70	1615.79	.00	2.28	680.00	10014.90	10070.60	.00	.00	10014.91	10771.01
	3.281	140.70	1616.42	.00	4.33	680.00	10014.90	10070.60	10014.90	10120.00	10014.90	10102.20
*	3.408	140.70	1624.75	1624.75	1.97	680.00	9924.00	9987.90	.00	.00	9929.33	10745.42
	3.408	140.70	1625.73	.00	2.93	680.00	9924.00	9987.90	9924.00	10035.00	9924.33	10035.00
*	3.547	102.00	1633.97	.00	1.38	750.00	9953.70	10000.00	.00	.00	9947.16	10845.93
	3.547	102.00	1634.87	.00	2.38	750.00	9953.70	10000.00	9947.10	10075.00	9947.10	10075.00
*	3.631	102.00	1640.32	1640.32	2.96	450.00	10000.00	10044.10	.00	.00	9966.91	10629.13
	3.631	102.00	1640.74	.00	2.77	450.00	10000.00	10044.10	9967.00	10043.40	9967.00	10043.40

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	3.761	102.00	1649.20	.00	2.70	680.00	9984.10	10020.70	.00	.00	9999.31	10426.57
	3.761	102.00	1650.04	.00	3.40	680.00	9984.10	10020.70	9984.10	10100.00	9984.10	10080.60
*	3.887	102.00	1657.74	1657.73	4.37	690.00	10012.80	10035.00	.00	.00	9966.45	10033.87
	3.887	102.00	1657.91	.00	3.38	690.00	10012.80	10035.00	9967.00	10033.90	9967.00	10033.90
*	4.055	102.00	1667.71	.00	3.50	940.00	10000.00	10021.20	.00	.00	9986.37	10028.67
	4.055	102.00	1667.56	.00	3.75	940.00	10000.00	10021.20	9987.00	10021.20	9989.14	10021.20
*	4.066	102.00	1669.00	1669.00	5.92	60.00	9992.00	10008.00	.00	.00	9992.00	10008.00
*	4.066	102.00	1669.00	1669.00	5.92	60.00	9992.00	10008.00	.00	.00	9992.00	10008.00
*	4.094	102.00	1671.52	.00	2.62	146.00	9992.00	10008.00	.00	.00	9992.00	10008.00
*	4.094	102.00	1671.52	.00	2.62	146.00	9992.00	10008.00	.00	.00	9992.00	10008.00
*	4.101	102.00	1671.58	.00	2.32	40.00	9990.00	10010.00	.00	.00	9974.17	10020.29
*	4.101	102.00	1671.58	.00	2.29	40.00	9990.00	10010.00	.00	.00	9974.17	10020.29
*	-2.379	349.00	1566.38	1566.36	4.76	720.00	9991.60	10014.90	.00	.00	9426.08	10108.87
	-2.379	349.00	1567.20	.00	3.42	720.00	9991.60	10014.90	9958.84	10108.80	9958.84	10108.80
	12.510	131.90	1573.13	.00	1.69	700.00	10178.60	10199.40	.00	.00	10148.43	10285.11
*	12.510	131.90	1573.04	1573.04	5.00	700.00	10178.60	10199.40	10178.60	10217.20	10178.60	10217.20
*	12.639	131.90	1578.80	1578.80	2.84	700.00	10598.30	10636.30	.00	.00	10327.09	10625.67
*	12.639	131.90	1579.64	.00	1.97	700.00	10598.30	10636.30	10504.20	10620.00	10504.20	10620.00
*	12.761	131.90	1585.70	.00	2.00	720.00	10919.60	10929.60	.00	.00	10440.31	10968.19
*	12.761	131.90	1585.75	1585.73	5.49	720.00	10919.60	10929.60	10903.30	10929.60	10903.30	10929.60
*	12.904	131.90	1593.34	1593.34	2.89	770.00	11299.00	11310.00	.00	.00	10897.40	11345.05
*	12.904	131.90	1594.24	.00	2.75	770.00	11299.00	11310.00	11277.30	11345.00	11277.30	11345.00
*	13.023	105.60	1599.62	.00	1.50	625.00	11686.40	11697.70	.00	.00	11215.31	11695.85
*	13.023	105.60	1600.10	1600.10	4.65	625.00	11686.40	11697.70	11630.90	11697.70	11630.90	11697.70
*	13.170	105.60	1609.00	1609.00	2.72	850.00	11725.90	11739.70	.00	.00	11296.52	11738.56
*	13.170	105.60	1610.02	.00	3.18	850.00	11725.90	11739.70	11690.00	11739.70	11690.00	11739.70
*	13.277	105.60	1616.86	.00	1.90	600.00	11640.70	11655.50	.00	.00	11168.29	11667.39
*	13.277	105.60	1617.38	1617.38	4.78	600.00	11640.70	11655.50	11606.00	11655.50	11606.00	11655.50
*	13.408	105.60	1626.56	1626.56	4.04	710.00	11374.20	11389.10	.00	.00	10934.96	11497.38
*	13.408	105.60	1626.96	.00	4.12	710.00	11374.20	11389.10	11374.20	11389.10	11374.20	11389.10
	13.536	79.30	1634.86	.00	2.84	750.00	11197.00	11210.40	.00	.00	11004.72	11331.00
*	13.536	79.30	1635.41	.00	4.80	750.00	11197.00	11210.40	11195.00	11213.00	11195.00	11213.00
	13.616	94.00	1640.12	.00	4.01	450.00	11215.50	11227.90	11016.60	11329.00	11115.97	11263.56
*	13.616	94.00	1640.97	.00	4.18	450.00	11215.50	11227.90	11215.50	11227.90	11215.50	11227.90

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	13.743	94.00	1648.13	.00	3.68	660.00	11112.30	11124.70	.00	.00	11002.49	11200.86
	13.743	94.00	1648.65	.00	4.84	660.00	11112.30	11124.70	11112.30	11124.70	11112.30	11124.70
	13.875	94.00	1656.91	.00	3.73	725.00	11274.10	11296.50	.00	.00	11120.05	11296.50
	13.875	94.00	1657.14	.00	3.54	725.00	11274.10	11296.50	11275.10	11296.50	11275.10	11296.50
	14.000	94.00	1667.50	1667.47	5.09	700.00	11011.00	11022.70	.00	.00	11004.53	11037.71
*	14.000	94.00	1667.55	1667.51	6.25	700.00	11011.00	11022.70	11011.00	11022.70	11011.00	11022.70
	14.009	94.00	1668.08	.00	6.20	45.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	14.009	94.00	1668.42	.00	4.98	45.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	14.034	94.00	1669.64	.00	4.38	134.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	14.034	94.00	1669.64	.00	4.39	134.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	14.042	94.00	1670.73	1670.73	5.95	40.00	9996.00	10010.00	.00	.00	9993.10	10008.90
*	14.042	94.00	1670.73	1670.73	5.95	40.00	9996.00	10010.00	.00	.00	9993.10	10008.90

WASH NO. 1 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.080	634.40	1804.81	291.79	2.32	6.60	3.23	1507.90	1504.13	.00	339.98	1496.80	1.70
	.080	474.96	2256.04	.00	3.49	6.91	.00	1512.80	1505.13	.00	99.73	1496.80	1.19
	.216	260.89	2027.11	443.00	1.99	5.81	1.81	1511.80	1506.96	2.83	424.01	1499.10	1.83
	.216	.00	2592.58	138.42	.00	6.31	2.90	1511.80	1507.85	2.72	86.90	1499.10	1.08
	.359	62.86	2061.81	32.33	1.61	4.27	1.39	1517.90	1509.50	2.53	177.99	1501.80	1.12
	.359	.00	2157.00	.00	.00	3.80	.00	1517.90	1510.21	2.36	121.40	1501.80	1.00
*	.503	569.78	1282.98	304.24	4.52	9.08	2.98	1518.80	1513.09	3.59	208.85	1505.30	1.63
*	.503	378.06	1513.00	265.94	5.67	10.17	4.04	1518.80	1513.33	3.12	100.00	1505.30	1.36
*	.636	307.64	950.40	898.96	2.14	5.29	2.23	1520.70	1517.53	4.44	364.57	1508.40	1.71
*	.636	85.35	1093.17	978.47	2.78	5.48	2.75	1520.70	1518.22	4.89	145.00	1508.40	1.40
*	.778	310.61	1445.54	400.84	3.25	7.52	3.87	1528.40	1520.02	2.49	169.40	1511.90	1.39
*	.778	56.14	1960.32	140.54	3.91	9.19	4.46	1528.40	1520.48	2.26	65.40	1511.90	1.13
*	.964	199.80	1096.31	860.88	2.29	4.44	2.38	1531.20	1524.36	4.33	262.73	1516.40	1.33
*	.964	35.92	1360.46	760.62	1.96	4.57	2.72	1531.20	1525.27	4.79	138.30	1516.40	1.21
*	1.112	1453.10	680.00	43.90	3.76	7.02	2.68	1529.60	1527.41	3.06	295.69	1522.40	1.32
*	1.112	1149.19	1007.81	.00	5.01	8.82	.00	1529.60	1527.98	2.72	140.90	1522.40	1.26
*	1.220	1126.32	807.11	225.57	3.03	3.81	2.20	1531.70	1530.90	3.48	314.60	1526.90	1.08
*	1.220	887.14	1269.86	.00	3.55	4.31	.00	1531.70	1531.88	3.90	147.20	1526.90	1.03
*	1.377	181.94	573.98	156.08	1.55	2.36	1.50	1534.90	1533.56	2.66	361.90	1529.20	1.26
*	1.377	.00	912.00	.00	.00	3.30	.00	1534.90	1534.33	2.45	88.90	1529.20	1.00
	1.490	270.04	486.62	155.34	1.84	2.39	1.51	1536.60	1535.26	1.69	353.33	1532.90	1.10
	1.490	53.43	858.57	.00	2.39	2.96	.00	1536.90	1536.09	1.76	111.10	1532.90	1.01
	1.636	82.54	698.72	130.74	1.57	2.72	1.73	1541.60	1537.88	2.62	365.33	1534.90	1.13
	1.636	.00	912.00	.00	.00	2.71	.00	1541.80	1538.35	2.26	168.10	1534.90	1.00
	1.778	141.63	559.52	210.85	1.60	2.70	1.52	1543.60	1540.76	2.50	185.04	1536.50	1.23
	1.778	.00	912.00	.00	.00	3.65	.00	1543.60	1541.19	2.84	98.70	1536.50	1.00
*	1.893	142.98	525.55	243.48	2.63	2.56	2.78	1545.80	1543.57	2.77	364.98	1542.10	1.00
	1.893	.00	912.00	.00	.00	2.74	.00	1545.80	1544.12	2.93	217.00	1542.10	1.00
*	2.004	110.31	56.92	181.77	1.58	2.42	1.73	1548.30	1547.79	4.27	377.69	1546.40	1.07
*	2.004	110.49	121.16	117.35	3.81	4.78	3.31	1549.10	1547.86	3.74	124.30	1546.40	1.07
*	2.126	83.96	136.12	128.92	2.85	5.23	3.76	1554.80	1553.89	6.10	174.90	1552.30	1.18
*	2.126	120.26	228.74	.00	3.18	3.26	.00	1555.00	1554.90	7.04	74.00	1552.30	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	2.244	192.91	38.71	117.38	1.13	1.90	1.64	1560.20	1560.17	6.28	993.64	1557.90	1.12
	2.244	152.07	137.80	59.13	3.13	4.32	2.98	1560.30	1560.63	5.74	110.80	1557.90	1.09
*	2.379	239.64	81.96	27.40	2.36	4.76	2.12	1566.60	1566.38	6.21	489.71	1563.80	1.35
*	2.379	31.67	119.22	198.11	1.72	3.40	2.33	1566.60	1567.20	6.56	149.96	1563.80	1.15
*	2.501	113.12	34.52	31.76	.92	1.33	1.04	1573.10	1572.73	6.35	571.10	1571.00	1.06
*	2.501	25.05	154.35	.00	3.79	3.56	.00	1573.10	1573.04	5.84	70.52	1571.00	1.00
*	2.630	143.80	35.60	.00	3.76	2.53	.00	1579.70	1578.69	5.96	135.97	1577.70	1.07
*	2.630	.00	179.40	.00	.00	2.65	.00	1579.70	1579.61	6.58	59.40	1577.70	1.00
*	2.758	121.65	9.30	48.47	1.50	1.86	1.47	[illegible]	[illegible]	[illegible]	594.67	1585.10	1.01
*	2.758	74.99	104.41	.00	2.25	4.41	.00	1586.30	1587.01	7.40	145.92	1585.10	1.36
*	2.892	131.77	33.57	14.05	2.48	2.26	1.16	1593.50	1593.09	6.83	332.05	1591.90	1.11
*	2.892	.00	179.40	.00	.00	2.54	.00	1594.20	1593.98	6.97	65.40	1591.90	1.00
*	3.017	2.23	52.61	85.86	.45	1.71	1.80	1600.40	1599.73	6.64	202.17	1597.60	1.08
*	3.017	.00	140.70	.00	.00	3.69	.00	1600.60	1599.87	5.89	53.12	1597.60	1.00
*	3.151	22.69	60.14	57.87	1.41	2.57	1.28	1608.90	1608.31	8.58	526.69	1607.30	1.65
*	3.151	.00	140.70	.00	.00	3.18	.00	1609.70	1608.90	9.03	40.60	1607.30	1.00
*	3.281	.00	37.90	102.80	.00	2.28	1.51	1617.20	1616.47	7.49	439.07	1614.60	1.11
	3.281	.00	140.63	.07	.00	4.33	.26	1617.20	1616.42	7.52	41.19	1614.60	1.01
*	3.408	.00	5.43	135.27	.00	1.97	3.37	1625.50	1624.75	8.95	124.22	1623.20	1.03
	3.408	.00	137.60	3.09	.00	2.93	.83	1626.50	1625.73	9.31	95.10	1623.20	1.09
*	3.547	2.28	2.68	97.44	1.30	1.39	1.41	1634.60	1633.97	9.23	184.25	1633.10	1.00
	3.547	19.32	53.44	29.24	3.01	2.38	1.76	1634.60	1634.87	9.14	112.56	1633.10	1.11
*	3.631	1.91	30.05	70.04	1.57	2.35	1.73	1641.40	1640.32	6.35	322.72	1639.80	1.13
	3.631	27.12	74.88	.00	1.97	2.77	.00	1641.40	1640.74	5.87	76.40	1639.80	1.07
*	3.761	.00	25.70	76.30	.00	2.20	1.98	1649.90	1649.20	8.88	73.45	1647.90	1.01
	3.761	.00	94.36	7.64	.00	3.40	1.12	1652.90	1650.04	9.30	72.51	1647.90	1.24
*	3.887	13.52	88.48	.00	1.70	4.47	.00	1658.40	1657.74	9.34	54.72	1656.30	1.31
	3.887	23.16	78.84	.00	1.54	3.38	.00	1660.60	1657.91	7.87	66.90	1656.30	1.32
*	4.055	12.83	85.94	3.23	1.70	3.15	1.22	1671.60	1667.71	9.96	42.30	1665.90	1.18
	4.055	11.42	90.58	.00	2.02	3.75	.00	1671.60	1667.56	9.65	33.06	1665.90	1.11
*	4.066	.00	102.00	.00	.00	5.92	.00	1673.50	1669.00	1.29	16.00	1667.90	1.00
*	4.066	.00	102.00	.00	.00	5.92	.00	1673.50	1669.00	1.44	16.00	1667.90	1.00
*	4.094	.00	102.00	.00	.00	2.62	.00	1674.00	1671.52	2.52	16.00	1669.07	1.00
*	4.094	.00	102.00	.00	.00	2.62	.00	1674.00	1671.52	2.52	16.00	1669.07	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	4.101	17.99	72.37	11.64	1.43	2.29	1.43	1675.00	1671.58	.06	46.13	1670.00	1.13
*	-2.379	239.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1566.60	1566.38	-105.20	489.32	1563.80	1.35
	-2.379	31.56	119.42	198.02	1.73	3.42	2.33	1566.60	1567.20	-104.38	149.96	1563.80	1.15
	12.510	13.83	35.15	82.92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.75	136.67	1571.50	1.05
*	12.510	.00	95.73	36.17	.00	5.00	3.43	1574.00	1573.04	5.85	38.60	1571.50	1.08
*	12.639	118.22	13.68	.00	2.78	2.84	.00	1579.50	1578.80	5.67	209.93	1578.10	1.00
*	12.639	96.92	34.98	.00	1.82	1.97	.00	1580.00	1579.64	6.59	96.47	1578.10	1.00
*	12.761	[illegible]	47.48	8.90	1.17	2.00	.98	1586.30	[illegible]	[illegible]	[illegible]	1583.60	1.13
*	12.761	80.74	51.16	.00	5.37	5.49	.00	1586.30	1585.75	6.12	26.30	1583.60	1.00
*	12.904	114.34	12.01	5.54	2.66	2.89	2.13	1594.10	1593.34	7.65	268.40	1591.70	1.01
*	12.904	35.14	38.41	58.35	1.91	2.75	1.95	1594.20	1594.24	8.49	67.70	1591.70	1.08
*	13.023	100.53	5.07	.00	1.01	1.28	.00	1600.20	1599.62	6.28	396.85	1598.80	1.01
*	13.023	63.89	41.71	.00	2.82	4.65	.00	1600.20	1600.10	5.86	66.80	1598.80	1.20
*	13.170	96.32	9.28	.00	3.84	2.72	.00	[illegible]	[illegible]	9.35	65.41	1608.10	1.03
*	13.170	50.52	55.07	.00	2.05	3.18	.00	1609.10	1610.02	9.92	49.70	1608.10	1.15
*	13.277	91.48	13.36	.76	1.82	1.90	.60	1617.90	1616.86	7.86	[illegible]	1615.10	1.02
*	13.277	37.45	68.14	.00	2.92	4.78	.00	1617.90	1617.38	7.36	49.50	1615.10	1.17
*	13.408	15.81	78.59	11.20	1.22	4.04	1.29	1626.60	1626.56	9.69	128.27	1624.00	1.90
*	13.408	.00	105.60	.00	.00	4.12	.00	1626.80	1626.96	9.58	14.90	1624.00	1.00
	13.536	43.31	25.57	10.42	1.71	2.84	1.78	1634.90	1634.86	8.31	116.13	1633.40	1.19
*	13.536	.84	77.55	.91	1.57	4.80	1.48	1635.30	1635.41	8.44	18.00	1633.40	1.08
	13.616	42.16	50.37	1.47	2.59	4.01	.79	1640.90	1640.12	5.26	56.90	1638.40	1.24
*	13.616	.00	94.00	.00	.00	4.18	.00	1640.90	1640.97	5.56	12.40	1638.40	1.00
	13.743	6.83	47.96	39.21	1.44	3.68	2.29	1649.00	1648.13	8.01	68.22	1646.50	1.27
	13.743	.00	94.00	.00	.00	4.84	.00	1649.00	1648.65	7.68	12.40	1646.50	1.00
	13.875	15.06	78.94	.00	1.88	3.73	.00	1659.30	1656.91	8.77	41.25	1654.90	1.18
	13.875	.00	94.00	.00	.00	3.54	.00	1661.20	1657.14	8.49	21.40	1654.90	1.00
	14.000	11.19	73.68	9.13	2.89	5.09	1.93	1670.40	1667.50	10.59	33.18	1665.70	1.31
*	14.000	.00	94.00	.00	.00	6.25	.00	1670.40	1667.55	10.40	11.70	1665.70	1.00
	14.009	.00	94.00	.00	.00	6.20	.00	1670.50	1668.08	.58	11.00	1666.70	1.00
*	14.009	.00	94.00	.00	.00	4.98	.00	1670.50	1668.42	.87	11.00	1666.70	1.00
*	14.034	.00	94.00	.00	.00	4.38	.00	1672.00	1669.64	1.56	11.00	1667.70	1.00
*	14.034	.00	94.00	.00	.00	4.39	.00	1672.00	1669.64	1.22	11.00	1667.70	1.00

	SECND	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	14.042	2.85	91.15	.00	2.71	5.95	.00	1672.00	1670.73	1.08	15.80	1669.00	1.05
*	14.042	2.85	91.14	.00	2.71	5.95	.00	1672.00	1670.73	1.09	15.81	1669.00	1.05

WASH NO. 1 100-YEAR PRO

SUMMARY PRINTOUT

	SECND	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.080	.00	.00	1504.61	.48	.00	.00	40.73	.00	7.33	54.00	42.00	54.00
	.080	.00	.00	1505.78	.65	.00	.00	38.42	.00	8.33	54.00	42.00	.00
	.216	750.00	3.07	1507.37	.40	2.75	.01	33.21	11.69	7.86	54.00	42.00	54.00
	.216	750.00	3.07	1508.44	.59	2.66	.01	33.13	7.88	8.75	.00	42.00	54.00
	.359	850.00	3.18	1509.77	.27	2.39	.01	23.61	23.84	7.70	54.00	42.00	54.00
	.359	850.00	3.18	1510.43	.22	1.96	.04	15.75	17.86	8.41	.00	42.00	.00
*	.503	900.00	3.89	1513.96	.87	3.77	.18	104.32	32.86	7.79	54.00	42.00	54.00
*	.503	900.00	3.89	1514.57	1.25	3.00	.31	122.19	26.44	8.03	54.00	42.00	54.00
*	.636	980.00	3.16	1517.76	.23	3.75	.06	21.91	45.98	9.15	54.00	42.00	54.00
*	.636	980.00	3.16	1518.51	.29	3.84	.10	20.51	35.54	9.82	54.00	42.00	54.00
*	.778	760.00	4.61	1520.68	.66	2.79	.13	75.78	53.60	8.12	54.00	42.00	54.00
*	.778	760.00	4.61	1521.70	1.22	2.91	.28	98.29	42.78	8.58	54.00	42.00	54.00
*	.964	1050.00	4.29	1524.56	.20	3.83	.05	22.48	66.08	7.96	54.00	42.00	54.00
*	.964	1050.00	4.29	1525.51	.25	3.72	.10	18.62	52.71	8.87	54.00	42.00	54.00
*	1.112	800.00	7.50	1527.80	.39	3.19	.06	92.67	76.88	5.01	54.00	42.00	54.00
*	1.112	800.00	7.50	1528.76	.77	3.09	.16	126.49	61.27	5.58	54.00	42.00	.00
*	1.220	650.00	6.92	1531.06	.17	3.24	.02	33.68	85.18	4.00	54.00	42.00	54.00
*	1.220	650.00	6.92	1532.14	.25	3.33	.05	29.05	67.62	4.98	54.00	42.00	.00
*	1.377	810.00	2.84	1533.65	.09	2.58	.01	28.01	95.56	4.36	50.00	50.00	50.00
*	1.377	810.00	2.84	1534.50	.17	2.36	.01	29.27	75.25	5.13	.00	50.00	.00
	1.490	630.00	5.87	1535.32	.07	1.67	.00	25.84	101.86	2.36	50.00	50.00	50.00
	1.490	630.00	5.87	1536.23	.13	1.72	.00	25.60	79.49	3.19	50.00	50.00	.00
	1.636	770.00	2.60	1537.98	.10	2.64	.01	47.85	109.27	2.98	50.00	50.00	50.00
	1.636	770.00	2.60	1538.47	.11	2.24	.00	33.34	85.23	3.45	.00	50.00	.00
	1.778	750.00	2.13	1540.84	.08	2.86	.00	31.10	116.31	4.26	50.00	50.00	50.00
	1.778	750.00	2.13	1541.40	.21	2.90	.03	45.49	90.29	4.57	.00	50.00	.00
*	1.893	600.00	9.33	1543.63	.11	2.73	.01	80.05	121.38	1.42	50.00	50.00	50.00
	1.893	600.00	9.33	1544.23	.12	2.83	.01	48.80	94.30	2.02	.00	50.00	.00
*	2.004	560.00	7.68	1547.84	.05	4.20	.01	63.40	125.11	1.39	49.00	45.00	49.00
*	2.004	560.00	7.68	1548.11	.25	3.84	.04	223.71	97.03	1.46	49.00	45.00	49.00
*	2.126	640.00	9.22	1554.17	.28	7.53	.07	288.46	127.23	1.59	49.00	45.00	49.00
*	2.126	640.00	9.22	1555.06	.16	6.94	.01	64.26	98.48	2.60	49.00	45.00	.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	2.244	650.00	8.62	1560.19	.02	6.00	.03	44.90	130.17	2.27	49.00	45.00	49.00
	2.244	650.00	8.62	1560.84	.20	5.77	.01	130.37	100.04	2.73	49.00	45.00	49.00
*	2.379	720.00	8.19	1566.52	.15	6.29	.04	238.90	133.77	2.58	49.00	45.00	49.00
*	2.379	720.00	8.19	1567.31	.11	6.46	.01	65.54	102.01	3.40	49.00	45.00	49.00
*	2.501	660.00	10.91	1572.75	.02	6.21	.01	31.65	136.13	1.73	49.00	45.00	49.00
*	2.501	660.00	10.91	1573.24	.20	5.90	.03	197.06	103.44	2.04	49.00	45.00	.00
*	2.630	680.00	9.85	1578.89	.20	4.95	.05	312.38	137.94	.99	49.00	45.00	.00
*	2.630	680.00	9.85	1579.72	.11	6.48	.01	55.92	104.36	1.91	.00	45.00	.00
*	2.758	700.00	10.57	1586.30	.03	7.39	.02	55.80	139.29	1.16	49.00	45.00	49.00
*	2.758	700.00	10.57	1587.22	.21	6.83	.03	219.05	105.34	1.91	49.00	45.00	.00
*	2.892	700.00	9.71	1593.18	.09	4.86	.02	215.48	140.93	1.19	49.00	45.00	49.00
*	2.892	700.00	9.71	1594.08	.10	6.85	.01	55.17	106.37	2.08	.00	45.00	.00
*	3.017	680.00	8.38	1599.78	.05	6.60	.00	49.76	142.18	2.13	49.00	45.00	49.00
*	3.017	680.00	8.38	1600.08	.21	5.97	.03	197.16	107.22	2.27	.00	45.00	.00
*	3.151	720.00	13.47	1608.38	.07	6.23	.01	194.88	143.53	1.01	49.00	45.00	49.00
*	3.151	720.00	13.47	1609.06	.16	8.97	.01	85.78	107.90	1.60	.00	45.00	.00
*	3.281	680.00	10.74	1615.84	.05	7.46	.00	74.98	144.78	1.19	.00	45.00	49.00
	3.281	680.00	10.74	1616.71	.29	7.62	.04	152.45	108.50	1.82	.00	45.00	49.00
*	3.408	680.00	12.65	1624.92	.17	8.69	.04	265.22	145.78	1.55	.00	45.00	49.00
	3.408	680.00	12.65	1625.86	.13	9.13	.02	119.26	109.15	2.53	.00	45.00	49.00
*	3.547	750.00	13.20	1634.00	.03	9.07	.01	61.56	146.74	.87	49.00	45.00	49.00
	3.547	750.00	13.20	1634.96	.09	9.09	.00	126.28	109.98	1.77	49.00	45.00	49.00
*	3.631	450.00	14.89	1640.40	.08	6.01	.02	448.20	147.37	.52	49.00	45.00	49.00
	3.631	450.00	14.89	1640.84	.10	5.88	.01	134.29	110.42	.94	49.00	45.00	.00
*	3.761	680.00	11.91	1649.27	.06	8.86	.00	61.09	148.13	1.30	.00	45.00	49.00
	3.761	680.00	11.91	1650.21	.17	9.34	.02	140.67	111.01	2.14	.00	45.00	49.00
*	3.887	690.00	12.17	1658.02	.28	6.38	.06	193.40	148.71	1.44	49.00	45.00	.00
	3.887	690.00	12.17	1658.05	.15	7.84	.00	94.30	111.58	1.61	49.00	45.00	.00
*	4.055	940.00	10.21	1667.84	.14	9.81	.01	65.17	149.41	1.81	49.00	45.00	49.00
	4.055	940.00	10.21	1667.76	.20	9.69	.02	113.17	112.32	1.66	49.00	45.00	.00
*	4.066	60.00	33.33	1669.54	.54	.54	.20	129.66	149.45	1.10	.00	30.00	.00
*	4.066	60.00	33.33	1669.54	.54	.73	.17	129.66	112.35	1.10	.00	30.00	.00
*	4.094	146.00	8.01	1671.62	.11	2.08	.00	1.37	149.54	2.45	.00	12.00	.00
*	4.094	146.00	8.01	1671.62	.11	2.08	.00	1.37	112.45	2.45	.00	12.00	.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	4.101	40.00	23.25	1671.65	.07	.01	.01	11.53	149.59	1.58	30.00	30.00	30.00
*	4.101	40.00	23.25	1671.65	.07	.01	.01	11.53	112.49	1.58	30.00	30.00	30.00
*	-2.379	720.00	.00	1566.52	.15	5.30	-5.30	239.59	151.11	2.58	49.00	45.00	49.00
	-2.379	720.00	.00	1567.31	.11	.00	.00	66.23	114.06	3.40	49.00	45.00	49.00
	12.510	700.00	11.00	1573.16	.03	6.62	.01	26.33	152.84	1.63	49.00	45.00	49.00
*	12.510	700.00	11.00	1573.38	.33	6.01	.07	261.87	115.35	1.54	.00	45.00	49.00
*	12.639	700.00	9.43	1578.92	.12	4.63	.03	459.66	153.93	.70	49.00	45.00	.00
*	12.639	700.00	9.43	1579.69	.05	6.29	.03	45.93	116.15	1.54	49.00	45.00	.00
*	12.761	720.00	7.64	1585.72	.03	6.80	.01	46.27	155.06	2.10	49.00	45.00	49.00
*	12.761	720.00	7.64	1586.21	.46	6.40	.12	330.91	116.86	2.15	49.00	45.00	.00
*	12.904	770.00	10.52	1593.45	.11	6.93	.03	247.75	156.46	1.64	49.00	45.00	49.00
*	12.904	770.00	10.52	1594.32	.08	8.07	.04	51.34	117.61	2.54	49.00	45.00	49.00
*	13.023	625.00	11.36	1599.63	.02	6.17	.01	49.04	157.52	.82	49.00	45.00	.00
*	13.023	625.00	11.36	1600.31	.21	5.66	.04	278.58	118.28	1.30	49.00	45.00	.00
*	13.170	850.00	10.94	1609.22	.22	7.08	.06	339.67	158.55	.90	49.00	45.00	.00
*	13.170	850.00	10.94	1610.13	.11	9.82	.01	74.97	118.90	1.92	49.00	45.00	.00
*	13.277	600.00	11.67	1616.92	.05	7.68	.02	74.52	159.11	1.76	49.00	45.00	49.00
*	13.277	600.00	11.67	1617.66	.28	7.10	.05	235.79	119.35	2.28	49.00	45.00	.00
*	13.408	710.00	12.54	1626.75	.19	6.34	.04	111.28	159.91	2.56	49.00	45.00	49.00
*	13.408	710.00	12.54	1627.23	.26	9.57	.00	87.47	119.78	2.96	.00	45.00	.00
	13.536	750.00	12.53	1634.94	.07	8.17	.01	116.48	160.57	1.46	49.00	45.00	49.00
*	13.536	750.00	12.53	1635.76	.35	8.50	.03	170.88	120.15	2.01	49.00	45.00	49.00
	13.616	450.00	11.11	1640.30	.18	5.33	.03	124.74	160.93	1.72	49.00	45.00	49.00
*	13.616	450.00	11.11	1641.24	.27	5.47	.01	95.10	120.36	2.57	.00	45.00	.00
	13.743	660.00	12.27	1648.28	.14	7.97	.00	118.72	161.42	1.63	49.00	45.00	49.00
	13.743	660.00	12.27	1649.02	.36	7.75	.03	148.55	120.67	2.15	.00	45.00	.00
	13.875	725.00	11.59	1657.10	.19	8.81	.01	130.52	161.94	2.01	49.00	45.00	.00
	13.875	725.00	11.59	1657.34	.19	8.30	.02	91.00	121.06	2.24	.00	45.00	.00
	14.000	700.00	15.43	1667.83	.34	10.69	.04	183.61	162.35	1.80	49.00	45.00	49.00
*	14.000	700.00	15.43	1668.15	.61	10.69	.12	307.81	121.39	1.85	.00	45.00	.00
	14.009	45.00	22.22	1668.68	.60	.71	.13	137.66	162.37	1.38	.00	30.00	.00
*	14.009	45.00	22.22	1668.80	.39	.58	.07	70.70	121.41	1.72	.00	30.00	.00
*	14.034	134.00	7.46	1669.94	.30	1.26	.00	7.69	162.43	1.94	.00	12.00	.00
*	14.034	134.00	7.46	1669.94	.30	1.14	.00	7.75	121.47	1.94	.00	12.00	.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	14.042	40.00	32.50	1671.26	.54	.08	.12	120.35	162.45	1.73	30.00	30.00	.00
*	14.042	40.00	32.50	1671.26	.54	.08	.12	120.30	121.49	1.73	30.00	30.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION SECNO=      .503  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .503  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .503  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .503  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .503  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=      .636  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .636  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .778  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .778  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .964  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .964  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.112  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.112  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.220  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.220  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.377  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.377  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.893  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.004  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.004  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.126  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.126  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=     2.126  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.244  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.379  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.379  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.501  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.501  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.630  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.630  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     2.630  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.758  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     2.758  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.758  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.892  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

```
WARNING SECNO=      2.892  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```



```
WARNING SECNO=      3.017  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      3.017  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      3.151  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      3.151  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=      3.151  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.281  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      3.408  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      3.408  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      3.547  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      3.631  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      3.631  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      3.761  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      3.887  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      3.887  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      4.055  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      4.066  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.066  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.066  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=      4.066  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.066  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.066  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=      4.094  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=      4.094  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      4.094  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=      4.094  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.101  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.101  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     -2.379  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     12.510  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     12.510  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     12.639  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     12.639  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     12.639  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     12.761  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     12.761  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     12.904  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     12.904  PROFILE=  1  MINIMUM SPECIFIC ENERGY
```

```
WARNING SECNO=    12.904  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    13.023  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    13.023  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    13.023  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    13.170  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    13.170  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    13.170  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    13.277  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    13.277  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    13.277  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    13.408  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    13.408  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    13.408  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    13.536  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    13.616  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    14.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    14.009  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    14.034  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    14.034  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    14.042  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    14.042  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    14.042  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    14.042  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    14.042  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    14.042  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO. 1 100-YEAR PRO
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.080	100.	462.	5.9	1505.1	1504.1	1.0
.216	87.	459.	6.0	1507.9	1507.0	.9
.359	121.	568.	3.8	1510.2	1509.5	.7
.503	100.	281.	7.7	1513.3	1513.1	.2
.636	145.	586.	3.7	1518.2	1517.5	.7
.778	65.	259.	8.3	1520.5	1520.0	.5
.964	138.	596.	3.6	1525.3	1524.4	.9
1.112	141.	344.	6.3	1528.0	1527.4	.6
1.220	147.	544.	4.0	1531.9	1530.9	1.0
1.377	89.	276.	3.3	1534.4	1533.6	.8
1.490	111.	312.	2.9	1536.1	1535.3	.8
1.636	168.	337.	2.7	1538.4	1537.9	.5
1.778	99.	250.	3.7	1541.2	1540.8	.4
1.893	217.	333.	2.7	1544.1	1543.5	.6
2.004	124.	90.	3.9	1547.9	1547.8	.1
2.126	74.	108.	3.2	1554.9	1553.9	1.0
2.244	111.	100.	3.5	1560.7	1560.2	.5
2.379	150.	139.	2.5	1567.2	1566.4	.8
2.501	71.	50.	3.6	1573.0	1572.7	.3
2.630	59.	68.	2.7	1579.6	1578.7	.9
2.758	155.	57.	3.1	1587.0	1586.3	.7
2.892	65.	71.	2.5	1594.0	1593.1	.9
3.017	53.	38.	3.7	1599.8	1599.7	.1
3.151	41.	44.	3.2	1608.9	1608.3	.6
3.281	87.	33.	4.3	1616.4	1615.8	.6
3.408	111.	51.	2.8	1625.7	1624.7	1.0
3.547	128.	46.	2.2	1634.9	1634.0	.9
3.631	76.	41.	2.5	1640.7	1640.3	.4
3.761	96.	35.	2.9	1650.0	1649.2	.8
3.887	67.	38.	2.7	1657.9	1657.7	.2
4.055	33.	30.	3.4	1667.6	1667.7	-.1
4.066	16.	17.	5.9	1669.0	1669.0	.0
4.094	16.	39.	2.6	1671.5	1671.5	.0
4.101	46.	52.	1.9	1671.6	1671.6	.0
-2.379	150.	138.	2.5	1567.2	1566.4	.8
12.510	39.	30.	4.4	1573.0	1573.1	-.1
12.639	116.	71.	1.9	1579.6	1578.8	.8
12.761	26.	24.	5.4	1585.8	1585.7	.1
12.904	68.	62.	2.1	1594.2	1593.3	.9
13.023	67.	32.	3.3	1600.1	1599.6	.5
13.170	50.	42.	2.5	1610.0	1609.0	1.0
13.277	49.	27.	3.9	1617.4	1616.9	.5

FLOODWAY DATA, WASH NO. 1 100-YEAR PRO
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
13.408	15.	26.	4.1	1627.0	1626.6	.4
13.536	18.	17.	4.6	1635.4	1634.9	.5
13.616	12.	23.	4.2	1640.9	1640.1	.8
13.743	12.	19.	4.8	1648.6	1648.1	.5
13.875	21.	27.	3.5	1657.1	1656.9	.2
14.000	12.	15.	6.2	1667.5	1667.5	.0
14.009	11.	19.	5.0	1668.4	1668.1	.3
14.034	11.	21.	4.4	1669.6	1669.6	.0
14.042	16.	16.	5.7	1670.7	1670.7	.0

THIS RUN EXECUTED 28AUG91 08:38:48

```
**********************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
**********************************


T1      SUN VALLEY PARKWAY NORTH FIS.   CONTRACT:FCDMC NO.90-04, FILE:WASH2-4
T2      100-YEAR WATER SURFACE PROFILE                A-N WEST INC.   PHX. AZ.
T3      WASH NO. 2   100- YEAR PROFILE                DATE:5\3\91;REV.8\14\91

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2                         .006                                1536.5

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     1                 -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1        2       26       39       21       22       27       28
    53       54        0       38       13       14       15       55       26       56
    63        1       51        4       42       57        0       38       39       33
     3       10       11       12        5        7        8       16       17       18
     0      200

NC    .049     .049     .045       .1       .3
QT       2     1293     1293
ET              7.1      9.1                                   9469.7   10030.4   9918.3   9995.61
        FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
        MODEL RESULTS USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH NO. 1 ALONG BASELINE.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
X1    .1070       95   9918.3   9954.9        0        0        0
GR  1536.9   9469.7   1535.9   9495.7   1535.6   9513.9   1535.9   9527.9   1535.5   9537.8
GR  1536.1   9549.1   1535.3   9554.4   1536.2   9561.3   1536.1   9569.8   1536.1   9582.8
GR  1536.3   9593.0   1536.1   9604.1   1536.2   9615.5   1535.8   9631.4   1534.4   9637.5
GR  1535.9   9645.7   1535.7   9655.9   1536.4   9662.6   1536.4   9670.1   1535.9   9682.2
GR  1536.1   9698.0   1535.9   9727.1   1536.3   9745.2   1535.8   9759.9   1536.1   9774.4
GR  1535.6   9793.8   1536.2   9812.7   1535.9   9828.8   1535.9   9851.9   1535.9   9867.9
```

```
GR   1535.8    9882.5    1535.1    9901.4    1534.9    9918.3    1534.0    9930.0    1533.3    9938.1
GR   1533.4    9943.3    1532.6    9946.0    1532.7    9949.1    1534.7    9954.9    1535.4    9960.0
GR   1534.6    9966.0    1535.1    9974.2    1535.5    9979.9    1534.2    9994.2    1534.6   10000.0
GR   1534.6   10000.1    1536.2   10002.2    1535.2   10013.3    1535.8   10022.2    1536.8   10030.4
GR   1535.9   10036.6    1536.3   10043.8    1535.9   10056.4    1535.8   10066.5    1535.6   10079.7
GR   1535.6   10094.7    1535.3   10106.4    1535.7   10120.0    1535.3   10131.9    1535.5   10141.1
GR   1535.5   10152.0    1535.5   10166.8    1535.4   10179.5    1535.3   10194.4    1534.9   10206.9
GR   1534.8   10219.1    1534.7   10231.5    1534.7   10246.1    1534.7   10259.6    1534.5   10275.2
GR   1534.5   10291.3    1534.3   10305.4    1534.3   10319.4    1534.0   10335.5    1533.8   10347.3
GR   1533.3   10364.4    1532.7   10377.2    1532.8   10395.5    1532.2   10400.7    1531.1   10404.2
GR   1531.5   10406.1    1532.3   10408.9    1532.2   10413.9    1532.9   10419.1    1533.0   10427.4
GR   1532.9   10441.8    1533.5   10452.1    1533.5   10464.2    1533.9   10476.3    1534.2   10492.4
GR   1534.8   10506.8    1534.6   10521.3    1534.6   10533.3    1535.0   10548.5    1538.3   10663.0

ET                          9.1                                                       9986    10081
X1    .2197       66     10020   10048.2     590      610      600
GR   1541.9    9592.5    1541.5    9610.6    1541.4    9634.5    1541.3    9653.5    1541.0    9668.0
GR   1541.0    9680.6    1540.8    9694.5    1541.1    9713.8    1541.2    9727.1    1541.2    9741.8
GR   1541.4    9758.9    1541.3    9777.5    1541.3    9794.2    1541.9    9805.1    1541.7    9816.2
GR   1541.8    9834.4    1541.8    9847.7    1541.5    9860.6    1541.9    9879.7    1541.8    9897.4
GR   1542.0    9916.1    1541.9    9934.1    1541.9    9951.5    1541.8    9970.1    1541.3    9986.6
GR   1540.8    9998.7    1540.4   10000.0    1540.4   10000.1    1540.3   10014.1    1539.9   10020.0
GR   1538.6   10021.8    1538.7   10027.9    1540.1   10033.9    1540.1   10037.5    1539.7   10042.5
GR   1540.4   10048.2    1540.4   10055.0    1540.5   10065.7    1540.3   10074.3    1540.2   10086.8
GR   1540.2   10096.7    1540.5   10107.0    1538.9   10116.4    1538.9   10121.4    1540.4   10125.8
GR   1540.7   10134.1    1541.0   10141.6    1541.0   10152.0    1541.1   10163.8    1541.1   10174.9
GR   1541.4   10191.9    1541.9   10204.0    1542.0   10220.7    1542.0   10233.9    1542.0   10249.0
GR   1542.1   10264.4    1542.2   10278.2    1542.3   10312.1    1542.1   10331.6    1542.4   10352.1
GR   1542.6   10362.1    1542.6   10377.1    1542.9   10392.2    1542.9   10410.1    1542.7   10425.1
GR   1542.9   10427.5

ET                7.1       9.1                                   9708.4   10507.2   10055.2   10188.1
        ET APPLIED TO PREVENT INEFFECTIVE FLOW TO LEFT OF RIDGE ON LEFT.
X1    .3523       95   10055.2   10084.1     700      690      675
GR   1548.9    9556.5    1549.1    9566.4    1548.1    9573.9    1549.5    9582.4    1548.6    9588.2
GR   1549.0    9596.3    1549.0    9605.3    1549.2    9620.6    1549.0    9631.0    1549.2    9641.2
GR   1549.2    9655.1    1548.8    9671.2    1549.0    9683.3    1549.0    9695.1    1549.4    9708.4
GR   1549.4    9718.1    1549.0    9728.2    1549.0    9742.8    1548.9    9755.1    1548.6    9763.2
GR   1548.8    9772.4    1548.6    9784.0    1548.8    9796.5    1548.6    9812.4    1548.6    9825.1
GR   1548.8    9837.8    1548.7    9850.9    1548.6    9865.3    1546.4    9874.1    1548.5    9877.0
GR   1548.8    9884.3    1548.3    9889.2    1548.9    9895.6    1548.9    9905.2    1548.9    9917.0
GR   1548.5    9926.9    1548.4    9935.1    1548.1    9945.4    1548.1    9956.2    1548.2    9967.9
GR   1548.4    9978.7    1548.3    9989.2    1548.3   10000.0    1548.3   10000.1    1548.3   10009.8
GR   1548.2   10023.9    1548.1   10038.1    1548.2   10055.2    1545.1   10068.7    1545.6   10072.2
GR   1547.5   10076.2    1548.3   10084.1    1548.2   10091.5    1548.0   10099.7    1547.7   10104.3
GR   1547.3   10112.0    1547.2   10120.1    1547.2   10129.7    1547.7   10135.9    1546.1   10144.7
GR   1548.0   10150.5    1546.6   10162.4    1548.5   10178.6    1547.2   10185.4    1547.3   10193.5
GR   1547.4   10202.4    1547.5   10211.2    1547.3   10222.7    1547.7   10232.5    1548.1   10241.1
GR   1548.1   10252.1    1548.2   10263.6    1547.8   10273.4    1548.2   10280.7    1548.2   10290.6
GR   1547.4   10294.9    1548.0   10302.4    1548.7   10309.1    1548.2   10320.3    1548.0   10327.6
GR   1548.0   10338.0    1548.0   10349.8    1548.0   10362.3    1547.9   10373.1    1547.9   10379.3
GR   1547.9   10386.2    1548.1   10395.1    1547.8   10402.3    1548.0   10409.7    1547.9   10423.2
GR   1547.8   10445.4    1548.2   10457.4    1548.2   10468.7    1548.5   10482.0    1549.6   10507.2
```

ET			9.1						9990	10200
X1	.4811	95	10015.9	10033.2	690	700	740			
GR	1555.7	9562.8	1554.8	9575.6	1554.9	9589.4	1555.1	9601.7	1555.4	9612.3
GR	1554.9	9693.3	1555.1	9711.9	1555.0	9730.3	1555.0	9747.5	1555.2	9765.3
GR	1554.8	9857.5	1554.4	9871.2	1554.6	9887.5	1554.5	9902.6	1555.0	9922.2
GR	1554.5	9930.5	1553.8	9936.7	1554.9	9943.5	1554.7	9949.7	1554.9	9955.4
GR	1553.8	9961.2	1554.8	9965.8	1554.9	9976.8	1554.9	9979.2	1554.4	9983.2
GR	1555.1	9990.9	1554.7	9997.2	1554.3	10000.0	1554.3	10000.1	1554.9	10008.9
GR	1555.1	10015.9	1553.5	10019.6	1552.1	10021.7	1553.0	10026.2	1556.0	10033.2
GR	1554.8	10042.4	1554.5	10049.2	1554.8	10057.9	1554.4	10064.9	1555.1	10069.5
GR	1555.3	10076.3	1555.1	10080.3	1554.4	10083.6	1554.4	10091.4	1555.3	10094.3
GR	1554.6	10103.0	1554.9	10114.7	1554.9	10128.9	1555.1	10141.5	1554.7	10152.2
GR	1554.9	10163.6	1554.6	10174.2	1554.8	10189.4	1554.6	10208.3	1554.8	10224.3
GR	1554.5	10237.3	1554.6	10254.7	1554.5	10269.9	1554.7	10285.9	1554.9	10299.8
GR	1554.6	10316.2	1554.9	10331.3	1554.5	10339.7	1554.0	10349.9	1553.7	10355.6
GR	1555.1	10373.6	1555.0	10381.0	1554.0	10389.7	1554.2	10398.8	1554.5	10408.5
GR	1554.5	10421.1	1554.7	10436.0	1554.7	10452.4	1554.6	10466.5	1554.5	10483.7
GR	1554.5	10496.1	1554.7	10514.5	1554.2	10519.2	1554.7	10531.0	1553.3	10544.2
GR	1552.7	10547.1	1554.6	10553.8	1554.6	10563.9	1554.1	10571.9	1553.3	10582.7
GR	1554.2	10590.6	1554.2	10598.0	1554.7	10613.0	1554.9	10627.5	1554.5	10646.4
GR	1554.7	10664.1	1555.8	10681.5	1556.6	10701.7	1556.3	10719.5	1555.9	10732.2

ET			9.1						10000	10250
X1	.6108	95	10033.0	10066.8	700	675	700			
GR	1562.2	9515.9	1562.7	9535.0	1562.3	9555.6	1562.2	9572.6	1562.2	9584.5
GR	1562.7	9593.2	1562.6	9607.3	1562.2	9617.2	1562.5	9633.0	1562.9	9642.7
GR	1562.6	9652.6	1562.6	9666.2	1562.1	9682.1	1561.8	9692.2	1561.4	9760.6
GR	1560.7	9774.9	1561.2	9784.3	1561.0	9796.6	1561.5	9806.0	1561.7	9817.3
GR	1561.0	9974.6	1560.6	9984.3	1560.6	9991.4	1560.6	9996.8	1561.0	10002.1
GR	1561.0	10008.4	1560.7	10009.9	1560.7	10010.0	1560.7	10010.1	1560.7	10010.2
GR	1560.6	10018.3	1561.1	10025.0	1561.0	10033.0	1560.8	10038.3	1559.2	10043.7
GR	1560.5	10046.6	1559.9	10050.4	1561.3	10059.4	1561.0	10066.8	1560.2	10070.4
GR	1559.9	10074.2	1560.9	10078.3	1561.1	10084.6	1560.4	10087.6	1560.7	10092.1
GR	1561.1	10095.8	1560.5	10099.4	1560.3	10104.5	1560.3	10109.5	1561.4	10115.1
GR	1561.1	10122.9	1560.6	10128.1	1560.7	10139.8	1560.8	10149.8	1560.6	10160.3
GR	1559.8	10166.3	1560.8	10171.9	1560.9	10180.5	1561.4	10187.3	1561.7	10194.1
GR	1561.1	10275.7	1560.8	10334.1	1560.7	10351.7	1560.5	10365.6	1560.3	10382.3
GR	1560.2	10394.0	1560.4	10405.5	1560.1	10412.3	1560.0	10421.8	1560.3	10428.2
GR	1560.7	10439.2	1560.7	10445.2	1560.2	10447.0	1560.2	10455.7	1560.5	10458.8
GR	1560.1	10463.5	1560.9	10547.2	1560.8	10566.2	1561.2	10584.0	1561.2	10598.3
GR	1561.6	10616.8	1561.9	10631.7	1560.9	10646.4	1561.4	10667.3	1560.8	10678.4
GR	1561.7	10686.5	1561.3	10692.7	1560.8	10698.1	1560.6	10704.9	1561.4	10711.8
GR	1561.2	10759.2	1561.1	10769.1	1561.7	10778.1	1562.5	10788.1	1562.6	10800.1

ET			9.1						10007.5	10237.1
X1	.7377	85	10007.5	10022.8	675	670	675			
GR	1571.4	9530	1570	9570	1569.4	9740	1568	9860	1566	9920
GR	1565.8	9935	1565.9	9955	1566.5	10000.0	1566.1	10007.5	1565.2	10013.9
GR	1565.4	10017.7	1566.3	10022.8	1566.8	10028.8	1566.8	10038.5	1566.3	10047.5
GR	1566.9	10055.7	1566.6	10064.8	1566.8	10078.4	1566.9	10091.2	1566.6	10103.1
GR	1567.2	10115.9	1566.8	10125.6	1566.8	10133.2	1567.2	10142.1	1566.8	10150.6
GR	1566.6	10160.5	1566.6	10170.8	1566.7	10181.9	1566.8	10194.6	1567.0	10207.0

```
GR   1567.4    10285.2    1567.1    10299.6    1566.9    10315.2    1567.4    10326.7    1567.3    10342.3
GR   1567.2    10356.3    1566.9    10374.8    1567.1    10390.8    1566.9    10403.4    1567.3    10416.1
GR   1567.0    10427.5    1567.1    10442.2    1567.2    10456.3    1567.0    10473.6    1566.6    10482.1
GR   1567.2    10489.0    1567.2    10498.6    1566.8    10509.9    1566.0    10515.6    1566.9    10520.0
GR   1567.2    10526.5    1566.6    10529.2    1566.4    10532.2    1567.0    10538.4    1567.2    10540.7
GR   1567.1    10601.5    1566.9    10612.5    1566.9    10624.2    1566.9    10637.1    1566.8    10647.5
GR   1566.4    10661.5    1566.3    10669.4    1566.3    10678.8    1566.2    10686.2    1566.5    10703.7
GR   1566.5    10712.9    1566.5    10720.4    1566.7    10729.8    1566.7    10742.0    1567.0    10752.4
GR   1567.5    10764.0    1567.6    10776.5    1567.7    10790.4    1568.1    10808.0    1568.4    10818.7
GR   1568.6    10831.1    1568.1    10845.0    1568.5    10861.8    1568.4    10869.6    1571.0    10869.7

ET                 7.1        9.1                                   9450.0    10270.7    9884.6    10217.2
        ET APPLIED AT SEC..8731 AND 1.0133 TO PREVENT INEFFECTIVE FLOW TO
        RIGHT OF RIDGE ON RT.
X1    .8731        95    10027.8    10037.3     720       720       730
GR   1574.4    9450.0    1575.1     9467.1    1574.7     9495.1    1573.7     9571.7    1573.6     9585.1
GR   1573.0    9594.2    1572.2     9603.0    1572.9     9607.4    1572.6     9614.1    1572.4     9616.6
GR   1573.1    9623.2    1572.8     9631.7    1572.0     9639.3    1572.6     9645.8    1572.8     9652.3
GR   1572.5    9659.0    1572.0     9660.9    1572.8     9666.2    1573.0     9673.9    1573.1     9681.9
GR   1573.3    9688.7    1572.5     9697.2    1572.5     9702.0    1573.3     9708.4    1573.5     9716.8
GR   1572.7    9760.1    1574.0     9767.7    1574.0     9775.8    1573.8     9785.1    1573.6     9795.8
GR   1573.7    9861.5    1573.8     9873.6    1573.5     9882.4    1573.1     9891.7    1572.9     9904.3
GR   1572.7    9908.3    1572.3     9911.7    1573.6     9916.5    1573.5     9926.9    1573.9     9936.1
GR   1573.4    9942.9    1573.4     9952.2    1573.2     9958.0    1573.3     9964.6    1572.9     9969.3
GR   1574.2   10020.4    1574.2    10027.8    1572.9    10029.5    1572.8    10033.2    1574.1    10037.3
GR   1574.1   10041.5    1574.1    10041.6    1573.7    10046.6    1573.3    10050.0    1574.1    10055.9
GR   1574.9   10062.5    1574.9    10070.3    1574.3    10081.6    1574.3    10090.3    1575.0    10098.0
GR   1574.1   10139.1    1574.4    10143.8    1574.1    10150.4    1573.7    10155.0    1574.0    10163.2
GR   1573.9   10205.5    1573.6    10209.7    1572.8    10213.9    1572.8    10216.8    1574.3    10223.2
GR   1574.0   10233.1    1573.7    10242.3    1573.4    10252.1    1574.2    10260.3    1574.5    10270.7
GR   1574.1   10333.0    1574.2    10344.6    1573.9    10355.4    1573.8    10366.1    1573.6    10376.5
GR   1573.6   10426.1    1573.6    10434.1    1573.4    10440.5    1573.6    10448.6    1573.7    10458.0
GR   1572.2   10499.7    1573.3    10504.0    1573.1    10509.9    1572.4    10513.9    1572.8    10518.9
GR   1573.0   10525.8    1573.4    10533.0    1572.9    10538.1    1572.6    10543.8    1574.2    10690.0

QT       2       1273       1273
ET                 7.1        9.1                                   9238.0    10173.9    9796.7    10032.7
X1   1.0133        95     9979.7    10032.7     690       725       735
GR   1581.9    9238.0    1581.6     9240.9    1581.1     9249.8    1581.2     9260.9    1581.2     9270.3
GR   1581.3    9332.7    1580.7     9341.3    1580.9     9350.3    1580.7     9358.4    1581.0     9375.9
GR   1581.1    9469.7    1581.1     9486.6    1581.1     9504.5    1581.1     9522.0    1581.1     9536.6
GR   1581.1    9551.6    1581.0     9569.4    1580.7     9583.1    1580.6     9595.4    1580.5     9676.7
GR   1579.8    9684.4    1580.4     9694.0    1578.6     9703.5    1578.5     9706.4    1580.8     9714.9
GR   1580.5    9724.9    1580.2     9733.8    1580.8     9746.5    1578.8     9757.0    1580.3     9765.6
GR   1580.2    9774.0    1579.6     9781.6    1579.9     9790.8    1579.0     9794.9    1579.7     9799.8
GR   1580.5    9812.3    1580.4     9822.5    1580.8     9835.6    1580.8     9849.8    1580.8     9869.4
GR   1580.9    9887.5    1581.0     9902.8    1581.0     9917.7    1580.9     9931.3    1580.1     9936.1
GR   1580.1    9939.8    1581.1     9947.4    1581.2     9956.4    1581.2     9967.5    1581.1     9975.0
GR   1580.0    9979.7    1579.7     9983.7    1579.8     9987.1    1580.8     9991.9    1581.0    10000.0
GR   1581.4   10011.6    1581.2    10023.3    1579.4    10027.2    1579.9    10029.7    1581.2    10032.7
GR   1581.4   10041.2    1581.4    10050.8    1580.2    10057.4    1580.8    10060.5    1580.8    10065.0
GR   1581.2   10068.7    1581.2    10068.8    1581.2    10068.9    1581.2    10069.0    1579.9    10078.8
GR   1581.9   10083.6    1581.6    10093.8    1581.6    10103.8    1582.1    10114.7    1581.6    10122.0
```

GR	1582.0	10129.6	1581.6	10138.7	1582.1	10147.8	1581.7	10160.8	1582.1	10173.7

GR	1581.4	10235.1	1581.3	10254.1	1581.2	10261.5	1581.4	10271.1	1581.5	10280.5
GR	1581.6	10295.3	1581.7	10304.1	1581.9	10324.9	1581.7	10335.0	1581.7	10342.9
GR	1581.7	10353.5	1581.8	10363.0	1581.9	10373.8	1581.9	10384.2	1582.0	10394.3
ET			9.1						9700.0	9976.7
X1	1.1515	95	9941.6	9976.7	690	700	750			
GR	1590.2	9274.0	1590.6	9301.3	1590.3	9309.3	1590.3	9319.4	1590.1	9331.0
GR	1589.1	9341.1	1588.8	9350.7	1588.4	9359.7	1588.1	9370.1	1588.0	9380.0
GR	1588.3	9388.7	1587.8	9397.4	1587.2	9399.9	1587.1	9403.6	1588.2	9408.3
GR	1587.2	9416.4	1587.7	9424.5	1587.8	9430.6	1587.6	9440.0	1587.4	9448.7
GR	1587.9	9460.4	1587.6	9468.9	1587.4	9475.8	1587.7	9496.9	1587.5	9506.4
GR	1587.9	9563.3	1588.3	9569.2	1588.1	9575.5	1587.9	9579.7	1588.2	9589.1
GR	1588.8	9600.4	1588.8	9618.5	1589.2	9645.4	1589.0	9662.5	1588.8	9680.1
GR	1588.9	9689.9	1587.8	9701.0	1587.9	9708.6	1588.8	9714.3	1588.7	9720.8
GR	1587.7	9723.5	1587.7	9727.4	1588.8	9733.4	1588.9	9741.3	1588.5	9746.3
GR	1588.7	9752.7	1588.4	9757.8	1587.6	9760.9	1588.3	9765.6	1587.6	9774.5
GR	1587.2	9778.6	1588.1	9785.7	1588.2	9793.4	1587.9	9801.3	1588.5	9810.6
GR	1588.5	9819.1	1588.6	9830.8	1589.0	9851.4	1589.4	9869.5	1589.2	9941.6
GR	1587.7	9949.0	1588.0	9952.4	1589.1	9961.0	1588.8	9968.5	1587.8	9970.3
GR	1589.7	9976.7	1589.7	9979.7	1589.9	9979.8	1589.4	9988.0	1589.4	9993.3
GR	1589.8	9999.7	1589.5	10000.0	1589.5	10000.1	1589.7	10004.2	1590.5	10009.1
GR	1590.8	10018.9	1590.5	10027.8	1589.7	10035.3	1589.5	10043.5	1587.9	10049.7
GR	1589.7	10052.8	1589.7	10067.3	1589.7	10076.4	1589.1	10089.6	1589.6	10097.5
GR	1590.1	10108.1	1590.1	10116.6	1589.9	10129.1	1590.1	10140.8	1590.2	10150.0
GR	1591.2	10213.9	1590.6	10224.2	1591.0	10241.7	1590.7	10252.1	1590.2	10260.4
ET			9.1						9700	10052.3
X1	1.2879	71	10000.1	10052.3	705	705	750			
GR	1598.1	9306.9	1598.2	9322.3	1597.4	9348.8	1596.9	9369.4	1597.3	9385.7
GR	1596.0	9401.5	1596.3	9411.6	1595.6	9419.9	1594.9	9424.0	1596.3	9430.3
GR	1596.2	9437.5	1595.7	9440.8	1596.8	9449.0	1596.1	9457.2	1596.6	9465.1
GR	1596.2	9473.2	1596.1	9480.8	1596.7	9488.5	1596.1	9497.7	1595.9	9518.5
GR	1596.0	9532.0	1595.9	9548.1	1595.7	9561.5	1594.5	9572.0	1596.0	9579.3
GR	1595.9	9593.3	1596.2	9605.3	1596.4	9617.6	1595.5	9631.4	1594.5	9634.4
GR	1595.9	9639.0	1596.3	9648.1	1596.6	9659.9	1596.8	9673.4	1596.5	9690.1
GR	1596.8	9701.7	1594.8	9705.2	1596.4	9713.5	1597.0	9724.9	1596.2	9738.9
GR	1596.7	9753.4	1596.8	9766.8	1596.6	9782.2	1597.4	9797.2	1597.2	9815.6
GR	1596.6	9831.9	1596.5	9845.1	1596.6	9858.4	1596.7	9875.0	1596.8	9893.0
GR	1596.9	9912.0	1597.1	9927.9	1596.6	9936.9	1597.4	9946.6	1596.8	9953.9
GR	1597.6	9963.6	1597.3	9973.4	1597.5	9989.3	1595.4	9997.7	1596.1	10000.0
GR	1597.1	10000.1	1595.5	10016.5	1595.5	10034.9	1597.0	10052.3	1597.2	10069.5
GR	1597.8	10084.7	1597.8	10105.8	1597.9	10125.7	1597.7	10144.4	1598.4	10158.4
GR	1598.5	10165.2								
QT	2	1250	1250							
ET			9.1						9697.5	9938.8
X1	1.4252	72	9894.7	9938.8	700	715	760			
GR	1604.9	9303.6	1605.1	9313.1	1605.1	9329.1	1604.8	9347.0	1605.0	9361.8
GR	1604.8	9377.7	1604.8	9395.5	1604.1	9412.9	1603.6	9419.5	1603.7	9431.6
GR	1603.7	9437.8	1603.6	9442.7	1603.6	9447.2	1604.1	9452.2	1603.6	9459.3
GR	1604.1	9467.6	1603.9	9484.3	1603.9	9494.3	1603.6	9497.6	1604.0	9504.1
GR	1604.0	9516.6	1604.1	9535.3	1603.7	9548.5	1603.9	9564.5	1604.1	9581.7
GR	1604.6	9596.9	1604.6	9617.3	1604.1	9647.6	1604.0	9658.4	1603.9	9674.0

GR	1603.9	9689.1	1603.6	9699.2	1603.7	9705.6	1603.6	9717.6	1604.0	9728.4

GR	1604.2	9737.4	1604.5	9749.9	1604.1	9761.6	1603.9	9773.3	1604.2	9794.8
GR	1604.4	9810.8	1604.4	9828.2	1604.7	9847.1	1604.5	9860.4	1603.6	9870.8
GR	1604.3	9880.8	1604.3	9894.7	1604.1	9901.6	1603.5	9908.2	1604.0	9917.3
GR	1604.2	9927.4	1604.5	9938.8	1604.1	9951.6	1604.5	9962.3	1604.1	9972.9
GR	1603.9	9984.5	1603.9	9998.5	1603.7	10000.0	1603.7	10000.1	1603.5	10007.9
GR	1604.1	10013.2	1604.2	10027.7	1604.2	10044.5	1604.0	10058.6	1604.0	10078.7
GR	1603.7	10093.5	1603.6	10105.7	1603.6	10118.7	1603.7	10131.2	1604.3	10141.7
GR	1605.3	10152.5	1605.3	10152.6						
ET			9.1						9649.2	10018.8
X1	1.555	95	9949.2	9976.6	640	685	705			
GR	1612.5	9300.5	1612.4	9344.6	1612.1	9360.9	1612.0	9423.0	1611.2	9437.2
GR	1610.0	9449.1	1611.2	9461.7	1611.8	9473.7	1611.5	9485.4	1611.7	9500.4
GR	1611.2	9513.9	1611.6	9522.3	1611.2	9532.2	1609.8	9537.1	1611.1	9540.3
GR	1611.4	9551.9	1611.3	9569.4	1609.8	9579.3	1611.3	9588.9	1612.3	9599.1
GR	1612.1	9614.5	1612.3	9628.9	1611.6	9639.4	1610.7	9645.1	1611.6	9653.7
GR	1612.0	9666.0	1611.7	9678.5	1611.4	9688.6	1611.5	9696.3	1612.1	9706.0
GR	1612.1	9721.8	1612.0	9735.1	1612.2	9746.4	1612.2	9758.8	1612.4	9773.2
GR	1612.9	9786.7	1612.8	9798.9	1612.7	9809.2	1612.9	9833.3	1612.4	9847.5
GR	1612.1	9860.6	1612.5	9877.6	1612.0	9893.1	1611.6	9909.6	1610.8	9915.7
GR	1611.9	9920.6	1611.6	9929.7	1611.7	9937.9	1611.7	9949.2	1610.2	9959.4
GR	1610.4	9967.2	1611.0	9971.7	1611.8	9976.6	1611.6	9986.6	1611.9	9994.2
GR	1611.6	9998.1	1611.0	10000.0	1611.0	10000.1	1611.2	10015.8	1611.2	10030.0
GR	1611.2	10040.8	1611.2	10048.1	1610.2	10056.5	1610.3	10061.5	1611.9	10069.2
GR	1610.9	10080.2	1611.4	10088.4	1611.3	10099.0	1611.1	10106.3	1611.5	10114.0
GR	1611.4	10123.2	1611.4	10128.1	1611.8	10137.8	1610.8	10145.4	1611.5	10152.1
GR	1611.4	10214.1	1611.6	10227.4	1611.6	10230.4	1610.6	10238.6	1611.8	10248.3
GR	1611.7	10251.7	1612.4	10259.8	1612.5	10270.7	1612.9	10281.5	1612.7	10290.3
GR	1613.1	10300.5	1613.2	10313.6	1613.4	10325.4	1613.0	[illegible]	[illegible]	10354.8
GR	1612.8	10362.9	1613.2	10372.7	1613.2	10382.4	1613.4	10395.7	1613.0	10409.7
QT	2	417	417							
ET			9.1						9943	10050
X1	1.7187	70	9962.3	9981.2	750	875	850			
GR	1621.9	9657.8	1621.6	9666.5	1621.4	9679.8	1621.8	9691.2	1621.6	9698.2
GR	1621.6	9704.0	1621.6	9713.0	1621.5	9724.6	1621.3	9734.8	1621.3	9749.3
GR	1620.9	9760.9	1620.9	9773.3	1620.4	9784.1	1620.4	9798.7	1620.4	9812.5
GR	1620.4	9824.0	1620.9	9835.8	1620.3	9845.7	1620.3	9857.0	1621.2	9868.0
GR	1621.0	9881.3	1620.5	9888.6	1620.9	9893.2	1621.4	9900.1	1621.2	9914.7
GR	1620.9	9921.5	1620.4	9938.2	1620.5	9944.2	1620.3	9949.8	1620.9	9949.4
GR	1620.5	9953.8	1621.1	9957.0	1621.0	9962.3	1620.2	9967.0	1619.4	9974.4
GR	1620.7	9981.2	1620.7	9991.3	1620.2	9995.8	1621.2	10000.0	1621.2	10008.1
GR	1621.1	10012.3	1620.9	10024.7	1620.9	10035.7	1620.5	10041.8	1619.8	10047.0
GR	1619.5	10053.3	1620.0	10059.8	1620.8	10066.3	1621.3	10070.5	1621.0	10075.7
GR	1620.2	10095.5	1620.5	10106.2	1620.6	10115.0	1620.8	10126.8	1620.1	10140.6
GR	1620.2	10149.5	1619.7	10154.2	1621.2	10161.5	1621.4	10169.8	1621.5	10181.0
GR	1621.3	10193.4	1621.6	10207.5	1621.4	10221.4	1621.6	10235.3	1621.7	10250.9
GR	1621.8	10262.0	1621.1	10270.3	1621.7	10277.8	1621.7	10283.0	1622.4	10289.3

```
ET                7.1       9.1                                   9649.5    10141.5     9914.2     9945.4
        ET APPLIED AT SEC. 1.8314, 1.9935 AND 2.1231 TO PREVENT INEFFECTIVE FLOW
        TO RIGHT OF RIDGE ON RIGHT.
X1   1.8314        61    9914.2    9945.7       550       605       590
GR   1629.9    9649.5    1629.9    9664.0    1629.9    9679.4    1629.8    9692.5    1629.3    9706.2
GR   1629.2    9720.9    1629.2    9733.4    1628.5    9745.0    1628.1    9754.2    1628.6    9766.9
GR   1629.1    9774.3    1628.6    9786.9    1628.9    9797.5    1628.9    9806.6    1628.7    9819.9
GR   1628.2    9828.3    1627.8    9836.4    1628.7    9844.8    1628.3    9854.1    1627.6    9862.6
GR   1627.5    9868.5    1627.8    9878.5    1627.2    9886.3    1627.3    9896.2    1627.6    9908.1
GR   1626.9    9914.2    1625.0    9931.3    1625.0    9938.3    1627.7    9945.7    1627.6    9959.6
GR   1627.9    9969.2    1627.9    9976.4    1627.5    9985.6    1627.3    9998.3    1626.9   10000.0
GR   1626.9   10000.1    1627.3   10013.2    1627.3   10027.4    1627.2   10043.6    1627.2   10057.5
GR   1627.4   10069.5    1627.4   10079.2    1627.2   10088.4    1627.5   10096.4    1627.1   10105.9
GR   1627.9   10112.6    1628.7   10119.4    1628.9   10126.5    1628.8   10133.4    1629.0   10141.5
GR   1628.7   10151.4    1627.9   10160.0    1627.5   10168.8    1626.7   10177.2    1627.5   10183.2
GR   1627.2   10191.1    1627.8   10198.6    1627.4   10205.9    1627.9   10212.6    1627.1   10220.6
GR   1630.0   10227.5

ET                7.1       9.1                                   9619.0    10188.9     10093     10120
X1   1.9935        75   10094.8   10119.8       750       750       750
GR   1640.0    9583.6    1640.2    9605.0    1640.3    9619.0    1639.8    9634.3    1639.7    9645.4
GR   1639.5    9660.4    1639.4    9673.1    1639.5    9686.1    1639.4    9701.9    1639.3    9713.1
GR   1639.3    9721.8    1639.5    9747.8    1639.7    9758.5    1639.7    9771.8    1639.5    9781.9
GR   1639.8    9792.6    1639.9    9802.6    1639.6    9809.7    1638.0    9821.9    1639.6    9827.8
GR   1639.7    9846.0    1639.5    9856.1    1638.7    9865.2    1638.7    9875.5    1638.7    9885.2
GR   1638.9    9896.8    1638.7    9907.8    1639.2    9920.8    1638.5    9926.9    1638.7    9936.7
GR   1638.9    9951.0    1638.9    9963.0    1639.0    9976.4    1638.9    9988.1    1638.4   10000.0
GR   1638.3   10000.1    1638.3   10000.2    1638.2   10023.2    1637.8   10036.7    1637.4   10048.9
GR   1636.8   10059.7    1636.7   10071.6    1636.4   10085.9    1636.4   10094.8    1635.8   10099.1
GR   1635.4   10101.8    1634.6   10107.0    1635.9   10119.8    1639.4   10126.9    1639.3   10135.5
GR   1639.1   10149.1    1639.1   10161.4    1639.0   10176.9    1639.0   10188.9    1637.5   10205.8
GR   1637.2   10215.1    1636.7   10228.4    1636.2   10237.6    1636.3   10245.9    1635.8   10255.3
GR   1634.3   10261.6    1635.0   10266.4    1636.0   10271.7    1636.6   10278.9    1636.6   10286.9
GR   1636.2   10293.6    1637.5   10305.0    1637.9   10312.1    1638.4   10317.9    1638.3   10325.2
GR   1639.4   10332.7    1639.7   10340.4    1640.5   10345.9    1640.9   10352.7    1644.2   10363.5

QT        2       407       407
ET                7.1       9.1                                   9799.1    10115.9     9873.4     9958.2
X1   2.1231        85    9873.4    9908.9       850       800       935
GR   1648.4    9799.1    1648.3    9817.8    1648.2    9837.1    1647.0    9857.0    1647.0    9863.7
GR   1648.0    9873.4    1645.4    9879.3    1645.2    9886.8    1647.3    9892.6    1646.3    9902.4
GR   1648.0    9908.9    1648.3    9918.1    1647.7    9929.0    1648.2    9938.4    1647.8    9948.3
GR   1647.8    9958.1    1647.6    9965.9    1647.9    9975.0    1647.4    9984.1    1647.2    9997.7
GR   1646.8   10000.0    1646.8   10000.1    1646.6   10006.9    1646.9   10016.5    1646.4   10026.7
GR   1645.5   10032.3    1646.0   10037.5    1646.8   10044.0    1647.2   10049.7    1647.4   10057.1
GR   1648.0   10065.7    1648.3   10073.7    1648.8   10081.2    1649.6   10088.3    1649.4   10099.3
GR   1649.4   10106.2    1649.6   10115.9    1649.2   10124.9    1649.1   10135.0    1648.6   10143.9
GR   1648.4   10153.0    1647.5   10158.5    1647.1   10165.2    1646.3   10171.0    1645.8   10176.0
GR   1645.4   10178.9    1646.5   10185.7    1647.2   10192.4    1647.8   10198.0    1648.4   10203.1
GR   1649.1   10209.7    1649.8   10216.7    1649.7   10225.8    1649.3   10233.0    1648.6   10243.8
GR   1647.0   10256.4    1646.4   10262.7    1647.4   10267.9    1648.5   10275.7    1648.5   10286.3
GR   1648.5   10301.2    1648.4   10315.2    1647.9   10323.6    1647.3   10332.8    1647.2   10340.9
```

```
GR   1650.1   10385.9   1650.6   10394.6   1650.9   10406.1   1651.1   10416.3   1650.9   10425.2
GR   1650.9   10435.6   1650.9   10447.6   1650.8   10463.7   1651.1   10477.7   1651.0   10492.0
GR   1651.0   10504.0   1650.7   10516.3   1651.1   10524.0   1651.3   10532.0   1651.3   10532.3

QT       2       401       401
ET               7.1       9.1                                9890.5   10256.2      9963     10080
        ET APPLIED AT SEC. 2.2538 AND 2.2812 TO PREVENT INEFFECTIVE FLOW TO
        LEFT OF RIDGE ON LEFT.
X1   2.2538        63    9975.1    9989.2       675       675       685
GR   1662.1    9415.4    1662.1    9443.4    1661.8    9469.8    1661.2    9491.0    1660.9    9511.2
GR   1660.4    9533.9    1659.9    9552.0    1659.9    9570.5    1660.0    9585.5    1659.8    9604.3
GR   1659.6    9621.5    1659.1    9642.5    1658.1    9665.7    1656.6    9694.9    1656.6    9711.9
GR   1656.7    9724.3    1655.5    9740.2    1655.4    9746.5    1653.9    9750.8    1655.3    9753.4
GR   1655.5    9764.7    1655.1    9775.2    1656.4    9782.5    1658.1    9792.7    1659.8    9808.0
GR   1661.0    9825.8    1661.2    9850.9    1661.4    9873.8    1661.6    9890.5    1661.2    9908.0
GR   1660.1    9924.9    1659.1    9939.0    1657.4    9952.7    1656.3    9967.1    1656.4    9975.1
GR   1653.9    9984.2    1656.2    9989.2    1656.2   10000.0    1656.3   10000.1    1656.3   10000.2
GR   1655.9   10009.1    1656.6   10017.9    1656.4   10028.9    1656.7   10041.1    1654.5   10049.9
GR   1654.7   10058.7    1655.4   10064.3    1653.9   10071.1    1656.3   10080.1    1657.1   10089.8
GR   1656.9   10099.5    1656.8   10108.3    1657.2   10117.3    1657.9   10125.8    1658.8   10135.5
GR   1659.0   10151.3    1659.4   10163.3    1660.2   10173.7    1660.8   10183.6    1661.4   10212.6
GR   1660.9   10223.0    1661.1   10240.3    1661.2   10256.2

ET               7.1       9.1                                9900.4   10241.9   10015.7     10190
X1   2.2812        95   10015.7   10042.3       100       160       145
GR   1668.1    9161.8    1667.8    9175.4    1667.5    9192.4    1666.5    9206.6    1666.0    9225.0
GR   1665.3    9239.4    1665.2    9256.4    1664.1    9273.5    1664.3    9280.6    1664.8    9287.1
GR   1663.8    9299.0    1663.5    9308.1    1664.0    9317.8    1664.0    9331.6    1664.1    9345.6
GR   1664.4    9355.8    1664.1    9369.0    1663.8    9383.7    1662.7    9391.9    1663.8    9398.3
GR   1663.7    9406.0    1663.2    9416.3    1662.5    9424.7    1662.4    9433.5    1661.3    9443.7
GR   1660.3    9450.0    1661.0    9457.3    1662.2    9465.0    1664.8    9471.7    1666.6    9477.7
GR   1666.8    9488.5    1665.9    9501.3    1664.8    9514.4    1662.7    9527.0    1662.3    9537.8
GR   1660.8    9548.1    1660.3    9555.2    1661.1    9566.7    1660.4    9579.0    1660.9    9598.2
GR   1660.4    9607.5    1660.4    9618.2    1659.7    9626.6    1659.7    9634.2    1660.3    9642.1
GR   1660.7    9650.5    1661.7    9658.3    1663.2    9666.2    1663.6    9677.3    1663.0    9687.6
GR   1661.7    9698.9    1661.2    9706.9    1660.3    9712.8    1661.7    9720.5    1662.5    9728.1
GR   1664.0    9738.5    1665.3    9748.0    1665.5    9760.5    1665.1    9778.9    1665.4    9793.9
GR   1665.5    9886.5    1664.6    9900.4    1664.8    9915.2    1664.4    9932.1    1662.9    9949.2
GR   1660.4    9960.3    1657.9    9974.4    1657.3    9984.0    1657.2    9996.1    1656.6   10000.0
GR   1656.6   10000.1    1656.6   10015.7    1656.4   10030.3    1656.7   10042.3    1657.4   10054.0
GR   1658.0   10063.6    1659.2   10070.4    1660.1   10079.5    1660.3   10094.0    1660.4   10107.8
GR   1659.7   10120.5    1659.0   10131.2    1657.7   10139.6    1656.8   10151.7    1656.3   10162.6
GR   1656.2   10175.6    1657.0   10185.2    1657.7   10193.3    1658.9   10199.0    1659.8   10208.0
GR   1660.7   10214.1    1661.0   10221.8    1661.7   10229.1    1662.0   10234.2    1662.0   10241.9

NC      .03       .03       .03        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS 6-10'X4'R.C.BOXES (STRUC.#6) AND
        2-10'X3' R.C.BOXES (STRUC.#7) MODELED AS COMBINED BRIDGE IN HEC2.
X1   2.2869         8    9959.5   10040.5        30        30        30
X3       10                                                          1662.4    1662.4
GR   1667.0      9900      1666      9915    1661.7    9959.5    1657.7    9959.5    1657.7   10040.5
GR   1661.7   10040.5      1659   10040.5      1660     10180
```

```
NC     .012      .012      .012
SB      .95      1.65      2.63                 81         6       300         0    1658.4    1657.7
        END SUN VALLEY PARKWAY CULVERTS
X1   2.3134         9    9959.5   10040.5       140       140       140
X2                          1    1662.4    1661.5
X3       10                                                          1662.4    1662.4
BT       12      9900   1667.13              10000    1666.4            10082.5   1665.85
BT    10193    1665.0            10309.9    1663.8                10310   1663.3              10350
BT   1662.5             10358    1662.1                10362    1661.5              10367    1661.5
BT             10375    1663.5              10385    1665.5
GR     1669      9910    1662.4    9959.5    1658.4    9959.5    1658.4   10040.5    1662.4   10040.5
GR   1662.4     10205    1658.4     10205    1658.4     10250    1662.4     10250

NC      .03       .03       .03
X1   2.3210        11      9961     10040        40        40        40
GR     1668      9920      1666      9938      1660      9961    1659.5     10000      1660     10040
GR     1663     10052      1664     10100      1662     10165      1660     10213    1659.5     10232
GR     1663     ~~10620~~ 10262

NC     .049      .049      .045        .1        .3
QT        2      1250      1250
ET                          9.1                                                     9649.2   10018.8
        REPEAT CROSS-SECTION FOR START OF WASH #2 TRIBUTARY
X1   -1.555        95    9949.2    9976.6       640       685       705
GR   1612.5    9300.5    1612.4    9344.6    1612.1    9360.9    1612.0    9423.0    1611.2    9437.2
GR   1610.0    9449.1    1611.2    9461.7    1611.8    9473.7    1611.5    9485.4    1611.7    9500.4
GR   1611.2    9513.9    1611.6    9522.3    1611.2    9532.2    1609.8    9537.1    1611.1    9540.3
GR   1611.4    9551.9    1611.3    9569.4    1609.8    9579.3    1611.9    9587.9    1612.3    9599.1
GR   1612.1    9614.5    1612.3    9628.9    1611.6    9639.4    1610.7    9645.1    1611.6    9653.7
GR   1612.0    9666.0    1611.7    9678.5    1611.4    9688.6    1611.5    9696.3    1612.1    9706.0
GR   1612.1    9721.8    1612.0    9735.1    1612.2    9746.4    1612.2    9758.8    1612.4    9773.2
GR   1612.9    9786.7    1612.8    9798.9    1612.7    9812.3    1612.9    9831.3    1612.4    9847.5
GR   1612.1    9860.6    1612.5    9877.6    1612.0    9893.1    1611.6    9909.6    1610.8    9915.7
GR   1611.9    9920.6    1611.6    9929.7    1611.7    9937.9    1611.7    9949.2    1610.2    9959.4
GR   1610.4    9967.2    1611.0    9971.7    1611.8    9976.6    1611.6    9986.6    1611.9    9994.2
GR   1611.6    9998.1    1611.0   10000.0    1611.0   10000.1    1611.2   10015.8    1611.2   10030.0
GR   1611.2   10040.8    1611.2   10048.1    1610.2   10056.5    1610.3   10061.5    1611.9   10069.2
GR   1610.9   10080.2    1611.4   10086.6    1611.0   10099.0    1611.1   10106.3    1611.5   10114.0
GR   1611.4   10123.2    1611.4   10128.1    1611.8   10137.8    1610.8   10145.4    1611.5   10152.1
GR   1611.4   10214.1    1611.6   10222.4    1611.6   10230.4    1610.6   10238.6    1611.4   10243.3
GR   1611.7   10251.7    1612.4   10259.8    1612.5   10270.7    1612.9   10281.5    1612.7   10290.3
GR   1613.1   10300.5    1613.1   10313.6    1613.4   10325.4    1613.0   10339.1    1613.0   10354.8
GR   1612.8   10362.9    1613.2   10372.7    1613.2   10382.4    1613.4   10395.7    1613.0   10409.7

QT        2       859       859
ET                          9.1                                                    10805.86      10920
        ADD 10 TO CROSS-SECTION I.D. FOR TRIBUTARY. STATION 10870 =TRIB BASELINE
X1   11.711        63   10897.8   10920.0       900       700       850
GR   1622.2   10306.7    1621.7   10322.3    1622.3   10335.4    1622.4   10349.7    1622.5   10365.5
GR   1622.0   10380.1    1622.4   10395.2    1622.5   10414.6    1622.5   10431.2    1622.4   10449.9
GR   1622.5   10465.7    1621.9   10478.8    1622.1   10491.4    1621.9   10510.8    1621.9   10526.7
GR   1621.9   10541.0    1621.6   10559.1    1621.8   10566.1    1621.0   10572.4    1621.8   10583.3
```

```
GR   1620.7    10656.9     1620.6    10669.3     1620.9    10684.1     1620.8    10696.8     1621.0    10708.0
GR   1621.3    10720.7     1620.7    10738.6     1620.4    10750.0     1620.5    10761.0     1620.8    10766.3
GR   1620.7    10776.5     1620.3    10786.3     1620.8    10793.9     1620.1    10803.5     1620.2    10809.8
GR   1620.4    10817.4     1620.0    10827.0     1620.2    10838.7     1620.4    10852.1     1620.0    10859.8
GR   1619.9    10872.7     1620.5    10886.4     1620.3    10897.8     1620.3    10909.9     1619.5    10914.5
GR   1620.0    10920.0     1620.0    10930.6     1620.6    10942.0     1620.9    10956.6     1620.8    10973.2
GR   1620.8    10991.1     1620.8    11009.6     1621.1    11026.3     1620.8    11046.5     1620.9    11067.0
GR   1621.3    11084.1     1621.5    11097.3     1621.5    11097.4

ET                           9.1                                                                11391.06    11491.6
        ADD 10 TO SECTION I.D. FOR TRIBUTARY. STATION 11475 =TRIB. BASELINE.
X1   11.855        57    11463.7    11491.6       725       775       775
GR   1631.2    11051.6     1631.7    11064.3     1631.9    11075.8     1631.2    11095.3     1631.2    11098.2
GR   1631.7    11109.3     1631.3    11121.9     1631.5    11134.7     1631.4    11148.5     1631.4    11163.0
GR   1631.7    11176.4     1630.6    11189.4     1630.4    11197.5     1630.6    11206.0     1630.1    11218.5
GR   1628.9    11225.0     1630.3    11235.8     1630.8    11246.5     1631.2    11258.3     1631.7    11268.6
GR   1631.9    11276.4     1631.6    11292.6     1630.1    11307.9     1630.7    11317.2     1630.5    11327.6
GR   1631.6    11337.2     1631.3    11348.7     1629.9    11358.5     1628.9    11367.1     1629.0    11373.7
GR   1628.8    11382.5     1629.9    11388.7     1629.9    11396.4     1630.0    11405.9     1630.6    11415.1
GR   1630.9    11425.5     1630.5    11434.0     1630.5    11444.4     1630.3    11454.2     1629.9    11463.7
GR   1628.4    11480.9     1628.0    11485.9     1628.9    11491.6     1629.6    11499.2     1629.5    11504.4
GR   1629.9    11509.8     1629.5    11517.4     1629.9    11525.3     1629.5    11532.7     1629.9    11541.1
GR   1629.5    11549.7     1629.9    11559.3     1630.2    11568.5     1630.4    11577.2     1630.6    11588.0
GR   1630.7    11599.6     1630.9    11611.4

ET                 7.1        9.1                                   11895.4    12109.4    12032.0    12078.2
        ADD 10 TO SECTION I.D. FOR TRIBUTARY.  STATION 12065 =TRIB. BASELINE.
        ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
X1   11.967        35    12032.0    12078.2       615       550       585
GR   1639.3    11895.4     1638.9    11913.9     1638.4    11937.8     1638.6    11953.5     1638.7    11969.7
GR   1638.3    11987.1     1637.9    11994.1     1636.4    12004.1     1635.8    12017.6     1634.9    12032.0
GR   1634.7    12045.0     1634.6    12059.7     1634.4    12070.3     1635.3    12078.2     1636.5    12086.6
GR   1637.7    12097.4     1639.3    12109.4     1638.3    12122.1     1638.1    12138.3     1638.5    12155.4
GR   1636.9    12163.4     1635.5    12174.9     1634.5    12186.0     1634.1    12199.6     1634.1    12212.4
GR   1634.1    12224.0     1633.7    12240.7     1634.4    12247.5     1635.7    12258.1     1637.2    12270.5
GR   1637.6    12284.3     1637.8    12300.8     1637.9    12316.3     1637.0    12325.5     1637.7    12333.9

NC      .03        .03        .03        .3        .5
        ADD 10 TO SECTION I.D. FOR TRIBUTARY.  BEGIN SUN VALLEY PARKWAY CULVERTS
X1   11.975          6       9968      10032        40        40        40
X3       10                                                             1641.8     1641.8
GR     1640       9910       1640       9960    1636.4      9968    1636.4      10032      1640      10032
GR   1638.5      10070

NC     .012       .012       .012
SC    5.012         .2        2.7          0         4        12       145       12.3     1637.8     1636.4
        ADD 10 TO SECT. I.D.  END PARKWAY CULVERTS (5-12'X4' R.C.B.'S STRUC.#11)
X1   12.002          6       9968      10032       145       145       145
X2                                        2     1641.8    1641.0
X3       10                                                             1640.5     1641.0
BT        9      10000     1644.1                10020.9    1644.0                 10021     1643.5
BT    10061     1642.7                 10069     1642.3                 10092     1642.0                10093
BT     1641                 10268      1641                 10269      1642
```

```
GR   1641.0      9900      1641.0      9968      1637.8      9968      1637.8      10032      1641.0      10032
```



```
GR   1641.0      10100

NC      .03       .03       .03
ET                7.1       9.1                                          9930      10048      9930      10048
        ET APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE OF WEIR LEVEES ON LEFT\RT.
        FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
        BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
        PRESERVATION UPSTREAM OF ROAD.
X1   12.013        10       9930      10048        60        60        60
GR   1645.2      9352     1640.3       9372    1639.7      9560    1638.8      9905     1640.5      9917
GR   1640.5      9930     1639.5       9942      1639     10000    1639.5     10043       1641     10048
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .107

3470 ENCROACHMENT STATIONS=     9469.7   10030.4  TYPE=      1  TARGET=      560.700
       FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
       MODEL RESULTS USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH NO. 1 ALONG BASELINE.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
     .107      5.40   1536.50       .00       .00   1536.70       .20       .00       .00   1534.90
   1293.0     508.6     502.5     282.0     268.9     101.1      94.8        .0        .0   1534.70
     .00      1.89      4.97      2.97      .049      .045      .049      .000   1531.10   9480.10
  .005959       0.        0.        0.         0         0         0       .00    547.84  10027.94


*SECNO  .220

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66

     .220      3.00   1541.60   1541.53       .00   1541.93       .33      5.19       .04   1539.90
   1293.0     287.1     358.5     647.5     109.0      58.2     153.6       5.4       6.6   1540.40
     .04      2.63      6.16      4.22      .049      .045      .049      .000   1538.60   9606.02
  .013645     590.      600.      610.        12        11         0       .00    422.94  10196.77


*SECNO  .352

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9708.4   10507.2  TYPE=      1  TARGET=      798.800
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO LEFT OF RIDGE ON LEFT.
     .352      3.59   1548.69       .00       .00   1548.83       .13      6.88       .02   1548.20
   1293.0     139.2     233.5     920.3      79.1      54.2     348.1      11.8      15.2   1548.30
     .10      1.76      4.31      2.64      .049      .045      .049      .000   1545.10   9760.59
  .007641     700.      675.      690.         7         0         0       .00    648.04  10486.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .481

3265 DIVIDED FLOW

.481	3.06	1555.16	1555.02	.00	1555.28	.11	6.45	.00	1555.10
1293.0	225.7	117.6	949.7	121.2	25.4	370.4	19.8	28.6	1556.00
.18	1.86	4.63	2.56	.049	.045	.049	.000	1552.10	9570.40
.011179	690.	740.	700.	15	13	0	.00	1025.92	10671.46

*SECNO .611

3265 DIVIDED FLOW

.611	2.31	1561.51	.00	.00	1561.59	.09	6.31	.00	1561.00
1293.0	149.3	88.0	1055.7	89.5	31.8	436.9	28.2	43.8	1561.00
.26	1.67	2.77	2.42	.049	.045	.049	.000	1559.20	9743.00
.007822	700.	700.	675.	5	0	0	.00	915.41	10775.14

*SECNO .738

3265 DIVIDED FLOW

.738	2.17	1567.37	.00	.00	1567.51	.14	5.90	.01	1566.10
1293.0	474.1	125.7	693.2	141.0	26.6	327.5	36.3	57.5	1566.30
.33	3.36	4.73	2.12	.049	.045	.049	.000	1565.20	9878.97
.009932	675.	675.	670.	5	0	0	.00	867.10	10760.93

*SECNO .873

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9450.0 10270.7 TYPE= 1 TARGET= 820.700
ET APPLIED AT SEC..8731 AND 1.0133 TO PREVENT INEFFECTIVE FLOW TO
RIGHT OF RIDGE ON RT.

.873	2.16	1574.16	.00	.00	1574.28	.13	6.78	.00	1574.20
1293.0	1185.8	25.1	82.1	405.1	8.8	45.3	44.2	69.8	1574.10
.40	2.93	2.85	1.81	.049	.045	.049	.000	1572.00	9536.36
.008916	720.	730.	720.	5	0	0	.00	620.51	10259.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.013

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9238.0 10173.9 TYPE= 1 TARGET= 935.900

1.013	2.76	1581.26	.00	.00	1581.40	.14	7.12	.00	1580.00
1273.0	1146.8	83.9	42.3	376.7	29.4	17.8	51.2	81.0	1581.20
.46	3.04	2.86	2.38	.049	.045	.049	.000	1578.50	9246.91
.011959	690.	735.	725.	6	0	0	.00	782.76	10082.07

*SECNO 1.151

3265 DIVIDED FLOW

1.151	1.84	1588.94	.00	.00	1589.10	.16	7.69	.01	1589.20
1273.0	1234.7	32.6	5.8	382.9	14.5	3.0	57.8	91.2	1589.70
.52	3.22	2.24	1.91	.049	.045	.049	.000	1587.10	9346.23
.010323	690.	750.	700.	5	0	0	.00	494.00	10051.49

*SECNO 1.288

3265 DIVIDED FLOW

1.288	2.46	1596.96	.00	.00	1597.13	.16	8.03	.00	1597.10
1273.0	1086.2	186.8	.0	343.6	50.6	.0	64.3	99.9	1597.00
.58	3.16	3.69	.00	.049	.045	.000	.000	1594.50	9366.52
.012478	705.	750.	705.	2	0	0	.00	574.19	10051.95

*SECNO 1.425

1.425	1.23	1604.73	.00	.00	1604.83	.10	7.69	.01	1604.30
1250.0	778.7	72.8	398.5	319.2	29.6	154.6	71.6	110.6	1604.50
.66	2.44	2.46	2.58	.049	.045	.049	.000	1603.50	9397.16
.009514	700.	760.	715.	5	0	0	.00	749.22	10146.38

*SECNO 1.555

3265 DIVIDED FLOW

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

  1.555      2.21   1612.01       .00       .00   1612.16       .15      7.32       .02   1611.70
 1250.0     555.8     139.4     554.8     181.8      33.0     190.9      78.5     120.9   1611.80
    .72      3.06      4.23      2.91      .049      .045      .049      .000   1609.80   9418.45
.012965      640.      705.      685.         7         0         0       .00    607.44  10255.26


*SECNO 1.719

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .45

  1.719      1.75   1621.15       .00       .00   1621.22       .07      9.05       .01   1621.00
  419.0     124.2      49.9     244.9      73.1      18.4     108.7      84.2     129.9   1620.70
    .83      1.70      2.71      2.25      .049      .045      .049      .000   1619.40   9753.75
.007122      750.      850.      875.         6         0         0       .00    362.90  10270.88


*SECNO 1.831

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9649.5   10141.5  TYPE=      1  TARGET=      492.000
       ET APPLIED AT SEC. 1.8314, 1.9935 AND 2.1231 TO PREVENT INEFFECTIVE FLOW
       TO RIGHT OF RIDGE ON RIGHT.
  1.831      2.75   1627.75   1627.75       .00   1628.03       .27      4.80       .06   1626.90
  419.0      24.0     295.2      99.7      15.9      60.4      57.0      86.4     133.9   1627.70
    .87      1.51      4.89      1.75      .049      .045      .049      .000   1625.00   9860.78
.009426      550.      590.      605.         4        16         0       .00    227.82  10111.35


*SECNO 1.993
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9619.0   10188.9  TYPE=      1  TARGET=      569.900
  1.993      3.04   1637.34   1637.34       .00   1637.89       .55      9.14       .08   1636.40
  419.0      91.5     321.4       6.1      29.2      48.9       2.1      88.3     136.5   1635.90
    .90      3.13      6.57      2.90      .049      .045      .049      .000   1634.30  10050.03
.016379      750.      750.      750.         9         8         0       .00     72.69  10122.72
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 2.123

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9799.1   10115.9  TYPE=      1  TARGET=      316.801
    2.123      2.54   1647.74       .00       .00   1647.90       .16      9.97       .04   1648.00
    407.0      21.0     165.8     220.1      12.1      46.2      74.4      90.4     138.7   1648.00
      .98      1.74      3.59      2.96      .049      .045      .049      .000   1645.20   9844.77
  .008136      850.      935.      800.         6         0         0       .00    154.83  10061.93


*SECNO 2.254

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9890.5   10256.2  TYPE=      1  TARGET=      365.700
       ET APPLIED AT SEC. 2.2538 AND 2.2812 TO PREVENT INEFFECTIVE FLOW TO
       LEFT OF RIDGE ON LEFT.
    2.254      2.42   1656.32   1656.32       .00   1656.79       .48      8.76       .10   1656.40
    401.0        .0      95.5     305.5        .0      17.0      55.4      92.0     140.5   1656.20
     1.02       .05      5.63      5.51      .049      .045      .049      .000   1653.90   9966.87
  .023802      675.      685.      675.         4         8         0       .00     78.24  10080.31


*SECNO 2.281

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.32


3470 ENCROACHMENT STATIONS=     9900.4   10241.9  TYPE=      1  TARGET=      341.500
    2.281      1.83   1658.03       .00       .00   1658.13       .10      1.29       .04   1656.60
    401.0      88.0     115.9     197.0      40.5      40.1      83.2      92.4     140.9   1656.70
     1.03      2.18      2.89      2.37      .049      .045      .049      .000   1656.20   9973.67
  .004439      100.      145.      160.         5         0         0       .00    147.50  10194.87
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 2.287
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1662.40 ELREA= 1662.40

BEGIN SUN VALLEY PARKWAY CULVERTS 6-10'X4'R.C.BOXES (STRUC.#6) AND
2-10'X3' R.C.BOXES (STRUC.#7) MODELED AS COMBINED BRIDGE IN HEC2.

2.287	.91	1658.61	1658.61	.00	1659.07	.46	.22	.18	1661.70
401.0	.0	401.0	.0	.0	73.6	.0	92.5	141.0	1661.70
1.03	.00	5.45	.00	.000	.030	.000	.000	1657.70	9959.50
.014139	30.	30.	30.	20	8	0	.00	81.00	10040.50

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1658.44 , NOT 1658.61 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.95	1.65	2.63	.00	81.00	6.00	300.00	.00	1658.40	1657.70

*SECNO 2.313

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.19

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1659.01 BRIDGE VELOCITY= 5.55 CALCULATED CHANNEL AREA= 46.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1659.89	.00	0.	401.	300.	300.	1662.40	1661.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1662.40 ELREA= 1662.40

END SUN VALLEY PARKWAY CULVERTS

2.313	1.24	1659.64	.00	.00	1659.89	.25	.82	.00	1662.40
401.0	.0	401.0	.0	.0	100.7	.0	92.7	141.2	1662.40
1.04	.00	3.98	.00	.000	.012	.000	.000	1658.40	9959.50
.000805	140.	140.	140.	0	0	0	.00	81.00	10040.50

```
   SECNO     DEPTH     CWSEL     CRIWS     WSFLK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.321

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.321      .85   1660.35   1660.35      .00   1660.60      .26      .09      .01   1660.00
    401.0       .4     208.0     192.6       .2      47.0     52.6     92.8    141.3   1660.00
     1.05     1.90      4.42      3.66     .030      .030     .030     .000  1659.50   9959.68
  .015913      40.       40.       40.       20        19        0      .00   202.71  10325.71


CCHV=     .100 CEHV=     .300
*SECNO -1.555
START TRIB COMP
    -1.555     1.555  1612.008

3265 DIVIDED FLOW

       REPEAT CROSS-SECTION FOR START OF WASH #2 TRIBUTARY
   -1.555      2.21   1612.01       .00       .00   1612.16      .15      .00      .00   1611.70
   1250.0     555.8     139.4     554.8     181.9      33.0    191.0     96.7    147.6   1611.80
     1.11      3.06      4.23      2.90      .049      .045     .049     .000  1609.80   9418.30
  .012952      640.      705.      685.         0         0        0      .00   607.66  10255.26


*SECNO 11.711

3265 DIVIDED FLOW

       ADD 10 TO CROSS-SECTION I.D. FOR TRIBUTARY. STATION 10870 =TRIB BASELINE
   11.711      1.82   1621.32       .00       .00   1621.44      .12     9.28      .00   1620.30
    859.0     564.6     101.1     193.3     208.7      27.6     88.5    103.6    157.6   1620.00
     1.19      2.70      3.66      2.18      .049      .045     .049     .000  1619.50  10569.84
  .009242      900.      850.      700.         6         0        0      .00   466.15  11085.71


*SECNO 11.855

3265 DIVIDED FLOW

       ADD 10 TO SECTION I.D. FOR TRIBUTARY. STATION 11475 =TRIB. BASELINE.
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11.855	2.52	1630.52	1630.49	.00	1630.88	.35	9.36	.07	1629.90
859.0	327.9	292.1	239.0	82.7	47.0	66.3	108.1	163.9	1628.90
1.24	3.97	6.22	3.60	.049	.045	.049	.000	1628.00	11192.64
.017844	725.	775.	775.	6	14	0	.00	264.30	11583.68

```
*SECNO 11.967

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.49


3470 ENCROACHMENT STATIONS=    11895.4   12109.4  TYPE=      1  TARGET=      214.000
       ADD 10 TO SECTION I.D. FOR TRIBUTARY.  STATION 12065 =TRIB. BASELINE.
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
   11.967      3.55   1637.25       .00       .00   1637.66       .41      6.77       .02   1634.90
    859.0     164.0     654.0      41.0      45.3     118.2      13.9     110.6     166.3   1635.30
     1.27      3.62      5.53      2.95      .049      .045      .049      .000   1633.70  11998.43
  .008035      615.      585.      550.         4         0         0       .00     94.92  12093.35


CCHV=     .300 CEHV=     .500
*SECNO 11.975
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1641.80 ELREA=      1641.80

       ADD 10 TO SECTION I.D. FOR TRIBUTARY.  BEGIN SUN VALLEY PARKWAY CULVERTS
   11.975      1.77   1638.17   1638.17       .00   1639.06       .89       .39       .24   1640.00
    859.0        .0     859.0        .0        .0     113.2        .0     110.7     166.4   1640.00
     1.27       .00      7.59       .00      .000      .030      .000      .000   1636.40   9968.00
  .011773       40.       40.       40.        20         8         0       .00     64.00  10032.00



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    5         .012      .20       2.70      .00       4.00      12.00     145.00    12        3         1637.80   1636.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 12.002
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1640.719 EGOC = 1640.765 PCWSE= 1638.169 ELTRD= 1641.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.47

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1640.72	1640.77	1.70	0.	859.	5.307	240.0	1641.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1640.50 ELREA= 1641.00

ADD 10 TO SECT. I.D. END PARKWAY CULVERTS (5-12'X4' R.C.B.'S STRUC.#11)

12.002	2.53	1640.33	.00	.00	1640.77	.44	1.70	.00	1641.00
859.0	.0	859.0	.0	.0	161.9	.0	111.2	166.6	1641.00
1.28	.00	5.31	.00	.000	.012	.000	.000	1637.80	9968.00
.000590	145.	145.	145.	3	0	0	.00	64.00	10032.00

*SECNO 12.013
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9930.0 10048.0 TYPE= 1 TARGET= 118.000
ET APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE OF WEIR LEVEES ON LEFT\RT.
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
PRESERVATION UPSTREAM OF ROAD.

12.013	1.73	1640.53	1640.53	.00	1641.14	.61	.10	.08	1640.50
859.0	.0	859.0	.0	.0	137.6	.0	111.4	166.7	100000.00
1.28	.00	6.24	.00	.000	.030	.000	.000	1638.80	9930.00
.012748	60.	60.	60.	20	19	0	.00	116.44	10046.44

```
T1      SUN VALLEY PARKWAY NORTH FIS  CONTRACT:FCDMC NO. 90-04
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX.AZ
T3      WASH NO. 2 FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10        3                          0                                1537.50

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15                 -1
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       FLMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*PROF 2


CCHV=     .100 CEHV=     .300
*SECNO  .107

3470 ENCROACHMENT STATIONS=     9918.3    9995.6  TYPE=      1  TARGET=       77.311
       FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
       MODEL RESULTS USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH NO. 1 ALONG BASELINE.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
     .107      6.40   1537.50       .00   1536.50   1537.97       .47       .00       .00   1534.90
   1293.0        .0     832.9     460.1        .0     137.7     104.2        .0        .0   1534.70
     .00       .00      6.05      4.41      .000      .045      .049      .000   1531.10   9918.30
  .006397       0.        0.        0.         0         0         0       .00     77.31   9995.61


*SECNO  .220

3470 ENCROACHMENT STATIONS=     9986.0   10081.0  TYPE=      1  TARGET=       95.000
     .220      3.90   1542.50       .00   1541.60   1543.09       .60      5.08       .04   1539.90
   1293.0     333.4     603.2     356.4      65.0      83.4      69.0       3.2       1.2   1540.40
     .03      5.13      7.24      5.17      .049      .045      .049      .000   1538.60   9986.00
  .011665     590.      600.      610.         3         0         0       .00     95.00  10081.00


*SECNO  .352

3470 ENCROACHMENT STATIONS=    10055.2   10188.1  TYPE=      1  TARGET=      132.899
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO LEFT OF RIDGE ON LEFT.
     .352      4.34   1549.44       .00   1548.69   1549.79       .34      6.67       .03   1548.20
   1293.0        .0     413.2     879.8        .0      75.9     203.5       7.1       3.0   1548.30
     .07       .00      5.44      4.32      .000      .045      .049      .000   1545.10  10055.20
  .008236     700.      675.      690.         5         0         0       .00    132.90  10188.10


*SECNO  .481
3280 CROSS SECTION       .48 EXTENDED       .30 FEET
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    9990.0   10200.0  TYPE=      1  TARGET=     210.000
     .481      4.10   1556.20       .00   1555.16   1556.50       .30      6.71       .00   1555.10
   1293.0     146.1     253.1     893.7      36.6      42.5     227.3      11.8       5.8   1556.00
     .11      3.99      5.96      3.93      .049      .045      .049      .000   1552.10   9990.00
  .010971     690.      740.      700.         4         0         0       .00    210.00  10200.00


*SECNO  .611

3470 ENCROACHMENT STATIONS=   10000.0   10250.0  TYPE=      1  TARGET=     250.000
     .611      3.17   1562.37       .00   1561.51   1562.57       .20      6.05       .01   1561.00
   1293.0     164.3     253.3     875.5      49.2      61.2     256.4      17.1       9.4   1561.00
     .17      3.34      4.14      3.41      .049      .045      .049      .000   1559.20  10000.00
  .007313     700.      700.      675.         5         0         0       .00    250.00  10250.00


*SECNO  .738

3470 ENCROACHMENT STATIONS=   10007.5   10237.1  TYPE=      1  TARGET=     229.600
     .738      2.97   1568.17       .00   1567.37   1568.44       .27      5.85       .02   1566.10
   1293.0        .0     223.0    1070.0        .0      38.7     282.0      22.4      13.1   1566.30
     .21       .00      5.76      3.79      .000      .045      .049      .000   1565.20  10007.50
  .010551     675.      675.      670.         4         0         0       .00    229.60  10237.10


*SECNO  .873

3265 DIVIDED FLOW

3280 CROSS SECTION      .87 EXTENDED      .78 FEET


3470 ENCROACHMENT STATIONS=    9884.6   10217.2  TYPE=      1  TARGET=     332.601
       ET APPLIED AT SEC..8731 AND 1.0133 TO PREVENT INEFFECTIVE FLOW TO
       RIGHT OF RIDGE ON RT.
     .873      2.98   1574.98       .00   1574.16   1575.17       .19      6.72       .01   1574.20
   1293.0     841.0      69.1     382.9     223.1      16.6     141.6      28.2      17.7   1574.10
     .27      3.77      4.17      2.70      .049      .045      .049      .000   1572.00   9884.60
  .008296     720.      730.      720.         6         0         0       .00    331.38  10217.20
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.013
3280 CROSS SECTION      1.01 EXTENDED      .04 FEET


3470 ENCROACHMENT STATIONS=     9796.7   10032.7  TYPE=      1  TARGET=      236.000
    1.013      3.53   1582.03       .00   1581.26   1582.31       .27      7.11       .02   1580.00
   1273.0     965.8     307.2        .0     235.1      70.0        .0      33.8      22.3 100000.00
      .32      4.11      4.39       .00      .049      .045      .000      .000   1578.50   9796.70
  .012706      690.      735.      725.         5         0         0       .00    236.00  10032.70


*SECNO 1.151

3470 ENCROACHMENT STATIONS=     9700.0    9976.7  TYPE=      1  TARGET=      276.700
    1.151      2.77   1589.87       .00   1588.94   1590.09       .22      7.78       .00   1589.20
   1273.0    1096.3     176.7        .0     290.7      46.0        .0      38.9      26.4 100000.00
      .37      3.77      3.84       .00      .049      .045      .000      .000   1587.10   9700.00
  .009774      690.      750.      700.         5         0         0       .00    276.70   9976.70


*SECNO 1.288

3470 ENCROACHMENT STATIONS=     9700.0   10052.3  TYPE=      1  TARGET=      352.300
    1.288      3.16   1597.66       .00   1596.96   1597.90       .25      7.80       .01   1597.10
   1273.0     836.1     436.9        .0     254.7      86.4        .0      44.5      31.5 100000.00
      .42      3.28      5.06       .00      .049      .045      .000      .000   1594.50   9700.00
  .012231      705.      750.      705.         6         0         0       .00    352.30  10052.30


*SECNO 1.425
3280 CROSS SECTION      1.43 EXTENDED      .22 FEET


3470 ENCROACHMENT STATIONS=     9697.5    9938.8  TYPE=      1  TARGET=      241.300
    1.425      2.02   1605.52       .00   1604.73   1605.75       .23      7.84       .00   1604.30
   1250.0     984.4     265.6        .0     264.5      64.2        .0      50.0      36.4 100000.00
      .47      3.72      4.14       .00      .049      .045      .000      .000   1603.50   9697.50
  .009827      700.      760.      715.         4         0         0       .00    241.30   9938.80


*SECNO 1.555
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       FLMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    9649.2   10018.8  TYPE=      1  TARGET=      369.600
    1.555      3.02   1612.82       .00   1611.75   1615.11       .29      7.38       .02   1611.70
   1250.0     675.1     326.3     248.6     207.4      55.2      58.4      54.9      40.8   1611.80
      .59      3.19      5.51      4.00      .369      .043      .049      .000   1607.40   9649.20
  .012705      640.      705.      685.         4         0         0       .00    347.53  10018.80


#SECNO 1.719

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3470 ENCROACHMENT STATIONS=    9943.0   10050.0  TYPE=      1  TARGET=      107.000
    1.719      2.54   1621.94       .00   1621.15   1622.10       .17      8.98       .01   1621.00
    419.0      55.8     136.9     226.3      21.0      33.5      79.3      59.1      44.9   1620.70
      .59      2.65      4.09      2.85      .049      .045      .049      .000   1619.40   9943.00
  .007285      750.      850.      875.         3         0         0       .00    107.00  10050.00


#SECNO 1.831

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66


3470 ENCROACHMENT STATIONS=    9914.2    9945.4  TYPE=      1  TARGET=       31.200
       ET APPLIED AT SEC. 1.8314, 1.9935 AND 2.1231 TO PREVENT INEFFECTIVE FLOW
       ON RIGHT OF RIDGE ON RIGHT.
    1.831      2.84   1627.84       .00   1627.75   1628.52       .68      6.27       .15   1626.90
    419.0        .0     419.0         0        .0      63.3        .0      60.4      45.8 100000.00
      .61       .00      6.62       .00      .000      .045      .000      .000   1625.00   9914.20
  .016817      550.      590.      605.         3         0         0        .0      3.00   9945.40


#SECNO 1.993

3470 ENCROACHMENT STATIONS=   10093.0   10120.0  TYPE=      1  TARGET=       27.000
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       IWA       R BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     LINIAL    IOC       COUNT     CONAR     TOPWID    ENDST

   1.993     3.64   1637.94       .00   1637.34   1638.57       .63     10.04       .01   1636.40
   417.0      7.8     410.8        .4       2.8      64.0        .4      61.5      46.3   1635.90
     .64     2.80      6.42      1.02      .049      .045      .049      .000   1634.30  10093.00
 .010909     750.      750.      750.         4         0         0       .00     27.00  10120.00


#SECNO 2.123

3470 ENCROACHMENT STATIONS=    9873.4    9958.2  TYPE=      1  TARGET=      84.800
   2.123     3.20   1648.40       .00   1647.34   1648.80       .40     10.20       .02   1648.00
   407.0       .0     368.2      38.8        .0      69.6      20.8      63.2      47.5   1648.00
     .70      .00      5.29      1.86      .000      .045      .049      .000   1645.20   9873.40
 .011095     850.      935.      800.         5         0         0       .00     84.80   9958.20


#SECNO 2.254

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    9963.0   10080.0  TYPE=      1  TARGET=     117.000
       ET APPLIED AT SEC. 2.2538 AND 2.2812 TO PREVENT INEFFECTIVE FLOW TO
       LEFT OF RIDGE ON LEFT.
   2.254     2.67   1656.57       .00   1656.32   1656.85       .28      8.04       .01   1656.40
   401.0      2.6      93.9     304.5       2.2      20.5      73.0      64.6      49.0   1656.20
     .74     1.16      4.58      4.17      .049      .045      .049      .000   1653.90   9963.58
 .012614     675.      685.      675.         4         0         0       .00    108.46  10080.00


#SECNO 2.281

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=   10015.7   10190.0  TYPE=      1  TARGET=     174.300
   2.281     1.89   1658.09       .00   1658.03   1658.24       .16      1.38       .01   1656.60
   401.0       .0     145.2     255.8        .0      41.6      85.7      65.0      49.3   1656.70
     .75      .00      3.47      2.98      .000      .045      .049      .000   1656.20  10015.70
 .006591     100.      145.      160.         2         0         0       .00    101.31  10190.00


CCHV=     .300 CEHV=     .500
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HI	QLOSS	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.287
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1662.40 ELREA= 1662.40

BEGIN SUN VALLEY PARKWAY CULVERTS 6-10'X4'R.C.BOXES (STRUC.#6) AND
2-10'X3' R.C.BOXES (STRUC.#7) MODELED AS COMBINED BRIDGE IN HEC2.

2.287	.91	1658.61	1658.61	1658.61	1659.07	.46	.28	.15	1661.70
401.0	.0	401.0	.0	.0	73.8	.0	65.1	49.4	1661.70
.76	.00	5.43	.00	.000	.030	.000	.000	1657.70	9959.50
.014014	30.	30.	30.	20	11	0	.00	81.00	10040.50

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1658.44 , NOT 1658.61 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.95	1.65	2.63	.00	81.00	6.00	300.00	.00	1658.40	1657.70

*SECNO 2.313

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.17

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1659.01 BRIDGE VELOCITY= 5.55 CALCULATED CHANNEL AREA= 46.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1659.89	.00	0.	401.	300.	300.	1662.40	1661.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1662.40 ELREA= 1662.40

END SUN VALLEY PARKWAY CULVERTS

2.313	1.24	1659.64	.00	1659.64	1659.89	.25	.82	.00	1662.40
401.0	.0	401.0	.0	.0	100.7	.0	65.4	49.7	1662.40
.77	.00	3.98	.00	.000	.012	.000	.000	1658.40	9959.50
.000805	140.	140.	140.	0	0	0	.00	81.00	10040.50

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.321

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.321      .85   1660.35   1660.35   1660.35   1660.60      .26      .09      .01   1660.00
    401.0       .4     208.0     192.6        .2      47.0     52.6     65.5     49.8   1660.00
      .77     1.90      4.42      3.66      .030      .030     .030     .000  1659.50   9959.68
  .015913      40.       40.       40.        20        19        0      .00   202.71  10325.71


CCHV=     .100 CEHV=     .300
*SECNO -1.555
START TRIB COMP
    -1.555     1.555  1612.821

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9649.2   10018.8  TYPE=      1  TARGET=      369.600
       REPEAT CROSS-SECTION FOR START OF WASH #2 TRIBUTARY
   -1.555      3.02   1612.82       .00   1612.01   1613.11      .29      .00      .00   1611.70
   1250.0     675.3     326.2     248.5     207.6      55.3     58.5     68.7     54.0   1611.80
      .81      3.25      5.90      4.25      .049      .045     .049     .000  1609.80   9649.20
  .012674      640.      705.      685.         0         0        0      .00   347.77  10018.80


*SECNO 11.711
3280 CROSS SECTION     11.71 EXTENDED      .50 FEET


3470 ENCROACHMENT STATIONS=    10805.9   10920.0  TYPE=      1  TARGET=      114.140
       ADD 10 TO CROSS-SECTION I.D. FOR TRIBUTARY. STATION 10870 =TRIB BASELINE
   11.711      2.50   1622.00       .00   1621.32   1622.26      .26     9.16      .00   1620.30
    859.0     672.6     186.4        .0     165.7      42.6       .0     74.0     58.7 100000.00
      .87      4.06      4.37       .00      .049      .045     .000     .000  1619.50  10805.86
  .008292      900.      850.      700.         5         0        0      .00   114.14  10920.00


*SECNO 11.855
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3280 CROSS SECTION     11.85 EXTENDED       .50 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11391.1   11491.6  TYPE=      1  TARGET=      100.540
       ADD 10 TO SECTION I.D. FOR TRIBUTARY. STATION 11475 =TRIB. BASELINE.
   11.855      3.40   1631.40   1631.40   1630.52   1632.06       .66      8.57       .12   1629.90
    859.0     317.1     541.9       .0      76.2      71.5        .0      77.0      60.5 100000.00
      .91      4.16      7.58       .00      .049      .045      .000      .000   1628.00  11391.06
  .016936      725.      775.      775.         5        11         0       .00    100.54  11491.60


*SECNO 11.967
3280 CROSS SECTION     11.97 EXTENDED       .22 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51


3470 ENCROACHMENT STATIONS=    12032.0   12078.2  TYPE=      1  TARGET=       46.200
       ADD 10 TO SECTION I.D. FOR TRIBUTARY.  STATION 12065 =TRIB. BASELINE.
       ET APPLIED TO PREVENT INEFFECTIVE FLOW TO RIGHT OF RIDGE ON RIGHT.
   11.967      4.22   1637.92       .00   1637.25   1638.44       .52      6.36       .01   1634.90
    859.0        .0     859.0        .0        .0     149.1        .0      79.0      61.5 100000.00
      .93       .00      5.76       .00      .000      .045      .000      .000   1633.70  12032.00
  .007444      615.      585.      550.         5         0         0       .00     46.20  12078.20


CCHV=     .300 CEHV=     .500
*SECNO 11.975
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1641.80 ELREA=     1641.80

       ADD 10 TO SECTION I.D. FOR TRIBUTARY.  BEGIN SUN VALLEY PARKWAY CULVERTS
   11.975      1.77   1638.17   1638.17   1638.17   1639.06       .89       .37       .19   1640.00
    859.0        .0     859.0        .0        .0     113.6        .0      79.2      61.5   1640.00
      .93       .00      7.56       .00      .000      .030      .000      .000   1636.40   9968.00
  .011660       40.       40.       40.         3        14         0       .00     64.00  10062.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	[illegible]	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	5	.012	.20	2.70	.00	4.00	12.00	145.00	12	3	1637.80	1636.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 12.002

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1640.719 EGOC = 1640.765 PCWSE= 1638.175 ELTRD= 1641.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.45

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1640.72	1640.77	1.70	0.	859.	5.307	240.0	1641.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1640.50 ELREA= 1641.00

ADD 10 TO SECT. I.D. END PARKWAY CULVERTS (5-12'X4' R.C.B.'S STRUC.#11)

12.002	2.53	1640.33	.00	1640.33	1640.77	.44	1.70	.00	1641.00
859.0	.0	859.0	.0	.0	161.9	.0	79.6	61.7	1641.00
.94	.00	5.31	.00	.000	.012	.000	.000	1637.80	9968.00
.000590	145.	145.	145.	3	0	0	.00	64.00	10032.00

*SECNO 12.013
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9930.0 10048.0 TYPE= 1 TARGET= 118.000
ET APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE OF WEIR LEVEES ON LEFT\RT.
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
PRESERVATION UPSTREAM OF ROAD.

12.013	1.73	1640.53	1640.53	1640.53	1641.14	.61	.10	.08	1640.50
859.0	.0	859.0	.0	.0	137.6	.0	79.8	61.9	100000.00
.95	.00	6.24	.00	.000	.030	.000	.000	1638.80	9930.00
.012748	60.	60.	60.	20	19	0	.00	116.44	10046.44

THIS RUN EXECUTED 28AUG91 08:40:10

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO. 2 100- YEAR P

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.107	1293.00	1536.50	.00	4.97	.00	9918.30	9954.90	9469.70	10030.40	9480.10	10027.94
	.107	1293.00	1537.50	.00	6.05	.00	9918.30	9954.90	9918.30	9995.61	9918.30	9995.61
*	.220	1293.00	1541.60	1541.53	6.16	600.00	10020.00	10048.20	.00	.00	9606.02	10196.77
	.220	1293.00	1542.50	.00	7.24	600.00	10020.00	10048.20	9986.00	10081.00	9986.00	10081.00
	.352	1293.00	1548.69	.00	4.31	675.00	10055.20	10084.10	9708.40	10507.20	9760.59	10486.50
	.352	1293.00	1549.44	.00	5.44	675.00	10055.20	10084.10	10055.20	10188.10	10055.20	10188.10
	.481	1293.00	1555.16	1555.02	4.63	740.00	10015.90	10033.20	.00	.00	9570.40	10671.46
	.481	1293.00	1556.20	.00	5.96	740.00	10015.90	10033.20	9990.00	10200.00	9990.00	10200.00
	.611	1293.00	1561.51	.00	2.77	700.00	10033.00	10066.80	.00	.00	9743.00	10775.14
	.611	1293.00	1562.37	.00	4.14	700.00	10033.00	10066.80	10000.00	10250.00	10000.00	10250.00
	.738	1293.00	1567.37	.00	4.73	675.00	10007.50	10022.80	.00	.00	9878.97	10760.93
	.738	1293.00	1568.17	.00	5.76	675.00	10007.50	10022.80	10007.50	10237.10	10007.50	10237.10
	.873	1293.00	1574.16	.00	2.85	730.00	10027.80	10037.30	9450.00	10270.70	9536.36	10259.90
	.873	1293.00	1574.98	.00	4.17	730.00	10027.80	10037.30	9884.60	10217.20	9884.60	10217.20
	1.013	1273.00	1581.26	.00	2.86	735.00	9979.70	10032.70	9238.00	10173.90	9246.91	10082.07
	1.013	1273.00	1582.03	.00	4.39	735.00	9979.70	10032.70	9796.70	10032.70	9796.70	10032.70
	1.151	1273.00	1588.94	.00	2.24	750.00	9941.60	9976.70	.00	.00	9346.23	10051.49
	1.151	1273.00	1589.87	.00	3.84	750.00	9941.60	9976.70	9700.00	9976.70	9700.00	9976.70
	1.288	1273.00	1596.96	.00	3.69	750.00	10000.10	10052.30	.00	.00	9366.52	10051.95
	1.288	1273.00	1597.66	.00	5.06	750.00	10000.10	10052.30	9700.00	10052.30	9700.00	10052.30
	1.425	1250.00	1604.73	.00	2.46	760.00	9894.70	9938.80	.00	.00	9397.16	10146.38
	1.425	1250.00	1605.52	.00	4.14	760.00	9894.70	9938.80	9697.50	9938.80	9697.50	9938.80

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	1.555	1250.00	1612.01	.00	4.23	705.00	9949.20	9976.60	.00	.00	9418.45	10255.26
	1.555	1250.00	1612.82	.00	5.91	705.00	9949.20	9976.60	9649.20	10018.80	9649.20	10018.80
*	1.719	419.00	1621.15	.00	2.71	850.00	9962.30	9981.20	.00	.00	9753.75	10270.88
*	1.719	419.00	1621.94	.00	4.09	850.00	9962.30	9981.20	9943.00	10050.00	9943.00	10050.00
*	1.831	419.00	1627.75	1627.75	4.89	590.00	9914.20	9945.70	9649.50	10141.50	9860.78	10111.35
*	1.831	419.00	1627.84	.00	6.62	590.00	9914.20	9945.70	9914.20	9945.40	9914.20	9945.40
*	1.993	419.00	1637.34	1637.34	6.57	750.00	10094.80	10119.80	9619.00	10188.90	10050.03	10122.72
	1.993	419.00	1637.94	.00	6.42	750.00	10094.80	10119.80	10093.00	10120.00	10093.00	10120.00
	2.123	407.00	1647.74	.00	3.59	935.00	9873.40	9908.90	9799.10	10115.90	9844.77	10061.93
	2.123	407.00	1648.40	.00	5.29	935.00	9873.40	9908.90	9873.40	9958.20	9873.40	9958.20
*	2.254	401.00	1656.32	1656.32	5.63	685.00	9975.10	9989.20	9890.50	10256.20	9966.87	10080.31
	2.254	401.00	1656.57	.00	4.58	685.00	9975.10	9989.20	9963.00	10080.00	9963.58	10080.00
*	2.281	401.00	1658.03	.00	2.89	145.00	10015.70	10042.30	9900.40	10241.90	9973.67	10194.87
	2.281	401.00	1658.09	.00	3.49	145.00	10015.70	10042.30	10015.70	10190.00	10015.70	10190.00
*	2.287	401.00	1658.61	1658.61	5.45	30.00	9959.50	10040.50	.00	.00	9959.50	10040.50
*	2.287	401.00	1658.61	1658.61	5.43	30.00	9959.50	10040.50	.00	.00	9959.50	10040.50
*	2.313	401.00	1659.64	.00	3.98	140.00	9959.50	10040.50	.00	.00	9959.50	10040.50
*	2.313	401.00	1659.64	.00	3.98	140.00	9959.50	10040.50	.00	.00	9959.50	10040.50
*	2.321	401.00	1660.35	1660.35	4.42	40.00	9961.00	10040.00	.00	.00	9959.68	10325.71
*	2.321	401.00	1660.35	1660.35	4.42	40.00	9961.00	10040.00	.00	.00	9959.68	10325.71
	-1.555	1250.00	1612.01	.00	4.23	705.00	9949.20	9976.60	.00	.00	9418.30	10255.26
	-1.555	1250.00	1612.82	.00	5.90	705.00	9949.20	9976.60	9649.20	10018.80	9649.20	10018.80
	11.711	859.00	1621.32	.00	3.66	850.00	10897.80	10920.00	.00	.00	10569.84	11085.71
	11.711	859.00	1622.00	.00	4.37	850.00	10897.80	10920.00	10805.86	10920.00	10805.86	10920.00
	11.855	859.00	1630.52	1630.49	6.22	775.00	11463.70	11491.60	.00	.00	11192.64	11583.68
*	11.855	859.00	1631.40	1631.40	7.58	775.00	11463.70	11491.60	11391.06	11491.60	11391.06	11491.60
*	11.967	859.00	1637.25	.00	5.53	585.00	12032.00	12078.20	11895.40	12109.40	11998.43	12093.35
*	11.967	859.00	1637.92	.00	5.76	585.00	12032.00	12078.20	12032.00	12078.20	12032.00	12078.20
*	11.975	859.00	1638.17	1638.17	7.59	40.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	11.975	859.00	1638.17	1638.17	7.56	40.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	12.002	859.00	1640.33	.00	5.31	145.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	12.002	859.00	1640.33	.00	5.31	145.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	12.013	859.00	1640.53	1640.53	6.24	60.00	9930.00	10048.00	9930.00	10048.00	9930.00	10046.44
*	12.013	859.00	1640.53	1640.53	6.24	60.00	9930.00	10048.00	9930.00	10048.00	9930.00	10046.44

WASH NO. 2 100- YEAR P

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.107	508.59	502.46	281.95	1.89	4.97	2.97	1538.30	1536.50	.00	547.84	1531.10	1.67
	.107	.00	832.86	460.14	.00	6.05	4.41	1538.30	1537.50	.00	77.31	1531.10	1.07
*	.220	287.07	358.46	647.47	2.63	6.16	4.22	1541.90	1541.60	5.10	422.94	1538.60	1.29
	.220	333.37	603.19	356.44	5.13	7.24	5.17	1542.90	1542.50	5.00	95.00	1538.60	1.09
	.352	139.17	233.49	920.34	1.76	4.31	2.64	1549.60	1548.69	7.09	648.04	1545.10	1.20
	.352	.00	413.23	879.77	.00	5.44	4.32	1549.60	1549.44	6.95	132.90	1545.10	1.04
	.481	225.71	117.63	949.65	1.86	4.63	2.56	1555.70	1555.16	6.47	1025.92	1552.10	1.18
	.481	146.13	253.14	893.72	3.99	5.96	3.93	1555.90	1556.20	6.76	210.00	1552.10	1.09
	.611	149.28	87.97	1055.74	1.67	2.77	2.42	1562.20	1561.51	6.34	915.41	1559.20	1.05
	.611	164.28	253.27	875.45	3.34	4.14	3.41	1562.60	1562.37	6.17	250.00	1559.20	1.02
	.738	474.12	125.67	693.20	3.36	4.73	2.12	1571.00	1567.37	5.86	867.10	1565.20	1.28
	.738	.00	223.04	1069.95	.00	5.76	3.79	1571.00	1568.17	5.79	229.60	1565.20	1.09
	.873	1185.79	25.10	82.11	2.93	2.85	1.81	1574.20	1574.16	6.78	620.51	1572.00	1.04
	.873	841.00	69.14	382.86	3.77	4.17	2.70	1574.20	1574.98	6.81	331.38	1572.00	1.07
	1.013	1146.79	83.86	42.35	3.04	2.86	2.38	1582.00	1581.26	7.11	782.76	1578.50	1.01
	1.013	965.83	307.17	.00	4.11	4.39	.00	1582.00	1582.03	7.06	236.00	1578.50	1.00
	1.151	1234.66	32.57	5.77	3.22	2.24	1.91	1590.20	1588.94	7.68	494.00	1587.10	1.01
	1.151	1096.30	176.70	.00	3.77	3.84	.00	1590.20	1589.87	7.84	276.70	1587.10	1.00
	1.288	1086.17	186.83	.00	3.16	3.69	.00	1598.10	1596.96	8.02	574.19	1594.50	1.01
	1.288	836.10	436.90	.00	3.28	5.06	.00	1598.50	1597.66	7.79	352.30	1594.50	1.14
	1.425	778.69	72.84	398.47	2.44	2.46	2.58	1604.90	1604.73	7.77	749.22	1603.50	1.00
	1.425	984.43	265.57	.00	3.72	4.14	.00	1605.30	1605.52	7.86	241.30	1603.50	1.01
	1.555	555.80	139.45	554.75	3.06	4.23	2.91	1612.50	1612.01	7.28	607.44	1609.80	1.04
	1.555	675.10	326.35	248.55	3.25	5.91	4.25	1613.00	1612.82	7.30	347.53	1609.80	1.22
*	1.719	124.16	49.92	244.93	1.70	2.71	2.25	1621.90	1621.15	9.14	362.90	1619.40	1.07
*	1.719	55.79	136.94	226.27	2.65	4.09	2.85	1622.40	1621.94	9.11	107.00	1619.40	1.10
*	1.831	24.02	295.24	99.74	1.51	4.89	1.75	1630.00	1627.75	6.60	227.82	1625.00	1.79
*	1.831	.00	419.00	.00	.00	6.62	.00	1630.00	1627.84	5.91	31.20	1625.00	1.00
*	1.993	91.52	321.41	6.07	3.13	6.57	2.90	1644.20	1637.34	9.59	72.69	1634.30	1.30
	1.993	7.76	410.83	.41	2.80	6.42	1.02	1644.20	1637.94	10.10	27.00	1634.30	1.04
	2.123	21.05	165.80	220.15	1.74	3.59	2.96	1651.30	1647.74	10.40	154.83	1645.20	1.08
	2.123	.00	749.27	38.73	.00	5.28	1.86	1651.30	1648.40	10.46	84.80	1645.20	1.27

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	2.254	.00	95.48	305.52	.05	5.63	5.51	1661.20	1656.32	8.58	78.24	1653.90	1.00
	2.254	2.59	93.93	304.48	1.16	4.58	4.17	1661.20	1656.57	8.17	108.46	1653.90	1.03
*	2.281	88.04	115.94	197.01	2.18	2.89	2.37	1662.00	1658.03	1.71	147.50	1656.20	1.04
	2.281	.00	145.17	255.83	.00	3.49	2.98	1662.00	1658.09	1.52	101.31	1656.20	1.02
*	2.287	.00	401.00	.00	.00	5.45	.00	1660.00	1658.61	.58	81.00	1657.70	1.00
*	2.287	.00	401.00	.00	.00	5.43	.00	1660.00	1658.61	.53	81.00	1657.70	1.00
*	2.313	.00	401.00	.00	.00	3.98	.00	1662.40	1659.64	1.03	81.00	1658.40	1.00
*	2.313	.00	401.00	.00	.00	3.98	.00	1662.40	1659.64	1.03	81.00	1658.40	1.00
*	2.321	.43	207.95	192.61	1.90	4.42	3.66	1663.00	1660.35	.70	202.71	1659.50	1.03
*	2.321	.43	207.95	192.61	1.90	4.42	3.66	1663.00	1660.35	.70	202.71	1659.50	1.03
	-1.555	555.80	139.42	554.77	3.06	4.23	2.90	1612.50	1612.01	-48.34	607.66	1609.80	1.04
	-1.555	675.32	326.18	248.50	3.25	5.90	4.25	1613.00	1612.82	-47.52	347.77	1609.80	1.22
	11.711	564.63	101.07	193.29	2.70	3.66	2.18	1621.50	1621.32	9.32	466.15	1619.50	1.07
	11.711	672.60	186.40	.00	4.06	4.37	.00	1621.50	1622.00	9.18	114.14	1619.50	1.00
	11.855	327.88	292.08	239.04	3.97	6.22	3.60	1630.90	1630.52	9.20	264.30	1628.00	1.19
*	11.855	317.09	541.91	.00	4.16	7.58	.00	1630.90	1631.40	9.40	100.54	1628.00	1.26
*	11.967	164.00	654.01	40.99	3.62	5.53	2.95	1637.70	1637.25	6.73	94.92	1633.70	1.12
*	11.967	.00	859.00	.00	.00	5.76	.00	1637.70	1637.92	6.52	46.20	1633.70	1.00
*	11.975	.00	859.00	.00	.00	7.59	.00	1638.50	1638.17	.92	64.00	1636.40	1.00
*	11.975	.00	859.00	.00	.00	7.56	.00	1638.50	1638.17	.25	64.00	1636.40	1.00
*	12.002	.00	859.00	.00	.00	5.31	.00	1641.00	1640.33	2.16	64.00	1637.80	1.00
*	12.002	.00	859.00	.00	.00	5.31	.00	1641.00	1640.33	2.15	64.00	1637.80	1.00
*	12.013	.00	859.00	.00	.00	6.24	.00	1641.00	1640.53	.20	116.44	1638.80	1.00
*	12.013	.00	859.00	.00	.00	6.24	.00	1641.00	1640.53	.20	116.44	1638.80	1.00

WASH NO. 2 100- YEAR P

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.107	.00	.00	1536.70	.20	.00	.00	59.59	.00	5.40	49.00	45.00	49.00
	.107	.00	.00	1537.97	.47	.00	.00	63.97	.00	6.40	.00	45.00	49.00
*	.220	600.00	12.50	1541.93	.33	5.19	.04	136.45	5.40	3.00	49.00	45.00	49.00
	.220	600.00	12.50	1543.09	.60	5.08	.04	116.65	3.18	3.90	49.00	45.00	49.00
	.352	675.00	9.63	1548.83	.13	6.88	.02	76.41	11.75	3.59	49.00	45.00	49.00
	.352	675.00	9.63	1549.79	.34	6.67	.03	82.36	7.09	4.34	.00	45.00	49.00
	.481	740.00	9.46	1555.28	.11	6.45	.00	111.79	19.79	3.06	49.00	45.00	49.00
	.481	740.00	9.46	1556.50	.30	6.71	.00	109.71	11.84	4.10	49.00	45.00	49.00
	.611	700.00	10.14	1561.59	.09	6.31	.00	78.22	28.19	2.31	49.00	45.00	49.00
	.611	700.00	10.14	1562.57	.20	6.05	.01	73.13	17.11	3.17	49.00	45.00	49.00
	.738	675.00	8.89	1567.51	.14	5.90	.01	99.32	36.31	2.17	49.00	45.00	49.00
	.738	675.00	8.89	1568.44	.27	5.85	.02	105.51	22.41	2.97	.00	45.00	49.00
	.873	730.00	9.32	1574.28	.13	6.78	.00	89.16	44.20	2.16	49.00	45.00	49.00
	.873	730.00	9.32	1575.17	.19	6.72	.01	82.96	28.22	2.98	49.00	45.00	49.00
	1.013	735.00	8.84	1581.40	.14	7.12	.00	119.59	51.24	2.76	49.00	45.00	49.00
	1.013	735.00	8.84	1582.31	.27	7.11	.02	127.06	33.76	3.53	49.00	45.00	.00
	1.151	750.00	11.47	1589.10	.16	7.69	.01	103.23	57.80	1.84	49.00	45.00	49.00
	1.151	750.00	11.47	1590.09	.22	7.78	.00	97.74	38.92	2.77	49.00	45.00	.00
	1.288	750.00	9.87	1597.13	.16	8.03	.00	124.78	64.27	2.46	49.00	45.00	.00
	1.288	750.00	9.87	1597.90	.25	7.80	.01	122.31	44.47	3.16	49.00	45.00	.00
	1.425	760.00	11.84	1604.83	.10	7.69	.01	95.14	71.56	1.23	49.00	45.00	49.00
	1.425	760.00	11.84	1605.75	.23	7.84	.00	98.27	49.96	2.02	49.00	45.00	.00
	1.555	705.00	8.94	1612.16	.15	7.32	.02	129.65	78.46	2.21	49.00	45.00	49.00
	1.555	705.00	8.94	1613.11	.29	7.34	.02	127.05	54.85	3.02	49.00	45.00	49.00
*	1.719	850.00	11.29	1621.22	.07	9.05	.01	71.22	84.17	1.75	49.00	45.00	49.00
*	1.719	850.00	11.29	1622.10	.17	8.98	.01	72.85	59.07	2.54	49.00	45.00	49.00
*	1.831	590.00	9.49	1628.03	.27	4.80	.06	94.26	86.42	2.75	49.00	45.00	49.00
*	1.831	590.00	9.49	1628.52	.68	6.27	.15	168.17	60.41	2.84	.00	45.00	.00
*	1.993	750.00	12.40	1637.89	.55	9.14	.09	163.79	88.25	3.04	49.00	45.00	49.00
	1.993	750.00	12.40	1638.57	.63	10.04	.01	109.09	61.53	3.64	49.00	45.00	49.00
	2.123	935.00	11.66	1647.90	.16	9.97	.04	81.36	90.38	2.54	49.00	45.00	49.00
	2.123	935.00	11.66	1648.80	.40	10.20	.02	110.85	63.18	3.20	.00	45.00	49.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	2.254	685.00	12.70	1656.79	.48	8.76	.10	238.02	91.98	2.42	49.00	45.00	49.00
	2.254	685.00	12.70	1656.85	.28	8.04	.01	126.14	64.64	2.67	49.00	45.00	49.00
*	2.281	145.00	15.86	1658.13	.10	1.29	.04	44.39	92.37	1.83	49.00	45.00	49.00
	2.281	145.00	15.86	1658.24	.16	1.38	.01	65.91	65.03	1.89	.00	45.00	49.00
*	2.287	30.00	50.00	1659.07	.46	.22	.18	141.39	92.45	.91	.00	30.00	.00
*	2.287	30.00	50.00	1659.07	.46	.28	.15	140.14	65.10	.91	.00	30.00	.00
*	2.313	140.00	5.00	1659.89	.25	.82	.00	8.05	92.73	1.24	.00	12.00	.00
*	2.313	140.00	5.00	1659.89	.25	.82	.00	8.05	65.38	1.24	.00	12.00	.00
*	2.321	40.00	27.50	1660.60	.26	.09	.01	159.13	92.83	.85	30.00	30.00	30.00
*	2.321	40.00	27.50	1660.60	.26	.09	.01	159.13	65.48	.85	30.00	30.00	30.00
	-1.555	705.00	.00	1612.16	.15	.00	.00	129.52	96.73	2.21	49.00	45.00	49.00
	-1.555	705.00	.00	1613.11	.29	.00	.00	126.74	68.70	3.02	49.00	45.00	49.00
	11.711	850.00	11.41	1621.44	.12	9.38	.00	92.42	103.60	1.82	49.00	45.00	49.00
	11.711	850.00	11.41	1622.26	.26	9.16	.00	82.92	73.99	2.50	49.00	45.00	.00
	11.855	775.00	10.97	1630.88	.35	9.36	.07	178.44	108.06	2.52	49.00	45.00	49.00
*	11.855	775.00	10.97	1632.06	.66	8.57	.12	169.36	77.01	3.40	49.00	45.00	.00
*	11.967	585.00	9.74	1637.66	.41	6.77	.02	88.35	110.58	3.55	49.00	45.00	49.00
*	11.967	585.00	9.74	1638.44	.52	6.36	.01	74.44	79.03	4.22	.00	45.00	.00
*	11.975	40.00	67.50	1639.06	.89	.39	.24	117.73	110.72	1.77	.00	30.00	.00
*	11.975	40.00	67.50	1639.06	.89	.37	.19	116.60	79.15	1.77	.00	30.00	.00
*	12.002	145.00	9.66	1640.77	.44	1.70	.00	5.90	111.17	2.53	.00	12.00	.00
*	12.002	145.00	9.66	1640.77	.44	1.70	.00	5.90	79.61	2.53	.00	12.00	.00
*	12.013	60.00	16.67	1641.14	.61	.10	.08	127.48	111.38	1.73	.00	30.00	.00
*	12.013	60.00	16.67	1641.14	.61	.10	.08	127.48	79.82	1.73	.00	30.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .220  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.719  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.719  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.831  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.831  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     1.831  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.993  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.993  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.254  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.254  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.281  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.287  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.287  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.287  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     2.287  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.287  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.287  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     2.313  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=     2.313  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     2.313  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=     2.313  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.321  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.321  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.321  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     2.321  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.321  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.321  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    11.859  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.859  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    11.967  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.967  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    11.975  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.975  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.975  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    11.975  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.975  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    12.002  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

WARNING SECNO= 12.002 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO= 12.013 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 12.013 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 12.013 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 12.013 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 12.013 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 12.013 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

FLOODWAY DATA, WASH NO. 2 100- YEAR P
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.107	77.	242.	5.3	1537.5	1536.5	1.0
.220	95.	217.	6.0	1542.5	1541.6	.9
.352	133.	279.	4.6	1549.4	1548.7	.7
.481	210.	306.	4.2	1556.2	1555.2	1.0
.611	250.	367.	3.5	1562.4	1561.5	.9
.738	230.	321.	4.0	1568.2	1567.4	.8
.873	333.	381.	3.4	1575.0	1574.2	.8
1.013	236.	305.	4.2	1582.1	1581.3	.8
1.151	277.	337.	3.8	1589.8	1588.9	.9
1.288	352.	341.	3.7	1597.7	1597.0	.7
1.425	241.	329.	3.8	1605.5	1604.7	.8
1.555	370.	321.	3.9	1612.8	1612.0	.8
1.719	107.	134.	3.1	1621.9	1621.1	.8
1.831	31.	63.	6.6	1627.9	1627.8	.1
1.993	27.	67.	6.2	1637.9	1637.3	.6
2.123	85.	90.	4.5	1648.4	1647.7	.7
2.254	116.	96.	4.2	1656.6	1656.3	.3
2.281	174.	127.	3.1	1658.1	1658.0	.1
2.287	81.	74.	5.4	1658.6	1658.6	.0
2.313	81.	101.	4.0	1659.6	1659.6	.0
2.321	366.	100.	4.0	1660.3	1660.3	.0
-1.555	370.	321.	3.9	1612.8	1612.0	.8
11.711	114.	208.	4.1	1622.0	1621.3	.7
11.855	101.	148.	5.8	1631.4	1630.5	.9
11.967	46.	149.	5.8	1638.0	1637.3	.7
11.975	64.	114.	7.6	1638.2	1638.2	.0
12.002	64.	162.	5.3	1640.3	1640.3	.0
12.013	116.	138.	6.2	1640.5	1640.5	.0

THIS RUN EXECUTED 03SEP91 12:44:19

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
************************************


T1      SUN VALLEY PARKWAY NORTH FIS    CONTRACT:FCDMC NO. 90-04   FILE:WASH3-4
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX. AZ.
T3      WASH NO. 3  100-YEAR PROFILE                 DATE:5\16\91;REV:8\15\91

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0        2                          .0086                                     1511

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43         1         2        26        39        21        22        27        28
    53        54         0        38        13        14        15        55        26        56
    63         1        51         4        42        57         0        38        39        33
     3        10        11        12         5         7         8        16        17        18
     0       200

NC    .049      .049      .042        .1         .3
QT       2       766       766
ET               7.1       9.1                                        9775.2    10317.8     9952.6     9980.0
        FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
        MODEL WITH EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH NO.1
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED
X1    .0862        51    9952.6    9980.0         0         0         0
GR   1516.7    9775.2    1516.3    9798.6    1516.1    9820.9    1515.8    9849.0    1514.3    9868.7
GR   1512.1    9889.9    1511.6    9899.8    1510.8    9917.5    1511.2    9927.8    1510.7    9936.6
GR   1511.4    9944.8    1510.6    9952.6    1507.5    9961.4    1507.2    9971.5    1510.9    9980.0
GR   1512.5    9989.7    1513.1   10000.0    1513.1   10000.1    1513.8   10009.6    1514.1   10027.2
GR   1514.6   10046.2    1514.1   10063.5    1513.5   10085.5    1513.5   10105.7    1512.8   10135.2
GR   1512.9   10174.9    1512.2   10214.7    1512.6   10259.6    1512.9   10291.2    1513.4   10317.8
GR   1513.5   10347.3    1512.9   10380.3    1512.4   10424.9    1511.4   10452.5    1509.7   10485.0
```

GR	1509.4	10495.4	1509.9	10498.2	1509.6	10510.9	1509.8	10516.4	1508.4	10521.5
GR	1510.0	10524.6	1510.0	10549.4	1510.3	10571.2	1510.7	10592.4	1510.9	10626.0
GR	1511.2	10656.4	1511.1	10681.1	1512.1	10728.0	1512.6	10750.8	1512.5	10782.4
GR	1513.3	10798.6								
ET		7.1	9.1				9808.3	10226.6	9904.1	9925.6
X1	.2093	88	9904.1	9925.6	650	650	675			
GR	1521.2	9553.2	1520.5	9566.6	1519.2	9585.5	1517.4	9606.3	1516.7	9620.7
GR	1516.4	9639.4	1516.1	9657.9	1516.3	9672.8	1515.9	9693.2	1515.9	9700.9
GR	1516.3	9710.1	1515.4	9718.6	1515.4	9724.9	1516.0	9731.6	1514.6	9739.3
GR	1515.8	9743.1	1515.6	9751.5	1515.8	9758.5	1516.6	9763.4	1516.4	9771.8
GR	1516.9	9779.8	1517.2	9793.8	1518.6	9808.3	1518.5	9825.5	1518.0	9841.6
GR	1517.6	9849.5	1518.2	9859.2	1517.7	9867.8	1517.3	9871.4	1518.2	9877.2
GR	1518.7	9882.2	1518.2	9889.2	1517.8	9895.0	1516.7	9899.9	1516.1	9904.1
GR	1512.2	9909.0	1512.2	9915.4	1516.1	9925.6	1516.6	9932.2	1516.3	9939.0
GR	1516.7	9954.2	1516.2	9967.9	1515.9	9973.5	1515.8	9978.7	1516.3	9984.8
GR	1516.0	9990.4	1514.8	9996.2	1516.0	9999.3	1516.4	10000.0	1516.4	10000.1
GR	1515.0	10005.8	1516.0	10012.8	1515.9	10024.5	1516.4	10035.8	1516.9	10050.8
GR	1517.1	10063.1	1517.9	10082.8	1519.2	10106.9	1519.2	10121.0	1519.9	10137.0
GR	1520.1	10157.6	1520.2	10180.1	1520.8	10203.1	1521.3	10222.8	1521.2	10226.6
GR	1521.0	10238.8	1520.6	10260.2	1520.7	10288.9	1520.1	10327.4	1519.5	10342.4
GR	1519.9	10366.3	1519.9	10381.0	1518.9	10408.0	1519.4	10419.6	1518.1	10423.7
GR	1519.7	10426.5	1519.5	10450.1	1519.5	10485.1	1519.8	10505.2	1520.0	10527.1
GR	1519.6	10544.5	1520.4	10553.0	1520.2	10572.9	1520.6	10593.7	1521.3	10609.1
GR	1521.2	10632.8	1521.5	10652.9	1521.7	10659.5				
NC	.049	.049	.045							
ET		7.1	9.1				9660.6	10181.2	9971	10049
X1	.3551	89	9984.2	10008.7	775	800	800			
GR	1529.0	9660.6	1529.4	9674.6	1529.4	9698.4	1528.8	9719.2	1528.9	9737.1
GR	1528.6	9758.5	1528.8	9782.9	1528.8	9804.6	1527.4	9822.6	1526.8	9842.0
GR	1525.1	9860.9	1524.7	9884.7	1524.5	9912.9	1523.8	9937.3	1523.0	9944.6
GR	1523.5	9948.8	1523.2	9956.1	1522.9	9962.2	1521.8	9967.9	1523.4	9971.5
GR	1523.5	9978.2	1523.2	9984.2	1521.0	9992.7	1519.7	9997.1	1522.4	10000.0
GR	1522.4	10000.1	1523.8	10008.7	1523.8	10015.1	1523.0	10022.5	1520.6	10031.2
GR	1520.7	10035.1	1523.2	10037.8	1523.4	10045.4	1523.6	10060.2	1523.1	10074.4
GR	1522.8	10084.2	1521.0	10090.4	1523.1	10094.3	1523.4	10102.6	1522.9	10115.6
GR	1523.3	10129.3	1523.8	10142.7	1524.5	10158.0	1525.9	10181.2	1525.8	10200.7
GR	1525.8	10211.8	1525.5	10229.8	1525.0	10249.1	1524.9	10262.6	1525.2	10272.4
GR	1524.7	10284.2	1524.2	10302.2	1523.2	10320.4	1523.2	10345.6	1523.6	10354.9
GR	1522.8	10361.9	1522.0	10366.9	1520.6	10368.8	1523.1	10372.1	1523.5	10383.1
GR	1523.5	10392.0	1523.6	10402.2	1522.8	10415.8	1523.4	10419.0	1522.1	10427.5
GR	1523.2	10431.2	1523.4	10439.9	1523.6	10444.2	1523.4	10458.3	1522.9	10469.2
GR	1523.3	10487.2	1523.1	10501.0	1523.1	10515.0	1523.4	10539.2	1523.8	10564.8
GR	1524.5	10590.3	1524.9	10621.1	1525.9	10635.8	1526.0	10676.6	1526.1	10719.0
GR	1526.0	10780.4	1526.2	10816.2	1526.0	10881.1	1526.5	10927.2	1527.7	10964.3
GR	1527.4	10988.3	1527.0	11025.9	1527.8	11045.1	1528.1	11050.6		
ET		7.1	9.1				9736.4	10398.2	9989.9	10050.81
X1	.4991	70	9989.9	10018.9	790	770	790			
GR	1536.6	9736.4	1536.5	9757.6	1535.3	9784.5	1534.6	9809.3	1534.5	9831.1
GR	1534.6	9855.8	1533.7	9882.4	1533.8	9900.4	1534.7	9911.0	1533.8	9929.8
GR	1533.4	9943.1	1533.0	9955.3	1532.5	9969.3	1532.6	9983.5	1532.0	9989.9

GR	1531.3	9995.8	1529.8	10000.0	1529.8	10000.1	1528.8	10010.8	1532.5	10018.9

GR	1532.5	10030.7	1532.4	10049.0	1532.2	10076.7	1532.2	10091.9	1531.2	10103.4
GR	1531.8	10113.1	1531.9	10119.4	1531.0	10124.1	1531.9	10126.4	1531.8	10140.8
GR	1531.9	10157.9	1531.8	10174.2	1531.8	10195.6	1532.1	10217.5	1532.9	10240.5
GR	1532.7	10264.2	1533.2	10283.9	1532.7	10294.3	1533.0	10311.5	1533.1	10330.8
GR	1533.1	10346.1	1532.6	10359.7	1533.1	10367.3	1532.9	10378.1	1533.6	10387.1
GR	1534.2	10398.2	1533.9	10411.6	1534.1	10419.7	1534.2	10432.2	1533.9	10446.4
GR	1533.4	10457.3	1533.2	10470.5	1531.4	10482.1	1532.9	10486.2	1531.9	10489.5
GR	1532.5	10491.1	1532.8	10499.2	1533.2	10510.4	1533.5	10528.1	1533.5	10542.3
GR	1533.6	10557.8	1534.0	10570.2	1534.2	10582.9	1534.7	10604.3	1534.6	10618.6
GR	1535.3	10635.3	1535.7	10650.1	1535.9	10672.1	1536.4	10683.7	1535.8	10698.8
QT	2	649	649							
ET		7.1	9.1				9880.8	10325.9	9987.2	10065.6
X1	.6449	95	9987.2	10014.1	780	750	760			
GR	1542.5	9657.5	1542.1	9679.3	1542.5	9693.7	1542.1	9712.6	1542.1	9728.3
GR	1540.5	9738.3	1540.5	9743.7	1541.2	9748.9	1540.9	9760.8	1541.0	9775.6
GR	1540.8	9797.6	1540.5	9809.4	1541.3	9818.7	1541.0	9831.0	1538.9	9840.4
GR	1540.0	9847.1	1540.7	9870.2	1541.0	9880.8	1540.9	9896.6	1540.4	9906.2
GR	1540.1	9923.5	1538.4	9933.3	1540.4	9939.2	1540.1	9955.8	1540.1	9969.4
GR	1539.5	9981.0	1540.3	9987.2	1539.7	9997.2	1538.5	10000.0	1538.5	10000.1
GR	1538.1	10006.2	1538.6	10010.1	1540.4	10014.1	1540.5	10026.1	1540.4	10034.6
GR	1540.2	10049.8	1540.1	10064.8	1540.2	10076.8	1540.7	10084.5	1539.9	10097.9
GR	1540.5	10111.9	1540.6	10133.8	1539.8	10150.5	1540.5	10172.6	1540.8	10198.9
GR	1540.8	10208.8	1540.8	10225.0	1540.9	10238.9	1541.0	10249.5	1541.0	10270.9
GR	1541.6	10287.0	1542.0	10305.4	1543.1	10325.9	1542.6	10348.5	1542.7	10372.2
GR	1542.1	10398.0	1543.2	10420.3	1541.9	10431.8	1541.7	10436.3	1542.4	10446.3
GR	1542.0	10460.5	1541.9	10470.9	1542.0	10485.7	1542.2	10499.3	1542.4	10517.4
GR	1542.7	10544.1	1542.5	10572.6	1542.1	10590.7	1541.6	10604.9	1540.9	10624.4
GR	1540.6	10641.2	1540.4	10655.6	1540.8	10668.8	1540.2	10688.2	1540.4	10715.0
GR	1540.1	10732.2	1539.9	10757.4	1540.2	10757.9	1540.5	10758.0	1540.9	10790.7
GR	1540.8	10801.5	1540.2	10811.2	1540.3	10822.0	1540.5	10828.4	1540.7	10837.7
GR	1539.9	10846.2	1540.7	10848.9	1540.4	10857.6	1540.5	10861.1	1540.6	10869.7
GR	1540.6	10877.6	1541.1	10887.5	1541.9	10900.8	1542.1	10915.7	1542.4	10927.2
ET		7.1	9.1				9915.1	10490.3	10000.1	10047.5
X1	.7898	90	10000.1	10021.3	770	740	760			
GR	1552.1	9590.6	1549.1	9735.5	1548.8	9750.5	1549.3	9760.3	1548.7	9772.8
GR	1548.8	9793.2	1548.5	9808.2	1549.1	9818.3	1546.1	9824.3	1548.1	9830.2
GR	1548.7	9835.7	1547.2	9842.6	1548.6	9846.6	1548.4	9854.1	1548.3	9862.0
GR	1547.8	9873.6	1548.5	9879.6	1548.9	9889.8	1549.8	9901.2	1550.4	9906.2
GR	1550.8	9915.1	1550.8	9923.5	1550.7	9931.5	1550.5	9940.9	1550.6	9951.1
GR	1549.7	9957.7	1548.2	9966.9	1549.1	9972.7	1549.1	9980.4	1549.7	9990.7
GR	1550.2	9996.9	1549.7	10000.0	1549.7	10000.1	1548.0	10006.7	1547.5	10010.5
GR	1547.5	10015.5	1549.4	10021.3	1549.7	10026.4	1548.7	10031.5	1548.5	10036.5
GR	1547.8	10042.6	1549.2	10046.4	1549.2	10054.8	1549.1	10061.7	1548.5	10067.1
GR	1549.1	10072.0	1549.3	10081.1	1549.3	10091.2	1549.1	10103.7	1547.9	10112.3
GR	1549.4	10117.7	1549.0	10124.4	1549.0	10137.0	1549.9	10151.1	1550.5	10167.2
GR	1550.4	10189.2	1551.2	10205.2	1551.4	10219.9	1551.8	10237.1	1552.1	10257.1
GR	1551.8	10372.1	1550.4	10376.2	1551.2	10380.1	1550.9	10390.8	1551.8	10401.0
GR	1552.3	10490.3	1552.1	10519.6	1552.0	10551.5	1551.6	10570.8	1551.2	10591.7
GR	1551.1	10614.4	1550.7	10642.0	1550.3	10656.7	1550.2	10673.3	1549.9	10690.3
GR	1548.9	10814.4	1548.4	10845.9	1548.8	10852.2	1548.7	10862.8	1548.1	10876.5
GR	1548.2	10899.3	1548.3	10913.5	1548.2	10930.9	1548.6	10935.8	1547.8	10945.2

GR	1548.4	10954.6	1548.9	10967.8	1548.6	10981.0	1549.0	11005.0	1549.9	11183.4

ET		7.1	9.1				9725.7	10157.8	9906.5	9969.0
X1	1.0808	70	9906.5	9953.6	770	770	785			
GR	1560.4	9725.7	1559.5	9761.9	1558.7	9778.5	1558.9	9786.7	1558.4	9796.5
GR	1558.1	9806.1	1557.4	9814.2	1556.6	9819.9	1557.8	9824.2	1558.2	9827.9
GR	1558.2	9835.7	1558.2	9841.4	1558.4	9849.9	1558.1	9856.0	1559.1	9862.9
GR	1558.2	9868.1	1558.5	9876.9	1558.4	9884.7	1557.6	9889.6	1556.5	9893.8
GR	1558.2	9898.2	1558.6	9902.0	1558.3	9906.5	1556.3	9909.4	1556.1	9915.6
GR	1557.6	9919.4	1557.5	9926.0	1557.5	9933.6	1557.2	9938.5	1556.2	9942.3
GR	1556.1	9946.3	1556.8	9948.5	1557.6	9953.6	1557.7	9962.5	1557.6	9972.2
GR	1557.7	9983.3	1557.8	9992.1	1558.2	9998.2	1557.9	10000.0	1557.9	10000.1
GR	1558.2	10040.6	1557.8	10048.1	1557.8	10060.4	1557.4	10066.1	1557.9	10074.2
GR	1557.8	10131.8	1558.4	10138.2	1558.1	10146.7	1558.2	10152.9	1559.1	10157.8
GR	1558.8	10162.9	1558.4	10170.0	1558.9	10176.5	1558.8	10191.1	1558.7	10199.6
GR	1558.2	10266.0	1558.7	10277.9	1559.6	10296.9	1559.0	10310.3	1559.1	10324.3
GR	1559.2	10338.8	1559.2	10351.5	1559.0	10363.0	1559.4	10374.5	1559.4	10385.5
GR	1559.0	10454.2	1559.3	10462.1	1559.2	10471.9	1559.4	10492.0	1559.6	10501.0
ET		7.1	9.1				9702.7	10112.5	9987.4	10022.9
X1	1.0843	90	9987.4	10012.3	790	760	790			
GR	1570.0	9702.7	1569.0	9722.4	1568.2	9748.6	1567.0	9776.9	1566.4	9802.2
GR	1566.6	9817.8	1566.2	9830.1	1566.5	9835.6	1566.5	9847.8	1566.0	9863.4
GR	1566.2	9884.7	1565.7	9910.9	1565.3	9937.2	1565.5	9948.1	1566.0	9952.9
GR	1565.8	9962.8	1565.3	9970.6	1565.2	9977.7	1565.1	9987.4	1563.8	9991.8
GR	1564.4	9996.8	1563.7	10000.0	1563.7	10000.1	1563.6	10008.5	1565.9	10012.3
GR	1565.4	10018.1	1564.9	10022.6	1565.7	10028.2	1565.8	10041.1	1565.9	10049.1
GR	1567.0	10059.0	1567.0	10069.9	1567.7	10087.2	1568.3	10100.5	1568.6	10112.5
GR	1568.0	10124.8	1567.7	10139.8	1567.7	10148.9	1567.7	10160.9	1566.6	10180.2
GR	1566.6	10197.5	1566.8	10210.6	1566.3	10221.8	1565.8	10232.8	1565.9	10244.0
GR	1565.9	10250.8	1565.1	10260.5	1565.4	10264.0	1565.2	10272.3	1566.0	10282.2
GR	1565.7	10295.0	1565.8	10308.8	1565.7	10324.7	1566.0	10346.4	1566.3	10358.4
GR	1565.6	10371.6	1565.6	10391.1	1565.8	10409.3	1565.8	10428.5	1565.5	10440.9
GR	1565.8	10447.8	1565.5	10457.2	1565.9	10462.5	1565.8	10469.3	1565.9	10483.2
GR	1565.9	10495.0	1565.4	10503.2	1566.1	10512.1	1566.0	10534.2	1566.8	10566.1
GR	1567.1	10584.1	1567.0	10596.0	1566.1	10609.9	1565.7	10620.3	1566.8	10626.1
GR	1565.9	10633.0	1566.3	10641.3	1566.1	10646.0	1566.1	10652.7	1566.6	10662.0
GR	1567.2	10678.7	1567.3	10695.4	1567.6	10707.5	1567.9	10721.0	1567.7	10731.5
GR	1568.1	10757.4	1568.6	10783.0	1569.1	10813.7	1569.8	10852.4	1570.3	10857.8
QT	2	532	532							
ET		7.1	9.1				9910.6	10307.4	9940.0	10000.0
X1	1.2206	49	9975.1	9998.8	720	710	725			
GR	1579.1	9607.2	1579.1	9621.3	1578.7	9640.8	1578.6	9656.6	1577.3	9683.9
GR	1576.1	9706.9	1574.6	9741.0	1574.5	9761.6	1573.2	9780.9	1573.0	9793.4
GR	1572.8	9804.2	1571.5	9812.8	1572.9	9814.8	1573.0	9828.2	1572.8	9840.0
GR	1573.4	9863.7	1573.6	9886.4	1574.4	9910.6	1574.2	9922.0	1573.3	9936.1
GR	1573.5	9943.8	1573.5	9953.2	1572.6	9960.0	1573.3	9964.3	1573.9	9975.1
GR	1573.3	9982.0	1571.6	9986.3	1571.9	9995.0	1573.6	9998.8	1573.1	10000.0
GR	1573.1	10000.1	1573.9	10005.4	1573.7	10015.4	1573.2	10021.2	1573.1	10025.4
GR	1573.6	10028.5	1573.4	10038.0	1573.3	10058.8	1573.2	10075.5	1573.4	10093.8
GR	1573.4	10110.7	1574.2	10137.9	1574.6	10163.4	1575.0	10177.4	1575.4	10197.1
GR	1575.4	10223.0	1575.9	10250.8	1576.7	10282.2	1577.7	10307.4		

ET		7.1	9.1				9855.6	10271.1	9971.1	10010.3
X1	1.3475	76	9988.0	10010.3	690	690	690			
GR	1586.7	9270.2	1586.6	9303.8	1586.4	9342.2	1586.0	9376.1	1585.8	9408.4
GR	1585.8	9456.6	1585.3	9476.4	1584.6	9490.4	1583.5	9502.2	1583.0	9520.1
GR	1582.6	9530.5	1581.8	9539.7	1581.7	9554.4	1581.3	9571.6	1580.8	9584.9
GR	1579.5	9591.9	1580.8	9596.1	1581.7	9603.5	1581.0	9617.3	1580.5	9625.9
GR	1579.9	9630.0	1580.4	9632.4	1580.8	9639.3	1581.7	9647.2	1581.5	9661.9
GR	1581.6	9670.3	1581.4	9681.3	1581.7	9690.5	1581.3	9700.7	1581.2	9718.1
GR	1581.9	9723.6	1581.8	9733.7	1581.9	9754.0	1581.8	9767.2	1582.1	9783.9
GR	1582.0	9799.9	1582.0	9817.6	1582.4	9837.5	1582.3	9855.6	1582.1	9872.5
GR	1581.6	9900.0	1581.6	9915.8	1581.0	9936.5	1580.1	9948.6	1581.7	9963.4
GR	1580.8	9971.7	1580.8	9979.9	1580.3	9988.0	1578.6	9995.2	1578.3	10000.0
GR	1578.3	10000.1	1580.0	10005.5	1580.9	10010.3	1580.4	10017.8	1581.2	10023.1
GR	1580.1	10031.1	1580.6	10033.2	1580.1	10040.3	1580.8	10045.1	1580.4	10053.3
GR	1580.7	10065.3	1581.4	10074.4	1580.8	10082.3	1580.4	10092.2	1580.4	10103.3
GR	1580.3	10116.6	1581.8	10132.3	1582.1	10149.0	1582.2	10161.6	1582.2	10180.8
GR	1582.9	10200.6	1584.2	10213.7	1584.8	10229.0	1585.1	10240.1	1585.7	10254.3
GR	1585.6	10271.1								

ET		7.1	9.1				9578.7	10445.2	10060.0	10110.0
X1	1.4839	95	10063.3	10104.7	770	750	790			
GR	1592.2	9321.8	1592.1	9334.0	1591.4	9340.5	1591.0	9355.2	1591.4	9360.1
GR	1589.9	9440.1	1590.4	9444.9	1590.0	9450.2	1589.6	9454.2	1590.4	9456.3
GR	1591.5	9485.0	1591.4	9490.5	1591.1	9499.1	1590.9	9504.8	1591.1	9509.5
GR	1591.9	9513.3	1591.6	9519.2	1592.0	9524.5	1591.6	9530.3	1591.2	9535.7
GR	1591.4	9569.9	1591.5	9575.4	1592.1	9578.7	1591.8	9583.8	1591.7	9591.5
GR	1591.5	9663.3	1591.4	9671.1	1591.6	9680.4	1591.7	9685.3	1590.9	9685.4
GR	1590.9	9717.4	1591.4	9731.0	1591.0	9741.4	1591.3	9747.4	1590.9	9760.0
GR	1590.5	9774.9	1590.5	9790.9	1591.1	9805.8	1590.4	9819.8	1590.4	9833.5
GR	1590.5	9898.6	1590.0	9914.4	1590.3	9924.6	1590.2	9935.6	1590.4	9949.0
GR	1590.2	9963.9	1589.9	9973.9	1590.0	9985.6	1589.4	9993.6	1589.0	10000.0
GR	1588.4	10031.2	1588.7	10037.8	1588.5	10044.8	1588.3	10051.0	1587.7	10058.6
GR	1587.3	10063.3	1585.9	10069.0	1586.9	10071.3	1587.5	10076.1	1587.7	10082.8
GR	1587.5	10089.1	1586.7	10093.2	1586.1	10097.0	1585.9	10102.1	1587.0	10104.7
GR	1587.8	10108.6	1588.5	10114.6	1588.8	10120.9	1588.8	10129.0	1588.5	10137.4
GR	1588.4	10146.4	1587.8	10155.1	1587.8	10161.7	1587.7	10168.9	1586.7	10174.2
GR	1587.3	10178.1	1587.5	10187.2	1587.5	10196.6	1587.9	10207.7	1587.9	10221.6
GR	1589.1	10273.1	1589.6	10281.7	1589.9	10295.0	1590.2	10302.9	1590.8	10314.7
GR	1591.3	10324.7	1591.1	10334.4	1590.9	10343.8	1590.8	10354.6	1590.3	10361.2
GR	1590.3	10402.9	1590.9	10409.6	1590.8	10419.4	1591.2	10430.9	1592.0	10445.2

ET		7.1	9.1				9895.3	10585.0	9963.7	10004.6
X1	1.6222	95	9963.7	9979.9	735	800	760			
GR	1601.9	9568.3	1600.1	9645.9	1599.3	9660.4	1599.1	9677.0	1598.5	9691.5
GR	1598.8	9702.1	1598.1	9709.8	1597.5	9715.4	1598.4	9719.4	1598.9	9725.0
GR	1599.0	9732.9	1598.5	9739.5	1599.1	9748.0	1599.5	9754.6	1599.2	9761.2
GR	1599.3	9796.3	1599.4	9799.4	1598.9	9804.5	1599.1	9812.9	1598.9	9823.9
GR	1599.3	9889.2	1599.6	9895.3	1599.2	9901.5	1598.8	9910.9	1598.7	9925.6
GR	1598.0	9934.6	1598.1	9944.1	1598.0	9950.9	1597.9	9956.1	1596.4	9963.7
GR	1595.0	9966.8	1594.9	9971.8	1595.8	9975.1	1596.2	[illegible]	1597.0	9986.5
GR	1597.6	9996.0	1597.4	10000.0	1597.4	10000.1	1597.1	10004.7	1597.3	10012.8
GR	1597.0	10019.0	1597.3	10027.2	1597.3	10034.9	1597.9	10041.3	1597.8	10047.6

GR	1598.0	10055.5	1597.8	10063.6	1597.4	10074.0	1598.1	10080.3	1597.8	10087.5

GR	1598.0	10126.2	1598.2	10130.6	1597.4	10138.6	1597.5	10149.8	1597.3	10170.8
GR	1597.3	10185.7	1597.6	10195.3	1597.8	10204.0	1597.8	10210.8	1597.0	10217.4
GR	1596.4	10223.4	1597.3	10226.5	1597.2	10232.1	1597.5	10240.7	1598.1	10248.6
GR	1597.8	10257.0	1597.5	10264.5	1597.7	10271.0	1597.8	10275.2	1597.9	10282.5
GR	1598.1	10289.9	1598.2	10293.9	1596.1	10297.9	1597.8	10300.8	1598.2	10304.4
GR	1599.2	10334.9	1599.7	10340.7	1599.9	10348.3	1599.7	10354.4	1599.9	10360.4
GR	1600.3	10423.8	1600.3	10434.8	1599.8	10445.9	1599.3	10454.8	1599.6	10465.5
GR	1599.8	10474.0	1599.6	10481.8	1599.4	10489.7	1599.6	10500.0	1599.7	10509.8
GR	1600.9	10555.4	1600.9	10562.7	1600.8	10570.6	1601.3	10574.6	1601.4	10585.0
ET			9.1						9961.4	10100

THIS SECTION IS DOWNSTREAM COMMON SECTION FOR TRIBUTARYS TO STRUC.#14\15

X1	1.768	95	9961.4	9980.4	790	770	820			
GR	1610.5	9810.6	1610.2	9815.2	1610.1	9821.8	1609.6	9830.4	1609.1	9837.7
GR	1608.5	9844.6	1608.1	9854.2	1607.5	9863.9	1607.3	9871.2	1607.2	9879.7
GR	1606.5	9888.2	1606.5	9894.6	1606.9	9900.0	1606.4	9907.3	1605.5	9913.3
GR	1606.1	9921.4	1605.0	9927.6	1605.5	9930.6	1605.9	9935.1	1606.3	9942.0
GR	1606.3	9947.4	1605.8	9953.5	1605.4	9961.4	1605.0	9968.1	1604.1	9972.4
GR	1603.4	9977.4	1605.3	9980.4	1605.2	9987.5	1605.3	9995.8	1605.7	10000.0
GR	1605.7	10000.1	1606.0	10004.9	1606.0	10012.2	1606.5	10019.9	1606.2	10026.9
GR	1606.5	10036.5	1606.6	10042.2	1606.4	10050.9	1606.1	10060.1	1606.3	10067.3
GR	1606.4	10072.2	1606.5	10076.1	1605.5	10080.8	1605.2	10085.5	1605.3	10094.1
GR	1605.5	10102.5	1605.3	10110.0	1604.3	10113.5	1603.8	10117.3	1604.0	10121.9
GR	1605.4	10126.1	1606.4	10131.0	1606.5	10137.2	1606.5	10145.8	1606.6	10153.4
GR	1606.1	10162.3	1605.7	10168.4	1605.8	10175.7	1605.9	10183.0	1605.7	10189.2
GR	1605.8	10228.1	1605.8	10234.4	1605.5	10239.6	1604.9	10244.9	1604.6	10248.3
GR	1604.5	10253.1	1605.4	10256.0	1604.7	10261.0	1605.2	10266.0	1606.3	10271.1
GR	1606.8	10342.7	1606.7	10353.8	1606.4	10366.5	1606.5	10380.0	1606.6	10388.1
GR	1607.1	10447.1	1607.3	10457.9	1607.5	10463.2	1607.3	10471.7	1607.5	10479.9
GR	1607.0	10486.3	1607.0	10495.1	1607.2	10503.7	1607.2	10508.4	1607.4	10515.7
GR	1606.4	10521.3	1607.5	10524.8	1607.4	10533.1	1607.4	10542.9	1607.5	10559.0
GR	1608.0	10649.5	1607.7	10659.7	1608.2	10662.2	1608.3	10675.2	1608.7	10685.3
QT	2	86	86							
ET		7.1	9.1				9811.2	10153.6	10074.9	10083.7
X1	1.8883	75	10074.9	10083.7	615	615	615			
GR	1617.8	9811.2	1616.7	9859.9	1616.8	9869.6	1616.4	9879.8	1615.9	9889.5
GR	1615.6	9965.0	1615.6	9969.7	1615.5	9973.1	1615.7	9976.6	1615.1	9981.5
GR	1614.1	10000.0	1614.1	10000.1	1614.2	10003.2	1614.4	10007.3	1614.5	10011.0
GR	1613.1	10042.8	1612.6	10048.0	1613.8	10052.0	1614.3	10056.5	1613.8	10061.2
GR	1613.6	10066.0	1613.3	10071.2	1613.0	10074.9	1612.1	10078.1	1611.9	10081.5
GR	1613.6	10083.7	1614.5	10087.1	1613.9	10091.0	1613.5	10095.2	1613.4	10100.6
GR	1613.3	10102.2	1612.9	10102.3	1614.1	10110.1	1614.7	10115.8	1614.4	10122.5
GR	1614.2	10127.8	1614.9	10135.6	1614.4	10142.2	1614.6	10148.1	1615.2	10153.6
GR	1615.0	10160.0	1614.8	10168.3	1614.6	10178.6	1614.3	10189.1	1613.8	10196.7
GR	1613.9	10204.3	1613.4	10213.1	1612.4	10219.0	1611.7	10222.5	1611.9	10227.1
GR	1613.5	10230.6	1613.9	10236.3	1613.5	10241.2	1613.5	10245.9	1613.8	10253.1
GR	1614.0	10258.4	1614.1	10262.4	1613.7	10267.3	1613.2	10273.1	1612.8	10278.5
GR	1612.8	10283.4	1613.2	10288.0	1612.9	10291.9	1612.0	10295.9	1612.8	10300.2
GR	1613.1	10306.5	1613.1	10313.3	1612.8	10321.5	1612.9	10329.6	1612.4	10337.4
GR	1612.8	10341.1	1612.9	10347.3	1613.4	10354.5	1613.6	10360.7	1614.0	10365.5

ET		7.1	9.1				9800.1	10017.4	9970.5	9983.1
X1	2.0067	95	9970.5	9983.1	650	660	690			
GR	1623.7	9800.1	1623.6	9805.1	1623.3	9809.8	1623.5	9817.1	1623.3	9822.4
GR	1623.0	9857.0	1622.7	9864.9	1622.4	9875.3	1621.9	9883.2	1621.9	9890.6
GR	1621.9	9896.1	1622.1	9900.8	1621.3	9904.0	1620.7	9906.4	1621.2	9907.9
GR	1621.7	9910.3	1621.7	9914.6	1622.0	9920.7	1621.6	9925.9	1621.4	9930.1
GR	1621.5	9932.9	1622.4	9935.5	1621.4	9938.7	1620.8	9941.2	1621.4	9944.8
GR	1622.0	9948.6	1621.7	9954.6	1622.1	9958.1	1622.2	9961.7	1621.8	9966.8
GR	1621.3	9970.5	1620.8	9974.6	1620.7	9980.2	1621.7	9983.1	1622.6	9987.4
GR	1622.8	10012.0	1623.3	10017.4	1623.1	10023.2	1623.0	10030.1	1623.0	10035.9
GR	1623.2	10042.3	1622.8	10049.0	1622.7	10055.1	1622.8	10060.4	1622.4	10068.8
GR	1621.8	10113.9	1621.8	10119.1	1622.3	10125.0	1622.6	10128.0	1621.8	10131.5
GR	1622.2	10159.8	1622.5	10164.1	1622.6	10167.3	1622.5	10171.4	1622.4	10176.5
GR	1622.2	10182.1	1621.8	10187.2	1621.8	10191.4	1621.7	10196.9	1621.6	10202.9
GR	1620.7	10228.9	1620.5	10234.9	1620.5	10240.2	1620.2	10245.7	1620.1	10250.2
GR	1619.4	10253.5	1620.4	10255.0	1620.3	10259.4	1620.5	10263.0	1620.4	10267.2
GR	1619.9	10270.2	1619.2	10272.9	1618.8	10276.0	1620.3	10278.6	1621.1	10282.3
GR	1621.8	10286.8	1622.0	10290.7	1622.0	10294.9	1621.7	10298.3	1621.4	10303.3
GR	1621.9	10306.6	1622.2	10310.3	1621.6	10315.2	1621.6	10320.2	1621.7	10325.0
GR	1621.8	10330.2	1621.6	10336.1	1621.2	10341.8	1621.4	10345.6	1621.5	10349.2
GR	1622.1	10352.5	1622.3	10355.7	1622.1	10359.5	1621.7	10363.1	1622.1	10367.6

ET		7.1	9.1				9894.0	10046.9	9952.7	9962.7
X1	2.0758	95	9952.4	9962.7	385	380	380			
GR	1628.1	9894.0	1628.1	9899.2	1627.5	9908.9	1627.2	9915.3	1626.9	9922.9
GR	1626.6	9928.6	1625.4	9934.8	1626.6	9937.8	1626.4	9945.4	1626.7	9952.4
GR	1625.9	9954.8	1624.9	9958.1	1626.0	9962.7	1627.1	9967.9	1626.6	9973.3
GR	1626.8	9992.1	1627.1	10000.0	1627.1	10000.1	1627.2	10012.1	1626.6	10020.4
GR	1626.9	10027.4	1625.8	10034.5	1627.7	10039.5	1627.4	10043.0	1627.1	10046.9
GR	1626.7	10090.7	1626.2	10100.6	1626.5	10107.9	1626.8	10116.0	1627.1	10123.0
GR	1626.5	10167.7	1626.7	10171.4	1626.8	10176.5	1627.1	10181.1	1626.4	10186.8
GR	1626.3	10255.5	1625.8	10262.8	1625.6	10269.4	1626.0	10272.4	1625.7	10278.9
GR	1625.6	10284.8	1625.6	10289.9	1625.7	10295.9	1625.9	10302.2	1626.4	10307.4
GR	1626.3	10312.9	1626.1	10319.9	1626.1	10325.6	1625.1	10336.5	1624.4	10339.1
GR	1625.1	10341.9	1624.9	10346.2	1624.8	10350.3	1624.7	10352.9	1625.0	10356.6
GR	1624.9	10360.6	1625.0	10364.4	1624.8	10369.7	1624.5	10372.6	1624.5	10375.8
GR	1624.5	10377.7	1625.0	10380.3	1625.4	10383.5	1626.1	10386.7	1626.5	10388.5
GR	1625.9	10392.0	1625.6	10394.7	1625.6	10398.0	1625.7	10402.0	1625.4	10404.8
GR	1625.2	10408.2	1625.4	10411.8	1625.3	10414.8	1625.7	10418.1	1625.5	10422.3
GR	1625.3	10426.6	1624.5	10430.9	1624.1	10434.8	1624.0	10437.0	1625.1	10440.5
GR	1625.2	10445.8	1625.0	10451.5	1624.8	10457.6	1625.1	10461.8	1625.5	10469.1
GR	1626.0	10502.7	1626.1	10507.4	1626.3	10513.6	1626.4	10523.1	1626.3	10530.6
GR	1626.3	10535.5	1626.6	10541.7	1626.6	10553.2	1626.9	10565.1	1627.0	10580.0

ET			9.1						10003.5	10019.5
X1	2.1279	55	10003.5	10019.5	280	.275	290			
GR	1634.9	9688.7	1634.6	9704.2	1634.4	9720.1	1634.1	9735.0	1633.1	9762.3
GR	1632.6	9779.5	1632.3	9795.8	1632.2	9807.8	1631.9	9814.2	1631.5	9819.9
GR	1631.4	9823.7	1631.7	9826.7	1632.6	9831.8	1632.1	9836.6	1631.7	9846.7
GR	1631.6	9858.7	1631.2	9878.2	1631.3	9889.5	1630.9	9899.6	1630.7	9904.4
GR	1631.0	9911.0	1630.9	9920.3	1630.8	9927.7	1631.2	9933.0	1630.8	9937.8
GR	1631.3	9947.0	1630.8	9952.4	1631.4	9957.1	1630.9	9962.8	1630.8	9972.0

```
GR   1630.1    10003.5    1628.8    10006.1    1629.1    10009.7    1629.6    10013.8    1630.3    10019.5
GR   1630.7    10025.5    1630.4    10031.9    1630.7    10043.1    1630.7    10063.2    1630.9    10085.3
GR   1631.2    10104.5    1631.2    10123.7    1631.0    10144.4    1631.1    10162.5    1631.0    10174.5
GR   1631.2    10186.0    1631.5    10195.7    1632.1    10204.5    1632.7    10212.1    1633.1    10221.6

NC     .03        .03        .03        .3         .5
       BEGIN SUN VALLEY PARKWAY CULVERTS (4-10'X4' CULVERTS- STRUC.#13)
X1   2.1421         4     9978.5    10021.5        75         75         75
X3      10                                                                 1635       1635
GR    1635     9978.5      1630     9978.5      1630    10021.5       1635    10021.5

NC    .012       .012       .012
SC   4.012         .2        2.7          0         4         10        154       12.3    1631.0       1630
       END CULVERTS
X1   2.1712         4     9978.5    10021.5       154        154        154
X2                             2     1635.0    1635.0
X3      10                                                              1635.0     1635.0
BT       8      10000     1637.9                10001     1637.4                10041     1636.6
BT   10049     1636.2                10067     1636.0                  10068     1635.0                10152
BT   1635.0                10177     1636.0
GR   1635.0     9978.5     1631.0     9978.5    1631.0    10021.5     1635.0    10021.5

NC     .03        .03        .03
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
       UPSTREAM OF ROAD.
X1   2.1863         4      9972     10030        80         80         80
GR    1634       9972      1633      9982      1633      10021       1635      10030

NC    .049       .049       .045        .1        .3
QT       2        532        532
ET                          9.1                                                    9961.4      10100
       REPEAT THIS SECTION FOR START OF TRIBUTARY TO STRUC. #14.
X1   -1.768        95     9961.4     9980.4       790        770        820
GR   1610.5     9810.6     1610.2     9815.2    1610.1     9821.8     1609.6     9830.4    1609.1     9837.7
GR   1608.5     9844.6     1608.1     9854.2    1607.5     9863.9     1607.3     9871.2    1607.2     9879.7
GR   1606.5     9888.2     1606.5     9894.6    1606.9     9900.0     1606.4     9907.3    1605.5     9913.3
GR   1606.1     9921.4     1605.0     9927.6    1605.5     9930.6     1605.9     9935.1    1606.3     9942.0
GR   1606.3     9947.4     1605.8     9953.5    1605.4     9961.4     1605.0     9968.1    1604.1     9972.4
GR   1603.4     9977.4     1605.3     9980.4    1605.2     9987.5     1605.3     9995.8    1605.7    10000.0
GR   1605.7    10000.1     1606.0    10004.9    1606.0    10012.2     1606.5    10019.9    1606.2    10026.9
GR   1606.5    10036.5     1606.6    10042.2    1606.4    10050.9     1606.1    10060.1    1606.3    10067.3
GR   1606.4    10072.2     1606.5    10076.1    1605.5    10080.8     1605.2    10085.5    1605.3    10094.1
GR   1605.5    10102.5     1605.3    10110.0    1604.3    10113.5     1603.8    10117.3    1604.0    10121.9
GR   1605.4    10126.1     1606.4    10131.0    1606.5    10137.2     1606.5    10145.8    1606.6    10153.4
GR   1606.1    10162.3     1605.7    10168.4    1605.8    10175.7     1605.9    10183.0    1605.7    10189.2
GR   1605.8    10228.1     1605.8    10234.4    1605.5    10239.6     1604.9    10244.9    1604.6    10248.3
GR   1604.5    10253.1     1605.4    10256.0    1604.7    10261.0     1605.2    10266.0    1606.3    10271.1
GR   1606.8    10342.7     1606.7    10353.8    1606.4    10366.5     1606.5    10380.0    1606.6    10388.1
GR   1607.1    10447.1     1607.3    10457.9    1607.5    10463.2     1607.3    10471.7    1607.5    10479.9
GR   1607.0    10486.3     1607.0    10495.1    1607.2    10503.7     1607.2    10508.4    1607.4    10515.7
GR   1606.4    10521.3     1607.5    10524.8    1607.4    10533.1     1607.4    10542.9    1607.5    10559.0
GR   1608.0    10649.5     1607.7    10659.7    1608.2    10662.2     1608.3    10675.2    1608.7    10685.3
```

```
QT       2       171       171
ET               7.1       9.1                                  10153.6    10262.4    10219.0    10230.6
        BEGIN TRIBUTARY TO STRUC.#14, REDUCE Q TO 171CFS. ADD 10 TO SECTION I.D.
        STA. 10195 = TRIB. BASELINE.
X1   11.884        75   10219.0   10230.6       615       615       615
GR   1617.8    9811.2    1616.7    9859.9    1616.8    9869.6    1616.4    9879.8    1615.9    9889.5
GR   1615.6    9965.0    1615.6    9969.7    1615.5    9973.1    1615.7    9976.6    1615.1    9981.5
GR   1614.1   10000.0    1614.1   10000.1    1614.2   10003.2    1614.4   10007.3    1614.5   10011.0
GR   1613.1   10042.8    1612.6   10048.0    1613.8   10052.0    1614.3   10056.5    1613.8   10061.2
GR   1613.6   10066.0    1613.3   10071.2    1613.0   10074.9    1612.1   10078.1    1611.9   10081.5
GR   1613.6   10083.7    1614.5   10087.1    1613.9   10091.0    1613.5   10095.2    1613.4   10100.6
GR   1613.3   10102.2    1612.9   10102.3    1614.1   10110.1    1614.7   10115.8    1614.4   10122.5
GR   1614.2   10127.8    1614.9   10135.6    1614.4   10142.2    1614.6   10148.1    1615.2   10153.6
GR   1615.0   10160.0    1614.8   10168.3    1614.6   10178.6    1614.3   10189.1    1613.8   10196.7
GR   1613.4   10204.3    1612.9   10213.1    1612.4   10219.0    1611.7   10222.5    1611.9   10227.1
GR   1613.5   10230.6    1613.9   10236.3    1613.5   10241.2    1613.5   10245.9    1613.8   10253.1
GR   1614.0   10258.4    1614.1   10262.4    1613.7   10267.3    1613.2   10273.1    1612.8   10278.5
GR   1612.8   10283.4    1613.2   10288.0    1612.9   10291.9    1612.0   10295.9    1612.8   10300.2
GR   1613.1   10306.5    1613.1   10313.3    1612.8   10321.5    1612.9   10329.6    1612.4   10337.4
GR   1612.8   10341.1    1612.9   10347.3    1613.4   10354.5    1613.6   10360.7    1614.0   10365.5

ET               7.1       9.1                                  10017.4    10355.7    10263.0    10287.0
        STA. 10275 = TRIB. BASELINE.
X1   12.000        95   10270.2   10278.6       650       660       670
GR   1623.7    9800.1    1623.6    9805.1    1623.3    9809.8    1623.5    9817.1    1623.3    9822.4
GR   1623.0    9857.0    1622.7    9864.9    1622.4    9875.3    1621.9    9883.2    1621.9    9890.6
GR   1621.9    9896.1    1622.1    9900.8    1621.3    9904.0    1620.7    9906.4    1621.2    9907.9
GR   1621.7    9910.3    1621.7    9914.6    1622.0    9920.7    1621.6    9925.9    1621.4    9930.1
GR   1621.5    9932.9    1622.4    9935.5    1621.4    9938.7    1620.8    9941.2    1621.4    9944.8
GR   1622.0    9948.6    1621.7    9954.6    1622.1    9958.1    1622.2    9961.7    1621.8    9966.8
GR   1621.3    9970.5    1620.8    9974.6    1620.7    9980.2    1621.7    9983.1    1622.6    9987.4
GR   1622.8   10012.0    1623.3   10017.4    1623.1   10023.2    1623.0   10030.1    1623.0   10035.9
GR   1623.2   10042.3    1622.8   10049.0    1622.7   10055.1    1622.8   10060.4    1622.4   10068.8
GR   1621.8   10113.9    1621.8   10119.1    1622.3   10125.0    1622.6   10128.0    1621.8   10131.5
GR   1622.2   10159.8    1622.5   10164.1    1622.6   10167.3    1622.5   10171.4    1622.4   10176.5
GR   1622.2   10182.1    1621.8   10187.2    1621.8   10191.4    1621.7   10196.9    1621.6   10202.9
GR   1620.7   10228.9    1620.5   10234.9    1620.5   10240.2    1620.2   10245.7    1620.1   10250.2
GR   1619.4   10253.5    1620.4   10255.0    1620.3   10259.4    1620.5   10263.0    1620.4   10267.2
GR   1619.9   10270.2    1619.2   10272.9    1618.8   10276.0    1620.3   10278.6    1621.1   10282.3
GR   1621.8   10286.8    1622.0   10290.7    1622.0   10294.9    1621.7   10298.3    1621.4   10303.3
GR   1621.9   10306.6    1622.2   10310.3    1621.6   10315.2    1621.6   10320.2    1621.7   10325.0
GR   1621.8   10330.2    1621.6   10336.1    1621.2   10341.8    1621.4   10345.6    1621.5   10349.2
GR   1622.1   10352.5    1622.3   10355.7    1622.1   10359.5    1621.7   10363.1    1622.1   10367.6

ET               7.1       9.1                                  10046.9    10380.0      10420      10442
        STA. 10400 = TRIB. BASELINE.
X1   12.063        95   10426.6   10440.5       385       380       380
GR   1628.1    9894.0    1628.1    9899.2    1627.5    9908.9    1627.2    9915.3    1626.9    9922.9
GR   1626.6    9928.6    1625.4    9934.8    1626.6    9937.8    1626.4    9945.4    1626.7    9952.4
GR   1625.9    9954.8    1624.9    9958.1    1626.0    9962.7    1627.1    9967.9    1626.6    9973.3
GR   1626.8    9992.1    1627.1   10000.0    1627.1   10000.1    1627.2   10012.1    1626.6   10020.4
GR   1626.9   10027.4    1625.8   10034.5    1627.7   10039.5    1627.4   10043.0    1627.1   10046.9
```

```
GR   1626.7    10090.7    1628.2    10100.8    1628.5    10107.7    1628.8    10118.0    1627.1    10125.0

03SEP91      12:44:19                                                                                PAGE   10

GR   1626.5    10167.7    1626.7    10171.4    1626.8    10176.5    1627.1    10181.1    1626.4    10186.8
GR   1626.3    10255.5    1625.8    10262.8    1625.6    10269.4    1626.0    10272.4    1625.7    10278.9
GR   1625.6    10284.8    1625.6    10289.9    1625.7    10295.9    1625.9    10302.2    1626.4    10307.4
GR   1626.3    10312.9    1626.1    10319.9    1626.1    10325.6    1625.1    10336.5    1624.4    10339.1
GR   1625.1    10341.9    1624.9    10346.2    1624.8    10350.3    1624.7    10352.9    1625.0    10356.6
GR   1624.9    10360.6    1625.0    10364.4    1624.8    10369.7    1624.5    10372.6    1624.5    10375.8
GR   1624.5    10377.7    1625.0    10380.3    1625.4    10383.5    1626.1    10386.7    1626.5    10388.5
GR   1625.9    10392.0    1625.6    10394.7    1625.6    10398.0    1625.7    10402.0    1625.4    10404.8
GR   1625.2    10408.2    1625.4    10411.8    1625.3    10414.8    1625.7    10418.1    1625.5    10422.3
GR   1625.3    10426.6    1624.5    10430.9    1624.1    10434.8    1624.0    10437.0    1625.1    10440.5
GR   1625.2    10445.8    1625.0    10451.5    1624.8    10457.6    1625.1    10461.8    1625.5    10469.1
GR   1626.0    10502.7    1626.1    10507.4    1626.3    10513.6    1626.4    10523.1    1626.3    10530.6
GR   1626.3    10535.5    1626.6    10541.7    1626.6    10553.2    1626.9    10565.1    1627.0    10580.0

NC     .030       .030       .030        .3         .5
       BEGIN SUN VALLEY PARKWAY CULVERTS (1-10'X3' CULVERT- STRUC. #14)
X1   12.089          4       9995      10005        135        135        135
X3      10                                                                          1630.8     1630.8
GR   1630.8       9995     1627.4       9995     1627.4      10005     1630.8      10005

QT       2        191        191
NC    .012       .012       .012
SC   1.012         .2        2.7          0          3         10        138       12.1     1627.8     1627.4
       END CULVERTS.    WEIR FLOW EXPECTED OVER LEVEE TO RT. OF CULVERTS.
       INCREASE DISCHARGE AT THIS SECTION OF WHICH 171 CFS FLOWS THROUGH
       STRUC. #14 AND 17 CFS FLOWS ON TO STRUC. #15.
X1   12.115          4       9995      10005        138        138        138
X2                                       7     1630.8     1631.0
X3      10                                                                          1631       1631
BT       9      10500     1634.2                10002.9     1634.2                                1634.2
BT   10043     1632.9                10051     1632.5                10067       1632                   10068
BT    1631                10130       1631                 10175       1632
GR    1631       9995     1627.8       9995     1627.8      10005       1631      10005

NC     .03        .03        .03
ET                7.1        9.1                                        9983      10008       9983      10008
       ET OPTION APPLIED TO LIMIT EFFECTIVE FLOW WITHIN LIMITS OF ARMORED
       WEIR LEVEE. TOP OF LEVEE, LEFT AND RIGHT =1631.0
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
       UPSTREAM OF ROAD.
X1   12.128          9       9983      10008         70         70         70
GR    1635       9500       1630       9525     1629.1       9780     1628.7       9965       1631       9973
GR    1631       9983       1629       9995       1629      10002       1631      10008

NC    .049       .049       .045         .1         .3
QT       2        532        532
ET                           9.1                                                             9961.4      10100
       REPEAT THIS SECTION FOR START OF TRIBUTERY TO STRUC. #15.
X1   -1.768         95     9961.4     9980.4        790        770        820
GR   1610.5     9810.6     1610.2     9815.2     1610.1     9821.8     1609.6     9830.4     1609.1     9837.7
GR   1608.5     9844.6     1608.1     9854.2     1607.5     9863.9     1607.3     9871.2     1607.2     9879.7
GR   1606.5     9888.2     1606.5     9894.6     1606.9     9900.0     1606.4     9907.3     1605.5     9913.3
```

```
GR   1606.3    9947.4   1605.8    9953.5   1605.4    9961.4   1605.0    9968.1   1604.1    9972.4
GR   1603.4    9977.4   1605.3    9980.4   1605.2    9987.5   1605.3    9995.8   1605.7   10000.0
GR   1605.7   10000.1   1606.0   10004.9   1606.0   10012.2   1606.5   10019.9   1606.2   10026.9
GR   1606.5   10036.5   1606.6   10042.2   1606.4   10050.9   1606.1   10060.1   1606.3   10067.3
GR   1606.4   10072.2   1606.5   10076.1   1605.5   10080.8   1605.2   10085.5   1605.3   10094.1
GR   1605.5   10102.5   1605.3   10110.0   1604.3   10113.5   1603.8   10117.3   1604.0   10121.9
GR   1605.4   10126.1   1606.4   10131.0   1606.5   10137.2   1606.5   10145.8   1606.6   10153.4
GR   1606.1   10162.3   1605.7   10168.4   1605.8   10175.7   1605.9   10183.0   1605.7   10189.7
GR   1605.8   10228.1   1605.8   10234.4   1605.5   10239.6   1604.9   10244.9   1604.6   10248.3
GR   1604.5   10253.1   1605.4   10256.0   1604.7   10261.0   1605.2   10266.0   1606.3   10271.1
GR   1606.8   10342.7   1606.7   10353.8   1606.4   10366.5   1606.5   10380.0   1606.6   10388.1
GR   1607.1   10447.1   1607.3   10457.9   1607.5   10463.2   1607.3   10467.[illegible]   1607.5   10475.9
GR   1607.0   10486.3   1607.0   10495.1   1607.2   10503.7   1607.2   10508.4   1607.4   10515.7
GR   1606.4   10521.3   1607.5   10524.8   1607.4   10533.1   1607.4   10542.9   1607.5   10559.0
GR   1608.0   10649.5   1607.7   10659.7   1608.2   10662.2   1608.3   10675.2   1608.7   10685.3

WT        2       282       282
ET                7.1       9.1                                10365.5   10572.2   10423.0   10450.0
        BEGIN TRIBUTARY TO STRUC. #15, REDUCE Q TO 252CFS. ADD 20 TO SECTION I.D
        STA. 10435 = TRIB. BASELINE.
X1   21.890        95   10426.9   10446.7       615       615       615
GR   1614.1   10000.0   1614.1   10000.1   1614.2   10003.2   1614.4   10007.3   1614.5   10011.0
GR   1613.1   10042.8   1612.6   10048.0   1613.8   10052.0   1614.3   10056.5   1613.8   10061.2
GR   1613.6   10066.0   1613.3   10071.2   1613.0   10074.9   1612.1   10078.1   1611.9   10081.5
GR   1613.6   10086.7   1613.5   [illegible]   1613.8   10091.0   1613.5   10095.2   1613.4   [illegible]
GR   1613.3   10102.2   1612.9   10102.3   1614.1   10110.1   1614.7   10115.8   1614.4   10122.5
GR   1614.2   10127.8   1614.9   10135.6   1614.4   10142.2   1614.6   10148.1   1615.2   10153.6
GR   1615.0   10160.0   1614.8   10168.3   1614.6   10178.6   1614.3   10189.1   1613.8   10196.7
GR   1613.9   10204.3   1613.4   10213.1   1612.4   10219.0   1611.7   10222.5   1611.9   10227.1
GR   1613.5   10230.6   1613.9   10236.3   1613.5   10241.2   1613.5   10245.9   1613.8   10253.1
GR   1614.0   10258.4   1614.1   10262.4   1613.7   10267.3   1613.2   10273.1   1612.8   10278.5
GR   1612.8   10283.4   1613.2   10288.0   1612.9   10291.9   1612.0   10295.9   1612.8   10300.2
GR   1613.1   10306.5   1613.1   10313.3   1612.8   10321.5   1612.9   10329.6   1612.4   10337.4
GR   1612.8   10341.1   1612.9   10347.3   1613.4   10354.5   1613.6   10360.7   1614.3   10365.5
GR   1614.1   10401.4   1613.8   10406.6   1613.7   10412.4   1613.5   10419.9   1613.4   10424.1
GR   1612.5   10426.9   1613.3   10429.2   1612.5   10433.2   1612.5   10437.1   1612.7   10442.0
GR   1612.6   10446.7   1613.3   10451.7   1613.8   10455.7   1613.9   10459.5   1613.7   10463.0
GR   1613.4   10466.7   1614.2   10469.3   1614.3   10473.5   1613.8   10478.3   1614.0   10482.0
GR   1613.9   10487.3   1613.4   10492.0   1613.8   10497.3   1613.7   10504.2   1614.1   10509.0
GR   1615.1   10545.1   1615.6   10552.4   1615.5   10558.7   1615.4   10567.1   1615.9   10572.2

ET                7.1       9.1                                10722.7   10961.7   10850     10888
        STA. 10835 = TRIB. BASELINE.
X1   22.016        90   10872.0   10886.5       650       660       690
GR   1620.7   10228.9   1620.5   10234.9   1620.5   10240.2   1620.2   10245.7   1620.1   10250.2
GR   1619.4   10253.5   1620.4   10255.0   1620.3   10259.4   1620.5   10263.0   1620.4   10267.2
GR   1619.9   10270.2   1619.2   10272.9   1618.8   10276.0   1620.3   10278.6   1621.1   10282.3
GR   1621.8   10286.8   1622.0   10290.7   1622.0   10294.9   1621.7   10298.3   1621.4   10303.3
GR   1621.9   10306.6   1622.2   10310.3   1621.6   10315.2   1621.6   10320.2   1621.7   10325.0
GR   1621.8   10330.2   1621.6   10336.1   1621.2   10341.8   1621.4   10345.6   1621.5   10349.2
GR   1622.1   10352.5   1622.3   10355.7   1622.1   10359.5   1621.7   10363.1   1622.1   10367.6
GR   1622.5   10712.6   1622.8   10718.3   1622.9   10722.7   1622.6   10727.5   1622.2   10732.1
GR   1621.6   10739.5   1620.5   10744.8   1620.2   10749.4   1620.6   10753.2   1620.7   10758.0
GR   [illegible]   [illegible]   [illegible]   [illegible]   1621.3   10764.8   1622.1   10768.0   1622.0   10772.0
```

```
GR   1621.6    10776.1    1621.7    10779.7    1621.8    10784.3    1622.5    10788.9    1622.4    10794.2
GR   1621.9    10797.0    1621.8    10803.5    1621.9    10808.0    1621.9    10814.8    1621.8    10819.5
GR   1622.1    10825.3    1622.0    10829.6    1620.6    10834.1    1621.2    10836.7    1621.6    10840.0
GR   1622.2    10844.5    1622.5    10850.1    1622.3    10854.2    1622.1    10859.2    1622.3    10864.7
GR   1621.7    10868.3    1620.6    10872.0    1619.8    10875.6    1619.4    10879.3    1619.7    10883.4
GR   1621.1    10886.5    1622.2    10892.9    1622.7    10897.5    1623.0    10902.4    1622.7    10907.3
GR   1622.4    10910.4    1622.8    10916.2    1623.1    10921.9    1623.3    10927.2    1622.9    10931.1
GR   1622.8    10936.0    1622.6    10942.0    1622.5    10951.1    1622.8    10956.2    1623.3    10961.7

NC     .030       .030       .030        .3         .5
       BEGIN SUNVALLEY PARKWAY CULVERTS (4-10'X3' CULVERTS- STRUC. #15)
X1   22.037          4     9978.5    10021.5        110        110        110
X3       10                                                            1627.2     1627.2
GR   1627.1     9978.5     1623.6     9978.5     1623.6    10021.5     1627.1    10021.5

NC     .012       .012       .012
SC    4.012         .2        2.9          0          3         10        158       12.3     1624.2     1623.6
       END CULVERTS
X1   22.067          4     9978.5    10021.5        158        158        158
X2                             2     1627.2     1626.8
X3       10                                                            1626.8     1626.8
BT        9      10000     1630.5               10142.9     1629.6                10143     1629.1
BT    10183     1628.3               10191     1627.9                10195     1626.8                10200
BT   1626.8                10204       1628                10302     1629.0
GR   1626.8     9978.5     1624.2     9978.5     1624.2    10021.5     1626.8    10021.5

NC     .030       .030       .030
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
       UPSTREAM OF ROAD.
X1   22.076          5       9971      10033         50         50         50
GR    1627       9971       1626       9977       1626      10033       1627      10050       1628      10090
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .086

3470 ENCROACHMENT STATIONS=     9775.2   10317.8  TYPE=      1  TARGET=      542.600
       FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
       MODEL WITH EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH NO.1
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED
     .086      4.63   1511.83       .00       .00   1512.53       .70       .00       .00   1510.60
    766.0      94.7     667.0       4.3      40.7      93.3       2.6        .0        .0   1510.90
      .00      2.33      7.15      1.66      .049      .042      .049      .000   1507.20   9895.29
  .008486        0.        0.        0.         0         0         5       .00     90.33   9985.62


*SECNO  .209

3470 ENCROACHMENT STATIONS=     9808.3   10226.6  TYPE=      1  TARGET=      418.300
     .209      4.89   1517.09       .00       .00   1517.49       .40      4.93       .03   1516.10
    766.0       5.7     468.5     291.8       3.2      75.7     117.2       2.5       1.9   1516.10
      .04      1.78      6.19      2.49      .049      .042      .049      .000   1512.20   9898.17
  .006469      650.      675.      650.         4         0         0       .00    164.25  10062.42


*SECNO  .355

3470 ENCROACHMENT STATIONS=     9660.6   10181.2  TYPE=      1  TARGET=      520.601
     .355      4.18   1523.88       .00       .00   1524.14       .26      6.63       .01   1523.20
    766.0     100.3     230.8     434.9      34.7      45.8     116.1       6.1       5.3   1523.80
      .09      2.89      5.04      3.74      .049      .045      .049      .000   1519.70   9934.47
  .011061      775.      800.      800.         4         0         0       .00    210.01  10144.48


*SECNO  .499

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9736.4   10398.2  TYPE=      1  TARGET=      661.800
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

   .499      3.85   1532.65   1532.58       .00   1533.00       .35      8.83       .03   1532.00
 766.0       4.6     405.1     356.2       3.9      66.9     132.7       9.7       9.6   1532.30
    .14      1.20      6.05      2.69      .049      .045      .049      .000   1528.80   9965.23
.011609      790.      790.      770.        13         9         0       .00    269.89  10360.39


*SECNO  .645

3470 ENCROACHMENT STATIONS=     9880.8   10325.9  TYPE=      1  TARGET=      445.101
   .645      2.79   1540.89       .00       .00   1541.06       .17      8.04       .02   1540.30
 649.0     233.0     203.9     212.1      78.3      45.4     103.2      13.4      14.9   1540.40
    .21      2.98      4.49      2.06      .049      .045      .049      .000   1538.10   9896.82
.009539      780.      760.      750.         8         0         0       .00    340.50  10237.32


*SECNO  .790

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9915.1   10490.3  TYPE=      1  TARGET=      575.200
   .790      3.74   1549.84       .00       .00   1550.11       .28      9.02       .03   1549.70
 649.0      84.4     189.8     374.8      25.5      34.2     104.4      16.8      19.4   1549.40
    .26      3.31      5.55      3.59      .049      .045      .049      .000   1546.10   9956.70
.015485      770.      760.      740.         4         0         0       .00    186.66  10150.11


*SECNO  .938

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9725.7   10157.8  TYPE=      1  TARGET=      432.100
   .938      2.40   1558.50       .00       .00   1558.64       .14      8.52       .01   1558.30
 649.0     116.0     275.1     257.8      48.4      71.1     123.9      20.4      24.2   1557.60
    .33      2.40      3.87      2.08      .049      .045      .049      .000   1556.10   9794.44
.008195      770.      785.      770.         6         0         0       .00    350.24  10154.56


*SECNO 1.084

3265 DIVIDED FLOW
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	[illegible]	[illegible]	[illegible]	[illegible]	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9702.7 10112.5 TYPE= 1 TARGET= 409.800

1.084	2.73	1566.33	1566.33	.00	1566.70	.37	7.86	.07	1565.10
649.0	228.8	342.8	77.4	81.4	55.5	27.3	24.1	29.2	1565.90
.38	2.81	6.17	2.84	.049	.045	.049	.000	1563.60	9826.04
.012593	790.	790.	760.	5	8	0	.00	206.42	10052.99

*SECNO 1.221

3470 ENCROACHMENT STATIONS= 9910.6 10307.4 TYPE= 1 TARGET= 396.801

1.221	2.73	1574.23	.00	.00	1574.39	.15	7.66	.02	1573.90
532.0	102.3	167.3	262.4	40.5	39.3	105.9	27.0	32.7	1573.60
.45	2.52	4.26	2.48	.049	.045	.049	.000	1571.50	9920.14
.008842	720.	725.	710.	5	0	0	.00	219.84	10139.98

*SECNO 1.347

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9855.6 10271.1 TYPE= 1 TARGET= 415.500

1.347	3.00	1581.30	.00	.00	1581.59	.28	7.16	.04	1580.30
532.0	70.2	241.0	220.8	28.8	43.0	79.4	29.6	35.9	1580.90
.50	2.44	5.60	2.78	.049	.045	.049	.000	1578.30	9926.06
.012354	690.	690.	690.	8	0	0	.00	191.14	10127.09

*SECNO 1.484

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9578.7 10445.2 TYPE= 1 TARGET= 866.500

1.484	2.73	1588.63	.00	.00	1588.80	.17	7.21	.01	1587.30
532.0	26.3	280.4	225.3	13.5	70.5	92.9	32.5	39.4	1587.00
.56	1.94	3.98	2.42	.049	.045	.049	.000	1585.90	10019.58
.007308	770.	790.	750.	4	0	0	.00	211.97	10252.65

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.622

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9895.3   10585.0  TYPE=      1  TARGET=      689.700
    1.622      3.05   1597.95   1597.95       .00   1598.22       .27      6.50       .03   1596.40
    532.0      15.4     232.0     284.5       6.2      39.9     128.2      35.7      44.1   1596.20
      .62      2.51      5.81      2.22      .049      .045      .049      .000   1594.90   9953.45
  .009638      735.      760.      800.         9         8         0       .00    307.34  10302.16


*SECNO 1.768

3265 DIVIDED FLOW

       THIS SECTION IS DOWNSTREAM COMMON SECTION FOR TRIBUTARYS TO STRUC.#14\15
    1.768      2.67   1606.07       .00       .00   1606.25       .18      8.02       .01   1605.40
    532.0      28.7     130.4     373.0      15.3      29.2     123.8      38.7      49.1   1605.30
      .69      1.87      4.46      3.01      .049      .045      .049      .000   1603.40   9909.46
  .010760      790.      820.      770.         5         0         0       .00    250.21  10270.06


*SECNO 1.888

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9811.2   10153.6  TYPE=      1  TARGET=      342.399
    1.888      1.90   1613.60   1613.60       .00   1613.87       .27      7.11       .03   1613.00
     86.0      27.9      53.1       5.0      10.9      10.7       2.9      40.1      51.2   1613.60
      .73      2.55      4.97      1.71      .049      .045      .049      .000   1611.70  10031.40
  .019393      615.      615.      615.        15        13         0       .00     50.44  10106.86


*SECNO 2.007

3265 DIVIDED FLOW
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.52


3470 ENCROACHMENT STATIONS=     9800.1   10017.4  TYPE=      1  TARGET=      217.301
    2.007      3.21   1622.01       .00       .00   1622.10       .10      8.21       .02   1621.30
     86.0      45.2      40.6        .2      25.2      13.2        .2      40.6      52.3   1621.70
      .81      1.80      3.08       .77      .049      .045      .049      .000   1618.80   9881.67
  .008394      650.      690.      660.         7         0         0       .00     90.24   9984.52


*SECNO 2.076

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9894.0   10046.9  TYPE=      1  TARGET=      152.900
    2.076      2.70   1626.70   1626.70       .00   1626.93       .23      4.58       .04   1626.70
     86.0      24.0      50.5      11.5       9.1      11.0       5.6      40.9      53.0   1626.00
      .83      2.62      4.58      2.06      .049      .045      .049      .000   1624.00   9926.67
  .018555      385.      380.      380.         6        10         0       .00     61.97  10036.87


*SECNO 2.128

3265 DIVIDED FLOW

    2.128      1.87   1630.67       .00       .00   1630.90       .23      3.97       .00   1630.10
     86.0       6.2      76.7       3.1       3.2      18.9       3.2      41.0      53.2   1630.30
      .85      1.97      4.06       .96      .049      .045      .049      .000   1628.80   9995.90
  .012471      280.      290.        0.         4         0         0       .00     45.11  10042.04


CCHV=     .300 CEHV=     .500
*SECNO 2.142

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.24


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1635.00 ELREA=      1635.00
```

```
      BEGIN SUN VALLEY PARKWAY CULVERTS (4-10'X4' CULVERTS- STRUC.#13)
   2.142      1.12   1631.12      .00      .00   1631.17      .05      .21      .05   1635.00
    86.0        .0      86.0       .0       .0      48.3       .0     41.1     53.2   1635.00
     .87       .00      1.78      .00     .000      .030     .000     .000  1630.00   9978.50
 .001186       75.       75.      75.        3         0        0      .00    43.00  10021.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    4         .012      .20       2.70      .00       4.00      10.00     154.00    12        3         1631.00   1630.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 2.171

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1631.824  EGOC =   1631.949  PCWSE=   1631.118  ELTRD=   1635.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64

SPECIAL CULVERT

    EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1631.82   1631.95      .78       0.       88.    2.307     160.0   1635.00       0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1635.00 ELREA=      1635.00

      END CULVERTS
   2.171       .87   1631.87      .00      .00   1631.95      .08      .78      .00   1635.00
    86.0        .0      86.0       .0       .0      37.3       .0     41.2     53.4   1635.00
     .88       .00      2.31      .00     .000      .012     .000     .000  1631.00   9978.50
 .000443      154.      154.     154.        2         0        0      .00    43.00  10021.50


*SECNO 2.186
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
      BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
      UPSTREAM OF ROAD.
   2.186       .52   1633.52  1633.52      .00   1633.75      .24      .10      .08   1634.00
    86.0        .0      86.0       .0       .0      22.0       .0     41.3     53.5   1635.00
     .89       .00      3.90      .00     .000      .030     .000     .000  1633.00   9976.84
 .016828       80.       80.      80.       20        11        0      .00    46.48  10023.32
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       FLMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
#SECNO -1.768
START TRIB COMP
    -1.768     1.768  1606.072

3265 DIVIDED FLOW

       REPEAT THIS SECTION FOR START OF TRIBUTARY TO STRUC. #14.
   -1.768      2.67   1606.07       .00       .00   1606.25       .18       .00       .00   1605.40
    532.0      28.5     130.7     372.8      15.1      29.2     123.0      43.0      56.1   1605.30
      .96      1.88      4.48      3.03      .049      .082      .049      .000   1603.40   9709.48
  .010918      790.      820.      770.         0         0         0       .00    249.79  10270.04


#SECNO 11.884

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10153.6   10262.4  TYPE=      1  TARGET=      108.801
       BEGIN TRIBUTARY TO STRUC.#14, REDUCE Q TO 171CFS. ADD 10 TO SECTION I.D.
       STA. 10195 = TRIB. BASELINE.
   11.884      2.15   1613.85   1613.85       .00   1614.24       .39      7.27       .06   1612.40
    171.0      51.2     112.9       6.9      15.2      19.8       4.7      44.4      58.3   1613.50
      .99      3.38      5.72      1.44      .049      .045      .049      .000   1611.70  10195.94
  .015449      615.      615.      615.         4        15         0       .00     57.17  10254.43


#SECNO 12.000

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=    10017.4   10355.7  TYPE=      1  TARGET=      338.300
       STA. 10275 = TRIB. BASELINE.
   12.000      2.43   1621.23       .00       .00   1621.40       .16      7.13       .02   1619.90
    171.0     100.5      67.2       3.3      41.5      15.8       2.0      45.2      59.3   1620.30
     1.05      2.42      4.26      1.66      .049      .045      .049      .000   1618.80  10213.69
  .007753      650.      690.      660.         5         0         0       .00     70.31  10342.31
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 12.063

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .67


3470 ENCROACHMENT STATIONS=   10046.9   10300.5  TYPE=      1  YNRGET=      533.100
       STA. 10400 = TRIB. BASELINE.
   12.063     1.46  1625.46       .00       .00  1625.63       .16      4.23       .00  1625.30
    171.0     92.2      55.0      23.7      32.3      13.3      10.6      45.7      60.0  1625.10
     1.08     2.86      4.13      2.24      .049      .045      .049      .000   1624.00  10332.51
  .017032     385.      380.      380.         6         0         0       .00    108.76  10468.49


CCHV=     .300 CEHV=     .500
*SECNO 12.089

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1630.80 ELREA=      1630.80

       BEGIN SUN VALLEY PARKWAY CULVERTS (1-10'X3' CULVERT- STRUC. #14)
   12.089     2.08  1629.48  1629.48       .00  1630.53      1.05      2.26       .44  1630.80
    171.0       .0     171.0       .0        .0      20.8        .0      45.8      60.2  1630.80
     1.09      .00      8.21       .00      .000      .030      .000      .000   1627.40  9995.00
  .016446     135.      135.      135.         3        11         0       .00     10.00  10005.00


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    1         .012      .20       2.70      .00       3.00      10.00     138.00    12        1         1627.80   1627.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 12.115

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.13
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	[illegible]	[illegible]	[illegible]	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1631.45	1631.39	.65	14.	177.	7.859	30.0	1631.00	70.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1631.00 ELREA= 1631.00

END CULVERTS. WEIR FLOW EXPECTED OVER LEVEE TO RT. OF CULVERTS.
INCREASE DISCHARGE AT THIS SECTION OF WHICH 171 CFS FLOWS THROUGH
STRUC. #14 AND 17 CFS FLOWS ON TO STRUC. #15.

12.115	2.42	1630.22	.00	.00	1631.18	.96	.65	.00	1631.00
191.0	.0	191.0	.0	.0	94.3	.0	45.9	60.3	1631.00
1.09	.00	7.86	.00	.000	.012	.000	.000	1627.80	9995.00
.002091	138.	138.	138.	4	0	0	.00	10.00	10005.00

*SECNO 12.128
3280 CROSS SECTION 12.13 EXTENDED .16 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

3470 ENCROACHMENT STATIONS= 9983.0 10008.0 TYPE= 1 TARGET= 25.000
ET OPTION APPLIED TO LIMIT EFFECTIVE FLOW WITHIN LIMITS OF ARMORED
WEIR LEVEE. TOP OF LEVEE, LEFT AND RIGHT =1631.0
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
UPSTREAM OF ROAD.

12.128	2.45	1631.15	1630.92	.00	1631.59	.44	.25	.16	1631.00
191.0	.0	191.0	.0	.0	36.0	.0	46.0	60.0	10000.00
1.10	.00	5.31	.00	.000	.030	.000	.000	1628.70	9983.00
.007369	70.	70.	70.	11	11	0	.00	25.00	10008.00

CCHV= .100 CEHV= .300
*SECNO -1.768

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

START TRIB COMP
-1.768 1.768 1606.072

3265 DIVIDED FLOW

REPEAT THIS SECTION FOR START OF TRIBUTERY TO STRUC. #15.

-1.768	2.67	1606.07	.00	.00	1606.25	.18	.00	.00	1605.40
532.0	28.5	130.7	372.8	15.1	29.2	123.0	47.8	62.8	1605.30
1.16	1.88	4.48	3.03	.049	.045	.049	.000	1603.40	9909.48
.010918	790.	820.	770.	0	0	0	.00	249.79	10270.04

*SECND 21.890

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 10365.5 10572.2 TYPE= 1 TARGET= 206.700
BEGIN TRIBUTARY TO STRUC. #15, REDUCE Q TO 252CFS, ADD 20 TO SECTION I.D
STA. 10435 = TRIB. BASELINE.

21.890	2.49	1614.19	1614.19	.00	1614.50	.31	7.59	.04	1612.50
282.0	44.2	161.2	76.7	15.5	29.7	28.0	49.5	55.4	1612.60
1.20	2.85	5.42	2.73	.049	.045	.049	.000	1611.70	10385.48
.015923	615.	615.	615.	10	12	0	.00	121.42	10512.20

*SECND 22.016

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 10722.7 10961.7 TYPE= 1 TARGET= 239.000
STA. 10835 = TRIB. BASELINE.

22.016	3.15	1621.95	.00	.00	1622.19	.24	7.68	.01	1620.60
282.0	135.4	143.3	3.3	49.2	29.4	1.1	58.7	57.1	1621.10
1.25	2.75	4.83	1.57	.049	.045	.049	.000	1618.80	10735.18
.008584	650.	690.	660.	5	0	0	.00	108.21	10891.45

CCHV= .300 CEHV= .500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	[illegible]	[illegible]	[illegible]	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

#SECNO 22.037
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1627.20 ELREA= 1627.20

BEGIN SUNVALLEY PARKWAY CULVERTS (4-10'X3' CULVERTS- STRUC. #15)

22.037	1.10	1624.70	1624.70	.00	1625.25	.55	1.18	.16	1627.10
282.0	.0	282.0	.0	.0	47.2	.0	50.8	67.3	1627.10
1.26	.00	5.98	.00	.000	.030	.000	.000	1623.60	9978.50
.013736	110.	110.	110.	20	22	0	.00	43.00	10021.50

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	4	.012	.20	3.00	.00	3.00	10.00	138.00	12	3	1624.20	1623.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

#SECNO 22.067

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1626.020 EGOC = 1626.049 PCWSE= 1624.698 ELTRD= 1626.800

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.60

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1626.02	1626.05	.80	0.	282.	4.110	120.0	1626.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1626.80 ELREA= 1626.80

END CULVERTS

22.067	1.59	1625.79	.00	.00	1626.05	.26	.80	.00	1626.80
282.0	.0	282.0	.0	.0	68.6	.0	51.0	67.8	1626.80
1.27	.00	4.11	.00	.000	.012	.000	.000	1624.20	9978.50
.000650	158.	158.	158.	2	0	0	.00	43.00	10021.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTD	SLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 22.076
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
UPSTREAM OF ROAD.

22.076	.87	1626.87	1626.87	.00	1627.26	.39	.09	.06	1627.00
282.0	.0	260.6	21.4	.0	51.1	6.5	51.1	67.5	1626.00
1.27	.00	5.10	3.31	.000	.030	.030	.000	1626.00	9971.77
.013514	50.	50.	50.	20	11	0	.00	76.05	10047.82

```
T1      SUN VALLEY PARKWAY NORTH FIS  CONTRACT:FCDMC NO. 90-04   FILE:SEC P6. 1
T2      100-YEAR WATER SURFACE PROFILE                          A-N WEST INC.
T3      WASH #3 AND TRIBS. FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10       3                          0                                1512.63

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15                 -1
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
*SECNO .086

3470 ENCROACHMENT STATIONS= 9952.6 9980.0 TYPE= 1 TARGET= 27.400
FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
MODEL WITH EQUAL CONVEYANCE REDUCTION (METHOD 4).
STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
CONFLUENCE WITH WASH NO.1
CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED

.086	5.43	1512.63	.00	1511.83	1513.32	.69	.00	.00	1510.60
766.0	.0	766.0	.0	.0	115.3	.0	.0	.0	100000.00
.00	.00	6.65	.00	.000	.042	.000	.000	1507.20	9952.60
.006514	0.	0.	0.	0	0	0	.00	27.40	9980.00

*SECNO .209

3470 ENCROACHMENT STATIONS= 9904.1 9925.6 TYPE= 1 TARGET= 21.500

.209	5.69	1517.89	.00	1517.09	1518.95	1.06	5.52	.11	1516.10
766.0	.0	766.0	.0	.0	92.8	.0	1.6	.4	100000.00
.02	.00	8.25	.00	.000	.042	.000	.000	1512.20	9904.10
.010562	650.	675.	650.	3	0	0	.00	21.50	9925.60

*SECNO .355

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9971.0 10049.0 TYPE= 1 TARGET= 78.000

.355	5.19	1524.89	.00	1523.88	1525.19	.31	6.17	.07	1523.20
766.0	58.1	345.6	362.3	19.7	70.4	86.6	4.1	1.3	1523.80
.07	2.96	4.91	4.18	.049	.045	.049	.00	1519.70	9971.00
.005898	775.	800.	800.	4	0	0	.00	78.00	10049.00

*SECNO .499

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9989.9 10050.8 TYPE= 1 TARGET= 60.909

.499	4.49	1533.29	1533.29	1532.65	1534.18	.89	7.04	.18	1532.00
766.0	.0	680.9	85.1	.0	85.5	26.2	6.7	2.5	1532.50
.10	.00	7.96	3.24	.000	.045	.049	.000	1528.80	9989.90
.015299	790.	790.	770.	8	12	0	.00	60.91	10050.81

*SECNO .645

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9987.2 10065.6 TYPE= 1 TARGET= 78.399

.645	3.78	1541.88	.00	1540.89	1542.19	.31	7.95	.06	1540.30
649.0	.0	370.0	279.0	.0	72.0	80.6	9.0	3.7	1540.40
.15	.00	5.14	3.46	.000	.045	.049	.000	1538.10	9987.20
.007261	780.	760.	750.	5	0	0	.00	78.40	10065.60

*SECNO .790
3280 CROSS SECTION .79 EXTENDED .51 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .56

3470 ENCROACHMENT STATIONS= 10000.1 10047.5 TYPE= 1 TARGET= 47.400

.790	4.31	1550.41	.00	1549.84	1551.28	.87	8.92	.17	1549.70
649.0	.0	375.2	273.8	.0	46.4	42.1	11.0	4.8	1549.40
.18	.00	8.09	6.51	.000	.045	.049	.000	1546.10	10000.10
.022832	770.	760.	740.	2	0	0	.00	47.40	10047.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .938

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

3470 ENCROACHMENT STATIONS= 9906.5 9969.0 TYPE= 1 TARGET= 62.500

.938	3.40	1559.50	.00	1558.50	1559.82	.32	8.48	.05	1558.30
649.0	.0	552.8	96.2	.0	118.0	28.4	13.1	5.8	1557.60
.23	.00	4.69	3.39	.000	.045	.049	.000	1556.10	9906.50
.006330	770.	785.	770.	6	0	0	.00	62.50	9969.00

*SECNO 1.084

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .59

3470 ENCROACHMENT STATIONS= 9987.4 10022.9 TYPE= 1 TARGET= 35.500

1.084	3.29	1566.89	.00	1566.33	1567.85	.96	7.84	.19	1565.10
649.0	.0	568.5	80.5	.0	69.4	15.6	15.2	6.7	1565.90
.25	.00	8.19	5.16	.000	.045	.049	.000	1563.60	9987.40
.017997	790.	790.	760.	4	0	0	.00	35.50	10022.90

*SECNO 1.221

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 9940.0 10000.0 TYPE= 1 TARGET= 60.000

1.221	3.69	1575.19	.00	1574.23	1575.48	.29	7.57	.07	1573.90
532.0	225.7	302.3	4.0	63.9	62.0	2.2	17.0	7.5	1573.60
.30	3.53	4.88	1.81	.049	.045	.049	.000	1571.50	9940.00
.006292	720.	725.	710.	5	0	0	.00	60.00	10000.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.347

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

3470 ENCROACHMENT STATIONS= 9971.1 10010.3 TYPE= 1 TARGET= 39.200

1.347	3.53	1581.83	1581.81	1581.30	1582.73	.89	7.06	.18	1580.30
532.0	90.0	442.0	.0	19.5	54.9	.0	18.6	8.3	100000.00
.33	4.62	8.05	.00	.049	.045	.000	.000	1578.30	9971.10
.019495	690.	690.	690.	7	11	0	.00	39.20	10010.30

*SECNO 1.484

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.95

3470 ENCROACHMENT STATIONS= 10060.0 10110.0 TYPE= 1 TARGET= 50.000

1.484	3.64	1589.54	.00	1588.63	1589.83	.29	7.04	.06	1587.30
532.0	18.0	480.2	33.8	6.9	108.4	10.7	20.4	9.1	1587.00
.38	2.60	4.43	3.18	.049	.045	.049	.000	1585.90	10060.00
.005116	770.	790.	750.	6	0	0	.00	50.00	10110.00

*SECNO 1.622

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9963.7 10004.6 TYPE= 1 TARGET= 40.899

1.622	3.45	1598.35	1598.35	1597.95	1599.24	.89	6.78	.18	1596.40
532.0	.0	387.8	144.2	.0	46.4	30.0	22.2	9.9	1596.20
.41	.00	8.35	4.80	.000	.045	.049	.000	1594.90	9963.70
.018863	735.	760.	800.	4	11	0	.00	40.90	10004.60

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.768

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.77


3470 ENCROACHMENT STATIONS=     9961.4   10100.0  TYPE=      1  TARGET=      138.600
       THIS SECTION IS DOWNSTREAM COMMON SECTION FOR TRIBUTARYS TO STRUC.#14\15
    1.768      3.59   1606.99       .00   1606.07   1607.17       .18      7.86       .07   1605.40
    532.0        .0     202.1     329.9        .0      46.7     124.1      24.4      11.5   1605.30
      .47       .00      4.33      2.66      .000      .045      .049      .000   1603.40   9961.40
  .006039      790.      820.      770.         6         0         0       .00    138.60  10100.00


*SECNO 1.888

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10074.9   10083.7  TYPE=      1  TARGET=        8.800
    1.888      2.11   1613.81   1613.81   1613.60   1614.54       .73      4.39       .17   1613.00
     86.0        .0      86.0        .0        .0      12.5        .0      25.7      12.5 100000.00
      .50       .00      6.86       .00      .000      .045      .000      .000   1611.70  10074.90
  .034161      615.      615.      615.        20        14         0       .00      8.80  10083.70


*SECNO 2.007
3280 CROSS SECTION      2.01 EXTENDED       .79 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.34


3470 ENCROACHMENT STATIONS=     9970.5    9983.1  TYPE=      1  TARGET=       12.600
    2.007      4.08   1622.88       .00   1622.01   1623.07       .19      8.47       .05   1621.30
     86.0        .0      86.0        .0        .0      24.4        .0      26.0      12.7 100000.00
      .55       .00      3.53       .00      .000      .045      .000      .000   1618.80   9970.50
  .006263      650.      690.      660.         7         0         0       .00     12.60   9983.10
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 2.076

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .47


3470 ENCROACHMENT STATIONS=     9952.7    9962.7  TYPE=      1  TARGET=       10.000
    2.076      2.99   1626.99       .00   1626.70   1627.59       .59      4.39       .12 100000.00
     86.0        .0      86.0        .0        .0      13.9        .0      26.2      12.8 100000.00
      .57       .00      6.19       .00      .000      .045      .000      .000   1624.00   9952.70
  .028121      385.      380.      380.         4         0         0       .00     10.00   9962.70


*SECNO 2.128

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.00


3470 ENCROACHMENT STATIONS=    10003.5   10019.5  TYPE=      1  TARGET=       16.000
    2.128      2.26   1631.06       .00   1630.67   1631.25       .18      3.62       .04   1630.10
     86.0        .0      86.0        .0        .0      25.0        .0      26.3      12.9 100000.00
      .59       .00      3.43       .00      .000      .045      .000      .000   1628.80  10003.50
  .007018      280.      290.        0.         3         0         0       .00     16.00  10019.50


CCHV=     .300 CEHV=     .500
*SECNO 2.142

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.37


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1635.00 ELREA=      1635.00

        BEGIN SUN VALLEY PARKWAY CULVERTS (4-10'X4' CULVERTS- STRUC.#13)
    2.142      1.37   1631.37       .00   1631.12   1631.40       .03       .11       .05   1635.00
     86.0        .0      86.0        .0        .0      58.9        .0      26.4      12.9   1635.00
      .61       .00      1.46       .00      .000      .030      .000      .000   1630.00   9978.50
  .000619       75.       75.       75.         3         0         0       .00     43.00  10021.50
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    4         .012      .20       2.70      .00       4.00      10.00     154.00    12        3         1631.00   1630.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECND 2.171

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1631.824  EGOC =   1632.042  PCWSE=   1631.369  ELTRD=   1635.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.44

SPECIAL CULVERT

    EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1631.82   1632.04      .64       0.       86.     2.045     160.0   1635.00       0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1635.00 ELREA=     1635.00

       END CULVERTS
    2.171       .98   1631.98       .00   1631.87   1632.04       .06       .64       .00   1635.00
     86.0        .0      86.0        .0        .0      42.0        .0      26.6      13.1   1635.00
      .63       .00      2.05       .00      .000      .012      .000      .000   1631.00   9978.50
  .000298      154.      154.      154.         2         0         0       .00     43.00  10021.50


*SECND 2.186
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
       UPSTREAM OF ROAD.
    2.186       .51   1633.51   1633.51   1633.52   1633.75       .24       .07       .09   1634.00
     86.0        .0      86.0        .0        .0      21.9        .0      26.6      13.2   1635.00
      .63       .00      3.92       .00      .000      .030      .000      .000   1633.00   9976.86
  .017061       80.       80.       80.        20        11         0       .00     46.45  10023.31


CCHV=     .100 CEHV=     .300
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO -1.768
START TRIB COMP
    -1.768     1.768  1606.991

3470 ENCROACHMENT STATIONS=     9961.4   10100.0  TYPE=      1  TARGET=      138.600
       REPEAT THIS SECTION FOR START OF TRIBUTARY TO STRUC. #14.
   -1.768      3.59   1606.99       .00   1606.07   1607.17       .18       .00       .00   1605.40
    532.0        .0     202.4     329.6        .0      46.6     123.7      28.4      14.8   1605.30
      .70       .00      4.34      2.66      .000      .045      .049      .000   1603.40   9961.40
  .006081      790.      820.      770.         0         0         0       .00    138.60  10100.00


*SECNO 11.884
3280 CROSS SECTION     11.88 EXTENDED       .03 FEET


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10219.0   10230.6  TYPE=      1  TARGET=       11.600
       BEGIN TRIBUTARY TO STRUC.#14, REDUCE Q TO 171CFS. ADD 10 TO SECTION I.D.
       STA. 10195 = TRIB. BASELINE.
    11.884      2.33   1614.03   1614.03   1613.85   1614.98       .95      5.02       .23   1612.40
     171.0        .0     171.0        .0        .0      21.8        .0      29.7      15.9 100000.00
       .72       .00      7.84       .00      .000      .045      .000      .000   1611.70  10219.00
  .081765      615.      615.      615.        20        14         0       .00     11.60  10230.60


*SECNO 12.000
3280 CROSS SECTION     12.00 EXTENDED       .07 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.43


3470 ENCROACHMENT STATIONS=    10263.0   10287.0  TYPE=      1  TARGET=       24.000
       STA. 10275 = TRIB. BASELINE.
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 12.000     3.37   1622.17       .00   1621.23   1622.43       .26      7.38       .07   1619.90
  171.0     39.7     110.1      21.1      13.3      23.7       8.7      30.2      16.2   1620.30
    .77     2.99      4.65      2.41      .049      .045      .049      .000   1618.80  10263.00
 .005379    650.      690.      660.         8         0         0       .00     24.00  10287.00


*SECNO 12.063
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10420.0   10442.0  TYPE=      1  TARGET=       22.000
       STA. 10400 = TRIB. BASELINE.
 12.063     2.12   1626.12   1626.12   1625.46   1626.77       .65      3.72       .12   1625.30
  171.0     14.8     151.3       4.9       4.4      22.3       1.5      30.6      16.4   1625.10
    .79     3.39      6.77      3.28      .049      .045      .049      .000   1624.00  10420.00
 .022946    385.      380.      380.         5        14         0       .00     22.00  10442.00


CCHV=     .300 CEHV=     .500
*SECNO 12.089
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1630.80 ELREA=      1630.80

       BEGIN SUN VALLEY PARKWAY CULVERTS (1-10'X3' CULVERT- STRUC. #14)
 12.089     2.07   1629.47   1629.47   1629.48   1630.53      1.06      2.63       .20   1630.80
  171.0       .0     171.0        .0        .0      20.7        .0      30.6      16.4   1630.80
    .79      .00      8.26       .00      .000      .030      .000      .000   1627.40   9995.00
 .016716    135.      135.      135.         2         5         0       .00     10.00  10005.00


SPECIAL CULVERT

SC  CUNO     CUNV     ENTLC    COFQ     RDLEN    RISE     SPAN     CULVLN   CHRT     SCL      ELCHU    ELCHD
     1       .012     .20      2.70      .00     3.00     10.00    138.00   12       1      1627.80  1627.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 12.115

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.08
```

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1631.45	1631.39	.64	13.	177.	7.988	30.0	1631.00	70.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1631.00 ELREA= 1631.00

END CULVERTS. WEIR FLOW EXPECTED OVER LEVEE TO RT. OF CULVERTS.
INCREASE DISCHARGE AT THIS SECTION OF WHICH 171 CFS FLOWS THROUGH
STRUC. #14 AND 17 CFS FLOWS ON TO STRUC. #15.

12.115	2.38	1630.18	.00	1630.22	1631.17	.99	.64	.00	1631.00
191.0	.0	191.0	.0	.0	23.9	.0	30.7	16.4	1631.00
.80	.00	7.99	.00	.000	.012	.000	.000	1627.80	9995.00
.002191	138.	138.	138.	4	0	0	.00	10.00	10005.00

*SECND 12.128
3280 CROSS SECTION 12.13 EXTENDED .18 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .56

3470 ENCROACHMENT STATIONS= 9983.0 10008.0 TYPE= 1 TARGET= 25.000
ET OPTION APPLIED TO LIMIT EFFECTIVE FLOW WITHIN LIMITS OF ARMORED
WEIR LEVEE. TOP OF LEVEE, LEFT AND RIGHT =1631.0
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
UPSTREAM OF ROAD.

12.128	2.47	1631.17	1630.92	1631.15	1631.60	.43	.25	.17	1631.00
191.0	.0	191.0	.0	.0	36.4	.0	50.8	16.5	100000.00
.80	.00	5.25	.00	.000	.030	.000	.000	1628.70	9983.00
.007109	70.	70.	70.	11	11	0	.00	25.00	10008.00

CCHV= .100 CEHV= .300
*SECND -1.768

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


START TRIB COMP
    -1.768     1.768  1606.991

3470 ENCROACHMENT STATIONS=     9961.4   10100.0  TYPE=      1  TARGET=      138.600
       REPEAT THIS SECTION FOR START OF TRIBUTARY TO STRUC. #15.
   -1.768      3.59   1606.99       .00   1606.07   1607.17       .18       .00       .00   1605.40
    532.0        .0     202.4     329.6        .0      46.6     128.7      52.6      17.9   1605.30
      .87       .00      4.34      2.66      .000      .045      .049      .000   1603.40   9961.40
  .006081      770.      820.      770.         0         0         0       .00    138.60  10100.00


#SECND 21.890

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10423.0   10450.0  TYPE=      1  TARGET=       27.000
       BEGIN TRIBUTARY TO STRUC. #15, REDUCE Q TO 252CFS. ADD 20 TO SECTION I.D
       STA. 10435 = TRIB. BASELINE.
   21.890      2.57   1614.27   1614.27   1614.19   1615.05       .79      5.63       .18   1612.50
    282.0      24.7     232.6      24.7       4.6      31.2       4.7      34.1      19.1   1612.60
      .89      5.34      7.44      5.23      .049      .045      .049      .000   1611.70  10423.00
  .028059      615.      615.      615.        20        19         0       .00     27.00  10450.00


#SECND 22.016

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.07


3470 ENCROACHMENT STATIONS=    10850.0   10888.0  TYPE=      1  TARGET=       59.000
       STA. 10835 = TRIB. BASELINE.
   22.016      4.06   1622.86       .00   1621.95   1623.25       .39      8.16       .04   1620.60
    282.0      44.5     232.3       5.2      18.4      42.9       2.5      34.9      19.6   1621.10
      .93      2.42      5.41      2.14      .049      .045      .049      .000   1618.80  10850.00
  .006576      650.      690.      660.         7         0         0       .00     38.00  10888.00


CCHV=     .300 CEHV=     .500
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 22.037
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1627.20 ELREA= 1627.20

BEGIN SUNVALLEY PARKWAY CULVERTS (4-10'X3' CULVERTS- STRUC. #15)

22.037	1.10	1624.70	1624.70	1624.70	1625.25	.55	1.01	.08	1627.10
282.0	.0	282.0	.0	.0	47.2	.0	35.1	19.7	1627.10
.94	.00	5.97	.00	.000	.030	.000	.000	1623.60	9978.50
.013711	110.	110.	110.	20	14	0	.00	43.00	10021.50

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	4	.012	.20	2.90	.00	3.00	10.00	158.00	12	3	1624.20	1623.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 22.067

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1626.020 EGOC = 1626.049 PCWSE= 1624.698 ELTRD= 1626.800

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.59

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1626.02	1626.05	.80	0.	282.	4.110	120.0	1626.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1626.80 ELREA= 1626.80

END CULVERTS

22.067	1.59	1625.79	.00	1625.79	1626.05	.26	.80	.00	1626.80
282.0	.0	282.0	.0	.0	68.6	.0	35.3	19.9	1626.80
.95	.00	4.11	.00	.000	.012	.000	.000	1624.20	9978.50
.000650	158.	158.	158.	2	0	0	.00	43.00	10021.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
$SECNO 22.076
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
       UPSTREAM OF ROAD.
   22.076      .87   1626.87   1626.87   1626.87   1627.26      .39      .09      .06   1627.00
    282.0       .0     260.6      21.4        .0      51.1      6.5     35.4     1.7   1626.00
      .95      .00      5.10      3.31      .000      .030     .030     .000  1626.00   9971.77
  .013514      50.       50.       50.        20        11        0      .00    76.05  10047.82
```

THIS RUN EXECUTED 03SEP91 12:45:32

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO. 3 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.086	766.00	1511.85	.00	7.15	.00	9952.60	9980.00	9775.20	10317.80	9895.29	9985.62
	.086	766.00	1512.63	.00	6.65	.00	9952.60	9980.00	9952.60	9980.00	9952.60	9980.00
	.209	766.00	1517.09	.00	6.19	675.00	9904.10	9925.60	9808.30	10026.60	9896.17	10062.42
	.209	766.00	1517.89	.00	8.25	675.00	9904.10	9925.60	9904.10	9925.60	9904.10	9925.60
	.355	766.00	1523.88	.00	5.04	800.00	9984.20	10008.70	9860.60	10181.20	9931.47	10144.48
	.355	766.00	1524.89	.00	4.91	800.00	9984.20	10008.70	9971.00	10049.00	9971.00	10049.00
	.499	766.00	1532.65	1532.58	6.05	790.00	9989.90	10018.90	9736.40	10398.20	9965.23	10360.39
*	.499	766.00	1533.29	1533.29	7.96	790.00	9989.90	10018.90	9989.90	10050.81	9989.90	10050.81
	.645	649.00	1540.89	.00	4.49	760.00	9987.20	10014.10	9880.80	10325.20	9976.82	10237.32
	.645	649.00	1541.88	.00	5.14	760.00	9987.20	10014.10	9987.20	10065.60	9987.20	10065.60
	.790	649.00	1549.84	.00	5.55	760.00	10000.10	10021.30	9936.10	10120.30	9956.70	10150.11
*	.790	649.00	1550.41	.00	8.09	760.00	10000.10	10021.30	10000.10	10047.50	10000.10	10047.50
	.938	649.00	1558.50	.00	3.87	785.00	9906.50	9953.60	9725.70	10157.80	9794.44	10154.56
*	.938	649.00	1559.50	.00	4.69	785.00	9906.50	9953.60	9906.50	9969.00	9906.50	9969.00
*	1.084	649.00	1566.33	1566.33	6.17	790.00	9987.40	10012.30	9767.70	10132.90	9826.04	10052.99
*	1.084	649.00	1566.89	.00	8.19	790.00	9987.40	10012.30	9987.40	10022.90	9987.40	10022.90
	1.221	532.00	1574.23	.00	4.26	725.00	9975.10	9998.80	9735.50	10307.40	9920.14	10139.98
	1.221	532.00	1575.19	.00	4.88	725.00	9975.10	9998.80	9940.00	10000.00	9940.00	10000.00
	1.347	532.00	1581.30	.00	5.60	690.00	9988.00	10010.30	9855.60	10271.10	9926.06	10127.09
*	1.347	532.00	1581.83	1581.81	8.05	690.00	9988.00	10010.30	9971.10	10010.30	9971.10	10010.30
	1.484	532.00	1588.63	.00	3.98	790.00	10063.30	10104.70	9978.70	10445.20	10019.58	10252.65
*	1.484	532.00	1589.54	.00	4.43	790.00	10063.30	10104.70	10060.00	10110.00	10060.00	10110.00

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	1.622	532.00	1597.95	1597.95	5.81	760.00	9963.70	9979.90	9895.30	10585.00	9953.45	10302.16
*	1.622	532.00	1598.35	1598.35	8.35	760.00	9963.70	9979.90	9963.70	10004.60	9963.70	10004.60
	1.768	532.00	1606.07	.00	4.46	820.00	9961.40	9980.40	.00	.00	9909.48	10270.06
*	1.768	532.00	1606.99	.00	4.33	820.00	9961.40	9980.40	9961.40	10100.00	9961.40	10100.00
*	1.888	86.00	1613.60	1613.60	4.97	615.00	10074.90	10083.70	9811.20	10153.60	10031.40	10106.86
*	1.888	86.00	1613.81	1613.81	6.86	615.00	10074.90	10083.70	10074.90	10083.70	10074.90	10083.70
*	2.007	86.00	1622.01	.00	3.08	690.00	9970.50	9983.10	9890.10	10017.40	9881.67	9984.52
*	2.007	86.00	1622.88	.00	3.53	690.00	9970.50	9983.10	9970.50	9983.10	9970.50	9983.10
*	2.076	86.00	1626.70	1626.70	4.58	380.00	9952.40	9962.70	9894.00	10046.90	9926.67	10036.87
*	2.076	86.00	1626.99	.00	6.19	380.00	9952.40	9962.70	9952.70	9962.70	9952.70	9962.70
	2.128	86.00	1630.67	.00	4.06	290.00	10003.50	10019.50	.00	.00	9995.90	10042.04
*	2.128	86.00	1631.06	.00	3.43	290.00	10003.50	10019.50	10003.50	10019.50	10003.50	10019.50
*	2.142	86.00	1631.12	.00	1.78	75.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	2.142	86.00	1631.37	.00	1.46	75.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	2.171	86.00	1631.87	.00	2.31	154.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	2.171	86.00	1631.98	.00	2.05	154.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	2.186	86.00	1633.52	1633.52	3.90	80.00	9972.00	10030.00	.00	.00	9976.84	10023.32
*	2.186	86.00	1633.51	1633.51	3.92	80.00	9972.00	10030.00	.00	.00	9976.86	10023.31
	-1.768	532.00	1606.07	.00	4.48	820.00	9961.40	9980.40	.00	.00	9909.48	10270.04
	-1.768	532.00	1606.99	.00	4.34	820.00	9961.40	9980.40	9961.40	10100.00	9961.40	10100.00
*	11.884	171.00	1613.85	1613.85	5.72	615.00	10219.00	10230.60	10155.60	10242.40	10195.94	10254.43
*	11.884	171.00	1614.03	1614.03	7.84	615.00	10219.00	10230.60	10219.00	10230.60	10219.00	10230.60
*	12.000	171.00	1621.23	.00	4.26	690.00	10270.20	10278.60	10017.40	10355.70	10213.69	10342.31
*	12.000	171.00	1622.17	.00	4.65	690.00	10270.20	10278.60	10263.00	10287.00	10263.00	10287.00
*	12.063	171.00	1625.46	.00	4.13	380.00	10426.60	10440.50	10046.90	10580.00	10389.51	10468.49
*	12.063	171.00	1626.12	1626.12	6.77	380.00	10426.60	10440.50	10420.00	10442.00	10420.00	10442.00
*	12.089	171.00	1629.48	1629.48	8.21	135.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	12.089	171.00	1629.47	1629.47	8.26	135.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	12.115	191.00	1630.22	.00	7.86	138.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	12.115	191.00	1630.18	.00	7.99	138.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	12.128	191.00	1631.15	1630.92	5.31	70.00	9983.00	10008.00	9983.00	10008.00	9983.00	10008.00
*	12.128	191.00	1631.17	1630.92	5.25	70.00	9983.00	10008.00	9983.00	10008.00	9983.00	10008.00
	-1.768	532.00	1606.07	.00	4.48	820.00	9961.40	9980.40	.00	.00	9909.48	10270.04
	-1.768	532.00	1606.99	.00	4.34	820.00	9961.40	9980.40	9961.40	10100.00	9961.40	10100.00

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	21.890	282.00	1614.19	1614.19	5.42	615.00	10426.90	10446.70	10365.50	10372.20	10385.48	10512.20
*	21.890	282.00	1614.27	1614.27	7.44	615.00	10426.90	10446.70	10423.00	10450.00	10423.00	10450.00
	22.016	282.00	1622.35	.00	4.83	690.00	10872.00	[illegible]	[illegible]	[illegible]	[illegible]	10851.45
*	22.016	282.00	1622.86	.00	5.41	690.00	10872.00	10886.50	10850.00	10888.00	10850.00	10888.00
*	22.037	282.00	1624.70	1624.70	5.98	110.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	22.037	282.00	1624.70	1624.70	5.97	110.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	22.067	282.00	1625.79	.00	4.11	158.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	22.067	282.00	1625.79	.00	4.11	158.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	22.076	282.00	1626.87	1626.87	5.10	50.00	9971.00	10033.00	.00	.00	9971.77	10047.82
*	22.076	282.00	1626.87	1626.87	5.10	50.00	9971.00	10033.00	.00	.00	9971.77	10047.82

WASH NO. 3 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.086	94.68	666.99	4.33	2.33	7.15	1.66	1513.30	1511.83	.00	90.33	1507.20	1.44
	.086	.00	766.00	.00	.00	6.65	.00	1513.30	1512.63	.00	27.40	1507.20	1.00
	.209	5.74	468.46	291.80	1.78	6.19	2.49	1521.70	1517.09	5.26	164.25	1512.20	1.69
	.209	.00	766.00	.00	.00	8.25	.00	1521.70	1517.89	5.26	21.50	1512.20	1.00
	.355	100.31	230.80	434.89	2.89	5.04	3.74	1528.10	1523.88	6.79	210.01	1519.70	1.10
	.355	58.09	345.62	362.29	2.96	4.91	4.18	1528.10	1524.89	7.00	78.00	1519.70	1.05
	.499	4.64	405.12	356.24	1.20	6.05	2.69	1535.80	1532.65	8.77	269.89	1528.80	1.60
*	.499	.00	680.90	85.10	.00	7.96	3.24	1535.80	1533.29	8.40	60.91	1528.80	1.22
	.645	232.97	203.91	212.11	2.98	4.49	[illegible]	1542.40	1540.89	8.24	340.50	1538.10	1.33
	.645	.00	370.02	278.97	.00	5.14	3.46	1542.40	1541.88	8.59	78.40	1538.10	1.12
	.790	84.39	189.77	374.83	3.31	5.55	[illegible]	[illegible]	1545.84	8.95	186.66	1546.10	1.14
*	.790	.00	375.24	273.76	.00	8.09	6.51	1549.90	1550.41	8.54	47.40	1546.10	1.03
	.938	116.03	275.12	257.84	2.40	3.87	2.08	1559.60	[illegible]	8.67	300.24	1556.10	1.28
*	.938	.00	552.79	96.21	.00	4.69	3.39	1559.60	1559.50	9.09	62.50	1556.10	1.04
*	1.084	228.78	342.82	77.39	2.81	6.17	2.84	1570.30	1566.33	7.83	206.42	1563.60	1.53
*	1.084	.00	568.48	80.52	.00	8.19	5.16	1570.30	1566.89	7.39	35.50	1563.60	1.06
	1.221	102.29	167.32	262.39	2.52	4.26	2.48	1577.70	1574.23	7.90	219.84	1571.50	1.21
	1.221	225.74	302.27	3.99	3.53	4.88	1.81	1577.70	1575.19	8.30	60.00	1571.50	1.09
	1.347	70.18	241.00	220.82	2.44	5.60	2.78	1585.60	1581.30	7.07	191.14	1578.30	1.47
*	1.347	89.99	442.01	.00	4.62	8.05	.00	1585.60	1581.83	6.64	39.20	1578.30	1.12
	1.484	26.25	280.43	225.31	1.94	3.98	2.42	1592.00	1588.63	7.33	211.97	1585.90	1.22
*	1.484	18.00	480.15	33.84	2.60	4.43	3.18	1592.00	1589.54	7.70	50.00	1585.90	1.04
*	1.622	15.43	232.02	284.54	2.51	5.81	2.92	1601.40	[illegible]	[illegible]	304.34	1594.90	1.88
*	1.622	.00	387.80	144.20	.00	8.35	4.80	1601.40	1598.35	8.82	40.90	1594.90	1.18
	1.768	28.66	130.36	372.98	1.87	4.46	3.01	1608.70	1606.07	8.12	250.21	1603.40	1.14
*	1.768	.00	202.14	329.86	.00	4.33	2.66	1608.70	1606.99	8.64	138.60	1603.40	1.19
*	1.888	27.86	53.13	5.01	2.55	4.97	1.71	1614.00	1613.60	7.53	50.44	1611.70	1.43
*	1.888	.00	86.00	.00	.00	6.86	.00	1614.00	1613.81	6.82	8.80	1611.70	1.00
*	2.007	45.22	40.62	.16	1.80	3.08	.77	1622.10	1622.01	8.40	90.24	1618.80	1.24
*	2.007	.00	86.00	.00	.00	3.53	.00	1622.10	1622.88	9.07	12.60	1618.80	1.00
*	2.076	23.98	50.51	11.51	2.62	4.58	2.06	1627.00	1626.70	4.70	61.97	1624.00	1.33
*	2.076	.00	86.00	.00	.00	4.18	.00	1627.00	1626.88	4.11	10.00	1624.00	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	2.128	6.25	76.68	3.08	1.97	4.06	.96	1633.10	1630.67	3.97	45.11	1628.88	1.27
*	2.128	.00	86.00	.00	.00	3.43	.00	1633.10	1631.06	4.07	16.00	1628.80	1.00
*	2.142	.00	86.00	.00	.00	1.78	.00	1635.00	1631.12	.45	43.00	1630.00	1.00
*	2.142	.00	86.00	.00	.00	1.46	.00	1635.00	1631.37	.31	43.00	1630.00	1.00
*	2.171	.00	86.00	.00	.00	2.31	.00	1635.00	1631.87	.75	43.00	1631.00	1.00
*	2.171	.00	86.00	.00	.00	2.05	.00	1635.00	1631.98	.61	43.00	1631.00	1.00
*	2.186	.00	86.00	.00	.00	3.90	.00	1634.00	1633.52	1.65	46.48	1633.00	1.00
*	2.186	.00	86.00	.00	.00	3.92	.00	1634.00	1633.51	1.54	46.45	1633.00	1.00
	-1.768	28.47	130.72	372.81	1.88	4.48	3.03	1608.70	1606.07	-27.44	249.79	1603.40	1.14
	-1.768	.00	202.43	329.57	.00	4.34	2.66	1608.70	1606.99	-26.52	138.60	1603.40	1.19
*	11.884	51.21	112.93	6.86	3.38	5.72	1.44	1614.00	1613.85	7.78	57.17	1611.70	1.35
*	11.884	.00	171.00	.00	.00	7.84	.00	1614.00	1614.03	7.04	11.60	1611.70	1.00
*	12.000	100.47	67.18	3.34	2.42	4.26	1.66	1622.10	1621.23	7.38	70.31	1618.80	1.28
*	12.000	39.75	110.14	21.11	2.99	4.65	2.41	1622.10	1622.17	8.14	24.00	1618.80	1.19
*	12.063	92.23	55.02	23.75	2.86	4.13	2.24	1627.00	1625.46	4.23	108.76	1624.00	1.14
*	12.063	14.81	151.26	4.92	3.39	6.77	3.28	1627.00	1626.12	3.95	22.00	1624.00	1.14
*	12.089	.00	171.00	.00	.00	8.21	.00	1630.80	1629.48	4.02	10.00	1627.40	1.00
*	12.089	.00	171.00	.00	.00	8.26	.00	1630.80	1629.47	3.36	10.00	1627.40	1.00
*	12.115	.00	191.00	.00	.00	7.86	.00	1631.00	1630.22	.74	10.00	1627.80	1.00
*	12.115	.00	191.00	.00	.00	7.99	.00	1631.00	1630.18	.71	10.00	1627.80	1.00
*	12.128	.00	191.00	.00	.00	5.31	.00	1631.00	1631.15	.93	25.00	1628.70	1.00
*	12.128	.00	191.00	.00	.00	5.25	.00	1631.00	1631.17	.99	25.00	1628.70	1.00
	-1.768	28.47	130.72	372.81	1.88	4.48	3.03	1608.70	1606.07	-25.08	249.79	1603.40	1.14
	-1.768	.00	202.43	329.57	.00	4.34	2.66	1608.70	1606.99	-24.18	138.60	1603.40	1.19
*	21.890	44.17	161.18	76.65	2.85	5.42	2.73	1615.90	1614.19	8.12	121.42	1611.70	1.36
*	21.890	24.69	232.57	24.74	5.34	7.44	5.23	1615.90	1614.27	7.27	27.00	1611.70	1.05
	22.016	135.38	143.31	3.31	2.75	4.83	1.57	1623.30	1621.95	7.76	108.21	1618.80	1.28
*	22.016	44.48	232.28	5.24	2.42	5.41	2.14	1623.30	1622.86	8.60	38.00	1618.80	1.28
*	22.037	.00	282.00	.00	.00	5.98	.00	1627.10	1624.70	2.75	43.00	1623.60	1.00
*	22.037	.00	282.00	.00	.00	5.97	.00	1627.10	1624.70	1.84	43.00	1623.60	1.00
*	22.067	.00	282.00	.00	.00	4.11	.00	1626.80	1625.79	1.09	43.00	1624.20	1.00
*	22.067	.00	282.00	.00	.00	4.11	.00	1626.80	1625.79	1.09	43.00	1624.20	1.00
*	22.076	.00	260.64	21.36	.00	5.10	3.31	1627.00	1626.87	1.08	76.05	1626.00	1.04
*	22.076	.00	260.64	21.36	.00	5.10	3.31	1627.00	1626.87	1.08	76.05	1626.00	1.04

WASH NO. 3 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.086	.00	.00	1512.53	.70	.00	.00	84.86	.00	4.63	49.00	42.00	49.00
	.086	.00	.00	1513.32	.69	.00	.00	65.14	.00	5.43	.00	42.00	.00
	.209	675.00	7.41	1517.49	.40	4.93	.03	64.69	2.53	4.89	49.00	42.00	49.00
	.209	675.00	7.41	1518.95	1.06	5.52	.11	105.62	1.61	5.69	.00	42.00	.00
	.355	800.00	9.38	1524.14	.26	6.63	.01	110.61	6.12	4.18	49.00	45.00	49.00
	.355	800.00	9.38	1525.19	.31	6.17	.07	58.98	4.08	5.19	49.00	45.00	49.00
	.499	790.00	11.52	1533.00	.35	8.83	.03	116.09	9.69	3.85	49.00	45.00	49.00
*	.499	790.00	11.52	1534.18	.89	7.04	.18	152.99	6.67	4.49	.00	45.00	49.00
	.645	760.00	12.24	1541.06	.17	8.04	.02	95.39	13.44	2.79	49.00	45.00	49.00
	.645	760.00	12.24	1542.19	.31	7.95	.06	72.61	8.97	3.78	.00	45.00	49.00
	.790	760.00	10.53	1550.11	.28	9.02	.03	154.85	16.81	3.74	49.00	45.00	49.00
*	.790	760.00	10.53	1551.28	.87	8.92	.17	228.32	11.04	4.31	.00	45.00	49.00
	.938	785.00	12.74	1558.64	.14	8.52	.01	81.95	20.43	2.40	49.00	45.00	49.00
*	.938	785.00	12.74	1559.82	.32	8.48	.05	63.30	13.14	3.40	.00	45.00	49.00
*	1.084	790.00	9.49	1566.70	.37	7.86	.07	125.93	24.08	2.73	49.00	45.00	49.00
*	1.084	790.00	9.49	1567.85	.96	7.84	.19	179.97	15.23	3.29	.00	45.00	49.00
	1.221	725.00	10.90	1574.39	.15	7.66	.02	88.42	26.96	2.73	49.00	45.00	49.00
	1.221	725.00	10.90	1575.48	.29	7.57	.07	62.92	16.99	3.69	49.00	45.00	49.00
	1.347	690.00	9.86	1581.59	.28	7.16	.04	123.54	29.63	3.00	49.00	45.00	49.00
*	1.347	690.00	9.86	1582.73	.89	7.06	.18	194.95	18.60	3.53	49.00	45.00	.00
	1.484	790.00	9.62	1588.80	.17	7.21	.01	73.08	32.51	2.73	49.00	45.00	49.00
*	1.484	790.00	9.62	1589.83	.29	7.04	.06	51.16	20.40	3.64	49.00	45.00	49.00
*	1.622	760.00	11.84	1598.22	.27	6.50	.03	96.38	35.67	3.05	49.00	45.00	49.00
*	1.622	760.00	11.84	1599.24	.89	6.78	.18	188.63	22.18	3.45	.00	45.00	49.00
	1.768	820.00	10.37	1606.25	.18	8.02	.01	107.60	38.75	2.67	49.00	45.00	49.00
*	1.768	820.00	10.37	1607.17	.18	7.86	.07	60.39	24.42	3.59	.00	45.00	49.00
*	1.888	615.00	13.50	1613.87	.27	7.11	.03	193.93	40.11	1.90	49.00	45.00	49.00
*	1.888	615.00	13.50	1614.54	.73	4.39	.17	341.61	25.72	2.11	.00	45.00	.00
*	2.007	690.00	10.29	1622.10	.10	8.21	.02	83.94	40.59	3.21	49.00	45.00	49.00
*	2.007	690.00	10.29	1623.07	.19	8.47	.05	62.63	26.01	4.08	.00	45.00	.00
*	2.076	380.00	13.68	1626.93	.23	4.58	.04	185.55	40.87	2.70	49.00	45.00	49.00
*	2.076	380.00	13.68	1627.59	.59	4.39	.12	281.21	26.18	2.99	.00	45.00	.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	2.128	290.00	16.55	1630.90	.23	3.97	.00	124.71	41.01	1.87	49.00	45.00	49.00
*	2.128	290.00	16.55	1631.25	.18	3.62	.04	70.18	26.31	2.26	.00	45.00	.00
*	2.142	75.00	16.00	1631.17	.05	.21	.05	11.86	41.08	1.12	.00	30.00	.00
*	2.142	75.00	16.00	1631.40	.03	.11	.05	6.19	26.38	1.37	.00	30.00	.00
*	2.171	154.00	6.49	1631.95	.08	.78	.00	4.43	41.23	.87	.00	12.00	.00
*	2.171	154.00	6.49	1632.04	.06	.64	.00	2.98	26.56	.98	.00	12.00	.00
*	2.186	80.00	25.00	1633.75	.24	.10	.08	168.28	41.28	.52	.00	30.00	.00
*	2.186	80.00	25.00	1633.75	.24	.07	.09	170.61	26.62	.51	.00	30.00	.00
	-1.768	820.00	.00	1606.25	.18	.00	.00	109.18	42.99	2.67	49.00	45.00	49.00
	-1.768	820.00	.00	1607.17	.18	.00	.00	60.81	28.35	3.59	.00	45.00	49.00
*	11.884	615.00	13.50	1614.24	.39	7.27	.06	154.49	44.45	2.15	49.00	45.00	49.00
*	11.884	615.00	13.50	1614.98	.95	5.02	.23	317.05	29.71	2.33	.00	45.00	.00
*	12.000	690.00	10.29	1621.40	.16	7.13	.02	77.53	45.20	2.43	49.00	45.00	49.00
*	12.000	690.00	10.29	1622.43	.26	7.38	.07	53.79	30.24	3.37	49.00	45.00	49.00
*	12.063	380.00	13.68	1625.63	.16	4.23	.00	170.32	45.71	1.46	49.00	45.00	49.00
*	12.063	380.00	13.68	1626.77	.65	3.72	.12	229.46	30.56	2.12	49.00	45.00	49.00
*	12.089	135.00	25.19	1630.53	1.05	2.26	.44	164.46	45.83	2.08	.00	30.00	.00
*	12.089	135.00	25.19	1630.53	1.06	2.63	.20	167.16	30.64	2.07	.00	30.00	.00
*	12.115	138.00	2.90	1631.18	.96	.65	.00	20.91	45.90	2.42	.00	12.00	.00
*	12.115	138.00	2.90	1631.17	.99	.64	.00	21.91	30.71	2.38	.00	12.00	.00
*	12.128	70.00	12.86	1631.59	.44	.25	.16	73.69	45.95	2.45	.00	30.00	.00
*	12.128	70.00	12.86	1631.60	.43	.25	.17	71.09	30.76	2.47	.00	30.00	.00
	-1.768	820.00	.00	1606.25	.18	.00	.00	109.18	47.79	2.67	49.00	45.00	49.00
	-1.768	820.00	.00	1607.17	.18	.00	.00	60.81	32.63	3.59	.00	45.00	49.00
*	21.890	615.00	13.50	1614.50	.31	7.59	.04	159.23	49.49	2.49	49.00	45.00	49.00
*	21.890	615.00	13.50	1615.05	.79	5.63	.18	280.59	34.12	2.57	49.00	45.00	49.00
	22.016	690.00	10.29	1622.19	.24	7.68	.01	85.84	50.67	3.15	49.00	45.00	49.00
*	22.016	690.00	10.29	1623.25	.39	8.16	.04	65.76	34.93	4.06	49.00	45.00	49.00
*	22.037	110.00	43.64	1625.25	.55	1.18	.16	137.36	50.83	1.10	.00	30.00	.00
*	22.037	110.00	43.64	1625.25	.55	1.01	.08	137.11	35.07	1.10	.00	30.00	.00
*	22.067	158.00	3.80	1626.05	.26	.80	.00	6.50	51.04	1.59	.00	12.00	.00
*	22.067	158.00	3.80	1626.05	.26	.80	.00	6.50	35.28	1.59	.00	12.00	.00
*	22.076	50.00	36.00	1627.26	.39	.09	.06	135.14	51.11	.87	.00	30.00	30.00
*	22.076	50.00	36.00	1627.26	.39	.09	.06	135.14	35.35	.87	.00	30.00	30.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION SECNO=      .499  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .499  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .790  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .938  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.084  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.084  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     1.084  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.347  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.484  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.622  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.622  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.622  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.622  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.768  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.888  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.888  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.888  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.888  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.888  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     2.007  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.007  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.076  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.076  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     2.076  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.128  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.142  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.142  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.171  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.171  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.186  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.186  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.186  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     2.186  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.186  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.186  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    11.884  PROFILE=  1  CRITICAL DEPTH ASSUMED
```

```
CAUTION SECNO=    11.884  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.884  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.884  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.884  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    12.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    12.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    12.063  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    12.063  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.063  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    12.089  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.089  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.089  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.089  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    12.115  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    12.115  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    12.128  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    12.128  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    21.890  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.890  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.890  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.890  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.890  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    22.016  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.037  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.037  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.037  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    22.037  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.037  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.037  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    22.067  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.067  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.076  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.076  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.076  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    22.076  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.076  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.076  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO. 3 100-YEAR PRO
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.086	27.	115.	6.6	1512.6	1511.8	.8
.209	21.	93.	8.3	1517.9	1517.1	.8
.355	78.	177.	4.3	1524.9	1523.9	1.0
.499	61.	112.	6.9	1533.2	1532.6	.6
.645	78.	153.	4.3	1541.9	1540.9	1.0
.790	47.	88.	7.3	1550.4	1549.8	.6
.938	62.	146.	4.4	1559.5	1558.5	1.0
1.084	35.	85.	7.6	1566.9	1566.3	.6
1.221	60.	128.	4.2	1575.2	1574.2	1.0
1.347	39.	74.	7.2	1581.8	1581.3	.5
1.484	50.	126.	4.2	1589.5	1588.6	.9
1.622	41.	76.	7.0	1598.4	1598.0	.4
1.768	139.	171.	3.1	1607.0	1606.1	.9
1.888	9.	13.	6.9	1613.8	1613.6	.2
2.007	13.	24.	3.5	1622.9	1622.0	.9
2.076	10.	14.	6.2	1627.0	1626.7	.3
2.128	16.	25.	3.4	1631.1	1630.7	.4
2.142	43.	59.	1.5	1631.4	1631.1	.3
2.171	43.	42.	2.0	1632.0	1631.9	.1
2.186	46.	22.	3.9	1633.5	1633.5	.0
-1.768	139.	170.	3.1	1607.0	1606.1	.9
11.884	12.	22.	7.8	1614.1	1613.9	.2
12.000	24.	46.	3.7	1622.1	1621.2	.9
12.063	22.	28.	6.1	1626.2	1625.5	.7
12.089	10.	21.	8.3	1629.5	1629.5	.0
12.115	10.	24.	8.0	1630.2	1630.2	.0
12.128	25.	36.	5.2	1631.2	1631.2	.0
-1.768	139.	170.	3.1	1607.0	1606.1	.9
21.890	27.	41.	6.9	1614.3	1614.2	.1
22.016	38.	64.	4.4	1622.9	1622.0	.9
22.037	43.	47.	6.0	1624.7	1624.7	.0
22.067	43.	69.	4.1	1625.8	1625.8	.0
22.076	76.	58.	4.9	1626.9	1626.9	.0

THIS RUN EXECUTED 27AUG91 12:05:34

```
**********************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
**********************************


T1      SUN VALLEY PARKWAY NORTH FIS   CONTRACT:FCDMC NO. 90-04   FILE:WASH4-8
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC.PHX.AZ.
T3      WASH NO.4  100-YEAR PROFILE                 DATE:6\17\91;REV. 8\12\91

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         2                           .008                                    1476.5

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43         1         2        26        39        21        22        27        28
    53        54         0        38        13        14        15        55        26        56
    63         1        51         4        42        57         0        38        39        33
     3        10        11        12         5         7         8        16        17        18
     0       200

NC    .049      .049      .042        .1        .3
OT       2      2275      2275
ET                         9.1                                                                 9810      10163
        FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        PREVIOUS FLOODWAY ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD FOR
        PROFILE 1. PROFILE 2 STARTING WSEL FORCE FED.
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.   TRIBUTARIES TO WASH #4
        HAVE SECTION I.D.S.INCREASING UPSTREAM FROM WASH #4 CONFLUENCE WITH
        WHOLE NUMBER IN FACTOR OF 10 ADDED TO I.D. AS NOTED AT START OF TRIB.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
X1   0.1591        38    9900.5    9937.3         0         0         0
GR   1476.6    9364.1    1475.9    9393.6    1475.9    9417.7    1475.2    9423.6    1475.8    9429.4
GR   1475.3    9490.1    1476.2    9574.7    1475.7    9644.6    1475.4    9714.0    1475.8    9775.8
GR   1475.4    9820.0    1475.7    9847.6    1475.2    9853.5    1475.8    9857.4    1475.8    9900.5
GR   1474.8    9906.2    1476.2    9915.2    1475.1    9926.2    1474.8    9931.1    1475.8    9937.3
```

GR	1475.5	9958.7	1475.3	9981.7	1476.4	10000.0	1476.1	10000.1	1475.9	10032.1
GR	1476.1	10083.7	1476.5	10140.3	1476.1	10203.0	1475.2	10245.9	1475.2	10316.6
GR	1474.4	10343.2	1474.7	10356.9	1475.4	10368.1	1475.8	10416.4	1476.3	10476.8
GR	1476.2	10544.7	1476.8	10623.0	1477.6	10671.8				
ET			9.1						9700	10230
X1	.2727	52	10000.0	10047.0	680	620	630			
GR	1482.6	7931.3	1481.9	7987.8	1481.2	8045.5	1481.2	8118.2	1481.5	8184.6
GR	1481.3	8262.7	1481.1	8383.0	1480.6	8442.1	1479.6	8453.1	1480.9	8466.2
GR	1480.8	8498.1	1480.2	8590.0	1480.3	8617.6	1479.8	8641.8	1480.6	8673.1
GR	1480.6	8758.5	1479.6	8778.9	1480.6	8835.1	1480.1	8897.9	1479.8	8967.6
GR	1480.9	9072.0	1480.7	9159.6	1481.1	9215.7	1481.4	9295.2	1481.4	9351.0
GR	1481.8	9400.8	1481.7	9451.4	1480.8	9509.5	1480.5	9534.2	1480.8	9578.8
GR	1481.5	9667.5	1481.1	9749.4	1480.8	9860.3	1480.4	9904.0	1480.6	9917.9
GR	1480.2	9933.0	1480.5	9992.4	1480.9	10000.0	1480.4	10000.1	1479.4	10020.3
GR	1479.2	10032.7	1481.2	10047.0	1479.5	10059.3	1480.3	10089.7	1480.0	10097.6
GR	1480.1	10152.9	1480.6	10201.9	1479.7	10215.5	1480.8	10226.2	1480.9	10269.4
GR	1481.2	10339.1	1481.9	10378.3						
ET			9.1						9950	10230
X1	.4166	65	9981.0	10011.1	710	725	750			
GR	1489.3	8260.5	1488.8	8346.6	1488.7	8551.5	1488.9	8604.6	1487.6	8662.7
GR	1487.8	8685.4	1484.5	8698.6	1484.4	8707.2	1487.6	8716.8	1485.5	8724.5
GR	1487.9	8730.3	1487.9	8785.5	1488.1	8859.3	1487.8	8958.9	1487.6	9018.2
GR	1485.0	9029.2	1484.6	9036.0	1488.0	9050.3	1488.4	9075.0	1488.4	9148.6
GR	1488.6	9192.4	1488.9	9251.7	1488.9	9317.8	1488.5	9415.4	1488.6	9490.1
GR	1488.5	9621.8	1488.4	9630.5	1485.6	9638.8	1488.8	9645.5	1488.6	9699.4
GR	1488.5	9796.1	1488.5	9854.9	1487.6	9912.5	1487.5	9974.2	1484.7	9981.0
GR	1485.1	9994.6	1484.4	10000.0	1484.0	10000.1	1484.0	10007.0	1487.8	10011.1
GR	1487.4	10024.4	1486.1	10032.1	1486.9	10045.4	1485.8	10058.0	1486.2	10065.5
GR	1487.5	10075.0	1487.9	10109.1	1487.2	10191.8	1486.9	10215.9	1485.2	10222.0
GR	1486.5	10230.0	1483.9	10242.3	1487.1	10250.7	1486.7	10315.6	1485.8	10351.4
GR	1487.4	10362.1	1486.8	10389.1	1485.7	10394.9	1487.1	10398.3	1485.8	10405.3
GR	1486.5	10409.5	1487.1	10459.2	1487.3	10521.5	1487.9	10571.6	1489.0	10607.6
ET			9.1						9900	10140.0
X1	.5444	58	10086.0	10133.7	575	590	585			
GR	1494.0	8288.7	1493.6	8350.9	1494.0	8453.5	1493.8	8532.7	1494.0	8621.9
GR	1494.1	8682.4	1494.2	8784.9	1492.8	8889.4	1491.7	8900.2	1492.9	8905.1
GR	1492.2	8923.8	1489.5	8929.9	1488.7	8934.6	1492.7	8938.9	1492.6	8973.6
GR	1491.8	8979.8	1492.7	8985.6	1492.6	9050.9	1494.1	9109.0	1494.4	9169.9
GR	1494.5	9245.0	1494.4	9332.3	1493.8	9426.4	1491.2	9431.4	1491.5	9436.4
GR	1493.0	9443.7	1494.3	9457.5	1494.0	9515.7	1494.4	9583.2	1494.4	9647.6
GR	1494.3	9707.8	1493.4	9711.9	1493.5	9725.3	1494.4	9728.1	1494.0	9788.8
GR	1492.4	9797.0	1493.7	9805.4	1494.2	9867.3	1494.3	9872.4	1494.4	9941.5
GR	1493.7	10000.0	1493.8	10000.1	1493.5	10037.9	1492.6	10050.3	1492.3	10067.3
GR	1490.9	10077.4	1492.2	10086.0	1487.6	10099.6	1488.6	10110.8	1493.0	10133.7
GR	1493.2	10234.0	1493.1	10309.4	1493.1	10329.3	1490.5	10337.8	1492.9	10344.2
GR	1493.5	10377.1	1493.5	10440.0	1493.8	10503.3				

ET		7.1	9.1				9291.8	10571.3	9906	10195.2
X1	.6894	68	10118.3	10195.2	680	710	710			
GR	1500.4	8592.8	1500.3	8652.3	1500.0	8736.9	1500.0	8803.4	1500.2	8881.5
GR	1500.1	8962.1	1500.2	9048.7	1499.9	9114.0	1499.7	9136.5	1499.8	9148.0
GR	1499.7	9214.3	1499.9	9280.3	1500.3	9281.8	1500.3	9281.9	1500.2	9325.8
GR	1500.0	9358.3	1497.3	9373.0	1499.8	9379.8	1500.0	9403.8	1500.2	9461.1
GR	1500.4	9518.8	1500.5	9569.4	1500.7	9623.0	1500.8	9679.1	1500.8	9732.7
GR	1500.1	9751.2	1499.6	9764.7	1500.7	9787.4	1499.9	9795.7	1498.1	9799.9
GR	1499.6	9803.6	1499.5	9818.7	1500.6	9865.4	1499.9	9872.6	1500.4	9877.3
GR	1500.1	9904.7	1499.0	9936.0	1498.0	9941.9	1498.0	9946.3	1500.2	9992.4
GR	1499.5	10000.0	1499.9	10000.1	1500.4	10021.2	1500.3	10068.0	1499.8	10118.3
GR	1498.9	10154.5	1494.8	10162.4	1497.9	10168.7	1498.3	10179.7	1498.2	10188.0
GR	1498.9	10195.2	1498.1	10209.7	1498.6	10217.8	1498.7	10229.0	1498.7	10239.3
GR	1498.2	10255.7	1499.5	10291.2	1499.5	10326.4	1499.5	10374.9	1499.8	10433.1
GR	1500.1	10479.3	1499.8	10512.5	1497.0	10519.2	1499.7	10523.9	1499.9	10535.3
GR	1500.4	10571.0	1500.6	10630.6	1501.3	10647.3				

ET		7.1	9.1				9085.4	10671.2	9924.2	10223
X1	.7955	78	9961.7	10024.0	500	600	650			
GR	1508.0	8735.0	1508.0	8783.5	1507.6	8832.6	1506.9	8868.3	1506.2	8910.4
GR	1506.1	8946.7	1506.0	9002.5	1506.0	9029.0	1506.2	9085.4	1506.0	9145.7
GR	1505.0	9204.7	1504.9	9245.1	1504.9	9258.2	1505.1	9260.6	1504.9	9271.5
GR	1504.8	9283.2	1504.8	9292.5	1504.8	9299.3	1504.7	9303.1	1505.7	9336.9
GR	1505.9	9348.0	1506.2	9402.3	1506.2	9468.0	1506.5	9522.1	1506.3	9545.8
GR	1506.2	9583.5	1506.4	9614.1	1506.3	9657.6	1506.0	9716.0	1506.1	9742.5
GR	1504.7	9751.2	1506.0	9756.8	1506.1	9788.9	1505.9	9819.0	1506.1	9864.7
GR	1506.1	9897.0	1505.9	9939.3	1505.9	9961.7	1503.2	9971.3	1504.4	9975.2
GR	1504.8	9981.3	1503.5	9988.2	1505.1	9993.4	1505.2	10000.0	1505.3	10000.1
GR	1505.1	10012.7	1503.8	10019.6	1505.9	10024.0	1505.8	10043.2	1505.6	10070.7
GR	1505.6	10093.4	1505.5	10138.8	1505.6	10154.0	1505.2	10184.1	1505.0	10197.9
GR	1503.8	10202.1	1505.2	10205.1	1505.0	10211.2	1503.7	10214.6	1504.8	10218.7
GR	1505.2	10247.7	1505.1	10266.0	1505.0	10315.2	1505.0	10361.6	1504.9	10404.3
GR	1505.1	10452.4	1505.4	10506.3	1505.4	10561.4	1506.0	10607.0	1506.2	10671.2
GR	1505.9	10724.7	1505.9	10741.9	1503.4	10749.5	1506.1	10755.3	1505.6	10781.1
GR	1506.2	10815.2	1507.1	10862.8	1507.6	10895.1				

ET		7.1	9.1				9518.4	10714.2	9908.2	10325.0
X1	.9167	82	9908.2	10000.0	670	625	730			
GR	1514.5	9023.5	1514.3	9058.4	1514.2	9098.8	1514.0	9135.2	1513.8	9180.1
GR	1513.2	9229.0	1512.9	9270.3	1512.5	9321.6	1512.4	9366.6	1512.6	9416.2
GR	1512.4	9457.9	1512.6	9490.4	1512.6	9518.4	1512.3	9545.9	1512.2	9576.8
GR	1512.5	9601.2	1511.9	9614.5	1512.2	9629.0	1512.0	9647.0	1512.5	9655.0
GR	1512.4	9658.8	1512.9	9672.1	1512.3	9695.7	1512.7	9723.0	1512.8	9750.3
GR	1512.2	9771.4	1512.5	9794.3	1511.9	9821.0	1513.2	9827.2	1513.4	9852.2
GR	1512.4	9877.6	1512.5	9900.1	1512.2	9908.2	1510.5	9915.7	1510.8	9920.5
GR	1512.4	9926.6	1512.4	9942.5	1512.4	9989.8	1513.0	10000.0	1512.4	10000.1
GR	1512.4	10021.1	1512.3	10072.4	1512.1	10119.7	1512.0	10156.1	1511.7	10187.4
GR	1511.7	10210.4	1511.6	10218.4	1510.5	10223.3	1510.9	10232.9	1510.8	10258.1
GR	1510.9	10274.8	1511.2	10285.1	1510.9	10293.9	1509.8	10301.6	1511.4	10307.4
GR	1511.4	10331.9	1511.1	10372.6	1510.8	10400.6	1510.3	10432.2	1510.2	10443.5
GR	1510.6	10458.2	1510.9	10484.7	1511.0	10512.1	1510.8	10554.4	1510.8	10593.4
GR	1511.1	10631.7	1511.1	10641.5	1511.4	10648.4	1511.3	10657.1	1512.1	10688.8
GR	1512.6	10714.2	1512.6	10743.9	1512.4	10785.1	1512.6	10832.9	1512.1	10875.2

GR	1512.0	10912.4	1511.9	10932.7	1510.3	10940.4	1512.6	10946.8	1512.8	10986.7
GR	1512.4	11002.7	1512.8	11008.5						
ET		7.1	9.1				9631.4	10587.3	9962.5	10239.8
X1	1.0379	90	9962.5	10000.1	680	680	705			
GR	1520.4	9194.4	1520.0	9228.2	1520.4	9255.6	1520.4	9292.8	1519.9	9322.7
GR	1519.9	9343.5	1519.8	9367.3	1519.8	9402.3	1519.3	9435.3	1519.0	9472.2
GR	1519.1	9503.4	1519.1	9536.6	1519.1	9559.6	1519.0	9579.6	1519.1	9609.0
GR	1519.7	9631.4	1518.9	9655.8	1519.0	9672.9	1518.6	9694.6	1518.3	9725.0
GR	1518.9	9761.0	1518.9	9793.7	1518.1	9828.8	1518.2	9857.6	1518.5	9887.0
GR	1518.6	9920.2	1518.8	9951.9	1518.9	9962.5	1517.6	9968.2	1517.5	9980.7
GR	1518.4	9984.6	1517.6	9993.1	1518.5	9997.3	1519.0	10000.0	1519.0	10000.1
GR	1518.5	10017.0	1518.4	10036.0	1517.9	10041.8	1518.6	10048.0	1518.5	10070.9
GR	1518.2	10097.2	1518.4	10104.7	1518.5	10104.8	1518.8	10133.4	1518.6	10164.6
GR	1518.3	10194.6	1518.0	10204.7	1518.0	10215.3	1517.6	10222.4	1517.0	10235.8
GR	1516.1	10242.5	1516.1	10248.1	1516.9	10274.9	1516.9	10295.7	1516.7	10305.2
GR	1516.4	10309.0	1516.8	10311.9	1516.7	10314.8	1516.1	10320.0	1516.9	10327.3
GR	1518.5	10370.3	1518.8	10415.3	1518.3	10458.0	1518.4	10493.3	1518.5	10544.2
GR	1518.4	10569.5	1519.1	10587.3	1518.1	10591.5	1518.5	10605.9	1518.9	10653.5
GR	1519.1	10680.7	1520.2	10723.7	1520.9	10752.8	1520.0	10808.8	1520.3	10851.1
GR	1520.9	10898.2	1520.5	10942.4	1520.9	10971.8	1520.4	11007.4	1520.6	11055.6
GR	1520.6	11091.4	1520.2	11121.3	1520.1	11137.8	1518.3	11145.6	1519.2	11149.7
GR	1520.0	11169.0	1520.0	11201.1	1520.6	11222.0	1520.3	11253.1	1520.1	11253.4
ET		7.1	9.1				9245.1	10244.9	9984.4	10163.6
X1	1.1667	89	9992.4	10026.1	635	645	645			
GR	1527.7	9245.1	1526.8	9288.0	1526.5	9337.5	1526.8	9381.5	1526.3	9424.5
GR	1527.4	9461.5	1526.5	9505.4	1526.3	9553.1	1525.8	9594.7	1524.7	9640.7
GR	1523.9	9688.4	1523.9	9717.3	1523.9	9761.3	1524.5	9798.2	1524.4	9843.3
GR	1524.7	9874.7	1523.9	9900.3	1522.9	9917.9	1523.0	9931.7	1523.2	9956.1
GR	1522.2	9975.9	1522.8	9992.4	1522.0	10000.0	1521.6	10000.1	1521.3	10007.4
GR	1521.7	10021.3	1523.0	10026.1	1523.2	10042.8	1523.0	10052.9	1523.2	10070.3
GR	1523.7	10070.4	1523.8	10089.9	1523.9	10107.6	1524.1	10126.8	1524.5	10137.0
GR	1524.3	10149.0	1524.9	10168.6	1524.9	10189.8	1525.4	10198.0	1525.9	10208.6
GR	1525.9	10218.3	1526.2	10224.5	1525.7	10230.0	1525.6	10235.1	1526.0	10244.9
GR	1525.0	10327.6	1523.8	10343.0	1523.1	10356.8	1523.4	10364.4	1522.9	10370.7
GR	1522.9	10375.2	1523.0	10388.3	1523.0	10423.4	1524.0	10461.6	1524.6	10502.9
GR	1524.9	10541.6	1524.1	10572.6	1525.1	10614.4	1524.8	10640.3	1524.9	10668.7
GR	1524.6	10696.0	1524.0	10708.3	1524.5	10718.8	1524.5	10748.6	1524.8	10767.8
GR	1525.2	10809.9	1525.4	10846.4	1526.2	10876.1	1526.2	10896.5	1526.5	10920.1
GR	1526.9	10929.8	1526.6	10946.2	1526.6	10978.7	1526.7	11011.0	1526.9	11048.0
GR	1527.0	11083.7	1528.0	11130.5	1528.4	11175.2	1528.7	11212.6	1528.5	11260.7
GR	1528.8	11294.7	1526.8	11310.8	1526.1	11318.9	1528.7	11324.9	1529.7	11335.2
GR	1529.9	11354.3	1529.9	11387.2	1529.9	11408.8	1530.5	11414.5		
ET		7.1	9.1				9417.5	10350.0	9989	10094.9
X1	1.2917	95	10036.9	10084.9	670	680	670			
GR	1534.3	9417.5	1534.2	9439.9	1534.0	9473.9	1534.1	9511.1	1533.8	9547.0
GR	1532.8	9563.6	1532.6	9591.8	1532.5	9620.4	1532.0	9653.6	1531.3	9681.0
GR	1530.7	9708.8	1530.7	9722.0	1530.2	9737.8	1529.7	9750.4	1529.6	9766.4
GR	1529.7	9796.6	1530.1	9835.7	1529.9	9869.5	1529.2	9904.1	1529.6	9955.3
GR	1529.2	9982.8	1530.3	10000.0	1529.5	10000.1	1529.4	10018.5	1528.9	10029.6
GR	1529.2	10036.9	1527.0	10049.7	1526.5	10058.7	1526.9	10068.4	1528.0	10075.3
GR	1528.4	10084.9	1528.5	10096.1	1529.9	10102.9	1530.3	10116.0	1531.2	10130.8

GR	1531.6	10149.1	1531.8	10156.9	1531.9	10175.3	1531.9	10188.0	1531.9	10208.2
GR	1531.1	10229.9	1531.9	10251.9	1532.1	10270.2	1533.7	10287.3	1534.3	10307.3
GR	1534.6	10325.3	1534.9	10338.2	1534.8	10360.5	1534.0	10388.8	1533.7	10417.7
GR	1532.0	10441.1	1532.2	10452.1	1531.9	10479.7	1531.9	10508.4	1532.2	10526.1
GR	1532.5	10556.1	1532.9	10571.3	1532.9	10587.5	1534.3	10602.9	1534.1	10620.0
GR	1534.4	10638.9	1534.1	10664.2	1533.7	10687.2	1534.2	10708.8	1533.2	10743.0
GR	1532.3	10771.8	1532.5	10792.5	1532.6	10800.8	1532.5	10800.9	1532.1	10809.5
GR	1531.8	10822.4	1531.2	10851.7	1531.1	10874.5	1531.1	10901.1	1531.1	10913.7
GR	1530.6	10916.7	1530.9	10920.4	1530.8	10923.3	1531.1	10943.1	1531.0	10966.6
GR	1530.4	10979.7	1530.5	10988.5	1530.1	10991.4	1530.5	10994.4	1530.5	11003.6
GR	1530.6	11014.4	1530.7	11018.6	1529.1	11021.9	1530.6	11025.4	1530.6	11047.4
GR	1530.5	11066.0	1531.0	11079.2	1532.2	11089.8	1532.3	11099.2	1532.2	11113.5

OT	2	2240	2240							
ET		7.1	9.1				9335	10350	9956	10065
X1	1.413	95	9973.0	10023.7	700	720	720			
GR	1540.7	9335.0	1540.9	9366.6	1540.0	9413.3	1540.2	9464.7	1539.9	9517.2
GR	1539.9	9577.8	1539.9	9617.6	1539.7	9658.9	1538.8	9710.1	1538.4	9729.5
GR	1537.0	9741.0	1536.0	9753.2	1536.3	9761.1	1536.9	9769.6	1538.3	9781.5
GR	1538.4	9807.7	1538.0	9837.4	1537.8	9856.2	1536.5	9880.7	1536.1	9897.2
GR	1535.2	9913.6	1533.4	9925.0	1534.9	9933.3	1536.2	9940.2	1535.5	9949.6
GR	1534.9	9955.0	1535.7	9963.6	1534.2	9973.0	1532.8	9981.8	1532.1	9989.1
GR	1533.8	9996.8	1535.0	10000.0	1535.0	10000.1	1534.6	10007.8	1533.5	10013.9
GR	1534.7	10023.7	1534.5	10035.6	1534.8	10052.3	1535.8	10064.2	1535.5	10079.7
GR	1534.6	10083.4	1534.6	10088.6	1535.8	10094.2	1536.2	10128.1	1535.8	10145.0
GR	1535.8	10152.2	1536.6	10162.4	1536.6	10178.6	1536.9	10193.0	1536.6	10198.0
GR	1537.4	10214.8	1538.2	10234.9	1538.1	10257.0	1539.9	10278.2	1540.2	10305.9
GR	1540.4	10314.6	1540.5	10333.6	1540.7	10341.7	1540.3	10360.8	1539.7	10378.4
GR	1538.3	10395.8	1537.9	10427.7	1537.9	10460.1	1538.8	10492.7	1539.9	10521.2
GR	1540.0	10540.5	1540.8	10559.6	1540.7	10573.3	1540.0	10586.3	1539.8	10605.6
GR	1538.9	10613.1	1538.7	10620.6	1539.9	10644.5	1539.9	10678.3	1541.9	10709.8
GR	1542.1	10735.3	1543.0	10766.8	1542.9	10798.5	1541.7	10825.4	1541.6	10856.0
GR	1541.2	10905.5	1539.9	10963.4	1538.6	11003.4	1538.9	11012.6	1538.3	11022.0
GR	1538.4	11034.0	1536.4	11042.3	1538.6	11054.9	1539.2	11094.6	1539.8	11151.4
GR	1539.4	11208.2	1539.9	11265.2	1539.9	11308.5	1538.8	11349.3	1538.4	11383.5

OT	2	1939	1939							
ET		7.1	9.1				9494.9	10096.9	9966.1	10068.0
X1	1.5530	95	9966.1	9993.3	690	720	730			
GR	1546.2	9306.9	1546.2	9369.3	1546.3	9437.3	1546.3	9494.9	1546.2	9544.3
GR	1545.9	9580.6	1545.2	9613.6	1545.3	9624.8	1542.5	9638.4	1543.5	9645.4
GR	1545.2	9652.8	1545.0	9669.0	1545.0	9680.1	1542.7	9693.3	1545.5	9705.7
GR	1543.6	9716.9	1544.6	9720.6	1542.5	9727.7	1544.8	9733.2	1545.2	9744.2
GR	1546.5	9757.4	1546.6	9766.6	1546.2	9791.2	1545.8	9819.5	1545.9	9840.1
GR	1545.9	9863.5	1545.2	9897.8	1545.1	9944.6	1545.2	9966.1	1541.6	9974.3
GR	1539.5	9980.3	1540.2	9985.5	1545.3	9993.3	1545.0	10000.0	1545.1	10000.1
GR	1545.2	10017.9	1544.3	10036.5	1543.9	10043.0	1542.1	10051.7	1543.3	10056.5
GR	1543.7	10065.2	1544.3	10073.1	1545.0	10078.3	1545.2	10088.9	1545.7	10096.9
GR	1544.8	10109.8	1544.2	10124.1	1544.2	10138.2	1544.2	10156.3	1543.9	10164.3
GR	1543.8	10185.9	1543.5	10205.3	1542.7	10228.7	1542.3	10269.7	1542.8	10292.1
GR	1541.9	10298.1	1539.9	10303.0	1540.7	10308.5	1542.7	10331.1	1543.1	10346.3
GR	1540.2	10354.6	1543.3	10362.3	1543.1	10374.2	1543.3	10381.4	1543.3	10391.6
GR	1544.4	10409.6	1544.0	10470.0	1543.9	10510.8	1543.9	10556.3	1543.8	10574.2
GR	1541.3	10578.0	1543.9	10583.4	1543.8	10603.7	1544.0	10623.1	1542.7	10646.0

GR	1542.9	10655.8	1544.0	10667.0	1543.8	10681.4	1544.4	10702.7	1544.9	10721.3
GR	1544.6	10739.7	1546.4	10757.7	1546.2	10771.6	1546.2	10788.0	1546.8	10806.6
GR	1546.7	10826.4	1546.5	10849.1	1546.9	10857.8	1546.2	10879.9	1546.8	10911.7
GR	1546.8	10936.1	1546.6	10960.1	1547.1	10973.8	1547.9	10997.0	1548.1	11031.3
ET		7.1	9.1				9741.0	10364.5	9980	10100
X1	1.678	95	9982.8	10028.0	710	700	730			
GR	1553.6	9741.0	1553.7	9755.0	1551.7	9768.1	1550.8	9774.6	1551.0	9784.7
GR	1550.6	9789.9	1551.9	9794.2	1551.9	9800.4	1551.9	9806.7	1552.1	9814.5
GR	1552.4	9820.9	1552.1	9824.9	1552.3	9829.9	1552.1	9839.5	1551.9	9843.7
GR	1552.9	9848.9	1553.0	9860.0	1552.8	9882.0	1552.5	9898.1	1552.4	9933.0
GR	1552.2	9955.2	1551.9	9982.8	1550.4	10000.0	1550.2	10000.1	1549.5	10010.3
GR	1551.0	10014.0	1551.1	10028.0	1551.5	10037.1	1549.4	10041.3	1551.5	10045.4
GR	1552.1	10075.3	1552.7	10098.6	1552.4	10125.4	1552.8	10170.1	1553.9	10202.9
GR	1554.9	10237.5	1554.9	10261.0	1554.9	10287.4	1556.1	10306.5	1556.6	10330.6
GR	1557.3	10364.5	1557.2	10399.2	1556.9	10431.2	1556.5	10471.3	1556.8	10487.1
GR	1555.0	10507.8	1554.1	10529.5	1553.8	10548.9	1552.7	10576.2	1552.5	10609.4
GR	1551.7	10632.5	1551.2	10644.4	1550.2	10649.1	1551.7	10653.4	1551.5	10679.1
GR	1551.9	10853.0	1551.4	10868.8	1552.2	10875.4	1552.2	10888.2	1552.5	10904.9
GR	1552.7	10919.1	1552.7	10933.2	1552.1	10953.5	1552.0	10991.4	1552.4	11004.6
GR	1550.4	11012.9	1552.1	11016.7	1552.3	11038.7	1552.4	11052.7	1552.8	11079.3
GR	1552.8	11095.7	1552.3	11101.1	1552.7	11103.5	1552.7	11117.2	1552.9	11124.9
GR	1552.6	11132.3	1553.1	11138.1	1553.6	11160.9	1554.0	11183.2	1554.1	11207.1
GR	1554.7	11239.0	1555.9	11270.7	1555.6	11297.6	1555.2	11319.9	1554.2	11347.2
GR	1554.2	11374.4	1554.6	11405.8	1553.2	11411.8	1554.2	11417.3	1554.2	11439.7
GR	1554.3	11469.4	1554.7	11507.2	1555.1	11524.9	1555.9	11554.4	1557.0	11579.4
QT	2	1866	1866							
ET		7.1	9.1				9538.5	10223.0	9949.8	10063.3
X1	1.8182	95	9989.4	10021.6	770	700	725			
GR	1560.0	9502.0	1561.1	9538.5	1560.8	9577.2	1559.6	9598.2	1559.6	9610.0
GR	1557.4	9621.3	1557.6	9633.4	1559.6	9641.2	1560.4	9665.0	1560.3	9689.3
GR	1560.2	9754.5	1560.0	9767.1	1559.9	9782.2	1559.8	9795.3	1560.1	9805.8
GR	1560.1	9909.3	1559.9	9929.2	1559.9	9940.6	1558.9	9960.9	1558.8	9976.6
GR	1558.7	9989.4	1558.9	10000.0	1558.2	10000.1	1558.3	10010.4	1559.3	10015.3
GR	1557.6	10018.8	1558.9	10021.6	1558.7	10036.9	1558.6	10053.9	1559.1	10080.4
GR	1559.2	10091.4	1557.1	10100.4	1559.2	10105.2	1559.6	10118.1	1560.1	10142.6
GR	1560.3	10170.3	1561.0	10196.1	1561.5	10223.0	1561.2	10256.1	1561.0	10280.8
GR	1560.8	10299.9	1560.2	10313.1	1561.1	10328.5	1560.8	10339.9	1559.6	10347.6
GR	1561.1	10353.5	1562.1	10375.9	1562.1	10410.2	1562.4	10440.9	1562.1	10480.8
GR	1560.8	10518.3	1561.2	10560.3	1560.7	10585.2	1559.3	10593.7	1561.0	10601.1
GR	1561.6	10618.9	1561.2	10647.1	1561.8	10655.4	1561.9	10655.5	1562.0	10675.8
GR	1563.9	10857.0	1563.9	10883.5	1564.2	10913.7	1564.6	10963.5	1564.3	10993.6
GR	1564.4	11008.2	1562.9	11024.7	1561.0	11051.1	1560.2	11077.0	1560.1	11101.9
GR	1559.4	11105.6	1560.2	11113.6	1560.2	11138.6	1559.8	11157.7	1560.5	11167.1
GR	1559.6	11186.9	1560.3	11209.7	1561.1	11249.0	1561.3	11274.0	1561.2	11300.9
GR	1561.1	11455.2	1561.1	11513.0	1560.9	11553.3	1561.5	11568.4	1559.7	11573.6
GR	1560.7	11577.9	1561.3	11604.1	1561.2	11619.4	1558.3	11626.6	1561.3	11631.6
GR	1561.9	11677.2	1561.6	11710.7	1561.5	11750.5	1562.4	11788.1	1563.1	11824.0

```
ET                7.1       9.1                                  9534.3    10097.6     9899.1    10003.9
X1     1.939       95    9974.0   10003.9       680       670       680
GR    1569.7    9534.3    1569.5    9565.5    1569.0    9596.5    1568.9     9636.6    1568.1     9680.8
GR    1567.9    9721.8    1567.1    9755.9    1566.5    9787.2    1566.3     9807.7    1566.2     9825.0
GR    1566.2    9845.7    1566.2    9859.6    1565.9    9867.3    1566.3     9878.2    1566.5     9892.9
GR    1566.8    9951.9    1566.2    9966.0    1565.9    9974.0    1563.4     9982.1    1563.8     9999.4
GR    1564.0   10000.0    1563.8   10000.1    1566.4   10003.9    1566.9    10021.3    1568.1    10045.0
GR    1568.0   10066.0    1568.6   10097.6    1568.3   10122.2    1568.0    10156.9    1567.9    10183.0
GR    1568.1   10204.7    1568.6   10213.9    1568.2   10246.3    1567.8    10280.2    1567.9    10313.5
GR    1567.9   10351.8    1567.9   10403.2    1568.0   10414.4    1566.9    10419.2    1567.8    10425.6
GR    1567.7   10448.9    1567.7   10456.5    1568.1   10482.9    1569.0    10519.4    1570.0    10552.7
GR    1570.4   10597.9    1570.0   10635.5    1569.8   10688.1    1569.2    10720.8    1569.8    10775.4
GR    1569.8   10826.6    1567.5   10832.5    1569.6   10836.9    1569.8    10873.4    1569.5    10907.0
GR    1569.8   10960.0    1570.0   10994.4    1569.0   11034.4    1569.3    11091.1    1569.3    11158.6
GR    1569.5   11226.2    1570.4   11284.9    1570.6   11313.5    1570.1    11323.7    1570.5    11351.5
GR    1572.3   11506.6    1572.9   11506.7    1572.9   11523.3    1572.9    11544.8    1572.6    11563.3
GR    1572.1   11574.0    1572.6   11582.8    1572.9   11593.5    1573.0    11608.0    1572.5    11627.1
GR    1571.8   11746.5    1571.6   11767.1    1570.1   11789.4    1570.8    11801.0    1570.7    11826.0
GR    1570.6   11918.0    1570.4   11942.5    1570.2   11963.1    1568.8    11972.6    1569.8    11979.1
GR    1569.6   11994.2    1568.6   12008.0    1567.2   12016.0    1567.2    12022.4    1569.8    12031.8
GR    1569.2   12189.6    1569.7   12220.5    1569.8   12249.8    1570.4    12277.5    1571.1    12299.7

QT        2      1825      1825
ET                7.1       9.1                                  9689.1    10356.5     9963.2    10097.9
X1    2.0568       95    9963.2   10000.0       620       650       670
GR    1575.9    9689.1    1574.3    9844.3    1574.3    9875.5    1574.6     9895.9    1574.7     9912.6
GR    1574.1    9932.1    1573.9    9949.3    1572.0    9963.2    1570.1     9971.7    1570.2     9989.0
GR    1572.1    9999.7    1572.7   10000.0    1572.0   10000.1    1572.8    10005.9    1572.8    10016.7
GR    1570.1   10027.8    1572.2   10035.4    1571.8   10052.9    1571.8    10079.5    1571.8    10102.4
GR    1572.3   10120.1    1572.3   10141.7    1572.3   10159.7    1570.8    10169.0    1571.9    10173.9
GR    1571.7   10195.6    1572.7   10218.0    1572.7   10240.0    1571.8    10259.4    1571.8    10278.4
GR    1572.9   10304.5    1573.3   10331.8    1574.6   10356.5    1574.6    10381.2    1574.3    10397.4
GR    1572.3   10408.3    1572.2   10419.7    1572.0   10429.6    1573.8    10445.2    1572.5    10462.7
GR    1573.5   10476.3    1573.8   10495.9    1574.2   10516.3    1573.5    10525.8    1574.4    10529.9
GR    1574.6   10548.2    1574.8   10572.5    1575.2   10600.7    1575.4    10632.2    1576.1    10663.2
GR    1576.7   10782.9    1577.3   10805.4    1577.6   10837.8    1578.0    10903.5    1578.1      11036
GR    1579.0   11470.3    1579.6   11517.4    1579.0   11541.3    1578.0    11568.5    1578.6    11587.2
GR    1577.6   11606.0    1577.4   11626.5    1577.4   11639.9    1578.4    11656.7    1578.8    11691.3
GR    1578.6   11714.0    1578.0   11738.1    1577.2   11763.6    1576.6    11786.7    1577.3    11795.2
GR    1576.7   11811.3    1577.0   11835.4    1575.9   11841.4    1576.9    11846.8    1576.6    11857.9
GR    1576.1   11868.3    1576.8   11873.8    1576.4   11887.3    1577.1    11910.0    1577.6    11943.2
GR    1578.7   12099.7    1577.9   12120.4    1577.6   12132.4    1577.9    12165.8    1577.9    12194.4
GR    1577.3   12218.4    1576.4   12238.3    1577.5   12254.8    1577.8    12277.6    1577.9    12297.4
GR    1577.7   12313.4    1576.1   12326.7    1575.5   12349.1    1572.9    12358.9    1574.3    12361.1

ET                7.1       9.1                                  9768.2     10472      9871      9950.0
        PRIVATE STOCK POND DIVERSION LEVEE, 100 FT. UPSTREAM THIS SECTION.
        LEVEE ASSUMED BREACHED FOR ANALYSIS.
X1    2.1477       82    9871.0    9909.1       530       500       550
GR    1578.8    9693.5    1578.8    9731.6    1579.1    9768.2    1578.8     9797.3    1579.0     9825.0
GR    1579.3    9845.4    1579.0    9856.8    1577.2    9871.0    1574.6     9885.4    1574.4     9896.5
GR    1575.1    9904.2    1577.4    9909.1    1577.8    9914.9    1576.3     9929.4    1577.0     9937.7
GR    1577.5    9950.4    1578.9    9966.4    1578.7    9981.0    1579.2     9990.8    1579.4    10000.0
```

GR	1578.7	10000.1	1578.1	10016.5	1578.6	10037.2	1579.9	10048.3	1578.4	10048.4
GR	1578.8	10066.3	1579.0	10081.0	1578.9	10103.5	1579.3	10121.0	1578.6	10133.2
GR	1577.6	10152.1	1577.0	10169.0	1576.7	10174.9	1577.6	10182.3	1577.9	10197.8
GR	1578.0	10224.8	1578.0	10244.6	1578.4	10265.8	1578.4	10281.2	1578.0	10299.7
GR	1577.2	10311.8	1576.9	10319.6	1577.9	10332.9	1577.6	10351.4	1576.9	10362.8
GR	1577.4	10368.3	1577.6	10379.7	1578.6	10397.2	1578.7	10412.9	1578.8	10430.8
GR	1579.2	10450.3	1579.2	10472.4	1578.7	10497.1	1578.5	10521.7	1577.8	10541.8
GR	1577.8	10564.7	1577.9	10591.9	1578.2	10615.9	1577.3	10637.6	1576.4	10651.6
GR	1577.0	10656.5	1576.9	10668.0	1575.7	10680.0	1575.6	10686.9	1576.7	10691.8
GR	1576.7	10701.7	1577.6	10709.8	1577.3	10722.7	1576.6	10734.3	1577.3	10747.5
GR	1577.2	10760.3	1577.7	10766.2	1577.2	10778.5	1577.2	10789.0	1576.6	10797.2
GR	1577.5	10803.7	1577.4	10815.3	1577.5	10835.4	1578.2	10857.7	1578.9	10882.3
GR	1579.3	10910.4	1579.6	10919.6						
ET		7.1	9.1				9844.4	10350.0	9900	10040
X1	2.2045	58	9910.8	9958.6	200	200	200			
GR	1580.8	9791.1	1581.0	9813.0	1580.8	9832.5	1581.3	9844.4	1580.1	9857.8
GR	1579.6	9869.4	1579.5	9878.5	1579.4	9884.5	1579.7	9896.8	1580.0	9910.8
GR	1579.5	9922.5	1579.1	9931.8	1578.8	9952.2	1579.9	9958.6	1580.0	9970.0
GR	1580.0	9992.5	1580.0	10000.0	1580.0	10000.1	1579.9	10013.6	1580.0	10038.3
GR	1580.3	10053.4	1580.3	10068.6	1581.0	10081.8	1581.2	10099.7	1581.3	10113.5
GR	1581.1	10126.0	1580.2	10140.3	1580.2	10159.1	1580.2	10168.7	1580.3	10175.4
GR	1580.6	10192.2	1580.5	10208.8	1580.8	10232.9	1580.7	10252.2	1580.7	10275.4
GR	1580.6	10291.2	1580.3	10305.3	1580.4	10314.2	1581.1	10319.1	1580.1	10329.7
GR	1580.9	10335.3	1581.4	10350.0	1581.0	10373.4	1580.7	10389.7	1581.3	10397.5
GR	1580.3	10410.3	1580.0	10423.0	1581.2	10431.9	1581.4	10449.2	1581.7	10473.4
GR	1581.8	10507.8	1581.7	10521.7	1580.8	10536.1	1579.7	10541.1	1581.4	10547.1
GR	1581.9	10558.2	1582.2	10577.4	1582.2	10591.3				
ET		7.1	9.1				9898.3	10260.3	10025.5	10089.1
X1	2.2424	91	10025.5	10066.5	300	280	350			
GR	1584.7	9842.5	1584.7	9866.7	1584.7	9898.3	1584.6	9926.0	1584.6	9942.7
GR	1584.0	9949.3	1583.7	9962.0	1583.2	9976.5	1583.2	9993.4	1582.8	10000.0
GR	1582.2	10025.5	1581.5	10030.1	1581.3	10037.3	1581.3	10047.0	1581.5	10055.4
GR	1581.8	10061.9	1581.9	10066.5	1582.0	10076.4	1582.8	10086.1	1582.9	10090.8
GR	1584.2	10149.5	1584.3	10165.0	1584.4	10184.3	1584.4	10197.6	1584.4	10205.4
GR	1584.5	10258.0	1584.9	10260.3	1584.6	10269.0	1584.6	10276.7	1584.4	10283.1
GR	1585.1	10345.5	1585.3	10363.0	1585.6	10382.4	1585.5	10397.6	1585.5	10416.4
GR	1584.6	10476.0	1584.0	10485.3	1583.9	10499.9	1584.2	10507.6	1583.3	10513.9
GR	1584.6	10528.1	1584.0	10542.9	1583.9	10566.4	1583.7	10590.4	1584.4	10599.2
GR	1582.9	10606.1	1583.0	10611.5	1583.5	10616.0	1584.0	10623.4	1583.8	10650.1
GR	1582.2	10743.8	1582.5	10752.2	1582.5	10762.0	1581.8	10775.6	1582.0	10792.4
GR	1581.4	10803.7	1581.3	10819.0	1580.1	10831.3	1579.7	10837.0	1581.3	10843.0
GR	1582.0	10851.3	1581.7	10858.1	1582.3	10865.5	1581.8	10875.2	1580.9	10883.2
GR	1579.5	10891.8	1580.7	10904.7	1580.8	10915.8	1582.2	10928.2	1583.2	10936.9
GR	1584.8	11037.3	1584.8	11062.2	1584.7	11088.6	1584.7	11106.0	1584.3	11129.8
GR	1586.1	11343.8	1585.5	11365.0	1585.4	11392.1	1585.6	11405.0	1585.0	11416.8
GR	1584.6	11435.4	1584.3	11463.1	1584.3	11496.1	1584.0	11511.0	1583.2	11515.3
GR	1582.8	11612.7	1583.8	11617.7	1583.9	11637.9	1584.0	11655.0	1584.2	11684.0
GR	1586.2	11835.9								

ET		7.1	9.1				9819.5	10343.2	9980	10080
X1	2.322	95	9993.6	10018.5	450	470	470			
GR	1589.8	9819.5	1589.8	9834.1	1589.5	9849.3	1588.1	9868.6	1588.3	9871.4
GR	1588.3	9934.6	1588.4	9948.1	1588.3	9955.3	1587.9	9964.3	1587.8	9972.7
GR	1587.9	9980.6	1586.5	9993.6	1586.7	10000.0	1586.2	10000.1	1585.3	10004.6
GR	1584.4	10013.2	1586.3	10018.5	1586.5	10024.8	1587.1	10029.2	1587.5	10033.3
GR	1586.7	10038.1	1586.8	10045.5	1585.8	10052.0	1584.7	10057.6	1584.7	10067.6
GR	1587.4	10076.7	1587.8	10084.7	1588.2	10100.2	1588.4	10115.8	1588.6	10131.7
GR	1589.5	10154.4	1589.6	10167.8	1590.0	10183.9	1590.1	10200.0	1590.3	10211.9
GR	1592.0	10343.2	1592.1	10361.7	1592.1	10389.9	1592.5	10418.5	1592.8	10442.0
GR	1592.2	10479.9	1592.1	10499.5	1592.1	10523.5	1592.1	10535.8	1591.9	10545.4
GR	1590.8	10690.0	1590.6	10708.3	1590.2	10717.8	1590.4	10722.6	1590.9	10729.2
GR	1590.2	10843.0	1590.3	10865.6	1590.0	10885.3	1590.4	10902.2	1590.1	10908.9
GR	1590.1	10933.4	1590.3	10956.0	1590.1	10974.9	1590.0	10984.0	1589.8	10993.9
GR	1589.6	11006.4	1588.8	11020.4	1588.8	11021.6	1588.1	11021.7	1587.7	11027.8
GR	1586.6	11033.5	1585.3	11040.8	1585.1	11046.8	1587.1	11051.5	1588.7	11057.0
GR	1588.9	11065.0	1589.2	11073.4	1590.2	11085.7	1590.2	11095.0	1590.9	11108.1
GR	1591.4	11129.2	1591.2	11156.2	1591.2	11183.2	1591.3	11209.0	1590.4	11226.0
GR	1590.2	11246.1	1589.9	11266.0	1589.2	11274.3	1587.3	11282.7	1589.4	11291.6
GR	1590.2	11303.7	1590.4	11303.8	1590.9	11319.6	1591.1	11337.2	1590.7	11360.7
GR	1591.1	11368.5	1590.6	11385.5	1590.1	11396.3	1590.4	11410.0	1592.0	11485
OT	2	1694	1694							
ET		7.1	9.1				9925.7	10119.5	9993	10032.5
X1	2.439	95	9993.0	10017.5	620	630	620			
GR	1596.3	9925.7	1596.2	9940.2	1594.9	9954.1	1594.9	9959.5	1594.2	9965.3
GR	1593.1	9974.3	1593.3	9979.0	1592.6	9985.6	1592.2	9993.0	1591.6	10000.0
GR	1590.7	10000.1	1590.4	10004.3	1590.5	10008.6	1591.9	10012.7	1593.5	10017.5
GR	1593.6	10022.7	1593.1	10026.5	1593.9	10030.3	1594.6	10035.5	1595.5	10040.4
GR	1595.9	10043.6	1595.5	10047.7	1594.8	10052.4	1594.6	10057.6	1594.5	10062.5
GR	1595.7	10085.3	1596.4	10095.5	1596.3	10104.1	1596.3	10110.3	1596.5	10119.5
GR	1596.5	10128.5	1596.3	10137.5	1596.3	10144.2	1596.2	10154.2	1596.1	10167.8
GR	1595.2	10242.3	1594.8	10250.9	1595.0	10259.3	1594.2	10267.3	1593.7	10276.0
GR	1593.7	10332.8	1593.7	10341.0	1593.2	10350.0	1592.7	10357.1	1591.7	10364.8
GR	1590.1	10370.0	1590.4	10372.6	1592.3	10375.8	1593.4	10378.8	1593.4	10381.6
GR	1593.1	10386.3	1593.4	10391.1	1593.4	10397.6	1593.3	10403.8	1592.9	10410.9
GR	1591.9	10418.1	1592.3	10421.8	1592.7	10428.0	1593.5	10435.4	1594.1	10442.3
GR	1594.2	10452.3	1595.4	10463.5	1595.4	10479.4	1594.9	10494.1	1594.5	10505.9
GR	1594.1	10515.6	1593.5	10526.9	1593.3	10532.3	1593.5	10537.2	1591.7	10544.6
GR	1590.2	10550.9	1591.2	10555.3	1593.4	10559.9	1593.6	10566.0	1593.0	10574.2
GR	1592.8	10581.1	1592.1	10587.3	1593.1	10592.3	1593.8	10601.0	1594.1	10612.4
GR	1594.6	10623.7	1594.9	10635.7	1594.7	10645.3	1595.6	10656.0	1595.9	10665.7
GR	1596.2	10678.3	1596.5	10687.0	1597.2	10708.9	1597.4	10724.4	1597.5	10738.8
GR	1597.4	10748.1	1596.8	10757.8	1596.8	10769.9	1597.1	10780.8	1597.4	10792.4
ET		7.1	9.1				9897.2	10218.9	9952	10081.3
X1	2.5227	95	9958.6	9992.8	425	425	425			
GR	1601.0	9851.6	1600.7	9869.6	1600.8	9883.9	1601.2	9897.2	1601.1	9911.5
GR	1600.9	9921.3	1600.9	9930.2	1600.9	9937.7	1600.1	9946.5	1598.6	9958.6
GR	1597.5	9965.1	1596.8	9970.2	1596.5	9974.1	1597.1	9978.9	1597.4	9992.8
GR	1599.4	10006.3	1600.5	10013.9	1600.7	10019.8	1600.3	10027.1	1600.7	10032.3
GR	1599.8	10058.1	1598.0	10072.3	1598.1	10076.9	1600.1	10081.3	1600.1	10085.4
GR	1600.5	10092.3	1600.9	10099.1	1601.6	10105.6	1601.6	10113.2	1601.4	10122.4

```
GR   1601.9   10166.0    1601.8   10172.2    1601.9   10186.3    1601.9   10199.4    1602.0   10218.9
GR   1602.2   10234.0    1602.2   10250.6    1602.1   10269.5    1601.9   10286.4    1601.9   10308.7
GR   1600.9   10434.7    1600.9   10449.4    1600.8   10462.3    1599.8   10474.4    1599.0   10494.4
GR   1598.8   10495.4    1596.0   10504.7    1596.6   10507.6    1597.9   10517.2    1598.1   10530.6
GR   1598.3   10545.6    1599.1   10550.9    1598.9   10559.5    1598.9   10564.5    1599.8   10571.5
GR   1597.9   10643.1    1597.1   10660.8    1596.5   10676.1    1596.7   10682.4    1595.2   10686.5
GR   1596.6   10690.8    1596.7   10703.5    1597.5   10711.3    1597.1   10719.5    1597.3   10725.7
GR   1598.6   10731.9    1599.6   10739.8    1600.7   10756.8    1601.2   10773.9    1601.4   10794.4
GR   1600.7   10961.3    1599.9   10973.6    1599.1   10986.4    1597.9   10993.2    1597.1   11000.4
GR   1596.4   11007.3    1595.7   11010.4    1596.6   11013.0    1596.3   11018.0    1597.3   11027.0
GR   1597.0   11034.3    1597.8   11041.5    1597.8   11050.9    1597.8   11068.4    1598.0   11084.8
GR   1599.2   11095.1    1600.5   11109.9    1600.6   11120.5    1600.6   11138.3    1600.4   11145.3
GR   1601.3   11196.2    1600.7   11213.0    1600.9   11227.3    1601.6   11242.6    1601.1   11252.9

QT       2       896       896
ET               7.1       9.1                                   9892.1   10154.8   10012.0   10056.0
X1   2.621        80   10012.9   10029.5        550        550       550
GR   1607.5    9816.0    1607.0    9832.6    1606.8    9854.1    1606.5    9875.2    1607.5    9892.1
GR   1606.6    9903.8    1606.4    9920.6    1606.4    9933.8    1606.2    9942.2    1605.9    9946.9
GR   1606.5    9953.1    1606.9    9958.9    1606.5    9965.3    1606.3    9973.2    1606.6    9983.0
GR   1606.9    9991.2    1606.9    9996.5    1606.8   10000.0    1606.6   10000.1    1606.0   10007.2
GR   1605.1   10012.9    1604.2   10016.2    1604.2   10023.3    1604.8   10026.8    1605.9   10029.5
GR   1606.0   10034.0    1605.6   10044.3    1605.6   10049.0    1606.0   10054.8    1606.2   10060.1
GR   1606.5   10065.1    1606.4   10071.0    1606.9   10078.5    1607.2   10086.2    1607.0   10090.4
GR   1607.2   10099.2    1607.5   10109.9    1607.4   10125.3    1608.0   10136.9    1608.2   10144.5
GR   1608.5   10154.8    1608.5   10168.1    1608.8   10182.2    1608.5   10182.3    1608.2   10205.7
GR   1607.9   10286.2    1608.4   10294.6    1607.9   10304.0    1607.4   10314.5    1607.4   10324.0
GR   1606.4   10332.0    1607.5   10336.3    1607.4   10341.9    1606.8   10348.4    1607.0   10356.8
GR   1607.6   10402.5    1607.4   10411.3    1607.1   10419.7    1604.2   10427.6    1606.3   10436.2
GR   1606.2   10449.5    1608.0   10471.0    1608.0   10483.8    1608.6   10491.6    1607.9   10501.4
GR   1607.6   10516.7    1607.5   10524.8    1607.3   10536.2    1607.2   10542.4    1605.9   10548.1
GR   1606.8   10553.3    1606.8   10566.0    1606.8   10576.3    1606.6   10581.6    1607.8   10584.6
GR   1608.3   10686.2    1607.9   10704.3    1607.6   10715.0    1607.7   10726.3    1607.5   10742.0

QT       2       151       151
ET               7.1       9.1                                   9973.0   10009.0    9973.0   10009.0
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE
        ANGLE OF CULVERT OUTLET.
        FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
        FLOW LIMITS IS POSSIBLE.
X1   2.750        30    9986.8    9995.2        750        680       710
GR   1616.2    9825.6    1615.4    9854.9    1615.4    9869.5    1615.4    9880.7    1615.7    9887.8
GR   1615.5    9895.5    1615.2    9907.2    1614.8    9919.5    1614.6    9927.5    1614.7    9933.5
GR   1614.7    9944.7    1614.9    9953.9    1614.5    9960.5    1614.0    9966.8    1613.9    9975.6
GR   1613.5    9981.7    1612.8    9986.8    1611.9    9990.1    1611.3    9992.2    1612.5    9995.2
GR   1612.8    9997.7    1612.8   10000.0    1612.8   10000.1    1612.8   10003.9    1613.3   10008.7
GR   1614.4   10044.7    1614.1   10050.9    1614.3   10055.6    1614.4   10061.1    1614.3   10069.7

NC    .035      .035      .035        .3         .5
```

```
        BEGIN SUN VALLEY PARKWAY CULVERT (1-10' X 3' RCB  - STRUC. NO. 16)
X1    2.759         4      9995     10005        50        50        50
X3       10                                                          1618.4    1618.4
GR   1618.5      9995      1615      9995      1615     10005    1618.5     10005

NC     .012      .012      .012
SC    1.012        .2       2.7        0         3        10       133      12.1    1615.4      1615
        END CULVERT (STRUC. #16)
X1    2.784         0         0         0       133       133       133                .4
X2                            2    1618.4    1618.5
X3       10                                                          1619.8    1619.8
BT       11      9900    1621.7                10000    1621.4              10013.9    1621.3
BT    10014    1620.8               10054    1620.0                10062    1619.6              10084
BT     1619             10085    1618.5                10151    1618.5               10154      1619
BT        0     10210    1619.2         0

NC     .035      .035      .035
ET               7.1       9.1                                     9980     10014      9980     10014
        ET CARD APPLIED TO LIMIT EFFECTIVE FLOW WITHIN WEIR LEVEES LEFT AND RT.
        FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
        BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF
        ROAD REQUIRES PRESEVATION.
X1    2.798         6      9980     10014        75        75        75
GR     1619      9980      1618      9989      1617      9994    1616.8     10000      1617     10010
GR   1618.5     10014

NC     .049      .049      .042        .1        .3
GT        2       896       896
ET               7.1       9.1                                    9892.1   10154.8   10012.9   10055.2
        BEGIN TRIBUTARY 4A.  REPEAT CROSS-SECTION 2.621
X1   -2.621        80   10012.9   10029.5       550       550       550
GR   1607.5    9816.0    1607.0    9832.6    1606.8    9854.1    1606.5    9875.2    1607.4    9892.1
GR   1606.6    9903.8    1606.4    9920.6    1606.4    9933.8    1606.2    9942.2    1605.9    9946.9
GR   1606.5    9953.1    1606.9    9958.9    1606.5    9965.3    1606.3    9973.2    1606.6    9983.0
GR   1606.9    9991.2    1606.9    9996.5    1606.8   10000.0    1606.6   10000.1    1606.0   10007.2
GR   1605.1   10012.9    1604.2   10016.2    1604.2   10023.3    1604.8   10026.8    1605.9   10029.5
GR   1606.0   10034.0    1605.6   10044.3    1605.6   10049.0    1606.0   10054.8    1606.2   10060.1
GR   1606.5   10065.1    1606.4   10071.0    1606.9   10078.5    1607.2   10086.2    1607.0   10090.4
GR   1607.2   10099.2    1607.5   10109.9    1607.4   10125.3    1608.0   10136.9    1608.2   10144.5
GR   1608.5   10154.8    1608.5   10168.1    1608.8   10182.2    1608.5   10182.3    1608.2   10205.7
GR   1607.9   10286.2    1608.4   10294.6    1607.9   10304.0    1607.4   10314.5    1607.4   10324.0
GR   1606.4   10332.0    1607.5   10336.3    1607.4   10341.9    1606.8   10348.4    1607.0   10356.8
GR   1607.6   10402.5    1607.4   10411.3    1607.1   10419.7    1604.2   10427.6    1606.3   10436.2
GR   1606.2   10449.5    1608.0   10471.0    1608.0   10483.8    1608.6   10491.6    1607.9   10501.4
GR   1607.6   10516.7    1607.5   10524.8    1607.3   10536.2    1607.2   10542.4    1605.9   10548.1
GR   1606.8   10553.3    1606.8   10566.0    1606.8   10576.3    1606.6   10581.6    1607.8   10584.6
GR   1608.3   10686.2    1607.9   10704.3    1607.6   10715.0    1607.7   10726.3    1607.5   10742.0

GT        2       766       766
ET               7.1       9.1                                   10250.4   10349.9   10250.4   10349.9
```

```
        ADD 10 TO TRIB. 4A CROSS-SECTION I.D. NUMBERS.   STA.10295= BASELINE 4A
        ET CARD APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF
        CULVERT OUTLET.
        FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
        FLOW LIMITS IS POSSIBLE.
X1   12.725        52    10295.2    10305.1        575        500        550
GR   1616.2     9825.6     1615.4     9854.9     1615.4     9869.5     1615.4     9880.7     1615.7     9887.8
GR   1615.5     9895.5     1615.2     9907.2     1614.8     9919.5     1614.6     9927.5     1614.7     9933.5
GR   1614.7     9944.7     1614.9     9953.9     1614.5     9960.5     1614.0     9966.8     1613.9     9975.6
GR   1613.5     9981.7     1612.8     9986.8     1611.9     9990.1     1611.3     9992.2     1612.5     9995.2
GR   1612.8     9997.7     1612.8    10000.0     1612.8    10000.1     1612.8    10003.9     1613.3    10008.7
GR   1614.4    10044.7     1614.1    10050.9     1614.3    10055.6     1614.4    10061.1     1614.3    10069.7
GR   1614.1    10104.7     1614.0    10112.3     1613.9    10118.4     1613.8    10125.6     1613.7    10137.2
GR   1612.9    10217.1     1612.8    10229.6     1612.8    10239.9     1612.6    10252.3     1612.7    10258.0
GR   1612.2    10271.3     1611.6    10284.8     1611.3    10295.2     1610.9    10299.9     1611.2    10305.1
GR   1611.6    10322.2     1612.0    10337.0     1612.4    10350.1     1612.9    10359.1     1613.9    10370.1
GR   1614.1    10376.2     1614.3    10385.2

NC     .035       .035       .035        .3         .5
        BEGIN SUN VALLEY PARKWAY CULVERT (6-12' X 4' RCB -STRUC. NO.17)
X1   12.734         4     9961.5    10038.5         45         45         45
X3       10                                                                1616.8     1616.8
GR   1616.8     9961.5     1612.3     9961.5     1612.3    10038.5     1616.8    10038.5

NC     .012       .012       .012
SC    6.012        .2        2.7          0          4         12        137       12.1     1612.8     1612.3
        END CULVERT (STRUC. #17)
X1   12.760         0          0          0        137        137        137                   .5
X2                             2     1616.8     1617.5
X3       10                                                                1619       1619

NC     .035       .035       .035
BT       10      10000     1620.4                10040     1620.3               10040.1     1619.8
BT    10080     1619.0                10088     1618.6                10112     1618.3                10112.1
BT   1617.5                10192     1617.5                10195       1618                 10241       1619
BT        0
ET                             9.1                                                          9948      10047
        ET  APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN WEIR LEVEES, LEFT AND RT.
        FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
        BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
        UPSTREAM OF ROAD.
X1   12.775         5      9948     10051         80         80         80
GR    1617      9948       1616      9965     1615.5      9970     1615.5     10035     1617.5     10051

NC     .049       .049       .042        .1         .3
QT       2       1694       1694
ET                 7.1        9.1                                   9925.7    10119.5      9993    10032.5
        BEGIN TRIBUTARY 4B.  REPEAT CROSS SECTION 2.439.
X1   -2.439        95     9993.0    10017.5        620        630        620
GR   1596.3     9925.7     1596.2     9940.2     1594.9     9954.1     1594.9     9959.5     1594.2     9965.3
GR   1593.1     9974.3     1593.3     9979.0     1592.6     9985.6     1592.2     9993.0     1591.6    10000.0
GR   1590.7    10000.1     1590.4    10004.3     1590.5    10008.6     1591.9    10012.7     1593.5    10017.5
GR   1593.6    10022.7     1593.1    10026.5     1593.9    10030.3     1594.6    10035.5     1595.5    10040.4
GR   1595.9    10043.6     1595.5    10047.7     1594.8    10052.4     1594.6    10057.6     1594.5    10062.5
```

```
GR   1595.7   10085.3    1596.4   10095.5    1596.3   10104.1    1596.3   10110.3    1596.5   10119.5
GR   1596.5   10128.5    1596.3   10137.5    1596.3   10144.2    1596.2   10154.2    1596.1   10167.8
GR   1595.2   10242.3    1594.8   10250.9    1595.0   10259.3    1594.2   10267.3    1593.7   10276.0
GR   1593.7   10332.8    1593.7   10341.0    1593.2   10350.0    1592.7   10357.1    1591.7   10364.8
GR   1590.1   10370.0    1590.4   10372.6    1592.3   10375.8    1593.4   10378.8    1593.4   10381.6
GR   1593.1   10386.3    1593.4   10391.1    1593.4   10397.6    1593.3   10403.8    1592.9   10410.9
GR   1591.9   10418.1    1592.3   10421.8    1592.7   10428.0    1593.5   10435.4    1594.1   10442.3
GR   1594.2   10452.3    1595.4   10463.5    1595.4   10479.4    1594.9   10494.1    1594.5   10505.9
GR   1594.1   10515.6    1593.5   10526.9    1593.3   10532.3    1593.5   10537.2    1591.7   10544.6
GR   1590.2   10550.9    1591.2   10555.3    1593.4   10559.9    1593.6   10566.0    1593.0   10574.2
GR   1592.8   10581.1    1592.1   10587.3    1593.1   10592.3    1593.8   10601.0    1594.1   10612.4
GR   1594.6   10623.7    1594.9   10635.7    1594.7   10645.3    1595.6   10656.0    1595.9   10665.7
GR   1596.2   10678.3    1596.5   10697.0    1597.2   10708.9    1597.4   10724.4    1597.5   10738.8
GR   1597.4   10748.1    1596.8   10757.8    1596.8   10769.9    1597.1   10780.8    1597.4   10792.4

ET              7.1        9.1                                   9897.2   10218.9       9952   10081.3
        ADD 20 TO TRIB. 4B. CROSS-SECTION I.D. NUMBERS. STA. 10075= BASELINE 4B
X1   22.523       94   10058.1   10081.3       425       425       425
GR   1601.0    9851.6    1600.7    9869.6    1600.8    9883.9    1601.2    9897.2    1601.1    9911.5
GR   1600.9    9921.3    1600.9    9930.2    1600.9    9937.7    1600.1    9946.5    1598.6    9958.6
GR   1597.5    9965.1    1596.8    9970.2    1596.5    9974.1    1597.1    9978.9    1597.4    9992.8
GR   1599.4   10006.3    1600.5   10013.9    1600.7   10019.8    1600.3   10027.1    1600.7   10032.3
GR   1599.8   10058.1    1598.0   10072.3    1598.1   10076.9    1600.1   10081.3    1600.1   10085.4
GR   1600.5   10092.3    1600.9   10099.1    1601.6   10105.6    1601.6   10113.2    1601.4   10122.4
GR   1601.9   10166.0    1601.8   10172.2    1601.9   10186.3    1601.9   10199.4    1602.0   10218.9
GR   1602.2   10234.0    1602.2   10250.6    1602.1   10269.5    1601.9   10286.4    1601.9   10308.7
GR   1600.9   10434.7    1600.9   10449.4    1600.8   10462.3    1599.8   10474.4    1599.0   10484.4
GR   1598.8   10495.4    1596.0   10504.7    1596.6   10507.6    1597.9   10517.2    1598.1   10530.6
GR   1598.3   10545.6    1599.1   10550.9    1598.9   10559.5    1598.9   10564.5    1599.8   10571.5
GR   1597.9   10643.1    1597.1   10660.8    1596.5   10676.1    1596.7   10682.4    1595.2   10686.5
GR   1596.6   10690.8    1596.7   10703.5    1597.5   10711.3    1597.1   10719.5    1597.3   10725.7
GR   1598.6   10731.9    1599.6   10739.8    1600.7   10756.8    1601.2   10773.9    1601.4   10794.4
GR   1600.7   10961.3    1599.9   10973.6    1599.1   10986.4    1597.9   10993.2    1597.1   11000.4
GR   1596.4   11007.3    1595.7   11010.4    1596.6   11013.0    1596.3   11018.0    1597.3   11027.0
GR   1597.0   11034.3    1597.8   11041.5    1597.8   11050.9    1597.8   11068.4    1598.0   11084.8
GR   1599.2   11095.1    1600.5   11109.9    1600.6   11120.5    1600.6   11138.3    1600.4   11145.3
GR   1601.3   11196.2    1600.7   11213.0    1600.9   11227.3    1601.6   11242.6

GT       2       816       816
ET              7.1        9.1                                  10182.2   10491.6     10400     10470
        STA. 10435= BASELINE 4B
X1   22.617       24   10419.7   10449.5       515       465       495
GR   1608.5   10154.8    1608.5   10168.1    1608.8   10182.2    1608.5   10182.3    1608.2   10205.7
GR   1607.9   10286.2    1608.4   10294.6    1607.9   10304.0    1607.4   10314.5    1607.4   10324.0
GR   1606.4   10332.0    1607.5   10336.3    1607.4   10341.9    1606.8   10348.4    1607.0   10356.8
GR   1607.6   10402.5    1607.4   10411.3    1607.1   10419.7    1604.2   10427.6    1606.3   10436.2
GR   1606.2   10449.5    1608.0   10471.0    1608.0   10483.8    1608.6   10491.6

ET              7.1        9.1                                  10778.8   10876.3   10800.0     10855
```

```
        STA. 10800= BASELINE 48
        ET APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE ANGLE OF CULVERT
        OUTLET.
        FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
        POSSIBLE.
X1   22.657        71    10814.3    10840.6        220        200        210
GR   1616.2    9825.6     1615.4     9854.9     1615.4     9869.5     1615.4     9880.7     1615.7     9887.8
GR   1615.5    9895.5     1615.2     9907.2     1614.8     9917.5     1614.6     9927.5     1614.7     9933.5
GR   1614.7    9944.7     1614.9     9953.9     1614.5     9960.5     1614.0     9966.8     1613.9     9975.6
GR   1613.5    9981.7     1612.8     9986.8     1611.9     9990.1     1611.3     9992.2     1612.5     9995.2
GR   1612.8    9997.7     1612.8    10000.0     1612.8    10000.1     1612.8    10003.9     1613.3    10008.7
GR   1614.4   10044.7     1614.1    10050.9     1614.3    10055.6     1614.4    10061.1     1614.3    10069.7
GR   1614.1   10104.7     1614.0    10112.3     1613.9    10118.4     1613.8    10125.6     1613.7    10137.2
GR   1612.9   10217.1     1612.8    10229.6     1612.8    10239.9     1612.6    10252.3     1612.7    10258.0
GR   1612.2   10271.3     1611.6    10284.8     1611.3    10295.2     1610.9    10299.9     1611.2    10305.1
GR   1611.6   10322.2     1612.0    10337.0     1612.4    10350.1     1612.9    10359.1     1613.9    10370.1
GR   1614.1   10376.2     1614.3    10385.2     1614.4    10393.9     1614.4    10406.2     1613.9    10415.0
GR   1610.4   10733.4     1609.9    10763.2     1609.4    10772.6     1609.6    10777.6     1608.9    10789.3
GR   1608.8   10799.3     1608.8    10807.4     1608.2    10814.3     1608.1    10824.8     1608.2    10833.7
GR   1609.3   10840.6     1608.6    10849.5     1609.2    10857.8     1609.2    10864.9     1609.5    10873.3
GR   1610.5   10881.6

NC     .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERT (6- 10' X 4' RCB - STRUC. NO. 18)
X1   22.669         4    9961.5    10038.5         65         65         65
X3      10                                                                 1614.4     1614.4
GR   1614.4    9961.5     1609.9     9961.5     1609.9    10038.5     1614.4    10038.5

NC    .012      .012      .012
SC   6.012        .2       2.7          0          6         12        148       12.3     1610.5     1609.9
        END CULVERT (STRUC. #18)
        FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
        LIMITS IS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF RD.
X1   22.697         0         0          0        148        148        148                   .6
X2                             2     1614.5       1615
X3      10                                                                 1617       1617
BT      12      9900     1618.8                 10000     1618.3                   10019.9     1618.3
BT   10020    1617.8                 10060     1617.0                   10068     1616.6                 10088
BT    1616                10088.1     1615                  10162       1615                   10167     1618.0
BT               10207      1616                 10226       1617

NC    .049      .049      .042        .1        .3
CT       2      1825      1825
ET               7.1       9.1                                         9819.5    10343.2       9980      10080
        BEGIN TRIBUTARY 4C  REPEAT CROSS-SECTION 2.322
X1   -2.322        95    9993.6    10018.5        450        470        470
GR   1589.8    9819.5     1589.8     9834.1     1589.5     9849.3     1588.1     9868.6     1588.3     9871.4
GR   1588.3    9934.6     1588.4     9948.1     1588.3     9955.3     1587.9     9964.3     1587.8     9972.7
GR   1587.9    9980.6     1586.5     9993.6     1586.7    10000.0     1586.2    10000.1     1585.3    10004.6
GR   1584.4   10013.2     1586.3    10018.5     1586.5    10024.8     1587.1    10029.2     1587.5    10033.3
GR   1586.7   10038.1     1586.8    10045.5     1585.8    10052.0     1584.7    10057.6     1584.7    10067.6
GR   1587.4   10076.7     1587.8    10084.7     1588.2    10100.2     1588.4    10115.8     1588.6    10131.7
GR   1589.5   10154.4     1589.6    10167.8     1590.0    10183.9     1590.1    10200.0     1590.3    10211.9
GR   1592.0   10343.2     1592.1    10361.7     1592.1    10389.9     1592.5    10418.5     1592.8    10442.0
```

```
GR   1592.2    10479.9     1592.1    10499.5     1592.1    10523.5     1592.1    10535.8     1591.9    10545.4
GR   1590.8    10690.0     1590.6    10708.3     1590.2    10717.8     1590.4    10722.6     1590.9    10729.2
GR   1590.2    10843.0     1590.3    10865.6     1590.0    10885.3     1590.4    10902.2     1590.1    10908.9
GR   1590.1    10933.4     1590.3    10956.0     1590.1    10974.9     1590.0    10984.0     1589.8    10993.9
GR   1589.6    11006.4     1588.8    11020.4     1588.9    11021.6     1588.1    11021.7     1587.7    11027.8
GR   1586.6    11033.5     1585.3    11040.8     1585.1    11046.8     1587.1    11051.5     1588.7    11057.0
GR   1588.9    11065.0     1589.2    11073.4     1590.2    11085.7     1590.2    11095.0     1590.9    11108.1
GR   1591.4    11129.2     1591.2    11156.2     1591.2    11183.2     1591.3    11209.0     1590.4    11226.0
GR   1590.2    11246.1     1589.9    11266.0     1589.2    11274.3     1587.3    11282.7     1589.4    11291.6
GR   1590.2    11303.7     1590.4    11303.8     1590.9    11319.6     1591.1    11337.2     1590.7    11360.7
GR   1591.1    11368.5     1590.6    11385.5     1590.1    11396.3     1590.4    11410.0     1592.0      11485

QT       2        134         134
ET                7.1         9.1                                     10119.5     10463.5     10357.1      10380
        ADD 30 TO TRIB 4C CROSS SECTION I.D. NUMBERS.  STA 10375 = BASELINE 4C
X1   32.418         95    10357.1     10375.8         550         480         555
GR   1596.3     9925.7     1596.2      9940.2     1594.9      9954.1     1594.9      9959.5     1594.2      9965.3
GR   1593.1     9974.3     1593.3      9979.0     1592.6      9985.6     1592.2      9993.0     1591.6     10000.0
GR   1590.7    10000.1     1590.4     10004.3     1590.5     10008.6     1591.9     10012.7     1593.5     10017.5
GR   1593.6    10022.7     1593.1     10026.5     1593.9     10030.3     1594.6     10035.5     1595.5     10040.4
GR   1595.9    10043.6     1595.5     10047.7     1594.8     10052.4     1594.6     10057.6     1594.5     10062.5
GR   1595.7    10085.3     1596.4     10095.5     1596.3     10104.1     1596.3     10110.3     1596.5     10119.5
GR   1596.5    10128.5     1596.3     10137.5     1596.3     10144.2     1596.2     10154.2     1596.1     10167.8
GR   1595.2    10242.3     1594.8     10250.9     1595.0     10259.3     1594.2     10267.3     1593.7     10276.0
GR   1593.7    10332.8     1593.7     10341.0     1593.2     10350.0     1592.7     10357.1     1591.7     10364.8
GR   1590.1    10370.0     1590.4     10372.6     1592.3     10375.8     1593.4     10378.8     1593.4     10381.6
GR   1593.1    10386.3     1593.4     10391.1     1593.4     10397.6     1593.3     10403.8     1592.9     10410.9
GR   1591.1    10418.1     1592.3     10421.8     1592.7     10428.0     1593.5     10435.4     1594.1     10442.3
GR   1594.2    10452.3     1595.4     10463.5     1595.4     10479.4     1594.9     10494.1     1594.5     10505.9
GR   1594.1    10515.6     1593.5     10526.9     1593.3     10532.3     1593.5     10537.2     1591.7     10544.6
GR   1590.2    10550.9     1591.2     10555.3     1593.4     10559.9     1593.6     10564.6     1593.0     10574.2
GR   1592.8    10581.1     1592.1     10587.3     1593.1     10592.3     1593.8     10601.0     1594.1     10612.4
GR   1594.6    10623.7     1594.9     10635.7     1594.7     10648.3     1595.[illegible]     10656.0     1595.9     10665.7
GR   1596.2    10678.3     1596.5     10697.0     1597.2     10708.9     1597.4     10724.4     1597.5     10738.8
GR   1597.4    10748.1     1596.8     10757.8     1596.8     10769.9     1597.1     10780.8     1597.4     10792.4

ET                7.1         9.1                                     10250.6     10571.5     10495.4      10525
        STA. 10525= BASELINE 4C
X1   32.492         95    10495.4     10517.2         400         400         415
GR   1601.0     9851.6     1600.7      9869.6     1600.8      9883.9     1601.2      9897.2     1601.1      9911.5
GR   1600.9     9921.3     1600.9      9930.2     1600.9      9937.7     1600.1      9946.5     1598.6      9958.6
GR   1597.5     9965.1     1596.8      9970.2     1596.5      9974.1     1597.1      9978.9     1597.4      9982.8
GR   1599.4    10006.3     1600.5     10013.9     1600.7     10019.8     1600.3     10027.1     1600.7     10032.3
GR   1599.8    10058.1     1598.0     10072.3     1598.1     10076.9     1600.1     10081.3     1600.1     10085.4
GR   1600.5    10092.3     1600.9     10099.1     1601.6     10105.6     1601.6     10113.2     1601.4     10122.4
GR   1601.9    10166.0     1601.8     10172.2     1601.9     10186.3     1601.9     10199.4     1602.0     10210.9
GR   1602.2    10234.0     1602.2     10250.6     1602.1     10267.5     1601.9     10286.4     1601.9     10308.7
GR   1600.9    10434.7     1600.9     10449.4     1600.8     10462.3     1599.8     10474.4     1599.0     10484.4
GR   1598.8    10495.4     1596.0     10504.7     1596.6     10507.6     1597.9     10517.2     1598.1     10530.6
GR   1598.3    10545.6     1599.1     10550.9     1598.9     10559.5     1598.9     10564.5     1599.8     10571.5
GR   1597.9    10643.1     1597.1     10660.8     1596.5     10676.1     1596.7     10682.4     1595.2     10686.5
GR   1596.6    10690.8     1596.7     10703.5     1597.5     10711.3     1597.1     10719.5     1597.3     10725.7
GR   1598.6    10731.9     1599.6     10739.8     1600.7     10756.8     1601.2     10773.9     1601.4     10794.4
GR   1600.7    10961.3     1599.9     10973.6     1599.1     10986.4     1597.9     10993.2     1597.1     11000.4
```

```
GR   1596.4   11007.3    1595.7   11010.4    1596.6   11013.0    1598.3   11018.0    1597.3   11027.0
GR   1597.0   11034.3    1597.8   11041.5    1597.8   11050.9    1597.8   11068.4    1598.0   11084.8
GR   1599.2   11095.1    1600.5   11109.9    1600.6   11120.5    1600.6   11138.3    1600.4   11145.3
GR   1601.3   11196.2    1600.7   11213.0    1600.9   11227.3    1601.6   11242.6    1601.1   11252.9

ET              7.1        9.1                                   10686.2   10921.1   10838.2   10867.2
       STA. 10840= BASELINE 4C
X1   32.558        94   10838.2   10867.2       340       335       340
GR   1607.2    9816.0    1607.0    9832.6    1606.8    9854.1    1606.5    9875.2    1607.2    9892.1
GR   1606.6    9903.8    1606.4    9920.6    1606.4    9933.8    1606.2    9942.2    1605.9    9946.9
GR   1606.5    9953.1    1606.9    9958.9    1606.5    9965.3    1606.3    9973.2    1606.6    9983.0
GR   1606.9    9991.2    1606.9    9996.5    1606.8   10000.0    1606.6   10000.1    1606.0   10007.2
GR   1605.1   10012.9    1604.2   10016.2    1604.2   10021.3    1604.8   10024.8    1605.9   10029.5
GR   1606.0   10034.0    1605.6   10044.3    1605.6   10049.0    1606.0   10054.8    1606.9   10060.1
GR   1607.5   10065.1    1607.4   10071.0    1606.9   10078.5    1607.2   10086.2    1607.0   10090.4
GR   1607.2   10099.2    1607.5   10109.9    1607.4   10125.3    1608.0   10136.9    1608.2   10144.5
GR   1608.5   10154.8    1608.5   10168.1    1608.8   10182.2    1608.5   10182.3    1608.2   10205.7
GR   1607.9   10286.2    1608.4   10294.6    1607.9   10304.0    1607.4   10314.5    1607.4   10324.0
GR   1606.4   10332.0    1607.5   10336.3    1607.4   10341.9    1606.8   10348.4    1607.0   10356.8
GR   1607.6   10402.5    1607.4   10411.3    1607.1   10419.7    1604.2   10427.6    1606.3   10436.2
GR   1606.2   10449.5    1608.0   10471.0    1608.0   10483.8    1608.6   10491.6    1607.9   10501.4
GR   1607.6   10516.7    1607.5   10524.8    1607.3   10536.2    1607.2   10542.4    1605.9   10548.1
GR   1606.8   10553.3    1606.8   10566.0    1606.8   10576.3    1606.6   10581.6    1607.8   10584.6
GR   1608.3   10686.2    1607.9   10704.3    1607.6   10715.0    1607.7   10726.3    1607.5   10742.0
GR   1605.8   10806.4    1605.7   10815.5    1605.5   10821.8    1603.8   10828.9    1602.6   10838.2
GR   1602.7   10847.5    1601.8   10857.4    1603.2   10867.2    1605.4   10878.9    1606.2   10893.4
GR   1606.9   10910.3    1607.0   10921.1    1606.7   10937.1    1606.8   10951.7

ET              7.1        9.1                                    11154    11241.2     11180     11210
       STA. 11195= BASELINE 4C
       ET APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING POSSIBLE BEYOND EFF. FLOW
       LIMITS.
X1   32.575        15   11190.2   11206.0       100        90        95
GR   1609.9   11092.2    1609.6   11105.4    1609.5   11114.7    1608.6   11129.4    1607.7   11141.8
GR   1606.5   11154.3    1605.4   11167.5    1605.0   11179.8    1604.7   11190.2    1604.3   11197.7
GR   1604.4   11206.0    1604.7   11214.4    1605.0   11222.7    1606.0   11230.7    1607.0   11241.2

NC    .035      .035      .035        .3        .5
       BEGIN SUN VALLEY PARKWAY CULVERT (5- 12' X 4' RCB  - STRUC. NO. 19)
X1   32.584         4      9968     10032        50        50        50
X3      10                                                          1611      1611
GR   1610.8      9968    1606.3      9968    1606.3     10032    1610.8     10032

NC    .012      .012      .012
SC   5.012        .2       2.7         0         4        12       135      12.1    1607.0    1606.3
       END CULVERT (STRUC. #19)
       FLOODPLAIN \FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF RD.
X1   32.610         0         0         0       135       135       135                  .7
X2                             2      1611    1610.9
X3      10                                                        1613.3    1613.3
BT       9     10000    1614.9               10122.9    1613.7               10123    1613.2
BT   10163    1612.8               10171    1612.4               10175    1610.9               10180
```

```
BT   1610.9                 10188     1612.9                  10249       1614

NC     .049       .049       .042         .1          .3
QT        2       1866       1866
ET                 7.1        9.1                                      9534.3     10552.7     9899.1     10003.9
        BEGIN TRIBUTARY 4D.  REPEAT CROSS SECTION 1.939
X1   -1.939         95     9974.0    10003.9       680        670        680
GR    1569.7     9534.3     1569.5     9565.5    1569.0     9596.5     1568.8     9636.6     1568.1     9680.8
GR    1567.9     9721.8     1567.1     9755.9    1566.5     9787.2     1566.3     9807.7     1566.2     9825.0
GR    1566.2     9845.7     1566.2     9859.6    1565.9     9867.3     1566.3     9878.2     1566.5     9892.9
GR    1566.8     9951.9     1566.2     9966.0    1565.9     9974.0     1563.4     9982.1     1563.8     9999.4
GR    1564.0    10000.0     1563.8    10000.1    1566.4    10003.9     1566.9    10021.3     1568.1    10045.0
GR    1568.0    10066.0     1568.6    10097.6    1568.3    10122.2     1568.0    10156.9     1567.9    10183.0
GR    1568.1    10204.7     1568.6    10213.9    1568.2    10246.3     1567.8    10280.2     1567.9    10313.5
GR    1567.9    10351.8     1567.9    10403.2    1568.0    10414.4     1566.9    10419.2     1567.8    10425.6
GR    1567.7    10448.9     1567.7    10456.5    1568.1    10482.9     1568.0    10519.4     1570.0    10552.7
GR    1570.4    10597.9     1570.0    10635.5    1569.8    10688.1     1569.2    10720.8     1569.8    10775.4
GR    1569.8    10826.6     1567.5    10832.5    1569.6    10836.9     1569.8    10873.4     1569.5    10907.0
GR    1569.8    10960.0     1570.0    10994.4    1569.0    11034.4     1569.3    11091.1     1569.3    11158.6
GR    1569.5    11226.2     1570.4    11284.9    1570.6    11313.5     1570.1    11323.7     1570.5    11351.5
GR    1572.3    11506.6     1572.9    11506.7    1572.9    11523.3     1572.9    11544.8     1572.6    11563.3
GR    1572.1    11574.0     1572.6    11582.8    1572.9    11593.5     1573.0    11608.0     1572.5    11627.1
GR    1571.8    11746.5     1571.6    11767.1    1570.1    11789.4     1570.8    11801.0     1570.7    11826.0
GR    1570.6    11918.0     1570.4    11949.5    1570.2    11963.1     1568.8    11972.6     1569.8    11979.1
GR    1569.6    11994.2     1568.6    12008.0    1567.2    12016.0     1567.2    12022.4     1569.9    12031.8
GR    1569.2    12189.6     1569.7    12220.5    1569.8    12249.8     1570.4    12277.5     1571.1    12299.7

QT        2         62         62
ET                 7.1        9.1                                     10356.5     10782.9    10408.3     10445.2
        ADD 40 TO TRIB. 4D CROSS-SECTION I.D. NUMBERS.  STA. 10450= BESELINE 4D
X1   42.070         95    10408.3    10445.2       690        700        690
GR    1575.9     9689.1     1574.3     9844.3    1574.3     9875.5     1574.6     9895.9     1574.7     9912.6
GR    1574.1     9932.1     1573.9     9949.3    1572.0     9963.2     1570.1     9971.7     1570.2     9989.0
GR    1572.1     9999.7     1572.7    10000.0    1572.0    10000.1     1572.8    10005.9     1572.8    10016.7
GR    1570.1    10027.8     1572.2    10035.4    1571.8    10052.9     1571.8    10079.5     1571.8    10102.4
GR    1572.3    10120.1     1572.3    10141.7    1572.3    10159.7     1570.8    10169.0     1571.9    10173.9
GR    1571.7    10195.6     1572.7    10218.0    1572.7    10240.0     1571.8    10259.4     1571.8    10278.4
GR    1572.9    10304.5     1573.3    10331.8    1574.6    10356.5     1574.6    10381.2     1574.3    10397.4
GR    1572.3    10408.3     1572.2    10419.7    1572.0    10429.6     1573.8    10445.2     1572.5    10462.7
GR    1573.5    10476.3     1573.8    10495.9    1574.2    10516.3     1573.3    10525.8     1574.4    10529.9
GR    1574.6    10548.2     1574.8    10572.5    1575.2    10600.7     1575.4    10632.2     1576.1    10663.2
GR    1576.7    10782.9     1577.3    10805.4    1577.6    10837.8     1578.0    10903.5     1578.1      11036
GR    1579.0    11470.3     1579.6    11517.4    1579.0    11541.3     1578.0    11568.5     1578.6    11587.2
GR    1577.6    11606.0     1577.4    11626.5    1577.4    11639.9     1578.4    11656.7     1578.8    11691.3
GR    1578.6    11714.0     1578.0    11738.1    1577.2    11763.6     1576.6    11786.7     1577.3    11795.2
GR    1576.7    11811.3     1577.0    11835.4    1575.9    11841.4     1576.9    11846.3     1576.6    11857.9
GR    1576.1    11868.3     1576.8    11873.8    1576.4    11887.3     1577.1    11910.0     1577.6    11943.2
GR    1578.7    12099.7     1577.9    12120.4    1577.6    12132.4     1577.9    12165.8     1577.9    12194.4
GR    1577.3    12218.4     1576.4    12238.3    1577.5    12254.8     1577.8    12277.6     1577.9    12297.4
GR    1577.7    12313.4     1576.1    12326.7    1575.5    12345.1     1572.9    12358.9     1574.3    12361.1
```

ET		7.1	9.1				10472	10882.3	10668	10691.8
	STA. 10670= BASELINE 4D.									
X1	42.130	80	10668.0	10691.8	340	275	320			
GR	1578.8	9693.5	1578.8	9731.6	1579.1	9768.2	1578.8	9797.3	1579.0	9825.0
GR	1579.3	9845.4	1579.0	9856.8	1577.2	9871.0	1574.6	9885.4	1574.4	9896.5
GR	1575.1	9904.2	1577.4	9909.1	1577.8	9914.9	1576.3	9929.4	1577.0	9937.7
GR	1577.5	9950.4	1578.9	9966.4	1578.7	9981.0	1579.2	9990.8	1579.4	10000.0
GR	1578.7	10000.1	1578.1	10016.5	1578.6	10037.2	1579.9	10048.3	1578.4	10048.4
GR	1578.8	10066.3	1579.0	10081.0	1578.9	10103.5	1579.3	10121.0	1578.6	10133.2
GR	1577.6	10152.1	1577.0	10169.0	1576.7	10174.9	1577.6	10182.3	1577.9	10197.8
GR	1578.0	10224.8	1578.0	10244.6	1578.4	10265.8	1578.4	10281.2	1578.0	10299.7
GR	1577.2	10311.8	1576.9	10319.6	1577.9	10332.9	1577.6	10351.4	1576.9	10362.8
GR	1577.4	10368.3	1577.6	10379.7	1578.6	10397.2	1578.7	10412.9	1578.8	10430.8
GR	1579.2	10450.3	1579.2	10472.4	1578.7	10497.1	1578.5	10521.7	1577.8	10541.8
GR	1577.8	10564.7	1577.9	10591.9	1578.2	10615.9	1577.3	10637.6	1576.4	10651.6
GR	1577.0	10656.5	1576.9	10668.0	1575.7	10680.0	1575.6	10686.9	1576.7	10691.8
GR	1576.7	10701.7	1577.6	10709.8	1577.3	10722.7	1576.6	10734.3	1577.3	10747.5
GR	1577.2	10760.3	1577.7	10766.2	1577.2	10778.5	1577.2	10789.0	1576.6	10797.2
GR	1577.5	10803.7	1577.4	10815.3	1577.5	10835.4	1578.2	10857.7	1578.9	10882.3
ET		7.1	9.1				10623.4	11343	10819	10843
	STA. 10815= BASELINE 4D.									
X1	42.200	95	10819.0	10843.0	370	370	370			
GR	1584.1	9842.5	1584.7	9866.7	1584.6	9898.3	1584.6	9926.0	1584.6	9942.7
GR	1584.0	9949.3	1583.7	9962.0	1583.2	9976.5	1583.8	9993.4	1583.1	10000.0
GR	1582.2	10025.5	1581.5	10030.1	1581.3	10037.3	1581.3	10047.0	1581.5	10055.4
GR	1581.8	10061.9	1582.9	10066.5	1583.5	10076.4	1583.8	10086.1	1583.9	10090.6
GR	1584.2	10149.5	1584.3	10165.0	1584.4	10184.3	1584.4	10197.6	1584.4	10205.4
GR	1584.5	10258.0	1584.9	10260.3	1584.6	10269.0	1584.6	10276.7	1584.4	10283.1
GR	1585.1	10345.5	1585.3	10363.0	1585.6	10382.4	1585.5	10397.6	1585.5	10416.4
GR	1584.6	10476.0	1584.0	10485.3	1583.9	10499.9	1584.2	10507.6	1583.3	10513.9
GR	1584.6	10528.1	1584.0	10542.9	1583.9	10566.4	1583.7	10590.4	1584.4	10599.2
GR	1582.9	10606.1	1583.0	10611.5	1583.5	10616.0	1584.0	10623.4	1583.8	10650.1
GR	1582.2	10743.8	1582.5	10752.2	1582.5	10762.0	1581.8	10775.6	1582.0	10792.4
GR	1581.4	10803.7	1581.3	10819.0	1580.1	10831.3	1579.7	10837.0	1581.3	10843.0
GR	1582.0	10851.3	1581.7	10858.1	1582.3	10865.5	1581.8	10875.2	1580.9	10883.2
GR	1579.5	10891.8	1580.7	10904.7	1580.8	10915.8	1582.2	10928.2	1583.2	10936.9
GR	1584.8	11037.3	1584.8	11062.2	1584.7	11088.6	1584.7	11106.0	1584.3	11129.8
GR	1586.1	11343.8	1585.5	11365.0	1585.4	11392.1	1585.6	11405.0	1585.0	11416.8
GR	1584.6	11435.4	1584.3	11463.1	1584.3	11496.1	1584.0	11511.0	1583.2	11515.3
GR	1582.8	11612.7	1583.8	11617.7	1583.9	11637.9	1584.0	11655.0	1584.2	11684.0
GR	1586.2	11835.9	1585.6	11861.4	1585.0	11884.3	1584.1	11910.2	1583.7	11931.5
ET		7.1	9.1				10843	11129.2	11027.8	11051.5
	STA. 11030= BASELINE 4D.									
X1	42.299	95	11027.8	11051.5	515	525	525			
GR	1589.8	9819.5	1589.8	9834.1	1589.5	9849.3	1588.1	9868.6	1588.3	9871.4
GR	1588.3	9934.6	1588.4	9948.1	1588.3	9955.3	1587.9	9964.3	1587.8	9972.7
GR	1587.9	9980.6	1586.5	9993.6	1586.7	10000.0	1586.2	10000.1	1585.3	10004.6
GR	1584.4	10013.2	1586.3	10018.5	1586.5	10024.8	1587.1	10029.2	1587.5	10033.3
GR	1586.7	10038.1	1586.8	10045.5	1585.8	10052.0	1584.7	10057.6	1584.7	10067.6
GR	1587.4	10076.7	1587.8	10084.7	1588.2	10100.2	1588.4	10115.8	1588.6	10131.7
GR	1589.5	10154.4	1589.6	10167.8	1590.0	10183.9	1590.1	10200.0	1590.3	10211.9

```
GR   1592.0    10343.2     1592.1    10361.7     1592.1    10389.9     1592.5    10418.5     1592.8    10442.0
GR   1592.2    10479.9     1592.1    10499.5     1592.1    10523.5     1592.1    10535.8     1591.9    10545.4
GR   1590.8    10690.0     1590.6    10708.3     1590.2    10717.8     1590.4    10722.6     1590.9    10729.2
GR   1590.2    10843.0     1590.3    10865.6     1590.0    10885.3     1590.4    10902.2     1590.1    10908.9
GR   1590.1    10933.4     1590.3    10956.0     1590.1    10974.9     1590.0    10984.0     1589.8    10993.9
GR   1589.6    11006.4     1588.8    11020.4     1588.8    11021.6     1588.1    11021.7     1587.7    11027.8
GR   1586.6    11033.5     1585.3    11040.8     1585.1    11046.8     1587.1    11051.5     1588.7    11057.0
GR   1588.9    11065.0     1589.2    11073.4     1590.2    11085.7     1590.2    11095.0     1590.9    11108.1
GR   1591.4    11129.2     1591.2    11156.2     1591.2    11183.2     1591.3    11209.0     1590.4    11226.0
GR   1590.2    11246.1     1589.9    11266.0     1589.2    11274.3     1587.3    11282.7     1589.4    11291.6
GR   1590.2    11303.7     1590.4    11303.8     1590.9    11319.6     1591.1    11337.2     1590.7    11360.7
GR   1591.1    11368.5     1590.6    11385.5     1590.1    11396.3     1590.4    11410.0     1592.0      11485

ET                7.1         9.1                                     11688       11708     11694.6     11702.5
        STA. 11725= BASELINE 4D.
        ET APPLIED TO LIMIT EFF. FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT OUTL.
        FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
        IS POSSIBLE.
X1   42.401          95    11694.6    11702.5         540         530         540
GR   1600.5    10092.3     1600.9    10099.1     1601.6    10105.6     1601.6    10113.2     1601.4    10122.4
GR   1601.9    10166.0     1601.8    10172.2     1601.9    10186.3     1601.9    10199.4     1602.0    10218.9
GR   1602.2    10234.0     1602.2    10250.6     1602.1    10269.5     1601.9    10286.4     1601.9    10308.7
GR   1600.9    10434.7     1600.9    10449.4     1600.8    10462.3     1599.8    10474.4     1599.0    10484.4
GR   1598.8    10495.4     1596.0    10504.7     1596.6    10507.6     1597.9    10517.2     1598.1    10530.6
GR   1598.3    10545.6     1599.1    10550.9     1598.9    10559.5     1598.9    10564.5     1599.8    10571.5
GR   1597.9    10643.1     1597.1    10660.8     1596.5    10676.1     1596.7    10682.4     1595.2    10686.5
GR   1596.6    10690.8     1596.7    10703.5     1597.5    10711.3     1597.1    10719.5     1597.3    10725.7
GR   1598.6    10731.9     1599.6    10739.8     1600.7    10756.8     1601.2    10773.9     1601.4    10794.4
GR   1600.7    10961.3     1599.9    10973.6     1599.1    10986.4     1597.9    10993.2     1597.1    11000.4
GR   1596.4    11007.3     1595.7    11010.4     1596.6    11013.0     1596.3    11018.0     1597.3    11027.0
GR   1597.0    11034.3     1597.8    11041.5     1597.8    11050.9     1597.8    11068.4     1598.0    11084.8
GR   1599.2    11095.1     1600.5    11109.9     1600.6    11120.5     1600.6    11138.3     1600.4    11145.3
GR   1601.3    11196.2     1600.7    11213.0     1600.9    11227.3     1601.6    11242.6     1601.1    11252.9
GR   1600.7    11490.4     1600.6    11524.2     1600.8    11544.5     1600.1    11564.5     1599.2    11580.5
GR   1599.2    11592.9     1598.2    11605.0     1599.2    11615.4     1599.1    11628.7     1598.4    11645.4
GR   1597.8    11665.3     1597.4    11675.5     1597.4    11686.2     1596.6    11694.6     1596.4    11698.7
GR   1596.9    11702.5     1597.0    11714.4     1598.7    11730.0     1598.7    11746.6     1598.3    11758.3
GR   1598.7    11779.1     1598.6    11789.1     1599.3    11792.5     1599.2    11806.8     1599.1    11820.2

NC     .035       .035       .035         .3          .5
        BEGIN SUN VALLEY PARKWAY CULVERT (2- 42" X 29" C.S.P.A. - STRUC. NO. 22)
X1   42.406          4     9996.5    10003.5          25          25          25
X3       10                                                                 1602.4     1602.4
GR   1602.4     9996.5     1599.4     9996.5     1599.4    10003.5     1602.4    10003.5

NC     .024       .024       .024
SB     1.25       5.29       2.63          0           7         1.7        12.8           0        1600      1599.4
        END CULVERT (STRUC. #22)
        FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL UPSTREAM OF ROAD AS PONDING
```

```
        OUTSIDE OF EFF. FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
        PRESERVATION.
X1   42.432        0        0        0      135      135      135                .6
X2                            1   1602.4   1602.9
X3       10                                                          1604     1604
BT        8     9900   1606.1            10000   1605.4            10024.9   1604.5
BT    10025   1604.0            10065   1603.2            10073   1602.9            10032
BT   1602.9            10118     1604

NC     .035     .035     .035
ET                       9.1                                                  9971.2   10027.8
X1   42.436        7     9990    10008       20       20       20
GR     1604     9936     1602     9990     1601     9995   1600.5    10000     1601    10004
GR     1602    10008     1604    10065

NC     .049     .049     .042       .1       .3
DT        2     1939     1939
ET                7.1      9.1                                 9741.0   10364.5     9980    10100
        BEGIN TRIBUTARY 4E.  REPEAT CROSS-SECTION 1.678.
X1   -1.678       95   9982.8   10028.0      710      700      730
GR   1553.6   9741.0   1553.7    9755.0   1551.7   9768.1   1550.8    9774.6   1551.0    9784.7
GR   1550.6   9789.9   1551.9    9794.2   1551.9   9800.4   1551.9    9806.7   1552.1    9814.5
GR   1552.4   9820.9   1552.1    9824.9   1552.3   9829.9   1552.1    9839.5   1551.9    9843.7
GR   1552.9   9848.9   1553.0    9860.0   1552.8   9882.0   1552.5    9898.1   1552.4    9933.0
GR   1552.2   9955.2   1551.9    9982.8   1550.4  10000.0   1550.2   10000.1   1549.5   10010.3
GR   1551.0  10014.0   1551.1   10028.0   1551.5   10037.1   1549.4   10041.3   1551.5   10045.4
GR   1552.1  10075.3   1552.7   10098.6   1552.4   10125.4   1552.8   10170.1   1553.9   10202.9
GR   1554.9  10237.5   1554.9   10261.0   1554.9   10287.4   1556.1   10306.5   1556.6   10330.6
GR   1557.3  10364.5   1557.2   10389.2   1556.9   10431.2   1556.5   10471.3   1556.8   10487.1
GR   1555.0  10507.8   1554.1   10529.5   1553.8   10548.9   1552.7   10576.2   1552.5   10609.4
GR   1551.7  10632.5   1551.2   10644.4   1550.2   10649.1   1551.7   10653.4   1551.5   10679.1
GR   1551.9  10853.0   1551.4   10868.8   1552.2   10875.4   1552.2   10888.2   1552.5   10904.9
GR   1552.7  10919.1   1552.7   10933.2   1552.1   10953.5   1552.0   10991.4   1552.4   11004.6
GR   1550.4  11012.9   1552.1   11016.7   1552.3   11038.7   1552.4   11052.7   1552.8   11079.3
GR   1552.8  11095.7   1552.3   11101.1   1552.7   11105.5   1552.7   11117.2   1552.9   11124.9
GR   1552.6  11132.3   1553.1   11138.1   1553.6   11160.9   1554.0   11183.2   1554.1   11207.1
GR   1554.7  11239.0   1555.9   11270.7   1555.6   11297.6   1555.2   11319.9   1554.2   11347.2
GR   1554.2  11374.4   1554.6   11405.8   1553.2   11411.8   1554.2   11417.3   1554.2   11439.7
GR   1554.3  11469.4   1554.7   11507.2   1555.1   11524.9   1555.9   11554.4   1557.0   11579.4

DT        2       82       82
ET                7.1      9.1                                10440.9   10857.0    10565   10601.1
        ADD 50 TO TRIB. 4E CROSS-SECTION I.D. NUMBERS, STA.10540:BASCLINC 4E
X1   51.836       95  10585.2   10601.1      800      780      820
GR   1560.0   9502.0   1561.1    9538.5   1560.8   9577.2   1559.6    9598.2   1559.6    9610.0
GR   1557.4   9621.3   1557.6    9633.4   1559.6   9641.2   1560.4    9665.0   1560.3    9689.3
GR   1560.2   9754.5   1560.0    9767.1   1559.9   9782.2   1559.8    9795.3   1560.1    9805.8
GR   1560.1   9909.3   1559.9    9929.2   1559.9   9940.6   1558.8    9960.9   1558.8    9976.6
GR   1558.7   9989.4   1558.9   10000.0   1558.2  10000.1   1558.3   10010.4   1558.3   10015.3
GR   1557.6  10018.8   1558.9   10021.6   1558.7   10036.9   1558.6   10053.9   1559.1   10080.4
GR   1559.2  10091.4   1557.1   10100.4   1559.2   10105.2   1559.6   10118.1   1560.1   10142.6
GR   1560.3  10170.3   1561.0   10196.1   1561.5   10223.0   1561.2   10256.1   1561.0   10280.8
GR   1560.8  10299.9   1560.2   10313.1   1561.1   10328.5   1560.8   10339.9   1559.6   10347.6
GR   1561.1  10353.5   1562.1   10375.9   1562.1   10410.2   1562.4   10440.9   1562.1   10480.8
```

GR	1560.8	10518.3	1561.2	10560.3	1560.7	10585.2	1559.3	10593.7	1561.0	10601.1
GR	1561.6	10618.9	1561.2	10647.1	1561.8	10655.4	1561.9	10655.5	1562.0	10675.8
GR	1563.9	10857.0	1563.9	10883.5	1564.2	10913.7	1564.6	10963.5	1564.3	10993.6
GR	1564.4	11008.2	1562.9	11024.7	1561.0	11051.1	1560.2	11077.0	1560.1	11101.9
GR	1559.4	11105.6	1560.2	11113.6	1560.2	11138.6	1559.8	11157.7	1560.5	11167.1
GR	1559.6	11186.9	1560.3	11209.7	1561.1	11249.0	1561.3	11274.0	1561.2	11300.9
GR	1561.1	11455.2	1561.1	11513.0	1560.9	11553.3	1561.5	11568.4	1559.7	11573.6
GR	1560.7	11577.9	1561.3	11604.1	1561.2	11619.4	1558.3	11626.6	1561.3	11631.6
GR	1561.9	11677.2	1561.6	11710.7	1561.5	11750.5	1562.4	11788.1	1563.1	11824.0
ET		7.1	9.1				10994.4	11506	11100.0	11226.2
	STA. 11280=BASELINE 4E.									
X1	51.980	95	11158.6	11226.2	700	710	725			
GR	1569.7	9534.3	1569.5	9545.5	1569.0	9596.5	1568.8	9636.6	1568.1	9660.8
GR	1567.9	9721.8	1567.1	9755.9	1566.5	9787.2	1566.3	9807.7	1566.2	9825.0
GR	1566.2	9845.7	1566.2	9859.6	1565.9	9867.3	1566.3	9878.2	1566.5	9892.9
GR	1566.8	9951.9	1566.2	9966.0	1565.9	9974.0	1563.4	9982.1	1563.8	9999.4
GR	1564.0	10000.0	1563.8	10000.1	1566.4	10003.9	1566.9	10021.3	1568.1	10045.0
GR	1568.0	10066.0	1568.6	10097.6	1568.3	10122.2	1568.0	10156.9	1567.9	10183.0
GR	1568.1	10204.7	1568.6	10213.9	1568.2	10246.3	1567.8	10280.2	1567.9	10313.5
GR	1567.9	10351.8	1567.9	10403.2	1568.0	10414.4	1566.9	10419.2	1567.8	10425.6
GR	1567.7	10448.9	1567.7	10456.5	1568.1	10482.9	1569.0	10519.4	1570.0	10552.7
GR	1570.4	10597.9	1570.0	10635.5	1569.8	10688.1	1569.2	10720.8	1569.8	10775.4
GR	1569.8	10826.6	1567.5	10832.5	1569.6	10836.9	1569.8	10873.4	1569.5	10907.0
GR	1569.8	10960.0	1570.0	10994.4	1569.0	11034.4	1569.3	11091.1	1569.3	11158.6
GR	1569.5	11226.2	1570.4	11284.9	1570.6	11313.5	1570.1	11323.7	1570.5	11351.5
GR	1572.3	11506.6	1572.9	11506.7	1572.9	11523.3	1572.9	11544.8	1572.6	11563.3
GR	1572.1	11574.0	1572.6	11582.8	1572.9	11593.5	1573.0	11608.0	1572.5	11627.1
GR	1571.9	11746.5	1571.6	11767.1	1570.1	11789.4	1570.8	11801.0	1570.7	11826.0
GR	1570.6	11918.0	1570.4	11942.5	1570.2	11963.1	1568.8	11972.6	1569.8	11979.1
GR	1569.6	11994.2	1568.6	12008.0	1567.2	12016.0	1567.2	12022.4	1569.8	12031.8
GR	1569.2	12189.6	1569.7	12220.3	1569.8	12249.8	1570.4	12277.5	1571.1	12299.7
ET		7.1	9.1				11691.3	12099.7	11841.4	11868.3
	STA. 11820=BASELINE 4E.									
X1	52.080	25	11841.4	11868.3	580	550	580			
GR	1577.6	11606.0	1577.4	11626.5	1577.4	11639.9	1578.4	11656.7	1578.0	11671.3
GR	1578.6	11714.0	1578.0	11738.1	1577.2	11763.6	1576.6	11786.7	1577.3	11795.2
GR	1576.7	11811.3	1577.0	11835.4	1575.9	11841.4	1576.9	11846.8	1576.6	11857.9
GR	1576.1	11868.3	1576.8	11873.8	1576.4	11887.3	1577.1	11910.0	1577.6	11943.2
GR	1578.7	12099.7	1577.9	12120.4	1577.6	12132.4	1577.9	12165.8	1577.9	12194.4
ET		7.1	9.1				11835.9	12195	11957.8	11981.5
	STA. 11980=BASELINE 4E.									
X1	52.175	20	11957.8	11981.5	520	500	520			
GR	1586.2	11835.9	1585.6	11861.4	1585.0	11884.3	1584.1	11910.2	1583.9	11931.5
GR	1583.3	11949.7	1583.1	11957.8	1583.3	11970.8	1583.3	11977.1	1582.6	11981.5
GR	1583.5	12049.2	1583.3	12059.9	1583.4	12077.6	1583.7	12099.6	1583.7	12117.6
GR	1583.5	12137.1	1583.9	12146.7	1583.4	12154.9	1583.8	12174.8	1584.4	12195.3

```
ET                          9.1                                                                  10000      10035
        STA. 10000=BASELINE 4E.
X1   52.249         7     10000     10035       375       370       370
GR    1591      9900      1590      9960      1589     10000      1588     10010      1588      10025
GR    1589     10035      1590     10090

NC    .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERT (3- 42" X 29" C.S.P.A.  -STRUC. NO. 24)
X1   52.259         4    9994.5   10005.5        60        60        60
X3      10                                                                  1593.7     1593.7
GR   1593.7    9994.5    1590.9    9994.5    1590.5   10005.5    1593.7   10005.5

NC    .024      .024      .024
SB    1.25      5.29      2.63         0        11         3      19.2         0     1591.3     1590.9
        END CULVERT (STRUC. #24)
        FLOOPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING OUTSIDE EFF. FLOW
        LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF ROAD.
X1   52.285         0         0         0       137       137       137                 0.4
X2                             1    1593.7    1594.0
X3      10                                                                  1591.3     1591.3
BT       9      9900    1597.8                10000    1596.8                10013.9     1596.7
BT   10014    1596.2                 10054    1595.4                 10062    1595.0                10066
BT    1594                10071      1594                10114      1596

NC    .035      .035      .035
ET                          9.1                                                                   9992      10011
X1   52.289         6      9990     10009        20        20        20
GR    1595      9980      1594      9990      1592      9999      1592     10004      1593      10009
GR    1595     10019

NC    .049      .049      .042        .1        .3
OT       2      2240      2240
ET                7.1       9.1                                   9335     10350      9956      10065
        BEGIN TRIBUTARY 4F.  REPEAT CROSS-SECTION 1.413.
X1   -1.413        60    9973.0   10023.7       700       720       720
GR   1540.7    9335.0    1540.9    9366.6    1540.0    9413.3    1540.2    9464.7    1539.9    9517.2
GR   1539.9    9577.8    1539.9    9617.6    1539.7    9658.9    1538.8    9710.1    1538.4    9729.5
GR   1537.0    9741.0    1536.0    9753.2    1536.3    9761.1    1536.9    9769.6    1538.3    9781.5
GR   1538.4    9807.7    1538.0    9837.4    1537.8    9856.2    1536.5    9880.7    1536.1    9897.2
GR   1535.2    9913.6    1533.4    9925.0    1534.9    9933.3    1536.2    9940.2    1535.5    9949.6
GR   1534.9    9955.0    1535.7    9963.6    1534.2    9973.0    1532.8    9981.8    1532.1    9989.1
GR   1533.8    9996.8    1535.0   10000.0    1535.0   10000.1    1534.6   10007.8    1533.5   10013.9
GR   1534.7   10023.7    1534.5   10035.6    1534.8   10052.3    1535.8   10064.2    1535.5   10079.7
GR   1534.6   10083.4    1534.6   10088.6    1535.8   10094.2    1536.2   10128.1    1535.8   10145.0
GR   1535.8   10152.2    1536.6   10162.4    1536.6   10178.6    1536.9   10193.0    1536.6   10198.0
GR   1537.4   10214.8    1538.2   10234.9    1538.1   10257.0    1539.9   10278.2    1540.2   10305.9
GR   1540.4   10314.6    1540.5   10333.6    1540.7   10341.7    1540.3   10360.8    1539.7   10378.4
```

```
OT        2       350       350
ET                7.1       9.1                                  10096.9   10409.6   10292.1   10331.1
        STA.  10345=BASELINE 4F.
X1   61.538        30   10292.1   10331.1       670       650       680
GR   1543.7   10065.2    1544.3   10073.1    1545.0   10078.3    1545.2   10088.9    1543.5   10096.9
GR   1544.8   10109.8    1544.2   10124.1    1544.2   10138.2    1544.2   10156.3    1543.9   10164.3
GR   1543.8   10185.9    1543.5   10205.3    1542.7   10228.7    1542.3   10269.7    1542.8   10292.1
GR   1541.9   10298.1    1539.9   10303.0    1540.7   10308.5    1542.7   10331.1    1543.1   10346.3
GR   1540.2   10354.6    1543.3   10362.3    1543.1   10374.2    1543.3   10381.4    1543.3   10391.6
GR   1544.4   10409.6    1544.0   10470.0    1543.9   10510.8    1543.9   10556.3    1543.8   10574.2

ET                7.1       9.1                                  10919.1   11270.7   10953.5   11016.7
        STA.  11000=BASELINE 4F.
X1   61.690        25   10953.5   11016.7       850       800       850
GR   1553.0   10919.1    1552.7   10933.2    1552.1   10953.5    1552.0   10991.4    1552.4   11004.6
GR   1550.4   11012.9    1552.1   11016.7    1552.3   11038.7    1552.4   11052.7    1552.8   11079.3
GR   1552.8   11095.7    1552.3   11101.1    1552.7   11105.5    1552.7   11117.2    1552.9   11124.9
GR   1552.6   11132.3    1553.1   11138.1    1553.6   11160.9    1554.0   11183.2    1554.1   11207.1
GR   1554.7   11239.0    1555.9   11270.7    1555.6   11297.6    1555.2   11319.9    1554.2   11347.2

ET                7.1       9.1                                  11568.4   11824.0     11610     11640
        STA.  11590=BASELINE 4F.
X1   61.811        20   11619.4   11631.6       680       680       680
GR   1559.6   11186.9    1560.3   11209.7    1561.1   11249.0    1561.3   11274.0    1561.2   11300.9
GR   1561.1   11455.2    1561.1   11513.0    1560.9   11553.3    1561.5   11568.4    1559.7   11573.6
GR   1560.7   11577.9    1561.3   11604.1    1561.2   11619.4    1558.3   11626.6    1559.3   11631.6
GR   1561.0   11677.2    1561.6   11710.7    1561.5   11750.5    1562.0   11788.1    1563.1   11824.0

ET                7.1       9.1                                  11746.5   12299.7     12007     12033
        STA.  12030=BASELINE 4F.
X1   61.936        20   12008.0   12031.8       660       670       700
GR   1571.8   11746.5    1571.6   11767.1    1570.1   11789.4    1570.8   11801.0    1570.7   11826.0
GR   1570.6   11918.0    1570.4   11942.5    1570.2   11963.1    1568.8   11972.6    1569.8   11979.1
GR   1569.6   11994.2    1568.6   12008.0    1567.2   12016.0    1567.2   12022.4    1569.8   12031.8
GR   1569.2   12189.6    1569.7   12220.5    1569.8   12249.8    1570.4   12277.5    1571.1   12299.7

ET                7.1       9.1                                  12313.4   12658.5   12453.2   12473.3
        STA.  12460=BASELINE 4F.
X1   62.027        16   12453.2   12473.3       490       480       490
GR   1577.7   12313.4    1576.1   12326.7    1575.5   12345.1    1573.8   12358.9    1574.3   12361.1
GR   1574.9   12372.5    1574.6   12394.8    1574.8   12417.1    1573.8   12431.0    1575.2   12444.1
GR   1574.4   12453.2    1573.2   12464.1    1575.3   12473.3    1575.2   12490.7    1575.1   12515.4
GR   1577.9   12658.5

ET                          9.1                                                        9975     10019
X1   62.074        11      9975     10019       250       250       250
GR     1582      9945      1581      9975      1580      9985      1579      9991      1579     10005
GR   1578.2     10008    1578.2     10012      1579     10014      1580     10019      1580     10040
GR     1581     10080
```

```
NC     .035      .035      .035       .3        .5
       BEGIN SUN VALLEY PARKWAY CULVERT (3-8' X 3' RCB  -STRUC. NO. 25)
X1   62.087         4      9974     10013        70        70        70
X3      10                                                          1583.4    1583.4
GR   1583.2      9974    1579.7      9974    1579.7     10013    1583.2     10013

NC     .012      .012      .012
BC    3.012        .2      2.63         0         3         8       141      12.1    1580.4    1579.4
       END CULVERT (STRUC. NO. 25)
X1   62.114         0         0         0       141       141       141                .7
X2                             2    1583.4    1584.0
X3      10                                                          1585.6    1585.6
BT      10      9900    1587.8               10000    1586.7                10022.8   1584.8
BT   10023    1586.1               10063    1585.3               10071    1584.9              10077
BT   1584.5               10081     1584                10086     1584               10111    1584.6
BT       0

ET               7.1       9.1                                     9981     10025     9981     10025
NC     .035      .035      .035
       ET APPLIED TO LIMIT EFF. FLOW TO WITHIN WEIR LEVEES, LEFT AND RIGHT, AS
       WELL AS 1:1 FLARE ANGLE FROM CULVERT INLET.
       FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
       LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF ROAD REQUIRES PRESERVATION.
X1   62.127        12      9981     10013        70        70        70
GR   1587.5      9695    1581.8      9703    1581.3      9860    1581.2      9962      1584      9971
GR     1584      9981      1583      9990      1582      9996      1582     10004      1583     10009
GR     1584     10013    1584.5     10025
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .159
        FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        PREVIOUS FLOODWAY ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD FOR
        PROFILE 1. PROFILE 2 STARTING WSEL FORCE FED.
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.   TRIBUTARIES TO WASH #4
        HAVE SECTION I.D.S.INCREASING UPSTREAM FROM WASH #4 CONFLUENCE WITH
        WHOLE NUMBER IN FACTOR OF 10 ADDED TO I.D. AS NOTED AT START OF TRIB.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
     .159      2.10   1476.50       .00   1476.50   1476.60       .10       .00       .00   1475.80
   2275.0    1003.1     133.9    1138.0     420.8      40.2     431.1        .0        .0   1475.80
     .00      2.38      3.33      2.64      .049      .042      .049      .000   1474.40   9368.31
  .007959       0.        0.        0.         0         0         0       .00   1215.54  10583.85


*SECNO  .273

3265 DIVIDED FLOW

     .273      1.98   1481.18       .00       .00   1481.26       .08      4.65       .00   1480.90
   2275.0    1578.5     215.5     481.0     780.5      63.1     206.7      14.7      21.6   1481.20
     .08      2.02      3.42      2.33      .049      .042      .049      .000   1479.20   8336.98
  .006375     680.      630.      620.         5         0         0       .00   1639.90  10333.65


*SECNO  .417

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .68

     .417      3.52   1487.42   1487.40       .00   1487.87       .44      6.50       .11   1484.70
   2275.0     670.6     605.2     999.2     132.1      79.0     285.4      27.4      39.5   1487.80
     .12      5.08      7.66      3.50      .049      .042      .049      .000   1483.90   8436.90
  .013675     710.      750.      725.         5        14         0       .00    532.95  10531.87
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	E6	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .564

3265 DIVIDED FLOW

.564	5.81	1493.41	1493.36	.00	1493.91	.49	6.03	.02	1492.20
2275.0	901.1	1205.9	148.0	284.5	167.1	89.2	34.4	47.1	1493.00
.13	3.17	7.22	1.89	.049	.042	.049	.000	1487.60	8843.70
.008090	575.	585.	590.	7	14	0	.00	606.18	10372.29

*SECNO .689

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9281.8 10571.3 TYPE= 1 TARGET= 1289.500

.689	5.41	1500.21	.00	.00	1500.45	.24	6.52	.03	1499.80
2275.0	587.5	698.1	989.5	197.7	133.3	291.3	43.7	58.6	1498.90
.20	2.97	5.24	3.40	.049	.042	.049	.000	1494.80	9321.84
.010833	680.	710.	710.	5	0	0	.00	831.80	10537.36

*SECNO .795

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9085.4 10671.2 TYPE= 1 TARGET= 1585.800

.795	2.90	1506.10	.00	.00	1506.24	.14	5.78	.01	1505.90
2275.0	576.3	381.4	1317.3	221.1	90.3	483.8	53.1	71.4	1505.90
.26	2.61	4.23	2.72	.049	.042	.049	.000	1503.20	9116.21
.008995	500.	650.	600.	6	0	0	.00	1174.12	10638.39

*SECNO .917

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9518.4 10714.2 TYPE= 1 TARGET= 1195.800

.917	2.40	1512.20	.00	.00	1512.39	.20	6.14	.02	1512.20
2275.0	5.7	61.2	2208.1	7.2	17.5	618.6	63.6	85.1	1513.00
.31	.80	3.51	3.57	.049	.042	.049	.000	1509.80	9607.97
.010210	670.	730.	625.	5	0	0	.00	669.78	10693.61

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.038

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9631.4 10587.3 TYPE= 1 TARGET= 955.899

1.038	2.88	1518.98	.00	.00	1519.18	.19	6.78	.00	1518.90
2275.0	235.6	139.8	1899.5	123.0	39.2	514.9	74.0	97.5	1519.00
.36	1.92	3.57	3.69	.049	.042	.049	.000	1516.10	9653.14
.009722	680.	705.	680.	5	0	0	.00	927.80	10584.43

*SECNO 1.167

3470 ENCROACHMENT STATIONS= 9245.1 10244.9 TYPE= 1 TARGET= 999.801

1.167	3.52	1524.82	.00	.00	1525.17	.34	5.94	.04	1522.80
2275.0	1096.3	694.4	484.3	327.0	101.3	144.9	83.2	108.3	1523.00
.40	3.35	6.85	3.34	.049	.042	.049	.000	1521.30	9635.63
.008825	635.	645.	645.	4	0	0	.00	530.40	10164.03

*SECNO 1.292

3470 ENCROACHMENT STATIONS= 9417.5 10350.0 TYPE= 1 TARGET= 932.500

1.292	4.19	1530.69	.00	.00	1531.16	.48	5.96	.04	1529.20
2275.0	990.7	1107.8	176.5	323.4	153.4	44.1	91.6	115.4	1528.40
.44	3.06	7.22	4.01	.049	.042	.049	.000	1526.50	9722.42
.008921	670.	670.	680.	4	0	0	.00	399.94	10122.36

*SECNO 1.413

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9335.0 10350.0 TYPE= 1 TARGET= 1015.000

1.413	4.70	1536.80	.00	.00	1537.23	.44	6.07	.00	1534.20
2240.0	545.0	1051.8	643.2	145.7	156.9	183.4	99.8	121.5	1534.70
.48	3.74	6.70	3.51	.049	.042	.049	.000	1532.10	9743.45
.008113	700.	720.	720.	4	0	0	.00	345.34	10202.19

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.553

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9494.9   10096.9  TYPE=      1  TARGET=      602.000
     1.553      6.05   1545.55   1545.55       .00   1546.11       .56      6.54       .04   1545.20
    1939.0     667.1     802.3     469.6     187.4      99.1     110.5     107.0     127.2   1545.30
       .51      3.56      8.10      4.25      .049      .042      .049      .000   1539.50   9597.11
   .010583      690.      730.      720.        10        12         0       .00    364.48  10094.50


*SECNO 1.678

3470 ENCROACHMENT STATIONS=     9741.0   10364.5  TYPE=      1  TARGET=      623.500
     1.678      3.78   1553.18       .00       .00   1553.52       .35      7.40       .02   1551.90
    1939.0     737.7     700.2     501.1     214.7     109.8     143.9     114.1     133.7   1551.10
       .36      3.44      6.38      3.48      .049      .042      .049      .000   1549.40   9758.42
   .010110      710.      730.      700.         4         0         0       .00    422.96  10181.38


*SECNO 1.818

3470 ENCROACHMENT STATIONS=     9538.5   10223.0  TYPE=      1  TARGET=      684.500
     1.818      3.34   1560.44       .00       .00   1560.68       .24      7.15       .01   1558.70
    1866.0     828.1     352.3     685.5     257.7      65.5     178.5     122.3     142.3   1558.90
       .61      3.21      5.38      3.84      .049      .042      .049      .000   1557.10   9583.48
   .009326      770.      725.      700.         4         0         0       .00    592.03  10175.51


*SECNO 1.939
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9534.3   10097.6  TYPE=      1  TARGET=      563.300
     1.939      4.25   1567.65   1567.65       .00   1568.22       .58      6.63       .10   1565.90
    1866.0     937.5     866.4      62.1     268.2     106.6      22.9     129.3     149.3   1566.40
       .64      3.50      8.13      2.71      .049      .042      .049      .000   1563.40   9732.54
   .010266      680.      680.      670.         5        11         0       .00    303.53  10036.07
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     IORAR     TOPWID    ENDST


*SECND 2.057

3470 ENCROACHMENT STATIONS=     9689.1   10356.5  TYPE=      1  TARGET=      667.400
    2.057      3.28   1573.38       .00       .00   1573.63       .23      5.38       .03   1572.00
   1825.0      13.4     557.3    1254.3       6.9      99.8     407.5     136.1     154.3   1572.70
      .69      1.93      5.39      3.08      .049      .042      .049      .000   1570.10   9953.12
  .006775      620.      670.      650.         4         0         0       .00    380.15  10333.28


*SECND 2.148

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9768.2   10472.0  TYPE=      1  TARGET=      703.800
       PRIVATE STOCK POND DIVERSION LEVEE, 100 FT. UPSTREAM THIS SECTION.
       LEVEE ASSUMED BREACHED FOR ANALYSIS.
    2.148      4.17   1578.57   1578.57       .00   1579.10       .53      4.18       .08   1577.20
   1825.0      17.2     942.6     865.2       7.5     124.6     283.4     141.6     158.9   1577.40
      .72      2.31      7.57      3.05      .049      .042      .049      .000   1574.40   9860.16
  .009683      530.      550.      500.         3        11         0       .00    406.00  10396.75


*SECND 2.204

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9844.4   10350.0  TYPE=      1  TARGET=      505.600
    2.204      2.34   1581.14       .00       .00   1581.50       .37      2.38       .02   1580.00
   1825.0     385.7     589.0     850.3      83.2      89.5     255.3     143.5     160.9   1579.90
      .73      4.64      6.58      3.33      .049      .042      .049      .000   1578.80   9846.20
  .015059      200.      200.      200.         3         0         0       .00    466.84  10342.33


*SECND 2.242

3470 ENCROACHMENT STATIONS=     9898.3   10260.3  TYPE=      1  TARGET=      362.000
    2.242      5.09   1584.39       .00       .00   1585.07       .48      3.54       .03   1582.20
   1825.0     452.4     888.0     484.6     116.1     126.5     140.1     146.3     163.6   1581.90
      .75      3.90      7.02      3.46      .049      .042      .049      .000   1579.50   9925.66
  .008793      300.      350.      280.         3         0         0       .00    332.92  10258.58
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AROB	VOL	TWA	R BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ENDST

#SECNO 2.322

3470 ENCROACHMENT STATIONS= 9819.5 10343.2 TYPE= 1 TARGET= 523.700

2.322	4.41	1598.81	.00	.00	1589.33	.92	6.24	.01	1584.50
1825.0	227.1	589.1	1008.8	89.1	80.4	191.1	150.3	166.8	1586.30
.77	2.55	7.33	5.28	.049	.042	.049	.000	1584.40	9859.09
.009410	450.	470.	470.	4	0	0	.00	277.96	10136.85

#SECNO 2.439

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9925.7 10119.5 TYPE= 1 TARGET= 193.800

2.439	3.52	1595.62	1595.62	.00	1596.61	.99	6.47	.14	1592.20
1694.0	473.6	973.7	246.7	83.5	102.2	61.7	154.6	169.8	1593.50
.79	5.67	9.53	4.00	.049	.042	.049	.000	1590.10	9946.39
.011598	620.	620.	630.	3	11	0	.00	132.32	10083.80

#SECNO 2.523
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9897.2 10218.9 TYPE= 1 TARGET= 321.700

2.523	5.85	1600.85	1600.85	.00	1601.73	.88	4.89	.01	1598.60
1694.0	81.3	1083.5	529.2	21.1	122.8	116.9	157.1	171.2	1597.40
.81	3.85	8.83	4.53	.049	.042	.049	.000	1595.20	9938.30
.011405	425.	425.	425.	3	8	0	.00	159.86	10098.17

#SECNO 2.621

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

3470 ENCROACHMENT STATIONS= 9892.1 10134.8 TYPE= 1 TARGET= 242.700

```
SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

  2.621      3.18   1607.38       .00       .00   1607.76       .38      5.98       .05   1605.10
  896.0     322.6     329.0     244.4     107.2      47.1      69.9     160.2     173.5   1605.90
    .84      3.01      6.98      3.50      .049      .042      .049      .000   1604.20   9873.66
 .009972     550.      550.      550.         3         0         0       .00    211.96  10105.62


$SECNO 2.750

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .21


3470 ENCROACHMENT STATIONS=     9973.0   10009.0  TYPE=      1  TARGET=       36.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE
       ANGLE OF CULVERT OUTLET.
       FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS IS POSSIBLE.
  2.750      2.86   1614.16       .00       .00   1614.39       .23      6.61       .02   1612.80
  151.0      17.0      82.9      51.1       8.5      18.1      17.7     162.4     175.6   1612.50
    .89      1.99      4.58      2.88      .049      .042      .049      .000   1611.30   9973.00
 .006443     750.      710.      680.         4         0         0       .00     34.67  10009.00


DCHV=     .300 CEHV=     .500
$SECNO 2.759

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1618.40 ELREA=      1618.40

       BEGIN SUN VALLEY PARKWAY CULVERT (1-10' X 3' RCB  - STRUC. NO. 16)
  2.759      1.91   1616.91   1616.91       .00   1617.88       .97       .55       .37   1618.50
  151.0        .0     151.0        .0        .0      19.1        .0     162.4     175.6   1618.50
    .90       .00      7.89       .00      .000      .035      .000      .000   1615.00   9995.00
 .022359      50.       50.       50.        20        14         0       .00     10.00  10005.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	1	.012	.20	2.70	.00	3.00	10.00	133.00	12	1	1615.80	1615.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 1 - WINGWALLS FLARED AS DEGREES (1:1); INLET NOT SKEWED

*SECND 2.784

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1618.437 EGOC = 1618.473 FCWSE= 1616.915 ELTRD= 1618.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.35

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1618.44	1618.47	.59	0.	151.	5.999	30.0	1618.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1619.80 ELREA= 1619.80

END CULVERT (STRUC. #16)

2.784	2.51	1617.91	.00	.00	1618.47	.56	.59	.00	1618.90
151.0	.0	151.0	.0	.0	25.2	.0	162.5	175.6	1618.90
.90	.00	6.00	.00	.000	.012	.000	.000	1615.40	9995.00
.001180	133.	133.	133.	3	0	0	.00	10.00	10005.00

*SECND 2.798

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .31

3470 ENCROACHMENT STATIONS= 9980.0 10014.0 TYPE= 1 TARGET= 34.000
ET CARD APPLIED TO LIMIT EFFECTIVE FLOW WITHIN WEIR LEVEES LEFT AND RT.
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WHEN AS PONDING
BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF
ROAD REQUIRES PRESEVATION.

2.798	1.56	1618.36	.00	.00	1618.73	.37	.21	.06	1669.00
151.0	.0	151.0	.0	.0	30.7	.0	162.5	175.7	100000.00
.91	.00	4.91	.00	.000	.035	.000	.000	1616.80	9985.75
.011954	75.	75.	75.	4	0	0	.00	27.88	10013.63

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        DLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO -2.621
START TRIB COMP
    -2.621     2.621  1607.381

3470 ENCROACHMENT STATIONS=     9892.1   10154.8  TYPE=      1  TARGET=      262.700
       BEGIN TRIBUTARY 4A.  REPEAT CROSS-SECTION 2.621
   -2.621      3.18   1607.38       .00       .00   1607.76       .38       .00       .00   1605.10
    896.0     323.3     328.4     244.3     107.9      47.2      70.0     164.2     177.2   1605.90
      .94      3.00      6.96      3.49      .049      .042      .049      .000   1604.20   9892.37
  .009919      550.      550.      550.         0         0         0       .00    213.30  10105.67


*SECNO 12.725

3470 ENCROACHMENT STATIONS=    10250.4   10349.9  TYPE=      1  TARGET=       99.500
       ADD 10 TO TRIB. 4A CROSS-SECTION I.D. NUMBERS.   STA.10295= BASELINE 4A
       ET CARD APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF
       CULVERT OUTLET.
       FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS IS POSSIBLE.
   12.725      2.48   1613.38       .00       .00   1613.81       .43      6.04       .01   1611.30
    766.0     253.9     160.7     351.4      58.2      22.9      72.7     166.5     179.2   1611.20
      .97      4.36      7.03      4.83      .049      .042      .049      .000   1610.90  10250.40
  .012957      575.      550.      500.         4         0         0       .00     99.50  10349.90


CCHV=     .300 CEHV=     .500
*SECNO 12.734

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1616.80 ELREA=      1616.80

       BEGIN SUN VALLEY PARKWAY CULVERT (6-12' X 4' RCB -STRUC. NO.17)
   12.734      1.57   1613.87       .00       .00   1614.49       .63       .58       .10   1616.80
    766.0        .0     766.0        .0        .0     120.6        .0     166.7     179.2   1616.80
      .97       .00      6.35       .00      .000      .035      .000      .000   1612.30   9961.50
  .012968       45.       45.       45.         2         0         0       .00     77.00  10038.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	6	.012	.20	2.70	.00	4.00	12.00	137.00	12	1	1612.80	1612.30

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECND 12.760

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1615.204 EGOC = 1615.229 PCWSE= 1613.866 ELTRD= 1617.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.61

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1615.20	1615.23	.74	0.	766.	4.802	288.0	1617.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1619.00 ELREA= 1619.00

END CULVERT (STRUC. #17)

12.760	2.07	1614.87	.00	.00	1615.23	.36	.74	.00	1617.30
766.0	.0	766.0	.0	.0	159.5	.0	167.1	179.5	1617.30
.98	.00	4.80	.00	.000	.012	.000	.000	1612.80	9961.50
.000611	137.	137.	137.	3	0	0	.00	77.00	10038.50

*SECND 12.775
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
ET APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN WEIR LEVEES, LEFT AND RT.
FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION
UPSTREAM OF ROAD.

12.775	1.50	1617.00	1617.00	.00	1617.62	.62	.14	.13	1617.00
766.0	.0	766.0	.0	.0	121.1	.0	167.4	179.6	1617.50
.98	.00	6.32	.00	.000	.035	.000	.000	1615.50	9948.02
.016984	80.	80.	80.	20	19	0	.00	78.97	10046.99

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO -2.439
START TRIB COMP
    -2.439     2.439  1595.621

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9925.7   10119.5  TYPE=      1  TARGET=      193.800
       BEGIN TRIBUTARY 4B.  REPEAT CROSS SECTION 2.439.
   -2.439      5.52   1595.62   1595.62       .00   1596.61       .99      8.05     -8.05   1592.20
   1694.0     473.6     973.7     246.7      83.5     102.2      61.7     170.0     181.3   1593.50
     1.01      5.67      9.53      4.00      .049      .042      .049      .000   1590.10   9946.39
  .011598      620.      620.      630.         0        26         0       .00    132.32  10083.80


*SECNO 22.523

3470 ENCROACHMENT STATIONS=     9897.2   10218.9  TYPE=      1  TARGET=      321.700
       ADD 20 TO TRIB. 4B. CROSS-SECTION I.D. NUMBERS. STA. 10075= BASELINE 4B
   22.523      5.74   1600.94       .00       .00   1601.54       .60      4.89       .04   1597.80
   1694.0    1357.6     314.0      22.5     216.6      50.3       9.5     172.5     182.8   1600.10
     1.02      6.27      6.24      2.38      .049      .042      .049      .000   1595.20   9919.45
  .011437      425.      425.      425.         3         0         0       .00    180.00  10099.45


*SECNO 22.617

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10182.2   10491.6  TYPE=      1  TARGET=      309.399
       STA. 10435= BASELINE 4B
   22.617      3.95   1608.15   1608.15       .00   1608.54       .39      5.61       .02   1607.10
    816.0     302.1     439.9      74.0     110.5      70.0      24.7     175.3     185.4   1606.20
     1.05      2.73      6.29      3.00      .049      .042      .049      .000   1604.20  10219.04
  .010469      515.      495.      465.        10        18         0       .00    257.83  10485.75


*SECNO 22.657
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        INV       HL        O BSC     L BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    10778.8   10876.3  TYPE=      1  TARGET=       97.500
       STA. 10800= BASELINE 4B
       ET APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE ANGLE OF CULVERT
       OUTLET.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
       POSSIBLE.
   22.657      2.31   1610.41       .00       .00   1610.85       .44      2.30       .02   1608.20
    816.0     232.9     376.4     206.7      54.3      58.7      49.6     176.2     186.2   1608.30
     1.07      4.29      6.41      4.17      .049      .042      .049      .000   1608.10  10778.80
  .011269      220.       [illegible]       [illegible]         2         0         0       .00     97.50  10876.30


CCHV=     .300 CEHV=     .500
*SECNO 22.669
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1614.40 ELREA=      1614.40

       BEGIN SUN VALLEY PARKWAY CULVERT (6- 10' X 4' RCB - STRUC. NO. 18)
   22.669      1.51   1611.41   1611.41       .00   1612.17       .76       .88       .16   1614.40
    816.0        .0     816.0        .0        .0     116.4        .0     176.4     186.4   1614.40
     1.07       .00      7.01       .00      .000      .035      .000      .000   1609.90   9961.50
  .014584       65.       65.       65.         2        14         0       .00     77.00  10165.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     CUFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       2.70      .00       6.00      10.00     148.00    12        3         1610.30   1609.90

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 22.697

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1612.997  EGOC =   1613.037  PCWSE=   1611.411  ELTRD=   1615.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  5.26
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1613.00	1613.04	.86	0.	816.	4.890	432.0	1615.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1617.00 ELREA= 1617.00

END CULVERT (STRUC. #18)
FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
LIMITS IS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF RD.

22.697	2.17	1612.67	.00	.00	1613.04	.37	.86	.00	1615.00
816.0	.0	816.0	.0	.0	168.9	.0	174.0	184.6	1615.00
1.08	.00	4.89	.00	.000	.012	.000	.000	1610.50	9961.50
.000898	148.	148.	148.	3	0	0	.00	22.50	10034.50

CCHV= .100 CEHV= .300
#SECNO -2.322
START TRIB COMP
-2.322 2.322 1588.806

3470 ENCROACHMENT STATIONS= 9819.5 10343.2 TYPE= 1 TARGET= 323.700
BEGIN TRIBUTARY 4C REPEAT CROSS-SECTION 2.322

-2.322	4.41	1588.81	.00	.00	1589.33	.52	.00	.00	1586.50
1825.0	227.8	588.7	1008.6	89.4	80.5	191.4	179.7	188.5	1586.30
1.10	2.55	7.32	5.27	.049	.042	.049	.000	1584.40	9858.86
.009376	450.	470.	470.	0	0	0	.00	278.04	10136.91

#SECNO 32.418

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .17

3470 ENCROACHMENT STATIONS= 10119.5 10463.5 TYPE= 1 TARGET= 344.000
ADD 30 TO TRIB 4C CROSS SECTION I.D. NUMBERS. STA 10375 = BASELINE 4C

32.418	3.35	1593.45	.00	.00	1593.51	.06	4.14	.05	1592.70
134.0	3.1	88.9	42.0	4.1	37.9	32.6	182.3	190.7	1592.30
1.17	.75	2.35	1.29	.049	.042	.049	.000	1590.10	10345.51
.001817	550.	555.	480.	3	0	0	.00	89.42	10434.93

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#SECNO 32.492
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10250.6   10571.5  TYPE=      1  TARGET=      320.900
       STA. 10525= BASELINE 4C
   32.492      3.10   1598.30   1598.30       .00   1598.68       .38      1.60       .09   1598.80
    134.0        .0     125.8       8.2        .0      24.7       5.5     182.8     191.3   1597.90
     1.20       .00      5.10      1.49      .000      .042      .049      .000   1595.20  10497.06
  .016361      400.      415.      400.        20        12         0       .00     48.54  10545.60


#SECNO 32.558

3470 ENCROACHMENT STATIONS=    10686.2   10921.1  TYPE=      1  TARGET=      234.899
       STA. 10840= BASELINE 4C
   32.558      1.70   1603.50       .00       .00   1603.77       .27      5.08       .01   1602.60
    134.0       6.5     127.3        .2       3.1      30.1        .2     183.1     191.7   1603.20
     1.22      2.07      4.23       .99      .049      .042      .049      .000   1601.80  10831.22
  .013693      340.      340.      335.         5         0         0       .00     37.57  10868.80


#SECNO 32.575
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11154.0   11241.2  TYPE=      1  TARGET=       87.200
       STA. 11195= BASELINE 4C
       ET APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING POSSIBLE BEYOND EFF. FLOW
       LIMITS.
   32.575      1.06   1605.36   1605.36       .00   1605.66       .30      1.65       .01   1604.70
    134.0      18.2      75.8      40.0       7.2      14.8      11.5     183.1     191.8   1604.40
     1.23      2.53      5.13      3.48      .049      .042      .049      .000   1604.30  11168.84
  .023006      100.       95.       90.         3        14         0       .00     56.71  11225.55


CCHV=     .300 CEHV=     .500
#SECNO 32.584
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1611.00 ELREA=      1611.00

      BEGIN SUN VALLEY PARKWAY CULVERT (5- 12' X 4' RCB  - STRUC. NO. 19)
  32.584      .51   1606.81   1606.81      .00   1607.07      .26      1.15      .01   1610.80
   134.0       .0     134.0       .0       .0      32.9       .0     183.2     191.8   1610.80
    1.23      .00      4.07      .00     .000      .035     .000      .000   1606.30   9968.00
 .022849      50.       50.       50.        3        11        0       .00     64.00  10032.00


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     CDFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
     5        .012      .20       2.70      .00       4.00      12.00     135.00    12        1         1607.00   1606.30

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 32.610

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1607.849  EGOC =   1607.859  PCWSE=   1606.814  ELTRD=   1610.900


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  5.32

SPECIAL CULVERT

     EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1607.85   1607.86      .79       0.      134.     2.833     240.0   1610.90       0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1613.30 ELREA=      1613.30

      END CULVERT (STRUC. #19)
      FLOODPLAIN \FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
      FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF NO.
  32.610      .73   1607.73      .00      .00   1607.86      .12       .79      .00   1611.50
   134.0       .0     134.0       .0       .0      47.3       .0     183.3     192.0   1611.50
    1.24      .00      2.83      .00     .000      .012     .000      .000   1607.00   9968.00
 .000808     135.      135.      135.        2         0        0       .00     64.00  10032.00


CCHV=     .100 CEHV=     .300
*SECNO -1.939
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


START TRIB COMP
    -1.939     1.939  1567.648

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9534.3   10552.7  TYPE=      1  TARGET=     1018.400
       BEGIN TRIBUTARY 4D.  REPEAT CROSS-SECTION 1.939
   -1.939      4.25   1567.65       .00       .00   1568.22       .57       .00       .00   1565.90
   1866.0     935.0     864.0      67.0     268.2     106.6      26.1     186.8     195.0   1566.40
     1.28      3.49      8.10      2.57      .049      .042      .049      .000   1563.40   9732.54
  .010210      680.      680.      670.         0         0         0       .00    312.11  10424.52


*SECNO 42.070

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .16


3470 ENCROACHMENT STATIONS=    10356.5   10782.9  TYPE=      1  TARGET=      426.400
       ADD 40 TO TRIB. 4D CROSS-SECTION I.D. NUMBERS.  STA. 10450= BESELINE 4D
    42.070      3.75   1573.85       .00       .00   1573.86       .01      5.58       .06   1572.30
      62.0       3.4      45.2      13.4       6.5      50.2      28.6     190.7     198.3   1573.80
      1.52       .52       .90       .47      .049      .042      .049      .000   1570.10  10399.88
   .000431      690.      690.      700.         4         0         0       .00    104.50  10527.37


*SECNO 42.130

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10472.0   10882.3  TYPE=      1  TARGET=      410.300
       STA. 10670= BASELINE 4D.
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 42.130     2.27   1576.67   1576.67       .00   1576.95       .28       .43       .08   1576.90
   62.0      1.0      60.9       .0        .8      14.2        .1     191.0     198.8   1576.70
   1.54     1.26      4.29       .05      .049      .042      .049      .000   1574.40  10647.48
 .025586    340.      320.      275.        20        14         0       .00     31.26  10797.67


*SECNO 42.200

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.06


3470 ENCROACHMENT STATIONS=    10623.4   11343.0  TYPE=      1  TARGET=      719.600
       STA. 10815= BASELINE 4D.
   42.200     1.44   1580.94       .00       .00   1581.00       .06      4.03       .02   1581.30
     62.0       .0      25.6      36.4        .0      12.4      19.4     191.2     199.1   1581.30
     1.59      .00      2.05      1.88      .000      .042      .049      .000   1579.50  10822.68
  .006001     370.      370.      370.         8         0         0       .00     53.18  10917.05


*SECNO 42.299

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .49


3470 ENCROACHMENT STATIONS=    10843.0   11129.2  TYPE=      1  TARGET=      286.200
       STA. 11030= BASELINE 4D.
   42.299     2.01   1586.41       .00       .00   1586.77       .37      5.68       .09   1587.70
     62.0       .0      62.0        .0        .0      12.7        .0     191.5     199.5   1587.10
     1.62      .00      4.87       .00      .000      .042      .000      .000   1584.40  11034.57
  .025049     515.      525.      525.         4         0         0       .00     15.31  11049.88


*SECNO 42.401

3470 ENCROACHMENT STATIONS=    11688.0   11708.0  TYPE=      1  TARGET=       20.000
       STA. 11725= BASELINE 4D.
       ET APPLIED TO LIMIT EFF. FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT OUTL.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
       IS POSSIBLE.
   42.401     2.40   1597.60       .00       .00   1597.86       .26     11.07       .01   1596.60
     62.0     13.4      38.1      10.5       4.5       8.1       3.7     191.7     199.7   1596.90
     1.66     2.96      4.70      2.84      .049      .042      .049      .000   1595.20  11688.00
  .017148     540.      540.      530.         7         0         0       .00     20.00  11708.00
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .300 CEHV=     .500
*SECNO 42.406
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1602.40 ELREA=      1602.40

        BEGIN SUN VALLEY PARKWAY CULVERT (2- 42" X 29" C.S.P.A. - STRUC. NO. 22)
   42.406      1.34   1600.74   1600.74       .00   1601.42       .68       .51       .21   1602.40
     62.0        .0      62.0        .0        .0       9.4        .0     191.7     199.8   1602.40
     1.66       .00      6.60       .00      .000      .035      .000      .000   1599.40   9996.50
  .025127       25.       25.       25.        20        11         0       .00      7.00  10003.50



SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1600.32 , NOT    1600.74 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      5.29      2.63       .00      7.00      1.70     12.80       .00   1600.00   1599.40

*SECNO 42.432

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.51

PRESSURE FLOW


 EGPRS     EGLWC      H3       QWEIR     QPR       BAREA   TRAPEZOID     ELLC      ELTRD     WEIRLN
                                                            AREA
  1602.67   1602.63     .00        0.       62.       13.       13.     1602.40   1602.90        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1604.00 ELREA=      1604.00

        END CULVERT (STRUC. #22)
        FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL UPSTREAM OF ROAD AS PONDING
        OUTSIDE OF EFF. FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
        PRESERVATION.
   42.432      2.47   1602.47       .00       .00   1602.67       .20      1.25       .00   1603.00
     62.0        .0      62.0        .0        .0      17.3        .0     191.7     199.8   1603.00
     1.67       .00      3.58       .00      .000      .024      .000      .000   1600.00   9996.50
  .002041      135.      135.      135.         2         0         0       .00      7.00  10003.50
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 42.436
   42.436      2.20   1602.70       .00       .00   1602.74       .05       .03       .05   1602.00
     62.0       4.5      52.7       4.8       6.6      28.3       6.9     191.7     199.8   1602.00
     1.68       .69      1.86       .69      .035      .035      .035      .000   1600.50   9971.16
  .001073       20.       20.       20.         2         0         0       .00     56.73  10027.89


CCHV=     .100 CEHV=     .300
*SECNO -1.678
START TRIB COMP
    -1.678     1.678  1553.178

3470 ENCROACHMENT STATIONS=     9741.0   10364.5  TYPE=      1  TARGET=      623.500
       BEGIN TRIBUTARY 4E.  REPEAT CROSS-SECTION 1.678.
   -1.678      3.78   1553.18       .00       .00   1553.52       .35       .00       .00   1551.90
   1939.0     737.7     700.2     501.1     214.7     109.8     143.9     195.9     203.7   1551.10
     1.72      3.44      6.38      3.48      .049      .042      .049      .000   1549.40   9758.42
  .010110      710.      730.      700.         0         0         0       .00    422.96  10181.38


*SECNO 51.836

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .06


3470 ENCROACHMENT STATIONS=    10440.9   10857.0  TYPE=      1  TARGET=      416.100
       ADD 50 TO TRIB. 4E CROSS-SECTION I.D. NUMBERS. STA.10560=BASELINE 4E
   51.836      4.22   1561.32       .00       .00   1561.41       .08      7.86       .03   1560.70
     82.0      26.1      54.8       1.1      26.6      19.9       2.1     200.6     208.6   1561.00
     1.82       .98      2.76       .51      .049      .042      .049      .000   1557.10  10503.29
  .004629      800.      820.      780.         2         0         0       .00    117.44  10648.76


*SECNO 51.980
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10994.4   11506.0  TYPE=      1  TARGET=      511.600
       STA. 11280=BASELINE 4E.
   51.980      6.10   1569.50   1569.50       .00   1569.55       .06      6.27       .00   1569.30
     82.0      74.5       7.5        .0      37.9       6.6        .0     201.4     211.3   1569.50
     1.93      1.96      1.15       .00      .049      .042      .000      .000   1563.40  11014.52
  .023060      700.      725.      710.         4        11         0       .00    210.67  11225.21
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOB      L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 52.080

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.65


3470 ENCROACHMENT STATIONS=    11691.3   12099.7  TYPE=      1  TARGET=      408.400
       STA. 11820=BASELINE 4E.
   52.080      1.18   1577.08       .00       .00   1577.13       .05      7.57       .00   1575.90
     82.0      21.3      32.5      28.1      16.9      14.9      17.3     202.0     213.6   1576.10
     2.02      1.26      2.19      1.62      .049      .042      .049      .000   1575.90  11768.32
  .008513      580.      580.      550.         8         0         0       .00    132.26  11909.26


*SECNO 52.175

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65


3470 ENCROACHMENT STATIONS=    11835.9   12195.0  TYPE=      1  TARGET=      359.100
       STA. 11980=BASELINE 4E.
   52.175       .84   1583.44       .00       .00   1583.52       .08      6.38       .01   1583.10
     82.0       3.4      12.6      66.0       2.2       6.1      28.7     202.5     215.1   1582.60
     2.08      1.54      2.05      2.30      .049      .042      .049      .000   1582.60  11945.47
  .020336      520.      520.      500.         5         0         0       .00    129.80  12156.86


*SECNO 52.248
       STA. 10000=BASELINE 4E.
   52.248      1.03   1589.03       .00       .00   1589.18       .15      5.64       .02   1589.00
     82.0        .0      82.0        .0        .0      26.0        .0     202.8     215.8   1589.00
     2.12       .03      3.15       .03      .049      .042      .049      .000   1588.00   9998.84
  .011829      375.      370.      370.         4         0         0       .00     37.76  10036.60


CCHV=     .300 CEHV=     .500
*SECNO 52.259
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1593.70 ELREA=      1593.70

       BEGIN SUN VALLEY PARKWAY CULVERT (3- 42" X 29" C.S.P.A.  -STRUC. NO. 24)
   52.259      1.40   1591.90   1591.90       .00   1592.50       .60       .95       .22   1593.70
     82.0        .0      82.0        .0        .0      13.1        .0     202.8     215.8   1593.70
     2.12       .00      6.24       .00      .000      .035      .000      .000   1590.50   9994.50
  .022134       60.       60.       60.        20        11         0       .00     11.00  10005.50



SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1591.70 , NOT    1591.90 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      5.29      2.63       .00     11.00      3.00      19.20       .00   1591.30   1590.90

*SECNO 52.285

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.30

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1592.58 BRIDGE VELOCITY=       6.92     CALCULATED CHANNEL AREA=        10.

 EGPRS     EGLWC      H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                             AREA
       .00   1593.69      .00        0.       82.       19.       19.     1593.70   1594.00        0.


       END CULVERT (STRUC. #24)
       FLOOPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING OUTSIDE EFF. FLOW
       LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF ROAD.
   52.285      2.65   1593.55       .00       .00   1593.69       .14      1.19       .00   1594.10
     82.0        .0      82.0        .0        .0      26.9        .0     202.9     215.9   1594.10
     2.13       .00      3.04       .00      .000      .024      .000      .000   1590.90   9994.50
  .001196      137.      137.      137.         0         0         0       .00     11.00  10005.50


*SECNO 52.289
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .34

   52.289      1.52   1593.52       .00       .00   1593.83       .31       .05       .08   1594.00
     62.0        .0      60.8       1.2        .0      18.1        .7     202.9     215.9   1593.90
     2.13       .00      4.46      1.76      .000      .035      .035      .000   1592.00   9992.11
  .010285       20.       20.       20.         2         0         0       .00     19.55  10011.66


CCHV=     .100 CEHV=     .300
*SECNO -1.413
START TRIB COMP
    -1.413     1.413  1536.779

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9335.0   10350.0  TYPE=      1  TARGET=     1015.000
       BEGIN TRIBUTARY 4F.  REPEAT CROSS SECTION 1.413.
   -1.413      4.70   1536.80       .00       .00   1537.23       .44       .00       .00   1534.20
   2240.0     544.9    1051.9     643.2     145.7     156.9     165.4     207.0     218.9   1534.70
     2.17      3.74      6.70      3.51      .049      .042      .049      .000   1532.10   9743.45
  .008114      700.      720.      720.         0         0         0       .00    345.32  10207.18


*SECNO 61.538

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .11


3470 ENCROACHMENT STATIONS=    10096.9   10409.6  TYPE=      1  TARGET=      312.699
       STA.  10345=BASELINE 4F.
   61.538      2.86   1542.76   1542.71       .00   1543.12       .35      5.87       .01   1542.80
    350.0      23.7     251.4      74.9      15.7      49.2      17.7     211.4     222.4   1542.70
     2.21      1.51      5.11      4.24      .049      .042      .049      .000   1539.90  10226.83
  .015472       670.      680.      650.         7        14         0       .00    116.36  10360.97


*SECNO 61.690
```

```
SECNO     DEPTH     CWSEL     CRINS     WSELK     EG        NV        HL        DLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    10919.1   11270.7  TYPE=      1  TARGET=      351.601
       STA.  11000=BASELINE 4F.
   61.690      2.57   1552.97       .00       .00   1553.12       .14      9.98       .02   1552.10
    350.0      25.7     227.9      96.4      13.6      65.3      50.7     213.4     225.6   1552.10
     2.29      1.88      3.49      1.90      .049      .042      .049      .000   1550.40  10920.01
  .009453      850.      850.      800.         7         0         0       .00    216.70  11136.71


*SECNO 61.811

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    11568.4   11824.0  TYPE=      1  TARGET=      255.600
       STA.  11590=BASELINE 4F.
   61.811      2.84   1561.14       .00       .00   1561.54       .39      8.34       .08   1561.20
    350.0      30.5     142.1     177.4      11.3      21.8      46.1     215.0     228.0   1559.30
     2.33      2.66      6.52      3.85      .049      .042      .049      .000   1558.30  11569.42
  .016562      680.      680.      680.         6         0         0       .00     93.87  11665.41


*SECNO 61.936
7195 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11746.5   12299.7  TYPE=      1  TARGET=      553.200
       STA.  12030=BASELINE 4F.
   61.936      2.65   1569.85   1569.85       .00   1570.09       .23      7.62       .02   1568.60
    350.0      38.0     217.1      94.9      20.0      45.3      70.9     216.7     231.0   1569.80
     2.38      1.90      4.79      1.34      .049      .042      .049      .000   1567.20  11965.46
  .007991      660.      700.      670.         5         9         0       .00    286.71  12252.17


*SECNO 62.027

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .70


3470 ENCROACHMENT STATIONS=    12313.4   12658.5  TYPE=      1  TARGET=      345.100
```

```
      STA.  12460=BASELINE OF.
   62.027      2.06   1575.26   1575.23      .00   1575.51      .25      5.42      .00   1574.40
    350.0     214.5     132.5       3.0     70.2      25.2      3.7     218.0     233.5   1575.30
     2.42      3.05      5.25       .82     .049      .042     .049      .000   1573.20  12347.04
  .016431      490.      490.      480.       17        14        0       .00    169.51  12523.60


*SECND 62.074
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   62.074      2.36   1580.56   1580.56      .00   1581.01      .45      4.20      .06   1581.00
    350.0        .0     307.8      42.2       .0      34.2     18.0     218.5     234.2   1580.00
     2.43       .00      5.68      2.35     .000      .042     .049      .000   1578.20   9979.42
  .017175      250.      250.      250.       18         8        0       .00     82.91  10062.33


CCHV=     .300 CEHV=     .500
*SECND 62.087

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42


3495 OVERBANK AREA ASSUMED NON EFFECTIVE, ELLEA=     1583.40 ELRKA=     1583.40

      BEGIN SUN VALLEY PARKWAY CULVERT (3-8' X 3' RCB  -STRUC. NO. 25)
   62.087      1.70   1581.40       .00       .00   1581.84      .43       .82       .01   1583.20
    350.0        .0     350.0        .0        .0      66.3       .0     218.6     234.3   1583.20
     2.44       .00      5.28       .00      .000      .035     .000      .000   1579.70   9974.00
  .008536       70.       70.       70.         2         0        0       .00     39.00  10013.00


SPECIAL CULVERT

SC  CUND      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    3         .012      .30       2.63      .00       3.00      8.00      141.00    12        1         1580.40   1579.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INVERT NOT BEVELED

*SECND 62.114

SPECIAL CULVERT OUTLET CONTROL
EEIC =   1583.368  EEOC =   1583.393  PCWSE=   1581.402  ELTRD=   1584.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  6.63

SPECIAL CULVERT

     EEIC      EEOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1583.37   1583.39     1.56        0.      350.    3.162      72.0   1584.00        0.
```

```
SECNO     DEPTH     ENGEL     ERING     WSELK     SE        HV        HL        DLOSS     L-BANK ELEV
Q         DLOB      DCH       DROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1585.60 ELREA=     1585.60

       END CULVERT (STRUC. NO. 25)
   62.114      2.84   1583.24       .00       .00   1583.39       .16      1.56       .00   1583.90
    350.0        .0     350.0        .0        .0     110.7        .0     218.9     234.4   1583.90
     2.45       .00      3.16       .00      .000      .012      .000      .000   1580.40   9974.00
  .000194      141.      141.      141.         2         0         0       .00     39.00  10013.00


*SECND 62.127

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,DWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9981.0   10025.0  TYPE=      1  TARGET=      44.000
       ET APPLIED TO LIMIT EFF. FLOW TO WITHIN WEIR LEVEES, LEFT AND RIGHT, AS
       WELL AS 1:1 FLARE ANGLE FROM CULVERT INLET.
       FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
       LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF ROAD REQUIRES PRESERVATION.
   62.127      3.16   1584.36   1584.36       .00   1585.09       .73       .04       .29   1584.00
    350.0        .0     347.4       2.6        .0      50.6       1.6     219.0     234.5   1584.00
     2.45       .00      6.86      1.64      .000      .035      .035      .000   1581.20   9981.00
  .014611       70.       70.       70.        20         8         0       .00     40.71  10021.71
```

```
T1      SUN VALLEY PARKWAY NORTH FIS   CONTRACT:FCDMC NO. 90-04
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX.AZ
T3      WASH #4 FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10       3                          0                                 1477.5

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15                 -1
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 2



CCHV=     .100 CEHV=     .300
*SECNO  .159

3470 ENCROACHMENT STATIONS=     9810.0   10163.0  TYPE=      1  TARGET=      353.000
       FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
       PREVIOUS FLOODWAY ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD FOR
       PROFILE 1. PROFILE 2 STARTING WSEL FORCE FED.
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.   TRIBUTARIES TO WASH #4
       HAVE SECTION I.D.S.INCREASING UPSTREAM FROM WASH #4 CONFLUENCE WITH
       WHOLE NUMBER IN FACTOR OF 10 ADDED TO I.D. AS NOTED AT START OF TRIB.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
     .159      3.10   1477.50       .00   1476.50   1477.75       .25       .00       .00   1475.80
   2275.0     673.9     394.7    1206.5     167.5      77.0     335.9        .0        .0   1475.80
     .00      4.02      5.12      3.59      .049      .042      .049      .000   1474.40   9810.00
  .007930       0.        0.        0.         0         0         0       .00    353.00  10163.00


*SECNO  .273

3470 ENCROACHMENT STATIONS=     9700.0   10230.0  TYPE=      1  TARGET=      530.000
     .273      2.67   1481.87       .00   1481.18   1482.04       .16      4.28       .01   1480.90
   2275.0     842.0     407.3    1025.7     331.0      95.8     312.7       9.8       6.6   1481.20
     .06      2.54      4.25      3.28      .049      .042      .049      .000   1479.20   9700.00
  .005675      680.      630.      620.         5         0         0       .00    530.00  10230.00


*SECNO  .417
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9950.0   10230.0  TYPE=      1  TARGET=      280.000
     .417      4.53   1488.43   1488.43   1487.42   1489.09       .66      5.79       .15   1484.70
   2275.0     154.8     957.6    1162.6      38.0     109.4     276.0      19.4      13.3   1487.80
     .09      4.07      8.76      4.21      .049      .042      .049      .000   1483.90   9950.00
  .011873      710.      750.      725.         2        14         0       .00    280.00  10230.00
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#SECNO  .564
3280 CROSS SECTION       .56 EXTENDED       .40 FEET


3470 ENCROACHMENT STATIONS=     9900.0   10140.0  TYPE=      1  TARGET=      240.000
     .564      6.60   1494.20   1494.01   1493.41   1495.16      .96      5.98      .09   1492.20
   2275.0     478.6    1774.7      21.6     119.5     204.8      7.5      24.5     16.3   1493.00
      .11      4.01      8.67      2.87      .049      .042     .049      .000   1487.60   9964.61
  .008293      575.      885.      590.         7        11        0       .00    175.39  10140.00


#SECNO  .689

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9906.0   10195.2  TYPE=      1  TARGET=      289.200
     .689      6.27   1501.07       .00   1500.21   1501.48      .42      6.26      .05   1499.80
   2275.0    1054.0    1221.0        .0     279.8     199.2       .0      31.0     20.0 100000.00
      .15      3.78      6.13       .00      .049      .042     .000      .000   1494.80   9906.00
  .009010      680.      710.      710.         4         0        0       .00    289.20  10195.20


#SECNO  .795

3470 ENCROACHMENT STATIONS=     9924.2   10223.0  TYPE=      1  TARGET=      298.800
     .795      3.74   1506.94       .00   1506.10   1507.34      .40      5.85      .00   1505.90
   2275.0     121.3     894.7    1259.0      38.6     142.9    300.1      37.4     23.8   1505.90
      .18      3.15      6.26      4.20      .049      .042     .049      .000   1503.20   9924.20
  .010698      500.      650.      600.         5         0        0       .00    298.80  10223.00


#SECNO  .917
3280 CROSS SECTION       .92 EXTENDED       .44 FEET


3470 ENCROACHMENT STATIONS=     9908.2   10325.0  TYPE=      1  TARGET=      416.800
     .917      3.44   1513.24       .00   1512.20   1513.47      .23      6.12      .02   1512.20
   2275.0        .0     311.3    1963.7        .0      95.4    496.6      45.4     29.2   1513.00
     .23       .00      3.26      3.95      .000      .042     .049      .000   1509.80   9908.20
  .008250      670.      730.      625.         5         0        0       .00    416.80  10325.00
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.038

3470 ENCROACHMENT STATIONS=     9962.5   10239.8  TYPE=      1  TARGET=      277.300
     1.038      3.87   1519.97       .00   1518.98   1520.36       .39      6.84       .05   1518.90
    2275.0        .0     467.2    1807.8        .0      76.2     385.0      53.7      34.6   1519.00
       .27       .00      6.14      4.70      .000      .042      .049      .000   1516.10   9962.50
   .012361      680.      705.      680.         4         0         0       .00    277.30  10239.80


*SECNO 1.167

3470 ENCROACHMENT STATIONS=     9984.4   10163.6  TYPE=      1  TARGET=      179.199
     1.167      4.50   1525.80       .00   1524.82   1526.33       .53      5.92       .04   1522.80
    2275.0     109.1     991.8    1174.1      25.1     134.0     278.1      60.3      38.0   1523.00
       .30      4.35      7.40      4.22      .049      .042      .049      .000   1521.30   9984.40
   .007093      635.      645.      645.         4         0         0       .00    179.20  10163.60


*SECNO 1.292

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9989.0   10084.9  TYPE=      1  TARGET=       95.900
     1.292      4.96   1531.46       .00   1530.69   1532.58      1.13      6.08       .18   1529.20
    2275.0     512.8    1762.2        .0      97.0     190.5        .0      65.9      40.1 100000.00
       .32      5.29      9.25       .00      .049      .042      .000      .000   1526.50   9989.00
   .011907      670.      670.      680.         3         0         0       .00     95.90  10084.90


*SECNO 1.413

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9956.0   10065.0  TYPE=      1  TARGET=      109.000
     1.413      5.74   1537.94       .00   1536.90   1538.44       .60      5.80       .05   1534.20
    2240.0     192.5    1449.8     597.7      46.2     210.0     124.0      71.4      41.8   1534.70
       .35      4.16      6.90      4.82      .049      .042      .049      .000   1532.10   9956.00
   .005832      700.      720.      720.         3         0         0       .00    109.00  10065.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

#SECNO 1.553

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9966.1 10068.0 TYPE= 1 TARGET= 101.900

1.553	6.55	1546.05	1546.05	1545.55	1547.26	1.21	6.21	.18	1545.20
1939.0	.0	1163.6	775.4	.0	112.8	130.3	76.6	43.6	1545.30
.38	.00	10.32	3.95	.000	.042	.049	.000	1539.50	9966.10
.015015	690.	730.	720.	20	11	0	.00	101.90	10068.00

#SECNO 1.678

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

3470 ENCROACHMENT STATIONS= 9980.0 10100.0 TYPE= 1 TARGET= 120.000

1.678	4.79	1554.19	.00	1553.18	1554.78	.58	7.45	.06	1551.90
1939.0	19.7	1087.5	831.8	6.4	135.7	173.0	81.3	45.4	1551.10
.41	3.09	6.98	4.81	.049	.042	.049	.000	1549.40	9980.00
.007602	710.	730.	700.	6	0	0	.00	120.00	10100.00

#SECNO 1.818

3470 ENCROACHMENT STATIONS= 9949.8 10063.3 TYPE= 1 TARGET= 113.500

1.818	4.07	1561.17	.00	1560.44	1561.89	.71	7.07	.04	1558.70
1866.0	541.4	697.0	627.7	90.9	88.8	102.2	86.4	47.3	1558.90
.44	5.95	7.85	6.14	.049	.042	.049	.000	1557.10	9949.80
.013241	770.	725.	700.	4	0	0	.00	113.50	10063.30

#SECNO 1.939

3470 ENCROACHMENT STATIONS= 9899.1 10003.9 TYPE= 1 TARGET= 104.801

1.939	5.18	1568.58	.00	1567.65	1569.44	.86	7.51	.04	1565.90
1866.0	698.4	1167.6	.0	150.8	134.5	.0	90.8	49.0	100000.00
.47	4.63	8.68	.00	.049	.042	.000	.000	1563.40	9899.10
.009394	680.	680.	670.	4	0	0	.00	104.80	10003.90

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


$SECNO 2.057

3470 ENCROACHMENT STATIONS=     9963.2   10097.8  TYPE=      1  TARGET=      134.600
    2.057      4.12   1574.22       .00   1573.38   1574.67       .45      5.19       .04   1573.00
   1825.0        .0     837.7     987.3        .0     130.5     226.9      95.7      50.8   1572.70
      .50       .00      6.42      4.35      .000      .042      .049      .000   1570.10   9963.20
  .006755      620.      670.      650.         4         0         0       .00    134.60  10097.80


$SECNO 2.148

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9871.0    9950.0  TYPE=      1  TARGET=       79.000
       PRIVATE STOCK POND DIVERSION LEVEE, 100 FT. UPSTREAM THIS SECTION.
       LEVEE ASSUMED BREACHED FOR ANALYSIS.
    2.148      4.57   1578.97   1578.97   1578.57   1580.27      1.30      5.19       .25   1577.20
   1825.0        .0    1394.4     430.6        .0     139.6      76.2      99.1      52.0   1577.40
      .52       .00      9.99      5.65      .000      .042      .049      .000   1574.40   9871.00
  .015390      530.      550.      500.         2         8         0       .00     79.00   9950.00


$SECNO 2.204

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9900.0   10040.0  TYPE=      1  TARGET=      140.000
    2.204      3.32   1582.12       .00   1581.14   1582.62       .51      2.28       .08   1580.00
   1825.0     102.4     904.4     818.1      24.1     136.2     174.7     100.4      52.6   1579.90
      .53      4.25      6.64      4.68      .049      .042      .049      .000   1579.80   9900.00
  .008750      200.      200.      200.         2         0         0       .00    140.00  10040.00


$SECNO 2.242

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=    10025.5   10089.1  TYPE=      1  TARGET=       63.600
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


  2.242      5.63   1585.13       .00   1584.59   1586.32      1.19      3.50       .20   1582.20
 1825.0        .0    1372.7     452.3        .0     148.1      64.8     102.4      53.3   1581.90
    .54       .00      9.27      6.98      .000      .042      .049      .000   1579.50  10025.50
.013609      300.      350.      280.         2         0         0       .00     63.60  10089.10


#SECNO 2.322

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.63


3470 ENCROACHMENT STATIONS=     9980.0   10080.0  TYPE=      1  TARGET=      100.000
  2.322      5.23   1589.63       .00   1588.81   1590.09       .46      3.69       .07   1586.50
 1825.0     125.0     635.9    1064.1      32.7     101.0     211.1     105.3      54.2   1586.30
    .56      3.83      6.29      5.04      .049      .042      .049      .000   1584.40   9980.00
.005122      450.      470.      470.         3         0         0       .00    100.00  10080.00


#SECNO 2.439

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9993.0   10032.5  TYPE=      1  TARGET=       39.500
  2.439      6.13   1596.23   1596.23   1595.62   1598.19      1.95      5.33       .45   1592.20
 1694.0        .0    1390.4     303.6        .0     117.2      40.1     109.0      55.2   1593.50
    .58       .00     11.87      7.57      .000      .042      .049      .000   1590.10   9993.00
.018176      620.      620.      630.        20        11         0       .00     39.50  10032.50


#SECNO 2.523
3280 CROSS SECTION      2.52 EXTENDED       .47 FEET


3301 HV CHANGED MORE THAN HVINS
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.87


3470 ENCROACHMENT STATIONS=     9952.0   10081.3  TYPE=      1  TARGET=      129.300
    2.523      6.37   1601.57       .00   1600.85   1602.07       .50      3.74       .15   1598.60
   1694.0      57.1     992.5     644.4      16.9     147.7     173.5     111.4      56.0   1597.40
      .60      3.37      6.72      3.71      .049      .042      .049      .000   1595.20   9952.00
  .005171      425.      425.      425.         3         0         0       .00    129.30  10081.30


%SECNO 2.621
3280 CROSS SECTION      2.62 EXTENDED       .35 FEET


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10012.0   10056.0  TYPE=      1  TARGET=       44.000
    2.621      3.65   1607.85   1607.85   1607.38   1609.03      1.19      3.97       .21   1605.10
    896.0       7.4     550.4     338.2       2.4      54.9      54.2     114.2      57.1   1605.90
      .62      3.06     10.03      6.24      .049      .042      .049      .000   1604.20  10012.00
  .016810      550.      550.      550.        20        11         0       .00     44.00  10056.00


%SECNO 2.750
3280 CROSS SECTION      2.75 EXTENDED       .82 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64


3470 ENCROACHMENT STATIONS=     9973.0   10009.0  TYPE=      1  TARGET=       36.000
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE
        ANGLE OF CULVERT OUTLET.
        FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
        FLOW LIMITS IS POSSIBLE.
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.750	3.82	1615.12	.00	1614.16	1615.18	.07	6.04	.11	1612.80
151.0	30.5	65.6	54.8	21.8	26.2	31.0	115.8	57.7	1612.50
.71	1.40	2.51	1.77	.049	.042	.049	.000	1611.30	9973.00
.001183	750.	710.	680.	5	0	0	.00	36.00	10009.00

CCHV= .300 CEHV= .500
#SECNO 2.759

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1618.40 ELREA= 1618.40

BEGIN SUN VALLEY PARKWAY CULVERT (1-10' X 3' RCB - STRUC. NO. 16)

2.759	1.92	1616.92	1616.92	1616.91	1617.88	.96	.16	.45	1618.50
151.0	.0	151.0	.0	.0	19.2	.0	115.8	57.7	1618.50
.72	.00	7.88	.00	.000	.035	.000	.000	1615.00	9995.00
.022308	50.	50.	50.	20	8	0	.00	10.00	10005.00

SPECIAL CULVERT

SC	CUND	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	1	.012	.20	2.70	.00	3.00	10.00	133.00	12	1	1615.40	1615.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

#SECNO 2.784

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1618.437 EGOC = 1618.473 PCWSE= 1616.916 ELTRD= 1618.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.35

SPECIAL CULVERT

EGIC	EGOC	M4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1618.44	1618.47	.59	0.	151.	5.999	30.0	1618.50	0.

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1619.80 ELREA=     1619.80

       END CULVERT (STRUC. #16)
   2.784      2.51   1617.91       .00   1617.91   1618.47       .56       .59       .00   1618.90
   151.0        .0     151.0        .0        .0      25.2        .0     115.9      57.8   1618.90
     .72       .00      6.00       .00      .000      .012      .000      .000   1615.40   9995.00
 .001180      133.      133.      133.         3         0         0       .00     10.00  10005.00


*SECNO 2.798

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .31


3470 ENCROACHMENT STATIONS=     9980.0   10014.0  TYPE=      1  TARGET=       34.000
       ET CARD APPLIED TO LIMIT EFFECTIVE FLOW WITHIN WEIR LEVEES LEFT AND RT.
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFFECTIVE FLOW LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF
       ROAD REQUIRES PRESEVATION.
   2.798      1.56   1618.36       .00   1618.36   1618.73       .37       .21       .06   1669.00
   151.0        .0     151.0        .0        .0      30.7        .0     115.9      57.8  10000.00
     .73       .00      4.91       .00      .000      .035      .000      .000   1616.80   9985.75
 .011961       75.       75.       75.         4         0         0       .00     27.88  10013.63


CCHV=     .100 CEHV=     .300
*SECNO -2.621
START TRIB COMP
    -2.621     2.621  1607.847
3280 CROSS SECTION     -2.62 EXTENDED       .35 FEET


3470 ENCROACHMENT STATIONS=    10012.9   10055.2  TYPE=      1  TARGET=       42.300
       BEGIN TRIBUTARY 4A.  REPEAT CROSS-SECTION 2.621
   -2.621      3.65   1607.85       .00   1607.38   1609.03      1.18       .00       .00   1607.10
   896.0        .0     537.2     358.8        .0      54.9      52.8     116.8      58.3   1605.90
     .74       .00      9.79      6.80      .000      .042      .049      .000   1604.20  10012.90
 .019556      550.      550.      550.         0         0         0       .00     42.30  10055.20


*SECNO 12.725
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CROSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.67

3470 ENCROACHMENT STATIONS= 10250.4 10349.9 TYPE= 1 TARGET= 99.500
ADD 10 TO TRIB. 4A CROSS-SECTION I.D. NUMBERS. STA.10295- BASELINE 4A
ET CARD APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF
CULVERT OUTLET.
FLOODPLAIN DELINEATION PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
FLOW LIMITS IS POSSIBLE.

12.725	3.02	1613.92	.00	1613.38	1614.15	.23	5.03	.10	1611.30
766.0	273.7	142.9	349.4	82.2	28.2	96.6	118.7	59.1	1611.20
.78	3.33	5.07	3.62	.049	.042	.049	.000	1610.90	10250.40
.005119	575.	550.	500.	6	0	0	.00	99.50	10349.90

CCHV= .300 CEHV= .500
*SECNO 12.734

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1616.80 ELREA= 1616.80

BEGIN SUN VALLEY PARKWAY CULVERT (6-12' X 4' RCB -STRUC. NO.17)

12.734	1.78	1614.08	.00	1613.87	1614.56	.48	.29	.13	1616.80
766.0	.0	766.0	.0	.0	137.8	.0	118.9	59.2	1616.80
.79	.00	5.56	.00	.000	.035	.000	.000	1612.30	9961.50
.008387	45.	45.	45.	2	0	0	.00	77.00	10038.50

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFD	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	6	.012	.20	2.70	.00	4.00	12.00	137.00	12	1	1612.00	1612.30

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 1 WINGWALLS FLARED 45 DEGREES (4:1); INLET NOT SKEWED

*SECNO 12.760

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1615.204 EGOC = 1615.225 PCWSE= 1614.084 ELTRD= 1617.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.69

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLASS     L BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

   EGIC      EGOC       H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
 1615.20   1615.22      .66        0.       [illegible]    6.016     268.0   1617.50        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1619.00 ELREA=      1619.00

       END CULVERT (STRUC. #17)
   12.760      2.06   1614.86       .00   1614.87   1615.22       .36       .66       .00   1617.30
    766.0        .0     766.0        .0       .0     159.0        .0     119.4      59.5   1617.30
      .79       .00      4.82       .00      .000      .012      .000      .000   1612.80   9961.50
 .000616      137.      137.      137.         3         0         0       .00     77.00  10038.50


#SECNO 12.775
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9948.0   10047.0  TYPE=      1  TARGET=       99.000
       ET  APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN WEIR LEVEES, LEFT AND RT.
       FLOODPLAIN\FLOODWAY DELINEATIONS PLOTTED BASED ON WSEL AS PONDING
       BEYOND EFF. FLOW LIMITS POSSIBLE AND DETENTION RESULTS PRESERVATION
       UPSTREAM OF ROAD.
   12.775      1.50   1617.00   1617.00   1617.00   1617.62       .62       .14       .13   1667.00
    766.0        .0     766.0        .0       .0     121.1        .0     119.6      59.6 100000.00
      .80       .00      6.32       .00      .000      .035      .000      .000   1615.50   9948.02
 .014071       80.       80.       80.        20        19         0       .00     98.77  10046.79


CDHV=     .100 CEHV=     .300
#SECNO -2.439
START TRIB COMP
    -2.439     2.439  1594.234

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9993.0   10032.5  TYPE=      1  TARGET=       39.500
       BEGIN TRIBUTARY 4B,  REPEAT CROSS SECTION 2.439.
   -2.439      6.13   1596.23   1596.23   1595.62   1598.19      1.95     11.04    -11.04   1592.20
   1694.0        .0    1370.4     303.6        .0     117.2      40.1     121.6      60.6   1593.50
      .81       .00     11.87      7.57      .000      .042      .049      .000   1590.10   9993.00
 .018176      620.      620.      630.         0        26         0       .00     [illegible]   10032.50
```

```
SECNO     DEPTH     CWSEL     CRINS     WSELK     EG        HV        HL        BLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 22.523
3280 CROSS SECTION     22.52 EXTENDED       .10 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.89


3470 ENCROACHMENT STATIONS=     9952.0   10081.3  TYPE=      1  TARGET=      179.300
       ADD 20 TO TRIB. 4B. CROSS-SECTION I.D. NUMBERS, STA. 10075= BASELINE 4B
   22.523      6.30   1601.70       .00   1600.74   1602.05       .35      3.70       .16   1599.80
   1694.0    1362.2     331.8        .0     286.7      68.0        .0     124.1      61.4 100000.00
      .84      4.75      4.88       .00      .049      .042      .000      .000   1595.20   9952.00
  .005096      425.      425.      425.         3         0         0       .00    129.30  10081.30


*SECNO 22.617

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10400.0   10470.0  TYPE=      1  TARGET=       70.000
       STA. 10435= BASELINE 4B
   22.617      4.16   1608.36   1608.36   1608.15   1609.23       .37      3.47       .15   1607.10
    816.0      69.7     626.3     117.9      [illegible]      [illegible]      [illegible]      [illegible]      [illegible]   1604.20
      .84      3.70      8.22      4.19      .049      .042      .049      .000   1604.20  10400.00
  .010944      813.      495.      465.        20        14         0       .00     70.00  10470.00


*SECND 22.657
3280 CROSS SECTION     22.66 EXTENDED       .56 FEET


3470 ENCROACHMENT STATIONS=    10800.0   10895.0  TYPE=      [illegible]  TARGET=      [illegible]
       STA. 10800= BASELINE 4B
       ET APPLIED TO LIMIT EFFECTIVE FLOW WITHIN 4:1 FLARE ANGLE OF CULVERT
       OUTLET.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
```

```
      POSSIBLE.
   22.657      2.96   1611.06       .00   1610.41   1611.59       .53      2.33       .03   1608.20
    816.0     156.5     491.4     168.1       5.4      66.9      35.7     127.5      62.9   1608.30
      .87      4.55      6.48      4.71      .049      .042      .049      .000   1608.10  10000.00
  .008164      220.      210.      200.         2         0         0       .00      55.00  10035.00


CCHV=     .300 CEHV=     .500
*SECNO 22.669

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1614.40 ELREA=      1614.40

      BEGIN SUN VALLEY PARKWAY CULVERT (6- 10' X 4' RCB - STRUC. NO. 18)
   22.669      1.74   1611.64       .00   1611.41   1612.21       .58       .60       .03   1614.40
    816.0        .0     816.0        .0        .0     134.0        .0     127.7      63.0   1614.40
      .87       .00      6.09       .00      .000      .035      .000      .000   1609.90   9761.50
  .010434       65.       65.       65.         3         0         0       .00      77.00  10038.50



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       2.70      .00       6.00      12.00     148.00    12        3         1610.70   1607.90

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 22.697

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1612.997  EGOC =   1613.028  PDWSE=   1611.636  ELTRD=   1615.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ADJUSTABLE RANGE,  KRATIO =  4.13

SPECIAL CULVERT

     EGIC      EGOC        H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1613.00   1613.03       .82        0.      816.     4.921     432.0   1615.00        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1617.00 ELREA=      1617.00

      END CULVERT (STRUC. #18)
      FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
      LIMITS IS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF RD.
   22.697      2.15   1612.65       .00   1612.67   1613.03       .39       .82       .00   1615.00
    816.0        .0     816.0        .0        .0     145.8        .0     128.2      63.2   1615.00
      .88       .00      4.92       .00      .000      .012      .000      .000   1610.50   9761.50
  .000611      148.      148.      148.         3         0         0       .00      [illegible]  [illegible]
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOBR     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CONV=     .100 DENV=     .300
*SECNO -2.322
START TRIB COMP
    -2.322     2.322  1589.631

3470 ENCROACHMENT STATIONS=     9980.0   10080.0  TYPE=      1  TARGET=      100.000
       BEGIN TRIBUTARY 4C  REPEAT CROSS-SECTION 2.322
   -2.322      5.23   1589.63       .00   1588.81   1590.09       .46       .00       .00   1586.50
   1825.0     124.9     636.0    1064.1      32.6     101.0     211.0     131.0      64.2   1586.30
      .90      3.83      6.30      5.04      .049      .042      .049      .000   1584.40   9980.00
  .005132      450.      470.      470.         0         0         0       .00    100.00  10080.00


*SECNO 32.418
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10357.1   10380.0  TYPE=      1  TARGET=       22.900
       ADD 30 TO TRIB 4C CROSS SECTION I.D. NUMBERS.  STA 10375 = BASELINE 4C
   32.418      2.46   1592.56   1592.56   1593.45   1593.17       .61      2.95       .04   1592.70
    134.0        .0     134.0        .0        .0      21.4        .1     133.1      64.9   1592.30
      .93       .00      4.27       .05      .000      .042      .049      .000   1590.10  10358.17
  .025797      550.      555.      480.        20        18         0       .00     18.38  10376.51


*SECNO 32.492

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.76


3470 ENCROACHMENT STATIONS=    10495.4   10525.0  TYPE=      1  TARGET=       29.600
       STA. 10525= BASELINE 4C
   32.492      3.39   1598.59       .00   1598.30   1598.83       .24      5.62       .04   1598.80
    134.0        .0     124.5       9.5        .0      30.6       4.9     133.1      65.1   1597.90
      .96       .00      4.07      1.94      .000      .042      .049      .000   1595.20  10496.11
  .008347      400.      415.      400.         7         0         0       .00     28.89  10525.00


*SECNO 32.558
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOOB     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    10838.2   10867.2  TYPE=      1  TARGET=       29.000
       STA. 10840= BASELINE 4C
   32.559      1.52   1603.32   1603.32   1603.50   1603.77       .45      4.83       .06   1602.60
    134.0        .0     134.0        .0        .0      25.0        .0     133.6      65.3 100000.00
      .97       .00      5.37       .00      .000      .042      .000      .000   1601.80  10838.20
  .029375      340.      340.      335.         4        18         0       .00     29.00  10867.20


*SECNO 32.575

3470 ENCROACHMENT STATIONS=    11180.0   11210.0  TYPE=      1  TARGET=       30.000
       STA. 11195= BASELINE 4C
       ET APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING POSSIBLE BEYOND EFF. FLOW
       LIMITS.
   32.575      1.28   1605.58       .00   1605.36   1605.92       .35      2.14       .01   1604.70
    134.0      23.3      94.4      16.3       7.4      18.2       4.4     133.7      65.4   1604.40
      .98      3.15      5.19      3.71      .049      .042      .049      .000   1604.30  11180.00
  .017828      100.       95.       90.         4         0         0       .00     30.00  11210.00


CCHV=     .300 CEHV=     .500
*SECNO 32.584
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1611.00 ELREA=      1611.00

       BEGIN SUN VALLEY PARKWAY CULVERT (5- 12' X 4' RCB - STRUC. NO. 19)
   32.584       .51   1606.81   1606.81   1606.81   1607.07       .26      1.01       .03   1610.80
    134.0        .0     134.0        .0        .0      32.8        .0     133.7      65.5   1610.80
      .98       .00      4.09       .00      .000      .035      .000      .000   1606.30   9968.00
  .023085       50.       50.       50.         2        18         0       .00     64.00  10032.00


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    5         .012      .20       2.70      .00       4.00      12.00     135.00    12        1         1607.00   1606.30

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 32.610
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        NL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT OUTLET CONTROL
EGIC =   1607.849  EGOC =   1607.859  PCWSE=   1606.812  ELTRD=   1610.900


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  5.35

SPECIAL CULVERT

    EGIC      EGOC        H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1607.85   1607.86       .79       0.      134.     2.833     240.0   1610.90        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1613.30 ELREA=      1613.30

       END CULVERT (STRUC. #19)
       FLOODPLAIN \FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFFECTIVE
       FLOW LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM OF RD.
   32.610       .73   1607.73       .00   1607.73   1607.86       .12       .79       .00   1611.50
    134.0        .0     134.0        .0       .0      47.3        .0     133.9      65.7   1611.50
     1.00       .00      2.83       .00      .000      .012      .000      .000   1607.00   9968.00
  .000808      135.      135.      135.         2         0         0       .00     64.00  10032.00


CCHV=     .100 CEHV=     .300
*SECNO -1.939
START TRIB COMP
    -1.939     1.939  1568.582

3470 ENCROACHMENT STATIONS=     9899.1   10003.9  TYPE=      1  TARGET=      104.801
       BEGIN TRIBUTARY 4D.  REPEAT CROSS-SECTION 1.939
   -1.939      5.18   1568.58       .00   1567.65   1569.44       .86       .00       .00   1565.90
   1866.0     698.4    1167.6        .0     150.8     134.5        .0     136.5      67.0 100000.00
     1.02      4.63      8.68       .00      .049      .042      .000      .000   1563.40   9899.10
  .009397      680.      680.      670.         0         0         0       .00    104.80  10003.90


*SECNO 42.070
3280 CROSS SECTION     42.07 EXTENDED       .10 FEET
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .19


3470 ENCROACHMENT STATIONS=    10408.3   10445.2  TYPE=      1  TARGET=       36.900
       ADD 40 TO TRIB. 4D CROSS-SECTION I.D. NUMBERS.  STA. 10450= BESELINE 4D
   42.070      4.29   1574.39       .00   1573.85   1574.41       .01      4.88       .08   1572.30
     62.0        .0      62.0        .0        .0      70.6        .0     139.3      68.1 100000.00
     1.24       .00       .88       .00      .000      .042      .000      .000   1570.10  10408.30
  .000286      690.      690.      700.         2         0         0       .00     36.90  10445.20


*SECNO 42.130
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10668.0   10691.8  TYPE=      1  TARGET=       23.800
       STA. 10670= BASELINE 4D.
   42.130      2.21   1576.61   1576.61   1576.67   1576.96       .35       .31       .10   1576.90
     62.0        .0      62.0        .0        .0      13.0        .0     139.6      68.3 100000.00
     1.26       .00      4.75       .00      .000      .042      .000      .000   1574.40  10670.90
  .033306      340.      320.      275.        20        11         0       .00     20.50  10691.40


*SECNO 42.200

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.29


3470 ENCROACHMENT STATIONS=    10819.0   10843.0  TYPE=      1  TARGET=       24.000
       STA. 10815= BASELINE 4D.
   42.200      1.93   1581.43       .00   1580.94   1581.54       .11      4.55       .02   1581.30
     62.0        .0      62.0        .0        .0      23.0        .0     139.7      68.5 100000.00
     1.30       .00      2.70       .00      .000      .042      .000      .000   1579.50  10819.00
  .006350      370.      370.      370.         7         0         0       .00     24.00  10843.00


*SECNO 42.299
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60


3470 ENCROACHMENT STATIONS=    11027.8   11051.5  TYPE=      1  TARGET=       23.700
       STA. 11030= BASELINE 4D.
   42.299      2.12   1586.52       .00   1586.41   1586.81       .29      5.22       .05   1587.70
     62.0        .0      62.0        .0        .0      14.4        .0     140.0      68.7 100000.00
     1.33       .00      4.30       .00      .000      .042      .000      .000   1584.40  11033.96
  .017723      515.      525.      525.         5         0         0       .00     16.17  11050.13


*SECNO 42.401

3470 ENCROACHMENT STATIONS=    11694.6   11702.5  TYPE=      1  TARGET=        7.900
       STA. 11725= BASELINE 4D.
       ET APPLIED TO LIMIT EFF. FLOW TO WITHIN 4:1 FLARE ANGLE OF CULVERT OUTL.
       FLOODPLAIN PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW LIMITS
       IS POSSIBLE.
   42.401      2.70   1597.90       .00   1597.60   1598.44       .53     11.55       .07   1596.60
     62.0        .0      62.0        .0        .0      10.6        .0     140.1      68.9 100000.00
     1.36       .00      5.86       .00      .000      .042      .000      .000   1595.20  11694.60
  .026337      540.      540.      530.         4         0         0       .00      7.90  11702.50


CCHV=     .300 CEHV=     .500
*SECNO 42.406
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1602.40 ELREA=      1602.40

       BEGIN SUN VALLEY PARKWAY CULVERT (2- 42" X 29" C.S.P.A. - STRUC. NO. 22)
   42.406      1.34   1600.74   1600.74   1600.74   1601.42       .68       .65       .07   1602.40
     62.0        .0      62.0        .0        .0       9.4        .0     140.1      68.9   1602.40
     1.36       .00      6.62       .00      .000      .035      .000      .000   1599.40   9996.50
  .025352       25.       25.       25.        20         8         0       .00      7.00  10003.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CDRAR	TOPWID	ENDST

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1600.32 , NOT 1600.74 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BNC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	5.29	2.63	.00	7.00	1.70	12.80	.00	1600.00	1599.40

*SECNO 42.432

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.51

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1602.67	1602.63	.00	0.	62.	13.	13.	1602.40	1602.70	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLFA= 1604.00 ELREA= 1604.00

END CULVERT (STRUC. #22)
FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL UPSTREAM OF ROAD AS PONDING
OUTSIDE OF EFF. FLOW LIMITS IS POSSIBLE AND DETENTION REQUIRES
PRESERVATION.

42.432	2.47	1602.47	.00	1602.47	1602.67	.20	1.25	.00	1603.00
62.0	.0	62.0	.0	.0	17.5	.0	140.2	68.7	1603.00
1.37	.00	3.59	.00	.000	.024	.000	.000	1600.00	9996.50
.002053	135.	135.	135.	2	0	1	.00	.00	10003.50

*SECNO 42.436

3470 ENCROACHMENT STATIONS= 9971.2 10027.8 TYPE= 1 TARGET= 56.400

42.436	2.19	1602.69	.00	1602.70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
62.0	4.5	52.8	4.7	4.5	28.2	6.9	140.2	68.9	1602.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.035	.035	.000	1600.50	[illegible]
.001084	20.	20.	20.	2	0	0	.00	56.52	10027.78

CONV= .100 DSNV= .300
*SECNO -1.678

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     SS        HV        HL        QLOBO     L BANK ELEV
   D         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       STA       PLOIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


START TRIB COMP
    -1.678     1.678  1554.195

3470 ENCROACHMENT STATIONS=     9980.0   10100.0  TYPE=      1  TARGET=      120.000
       BEGIN TRIBUTARY 4E.  DOWNSTREAM CROSS SECTION 1.678.
   -1.678      4.79   1554.19       .00   1553.18   1554.78       .58       .00       .00   1551.90
   1939.0      19.7    1087.6     831.7       6.4     [illegible]     [illegible]     [illegible]     [illegible]   1551.10
     1.40      3.09      6.99      4.81      .049      .042      .049      .000   1549.40   9980.00
  .007608      710.      730.      700.         0         0         0       .00    120.00  10100.00


*SECNO 51.836
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10565.0   10601.1  TYPE=      1  TARGET=       36.100
       ADD 50 TO TRIB. 4E CROSS-SECTION I.D. NUMBERS. STA.10560=BASELINE 4E
   51.836      4.00   1561.10   1561.10   1561.32   1561.42       .32      6.34       .03   1560.70
     82.0       5.5      76.5        .0       4.0      16.4        .0      [illegible]      [illegible]   10565.00
     1.45      1.37      4.66       .00      .049      .042      .000      .000   1557.10  10565.10
  .017230      890.      860.      780.        20        10         0       .00     35.91  10601.10


*SECNO 51.980
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF

3470 ENCROACHMENT STATIONS=    11100.0   11226.2  TYPE=      1  TARGET=      126.200
       STA. 11280=BASELINE 4E.
   51.980      6.50   1569.90   1569.63   1569.50   1569.92       .02      4.26     11.34   1569.30
     82.0      41.1      40.9        .0      35.2      33.8        .0      [illegible]      [illegible]   11100.00
     1.62      1.17      1.21       .00      .049      .042      .000      .000   1563.40  11100.00
  .002974      700.      720.      700.        20        12         0       .00    126.20  11226.20


*SECNO 52.080
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    11841.4   11868.3  TYPE=      1  TARGET=       26.899
       STA. 11820=BASELINE 4E.
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSEL      SE        SV        HL        DLOSS     L-BANK ELEV
Q         DLOB      DCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID    ENDST

 52.080     1.28   1577.18   1577.18   1577.08   1577.57       .34      4.15       .10   1575.90
   82.0       .0      82.0        .0        .0      17.5        .0     147.8      74.2 100000.00
   1.66     .00      4.68       .00      .000      .042      .000      .000   1575.90  11841.40
 .034755    580.      580.      550.        20        25         0       .00     26.90  11868.30


*SECNO 52.175

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.23


3470 ENCROACHMENT STATIONS=    11957.8   11981.5  TYPE=      1  TARGET=       23.700
       STA. 11980=BASELINE 4E.
 52.175     1.73   1584.33       .00   1583.44   1584.47       .14      6.94       .02   1583.10
   82.0       .0      82.0        .0        .0      27.3        .0     148.1      74.8 100000.00
   1.71     .00      3.00       .00      .000      .042      .000      .000   1582.60  11957.80
 .006979    520.      520.      500.         8         0         0       .00     23.70  11981.50


*SECNO 52.248

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .50


3470 ENCROACHMENT STATIONS=    10000.0   10035.0  TYPE=      1  TARGET=       35.000
       STA. 10000=BASELINE 4E.
 52.248      .83   1588.83       .00   1589.03   1589.11       .28      4.59       .04   1589.00
   82.0       .0      82.0        .0        .0      19.3        .0     148.3      74.7 100000.00
   1.73     .00      4.24       .00      .000      .042      .000      .000   1588.00  10001.70
 [illegible]  [illegible]  370.  370.  5  0  [illegible]


CEHV=     .300 CEHV=     .500
*SECNO 52.257
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1593.70 ELREA=      1593.70

       BEGIN SUN VALLEY PARKWAY CULVERT (3- 42" X 29" C.S.P.A.  CONSTRUCT. 88. 24)
 52.257     1.40   1591.90   1591.90   1591.90   1592.50       .60      1.48       .16   1593.70
   82.0       .0      82.0        .0        .0      15.2        .0     148.3      74.7   1593.70
   1.73     .00      6.23       .00      .000      .035      .000      .000   1590.50   9994.50
 .022099     60.       60.       60.         5        14         0       .00     11.00   10005.50
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     GSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1591.70 , NDT    1591.90 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      5.29      2.63       .00     11.00      3.00     19.20       .00   1591.30   1590.90

%SECNO 52.285

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.30

CLASS 5 LOW FLOW

3420 BRIDGE W.S.=    1592.58 BRIDGE VELOCITY=       6.92     CALCULATED CHANNEL AREA=        10.

 EGPRS     EGLWC      H3       QWEIR     QLOW      QAREA   TRAPEZOID     ELLC      ELTRD     WEIRLN
                                                             AREA
      .00   1593.69     .00       0.       82.       19.       19.     1593.70   1594.10       0.


       END CULVERT (STRUC. #24)
       FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING OUTSIDE EFF. FLOW
       LIMITS POSSIBLE AND DETENTION REQUIRES PRESERVATION UPSTREAM & DOWN.
   52.285     2.65   1593.55       .00   1593.55   1593.69       .14      1.19       .00   1594.10
    82.0       .0     82.0        .0       .0      26.9        .0     148.4      74.8   1594.10
    1.74      .00      3.04       .00      .000      .024      .000      .000   1590.90   9994.50
  .001196     137.     137.      137.        0         0         0       .00     11.00  10009.50


%SECNO 52.289

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .34


3470 ENCROACHMENT ON ROB=     5972.0   10011.0  TYPE=      1  TARGET=       19.000
   52.289     1.52   1593.52       .00   1593.52   1593.83       .30       .05       .08 100000.00
    82.0       .0     80.7       1.3       .0      18.1        .7     148.4      74.8   1593.00
    1.75      .00      4.46      1.95      .000      .035      .035      .000   1592.00   9992.10
  .010250     20.      20.       20.        2         0         0       .00     18.90  10011.00


CCHV=     .100 CEHV=     .300
%SECNO -1.413
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


START TRIB COMP
    -1.413     1.413  1537.842

3470 ENCROACHMENT STATIONS=     9956.0   10065.0  TYPE=      1  TARGET=      109.000
       BEGIN TRIBUTARY 4F.  REPEAT CROSS-SECTION 1.413.
   -1.413      5.74   1537.84       .00   1536.80   1538.44       .60       .00       .00   1534.20
   2240.0     192.4    1450.1     597.5      46.2     209.8     123.8     151.7      75.8   1534.70
     1.78      4.17      6.91      4.83      .049      .042      .049      .000   1532.10   9956.00
  .005858      700.      720.      720.         0         0         0       .00    109.00  10065.00


*SECNO 61.538
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10292.1   10331.1  TYPE=      1  TARGET=       39.000
       STA.  10345=BASELINE 4F.
   61.538      2.93   1542.83   1542.83   1542.76   1543.54       .70      4.58       .03   1542.80
    350.0        .0     350.0        .0        .0      52.0        .0     155.0      76.9 100000.00
     1.81       .00      6.74       .00      .000      .042      .000      .000   1539.90  10292.10
  .025387      670.      680.      650.        20        11         0       .00     39.00  10331.10


*SECNO 61.690

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.93


3470 ENCROACHMENT STATIONS=    10953.5   11016.7  TYPE=      1  TARGET=       [illegible]
       STA.  11000=BASELINE 4F.
   61.690      3.05   1553.45       .00   1552.97   1553.66       .21     10.07       .05   1552.10
    350.0        .0     350.0        .0        .0      94.6        .0     156.4      77.9 100000.00
     1.87       .00      3.70       .00      .000      .042      .000      .000   1550.40  10953.50
  .006832      850.      850.      800.         8         0         0       .00     63.20  11016.70


*SECNO 61.811

3301 HV CHANGED MORE THAN HVTNS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    11610.0   11640.0  TYPE=      1  TARGET=       30.000
       STA.  11590=BASELINE 4F.
   61.811      3.31   1561.61   1561.61   1561.14   1562.52       .91      7.46       .21   1561.20
    350.0       7.8     229.2     113.0       3.5      27.4      18.1     157.6      78.7   1559.30
     1.90      2.20      8.37      6.26      .049      .042      .049      .000   1558.30  11610.00
  .020415      680.      680.      680.         3         8         0       .00     30.00  11640.00


*SECNO 61.936

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60


3470 ENCROACHMENT STATIONS=    12007.0   12033.0  TYPE=      1  TARGET=       26.000
       STA.  12030=BASELINE 4F.
   61.936      3.26   1570.46       .00   1569.85   1570.97       .51      8.42       .04   1568.60
    350.0       3.7     345.1       1.2       1.8      59.8        .8     158.4      79.1   1569.80
     1.93      2.04      5.77      1.54      .049      .042      .049      .000   1567.20  12007.00
  .008016      660.      700.      670.         6         0         0       .00     26.00  12033.00


*SECNO 62.027

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .61


3470 ENCROACHMENT STATIONS=    12453.2   12473.3  TYPE=      1  TARGET=       20.100
       STA.  12460=BASELINE 4F.
   62.027      2.99   1576.19       .00   1575.26   1577.18       .99      6.06       .14   1574.40
    350.0        .0     350.0        .0        .0      43.9        .0     159.0      79.4 100000.00
     1.95       .00      7.97       .00      .000      .042      .000      .000   1573.20  12453.20
  .021561      490.      490.      480.         4         0         0       .00     20.10  12473.30


*SECNO 62.074

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9975.0   10019.0  TYPE=      1  TARGET=       44.000
   62.074      2.67   1580.87       .00   1580.56   1581.30       .43      4.06       .06   1581.00
    350.0        .0     350.0        .0        .0      66.6        .0     159.4      79.6 100000.00
     1.96       .00      5.26       .00      .000      .042      .000      .000   1578.20   9976.42
  .012685      250.      250.      250.         3         0         0       .00     42.58  10019.00
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .300 CEHV=     .500
*SECNO 62.087

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1583.40 ELREA=      1583.40

        BEGIN SUN VALLEY PARKWAY CULVERT (3-8' X 3' RCB  -STRUC. NO. 25)
   62.087      1.87   1581.57       .00   1581.40   1581.93       .36       .61       .02   1583.20
    350.0        .0     350.0        .0       .0      72.7        .0     159.5      79.6   1583.20
     1.96       .00      4.82       .00      .000      .035      .000      .000   1579.70   9974.00
  .006336       70.       70.       70.         2         0         0       .00     39.00  10013.00



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     CDFO      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    3         .012      .20       2.63      .00       3.00      8.00      141.00    12        1         1580.40   1579.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 62.114

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1583.368  EGOC =   1583.391  PCWSE=   1581.566  ELTRD=   1584.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  5.70

SPECIAL CULVERT

     EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
   1583.37   1583.39     1.47        0.      350.    3.164      72.0   1584.00        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1585.60 ELREA=      1585.60

        END CULVERT (STRUC. NO. 25)
   62.114      2.84   1583.24       .00   1583.24   1583.39       .16      1.47       .00   1583.90
    350.0        .0     350.0        .0       .0     110.6        .0     159.8      79.7   1583.90
     1.98       .00      3.16       .00      .000      .012      .000      .000   1580.40   9974.00
  .000195      141.      141.      141.         2         0         0       .00     39.00  10013.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

%SECNO 62.127

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9981.0 10025.0 TYPE= 1 TARGET= 44.000
ET APPLIED TO LIMIT EFF. FLOW TO WITHIN WEIR LEVEES, LEFT AND RIGHT, AS
WELL AS 1:1 FLARE ANGLE FROM CULVERT INLET.
FLOODPLAIN\FLOODWAY PLOTTED BASED ON WSEL AS PONDING BEYOND EFF. FLOW
LIMITS IS POSSIBLE AND DETENTION UPSTREAM OF ROAD REQUIRES PRESERVATION.

62.127	3.16	1584.36	1584.36	1584.36	1585.09	.73	.04	.29	1584.00
350.0	.0	347.4	2.6	.0	50.6	1.6	139.9	79.8	1584.00
1.98	.00	6.87	1.64	.000	.035	.035	.000	1581.20	9981.00
.014622	70.	70.	70.	20	8	0	.00	40.70	10021.70

THIS RUN EXECUTED 27AUG91 12:07:57

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO.4 100-YEAR PROF

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.159	2275.00	1476.50	.00	3.33	.00	9900.50	9937.30	.00	.00	9368.31	10583.85
	.159	2275.00	1477.50	.00	5.12	.00	9900.50	9937.30	9810.00	10163.00	9810.00	10163.00
	.273	2275.00	1481.18	.00	3.42	630.00	10000.00	10047.00	.00	.00	8336.98	10333.65
	.273	2275.00	1481.87	.00	4.25	630.00	10000.00	10047.00	9700.00	10230.00	9700.00	10230.00
*	.417	2275.00	1487.42	1487.40	7.66	750.00	9981.00	10011.10	.00	.00	8686.90	10531.87
*	.417	2275.00	1488.43	1488.43	8.76	750.00	9981.00	10011.10	9950.00	10230.00	9950.00	10230.00
	.564	2275.00	1493.41	1493.36	7.22	585.00	10086.00	10133.70	.00	.00	8843.70	10372.29
	.564	2275.00	1494.20	1494.01	8.67	585.00	10086.00	10133.70	9900.00	10140.00	9964.61	10140.00
	.689	2275.00	1500.21	.00	5.24	710.00	10118.30	10195.20	9281.80	10071.30	9321.84	10557.36
	.689	2275.00	1501.07	.00	6.13	710.00	10118.30	10195.20	9906.00	10195.20	9906.00	10195.20
	.795	2275.00	1506.10	.00	4.23	650.00	9961.70	10024.00	9085.40	10671.20	9116.21	10639.39
	.795	2275.00	1506.94	.00	6.26	650.00	9961.70	10024.00	9924.20	10223.00	9924.20	10223.00
	.917	2275.00	1512.20	.00	3.51	730.00	9908.20	10000.00	9518.40	10714.20	9607.97	10693.61
	.917	2275.00	1513.24	.00	3.26	730.00	9908.20	10000.00	9908.20	10325.00	9908.20	10325.00
	1.038	2275.00	1519.98	.00	3.57	705.00	9962.50	10000.10	9631.40	10587.30	9653.14	10584.43
	1.038	2275.00	1519.97	.00	6.14	705.00	9962.50	10000.10	9962.50	10239.80	9962.50	10239.80
	1.167	2275.00	1524.82	.00	6.85	645.00	9992.40	10026.10	9245.10	10244.90	9635.63	10166.03
	1.167	2275.00	1525.80	.00	7.40	645.00	9992.40	10026.10	9984.40	10163.60	9984.40	10163.60
	1.292	2275.00	1530.69	.00	7.72	670.00	10036.90	10084.90	9417.30	10350.00	9722.42	10122.36
	1.292	2275.00	1531.46	.00	9.25	670.00	10036.90	10084.90	9989.00	10084.90	9989.00	10084.90
	1.413	2240.00	1536.80	.00	6.70	720.00	9973.00	10023.70	9335.00	10350.00	9743.45	10202.19
*	1.413	2240.00	1537.84	.00	6.90	720.00	9973.00	10023.70	9956.00	10065.00	9956.00	10065.00

	SECND	Q	CWSEL	CRINS	VCH	XLCH	STCHL	STCHR	STENDL	STENDR	SSTA	ENDST
*	1.553	1939.00	1545.55	1545.55	8.10	730.00	9966.10	9993.30	9494.90	10096.90	9597.11	10094.50
*	1.553	1939.00	1546.05	1546.05	10.32	730.00	9966.10	9993.30	9966.10	10068.00	9966.10	10068.00
	1.678	1939.00	1553.18	.00	6.38	730.00	9982.80	10028.00	9741.00	10364.50	9758.42	10181.38
*	1.678	1939.00	1554.19	.00	6.98	730.00	9982.80	10028.00	9980.00	10100.00	9980.00	10100.00
	1.818	1866.00	1560.44	.00	5.38	725.00	9989.40	10021.60	9538.50	10223.00	9583.48	10175.51
	1.818	1866.00	1561.17	.00	7.85	725.00	9989.40	10021.60	9949.80	10063.30	9949.80	10063.30
*	1.939	1866.00	1567.65	1567.65	8.13	680.00	9974.00	10003.90	9534.30	10097.60	9732.54	10036.07
	1.939	1866.00	1568.58	.00	8.68	680.00	9974.00	10003.90	9899.10	10003.90	9899.10	10003.90
	2.057	1825.00	1573.38	.00	5.59	670.00	9963.20	10000.00	9689.10	10356.50	9953.12	10333.28
	2.057	1825.00	1574.22	.00	6.42	670.00	9963.20	10000.00	9963.20	10097.80	9963.20	10097.80
*	2.148	1825.00	1578.57	1578.57	7.57	550.00	9871.00	9909.10	9768.20	10472.00	9860.16	10396.75
*	2.148	1825.00	1578.97	1578.97	9.99	550.00	9871.00	9909.10	9871.00	9950.00	9871.00	9950.00
	2.204	1825.00	1581.14	.00	6.58	200.00	9910.80	9958.60	9844.40	10350.00	9846.20	10342.33
	2.204	1825.00	1582.12	.00	6.64	200.00	9910.80	9958.60	9900.00	10040.00	9900.00	10040.00
	2.242	1825.00	1584.59	.00	7.02	350.00	10025.50	10066.50	9898.30	10260.30	9925.66	10238.38
	2.242	1825.00	1585.13	.00	9.27	350.00	10025.50	10066.50	10025.50	10089.10	10025.50	10089.10
	2.322	1825.00	1588.81	.00	7.33	470.00	9993.60	10018.50	9819.50	10343.20	9858.89	10136.85
*	2.322	1825.00	1589.63	.00	6.29	470.00	9993.60	10018.50	9980.00	10080.00	9980.00	10080.00
*	2.439	1694.00	1595.62	1595.62	9.53	620.00	9993.00	10017.50	9925.70	10119.50	9946.39	10083.80
*	2.439	1694.00	1596.23	1596.23	11.87	620.00	9993.00	10017.50	9993.00	10032.50	9993.00	10032.50
*	2.523	1694.00	1600.85	1600.85	8.83	425.00	9958.60	9992.80	9897.20	10218.70	9938.30	10098.17
*	2.523	1694.00	1601.57	.00	6.72	425.00	9958.60	9992.80	9952.00	10081.30	9952.00	10081.30
*	2.621	896.00	1607.38	.00	6.98	550.00	10012.90	10029.50	9892.10	10154.80	9893.66	10105.62
*	2.621	896.00	1607.85	1607.85	10.03	550.00	10012.90	10029.50	10012.00	10056.00	10012.00	10056.00
*	2.750	151.00	1614.16	.00	4.58	710.00	9986.80	9995.20	9973.00	10009.00	9973.00	10009.00
*	2.750	151.00	1615.12	.00	2.51	710.00	9986.80	9995.20	9973.00	10009.00	9973.00	10009.00
*	2.759	151.00	1616.91	1616.91	7.89	50.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	2.759	151.00	1616.92	1616.92	7.88	50.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	2.784	151.00	1617.91	.00	6.00	133.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	2.784	151.00	1617.91	.00	6.00	133.00	9995.00	10005.00	.00	.00	9995.00	10005.00
*	2.798	151.00	1618.36	.00	4.91	75.00	9980.00	10014.00	9980.00	10014.00	9985.75	10013.63
*	2.798	151.00	1618.36	.00	4.91	75.00	9980.00	10014.00	9980.00	10014.00	9985.75	10013.63
	-2.621	896.00	1607.38	.00	6.96	550.00	10012.90	10029.50	9892.10	10154.80	9892.37	10105.67
	-2.621	896.00	1607.85	.00	9.79	550.00	10012.90	10029.50	10012.90	10055.20	10012.90	10055.20

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	12.725	766.00	1613.38	.00	7.03	550.00	10295.20	10305.10	10250.40	10349.90	10250.40	10349.90
*	12.725	766.00	1613.92	.00	5.07	550.00	10295.20	10305.10	10250.40	10349.90	10250.40	10349.90
	12.734	766.00	1613.87	.00	6.35	45.00	9961.50	10038.50	.00	.00	9961.50	10038.50
	12.734	766.00	1614.08	.00	5.56	43.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	12.760	766.00	1614.87	.00	4.80	137.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	12.760	766.00	1614.86	.00	4.82	137.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	12.775	766.00	1617.00	1617.00	6.32	80.00	9948.00	10051.00	.00	.00	9948.02	10046.99
*	12.775	766.00	1617.00	1617.00	6.32	80.00	9948.00	10051.00	9948.00	10047.00	9948.02	10046.99
	-2.439	1694.00	1595.62	1595.62	9.53	620.00	9993.00	10017.50	9925.70	10119.50	9946.39	10083.80
	-2.439	1694.00	1596.23	1596.23	11.87	620.00	9993.00	10017.50	9993.00	10032.50	9993.00	10032.50
	22.523	1694.00	1600.94	.00	6.24	425.00	10058.10	10081.30	9897.20	10218.90	9919.45	10099.45
*	22.523	1694.00	1601.70	.00	4.88	425.00	10058.10	10081.30	9952.00	10081.30	9952.00	10081.30
*	22.617	816.00	1608.15	1608.15	6.29	495.00	10419.70	10449.50	10182.20	10491.60	10219.04	10485.75
*	22.617	816.00	1608.36	1608.36	8.22	495.00	10419.70	10449.50	10400.00	10470.00	10400.00	10470.00
	22.657	816.00	1610.41	.00	6.41	210.00	10814.30	10840.60	10778.80	10876.30	10778.80	10876.30
	22.657	816.00	1611.06	.00	6.48	210.00	10814.30	10840.60	10800.00	10855.00	10800.00	10855.00
*	22.669	816.00	1611.41	1611.41	7.01	65.00	9961.50	10038.50	.00	.00	9961.50	10038.50
	22.669	816.00	1611.64	.00	6.09	65.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	22.697	816.00	1612.67	.00	4.89	148.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	22.697	816.00	1612.65	.00	4.92	148.00	9961.50	10038.50	.00	.00	9961.50	10038.50
	-2.322	1825.00	1588.81	.00	7.32	470.00	9993.60	10018.50	9819.50	10343.20	9858.86	10136.91
	-2.322	1825.00	1589.63	.00	6.30	470.00	9993.60	10018.50	9980.00	10080.00	9980.00	10080.00
*	32.418	134.00	1593.45	.00	2.35	555.00	10357.10	10375.80	10119.50	10463.50	10345.51	10434.93
*	32.418	134.00	1592.56	1592.56	6.27	555.00	10357.10	10375.80	10357.10	10380.00	10358.17	10376.51
*	32.492	134.00	1598.30	1598.30	5.10	415.00	10495.40	10517.20	10450.60	10571.50	10497.06	10545.60
*	32.492	134.00	1598.59	.00	4.07	415.00	10495.40	10517.20	10495.40	10525.00	10496.11	10525.00
	32.558	134.00	1603.50	.00	4.23	340.00	10838.20	10867.20	10684.20	10921.10	10831.22	10868.80
*	32.558	134.00	1603.32	1603.32	5.37	340.00	10838.20	10867.20	10838.20	10867.20	10838.20	10867.20
*	32.575	134.00	1605.36	1605.36	5.13	95.00	11190.20	11206.00	11154.00	11241.20	11168.84	11225.55
	32.575	134.00	1605.58	.00	5.19	95.00	11190.20	11206.00	11180.00	11210.00	11180.00	11210.00
*	32.584	134.00	1606.81	1606.81	4.07	50.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	32.584	134.00	1606.81	1606.81	4.09	50.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	32.610	134.00	1607.73	.00	2.83	135.00	9968.00	10032.00	.00	.00	9968.00	10032.00
*	32.610	134.00	1607.73	.00	2.83	135.00	9968.00	10032.00	.00	.00	9968.00	10032.00

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	-1.939	1866.00	1567.65	.00	8.10	680.00	9974.00	10003.90	9534.30	10552.70	9732.54	10424.52
	-1.939	1866.00	1568.58	.00	8.68	680.00	9974.00	10003.90	9899.10	10003.90	9899.10	10003.90
*	42.070	62.00	1573.85	.00	.90	690.00	10408.30	10445.20	10356.50	10782.90	10399.88	10527.37
*	42.070	62.00	1574.39	.00	.88	690.00	10408.30	10445.20	10408.30	10445.20	10408.30	10445.20
*	42.130	62.00	1576.67	1576.67	4.29	320.00	10668.00	10691.80	10472.00	10882.30	10647.48	10797.67
*	42.130	62.00	1576.61	1576.61	4.75	320.00	10668.00	10691.80	10668.00	10691.80	10670.90	10691.40
*	42.200	62.00	1580.94	.00	2.05	370.00	10819.00	10843.00	10623.40	11343.00	10822.68	10917.05
*	42.200	62.00	1581.43	.00	2.70	370.00	10819.00	10843.00	10819.00	10843.00	10819.00	10843.00
*	42.299	62.00	1586.41	.00	4.87	525.00	11027.80	11051.50	10843.00	11129.20	11034.57	11049.88
*	42.299	62.00	1586.52	.00	4.30	525.00	11027.80	11051.50	11027.80	11051.50	11033.96	11050.13
	42.401	62.00	1597.60	.00	4.70	540.00	11694.60	11702.50	11688.00	11708.00	11688.00	11708.00
	42.401	62.00	1597.90	.00	5.86	540.00	11694.60	11702.50	11694.60	11702.50	11694.60	11702.50
*	42.406	62.00	1600.74	1600.74	6.60	25.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	42.406	62.00	1600.74	1600.74	6.62	25.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	42.432	62.00	1602.47	.00	3.58	135.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	42.432	62.00	1602.47	.00	3.59	135.00	9996.50	10003.50	.00	.00	9996.50	10003.50
	42.436	62.00	1602.70	.00	1.86	20.00	9990.00	10008.00	.00	.00	9971.16	10027.89
	42.436	62.00	1602.69	.00	1.87	20.00	9990.00	10008.00	9971.20	10027.80	9971.26	10027.78
	-1.678	1939.00	1553.18	.00	6.38	730.00	9982.80	10028.00	9741.00	10364.50	9758.42	10181.38
	-1.678	1939.00	1554.19	.00	6.99	730.00	9982.80	10028.00	9980.00	10100.00	9980.00	10100.00
*	51.836	82.00	1561.32	.00	2.76	820.00	10585.20	10601.10	10440.90	10857.00	10503.29	10648.76
*	51.836	82.00	1561.10	1561.10	4.66	820.00	10585.20	10601.10	10565.00	10601.10	10565.19	10601.10
*	51.980	82.00	1569.50	1569.50	1.15	725.00	11158.60	11226.20	10994.40	11506.00	11014.52	11225.21
*	51.980	82.00	1569.90	1569.63	1.21	725.00	11158.60	11226.20	11100.00	11226.20	11100.00	11226.20
*	52.080	82.00	1577.08	.00	2.19	580.00	11841.40	11868.30	11691.30	12099.70	11768.32	11909.26
*	52.080	82.00	1577.18	1577.18	4.68	580.00	11841.40	11868.30	11841.40	11868.30	11841.40	11868.30
*	52.175	82.00	1583.44	.00	2.05	520.00	11957.80	11981.50	11835.90	12195.00	11945.47	12156.86
*	52.175	82.00	1584.33	.00	3.00	520.00	11957.80	11981.50	11957.80	11981.50	11957.80	11981.50
	52.248	82.00	1589.03	.00	3.15	370.00	10000.00	10035.00	.00	.00	9998.84	10036.60
*	52.248	82.00	1588.83	.00	4.24	370.00	10000.00	10035.00	10000.00	10035.00	10001.70	10033.29
*	52.259	82.00	1591.90	1591.90	6.24	60.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	52.259	82.00	1591.90	1591.90	6.23	60.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	52.285	82.00	1593.55	.00	3.04	137.00	9994.50	10005.50	.00	.00	9994.50	10005.50
*	52.285	82.00	1593.55	.00	3.04	137.00	9994.50	10005.50	.00	.00	9994.50	10005.50

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	52.289	82.00	1593.52	.00	4.46	20.00	9990.00	10009.00	.00	.00	9992.11	10011.66
*	52.289	82.00	1593.52	.00	4.46	20.00	9990.00	10009.00	9992.00	10011.00	9992.10	10011.00
	-1.413	2240.00	1536.80	.00	6.70	720.00	9973.00	10023.70	9935.00	10350.00	9743.45	10202.18
	-1.413	2240.00	1537.84	.00	6.91	720.00	9973.00	10023.70	9956.00	10065.00	9956.00	10065.00
*	61.538	350.00	1542.76	1542.71	5.11	680.00	10292.10	10331.10	10096.90	10409.60	10226.83	10360.97
*	61.538	350.00	1542.83	1542.83	6.74	680.00	10292.10	10331.10	10292.10	10331.10	10292.10	10331.10
	61.690	350.00	1552.97	.00	3.49	850.00	10953.50	11016.70	10919.10	11270.70	10920.01	11136.71
*	61.690	350.00	1553.45	.00	3.70	850.00	10953.50	11016.70	10953.50	11016.70	10953.50	11016.70
	61.811	350.00	1561.14	.00	6.52	680.00	11619.40	11631.60	11548.40	11824.00	11569.42	11685.41
*	61.811	350.00	1561.61	1561.61	8.37	680.00	11619.40	11631.60	11610.00	11640.00	11610.00	11640.00
*	61.936	350.00	1569.85	1569.85	4.79	700.00	12008.00	12031.80	11946.70	12279.70	11965.46	12252.17
*	61.936	350.00	1570.46	.00	5.77	700.00	12008.00	12031.80	12007.00	12033.00	12007.00	12033.00
*	62.027	350.00	1575.26	1575.23	5.25	490.00	12453.20	12473.30	12313.40	12658.50	12347.04	12523.60
*	62.027	350.00	1576.19	.00	7.97	490.00	12453.20	12473.30	12453.20	12473.30	12453.20	12473.30
*	62.074	350.00	1580.56	1580.56	5.68	250.00	9975.00	10019.00	.00	.00	9979.42	10062.33
	62.074	350.00	1580.87	.00	5.26	250.00	9975.00	10019.00	9975.00	10019.00	9976.42	10019.00
*	62.087	350.00	1581.40	.00	5.28	70.00	9974.00	10013.00	.00	.00	9974.00	10013.00
*	62.087	350.00	1581.57	.00	4.82	70.00	9974.00	10013.00	.00	.00	9974.00	10013.00
*	62.114	350.00	1583.24	.00	3.16	141.00	9974.00	10013.00	.00	.00	9974.00	10013.00
*	62.114	350.00	1583.24	.00	3.16	141.00	9974.00	10013.00	.00	.00	9974.00	10013.00
*	62.127	350.00	1584.36	1584.36	6.86	70.00	9981.00	10013.00	9981.00	10025.00	9981.00	10021.71
*	62.127	350.00	1584.36	1584.36	6.87	70.00	9981.00	10013.00	9981.00	10025.00	9981.00	10021.70

WASH NO.4 100-YEAR PROF

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.159	1003.11	133.90	1137.98	2.38	3.33	2.64	1476.60	1476.50	.00	1215.54	1474.40	1.02
	.159	673.85	394.68	1206.47	4.02	5.12	3.59	1477.60	1477.50	.00	353.00	1474.40	1.05
	.273	1578.49	215.54	480.97	2.02	3.42	2.33	1481.90	1481.18	4.68	1639.90	1479.20	1.08
	.273	842.01	407.29	1025.71	2.54	4.25	3.28	1481.90	1481.87	4.37	530.00	1479.20	1.11
*	.417	670.60	605.20	999.19	5.08	7.66	3.50	1489.00	1487.42	6.25	532.95	1483.90	1.36
*	.417	154.82	957.57	1162.61	4.07	8.76	4.21	1489.00	1488.43	6.56	280.00	1483.90	1.47
	.564	901.11	1205.93	167.96	3.17	7.22	1.88	1493.80	1493.41	5.99	606.19	1487.60	1.80
	.564	478.65	1774.72	21.64	4.01	8.67	2.87	1493.80	1494.20	5.77	175.39	1487.60	1.32
	.689	587.47	698.06	989.46	2.97	5.24	3.40	1501.30	1500.21	6.80	831.80	1494.80	1.18
	.689	1053.99	1221.01	.00	3.78	6.13	.00	1501.30	1501.07	6.87	289.20	1494.80	1.18
	.795	576.32	381.41	1317.27	2.61	4.23	2.72	1507.60	1506.10	5.89	1174.12	1503.20	1.10
	.795	121.33	894.65	1259.02	3.15	6.26	4.20	1507.60	1506.94	5.87	278.80	1503.20	1.15
	.917	5.74	61.20	2208.06	.80	3.51	3.57	1512.80	1512.20	6.10	669.78	1509.80	1.02
	.917	.00	311.26	1963.74	.00	3.26	3.95	1512.80	1513.24	6.30	416.80	1509.80	1.01
	1.038	235.61	139.84	1899.55	1.92	3.57	3.69	1520.10	1518.98	6.79	927.80	1516.10	1.11
	1.038	.00	467.21	1807.79	.00	6.14	4.70	1520.10	1519.97	6.73	277.30	1516.10	1.04
	1.167	1096.34	694.39	484.26	3.35	6.85	3.34	1530.50	1524.82	5.84	530.40	1521.30	1.40
	1.167	109.15	991.79	1174.06	4.35	7.40	4.22	1530.50	1525.80	5.83	179.20	1521.30	1.26
	1.292	990.73	1107.76	176.51	3.06	7.22	4.01	1532.20	1530.69	5.86	399.94	1526.50	1.61
	1.292	512.79	1762.21	.00	5.29	9.25	.00	1532.20	1531.46	5.66	95.90	1526.50	1.16
	1.413	544.96	1051.81	643.23	3.74	6.70	3.51	1538.40	1536.80	6.11	545.34	1532.10	1.32
*	1.413	192.51	1449.77	597.72	4.16	6.90	4.82	1538.40	1537.84	6.39	109.00	1532.10	1.11
*	1.553	667.11	802.31	469.58	3.56	8.10	4.25	1548.10	1545.55	8.75	364.48	1539.50	1.50
*	1.553	.00	1163.58	775.41	.00	10.32	5.95	1548.10	1546.05	8.21	101.90	1539.50	1.23
	1.678	737.71	700.16	501.13	3.[illegible]	6.38	3.48	1557.00	1553.18	7.63	422.96	1549.40	1.30
*	1.678	19.69	1087.53	831.78	3.09	6.98	4.81	1557.00	1554.19	8.14	120.00	1549.40	1.12
	1.818	828.13	352.33	685.54	3.21	5.38	3.84	1563.10	1560.44	7.26	592.03	1557.10	1.12
	1.818	541.36	696.96	627.68	5.95	7.85	6.14	1563.10	1561.17	6.98	113.50	1557.10	1.05
*	1.939	937.55	866.38	62.07	3.50	8.13	2.71	1571.10	1567.65	7.21	303.53	1563.40	1.68
	1.939	698.44	1147.56	.00	4.63	8.68	.00	1571.10	1568.58	7.41	104.80	1563.40	1.29
	2.057	13.43	557.26	1254.31	1.93	5.59	3.08	1574.30	1573.38	5.73	380.15	1570.10	1.28
	2.057	.00	837.72	987.28	.00	6.42	4.35	1574.30	1574.22	5.64	134.60	1570.10	1.12

	SECNO	DLOB	DCH	DROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	2.148	17.22	942.62	865.15	2.31	7.57	3.05	1579.60	1578.57	5.19	406.00	1574.40	1.76
*	2.148	.00	1394.38	430.61	.00	9.99	5.65	1579.60	1578.97	4.75	79.00	1574.40	1.17
	2.204	385.72	589.02	850.26	4.64	6.58	3.33	1582.20	1581.14	2.56	466.84	1578.80	1.30
	2.204	102.45	904.43	818.12	4.25	6.64	4.68	1582.20	1582.12	3.15	140.00	1578.80	1.10
	2.242	452.40	887.98	484.62	3.90	7.02	3.46	1586.20	1584.59	3.46	332.92	1579.50	1.36
	2.242	.00	1372.74	452.26	.00	9.27	6.98	1586.20	1585.13	3.02	63.60	1579.50	1.04
	2.322	227.11	589.07	1008.82	2.55	7.33	5.28	1592.00	1588.81	4.21	277.96	1584.40	1.31
*	2.322	125.00	635.94	1064.06	3.83	6.29	5.04	1592.00	1589.63	4.50	100.00	1584.40	1.06
*	2.439	473.60	973.67	246.74	5.67	9.53	4.00	1597.40	1595.62	6.81	132.32	1590.10	1.35
*	2.439	.00	1390.45	303.55	.00	11.87	7.57	1597.40	1596.23	6.60	39.50	1590.10	1.08
*	2.523	81.33	1083.45	529.22	3.85	8.83	4.53	1601.10	1600.85	5.22	139.86	1595.20	1.35
*	2.523	57.05	992.53	644.42	3.37	6.72	3.71	1601.10	1601.57	5.34	129.30	1595.20	1.28
*	2.621	322.56	328.99	244.45	3.01	6.98	3.50	1607.50	1607.38	6.54	211.96	1604.20	1.53
*	2.621	7.36	550.39	338.24	3.06	10.03	6.24	1607.50	1607.85	6.27	44.00	1604.20	1.19
*	2.750	17.03	82.90	51.07	1.99	4.58	2.88	1614.30	1614.16	6.78	36.00	1611.30	1.28
*	2.750	30.52	65.64	54.84	1.40	2.51	1.77	1614.30	1615.12	7.27	36.00	1611.30	1.17
*	2.759	.00	151.00	.00	.00	7.89	.00	1618.50	1616.91	2.76	10.00	1615.00	1.00
*	2.759	.00	151.00	.00	.00	7.88	.00	1618.50	1616.92	1.80	10.00	1615.00	1.00
*	2.784	.00	151.00	.00	.00	6.00	.00	1618.90	1617.91	1.00	10.00	1615.40	1.00
*	2.784	.00	151.00	.00	.00	6.00	.00	1618.90	1617.91	1.00	10.00	1615.40	1.00
*	2.798	.00	151.00	.00	.00	4.91	.00	1618.50	1618.36	.44	27.88	1616.80	1.00
*	2.798	.00	151.00	.00	.00	4.91	.00	1618.50	1618.36	.44	27.88	1616.80	1.00
	-2.621	323.30	328.40	244.30	3.00	6.96	3.49	1607.50	1607.38	-10.98	213.30	1604.20	1.53
	-2.621	.00	537.20	358.80	.00	9.79	6.80	1607.50	1607.85	-10.51	42.30	1604.20	1.10
	12.725	253.89	160.74	351.37	4.36	7.03	4.83	1614.30	1613.38	6.00	99.50	1610.90	1.10
*	12.725	273.74	142.88	349.37	3.33	5.07	3.62	1614.30	1613.92	6.07	99.50	1610.90	1.08
	12.734	.00	766.00	.00	.00	6.35	.00	1616.80	1613.87	.48	77.00	1612.30	1.00
	12.734	.00	766.00	.00	.00	5.56	.00	1616.80	1614.08	.16	77.00	1612.30	1.00
*	12.760	.00	766.00	.00	.00	4.80	.00	1617.30	1614.87	1.00	77.00	1612.80	1.00
*	12.760	.00	766.00	.00	.00	4.82	.00	1617.30	1614.86	.78	77.00	1612.80	1.00
*	12.775	.00	766.00	.00	.00	6.32	.00	1617.00	1617.00	2.13	98.97	1615.50	1.00
*	12.775	.00	766.00	.00	.00	6.32	.00	1617.50	1617.00	2.13	98.97	1615.50	1.00
	-2.439	473.60	973.67	246.74	5.67	9.53	4.00	1597.40	1595.62	-21.38	132.32	1590.10	1.35
	-2.439	.00	1390.45	303.55	.00	11.87	7.57	1597.40	1596.23	-20.77	39.50	1590.10	1.08

	SECND	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	22.523	1357.56	313.97	22.47	6.27	6.24	2.38	1601.60	1600.94	5.32	180.00	1595.20	1.03
*	22.523	1362.23	331.77	.00	4.75	4.88	.00	1601.60	1601.70	5.46	129.30	1595.20	1.00
*	22.617	302.08	439.92	74.00	2.73	6.29	3.00	1608.60	1608.15	7.21	257.83	1604.20	1.57
*	22.617	69.75	626.33	119.92	3.70	8.22	4.49	1608.60	1608.36	6.66	70.00	1604.20	1.25
	22.657	232.92	376.40	206.68	4.29	6.41	4.17	1610.50	1610.41	2.26	97.50	1608.10	1.14
	22.657	156.49	491.41	168.10	4.55	6.48	4.71	1610.50	1611.06	2.70	55.00	1608.10	1.08
*	22.669	.00	816.00	.00	.00	7.01	.00	1614.40	1611.41	1.00	77.00	1609.90	1.00
	22.669	.00	816.00	.00	.00	6.09	.00	1614.40	1611.64	.57	77.00	1609.90	1.00
*	22.697	.00	816.00	.00	.00	4.89	.00	1615.00	1612.67	1.25	77.00	1610.50	1.00
*	22.697	.00	816.00	.00	.00	4.92	.00	1615.00	1612.65	1.02	77.00	1610.50	1.00
	-2.322	227.76	588.65	1008.59	2.55	7.32	5.27	1592.00	1588.81	-23.86	278.04	1584.40	1.31
	-2.322	124.94	636.01	1064.05	3.83	6.30	5.04	1592.00	1589.63	-23.02	100.00	1584.40	1.06
*	32.418	3.06	88.93	42.01	.75	2.35	1.29	1597.40	1593.45	4.64	89.42	1590.10	1.30
*	32.418	.00	133.99	.00	.00	6.27	.05	1597.40	1592.56	2.93	18.35	1590.10	1.01
*	32.492	.00	125.76	8.24	.00	5.10	1.49	1601.10	1598.30	4.85	48.54	1595.20	1.24
*	32.492	.00	124.50	9.50	.00	4.07	1.94	1601.10	1598.59	6.03	28.89	1595.20	1.10
	32.558	6.51	127.25	.24	2.07	4.23	.99	1606.80	1603.50	5.20	37.57	1601.80	1.07
*	32.558	.00	134.00	.00	.00	5.37	.00	1606.80	1603.32	4.74	29.00	1601.80	1.00
*	32.575	18.23	75.78	39.99	2.53	5.13	3.48	1607.00	1605.36	1.85	56.71	1604.30	1.21
	32.575	23.32	94.37	16.32	3.15	5.19	3.71	1607.00	1605.58	2.25	30.00	1604.30	1.12
*	32.584	.00	134.00	.00	.00	4.07	.00	1610.80	1606.81	1.46	64.00	1606.30	1.00
*	32.584	.00	134.00	.00	.00	4.09	.00	1610.80	1606.81	1.23	64.00	1606.30	1.00
*	32.610	.00	134.00	.00	.00	2.83	.00	1611.50	1607.73	.92	64.00	1607.00	1.00
*	32.610	.00	134.00	.00	.00	2.83	.00	1611.50	1607.73	.92	64.00	1607.00	1.00
	-1.939	935.01	864.04	66.95	3.49	8.10	2.57	1571.10	1567.65	-40.09	312.11	1563.40	1.70
	-1.939	698.39	1167.61	.00	4.63	8.68	.00	1571.10	1568.58	-39.15	104.80	1563.40	1.29
*	42.070	3.41	45.15	13.44	.52	.70	.47	1574.30	1573.85	6.20	104.50	1570.10	1.23
*	42.070	.00	62.00	.00	.00	.88	.00	1574.30	1574.39	5.81	36.90	1570.10	1.00
*	42.130	1.05	60.94	.01	1.26	4.29	.05	1578.90	1576.67	2.82	31.26	1574.40	1.08
*	42.130	.00	62.00	.00	.00	4.75	.00	1578.90	1576.61	2.22	20.50	1574.40	1.00
*	42.200	.00	25.56	36.44	.00	2.05	1.88	1583.90	1580.94	4.28	53.18	1579.50	1.01
*	42.200	.00	62.00	.00	.00	2.70	.00	1583.90	1581.43	4.81	24.00	1579.50	1.00
*	42.299	.00	62.00	.00	.00	4.87	.00	1592.00	1586.41	5.46	15.31	1584.40	1.00
*	42.299	.00	62.00	.00	.00	4.30	.00	1592.00	1586.52	5.10	16.17	1584.40	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	42.401	13.38	38.09	10.53	2.96	4.70	2.84	1599.10	1597.60	11.19	20.00	1595.20	1.17
	42.401	.00	62.00	.00	.00	5.86	.00	1599.10	1597.90	11.38	7.90	1595.20	1.00
*	42.406	.00	62.00	.00	.00	6.60	.00	1602.40	1600.74	3.14	7.00	1599.40	1.00
*	42.406	.00	62.00	.00	.00	6.62	.00	1602.40	1600.74	2.84	7.00	1599.40	1.00
*	42.432	.00	62.00	.00	.00	3.58	.00	1603.00	1602.47	1.73	7.00	1600.00	1.00
*	42.432	.00	62.00	.00	.00	3.59	.00	1603.00	1602.47	1.73	7.00	1600.00	1.00
	42.436	4.53	52.69	4.78	.69	1.86	.69	1604.00	1602.70	.23	56.73	1600.50	1.37
	42.436	4.49	52.77	4.74	.69	1.87	.69	1604.00	1602.69	.23	56.52	1600.50	1.37
	-1.678	737.71	700.16	501.13	3.44	6.38	3.48	1557.00	1553.18	-49.52	422.96	1549.40	1.30
	-1.678	19.69	1087.56	831.75	3.09	6.99	4.81	1557.00	1554.19	-48.50	120.00	1549.40	1.12
*	51.836	26.07	54.84	1.09	.98	2.76	.51	1563.10	1561.32	8.15	117.44	1557.10	1.39
*	51.836	5.49	76.51	.00	1.37	4.66	.00	1563.10	1561.10	6.91	35.91	1557.10	1.27
*	51.930	74.48	7.52	.00	1.96	1.15	.00	1571.10	1569.50	8.17	210.69	1563.40	1.07
*	51.930	41.08	40.92	.00	1.17	1.21	.00	1571.10	1569.90	8.80	126.20	1563.40	1.00
*	52.080	21.30	32.55	28.15	1.26	2.19	1.62	1577.90	1577.08	7.58	132.26	1575.90	1.16
*	52.080	.00	82.00	.00	.00	4.68	.00	1577.90	1577.18	7.28	26.90	1575.90	1.00
*	52.175	3.45	12.58	65.98	1.54	2.05	2.30	1584.40	[illegible]	[illegible]	[illegible]	[illegible]	1.02
*	52.175	.00	82.00	.00	.00	3.00	.00	1584.40	1584.33	7.16	23.70	1582.60	1.00
	52.248	.00	82.00	.00	.00	3.15	.00	1590.00	1589.03	5.58	32.74	1588.00	1.00
*	52.248	.00	82.00	.00	.00	4.24	.00	1590.00	1588.83	4.49	31.59	1588.00	1.00
*	52.259	.00	82.00	.00	.00	[illegible]	.00	1594.70	1591.90	2.87	11.00	1590.50	1.30
*	52.259	.00	82.00	.00	.00	6.23	.00	1593.70	1591.90	3.07	11.00	1590.50	1.00
*	52.285	.00	82.00	.00	.00	3.04	.00	1594.10	1593.55	1.65	11.00	1590.90	1.00
*	52.285	.00	82.00	.00	.00	3.04	.00	1594.10	1593.55	1.65	11.00	1590.90	1.00
*	52.287	[illegible]	89.76	1.24	.00	4.46	1.76	1595.00	1593.52	-.03	19.30	1592.00	1.03
*	52.289	.00	80.70	1.30	.00	4.46	1.95	1595.00	1593.52	-.03	18.90	1592.00	1.03
	-1.413	544.94	1051.85	645.70	[illegible]	[illegible]	3.31	1539.70	1536.80	-56.72	345.32	1532.10	1.32
	-1.413	192.39	1450.15	597.46	4.17	6.91	4.83	1539.70	1537.84	-55.68	109.00	1532.10	1.11
*	61.538	23.67	251.44	74.86	1.51	5.11	4.24	1543.80	1542.76	5.96	116.56	1539.90	1.27
*	61.538	.00	350.00	.00	.00	6.74	.00	1543.80	1542.83	4.99	39.00	1539.90	1.00
	61.670	25.65	227.94	96.41	1.88	3.49	[illegible]	[illegible]	[illegible]	10.21	716.70	1550.40	1.26
*	61.670	.00	350.00	.00	.00	3.70	.00	1554.20	1553.45	10.61	63.20	1550.40	1.00
	61.811	30.49	142.11	177.40	2.66	6.52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1558.30	1.30
*	61.811	7.76	229.23	113.01	2.20	8.37	6.26	1563.10	1561.61	8.16	30.00	1558.30	1.15

	SECND	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	61.936	38.02	217.06	94.93	1.90	4.79	1.34	1571.10	1569.85	8.71	286.71	1567.20	2.39
*	61.936	3.73	345.05	1.22	2.04	5.77	1.54	1571.10	1570.46	8.85	26.00	1567.20	1.05
*	62.027	214.45	132.51	3.04	3.03	5.25	.82	1577.90	1576.26	5.41	169.51	1573.20	1.30
*	62.027	.00	350.00	.00	.00	7.97	.00	1577.90	1576.19	5.73	20.10	1573.20	1.00
*	62.074	.00	307.84	42.16	.00	5.68	2.35	1581.00	1580.56	5.30	82.91	1578.20	1.23
	62.074	.00	350.00	.00	.00	5.26	.00	1581.00	1580.97	4.68	42.58	1578.20	1.00
*	62.087	.00	350.00	.00	.00	5.28	.00	1583.20	1581.40	.64	39.00	1579.70	1.00
*	62.087	.00	350.00	.00	.00	4.82	.00	1583.20	1581.57	.70	39.00	1579.70	1.00
*	62.114	.00	350.00	.00	.00	3.16	.00	1583.90	1583.24	1.84	39.00	1580.40	1.00
*	62.114	.00	350.00	.00	.00	3.16	.00	1583.90	1583.24	1.67	39.00	1580.40	1.00
*	62.127	.00	347.40	2.60	.00	6.86	1.64	1584.50	1584.36	1.13	40.71	1581.20	1.04
*	62.127	.00	347.41	2.59	.00	6.87	1.64	1584.50	1584.36	1.13	40.70	1581.20	1.04

WABH NO.4 100-YEAR PROF

SUMMARY PRINTOUT

	SECND	XLCH	K*CHSL	EG	HV	HL	QLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.159	.00	.00	1476.60	.10	.00	.00	79.59	.00	2.10	49.00	42.00	49.00
	.159	.00	.00	1477.75	.25	.00	.00	79.30	.00	3.10	49.00	42.00	49.00
	.273	630.00	7.62	1481.26	.08	4.65	.00	63.75	14.66	1.98	49.00	42.00	49.00
	.273	630.00	7.62	1482.04	.16	4.28	.01	56.75	9.76	2.67	49.00	42.00	49.00
*	.417	750.00	6.27	1487.87	.44	6.50	.11	136.75	27.42	3.52	49.00	42.00	49.00
*	.417	750.00	6.27	1489.09	.66	5.79	.15	118.73	19.43	4.53	49.00	42.00	49.00
	.564	585.00	6.32	1493.91	.49	6.03	.02	80.90	34.36	5.81	49.00	42.00	49.00
	.564	585.00	6.32	1495.16	.96	5.98	.09	88.93	24.50	6.60	49.00	42.00	49.00
	.689	710.00	10.14	1500.45	.24	6.52	.03	108.33	43.67	5.41	49.00	42.00	49.00
	.689	710.00	10.14	1501.48	.42	6.26	.05	90.10	30.96	6.27	49.00	42.00	.00
	.795	650.00	12.92	1506.24	.14	5.78	.01	89.95	53.08	2.90	49.00	42.00	49.00
	.795	650.00	12.92	1507.34	.40	5.85	.00	106.98	37.40	3.74	49.00	42.00	49.00
	.917	730.00	9.04	1512.37	.20	6.14	.02	102.10	63.65	2.40	49.00	42.00	49.00
	.917	730.00	9.04	1513.47	.23	6.12	.02	82.59	45.41	3.44	.00	42.00	49.00
	1.038	705.00	8.94	1519.18	.19	6.78	.00	97.22	73.97	2.88	49.00	42.00	49.00
	1.038	705.00	8.94	1520.36	.39	6.84	.05	123.61	53.68	3.87	.00	42.00	49.00
	1.167	645.00	8.06	[illegible]	[illegible]		[illegible]	[illegible]	83.18	3.62	49.00	42.00	49.00
	1.167	645.00	8.06	1526.33	.53	5.92	.04	70.93	60.33	4.50	49.00	42.00	49.00
	1.292	670.00	7.76	1531.16	.16	[illegible]	.04	89.21	91.51	4.19	49.00	42.00	49.00
	1.292	670.00	7.76	1532.58	1.13	6.08	.18	119.07	65.93	4.96	49.00	42.00	.00
	1.413	720.00	7.78	1537.23	.64	6.07	.03	[illegible]	79.82	4.70	49.00	42.00	49.00
*	1.413	720.00	7.78	1538.44	.60	5.80	.05	58.32	71.42	5.74	49.00	42.00	49.00
*	1.553	730.00	10.14	1546.11	.56	6.54	.04	105.83	107.04	4.05	49.00	42.00	49.00
*	1.553	730.00	10.14	1547.26	1.21	6.21	.18	150.15	76.59	6.55	.00	42.00	49.00
	1.678	730.00	13.56	1553.52	.35	7.40	.02	101.10	114.11	3.78	49.00	42.00	49.00
*	1.678	730.00	13.56	1554.78	.58	7.45	.06	76.02	81.33	4.79	49.00	42.00	49.00
	1.818	725.00	10.62	[illegible]	[illegible]	[illegible]	.01	91.26	128.33	3.34	49.00	42.00	49.00
	1.818	725.00	10.62	1561.89	.71	7.07	.04	132.41	86.43	4.07	49.00	42.00	49.00
*	1.939	680.00	9.26	1568.27	.50	6.63	.10	102.66	129.33	4.25	49.00	42.00	49.00
	1.939	680.00	9.26	1569.44	.86	7.51	.04	93.94	90.85	5.18	49.00	42.00	.00
	2.057	670.00	10.00	1573.63	.25	5.38	.03	67.75	136.09	3.28	49.00	42.00	49.00
	2.057	670.00	10.00	1574.67	.45	5.19	.04	67.55	95.65	4.12	.00	42.00	49.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	2.148	550.00	7.82	1579.10	.53	4.18	.08	96.83	141.55	4.17	49.00	42.00	49.00
*	2.148	550.00	7.82	1580.27	1.30	5.19	.25	153.90	99.10	4.57	.00	42.00	49.00
	2.204	200.00	22.00	1581.50	.37	2.39	.02	150.59	143.49	2.34	49.00	42.00	49.00
	2.204	200.00	22.00	1582.62	.51	2.28	.08	87.50	100.36	3.32	49.00	42.00	49.00
	2.242	350.00	2.00	1585.07	.48	3.54	.03	87.93	146.31	5.09	49.00	42.00	49.00
	2.242	350.00	2.00	1586.32	1.19	3.50	.20	136.09	102.36	5.63	.00	42.00	49.00
	2.322	470.00	10.43	1589.33	.52	4.24	.01	94.10	150.28	4.41	49.00	42.00	49.00
*	2.322	470.00	10.43	1590.09	.86	3.69	.07	51.22	105.36	5.23	49.00	42.00	49.00
*	2.439	620.00	9.19	1596.61	.99	6.47	.14	115.98	154.63	5.52	49.00	42.00	49.00
*	2.439	620.00	9.19	1598.19	1.95	5.33	.45	181.76	108.96	6.13	.00	42.00	49.00
*	2.523	425.00	12.00	1601.73	.88	4.89	.01	114.05	157.11	5.65	49.00	42.00	49.00
*	2.523	425.00	12.00	1602.07	.50	3.74	.15	51.71	111.38	6.37	49.00	42.00	49.00
*	2.621	550.00	16.36	1607.76	.38	5.98	.05	99.72	160.17	3.18	49.00	42.00	49.00
*	2.621	550.00	16.36	1609.03	1.19	3.97	.21	168.10	114.22	3.65	49.00	42.00	49.00
*	2.750	710.00	10.00	1614.39	.23	6.61	.02	64.43	162.39	2.86	49.00	42.00	49.00
*	2.750	710.00	10.00	1615.18	.07	6.04	.11	11.83	115.75	3.82	49.00	42.00	49.00
*	2.759	50.00	74.00	1617.88	.97	.55	.37	223.59	162.42	1.91	.00	35.00	.00
*	2.759	50.00	74.00	1617.88	.96	.16	.45	223.08	115.81	1.92	.00	35.00	.00
*	2.784	133.00	3.01	1618.47	.56	.59	.00	11.80	162.49	2.51	.00	12.00	.00
*	2.784	133.00	3.01	1618.47	.56	.59	.00	11.80	115.87	2.51	.00	12.00	.00
*	2.798	75.00	18.67	1618.73	.37	.21	.06	119.54	162.54	1.56	.00	35.00	.00
*	2.798	75.00	18.67	1618.73	.37	.21	.06	119.61	115.92	1.56	.00	35.00	.00
	-2.621	550.00	.00	1607.76	.38	.00	.00	99.19	164.15	3.16	49.00	42.00	49.00
	-2.621	550.00	.00	1609.03	1.18	.00	.00	195.56	116.80	3.65	.00	42.00	49.00
	12.725	550.00	12.18	1613.81	.43	6.04	.01	129.57	166.51	2.48	49.00	42.00	49.00
*	12.725	550.00	12.18	1614.15	.23	5.03	.10	51.19	118.72	3.02	49.00	42.00	49.00
	12.734	45.00	31.11	1614.49	.63	.58	.10	129.68	166.65	1.57	.00	35.00	.00
	12.734	45.00	31.11	1614.56	.48	.27	.13	83.87	118.90	1.78	.00	35.00	.00
*	12.760	137.00	3.65	1615.23	.36	.74	.00	6.11	167.09	2.07	.00	12.00	.00
*	12.760	137.00	3.65	1615.22	.36	.66	.00	6.16	119.37	2.06	.00	12.00	.00
*	12.775	80.00	33.75	1617.62	.62	.14	.13	169.84	167.35	1.50	.00	35.00	.00
*	12.775	80.00	33.75	1617.62	.62	.14	.13	169.74	119.62	1.50	.00	35.00	.00
	-2.439	620.00	.00	1596.61	.99	8.05	-8.05	115.98	169.98	5.52	49.00	42.00	49.00
	-2.439	620.00	.00	1598.19	1.95	11.04	-11.04	181.76	121.61	6.13	.00	42.00	49.00

	SECND	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	22.523	425.00	12.00	1601.54	.60	4.89	.04	114.37	172.54	5.74	49.00	42.00	49.00
*	22.523	425.00	12.00	1602.05	.35	3.70	.16	50.96	124.11	6.50	49.00	42.00	.00
*	22.617	495.00	18.18	1608.54	.39	5.61	.02	104.69	175.33	3.95	49.00	42.00	49.00
*	22.617	495.00	18.18	1609.23	.87	3.47	.15	159.44	124.87	4.16	49.00	42.00	49.00
	22.657	210.00	18.57	1610.85	.44	2.30	.02	112.69	176.23	2.31	49.00	42.00	49.00
	22.657	210.00	18.57	1611.59	.53	2.33	.03	81.64	127.52	2.96	49.00	42.00	49.00
*	22.669	65.00	27.69	1612.17	.76	.88	.16	165.59	176.44	1.81	.00	35.00	.00
	22.669	65.00	27.69	1612.21	.58	.60	.03	104.34	127.73	1.74	.00	35.00	.00
*	22.697	148.00	4.05	1613.04	.37	.86	.00	5.98	176.92	2.17	.00	12.00	.00
*	22.697	148.00	4.05	1613.03	.38	.82	.00	6.11	128.24	2.15	.00	12.00	.00
	-2.322	470.00	.00	1589.33	.52	.00	.00	93.76	179.75	4.41	49.00	42.00	49.00
	-2.322	470.00	.00	1590.09	.46	.00	.00	51.32	130.98	5.23	49.00	42.00	49.00
*	32.418	555.00	10.27	1593.51	[illegible]	[illegible]	[illegible]	[illegible]	180.33	5.35	49.00	42.00	49.00
*	32.418	555.00	10.27	1593.17	.61	2.95	.04	257.97	133.13	2.46	.00	42.00	49.00
*	32.492	415.00	12.29	1598.68	.38	5.68	.09	162.60	181.82	3.10	.00	42.00	49.00
*	32.492	415.00	12.29	1598.83	.24	5.62	.04	83.47	133.40	3.39	.00	42.00	49.00
	32.558	340.00	19.41	1603.77	.27	5.08	.01	136.93	183.07	1.70	49.00	42.00	49.00
*	32.558	340.00	19.41	1603.77	.45	4.83	.06	293.75	133.64	1.52	.00	42.00	.00
*	32.575	95.00	26.32	1605.66	.30	1.65	.01	230.06	183.14	1.06	49.00	42.00	49.00
	32.575	95.00	26.32	1605.92	.35	2.14	.01	178.28	133.70	1.28	49.00	42.00	49.00
*	32.584	50.00	40.00	1607.07	.26	1.15	.01	228.49	183.18	.51	.00	35.00	.00
*	32.584	50.00	40.00	1607.07	.26	1.01	.03	230.85	133.73	.51	.00	35.00	.00
*	32.610	135.00	5.18	1607.86	.12	.79	.00	8.08	183.30	.73	.00	12.00	.00
*	32.610	135.00	5.18	1607.86	.12	.79	.00	8.08	133.86	.73	.00	12.00	.00
	-1.939	680.00	.00	1568.22	.57	.00	.00	102.10	196.80	4.29	49.00	42.00	49.00
	-1.939	680.00	.00	1569.44	.86	.00	.00	93.97	136.45	5.18	49.00	42.00	.00
*	42.070	690.00	9.71	1573.86	.01	5.58	.06	4.31	190.65	3.75	49.00	42.00	49.00
*	42.070	690.00	9.71	1574.41	.01	4.88	.08	2.86	139.27	4.29	.00	42.00	.00
*	42.130	320.00	13.44	1576.95	.28	.43	.08	255.86	191.01	2.27	49.00	42.00	49.00
*	42.130	320.00	13.44	1576.96	.35	.31	.10	333.06	139.58	2.21	.00	42.00	.00
*	42.200	370.00	13.78	1581.00	.06	4.03	.02	60.01	191.21	1.44	.00	42.00	49.00
*	42.200	370.00	13.78	1581.54	.11	4.55	.02	63.50	139.73	1.93	.00	42.00	.00
*	42.299	525.00	9.33	1586.77	.37	5.68	.09	250.49	191.48	2.01	.00	42.00	.00
*	42.299	525.00	9.33	1586.81	.29	5.22	.05	177.23	139.96	2.12	.00	42.00	.00

	SECND	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	42.401	540.00	20.00	1597.86	.26	11.07	.01	171.48	191.66	2.40	49.00	42.00	49.00
	42.401	540.00	20.00	1598.44	.53	11.55	.07	263.37	140.11	2.70	.00	42.00	.00
*	42.406	25.00	168.00	1601.42	.68	.51	.21	251.27	191.67	1.34	.00	35.00	.00
*	42.406	25.00	168.00	1601.42	.68	.65	.07	253.52	140.12	1.34	.00	35.00	.00
*	42.432	135.00	4.44	1602.67	.20	1.25	.00	20.41	191.71	2.47	.00	24.00	.00
*	42.432	135.00	4.44	1602.67	.20	1.25	.00	20.53	140.16	2.47	.00	24.00	.00
	42.436	20.00	25.00	1602.74	.05	.03	.05	10.73	191.72	2.20	35.00	35.00	35.00
	42.436	20.00	25.00	1602.74	.05	.03	.05	10.84	140.17	2.19	35.00	35.00	35.00
	-1.678	730.00	.00	1553.52	.35	.00	.00	101.10	195.89	3.78	49.00	42.00	49.00
	-1.678	730.00	.00	1554.78	.58	.00	.00	76.05	143.26	4.79	49.00	42.00	49.00
*	51.836	820.00	9.39	1561.41	.08	7.86	.03	46.29	200.63	4.22	49.00	42.00	49.00
*	51.836	820.00	9.39	1561.42	.32	6.34	.03	172.30	146.53	4.00	49.00	42.00	.00
*	51.980	725.00	8.69	1569.55	.06	6.27	.00	230.60	201.39	6.10	49.00	42.00	.00
*	51.980	725.00	8.69	1569.92	.02	4.26	11.34	29.74	147.26	6.50	49.00	42.00	.00
*	52.080	580.00	21.55	1577.13	.05	7.57	.00	85.13	202.01	1.18	49.00	42.00	49.00
*	52.080	580.00	21.55	1577.52	.34	4.13	.10	347.55	147.84	1.28	.00	42.00	.00
*	52.175	520.00	12.88	1583.52	.08	6.38	.01	203.36	202.51	.84	49.00	42.00	49.00
*	52.175	520.00	12.88	1584.47	.14	6.94	.02	69.99	148.10	1.73	.00	42.00	.00
	52.248	370.00	14.59	1589.18	.15	5.64	.02	118.29	202.78	1.03	49.00	42.00	49.00
*	52.248	370.00	14.59	1589.11	.28	4.59	.04	277.91	148.30	.83	.00	42.00	.00
*	52.259	60.00	41.67	1592.50	.60	.95	.22	221.34	202.81	1.40	.00	35.00	.00
*	52.259	60.00	41.67	1592.50	.60	1.48	.16	220.99	148.32	1.40	.00	35.00	.00
*	52.285	137.00	2.92	1593.69	.14	1.19	.00	11.96	202.87	2.65	.00	24.00	.00
*	52.285	137.00	2.92	1593.69	.14	1.19	.00	11.96	149.39	2.65	.00	24.00	.00
*	52.289	20.00	55.00	1593.83	.31	.05	.08	102.85	202.88	1.52	.00	35.00	35.00
*	52.289	20.00	55.00	1593.83	.30	.05	.08	102.50	148.40	1.52	.00	35.00	35.00
	-1.413	720.00	.00	1537.23	.44	.00	.00	81.14	207.02	4.70	49.00	42.00	49.00
	-1.413	720.00	.00	1538.44	.60	.00	.00	58.58	151.68	5.74	49.00	42.00	49.00
*	61.538	680.00	11.47	1543.12	.35	5.87	.01	154.72	211.37	2.86	49.00	42.00	49.00
*	61.538	680.00	11.47	1543.56	.70	4.58	.03	253.87	155.00	2.93	.00	42.00	.00
	61.690	850.00	12.35	1553.12	.14	9.98	.02	94.53	213.40	2.57	49.00	42.00	49.00
*	61.690	850.00	12.35	1553.66	.21	10.07	.05	68.32	156.43	3.05	.00	42.00	.00
	61.811	680.00	11.62	1561.54	.39	8.34	.08	185.62	213.05	2.84	49.00	42.00	49.00
*	61.811	680.00	11.62	1562.52	.91	7.46	.21	204.15	157.55	3.31	49.00	42.00	49.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	61.936	700.00	12.71	1570.09	.23	7.62	.02	79.91	216.71	2.65	49.00	42.00	49.00
*	61.936	700.00	12.71	1570.97	.51	8.42	.04	80.16	158.44	3.26	49.00	42.00	49.00
*	62.027	490.00	12.24	1575.51	.25	5.42	.00	164.31	218.02	2.06	49.00	42.00	49.00
*	62.027	490.00	12.24	1577.18	.99	6.06	.14	215.61	159.04	2.99	.00	42.00	.00
*	62.074	250.00	20.00	1581.01	.45	4.20	.06	171.75	218.51	2.36	.00	42.00	49.00
	62.074	250.00	20.00	1581.30	.43	4.06	.06	126.85	159.35	2.67	.00	42.00	.00
*	62.087	70.00	21.43	1581.84	.43	.82	.01	85.36	218.63	1.70	.00	35.00	.00
*	62.087	70.00	21.43	1581.93	.36	.61	.02	63.36	159.46	1.87	.00	35.00	.00
*	62.114	141.00	4.96	1583.39	.16	1.56	.00	1.94	218.91	2.84	.00	12.00	.00
*	62.114	141.00	4.96	1583.39	.16	1.47	.00	1.95	159.76	2.84	.00	12.00	.00
*	62.127	70.00	11.43	1585.09	.73	.04	.29	146.11	219.04	3.16	.00	35.00	35.00
*	62.127	70.00	11.43	1585.09	.73	.04	.29	146.22	159.89	3.16	.00	35.00	35.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .417  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      .417  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .417  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.413  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.553  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.553  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.553  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.553  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.553  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.678  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.939  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.939  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.148  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.148  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.148  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.148  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.322  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.439  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.439  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.439  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.439  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.439  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     2.523  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.523  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     2.523  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.621  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     2.621  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.621  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.621  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     2.750  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.750  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.759  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.759  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.759  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     2.759  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.759  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.759  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     2.784  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.784  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

```
WARNING SECNO=     2.798  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.798  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    12.725  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    12.760  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    12.760  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    12.775  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.775  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.775  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    12.775  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.775  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.775  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    22.523  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.617  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.617  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.617  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.617  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.617  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    22.669  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.669  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    22.697  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.697  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    32.418  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    32.418  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.418  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    32.418  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    32.492  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.492  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    32.492  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=    32.492  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    32.558  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.558  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    32.575  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.575  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    32.584  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.584  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    32.584  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    32.584  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    32.610  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    32.610  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

```
WARNING SECNO=    42.070  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    42.070  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    42.130  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    42.130  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    42.130  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    42.130  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    42.130  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    42.130  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    42.200  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    42.200  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    42.299  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    42.299  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    42.406  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    42.406  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    42.406  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    42.406  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    42.406  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    42.406  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    42.432  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    42.432  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    42.432  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    42.432  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    51.836  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    51.836  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    51.836  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    51.836  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    51.980  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    51.980  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    51.980  PROFILE=  2  WSEL ASSUMED BASED ON MIN DIFF
CAUTION SECNO=    51.980  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    52.080  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    52.080  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    52.080  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    52.080  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    52.175  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    52.175  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    52.248  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    52.259  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    52.259  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    52.259  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    52.259  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    52.259  PROFILE=  2  MINIMUM SPECIFIC ENERGY
```

```
CAUTION SECNO=    52.285  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    52.285  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    52.285  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    52.285  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    52.289  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    52.289  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    61.538  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    61.538  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    61.538  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    61.538  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    61.690  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    61.811  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    61.811  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    61.936  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    61.936  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    61.936  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    62.027  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    62.027  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    62.074  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    62.074  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    62.087  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    62.087  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    62.114  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    62.114  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    62.127  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    62.127  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    62.127  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    62.127  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    62.127  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    62.127  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO.4 100-YEAR PROF
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
.159	353.	380.	3.9	1477.5	1476.5	1.0
.273	530.	739.	3.1	1481.9	1481.2	.7
.417	280.	483.	5.4	1488.4	1487.4	1.0
.564	175.	332.	6.9	1494.2	1493.4	.8
.689	289.	478.	4.8	1501.1	1500.2	.9
.795	299.	482.	4.7	1506.9	1506.1	.8
.917	417.	592.	3.8	1513.2	1512.2	1.0
1.038	277.	461.	4.9	1520.0	1519.0	1.0
1.167	179.	437.	5.2	1525.8	1524.8	1.0
1.292	96.	287.	7.9	1531.5	1530.7	.8
1.413	109.	380.	5.9	1537.8	1536.8	1.0
1.553	102.	243.	8.0	1546.0	1545.5	.5
1.678	120.	335.	5.8	1554.2	1553.2	1.0
1.818	113.	282.	6.6	1561.1	1560.4	.7
1.939	105.	285.	6.5	1568.5	1567.6	.9
2.057	135.	357.	5.1	1574.2	1573.4	.8
2.148	79.	216.	8.5	1579.0	1578.6	.4
2.204	140.	335.	5.4	1582.1	1581.1	1.0
2.242	64.	213.	8.6	1585.1	1584.6	.5
2.322	100.	345.	5.3	1589.6	1588.8	.8
2.439	39.	157.	10.8	1596.2	1595.6	.6
2.523	129.	338.	5.0	1601.5	1600.8	.7
2.621	44.	112.	8.0	1607.9	1607.4	.5
2.750	36.	79.	1.9	1615.2	1614.2	1.0
2.759	10.	19.	7.9	1616.9	1616.9	.0
2.784	10.	25.	6.0	1617.9	1617.9	.0
2.798	28.	31.	4.9	1618.4	1618.4	.0
-2.621	42.	108.	8.3	1607.9	1607.4	.5
12.725	99.	207.	3.7	1613.9	1613.4	.5
12.734	77.	138.	5.6	1614.1	1613.9	.2
12.760	77.	159.	4.8	1614.9	1614.9	.0
12.775	99.	121.	6.3	1617.0	1617.0	.0
-2.439	39.	157.	10.8	1596.2	1595.6	.6
22.523	129.	355.	4.8	1601.7	1600.9	.8
22.617	70.	122.	6.7	1608.4	1608.2	.2
22.657	55.	146.	5.6	1611.1	1610.4	.7
22.669	77.	134.	6.1	1611.6	1611.4	.2
22.697	77.	166.	4.9	1612.7	1612.7	.0
-2.322	100.	345.	5.3	1589.6	1588.8	.8
32.419	18.	21.	6.2	1592.5	1593.4	-.9
32.492	29.	35.	3.8	1598.6	1598.3	.3
32.558	29.	25.	5.4	1603.3	1603.5	-.2

FLOODWAY DATA, WASH NO.4 100-YEAR PROF
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
32.575	30.	30.	4.5	1605.6	1605.4	.2
32.584	64.	33.	4.1	1606.8	1606.8	.0
32.610	64.	47.	2.8	1607.7	1607.7	.0
-1.939	105.	285.	6.5	1568.5	1567.6	.9
42.070	37.	71.	.9	1574.3	1573.8	.5
42.130	21.	13.	4.8	1576.6	1576.7	-.1
42.200	24.	23.	2.7	1581.4	1580.9	.5
42.299	16.	14.	4.3	1586.5	1586.4	.1
42.401	9.	11.	5.9	1597.9	1597.6	.3
42.406	7.	9.	6.6	1600.7	1600.7	.0
42.432	7.	17.	3.6	1602.5	1602.5	.0
42.436	57.	42.	1.5	1602.7	1602.7	.0
-1.678	120.	335.	5.8	1554.2	1553.2	1.0
51.836	36.	20.	4.0	1561.1	1561.3	-.2
51.980	126.	69.	1.2	1569.9	1569.5	.4
52.080	27.	18.	4.7	1577.2	1577.1	.1
52.175	24.	27.	3.0	1584.3	1583.4	.9
52.248	32.	19.	4.2	1588.8	1589.0	-.2
52.259	11.	13.	6.2	1591.9	1591.9	.0
52.285	11.	27.	3.0	1593.5	1593.5	.0
52.289	19.	19.	4.4	1593.5	1593.5	.0
-1.413	109.	380.	5.9	1537.8	1536.8	1.0
61.538	39.	52.	6.7	1542.9	1542.8	.1
61.690	63.	95.	3.7	1583.5	1583.0	.5
61.811	30.	49.	7.1	1561.6	1561.1	.5
61.936	26.	62.	5.6	1570.5	1569.9	.6
62.027	20.	44.	8.0	1576.2	1575.3	.9
62.074	43.	67.	5.3	1580.9	1580.6	.3
62.087	39.	73.	4.8	1581.6	1581.4	.2
62.114	39.	111.	3.2	1583.2	1583.2	.0
62.127	41.	52.	6.7	1584.4	1584.4	.0

THIS RUN EXECUTED 04SEP91 13:04:41

```
**********************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
**********************************


T1      SUN VALLEY PARKWAY NORTH FIS.  CONTRACT:FCDMC NO. 90-04   FILE:WASH5-2
T2      100-YEAR WATER SURFACE PROFILE              A-N WEST INC. PHX. AZ.
T3      WASH NO. 5  100-YEAR PROFILE                   DATE: 6\27\91;REV.8\6\91

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0        2                   0     .0081                                      1468

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43         1         2        26        39        21        22        27        28
    53        54         0        38        13        14        15        55        26        56
    63         1        51         4        42        57         0        38        39        33
     3        10        11        12         5         7         8        16        17        18
     0       200

NC    .049      .049      .042        .1        .3
QT       2      2469      2469
ET                         9.1                                                        10054.4   10523.17
        FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
        ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        CROZIER ROAD (219 TH AVE) CROSSES 100 FT. UPSTREAM OF THIS SECTION
        AS AN AT-GRADE CROSSING (A.K.A. DIP SECTION)
X1    .0587        95   10054.4   10069.7         0         0         0
GR   1468.3      9500    1466.8    9856.5    1467.8    9862.6    1467.1    9866.2    1467.1    9875.6
GR   1467.3    9889.4    1467.5    9903.2    1467.6    9920.3    1467.5    9936.7    1467.6    9957.0
GR   1467.7   10014.9    1467.7   10027.0    1467.6   10038.6    1467.6   10048.8    1467.4   10054.4
GR   1465.0   10058.5    1464.9   10066.1    1466.0   10069.7    1466.3   10074.6    1467.5   10083.6
GR   1467.7   10247.4    1467.5   10264.1    1467.4   10282.7    1467.3   10304.1    1467.3   10329.7
```

```
GR   1467.4   10408.1   1467.6   10429.3   1467.6   10450.4   1467.9   10467.4   1467.6   10483.8
GR   1467.6   10564.6   1467.6   10582.1   1467.6   10599.1   1467.6   10613.5   1467.8   10627.7
GR   1467.6   10635.4   1466.8   10641.5   1467.3   10647.1   1467.5   10654.3   1467.4   10668.9
GR   1467.2   10738.6   1467.3   10751.5   1467.6   10762.5   1467.8   10774.8   1467.2   10786.0
GR   1467.4   10798.9   1467.7   10809.9   1467.7   10819.8   1467.7   10831.4   1467.8   10845.7
GR   1467.9   10858.4   1468.0   10869.5   1467.8   10879.7   1468.3   10891.6   1467.9   10899.1
GR   1467.7   10908.2   1467.4   10917.2   1467.3   10929.6   1467.5   10938.6   1467.5   10944.7
GR   1467.9   10956.2   1467.2   10968.7   1466.9   10978.6   1466.8   10992.1   1466.6   11003.2
GR   1466.6   11012.5   1466.8   11023.1   1466.9   11046.2   1467.1   11075.6   1467.0   11101.0
GR   1467.2   11169.9   1467.1   11187.6   1467.0   11200.5   1467.2   11212.4   1466.9   11225.0
GR   1466.6   11293.8   1466.1   11299.7   1466.9   11307.0   1466.7   11312.1   1466.3   11316.7
GR   1466.8   11324.4   1467.0   11335.3   1466.9   11351.8   1466.8   11367.6   1466.4   11377.9
GR   1466.0   11383.7   1466.2   11388.6   1466.6   11393.8   1466.6   11403.0   1466.7   11410.1
GR   1466.7   11416.5   1466.5   11424.1   1466.8   11432.1   1467.1   11445.2   1468.3     11700

ET              7.1       9.1                                 9507.4   11645.2   9669.2     10325
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
        ON LEFT SIDE AT THIS SECTION.
X1    .1534       95    9669.2    9711.4       680       500       680
GR   1472.7    9304.8   1473.0    9370.0   1473.0    9374.6   1471.8    9381.6   1470.4    9386.5
GR   1470.8    9390.4   1472.0    9394.4   1472.4    9397.9   1472.5    9399.3   1471.3    9402.6
GR   1471.7    9405.1   1473.0    9408.6   1473.0    9414.0   1472.7    9418.6   1472.7    9426.1
GR   1473.1    9507.4   1472.9    9525.4   1472.7    9540.1   1472.5    9552.5   1472.6    9569.1
GR   1472.3    9663.6   1472.5    9669.2   1471.9    9674.1   1470.8    9680.1   1470.8    9684.1
GR   1471.1    9689.3   1471.0    9692.3   1470.6    9698.0   1471.5    9703.3   1472.1    9711.4
GR   1472.5    9918.8   1472.7    9933.3   1472.6    9949.3   1472.8    9958.1   1473.0    9970.7
GR   1472.9   10017.3   1473.3   10023.5   1473.2   10027.1   1472.7   10036.1   1472.7   10044.4
GR   1472.8   10056.4   1472.7   10064.4   1472.6   10077.7   1472.5   10088.1   1472.3   10099.7
GR   1472.5   10191.5   1472.3   10197.1   1472.2   10206.8   1472.2   10213.5   1472.1   10223.8
GR   1472.1   10279.2   1471.9   10290.2   1471.5   10300.7   1471.3   10311.4   1471.4   10321.1
GR   1471.8   10383.0   1472.3   10397.0   1472.4   10415.8   1472.6   10451.7   1472.4   10493.7
GR   1472.9   10566.6   1472.7   10569.2   1471.5   10577.2   1471.3   10611.6   1471.8   10618.4
GR   1472.8   10627.1   1473.3   10631.1   1472.9   10635.5   1473.1   10642.2   1473.1   10645.7
GR   1472.6   10654.1   1472.6   10666.4   1472.3   10681.9   1472.3   10694.6   1472.2   10706.4
GR   1472.0   10836.5   1472.3   10844.3   1471.8   10848.1   1471.4   10852.6   1472.6   10856.7
GR   1472.3   10909.7   1472.0   10921.2   1471.9   10931.7   1471.7   10944.2   1471.8   10956.2
GR   1471.5   11045.0   1471.4   11060.2   1471.4   11074.0   1471.5   11094.2   1471.3   11110.3
GR   1471.5   11526.8   1471.7   11554.3   1471.8   11581.3   1472.3   11617.1   1473.1   11645.2

ET              7.1       9.1                                 9430.7   11186.7   9562.9     10072
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
        ON RIGHT SIDE FROM SEC. .2652 TO .8664.
X1    .2652       95    9562.9    9588.3       750       640       740
GR   1478.4    9430.7   1478.3    9503.7   1478.2    9515.1   1478.1    9529.1   1478.0    9543.9
GR   1477.5    9555.3   1477.4    9562.9   1476.5    9573.8   1476.8    9580.9   1477.1    9588.3
GR   1477.2    9599.5   1477.6    9611.6   1477.9    9627.4   1478.0    9644.8   1478.0    9662.3
GR   1477.9    9782.2   1477.9    9803.7   1478.1    9823.1   1478.3    9843.7   1478.4    9867.1
GR   1478.4    9887.1   1478.2    9899.1   1477.6    9909.1   1477.9    9917.0   1478.3    9925.3
GR   1478.3    9939.0   1478.1    9961.7   1477.7    9980.4   1477.5    9999.8   1477.5   10000.0
GR   1477.2   10000.1   1477.4   10016.5   1477.0   10024.4   1477.1   10032.8   1477.4   10049.4
GR   1477.1   10226.6   1477.1   10242.7   1477.1   10254.5   1476.9   10269.5   1477.0   10282.2
GR   1477.1   10296.0   1477.3   10304.1   1477.4   10312.9   1477.5   10324.4   1478.0   10346.5
GR   1478.0   10468.2   1476.8   10499.5   1476.8   10512.9   1477.4   10526.2   1478.1   10539.3
GR   1478.0   10615.3   1477.1   10629.7   1477.1   10645.4   1477.2   10660.5   1477.2   10678.2
```

GR	1477.4	10691.8	1477.6	10704.5	1477.5	10711.6	1476.5	10722.7	1477.9	10739.4
GR	1478.0	10803.4	1477.5	10826.9	1477.5	10856.6	1477.2	10896.8	1477.0	10917.9
GR	1477.0	10934.5	1477.1	10948.2	1476.8	10963.6	1476.3	10976.7	1476.0	10981.8
GR	1476.0	10986.1	1476.9	10993.6	1477.0	11005.2	1477.1	11018.2	1477.1	11029.4
GR	1478.0	11100.0	1478.0	11152.6	1478.1	11170.3	1478.3	11186.7	1478.0	11420.0
GR	1476.4	11458.7	1476.5	11498.3	1477.4	11506.2	1478.2	11513.2	1478.2	11520.4
GR	1478.2	11533.8	1477.7	11545.0	1477.7	11563.5	1477.7	11580.9	1477.6	11602.8
GR	1477.9	11732.9	1478.2	11756.1	1478.4	11780.5	1478.7	11802.5	1478.8	11808.2
ET		7.1	9.1				9700.7	10782.9	9922.2	10300
X1	.4184	95	9922.2	9940.8	650	670	680			
GR	1484.7	9700.7	1483.7	9737.4	1483.5	9747.4	1483.5	9757.7	1483.8	9767.0
GR	1484.1	9813.1	1484.1	9828.5	1484.0	9842.3	1484.0	9860.2	1483.9	9876.3
GR	1483.4	9887.6	1483.8	9895.2	1483.5	9903.4	1482.5	9909.1	1483.5	9914.5
GR	1483.5	9922.2	1483.0	9928.7	1482.5	9935.9	1483.7	9940.8	1483.8	9951.1
GR	1484.1	9962.6	1484.2	9972.8	1484.6	9987.0	1484.7	10000.0	1484.0	10000.1
GR	1484.0	10000.2	1483.7	10008.8	1482.9	10012.0	1484.2	10017.2	1484.3	10024.7
GR	1484.3	10092.4	1484.8	10104.7	1484.7	10117.6	1484.4	10131.9	1484.4	10146.7
GR	1484.3	10207.5	1483.6	10218.9	1483.2	10228.4	1483.6	10237.8	1483.7	10250.4
GR	1483.9	10266.5	1484.3	10286.8	1484.4	10304.5	1484.7	10324.5	1484.9	10341.3
GR	1484.0	10440.2	1483.5	10456.2	1483.4	10471.9	1483.3	10489.4	1482.7	10504.7
GR	1482.6	10518.5	1483.0	10535.3	1483.1	10550.7	1483.4	10566.0	1483.6	10584.1
GR	1483.4	10680.5	1483.7	10702.2	1484.0	10726.2	1484.5	10742.6	1485.0	10757.5
GR	1485.0	10769.6	1485.1	10782.9	1484.6	10797.3	1484.4	10812.0	1484.3	10825.9
GR	1484.2	11019.2	1484.2	11031.5	1484.1	11048.7	1484.0	11066.0	1484.1	11077.5
GR	1484.0	11131.7	1482.9	11150.2	1483.1	11156.1	1482.9	11167.9	1482.9	11180.3
GR	1482.8	11192.5	1482.7	11204.4	1482.8	11217.9	1483.0	11232.9	1483.0	11245.8
GR	1482.9	11263.9	1482.9	11280.5	1482.9	11297.0	1482.9	11317.1	1483.0	11341.6
GR	1483.1	11363.9	1483.0	11384.7	1483.3	11401.3	1484.0	11429.9	1484.0	11458.7
GR	1484.0	11680	1485.1	11868.6	1484.0	11875.0	1484.6	11881.6	1484.7	11890.8
ET		7.1	9.1				9748.4	10688.8	10047.3	10314
X1	.5180	95	10047.3	10077.9	550	550	560			
GR	1490.1	9748.4	1489.9	9763.8	1489.8	9777.9	1489.7	9792.3	1489.4	9800.7
GR	1488.6	9854.7	1488.5	9860.0	1488.7	9867.4	1488.4	9878.1	1487.8	9884.1
GR	1488.4	9889.4	1488.6	9895.7	1488.7	9903.5	1488.4	9908.9	1488.7	9914.7
GR	1489.0	9923.4	1488.9	9930.2	1488.2	9935.3	1487.7	9940.4	1489.4	9947.4
GR	1489.5	9954.8	1489.5	9965.4	1489.2	9975.4	1488.8	9984.2	1488.9	9994.6
GR	1488.5	10023.9	1488.5	10030.5	1488.9	10038.3	1488.6	10047.3	1488.1	10054.8
GR	1488.4	10063.2	1487.3	10072.7	1488.3	10077.9	1488.3	10084.3	1488.3	10090.1
GR	1488.5	10102.3	1488.8	10112.1	1488.5	10122.7	1488.0	10129.2	1488.5	10137.8
GR	1488.8	10150.7	1489.0	10164.0	1489.1	10180.4	1489.0	10196.7	1488.9	10213.2
GR	1488.2	10314.6	1487.8	10328.4	1487.4	10339.3	1487.4	10351.5	1487.9	10364.7
GR	1488.4	10377.5	1488.4	10447.5	1488.8	10483.9	1488.8	10500.7	1489.0	10519.1
GR	1489.3	10609.1	1489.4	10623.0	1489.4	10648.0	1489.8	10672.4	1490.1	10688.8
GR	1489.6	10703.5	1489.3	10718.4	1489.2	10735.8	1489.1	10753.1	1489.0	10771.7
GR	1489.0	10925.5	1489.0	10939.1	1488.9	10956.6	1488.5	10968.8	1488.2	10976.2
GR	1488.7	11145.5	1488.2	11156.9	1488.7	11170.9	1488.5	11174.2	1487.9	11190.7
GR	1487.8	11332.3	1487.8	11340.0	1487.9	11346.8	1487.6	11359.0	1487.2	11369.4
GR	1487.8	11377.6	1488.3	11387.0	1488.1	11396.6	1488.1	11410.2	1487.7	11419.3
GR	1487.3	11426.1	1487.6	11432.3	1487.7	11444.4	1487.9	11458.5	1487.5	11470.4
GR	1487.2	11540.7	1487.7	11549.1	1487.9	11563.0	1488.0	11573.3	1490	11610

```
ET              7.1       9.1                                  9400    10488.4       9893      10138
X1    .6422      95    9893.0    9910.1       670       600      660
GR   1497.8    9400    1496.3    9494.5    1495.8    9513.3   1495.2    9525.4    1494.4    9538.8
GR   1494.6    9552.7  1494.5    9563.6    1494.3    9573.6   1494.7    9586.0    1494.5    9597.9
GR   1493.8    9602.7  1494.4    9608.3    1494.6    9619.5   1494.5    9636.6    1494.3    9656.4
GR   1494.1    9778.1  1494.1    9807.9    1493.3    9837.4   1493.0    9854.8    1492.9    9873.7
GR   1493.3    9881.8  1493.4    9893.0    1492.2    9901.0   1491.1    9905.5    1493.2    9910.1
GR   1494.2    9915.7  1493.7    9922.4    1492.8    9930.1   1493.0    9937.0    1493.4    9950.2
GR   1493.8    9974.4  1494.2   10000.0    1493.9   10000.1   1493.9   10000.2    1494.4   10022.5
GR   1494.4   10041.5  1494.4   10062.1    1494.4   10079.3   1494.2   10094.9    1493.8   10110.7
GR   1493.6   10182.8  1493.7   10191.9    1493.9   10199.4   1493.6   10207.4    1493.6   10215.9
GR   1493.9   10269.8  1494.1   10279.3    1494.1   10289.0   1494.3   10300.2    1494.2   10314.0
GR   1494.4   10469.5  1494.8   10480.6    1494.9   10488.4   1494.6   10499.2    1494.5   10512.3
GR   1494.5   10663.4  1494.2   10668.9    1494.3   10674.6   1494.3   10678.6    1493.9   10685.4
GR   1493.9   10693.0  1494.0   10702.4    1493.9   10711.4   1493.9   10719.9    1494.1   10727.2
GR   1494.0   10773.7  1493.4   10781.7    1493.5   10788.5   1493.4   10794.7    1493.1   10800.6
GR   1493.6   10843.0  1493.8   10850.1    1493.9   10859.0   1493.7   10869.3    1493.3   10879.0
GR   1493.2   10891.3  1493.1   10902.5    1492.9   10913.3   1492.9   10918.5    1493.1   10924.4
GR   1493.0   10928.8  1492.6   10935.3    1492.6   10941.0   1491.8   10949.3    1492.0   10952.4
GR   1494.2   11008.0  1494.7   11016.6    1494.6   11025.6   1494.3   11035.3    1494.1   11045.4
GR   1492.5   11150    1492.5   11297.0    1493.2   11308.0   1493.2   11321.5    1494.9   11391.4

QT       2      2397      2397
ET              7.1       9.1                                  9276.7    10226.3       9888      10090.2
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
        ON LEFT SIDE FROM SEC. .7746 TO 1.2632.
X1    .7746      95   10063.0   10090.2       730       700      780
GR   1502.0    9000.0  1500.3    9086.8    1500.1    9103.9   1499.8    9119.6    1500.4    9133.0
GR   1500.0    9225.6  1500.0    9232.8    1500.1    9240.9   1499.9    9248.2    1499.4    9254.7
GR   1500.2    9262.9  1500.7    9276.7    1500.2    9291.7   1500.2    9314.8    1500.3    9338.7
GR   1499.8    9355.5  1498.4    9367.1    1497.7    9374.7   1499.4    9385.1    1500.2    9397.5
GR   1500.3    9566.0  1498.2    9571.5    1499.7    9577.3   1499.9    9589.3    1499.9    9601.1
GR   1500.1    9613.1  1500.1    9624.2    1500.0    9634.8   1500.1    9652.2    1500.0    9669.4
GR   1499.8    9688.1  1499.5    9706.0    1499.6    9722.0   1499.6    9741.7    1499.3    9762.7
GR   1499.3    9868.4  1499.1    9885.0    1499.2    9909.0   1499.1    9934.8    1498.4    9948.6
GR   1499.3    9955.8  1499.4    9974.4    1499.3    9990.1   1498.9    9999.4    1498.9   10000.0
GR   1498.6   10000.1  1499.2   10012.7    1499.2   10022.8   1499.3   10036.1    1499.4   10049.1
GR   1498.0   10063.0  1497.4   10073.4    1497.7   10080.2   1499.1   10090.2    1500.2   10102.0
GR   1500.6   10226.3  1500.1   10247.8    1500.2   10263.3   1499.8   10279.6    1500.0   10298.5
GR   1500.3   10343.2  1500.6   10372.9    1500.3   10381.7   1500.3   10389.3    1500.3   10397.6
GR   1500.2   10527.4  1500.4   10535.2    1500.4   10543.8   1500.4   10551.7    1500.5   10558.2
GR   1500.5   10567.1  1500.6   10573.4    1500.8   10581.6   1501.0   10589.5    1500.6   10596.1
GR   1500.3   10727.5  1499.8   10735.3    1500.1   10741.6   1500.1   10746.9    1499.7   10755.7
GR   1499.4   10764.5  1499.4   10774.0    1499.1   10783.6   1498.7   10792.3    1498.6   10799.8
GR   1498.6   10900.0  1498.9   10950.0    1498.4   11095.8   1498.4   11105.9    1498.4   11112.3
GR   1500.1   11151.4  1500.8   11178.5    1501.6   11184.4   1501.8   11193.7    1501.9   11201.7

ET              7.1       9.1                                  9222.7    10221.4       9836.2    10069.5
X1    .8664      95   10025.5   10069.5       490       500      500
GR   1506.1    8965.8  1505.8    8978.8    1505.6    8994.4   1505.1    9008.1    1503.8    9019.7
GR   1503.9    9029.0  1504.0    9034.8    1504.2    9042.2   1504.3    9055.6    1504.2    9069.4
GR   1504.5    9083.2  1504.4    9094.6    1503.9    9107.0   1501.4    9117.0    1504.2    9123.3
GR   1504.3    9130.1  1504.1    9141.8    1503.5    9152.4   1504.2    9159.1    1504.2    9171.5
```

GR	1503.9	9183.9	1503.9	9194.0	1504.6	9222.7	1503.9	9250.4	1503.7	9279.1
GR	1503.7	9310.9	1503.1	9338.3	1503.0	9347.2	1503.1	9359.6	1503.2	9380.1
GR	1503.4	9401.8	1503.8	9441.5	1503.6	9472.9	1503.3	9501.4	1503.3	9530.7
GR	1504.0	9550.0	1503.8	9780.9	1503.9	9801.2	1504.0	9821.6	1504.1	9841.3
GR	1504.0	9858.9	1503.8	9883.4	1503.5	9899.9	1503.3	9915.1	1502.9	9925.8
GR	1502.9	9934.3	1503.4	9943.3	1503.4	9953.9	1503.1	9961.6	1503.2	9972.6
GR	1503.3	9984.2	1503.7	9996.9	1503.7	10000.0	1503.8	10000.1	1503.8	10010.7
GR	1503.8	10025.5	1503.3	10038.8	1502.9	10050.6	1502.8	10059.9	1503.7	10069.5
GR	1503.4	10077.9	1502.4	10085.7	1503.5	10092.9	1503.8	10100.5	1503.6	10115.1
GR	1503.9	10130.3	1504.3	10147.6	1504.5	10165.2	1504.2	10183.7	1504.5	10196.1
GR	1505.2	10208.7	1505.8	10221.4	1505.6	10235.6	1505.1	10254.2	1504.7	10272.2
GR	1504.2	10386.2	1504.1	10406.9	1503.9	10428.3	1503.8	10446.3	1503.4	10463.7
GR	1503.6	10509.1	1503.7	10516.0	1503.7	10523.1	1503.3	10529.7	1503.4	10537.1
GR	1503.7	10639.9	1503.7	10644.6	1503.9	10649.9	1504.0	10655.2	1503.7	10661.5
GR	1504.0	10669.1	1504.1	10677.6	1504.3	10686.8	1504.5	10695.5	1504.8	10704.8
ET		7.1	9.1				9184.0	10587.9	9800	10187.3
X1	.9205	95	10087.7	10187.3	290	350	325			
GR	1508.8	8728.9	1508.6	8745.6	1508.9	8764.8	1508.6	8783.9	1508.6	8802.7
GR	1508.4	8821.6	1508.0	8844.4	1507.9	8866.4	1507.9	8887.0	1507.6	8907.4
GR	1507.1	8924.6	1506.8	8938.3	1506.7	8952.2	1506.2	8959.8	1506.6	8976.1
GR	1506.6	8991.2	1506.3	9006.1	1506.0	9021.1	1505.0	9031.7	1504.6	9038.0
GR	1506.0	9044.1	1506.4	9054.9	1506.6	9066.8	1505.7	9079.1	1505.3	9086.7
GR	1506.1	9095.2	1506.8	9114.1	1507.0	9136.1	1507.0	9161.1	1507.1	9184.0
GR	1506.8	9204.1	1506.6	9225.1	1506.6	9251.7	1506.6	9276.4	1506.5	9296.9
GR	1506.1	9316.8	1505.6	9331.4	1505.0	9345.0	1504.3	9349.3	1505.4	9355.1
GR	1506.0	9364.0	1506.2	9379.1	1506.3	9391.0	1506.1	9407.0	1506.1	9426.9
GR	1506.3	9444.5	1505.9	9464.0	1505.9	9482.4	1505.9	9501.0	1505.7	9519.7
GR	1506.5	9661.4	1506.5	9694.8	1506.6	9731.8	1506.4	9770.7	1506.4	9815.1
GR	1506.5	9890.7	1505.9	9938.4	1506.0	9954.5	1506.0	9964.9	1505.9	9978.3
GR	1505.9	9991.9	1505.9	10000.0	1505.7	10000.1	1506.0	10015.2	1506.2	10028.3
GR	1506.1	10041.9	1505.8	10053.8	1505.7	10068.8	1505.7	10078.7	1505.5	10087.7
GR	1505.5	10104.4	1505.7	10119.5	1505.7	10138.7	1505.4	10162.0	1505.3	10172.2
GR	1506.0	10187.3	1507.3	10201.5	1508.1	10214.9	1508.5	10230.6	1508.7	10243.0
GR	1508.7	10261.3	1508.6	10284.0	1508.6	10299.3	1508.7	10328.9	1508.9	10356.5
GR	1509.2	10389.2	1509.5	10418.3	1509.5	10450.0	1509.3	10479.1	1509.4	10496.4
GR	1509.4	10515.6	1509.3	10535.8	1509.5	10555.1	1509.8	10571.0	1510.0	10587.9
ET		7.1	9.1				9279.9	10641.5	9981	10276.8
X1	.9981	95	9981.0	10017.7	425	425	470			
GR	1512.1	8940.8	1511.8	8952.2	1511.2	8961.6	1510.9	8969.4	1510.7	8979.1
GR	1510.6	8987.1	1509.9	8994.8	1509.9	9004.5	1509.3	9008.8	1510.0	9011.6
GR	1509.7	9016.9	1509.6	9023.3	1510.4	9030.6	1511.6	9042.4	1512.2	9050.1
GR	1512.3	9063.1	1512.7	9074.8	1512.5	9081.2	1512.0	9090.7	1512.2	9102.4
GR	1512.1	9219.1	1511.9	9231.5	1511.4	9251.4	1510.7	9269.9	1510.2	9273.5
GR	1511.4	9279.9	1510.9	9286.4	1511.0	9294.1	1511.0	9304.6	1510.5	9315.0
GR	1509.8	9323.1	1510.4	9327.8	1510.8	9334.3	1510.7	9347.4	1510.8	9363.5
GR	1510.7	9760.6	1511.0	9776.9	1511.2	9796.9	1511.3	9814.7	1511.1	9824.3
GR	1510.9	9831.6	1511.3	9837.4	1510.9	9845.5	1510.3	9859.1	1510.8	9865.7
GR	1510.6	9981.0	1509.8	9990.0	1509.2	9996.9	1509.1	10000.0	1508.7	10000.1
GR	1509.0	10004.4	1509.9	10008.3	1510.0	10017.7	1510.0	10032.9	1509.6	10046.0
GR	1509.6	10055.7	1509.5	10065.0	1509.5	10074.0	1509.7	10085.7	1509.7	10101.1
GR	1509.7	10116.9	1509.4	10127.9	1509.3	10141.2	1509.4	10147.1	1509.6	10158.5
GR	1510.0	10173.5	1510.1	10186.4	1510.0	10202.9	1509.8	10217.1	1509.0	10229.6

GR	1508.7	10240.8	1508.8	10251.2	1509.0	10263.1	1508.3	10267.9	1508.1	10271.2
GR	1509.0	10276.8	1509.1	10289.2	1509.2	10303.2	1509.1	10312.8	1508.5	10323.9
GR	1509.0	10329.2	1509.2	10335.6	1509.1	10344.9	1509.5	10354.0	1509.6	10365.1
GR	1509.6	10376.4	1509.9	10391.3	1510.4	10408.3	1510.7	10426.1	1510.6	10446.1
GR	1510.8	10569.2	1511.2	10588.5	1511.3	10604.8	1511.5	10623.1	1511.9	10641.5
QT	2	1905	1905							
ET		7.1	9.1				9694.3	10197.0	9975	10120
X1	1.1098	93	9983.0	10006.0	600	600	600			
GR	1518.2	9343.8	1518.0	9365.7	1518.0	9386.5	1517.8	9406.3	1517.7	9428.8
GR	1517.7	9532.1	1517.6	9542.6	1517.9	9556.2	1517.8	9567.9	1518.0	9581.9
GR	1518.3	9694.3	1518.1	9714.9	1518.1	9731.1	1518.0	9752.6	1518.0	9776.9
GR	1517.8	9815.5	1517.7	9860.9	1517.8	9895.9	1517.6	9905.2	1517.2	9912.1
GR	1517.7	9917.2	1517.8	9930.7	1517.3	9935.0	1517.6	9944.3	1518.0	9949.4
GR	1517.5	9956.4	1517.4	9967.8	1516.4	9972.7	1515.8	9983.0	1513.3	9990.8
GR	1513.3	9994.8	1513.2	10000.0	1514.2	10001.1	1516.6	10006.0	1517.1	10008.2
GR	1517.3	10013.2	1517.5	10022.6	1517.5	10032.4	1517.7	10040.8	1517.4	10051.7
GR	1517.2	10064.4	1517.2	10073.2	1517.2	10087.3	1517.1	10103.8	1516.7	10120.2
GR	1516.1	10130.6	1515.9	10139.3	1515.8	10146.2	1515.9	10152.5	1516.2	10162.9
GR	1516.2	10172.8	1516.4	10178.3	1517.2	10188.7	1518.2	10197.0	1517.9	10205.0
GR	1516.6	10271.5	1516.4	10283.9	1516.3	10293.5	1516.5	10307.1	1516.0	10324.6
GR	1514.0	10413.6	1514.0	10424.0	1513.2	10431.0	1513.3	10435.2	1514.6	10440.8
GR	1514.5	10445.7	1514.1	10453.6	1514.2	10462.0	1514.4	10473.1	1514.4	10486.3
GR	1514.3	10497.6	1514.0	10502.6	1514.0	10507.8	1514.3	10515.4	1514.0	10527.0
GR	1514.0	10531.3	1514.3	10536.7	1514.4	10542.9	1514.0	10547.8	1514.0	10554.1
GR	1514.3	10560.1	1514.2	10570.7	1514.3	10579.8	1514.8	10593.9	1515.1	10607.3
GR	1515.2	10624.1	1515.7	10640.0	1516.3	10659.4	1516.5	10678.3	1517.2	10703.2
GR	1517.8	10727.0	1517.7	10748.0	1518.2	10748.1				
ET		7.1	9.1				9811.3	10315.8	9975.6	10115
X1	1.2045	86	9975.6	10023.1	500	500	500			
GR	1524.5	9361.3	1524.4	9382.8	1524.0	9410.7	1524.1	9427.7	1524.1	9451.5
GR	1524.2	9801.9	1524.4	9811.3	1524.1	9827.4	1524.0	9844.8	1524.0	9866.8
GR	1523.9	9887.8	1523.5	9903.4	1523.3	9917.5	1523.1	9926.1	1523.4	9934.2
GR	1523.0	9942.3	1522.5	9952.5	1522.4	9958.2	1522.2	9965.5	1522.0	9975.6
GR	1521.0	9985.6	1518.2	9996.8	1518.2	10000.0	1518.7	10000.1	1519.4	10005.8
GR	1520.0	10012.8	1522.1	10023.1	1522.4	10032.3	1522.5	10049.4	1522.6	10086.3
GR	1521.8	10099.2	1522.0	10105.7	1521.7	10109.8	1522.7	10115.1	1522.2	10123.8
GR	1522.1	10137.0	1522.4	10153.2	1522.4	10167.4	1522.1	10179.5	1522.0	10193.8
GR	1521.8	10198.9	1521.8	10205.2	1522.0	10219.1	1522.1	10225.1	1522.6	10242.8
GR	1522.7	10258.5	1523.4	10271.0	1523.8	10283.9	1524.0	10300.8	1524.5	10315.8
GR	1521.1	10384.6	1521.6	10402.0	1522.5	10412.8	1523.9	10429.5	1521.1	10640.7
GR	1519.8	10652.4	1518.0	10663.2	1518.1	10669.0	1518.0	10678.7	1518.2	10691.4
GR	1518.1	10699.0	1518.2	10706.7	1518.4	10717.1	1518.6	10729.3	1517.6	10737.7
GR	1517.8	10749.2	1518.4	10758.0	1518.7	10768.9	1518.8	10780.5	1518.7	10792.0
GR	1518.3	10801.5	1518.1	10811.3	1518.5	10818.8	1518.7	10830.9	1518.6	10847.4
GR	1518.5	10862.2	1518.4	10879.1	1518.5	10894.2	1518.7	10908.5	1519.0	10924.3
GR	1519.3	10946.8	1519.0	10964.7	1519.1	10973.6	1520.2	10985.3	1521.1	10990.1
GR	1524	11000								

```
ET                7.1       9.1                                   9689.3    10003.4    9985.4    10049.4
X1   1.2632        64    9985.4   10005.6       315       305       305
GR   1529.4    9682.5    1530.9    9688.7    1530.7    9699.1    1530.5    9718.0    1530.3    9728.2
GR   1530.3    9741.9    1530.5    9752.5    1530.1    9764.8    1529.7    9777.2    1529.7    9788.4
GR   1529.8    9796.3    1529.6    9807.6    1529.4    9818.3    1528.7    9831.1    1528.0    9848.2
GR   1527.8    9878.3    1527.7    9898.3    1526.9    9907.5    1527.2    9910.5    1525.5    9917.2
GR   1527.3    9926.5    1527.5    9933.6    1527.8    9947.3    1526.9    9952.8    1526.4    9964.7
GR   1526.0    9976.9    1524.9    9985.4    1522.7    9993.9    1522.1    9997.5    1522.7   10000.0
GR   1522.6   10000.1    1525.8   10005.6    1525.5   10009.3    1525.7   10012.8    1526.5   10021.1
GR   1528.1   10030.7    1528.5   10049.4    1528.2   10061.0    1527.9   10073.1    1527.3   10084.8
GR   1526.6   10095.9    1526.4   10108.2    1526.3   10121.8    1526.0   10136.6    1525.8   10149.7
GR   1525.4   10164.2    1525.2   10177.4    1525.2   10193.0    1525.3   10210.1    1525.3   10227.6
GR   1525.3   10241.4    1525.1   10255.4    1525.1   10268.7    1525.1   10290.3    1525.3   10314.2
GR   1525.6   10344.5    1525.8   10366.1    1526.1   10388.1    1526.3   10408.4    1526.2   10427.4
GR   1526.4   10437.8    1526.6   10441.2       1528     10555      1530     10570

ET                7.1       9.1                                      9923     10077      9950     10055
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 4:1
        ANGLE FROM CULVERT OUTLET.
        FLOODPLAIN DELINETIONS ARE PLOTTED BASED ON WSEL AS PONDED FLOW OUTSIDE
        EFFECTIVE FLOW LIMITS IS POSSIBLE AT THIS SECTION.
X1   1.3314        40   10038.2   10050.7       365       365       365
GR   1533.0    9787.3    1533.2    9799.9    1532.7    9814.6    1532.7    9825.6    1532.4    9838.5
GR   1532.2    9849.1    1531.9    9859.0    1531.5    9867.5    1531.1    9873.8    1531.2    9880.8
GR   1531.5    9891.0    1531.8    9902.6    1531.8    9913.7    1531.5    9927.6    1530.9    9936.2
GR   1531.4    9946.7    1531.3    9965.4    1530.8    9981.3    1530.4    9991.2    1530.4    9998.3
GR   1530.3   10000.0    1530.3   10000.1    1529.7   10006.3    1529.8   10013.2    1529.8   10022.1
GR   1529.6   10030.1    1527.2   10038.2    1525.1   10043.4    1525.9   10046.9    1529.3   10050.7
GR   1529.8   10057.6    1530.7   10064.1    1531.3   10071.2    1531.7   10079.6    1531.5   10088.7
GR   1532.2   10097.9    1532.2   10106.6    1532.5   10116.8    1532.7   10126.7    1532.7   10126.8

NC    .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 4' RCBS  - STRUC. NO. 27)
X1   1.361         4    9961.5   10038.5       155       155       155
X3      10                                                      1533.0    1533.0
GR   1534.0    9941.5    1528.5    9961.5    1528.5   10038.5    1534.0   10038.5

NC    .012      .012      .012
SC   6.012        .2       2.7         0         4        12       137      12.1      1529    1528.5
        END CULVERTS (STRUC. #27)
X1   1.387         0         0         0       137       137       137                 .5
X2                             2      1533    1535.0
X3      10                                                      1537.5    1537.5
BT      10      9900    1539.5                10000    1538.8              10040.9    1538.5
BT   10041    1538.0                10081    1537.2                10089    1536.8                10112
BT   1536.0                10113     1535                10250     1535                10263      1538
BT       0
```

```
NC     .035      .035      .035
ET                7.1       9.1                                  9900      10048      9900      10048
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 1:1
       FLARE ANGLE FROM CULVERT INLET ON LEFT SIDE (LOOKING DOWNSTREAM) AND
       INEFFECTIVE FLOW OUTSIDE OF ARMORED WEIR LEVEE ON RIGHT SIDE
       FLOODPLAIN AND FLOODWAY DELINEATIONS ARE PLOTTED BASED ON WATER SURF-
       ACE ELEV. AS WATER WILL STILL POND BEYOND EFFECTIVE FLOW LIMITS AND
       FOR FLOODWAY PURPOSES THE PONDED AREAS ARE RESERVED FOR DETENTION.
X1    1.396         6      9900     10048        30        50        50
GR     1538      9587      1532      9617    1531.5      9900      1531     10000      1533     10040
GR     1535     10048

NC     .049      .049      .042        .1        .3
QT        2      2391      2391
ET                7.1       9.1                                 9184.0    10587.9      9800    10187.3
       BEGIN TRIBUTARY A.  REPEAT CROSS-SECTION .9205
X1    -.9205        95   10087.7   10187.3       290       350       325
GR    1508.8    8728.9    1508.6    8745.6    1508.9    8764.8    1508.6    8783.9    1508.6    8802.7
GR    1508.4    8821.6    1508.0    8844.4    1507.9    8866.4    1507.9    8887.0    1507.6    8907.4
GR    1507.1    8924.6    1506.8    8938.3    1506.7    8952.2    1506.2    8959.8    1506.6    8976.1
GR    1506.6    8991.2    1506.3    9006.1    1506.0    9021.1    1505.0    9031.7    1504.6    9038.0
GR    1506.0    9044.1    1506.4    9054.9    1506.6    9066.8    1505.7    9079.1    1505.3    9086.7
GR    1506.1    9095.2    1506.8    9114.1    1507.0    9136.1    1507.0    9161.1    1507.1    9184.0
GR    1506.8    9204.1    1506.6    9225.1    1506.6    9251.7    1506.6    9276.4    1506.5    9296.9
GR    1506.1    9316.8    1505.6    9331.4    1505.0    9345.0    1504.3    9349.3    1505.4    9355.1
GR    1506.0    9364.0    1506.2    9379.1    1506.3    9391.0    1506.1    9407.0    1506.1    9426.9
GR    1506.3    9444.5    1505.9    9464.0    1505.9    9482.4    1505.9    9501.0    1505.7    9519.7
GR    1506.5    9661.4    1506.5    9694.8    1506.6    9731.8    1506.4    9770.7    1506.4    9815.1
GR    1506.5    9890.7    1505.9    9938.4    1506.0    9954.5    1506.0    9964.9    1505.9    9978.3
GR    1505.9    9991.9    1505.9   10000.0    1505.7   10000.1    1506.0   10015.2    1506.2   10028.3
GR    1506.1   10041.9    1505.8   10053.8    1505.7   10068.8    1505.7   10078.7    1505.5   10087.7
GR    1505.5   10104.4    1505.7   10119.5    1505.7   10138.7    1505.4   10162.0    1505.3   10172.2
GR    1506.0   10187.3    1507.3   10201.5    1508.1   10214.9    1508.5   10230.6    1508.7   10243.0
GR    1508.7   10261.3    1508.6   10284.0    1508.6   10299.3    1508.7   10328.9    1508.9   10356.5
GR    1509.2   10389.2    1509.5   10418.3    1509.5   10450.0    1509.3   10479.1    1509.4   10496.4
GR    1509.4   10515.6    1509.3   10535.8    1509.5   10555.1    1509.8   10571.0    1510.0   10587.9

ET                7.1       9.1                                 9279.9    10641.5      9981    10276.8
       ADD 10 TO TRIB. 5A CROSS-SECTION I.D. NUMBERS. STA. 10280= BASELINE 5A.
X1    11.007        95   10251.2   10276.8       430       425       460
GR    1512.1    8940.8    1511.8    8952.2    1511.2    8961.6    1510.9    8969.4    1510.7    8979.1
GR    1510.6    8987.1    1509.9    8994.8    1507.9    9004.5    1508.3    9008.8    1510.0    9011.6
GR    1509.7    9016.9    1509.6    9023.3    1510.4    9030.6    1511.6    9042.4    1512.2    9050.1
GR    1512.3    9063.1    1512.7    9074.8    1512.5    9081.2    1512.0    9090.7    1512.2    9102.4
GR    1512.1    9219.1    1511.9    9231.5    1511.4    9251.4    1510.7    9269.9    1510.2    9273.5
GR    1511.4    9279.9    1510.9    9286.4    1511.0    9294.1    1511.0    9304.6    1510.5    9315.0
GR    1509.8    9323.1    1510.4    9327.8    1510.8    9334.3    1510.7    9347.4    1510.8    9363.5
GR    1510.7    9760.6    1511.0    9776.9    1511.2    9796.9    1511.3    9814.7    1511.1    9824.3
GR    1510.9    9831.6    1511.3    9837.4    1510.9    9845.5    1510.3    9859.1    1510.8    9865.7
GR    1510.6    9981.0    1509.8    9990.0    1509.2    9996.9    1509.1   10000.0    1508.7   10000.1
GR    1509.0   10004.4    1509.9   10008.3    1510.0   10017.7    1510.0   10032.9    1509.6   10046.0
GR    1509.6   10055.7    1509.5   10065.0    1509.5   10074.0    1509.7   10085.7    1509.7   10101.1
GR    1509.7   10116.9    1509.4   10127.9    1509.3   10141.2    1509.4   10147.1    1509.6   10158.5
```

```
GR   1510.0    10173.5    1510.1    10186.4    1510.0    10202.9    1509.8    10217.1    1509.0    10229.6
GR   1508.7    10240.8    1508.8    10251.2    1509.0    10263.1    1508.3    10267.9    1508.1    10271.2
GR   1509.0    10276.8    1509.1    10289.2    1509.2    10303.2    1509.1    10312.8    1508.5    10323.9
GR   1509.0    10329.2    1509.2    10335.6    1509.1    10344.9    1509.5    10354.0    1509.6    10365.1
GR   1509.6    10376.4    1509.9    10391.3    1510.4    10408.3    1510.7    10426.1    1510.6    10446.1
GR   1510.8    10569.2    1511.2    10588.5    1511.3    10604.8    1511.5    10623.1    1511.9    10641.5

OT       2        748       748
ET                7.1       9.1                                    10197.0    10748.1    10400     10545
        STA. 10465 = BASELINE 5A.
X1   11.117        93    10413.6    10440.8     590       590       590
GR   1518.1     9343.8    1518.0     9365.7    1518.0    9386.5    1517.8     9406.3    1517.7    9428.8
GR   1517.7     9532.1    1517.6     9542.6    1517.9    9556.2    1517.8     9567.9    1518.0    9581.9
GR   1518.2     9694.3    1518.1     9714.9    1518.1    9731.1    1518.2     9752.6    1518.1    9776.9
GR   1517.8     9815.5    1517.7     9860.9    1517.8    9895.9    1517.6     9905.2    1517.2    9912.1
GR   1517.7     9917.2    1517.8     9930.7    1517.3    9935.0    1517.6     9944.3    1518.0    9949.4
GR   1517.5     9956.4    1517.4     9967.8    1517.4    9972.7    1515.8     9983.0    1513.3    9990.8
GR   1513.3     9994.8    1513.2    10000.0    1514.2   10000.1    1515.6    10005.0    1517.1   10008.2
GR   1517.3    10013.2    1517.5    10022.6    1517.5   10032.4    1517.7    10040.8    1517.4   10051.7
GR   1517.2    10064.4    1517.2    10073.2    1517.2   10087.3    1517.1    10103.8    1516.7   10120.2
GR   1516.1    10130.6    1515.9    10139.3    1515.8   10146.2    1515.9    10152.5    1516.2   10162.9
GR   1516.2    10172.8    1516.4    10178.3    1517.2   10188.7    1518.0    10197.0    1517.9   10205.0
GR   1516.6    10271.5    1516.4    10283.9    1516.3   10293.5    1516.5    10307.1    1516.0   10324.6
GR   1514.0    10413.6    1514.0    10424.0    1513.2   10431.0    1513.3    10435.2    1514.6   10440.8
GR   1514.5    10445.7    1514.1    10453.6    1514.2   10462.0    1514.4    10473.1    1514.4   10486.3
GR   1514.3    10497.6    1514.0    10502.6    1514.0   10507.8    1514.3    10515.4    1514.0   10527.0
GR   1514.0    10531.3    1514.3    10536.7    1514.4   10542.9    1514.0    10547.8    1514.0   10554.1
GR   1514.3    10560.1    1514.2    10570.7    1514.3   10579.8    1514.8    10593.9    1515.1   10607.3
GR   1515.2    10624.1    1515.7    10640.0    1516.3   10659.4    1516.5    10678.3    1517.2   10703.2
GR   1517.8    10727.0    1517.7    10748.0    1518.1   10748.1

ET                7.1       9.1                                    10640     10810      10700    10800
        STA. 10725 = BASELINE 5A.
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1
        FLARE ANGLE OF CULVERT OUTLET.
        FLOODPLAIN DELINEATION BEYOND EFFECTIVE LIMITS BASED ON WSEL AS PONDING
        IS POSSIBLE AT THIS SECTION.
X1   11.210        86    10729.3    10758.0     490       465       520
GR   1524.5     9361.3    1524.4     9382.8    1524.0    9410.7    1524.1     9427.7    1524.4    9451.5
GR   1524.2     9801.9    1524.4     9811.3    1524.3    9827.4    1524.3     9844.8    1524.2    9866.8
GR   1524.1     9887.8    1523.9     9903.4    1523.3    9917.5    1523.1     9924.1    1523.4    9934.2
GR   1523.5     9942.3    1523.2     9952.5    1523.6    9958.2    1523.7     9965.5    1521.1    9975.6
GR   1521.8     9985.6    1517.8     9996.8    1518.2   10000.0    1518.7    10000.1    1519.4   10005.8
GR   1521.0    10012.8    1523.1    10023.1    1523.4   10032.3    1523.4    10049.4    1523.5   10086.3
GR   1521.8    10099.2    1522.0    10105.7    1521.7   10109.8    1521.7    10115.1    1522.2   10123.8
GR   1522.5    10137.0    1522.4    10153.2    1522.4   10167.4    1522.4    10179.5    1522.0   10193.8
GR   1521.6    10198.9    1521.7    10205.2    1522.2   10212.1    1522.5    10225.1    1522.6   10242.8
GR   1522.7    10258.5    1523.4    10271.0    1523.8   10283.9    1524.0    10300.9    1524.2   10315.8
GR   1521.1    10584.6    1521.4    10597.0    1521.7   10612.8    1521.9    10629.5    1521.1   10640.7
GR   1519.8    10652.4    1518.0    10663.2    1518.1   10669.0    1518.0    10678.7    1518.2   10691.4
GR   1518.1    10699.0    1518.2    10706.7    1518.4   10717.1    1518.6    10729.3    1517.8   10737.7
GR   1517.8    10748.2    1518.4    10758.0    1518.7   10768.9    1518.8    10780.5    1518.7   10792.0
GR   1518.3    10801.5    1518.1    10811.3    1518.6   10818.8    1518.7    10830.9    1518.6   10847.4
GR   1518.5    10862.2    1518.4    10879.1    1518.5   10894.2    1518.7    10908.5    1519.0   10924.3
```

```
GR   1519.3    10946.3     1519.0    10964.7      1519.1     10973.6      1520.2     10985.3      1521.1     10990.1
GR     1524      11000

NC     .035       .035       .035         .3          .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 8' RCBS  - STRUC. NO. 28)
X1   11.244          4     9961.5    10038.5         185         185         185
X3      10                                                                  1527.3      1527.3
GR   1527.3     9961.5     1518.8     9961.5      1518.8     10038.5      1527.3     10038.5

NC     .012       .012       .012
SC    6.012         .2        3.0          0           6          12         159        12.3      1519.3      1518.8
        END CULVERTS (STRUC. #28)
X1   11.274          0          0          0         159         159         159                     .5
X2                              2     1527.3      1526.8
X3      10                                                                   1526        1526
BT       9       9900     1531.7                   10000      1530.9                  10190.9      1529.5
BT   10191     1529.0                 10231      1528.2                   10239      1527.8                   10243
BT   1526.8                 10251       1527                   10272      1527.5

NC     .035       .040       .035
ET                 7.1        9.1                                          9912       10088        9912       10088
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1
        FLARE ANGLE OF CULVERT INLET.
        FLOODPLAIN\FLOODWAY DELINEATION PLOTTRD BASED ON WSEL AS PONDING AND
        POSSIBLE AT THIS SEC. BEYOND EFFECTIVE FLOW LIMITS.
X1   11.283          8       9944      10090          50          50          50
GR     1526       9912       1522       9944        1521        9956      1520.8      10000        1521       10043
GR     1523      10090       1524      10106        1526       10126
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .059

3265 DIVIDED FLOW

       FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
       ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       CROZIER ROAD (219 TH AVE) CROSSES 100 FT. UPSTREAM OF THIS SECTION
       AS AN AT-GRADE CROSSING (A.K.A. DIP SECTION)
     .059      2.96   1467.86      .00   1468.00   1467.97       .11       .00       .00   1467.40
   2469.0     336.4     210.9    1921.7     199.6      37.6     846.0        .0        .0   1466.00
     .00      1.69      5.61      2.27      .049      .042      .049      .000   1464.90   9604.21
  .008105       0.        0.        0.         0         0         9       .00   1953.89  11606.90


*SECNO  .153

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9507.4   11645.2  TYPE=      1  TARGET=     2137.800
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
       ON LEFT SIDE AT THIS SECTION.
     .153      2.03   1472.43      .00       .00   1472.54       .11      4.56       .00   1472.50
   2469.0       1.2     174.2    2291.6       2.7      47.5     889.1      12.2      21.1   1472.10
     .06       .46      3.71      2.58      .049      .042      .049      .000   1470.40   9624.29
  .009299      680.      680.      500.         5         0         0       .00   1520.05  11621.48


*SECNO  .265

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9430.7   11186.7  TYPE=      1  TARGET=     1756.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
```

```
      ON RIGHT SIDE FROM SEC. .2652 TO .8664.
    .265      2.17   1478.17      .00      .00   1478.27      .11      5.73      .00   1477.40
  2469.0      20.8     127.9    2320.3     12.2      33.0    916.0      26.3     43.8   1477.10
     .12      1.70      3.87      2.53     .049      .042     .049      .000   1476.00   9519.82
 .008467      750.      740.      640.        5         0        0       .00   1554.52  11175.73


*SECNO  .418

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9700.7   10782.9  TYPE=      1  TARGET=     1082.200
    .418      2.13   1484.63      .00      .00   1484.81      .18      6.51      .02   1483.50
  2469.0     501.0     154.7   1813.3    170.8      30.0    548.8      39.4     63.2   1483.70
     .18      2.93      5.15      3.30     .049      .042     .049      .000   1482.50   9703.20
 .011336      650.      680.      670.        4         0        0       .00    963.36  10746.53


*SECNO  .518

3470 ENCROACHMENT STATIONS=     9748.4   10688.8  TYPE=      1  TARGET=      940.399
    .518      2.48   1489.68      .00      .00   1489.81      .14      5.00      .00   1488.60
  2469.0     561.0     203.9   1704.1    217.3      49.0    582.7      49.5     74.7   1488.30
     .23      2.58      4.16      2.92     .049      .042     .049      .000   1487.20   9793.00
 .007444      550.      560.      550.        5         0        0       .00    871.76  10664.76


*SECNO  .642

3470 ENCROACHMENT STATIONS=     9400.0   10488.4  TYPE=      1  TARGET=     1088.400
    .642      3.76   1494.86      .00      .00   1495.04      .18      5.21      .01   1493.40
  2469.0     833.9     268.9   1366.2    281.3      43.3    478.7      61.3     87.8   1493.20
     .28      2.96      6.21      2.85     .049      .042     .049      .000   1491.10   9531.16
 .009381      670.      660.      600.        6         0        0       .00    953.82  10484.98


*SECNO  .775

3470 ENCROACHMENT STATIONS=     9276.7   10226.3  TYPE=      1  TARGET=      949.600
      ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
      ON LEFT SIDE FROM SEC. .7746 TO 1.2632.
    .775      3.17   1500.57      .00      .00   1500.74      .17      5.70      .00   1498.00
  2397.0    1961.8     394.0     41.2    716.2      71.9     31.3      74.8    103.5   1499.10
     .35      2.74      5.48      1.31     .049      .042     .049      .000   1497.40   9280.79
 .006596      730.      780.      700.        5         0        0       .00    934.25  10215.03
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .866

3470 ENCROACHMENT STATIONS=     9222.7   10221.4  TYPE=      1  TARGET=      998.700
     .866      3.12   1504.52      .00       .00   1504.66      .14      3.92       .00   1503.80
   2397.0    1938.1     239.7    219.2     674.8     57.4     76.9      84.0     114.2   1503.70
     .39      2.87      4.18     2.85      .049      .042     .049      .000   1501.40   9225.89
  .009820      490.      500.     500.         2         0        0       .00    970.56  10196.45


*SECNO  .920

3470 ENCROACHMENT STATIONS=     9184.0   10587.9  TYPE=      1  TARGET=     1403.900
     .920      2.72   1507.02      .00       .00   1507.15      .13      2.49       .00   1505.50
   2397.0    1833.4     554.2      9.4     744.4    144.5      5.7      89.8     120.9   1506.00
     .42      2.46      3.83     1.64      .049      .042     .049      .000   1504.30   9183.10
  .007152      290.      325.     350.         4         0        0       .00   1009.39  10198.48


*SECNO  .998

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9279.9   10641.5  TYPE=      1  TARGET=     1361.600
     .998      2.91   1510.81      .00       .00   1511.06      .25      3.87       .04   1510.60
   2397.0      48.7     169.5   2178.8      50.1      41.4    538.7      97.4     131.7   1510.00
     .45       .97      4.09     4.04      .049      .042     .049      .000   1507.90   9308.70
  .011577      425.      470.     425.         2         0        0       .00   1179.14  10569.34


*SECNO 1.110
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9694.3   10197.0  TYPE=      1  TARGET=      502.700
    1.110      4.93   1518.13  1518.13       .00   1518.67      .54      6.37       .09   1515.80
   1905.0     257.8     755.9    891.3     109.9      90.8    234.0     104.7     143.1   1516.60
     .49      2.35      8.32     3.81      .049      .042     .049      .000   1513.20   9711.98
  .009554      600.      600.     600.         5        14        0       .00    484.42  10196.40


*SECNO 1.204
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9811.3   10315.8  TYPE=      1  TARGET=      504.500
    1.204      5.44   1523.24   1523.24       .00   1523.80       .35      4.93       .00   1522.00
   1905.0      81.1    1087.5     736.4      29.2     146.1     235.5     109.5     147.9   1522.10
      .51      2.77      7.44      3.13      .049      .042      .049      .000   1517.80   9919.40
  .010193      500.      500.      500.         4         8         0       .00    340.30  10268.19


#SECNO 1.263
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9688.7   10049.4  TYPE=      1  TARGET=      360.700
    1.263      6.30   1528.40   1528.40       .00   1529.24       .84      3.00       .09   1524.90
   1905.0     711.4     945.7     247.8     176.8      99.4      51.7     112.2     149.8   1525.80
      .52      4.02      9.52      4.79      .049      .042      .049      .000   1522.10   9838.43
  .009401      315.      305.      305.        20        11         0       .00    206.29  10044.72


#SECNO 1.331
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9923.0   10077.0  TYPE=      1  TARGET=      154.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 4:1
       ANGLE FROM CULVERT OUTLET.
       FLOODPLAIN DELINETIONS ARE PLOTTED BASED ON WSEL AS PONDED FLOW OUTSIDE
       EFFECTIVE FLOW LIMITS IS POSSIBLE AT THIS SECTION.
    1.331      7.15   1532.25   1532.25       .00   1533.11       .87      3.48       .01   1527.20
   1905.0     942.2     752.8     210.1     196.8      73.0      45.1     114.8     151.3   1529.30
      .54      4.79     10.32      4.66      .049      .042      .049      .000   1525.10   9923.00
  .009674      365.      365.      365.         2         8         0       .00    154.00  10077.00


CCHV=     .300 CEHV=     .500
#SECNO 1.361
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.23

       BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 4' RCBS  - STRUC. NO. 27)
   1.361      4.94   1533.44       .00       .00   1533.83       .39       .57       .14   1534.00
  1905.0        .0    1905.0        .0        .0     380.4        .0     116.1     151.7   1534.00
     .55       .00      5.01       .00      .000      .035      .000      .000   1528.50   9961.50
 .001942      155.      155.      155.         2         0         0       .00     77.00  10038.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       2.70      .00       4.00      12.00     137.00    12        1         1529.00   1528.50

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECNO 1.387

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1533.415  EGOC =   1534.483  PCWSE=   1533.440  ELTRD=   1535.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.09

SPECIAL CULVERT

     EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1533.41   1534.48      .65        0.     1905.    4.828     288.0   1535.00        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1537.50 ELREA=      1537.50

       END CULVERTS (STRUC. #27)
   1.387      5.12   1534.12       .00       .00   1534.48       .36       .65       .00   1534.50
  1905.0        .0    1905.0        .0        .0     394.5        .0     117.3     152.0   1534.50
     .55       .00      4.83       .00      .000      .012      .000      .000   1529.00   9961.50
 .000203      137.      137.      137.         2         0         0       .00     77.00  10038.50


*SECNO 1.396

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .22
```

```
   SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    UNOST


3470 ENCROACHMENT STATIONS=     9900.0   10048.0  TYPE=      1  TARGET=      148.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 1:1
       FLARE ANGLE FROM CULVERT INLET ON LEFT SIDE (LOOKING DOWNSTREAM) AND
       INEFFECTIVE FLOW OUTSIDE OF ARMORED WEIR LEVEE ON RIGHT SIDE
       FLOODPLAIN AND FLOODWAY DELINEATIONS ARE PLOTTED BASED ON WATER SURF-
       ACE ELEV. AS WATER WILL STILL POND BEYOND EFFECTIVE FLOW LIMITS AND
       FOR FLOODWAY PURPOSES THE PONDED AREAS ARE RESERVED FOR DETENTION.
    1.396      3.13   1534.13       .00       .00   1534.53       .40       .03       .02   1531.50
   1905.0        .0    1905.0        .0        .0     375.8        .0     117.7     152.1 100000.00
      .56       .00      5.07       .00      .000      .035      .000      .000   1531.00   9900.00
  .004091       50.       50.       50.         2         0         0       .00    144.52  10044.52


CONV=     .100 CEXV=     .300
*SECND  -.920
START TRIB COMP
     -.920      .920  1507.024

3470 ENCROACHMENT STATIONS=     9184.0   10587.9  TYPE=      1  TARGET=     1403.900
       BEGIN TRIBUTARY A.  REPEAT CROSS-SECTION .9205
    -.920      2.72   1507.02       .00       .00   1507.15       .12       .00       .00   1505.50
   2391.0    1828.9     552.7       9.4     744.7     144.6       5.7     122.2     156.1   1506.00
      .59      2.46      3.82      1.63      .049      .042      .049      .000   1504.30   9189.07
  .007107      290.      325.      350.         0         0         0       .00   1009.42  10198.49


*SECND 11.007

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9279.9   10641.5  TYPE=      1  TARGET=     1361.600
       ADD 10 TO TRIB. 5A CROSS-SECTION I.D. NUMBERS. STA. 10280= BASELINE 5A.
   11.007      2.89   1510.79   1510.57       .00   1511.06       .26      3.87       .04   1508.80
   2391.0    1235.6     334.9     820.4     360.7      54.0     205.9     129.7     166.7   1509.00
      .62      3.43      6.21      3.98      .049      .042      .049      .000   1507.90   9308.87
  .011457      430.      460.      425.         7         6         0       .00   1148.75  10565.90


*SECND 11.117
```

```
SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOBS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CDRAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .58


3470 ENCROACHMENT STATIONS=    10197.0   10748.1  TYPE=      1  TARGET=      551.100
       STA. 10485 = BASELINE 5A.
   11.117      2.46   1515.66       .00       .00   1515.74       .08      4.66       .02   1514.00
    748.0      94.3     159.1     494.6      61.1      51.3     234.9     136.3     176.5   1514.60
      .69      1.54      3.10      2.11      .049      .042      .049      .000   1513.20  10339.86
  .003329      590.      590.      590.         4         0         0       .00    298.77  10638.63


*SECND 11.210
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10640.0   10810.0  TYPE=      1  TARGET=      170.000
       STA. 10725 = BASELINE 5A.
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1
       FLARE ANGLE OF CULVERT OUTLET.
       FLOODPLAIN DELINEATION BEYOND EFFECTIVE LIMITS BASED ON WSEL AS PONDING
       IS POSSIBLE AT THIS SECTION.
   11.210      1.45   1519.25   1519.25       .00   1519.71       .46      3.55       .11   1518.60
    748.0     375.8     235.3     136.8      73.7      35.3      35.1     139.0     179.0   1518.40
      .72      5.10      6.67      3.90      .049      .042      .049      .000   1517.80  10655.70
  .026993      490.      520.      465.         3        14         0       .00    154.30  10810.00


CCHV=     .300 CEHV=     .500
*SECND 11.244

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.59


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1527.30 ELREA=      1527.30

       BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 8' RCBS  - STRUC. NO. 28)
   11.244      2.21   1521.01       .00       .00   1521.31       .30      1.35       .05   1527.30
    748.0        .0     748.0        .0        .0     169.8        .0     139.7     179.5   1527.30
      .73       .00      4.40       .00      .000      .035      .000      .000   1518.80   9961.50
  .004037      185.      185.      185.         5         0         0       .00     77.00  10038.50
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       3.00      .00       6.00      12.00     159.00    12        3         1514.50   1516.80

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 11.274

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1521.656  EGOC =   1521.740  FCWSE=   1521.013  ELTRD=   1526.800


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.74

SPECIAL CULVERT

    EGIC      EGOC       H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1521.66   1521.74      .42       0.      748.     4.572     432.0   1526.80        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1526.00 ELREA=      1526.00

       END CULVERTS (STRUC. #28)
   11.274      2.11   1521.41       .00       .00   1521.74       .32       .42       .00   1527.80
    748.0        .0     748.0        .0        .0     163.6        .0     140.3     179.8   1527.80
      .74       .00      4.57       .00      .000      .012      .000      .000   1519.30   9961.50
  .000536      159.      159.      159.         2         0         0       .00     77.00  10038.50


*SECNO 11.283
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9912.0   10088.0  TYPE=      1  TARGET=      176.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1
       FLARE ANGLE OF CULVERT INLET.
       FLOODPLAIN\FLOODWAY DELINEATION PLOTTRD BASED ON WSEL AS PONDING AND
       POSSIBLE AT THIS SEC. BEYOND EFFECTIVE FLOW LIMITS.
   11.283      1.33   1522.13   1522.13       .00   1522.65       .52       .08       .10   1522.00
    748.0        .0     748.0        .0        .1     129.1        .0     140.4     179.9 100000.00
      .74       .06      5.79       .00      .035      .035      .000      .000   1520.80   9942.99
  .017922       50.       50.       50.        20        14         0       .00    126.49  10069.47
```

```
T1      SUN VALLEY PARKWAY NORTH FIS   CONTRACT:FCDMC NO. 90-04
T2      100-YEAR WATER SURFACE PROFILE                  A-N WEST INC. PHX. AZ.
T3      WASH #5 FLOODWAY

J1  ICHECK    IND      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

    -10        3                          0                                1468.86

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15                 -1
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    L-BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      R-BANK ELEV
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


$PROF 2



CCHV=     .100 CEHV=     .300
$SECNO  .059
3280 CROSS SECTION       .06 EXTENDED       .56 FEET


3470 ENCROACHMENT STATIONS=    10054.4   10523.2  TYPE=      1  TARGET=      468.770
       FLOODWAY MODEL USING FIXED ENCROACHMENTS (METHOD 1) BASED ON PREVIOUS
       ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH WASH 5 WEST ALONG BASELINE.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       CROZIER ROAD (219 TH AVE) CROSSES 100 FT. UPSTREAM OF THIS SECTION
       AS AN AT-GRADE CROSSING (A.K.A. DIP SECTION)
     .059      3.96   1468.86      .00   1467.86   1469.12      .26      .00      .00   1467.40
   2469.0       .0     354.9    2114.1       .0      52.9     617.3       .0       .0   1466.00
     .00       .00      6.71      3.42     .000      .042     .049     .000   1464.90  10054.40
  .008274       0.        0.        0.        0         0        0      .00    468.77  10523.17


$SECNO  .153
3280 CROSS SECTION       .15 EXTENDED       .33 FEET


3470 ENCROACHMENT STATIONS=     9669.2   10325.0  TYPE=      1  TARGET=      655.800
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
       ON LEFT SIDE AT THIS SECTION.
     .153      3.03   1473.43      .00   1472.43   1473.64      .21     4.51      .00   1472.50
   2469.0       .0     483.4    1985.6       .0      89.9     642.9      8.3      4.6   1472.10
     .04       .00      5.38      3.09     .000      .042     .049     .000   1470.40   9669.20
  .008755     680.      680.      500.        5         0        0      .00    655.80  10325.00


$SECNO  .265
3280 CROSS SECTION       .27 EXTENDED       .36 FEET


3470 ENCROACHMENT STATIONS=     9562.9   10072.0  TYPE=      1  TARGET=      509.100
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
```

```
      ON RIGHT SIDE FROM SEC. .2652 TO .8664.
     .265      3.16   1479.16      .00   1478.17   1479.38      .22      5.74      .00   1477.40
   2469.0       .0     319.0    2150.0       .0      58.1     620.3      18.9      15.2   1477.10
     .09       .00      5.49      3.47      .000      .042      .049      .000   1476.00   9562.90
  .008730     750.      740.      640.         5         0         0       .00    509.10  10072.00


$SECNO  .418
3280 CROSS SECTION       .42 EXTENDED       .93 FEET


3470 ENCROACHMENT STATIONS=     9922.2   10300.0  TYPE=      1  TARGET=      377.800
     .418      3.13   1485.63      .00   1484.63   1485.95      .32      6.54      .03   1483.50
   2469.0       .0     315.5    2153.5       .0      48.6     517.8      28.5      22.0   1483.70
     .13       .00      6.49      4.16      .000      .042      .049      .000   1482.50   9922.20
  .010944     650.      680.      670.         5         0         0       .00    377.80  10300.00


$SECNO  .518
3280 CROSS SECTION       .52 EXTENDED       .66 FEET


3470 ENCROACHMENT STATIONS=    10047.3   10314.0  TYPE=      1  TARGET=      266.700
     .518      3.46   1490.66      .00   1489.68   1490.98      .32      5.03      .00   1488.60
   2469.0       .0     442.1    2026.9       .0      79.1     476.3      35.6      26.1   1488.30
     .17       .00      5.59      4.26      .000      .042      .049      .000   1487.20  10047.30
  .007722     550.      560.      550.         4         0         0       .00    266.70  10314.00


$SECNO  .642
3280 CROSS SECTION       .64 EXTENDED       .96 FEET


3470 ENCROACHMENT STATIONS=     9893.0   10138.0  TYPE=      1  TARGET=      245.000
     .642      4.76   1495.86      .00   1494.86   1496.28      .42      5.27      .03   1493.40
   2469.0       .0     437.2    2031.8       .0      60.4     434.5      42.9      29.7   1493.20
     .20       .00      7.23      4.68      .000      .042      .049      .000   1491.10   9893.00
  .009720     670.      660.      600.         4         0         0       .00    245.00  10138.00


$SECNO  .775

3470 ENCROACHMENT STATIONS=     9888.0   10090.2  TYPE=      1  TARGET=      202.200
      ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW WITHIN RIDGE
      ON LEFT SIDE FROM SEC. .7746 TO 1.2632.
     .775      4.13   1501.53      .00   1500.57   1501.88      .36      5.89      .01   1498.00
   2397.0    1794.1     602.9       .0     421.0      97.9       .0      51.3      33.4 100000.00
     .24      4.26      6.16      .00      .049      .042      .000      .000   1497.40   9888.00
  .006184     730.      780.      700.         4         0         0       .00    202.20  10090.20
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#SECNO  .866
3280 CROSS SECTION       .87 EXTENDED       .65 FEET


3470 ENCROACHMENT STATIONS=     9836.2   10069.5  TYPE=      1  TARGET=      233.300
     .866      4.05   1505.45      .00   1504.52   1505.89      .44      3.98      .02   1503.80
   2397.0    1788.3     608.7       .0     360.3      98.4       .0      56.9     35.8 100000.00
     .27      4.96      6.18      .00      .049      .042     .000      .000   1501.40   9836.20
  .011017     490.      500.     500.         2         0        0       .00    233.30  10069.50


#SECNO  .920

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.52


3470 ENCROACHMENT STATIONS=     9800.0   10187.3  TYPE=      1  TARGET=      387.300
     .920      3.52   1507.82      .00   1507.02   1508.01      .19      2.09      .02   1505.50
   2397.0    1468.8     928.2       .0     487.6     223.8       .0      60.9     37.9 100000.00
     .29      3.01      4.15      .00      .049      .042     .000      .000   1504.30   9800.00
  .004782     290.      325.     350.         3         0        0       .00    387.30  10187.30


#SECNO  .998

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .56


3470 ENCROACHMENT STATIONS=     9981.0   10276.8  TYPE=      1  TARGET=      295.800
     .998      3.19   1511.09      .00   1510.81   1511.52      .43      3.44      .07   1510.60
   2397.0        .0     282.5    2114.5        .0      52.0     404.9      66.7     41.3   1510.00
     .32       .00      5.44      5.22      .000      .042     .049      .000   1507.90   9981.00
  .015369     425.      470.     425.         3         0        0       .00    295.80  10276.80


#SECNO 1.110
3280 CROSS SECTION      1.11 EXTENDED       .60 FEET


3301 HV CHANGED MORE THAN HVING

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=     9975.0   10120.0  TYPE=      1  TARGET=      145.000
    1.110      5.60   1518.80   1518.80   1518.13   1519.77       .96      7.85       .16   1515.80
   1905.0     115.1    1049.7     740.3      22.2     106.4     176.1      72.0      44.4   1516.60
      .34      5.19      9.87      4.20      .049      .042      .049      .000   1513.20   9975.00
  .010877      600.      600.      600.         4        14         0       .00    145.00  10120.00


*SECNO 1.204

3470 ENCROACHMENT STATIONS=     9975.6   10115.0  TYPE=      1  TARGET=      139.400
    1.204      6.11   1523.91       .00   1523.24   1524.61       .70      4.82       .03   1522.00
   1905.0        .0    1351.2     553.8        .0     177.9     145.7      75.6      46.0   1522.10
      .36       .00      7.59      3.80      .000      .042      .049      .000   1517.80   9975.60
  .008588      500.      500.      500.         3         0         0       .00    139.40  10115.00


*SECNO 1.263

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9985.4   10049.4  TYPE=      1  TARGET=       64.000
    1.263      7.17   1529.27   1529.27   1528.40   1530.84      1.57      3.25       .26   1524.90
   1905.0        .0    1319.4     585.6        .0     117.0      89.7      77.4      46.7   1525.80
      .37       .00     11.28      6.53      .000      .042      .049      .000   1522.10   9985.40
  .013593      315.      305.      305.        20         8         0       .00     64.00  10049.40


*SECNO 1.331
3280 CROSS SECTION      1.33 EXTENDED       .50 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64


3470 ENCROACHMENT STATIONS=     9950.0   10055.0  TYPE=      1  TARGET=      105.000
```

```
      ENCROACHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 4:1
      ANGLE FROM CULVERT OUTLET.
      FLOODPLAIN DELINETIONS ARE PLOTTED BASED ON WSEL AS PONDED FLOW OUTSIDE
      EFFECTIVE FLOW LIMITS IS POSSIBLE AT THIS SECTION.
   1.331      8.10   1533.20      .00   1532.25   1533.79      .58      2.84      .10   1527.20
  1905.0    1149.7     699.6     55.7     254.5      84.9     16.1      79.8     47.4   1529.30
     .39      4.52      8.24     3.46      .049      .042     .049      .000   1525.10   9950.00
 .005041      365.      365.     365.         3         0        0       .00    105.00  10055.00


CCHV=     .300 CEHV=     .500
*SECND 1.361

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.87

      BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 4' RCBS  - STRUC. NO. 27)
   1.361      5.42   1533.92      .00   1533.44   1534.24      .32      .38      .08   1534.00
  1905.0        .0    1905.0       .0        .0     417.5       .0     81.2     47.8   1534.00
     .39       .00      4.56      .00      .000      .035     .000      .000   1528.50   9961.50
 .001446      155.      155.     155.         2         0        0       .00     77.00  10038.50


SPECIAL CULVERT

SC  CUND      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6          .012      .20      2.70       .00      4.00     12.00     137.00    12        1       1529.00   1528.50

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  1 - WINGWALLS FLARED 45 DEGREES (1:1); INLET NOT SKEWED

*SECND 1.387

SPECIAL CULVERT OUTLET CONTROL
EGIC =   1533.415  EGOC =   1534.963  PCWSE=   1533.920  ELTRD=   1535.000

3280 CROSS SECTION      1.39 EXTENDED       .17 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.13

SPECIAL CULVERT

    EGIC      EGOC       H4     QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  1533.41   1534.96      .72       0.     1905.     4.364     288.0   1535.00       0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1537.50 ELREA=      1537.50

      END CULVERTS (STRUC. #27)
   1.387      5.67   1534.67      .00   1534.12   1534.96      .30      .72      .00   1534.50
  1905.0        .0    1905.0       .0        .0     436.5       .0     82.5     48.0   1534.50
     .40       .00      4.36      .00      .000      .012     .000      .000   1529.00   9961.50
 .000147      137.      137.     137.         2         0        0       .00     77.00  10038.50
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     CG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.396

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .26


3470 ENCROACHMENT STATIONS=     9900.0   10048.0  TYPE=      1  TARGET=      148.000
       ENCRAOCHMENT (ET CARD) APPLIED TO LIMIT INEFFECTIVE FLOW OUTSIDE 1:1
       FLARE ANGLE FROM CULVERT INLET ON LEFT SIDE (LOOKING DOWNSTREAM) AND
       INEFFECTIVE FLOW OUTSIDE OF ARMORED WEIR LEVEE ON RIGHT SIDE
       FLOODPLAIN AND FLOODWAY DELINEATIONS ARE PLOTTED BASED ON WATER SURF-
       ACE ELEV. AS WATER WILL STILL POND BEYOND EFFECTIVE FLOW LIMITS AND
       FOR FLOODWAY PURPOSES THE PONDED AREAS ARE RESERVED FOR DETENTION.
    1.396      3.73   1534.73       .00   1534.13   1534.99       .26       .02       .01   1531.50
   1905.0        .0    1905.0        .0        .0     963.0        .0      83.0      48.1 100000.00
      .41       .00      4.11       .00      .000      .035      .000      .000   1531.00   9900.00
  .002098       50.       50.       50.         2         0         0       .00    146.91  10046.91


CCHV=     .100 CEHV=     .300
*SECNO  -.920
START TRIB COMP
     -.920      .920  1507.818

3470 ENCROACHMENT STATIONS=     9800.0   10187.3  TYPE=      1  TARGET=      387.300
       BEGIN TRIBUTARY A.  REPEAT CROSS-SECTION .9205
    -.920      3.52   1507.82       .00   1507.02   1508.01       .19       .00       .00   1505.50
   2391.0    1464.8     926.2        .0     486.9     223.6        .0      87.2      50.0 100000.00
      .43      3.01      4.14       .00      .049      .042      .000      .000   1504.30   9800.00
  .004778      290.      325.      350.         0         0         0       .00    387.30  10187.30


*SECNO 11.007

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .56


3470 ENCROACHMENT STATIONS=     9981.0   10276.8  TYPE=      1  TARGET=      295.800
       ADD 10 TO TRIB. 5A CROSS-SECTION I.D. NUMBERS. STA. 10280= BASELINE 5A.
   11.007      3.17   1511.07   1510.90   1510.79   1511.54       .47      3.45       .08   1508.80
   2391.0    1938.3     452.7        .0     391.4      61.2        .0      93.0      53.4 100000.00
      .45      4.95      7.40       .00      .049      .042      .000      .000   1507.90   9981.00
  .015286      430.      460.      425.         7        10         0       .00    295.80  10276.80
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 11.117

3470 ENCROACHMENT STATIONS=    10400.0   10545.0  TYPE=      1  TARGET=      145.000
       STA. 10465 = BASELINE 5A.
   11.117      3.05   1516.25       .00   1515.66   1516.35       .10      4.77       .04   1514.00
    748.0      62.1     208.3     477.6      28.5      67.3     207.8      78.2      56.4   1514.60
      .52      2.18      3.09      2.30      .049      .042      .049      .000   1513.20  10400.00
  .002308      590.      590.      590.         4         0         0       .00    145.00  10545.00


*SECNO 11.210

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10700.0   10800.0  TYPE=      1  TARGET=      100.000
       STA. 10725 = BASELINE 5A.
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 4:1
       FLARE ANGLE OF CULVERT OUTLET.
       FLOODPLAIN DELINEATION BEYOND EFFECTIVE LIMITS BASED ON WSEL AS PONDING
       IS POSSIBLE AT THIS SECTION.
   11.210      1.86   1519.66   1519.66   1519.25   1520.27       .62      2.62       .15   1518.60
    748.0     205.0     351.9     191.1      38.2      46.9      42.0     100.6      57.8   1518.40
      .54      5.36      7.50      4.56      .049      .042      .049      .000   1517.80  10700.00
  .023346      490.      520.      465.        20        14         0       .00    100.00  10800.00


CCHV=     .300 CEHV=     .500
*SECNO 11.244

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.91


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1527.30 ELREA=      1527.30

       BEGIN SUN VALLEY PARKWAY CULVERTS (6- 12' X 8' RCBS  - STRUC. NO. 28)
   11.244      2.48   1521.28       .00   1521.01   1521.52       .24      1.13       .11   1527.30
    748.0        .0     748.0        .0        .0     190.7        .0     101.2      58.1   1527.30
      .56       .00      3.92       .00      .000      .035      .000      .000   1518.80   9961.50
  .002766      185.      185.      185.         5         0         0       .00     77.00  10038.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	[illegible]	[illegible]	SNOST

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	6	.012	.20	3.00	.00	6.00	12.00	159.00	12	3	1519.30	1518.80

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 11.274

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1521.656 EGOC = 1521.796 PCWSE= 1521.277 ELTRD= 1526.800

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.41

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1521.66	1521.80	.28	0.	748.	4.412	432.0	1526.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1526.00 ELREA= 1526.00

END CULVERTS (STRUC. #28)

11.274	2.19	1521.49	.00	1521.41	1521.80	.30	.28	.00	1527.80
748.0	.0	748.0	.0	.0	169.5	.0	101.9	58.4	1527.80
.57	.00	4.41	.00	.000	.012	.000	.000	1519.30	9961.50
.000477	159.	159.	159.	2	0	0	.00	77.00	10038.50

*SECNO 11.283
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9912.0 10088.0 TYPE= 1 TARGET= 176.000
ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1
FLARE ANGLE OF CULVERT INLET.
FLOODPLAIN\FLOODWAY DELINEATION PLOTTED BASED ON WSEL AS PONDING AND
POSSIBLE AT THIS SEC. BEYOND EFFECTIVE FLOW LIMITS.

11.283	1.33	1522.13	1522.13	1522.13	1522.65	.52	.07	.11	1522.00
748.0	.0	748.0	.0	.1	129.3	.0	102.1	58.5	100000.00
.57	.06	5.79	.00	.035	.035	.000	.000	1520.80	9942.98
.017869	50.	50.	50.	20	14	0	.00	126.52	10069.50

THIS RUN EXECUTED 04SEP91 13:05:48

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO. 5 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.059	2469.00	1467.86	.00	5.61	.00	10054.40	10069.70	.00	.00	9604.21	11606.90
	.059	2469.00	1468.86	.00	6.71	.00	10054.40	10069.70	10054.40	10523.17	10054.40	10523.17
	.153	2469.00	1472.43	.00	3.71	680.00	9669.20	9711.40	9507.40	11645.20	9624.29	11621.48
	.153	2469.00	1473.43	.00	5.38	680.00	9669.20	9711.40	9669.20	10325.00	9669.20	10325.00
	.265	2469.00	1478.17	.00	3.87	740.00	9562.90	9588.30	9430.70	11186.70	9519.82	11175.73
	.265	2469.00	1479.16	.00	5.49	740.00	9562.90	9588.30	9562.90	10072.00	9562.90	10072.00
	.418	2469.00	1484.63	.00	5.15	680.00	9922.20	9940.80	9700.70	10782.90	9703.20	10746.53
	.418	2469.00	1485.63	.00	6.49	680.00	9922.20	9940.80	9922.20	10300.00	9922.20	10300.00
	.518	2469.00	1489.68	.00	4.16	560.00	10047.30	10077.90	9748.40	10688.80	9793.00	10664.76
	.518	2469.00	1490.66	.00	5.59	560.00	10047.30	10077.90	10047.30	10314.00	10047.30	10314.00
	.642	2469.00	1494.86	.00	6.21	660.00	9893.00	9910.10	9400.00	10488.40	9531.16	10484.98
	.642	2469.00	1495.86	.00	7.23	660.00	9893.00	9910.10	9893.00	10138.00	9893.00	10138.00
	.775	2397.00	1500.57	.00	5.48	780.00	10063.00	10090.20	9276.70	10226.30	9280.79	10215.03
	.775	2397.00	1501.53	.00	6.16	780.00	10063.00	10090.20	9888.00	10090.20	9888.00	10090.20
	.866	2397.00	1504.52	.00	4.18	500.00	10025.50	10069.50	9222.70	10221.40	9225.89	10196.45
	.866	2397.00	1505.45	.00	6.18	500.00	10025.50	10069.50	9836.20	10069.50	9836.20	10069.50
	.920	2397.00	1507.02	.00	3.83	325.00	10087.70	10187.30	9184.00	10587.90	9189.10	10198.48
*	.920	2397.00	1507.82	.00	4.15	325.00	10087.70	10187.30	9800.00	10187.30	9800.00	10187.30
	.998	2397.00	1510.81	.00	4.09	470.00	9981.00	10017.70	9279.90	10641.30	9308.70	10569.34
*	.998	2397.00	1511.09	.00	5.44	470.00	9981.00	10017.70	9981.00	10276.80	9981.00	10276.80
*	1.110	1905.00	1518.13	1518.13	8.32	600.00	9983.00	10006.00	9694.30	10197.00	9711.98	10196.40
*	1.110	1905.00	1518.80	1518.80	9.87	600.00	9983.00	10006.00	9975.00	10120.00	9975.00	10120.00

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	1.204	1905.00	1523.24	1523.24	7.44	500.00	9975.60	10023.10	9811.30	10315.80	9919.40	10268.19
	1.204	1905.00	1523.91	.00	7.59	500.00	9975.60	10023.10	9975.60	10115.00	9975.60	10115.00
*	1.263	1905.00	1528.40	1528.40	9.52	305.00	9985.40	10005.60	9688.70	10049.40	9838.43	10044.72
*	1.263	1905.00	1529.27	1529.27	11.28	305.00	9985.40	10005.60	9985.40	10049.40	9985.40	10049.40
*	1.331	1905.00	1532.25	1532.25	10.32	365.00	10038.20	10050.70	9923.00	10077.00	9923.00	10077.00
*	1.331	1905.00	1533.20	.00	8.24	365.00	10038.20	10050.70	9950.00	10055.00	9950.00	10055.00
*	1.361	1905.00	1533.44	.00	5.01	155.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	1.361	1905.00	1533.92	.00	4.56	155.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	1.387	1905.00	1534.12	.00	4.83	137.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	1.387	1905.00	1534.67	.00	4.36	137.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	1.396	1905.00	1534.13	.00	5.07	50.00	9900.00	10048.00	9900.00	10048.00	9900.00	10044.52
*	1.396	1905.00	1534.73	.00	4.11	50.00	9900.00	10048.00	9900.00	10048.00	9900.00	10046.91
	-.920	2391.00	1507.02	.00	3.82	325.00	10087.70	10187.30	9184.00	10587.90	9184.07	10198.49
	-.920	2391.00	1507.82	.00	4.14	325.00	10087.70	10187.30	9800.00	10187.30	9800.00	10187.30
	11.007	2391.00	1510.79	1510.57	6.21	460.00	10251.20	10276.80	9279.90	10641.50	9308.87	10565.90
*	11.007	2391.00	1511.07	1510.90	7.40	460.00	10251.20	10276.80	9981.00	10276.80	9981.00	10276.80
*	11.117	748.00	1515.66	.00	3.10	590.00	10413.60	10440.80	10197.00	10748.10	10359.86	10638.63
	11.117	748.00	1516.25	.00	3.09	590.00	10413.60	10440.80	10400.00	10545.00	10400.00	10545.00
*	11.210	748.00	1519.25	1519.25	6.67	520.00	10729.30	10758.00	10640.00	10810.00	10655.70	10810.00
*	11.210	748.00	1519.66	1519.66	7.50	520.00	10729.30	10758.00	10700.00	10800.00	10700.00	10800.00
*	11.244	748.00	1521.01	.00	4.40	185.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.244	748.00	1521.28	.00	3.92	185.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.274	748.00	1521.41	.00	4.57	159.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.274	748.00	1521.49	.00	4.41	159.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.283	748.00	1522.13	1522.13	5.79	50.00	9944.00	10090.00	9912.00	10088.00	9942.99	10069.47
*	11.283	748.00	1522.13	1522.13	5.79	50.00	9944.00	10090.00	9912.00	10088.00	9942.98	10069.50

WASH NO. 5 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.059	336.45	210.89	1921.66	1.69	5.61	2.27	1468.30	1467.86	.00	1953.89	1464.90	1.36
	.059	.00	354.88	2114.12	.00	6.71	3.42	1468.30	1468.86	.00	468.77	1464.90	1.22
	.153	[illegible]	[illegible]	[illegible]	[illegible]	3.71	2.38	1473.10	1472.43	[illegible]	[illegible]	[illegible]	1.03
	.153	.00	483.38	1985.62	.00	5.38	3.09	1473.10	1473.43	4.57	655.80	1470.40	1.17
	.265	20.77	127.90	2320.33	1.70	3.87	2.53	1478.80	1478.17	5.74	1554.32	1476.00	1.04
	.265	.00	318.98	2150.02	.00	5.49	3.47	1478.80	1479.16	5.73	509.10	1476.00	1.08
	.418	500.95	154.75	1813.30	2.78	5.15	3.30	1484.70	1484.63	6.46	963.36	1482.50	1.05
	.418	.00	315.47	2153.53	.00	6.49	4.16	1484.70	1485.63	6.47	377.80	1482.50	1.08
	.518	561.04	203.88	[illegible]	[illegible]	[illegible]	2.92	1490.00	1489.68	5.05	871.76	[illegible]	1.05
	.518	.00	442.08	2026.92	.00	5.59	4.26	1490.00	1490.66	5.03	266.70	1487.20	1.04
	.642	833.90	268.87	1366.23	2.96	6.21	2.85	1494.90	1494.86	5.18	953.82	1491.10	1.24
	.642	.00	437.23	2031.77	.00	7.23	4.68	1494.90	1495.86	5.20	245.00	1491.10	1.10
	.775	1981.84	393.97	41.19	2.74	5.48	1.31	1501.90	1500.37	5.71	934.25	1497.40	1.30
	.775	1794.10	602.90	.00	4.26	6.16	.00	1501.90	1501.53	5.66	202.20	1497.40	1.08
	.866	1938.10	239.74	219.16	2.87	4.18	2.85	1504.80	1504.52	3.95	970.56	1501.40	1.04
	.866	1788.30	608.70	.00	4.96	6.18	.00	1504.80	1505.45	3.93	233.30	1501.40	1.03
	.920	1833.39	554.23	9.37	2.46	3.83	1.64	1510.00	1507.02	2.51	1009.39	1504.30	1.12
*	.920	1468.75	928.25	.00	3.01	4.15	.00	1510.00	1507.82	2.36	387.30	1504.30	1.08
	.998	48.73	169.45	2178.81	.97	4.09	4.04	1511.90	1510.81	3.79	1179.14	1507.90	1.11
*	.998	.00	282.54	2114.46	.00	5.44	5.22	1511.90	1511.09	3.27	295.80	1507.90	1.00
*	1.110	237.84	755.88	891.27	2.35	8.32	3.81	1518.20	1518.13	7.32	484.42	1513.20	1.82
*	1.110	115.05	1049.65	740.29	5.19	9.87	4.20	1518.20	1518.80	7.71	145.00	1513.20	1.59
*	1.204	81.09	1087.52	736.39	2.77	7.44	3.13	1524.00	1523.24	5.11	340.30	1517.80	1.66
	1.204	.00	1351.22	553.78	.00	7.59	3.80	1524.00	1523.91	5.11	139.40	1517.80	1.30
*	1.263	711.45	945.74	247.81	4.02	9.52	4.79	1530.00	1528.40	5.16	206.29	1522.10	1.60
*	1.263	.00	1319.42	585.58	.00	11.28	6.53	1530.00	1529.27	5.36	64.00	1522.10	1.19
*	1.331	942.19	752.76	210.05	4.79	10.32	4.66	1532.70	1532.25	3.85	154.00	1525.10	1.52
*	1.331	1149.66	699.60	55.74	4.52	8.24	3.46	1532.70	1533.20	3.93	105.00	1525.10	1.31
*	1.361	.00	1905.00	.00	.00	5.01	.00	1534.00	1533.44	1.19	77.00	1528.50	1.00
*	1.361	.00	1905.00	.00	.00	4.56	.00	1534.00	1533.92	.72	77.00	1528.50	1.00
*	1.387	.00	1905.00	.00	.00	4.83	.00	1534.50	1534.12	.68	77.00	1529.00	1.00
*	1.387	.00	1905.00	.00	.00	4.36	.00	1534.50	1534.67	.75	77.00	1529.00	1.00

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	1.396	.00	1905.00	.00	.00	5.07	.00	1535.00	1534.13	.01	144.82	1531.00	1.00
*	1.396	.00	1905.00	.00	.00	4.11	.00	1535.00	1534.73	.06	146.91	1531.00	1.00
	-.920	1828.90	952.74	9.35	2.46	3.82	1.63	1510.00	1507.02	-27.11	1009.47	1504.30	1.12
	-.920	1464.75	926.25	.00	3.01	4.14	.00	1510.00	1507.82	-26.91	387.30	1504.30	1.08
	11.007	1235.64	334.98	820.42	3.43	6.21	3.98	1511.90	1510.79	3.77	1148.75	1507.90	1.14
*	11.007	1938.29	452.71	.00	4.95	7.40	.00	1511.90	1511.07	3.25	295.80	1507.90	1.08
*	11.117	94.28	159.11	494.61	1.54	3.10	2.11	1518.10	1515.66	4.86	298.77	1513.20	1.14
	11.117	62.07	208.33	477.60	2.18	3.09	2.30	1518.10	1516.25	5.18	145.00	1513.20	1.06
*	11.210	375.85	235.33	136.82	5.10	6.67	3.90	1524.00	1519.25	3.59	154.30	1517.80	1.11
*	11.210	204.99	351.91	191.10	5.36	7.50	4.56	1524.00	1519.66	3.41	100.00	1517.80	1.14
*	11.244	.00	748.00	.00	.00	4.40	.00	1527.30	1521.03	1.76	77.00	1518.80	1.00
*	11.244	.00	748.00	.00	.00	3.92	.00	1527.30	1521.28	1.62	77.00	1518.80	1.00
*	11.274	.00	748.00	.00	.00	4.57	.00	1527.80	1521.41	.40	77.00	1519.30	1.00
*	11.274	.00	748.00	.00	.00	4.41	.00	1527.80	1521.49	.22	77.00	1519.30	1.00
*	11.283	.00	748.00	.00	.06	5.79	.00	1526.00	1522.13	.71	126.49	1520.80	1.00
*	11.283	.00	747.99	.00	.06	5.79	.00	1526.00	1522.13	.63	126.52	1520.80	1.00

WASH NO. 5 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.059	.00	.00	1467.97	.11	.00	.00	81.05	.00	2.96	49.00	42.00	49.00
	.059	.00	.00	1469.12	.26	.00	.00	82.74	.00	3.96	.00	42.00	49.00
	.153	680.00	8.09	1472.54	.11	4.56	.00	92.99	12.20	2.03	49.00	42.00	49.00
	.153	680.00	8.09	1473.64	.21	4.51	.00	87.55	8.35	3.03	.00	42.00	49.00
	.265	740.00	7.57	1478.27	.11	5.73	.00	84.67	26.27	2.17	49.00	42.00	49.00
	.265	740.00	7.57	1479.38	.22	5.74	.00	87.30	18.88	3.16	.00	42.00	49.00
	.418	680.00	9.56	1484.81	.18	6.51	.02	113.36	39.40	2.13	49.00	42.00	49.00
	.418	680.00	9.56	1485.95	.32	6.54	.03	109.44	28.47	3.13	.00	42.00	49.00
	.518	560.00	8.39	1489.81	.14	5.00	.00	74.44	49.50	2.48	49.00	42.00	49.00
	.518	560.00	8.39	1490.98	.32	5.03	.00	77.22	35.57	3.46	.00	42.00	49.00
	.642	660.00	5.91	1495.04	.18	5.21	.01	93.81	61.34	3.78	49.00	42.00	49.00
	.642	660.00	5.91	1496.28	.42	5.27	.03	97.20	42.90	4.76	.00	42.00	49.00
	.775	780.00	8.08	1500.74	.17	5.70	.00	65.96	74.83	3.17	49.00	42.00	49.00
	.775	780.00	8.08	1501.88	.36	5.59	.01	61.84	51.33	4.13	49.00	42.00	.00
	.866	500.00	8.00	1504.66	.14	3.92	.00	98.20	84.02	3.12	49.00	42.00	49.00
	.866	500.00	8.00	1505.89	.44	3.98	.02	110.17	56.85	4.05	49.00	42.00	.00
	.920	325.00	8.92	1507.15	.13	2.49	.00	71.52	89.82	2.72	49.00	42.00	49.00
*	.920	325.00	8.92	1508.01	.19	2.09	.02	47.82	60.88	3.52	49.00	42.00	.00
	.998	470.00	7.66	1511.06	.25	3.87	.04	115.77	97.36	2.91	49.00	42.00	49.00
*	.998	470.00	7.66	1511.52	.43	3.44	.07	153.69	66.72	3.19	.00	42.00	49.00
*	1.110	600.00	8.83	1518.67	.54	6.37	.09	95.54	104.69	4.93	49.00	42.00	49.00
*	1.110	600.00	8.83	1519.77	.96	7.65	.16	108.77	71.97	5.60	49.00	42.00	49.00
*	1.204	500.00	9.20	1523.80	.55	4.93	.00	101.93	109.55	5.44	49.00	42.00	49.00
	1.204	500.00	9.20	1524.61	.70	4.82	.03	85.88	75.57	6.11	.00	42.00	49.00
*	1.263	305.00	14.10	1529.24	.84	3.00	.09	94.01	112.16	6.30	49.00	42.00	49.00
*	1.263	305.00	14.10	1530.84	1.57	3.25	.26	135.93	77.43	7.17	.00	42.00	49.00
*	1.331	365.00	8.22	1533.11	.87	3.48	.01	96.74	114.85	7.15	49.00	42.00	49.00
*	1.331	365.00	8.22	1533.79	.58	2.84	.10	50.41	79.78	8.10	49.00	42.00	49.00
*	1.361	155.00	21.94	1533.83	.39	.57	.14	19.42	116.09	4.94	.00	35.00	.00
*	1.361	155.00	21.94	1534.24	.32	.38	.08	14.46	81.16	5.42	.00	35.00	.00
*	1.387	137.00	3.65	1534.48	.36	.65	.00	2.03	117.31	5.12	.00	12.00	.00
*	1.387	137.00	3.65	1534.96	.30	.72	.00	1.47	82.50	5.67	.00	12.00	.00

	SECND	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	1.396	50.00	40.00	1534.53	.40	.03	.02	40.91	117.75	3.13	.00	35.00	.00
*	1.396	50.00	40.00	1534.99	.26	.02	.01	20.98	83.02	3.73	.00	35.00	.00
	-.920	325.00	.00	1507.15	.12	.00	.00	71.07	122.19	2.72	49.00	42.00	49.00
	-.920	325.00	.00	1508.01	.19	.00	.00	47.78	87.20	3.52	49.00	42.00	.00
	11.007	460.00	7.83	1511.06	.26	3.87	.04	114.57	129.73	2.89	49.00	42.00	49.00
*	11.007	460.00	7.83	1511.54	.47	3.45	.08	152.86	93.04	3.17	49.00	42.00	.00
*	11.117	590.00	8.98	1515.74	.08	4.66	.02	33.29	136.28	2.46	49.00	42.00	49.00
	11.117	590.00	8.98	1516.35	.10	4.77	.04	23.08	98.16	3.05	49.00	42.00	49.00
*	11.210	520.00	8.85	1519.71	.46	3.55	.11	269.93	139.00	1.45	49.00	42.00	49.00
*	11.210	520.00	8.85	1520.27	.62	2.62	.15	233.46	100.55	1.86	49.00	42.00	49.00
*	11.244	185.00	5.41	1521.31	.30	1.55	.05	40.37	139.67	2.21	.00	35.00	.00
*	11.244	185.00	5.41	1521.52	.24	1.13	.11	27.66	101.23	2.48	.00	35.00	.00
*	11.274	159.00	3.14	1521.74	.32	.42	.00	5.36	140.27	2.11	.00	12.00	.00
*	11.274	159.00	3.14	1521.80	.30	.28	.00	4.77	101.88	2.19	.00	12.00	.00
*	11.283	50.00	30.00	1522.65	.52	.08	.10	179.22	140.44	1.33	35.00	35.00	.00
*	11.283	50.00	30.00	1522.65	.52	.07	.11	178.69	102.05	1.33	35.00	35.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .920  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .998  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.110  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.110  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.110  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.110  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.204  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.204  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.263  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.263  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.263  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.263  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.263  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.263  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=     1.331  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.331  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     1.331  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.361  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.361  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.387  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.387  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.396  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.396  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    11.007  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    11.117  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    11.210  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.210  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.210  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.210  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.210  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    11.244  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.244  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    11.274  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.274  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    11.283  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.283  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.283  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

```
CAUTION SECNO=     11.283  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.283  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.283  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO. 5 100-YEAR PRO
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.059	469.	670.	3.7	1468.9	1467.9	1.0
.153	656.	733.	3.4	1473.4	1472.4	1.0
.265	509.	678.	3.6	1479.2	1478.2	1.0
.418	378.	566.	4.4	1485.6	1484.6	1.0
.518	267.	585.	4.4	1490.7	1489.7	1.0
.642	245.	495.	5.0	1495.9	1494.9	1.0
.775	202.	519.	4.6	1501.6	1500.6	1.0
.866	233.	459.	5.2	1505.4	1504.5	.9
.920	387.	711.	3.4	1507.8	1507.0	.8
.998	296.	457.	5.2	1511.1	1510.8	.3
1.110	145.	305.	6.3	1518.8	1518.1	.7
1.204	139.	324.	5.9	1523.9	1523.2	.7
1.263	64.	207.	9.2	1529.3	1528.4	.9
1.331	105.	356.	5.4	1533.2	1532.2	1.0
1.361	77.	417.	4.6	1533.9	1533.4	.5
1.387	77.	436.	4.4	1534.6	1534.1	.5
1.396	147.	463.	4.1	1534.7	1534.1	.6
-.920	387.	710.	3.4	1507.8	1507.0	.8
11.007	296.	453.	5.3	1511.1	1510.8	.3
11.117	145.	304.	2.5	1516.3	1515.7	.6
11.210	100.	127.	5.9	1519.6	1519.2	.4
11.244	77.	191.	3.9	1521.3	1521.0	.3
11.274	77.	170.	4.4	1521.5	1521.4	.1
11.283	127.	129.	5.8	1522.1	1522.1	.0

THIS RUN EXECUTED 22AUG91 17:13:35

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
************************************


T1      SUN VALLEY PARKWAY NORTH FIS. CONTRACT:FCDMC NO.90-04     FILE:WASH6-2
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX.AZ.
T3      WASH NO. 6  100-YEAR PROFILE                     DATE:7\1\91;REV.8\5\91

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0        2                   0     .0071                                   1435.25

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1                  -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38        43         1         2        26        39        21        22        27        28
    53        54         0        38        13        14        15        55        26        56
    63         1        51         4        42        57         0        38        39        33
     3        10        11        12         5         7         8        16        17        18
     0       200

NC     .049      .049      .042        .1        .3
QT       2      1408      1408
ET                         9.1                                                                  9899.88   10157.49
        FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH TRILBY WASH.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        BEARDSLEY ROAD EXTENDED CROSSES AT THIS SECTION (NO ROAD CURRENTLY)
X1    .2538        89    9974.2    9990.7         0         0         0
GR  1435.7    9468.0    1434.5    9477.8    1434.1    9484.7    1433.9    9489.8    1434.5    9495.9
GR  1434.8    9503.9    1435.1    9513.6    1435.0    9521.1    1435.2    9527.6    1435.1    9538.1
GR  1434.7    9598.7    1434.9    9611.1    1434.9    9623.9    1434.9    9631.3    1434.8    9645.5
GR  1434.6    9655.6    1434.5    9666.3    1434.5    9682.7    1434.7    9701.3    1434.8    9712.9
GR  1434.2    9791.8    1434.4    9803.2    1434.4    9814.9    1434.6    9828.0    1434.6    9840.1
GR  1434.6    9848.5    1434.8    9857.3    1434.8    9867.9    1434.7    9876.7    1434.7    9886.0
```

```
GR   1434.8     9938.9     1434.7     9947.9     1434.7     9955.5     1434.5     9965.3     1434.1     9974.2
GR   1433.7     9982.0     1433.7     9985.9     1434.3     9990.7     1434.7     9996.7     1434.7    10000.0
GR   1435.1    10033.4     1435.1    10045.5     1435.1    10055.4     1435.0    10066.2     1434.7    10077.5
GR   1434.3    10084.1     1433.8    10088.6     1434.4    10092.9     1434.7    10103.4     1434.7    10115.6
GR   1435.1    10184.8     1435.3    10198.5     1435.3    10211.2     1434.7    10223.9     1434.2    10231.9
GR   1433.1    10272.6     1433.0    10278.9     1433.9    10285.4     1434.3    10293.7     1434.5    10305.5
GR   1434.8    10362.7     1434.6    10370.8     1434.1    10378.0     1433.4    10382.7     1433.8    10386.9
GR   1434.3    10392.7     1434.4    10401.3     1434.6    10412.4     1434.8    10426.7     1434.8    10438.4
GR   1435.1    10449.2     1434.9    10457.7     1435.0    10466.7     1434.9    10476.6     1434.8    10485.6
GR   1434.9    10495.4     1435.0    10509.0     1435.3    10518.9     1435.8    10527.7     1435.7    10538.5
GR   1436.6    10710.9     1436.4    10721.7     1436.4    10732.3     1436.5    10747.6     1436.6    10760.2
GR   1436.8    10773.2     1437.0    10785.1     1437.0    10797.3     1437.0    10804.1

ET                 7.1         9.1                                     9889.3    10790.5        9890       10100
        MOUNTBATTEN ROAD (211TH AVE.) EXTENDED CROSSES 210 FT. UPSTREAM OF
        THIS SECTION (NO ROAD CURRENTLY)
        ENCROACHMENTS (ET CARD) APPLIED FROM SEC. .3655 TO .7367 TO BLOCK
        OUT INEFFECTIVE FLOW IN LEFT OVERBANK (LOOKING DOWNSTREAM) BEYOND RIDGE.
X1   0.3655         95     9983.2     9997.6        600        600        620
GR   1439.6     9069.3     1439.0     9086.8     1439.1     9114.3     1438.8     9130.1     1438.8     9141.0
GR   1438.6     9222.0     1438.5     9242.1     1438.4     9267.4     1438.5     9302.0     1438.5     9344.4
GR   1438.4     9480.1     1438.8     9524.3     1439.1     9552.2     1439.5     9568.6     1439.2     9575.3
GR   1438.6     9631.7     1438.6     9636.2     1439.0     9641.3     1439.4     9648.1     1439.5     9653.9
GR   1440.0     9725.6     1440.1     9736.4     1440.2     9747.8     1440.2     9758.6     1440.2     9772.3
GR   1439.4     9827.3     1439.7     9836.8     1440.0     9844.9     1440.1     9852.8     1439.9     9860.8
GR   1439.8     9866.7     1440.0     9872.4     1440.1     9880.2     1440.4     9889.3     1439.8     9895.4
GR   1440.3     9903.5     1440.2     9913.8     1440.1     9922.6     1440.1     9928.2     1440.0     9935.8
GR   1439.4     9942.5     1439.7     9951.9     1439.8     9956.1     1439.3     9964.4     1439.2     9970.4
GR   1439.4     9975.8     1439.4     9980.1     1439.4     9983.2     1438.3     9988.2     1437.4     9991.7
GR   1437.9     9994.2     1439.2     9997.6     1439.2    10000.0     1438.1    10000.1     1439.2    10003.9
GR   1439.2    10007.9     1439.1    10013.0     1439.1    10022.3     1439.6    10030.4     1439.7    10038.9
GR   1439.8    10096.6     1440.2    10110.4     1440.3    10119.6     1440.5    10126.7     1440.2    10133.4
GR   1439.9    10139.8     1440.1    10147.5     1439.7    10156.4     1439.7    10165.0     1439.8    10175.3
GR   1439.8    10185.3     1439.7    10194.7     1439.7    10204.1     1439.6    10215.7     1439.6    10223.4
GR   1439.7    10308.8     1439.7    10318.4     1439.4    10323.8     1438.6    10329.1     1439.4    10334.6
GR   1438.8    10337.5     1437.2    10342.6     1437.0    10345.4     1438.2    10349.5     1439.0    10354.6
GR   1440.1    10524.3     1440.2    10538.0     1440.3    10551.6     1440.4    10563.1     1440.4    10577.2
GR   1441.6    10756.7     1441.9    10764.0     1441.9    10768.8     1441.8    10779.3     1441.8    10790.5

ET                 7.1         9.1                                     9911.0    10552.1     9980.0    10091.5
X1   0.4981         81    10000.0    10023.4        700        700        720
GR   1448.4     9585.8     1448.5     9591.7     1449.1     9600.0     1449.2     9609.0     1449.0     9615.6
GR   1448.8     9624.7     1448.3     9635.6     1448.3     9642.9     1448.2     9647.9     1448.0     9660.0
GR   1447.5     9669.5     1446.9     9681.7     1447.0     9689.6     1446.9     9698.6     1446.7     9711.2
GR   1446.4     9722.0     1446.4     9734.0     1446.4     9746.4     1446.1     9757.7     1446.0     9770.2
GR   1446.1     9781.7     1446.2     9791.7     1446.3     9800.8     1446.2     9807.8     1446.2     9814.0
GR   1446.0     9827.0     1446.0     9834.1     1446.1     9846.5     1446.1     9861.0     1446.1     9878.4
GR   1446.3     9895.2     1446.6     9903.8     1447.1     9911.0     1446.2     9917.7     1445.8     9926.9
GR   1445.9     9966.9     1445.5     9971.6     1445.9     9975.8     1446.1     9984.0     1446.2     9989.8
GR   1446.3     9998.2     1446.2    10000.0     1446.2    10000.1     1445.2    10005.1     1444.8    10011.4
GR   1445.0    10013.8     1445.7    10017.8     1445.9    10023.4     1445.7    10030.3     1445.4    10037.4
GR   1445.4    10046.1     1445.5    10055.2     1445.4    10063.1     1445.1    10076.9     1445.3    10086.1
GR   1445.3    10098.0     1446.0    10111.7     1446.1    10122.7     1446.1    10135.9     1446.3    10147.4
GR   1446.5    10158.1     1446.5    10167.4     1446.5    10178.5     1446.5    10188.4     1446.5    10197.3
```

GR	1446.9	10206.8	1446.9	10213.4	1447.1	10219.8	1447.0	10229.3	1446.4	10240.3
GR	1446.2	10373.1	1446.1	10386.4	1446.2	10399.9	1446.7	10414.9	1447.0	10438.0
GR	1447.4	10464.6	1447.8	10490.3	1447.8	10506.2	1448.0	10524.6	1448.6	10543.8
GR	1448.6	10552.1								
ET		7.1	9.1				9502.0	10239.2	9905.0	10075
X1	0.6174	70	10008.8	10033.0	640	600	650			
GR	1456.0	9502.0	1455.8	9523.9	1455.7	9546.9	1455.2	9580.3	1455.0	9604.9
GR	1454.2	9645.7	1454.1	9674.8	1453.8	9701.1	1454.0	9718.4	1453.0	9735.3
GR	1452.8	9753.5	1451.6	9770.1	1450.8	9782.7	1450.8	9795.7	1450.9	9816.1
GR	1450.9	9893.3	1451.0	9906.9	1450.8	9920.9	1450.8	9931.0	1452.0	9943.8
GR	1451.4	9958.0	1452.0	9972.5	1451.5	9981.4	1451.2	9988.3	1450.5	9993.8
GR	1451.4	9999.1	1451.6	10000.0	1451.1	10000.1	1451.6	10008.8	1451.5	10021.0
GR	1450.1	10025.4	1450.1	10028.3	1451.5	10033.0	1451.6	10039.2	1450.8	10046.0
GR	1450.8	10049.9	1450.7	10053.8	1451.1	10060.3	1451.3	10072.8	1451.5	10089.0
GR	1452.0	10156.8	1452.4	10170.2	1452.4	10185.8	1452.8	10199.1	1452.9	10214.2
GR	1453.0	10239.2	1452.8	10257.9	1452.6	10273.8	1452.5	10287.9	1452.3	10306.7
GR	1452.0	10323.6	1451.8	10340.4	1451.6	10358.3	1451.5	10372.2	1451.8	10385.9
GR	1451.8	10395.8	1451.8	10407.7	1451.9	10412.8	1451.6	10421.9	1451.8	10439.3
GR	1451.8	10456.6	1452.0	10477.9	1453.6	10496.7	1453.4	10516.5	1453.7	10534.8
GR	1453.8	10557.7	1453.8	10581.1	1454.0	10600.2	1454.5	10615.5	1454.4	10627.6
ET		7.1	9.1				9739.8	10040.2	9900	10020
X1	0.7367	75	9955.1	9979.6	670	600	650			
GR	1460.9	9739.8	1461.3	9756.3	1461.4	9772.4	1461.3	9787.0	1460.7	9800.6
GR	1460.0	9815.5	1459.5	9826.2	1459.6	9836.6	1459.1	9848.8	1458.3	9863.9
GR	1456.9	9878.3	1457.0	9886.2	1457.0	9896.2	1456.2	9902.4	1455.0	9908.0
GR	1456.2	9912.5	1455.9	9915.1	1455.6	9918.9	1455.8	9922.5	1456.0	9930.4
GR	1457.3	9940.2	1457.3	9949.5	1457.0	9955.1	1455.6	9965.6	1455.3	9972.9
GR	1456.2	9979.6	1456.3	9985.6	1456.3	9989.9	1457.6	9993.6	1457.6	9999.0
GR	1457.0	10000.0	1457.4	10000.1	1456.6	10004.4	1456.8	10009.0	1457.7	10016.6
GR	1458.4	10023.6	1458.9	10030.9	1459.1	10040.2	1458.7	10051.9	1458.0	10064.9
GR	1456.9	10076.4	1455.9	10090.3	1455.7	10097.7	1455.8	10104.9	1455.9	10111.3
GR	1456.2	10121.9	1456.3	10135.9	1456.5	10147.8	1456.1	10158.6	1456.2	10170.7
GR	1456.1	10181.1	1456.2	10190.9	1456.1	10202.3	1456.0	10215.0	1455.6	10223.6
GR	1456.2	10234.1	1456.5	10247.3	1456.9	10259.5	1457.3	10270.1	1456.6	10275.6
GR	1456.4	10280.1	1457.1	10286.7	1457.4	10294.3	1457.4	10300.0	1457.4	10308.3
GR	1457.2	10391.4	1457.5	10400.7	1457.5	10414.0	1457.7	10440.2	1458.4	10471.0
GR	1458.5	10501.6	1458.5	10522.4	1459.6	10550.4	1460.3	10571.1	1460.3	10571.2
ET			9.1						9780	9991.6
X1	0.8485	92	9970.6	9991.6	600	590	610			
GR	1465.9	9392.3	1465.8	9408.6	1465.7	9415.7	1465.1	9428.2	1464.7	9436.0
GR	1464.2	9453.4	1464.0	9469.3	1463.8	9488.1	1463.8	9505.6	1463.8	9522.8
GR	1463.0	9535.2	1462.8	9543.9	1463.2	9553.2	1462.2	9562.6	1462.2	9571.0
GR	1463.1	9666.6	1462.7	9676.7	1463.1	9689.6	1463.0	9700.8	1462.8	9713.4
GR	1462.1	9727.2	1463.0	9736.8	1463.0	9747.6	1463.4	9760.5	1463.2	9773.2
GR	1463.1	9787.5	1462.6	9801.7	1463.2	9808.3	1463.3	9817.5	1462.9	9823.9
GR	1461.9	9827.8	1463.4	9832.0	1463.4	9838.9	1463.1	9849.2	1462.5	9855.9
GR	1463.4	9861.5	1463.2	9870.7	1463.0	9882.3	1463.0	9891.4	1463.1	9901.2
GR	1462.9	9907.7	1463.2	9917.4	1463.3	9928.7	1463.2	9940.5	1462.8	9952.4
GR	1463.0	9960.4	1463.2	9970.6	1462.5	9976.6	1460.5	9983.7	1461.1	9987.5
GR	1463.3	9991.6	1463.0	9999.5	1463.0	10000.0	1462.8	10000.1	1463.0	10006.0
GR	1463.3	10011.1	1463.0	10017.4	1462.6	10022.8	1462.7	10031.3	1462.7	10038.9

```
GR   1463.1   10045.9   1463.5   10052.6   1462.9   10057.7   1462.8   10062.9   1462.9   10068.6
GR   1463.5   10073.5   1463.2   10081.3   1462.5   10090.2   1462.0   10098.8   1461.7   10105.0
GR   1462.1   10112.8   1463.2   10122.4   1463.6   10131.5   1463.4   10142.0   1463.3   10150.5
GR   1463.5   10159.9   1463.8   10172.6   1464.3   10183.9   1464.6   10200.4   1464.9   10210.2
GR   1464.5   10221.0   1465.0   10231.9   1464.5   10240.2   1464.5   10247.4   1465.5   10256.4
GR   1465.5   10266.8   1465.5   10280.2   1465.0   10294.0   1465.0   10308.9   1465.2   10326.2
GR   1465.3   10344.8   1465.3   10344.9

ET                7.1       9.1                                9680.5   10441.1   9841.6    9969.9
        ENCROACHMENT (ET CARD) APPLIED FROM SEC. .9498 TO 1.2254 TO BLOCK
        OUT INEFFECTIVE FLOW IN LEFT (LOOKING DOWNSTREAM) OVERBANK BEYOND RIDGE.
X1   0.9498        90   9951.7    9969.9       530       530       560
GR   1472.9    9152.5   1472.4    9166.2   1472.0    9178.6   1471.8    9190.0   1471.8    9199.2
GR   1471.7    9207.0   1471.2    9222.7   1470.9    9243.9   1470.4    9264.3   1470.4    9273.6
GR   1471.1    9283.5   1471.0    9289.7   1470.4    9299.7   1470.8    9305.9   1470.6    9309.6
GR   1469.4    9317.5   1470.7    9324.1   1471.2    9335.0   1471.2    9345.3   1471.0    9357.4
GR   1470.0    9366.9   1469.4    9376.9   1470.1    9381.1   1470.2    9386.3   1470.6    9390.8
GR   1471.1    9396.7   1471.4    9402.0   1471.3    9419.6   1471.3    9436.8   1470.8    9449.9
GR   1470.6    9463.0   1470.0    9484.5   1469.8    9501.0   1469.8    9518.3   1469.1    9533.0
GR   1469.1    9540.7   1469.6    9550.3   1469.4    9558.2   1466.2    9568.7   1468.2    9573.6
GR   1468.5    9579.1   1467.9    9582.8   1467.9    9585.7   1469.2    9588.1   1469.2    9592.5
GR   1469.4    9662.7   1469.7    9680.5   1469.0    9701.7   1468.3    9716.5   1468.0    9727.8
GR   1467.8    9740.1   1467.4    9754.5   1467.1    9773.1   1466.8    9787.6   1466.8    9809.1
GR   1467.6    9912.6   1467.2    9918.4   1467.4    9922.8   1467.5    9932.8   1467.7    9944.9
GR   1468.5    9951.7   1467.2    9956.9   1467.0    9964.3   1467.8    9969.9   1468.0    9976.1
GR   1467.9    9984.2   1467.8    9990.8   1468.4    9995.9   1469.0   10000.0   1468.4   10000.1
GR   1468.4   10000.2   1469.4   10006.2   1469.4   10011.7   1468.7   10018.5   1469.0   10025.7
GR   1468.3   10082.9   1468.7   10095.0   1469.0   10110.4   1469.1   10125.8   1469.5   10143.3
GR   1470.5   10314.2   1471.1   10338.8   1471.7   10365.4   1471.9   10387.1   1472.0   10401.9
GR   1472.0   10408.8   1471.6   10413.2   1472.4   10419.2   1472.4   10430.5   1472.5   10441.1

ET                7.1       9.1                                9860.4   10339.6   9989.4   10088.8
X1   1.0417        95   9989.4   10009.9       490       490       515
GR   1477.3    8769.2   1477.3    8795.3   1476.8    8821.9   1476.8    8845.8   1476.4    8862.4
GR   1476.1    8878.1   1476.1    8894.2   1476.1    8912.9   1475.9    8939.0   1475.0    8949.9
GR   1475.5    8959.8   1475.9    8973.1   1476.2    8986.2   1476.4    9001.4   1476.3    9011.7
GR   1475.8    9023.0   1475.3    9031.4   1474.3    9038.4   1474.2    9044.9   1475.5    9049.1
GR   1475.6    9056.0   1476.0    9062.2   1475.7    9071.6   1475.8    9080.4   1475.6    9090.6
GR   1474.9    9095.9   1473.8    9101.8   1475.0    9105.6   1475.6    9113.2   1475.9    9122.8
GR   1476.1    9134.8   1476.3    9146.7   1476.0    9158.3   1476.5    9177.7   1476.7    9193.8
GR   1475.8    9576.7   1476.0    9611.7   1476.7    9654.2   1476.8    9677.0   1476.9    9692.8
GR   1477.0    9714.1   1477.0    9733.9   1476.0    9751.3   1475.9    9768.9   1475.2    9783.8
GR   1474.9    9798.7   1474.3    9814.5   1474.6    9823.6   1475.3    9830.3   1475.5    9838.8
GR   1475.9    9849.5   1476.4    9860.4   1476.0    9873.8   1475.9    9887.2   1475.9    9898.7
GR   1475.2    9911.1   1475.2    9923.3   1475.2    9937.1   1474.0    9949.5   1473.9    9963.9
GR   1473.3    9977.7   1471.8    9989.4   1471.1    9994.3   1470.9   10000.0   1470.5   10000.1
GR   1470.5   10000.2   1471.6   10004.5   1472.6   10009.9   1473.1   10014.6   1473.4   10024.3
GR   1473.3   10088.3   1473.0   10097.8   1471.6   10107.7   1471.3   10111.6   1471.8   10117.7
GR   1473.5   10124.1   1473.5   10131.9   1473.7   10144.8   1473.8   10151.6   1473.9   10159.2
GR   1474.1   10169.0   1473.7   10181.0   1474.2   10191.3   1474.2   10209.3   1474.5   10227.6
GR   1475.0   10244.2   1475.5   10260.9   1476.2   10275.1   1477.0   10283.3   1476.1   10292.5
GR   1476.0   10298.7   1476.6   10306.2   1477.3   10316.2   1477.6   10323.5   1477.9   10339.6
```

ET		7.1	9.1				9789.2	10086.5	9980.0	10038.0
X1	1.097	95	9996.8	10009.9	280	305	290			
GR	1479.2	9024.6	1480.0	9039.0	1480.2	9043.3	1480.2	9056.9	1480.0	9073.7
GR	1479.2	9090.2	1478.9	9098.3	1479.1	9112.3	1479.0	9129.7	1478.8	9146.0
GR	1478.8	9164.6	1479.0	9186.3	1479.2	9205.6	1479.3	9224.6	1479.5	9245.7
GR	1479.6	9262.3	1479.5	9285.9	1479.3	9305.7	1479.0	9324.6	1478.8	9342.1
GR	1479.6	9513.8	1478.5	9530.0	1478.7	9545.7	1479.1	9562.2	1479.7	9576.0
GR	1479.6	9664.9	1479.7	9680.9	1479.9	9701.7	1480.0	9736.2	1480.8	9788.2
GR	1480.1	9812.6	1479.3	9829.1	1478.7	9845.4	1477.8	9863.8	1479.1	9882.6
GR	1478.8	9895.6	1478.3	9905.0	1478.4	9915.4	1477.9	9925.7	1477.0	9937.4
GR	1476.0	9948.1	1476.6	9955.4	1476.9	9962.3	1476.9	9970.6	1476.1	9980.6
GR	1475.5	9988.9	1475.8	9996.8	1475.6	10000.0	1474.8	10000.1	1474.9	10004.4
GR	1475.8	10009.9	1476.3	10015.1	1476.4	10021.3	1476.4	10029.9	1476.3	10038.2
GR	1477.1	10045.4	1478.8	10053.5	1479.6	10063.6	1480.9	10071.8	1482.1	10077.0
GR	1482.1	10086.5	1481.3	10095.3	1480.9	10104.8	1480.3	10117.6	1479.3	10130.1
GR	1478.0	10143.3	1477.9	10156.0	1477.9	10167.7	1477.6	10179.6	1477.8	10191.1
GR	1478.0	10260.7	1479.1	10274.8	1479.6	10292.0	1480.0	10306.1	1480.2	10320.8
GR	1480.5	10335.8	1480.5	10355.2	1480.0	10374.4	1478.8	10393.3	1478.0	10408.8
GR	1477.2	10421.0	1477.2	10431.4	1478.0	10440.0	1478.3	10447.7	1478.0	10458.8
GR	1479.8	10542.8	1479.8	10557.7	1479.7	10575.8	1479.6	10582.9	1479.9	10591.9
GR	1480.6	10602.2	1481.0	10612.9	1481.0	10623.5	1480.8	10631.0	1481.1	10636.9

QT	2	925	925							
ET		7.1	9.1				9859.1	10170.0	10015	10120
X1	1.1344	75	10028.9	10042.3	190	215	205			
GR	1480.8	9013.7	1480.9	9035.0	1481.0	9058.2	1481.0	9072.1	1480.8	9085.0
GR	1480.3	9097.2	1480.2	9102.6	1480.2	9117.5	1479.7	9129.0	1480.0	9141.1
GR	1480.1	9202.7	1480.2	9216.7	1480.4	9232.3	1480.4	9245.4	1480.4	9262.0
GR	1480.6	9279.9	1481.1	9297.4	1481.0	9312.1	1480.8	9325.3	1481.1	9340.2
GR	1480.8	9355.6	1480.6	9370.4	1480.0	9381.7	1480.0	9394.5	1480.1	9408.1
GR	1480.3	9421.9	1480.3	9437.0	1480.4	9448.8	1480.5	9460.8	1480.4	9472.9
GR	1480.5	9494.4	1480.3	9515.3	1480.2	9549.1	1480.2	9587.2	1480.3	9609.0
GR	1480.5	9632.6	1480.5	9650.1	1480.3	9666.4	1480.7	9693.1	1481.1	9713.4
GR	1481.3	9735.2	1481.4	9759.3	1481.9	9790.1	1482.3	9832.8	1482.4	9859.1
GR	1482.3	9876.4	1482.0	9899.2	1481.2	9916.4	1480.4	9927.3	1480.0	9930.5
GR	1479.2	9937.3	1480.0	9942.2	1480.0	9947.3	1480.0	9952.4	1479.8	9961.0
GR	1479.5	9972.7	1478.8	9985.0	1478.4	9998.1	1478.3	10000.0	1478.5	10000.1
GR	1478.7	10008.5	1478.6	10019.7	1477.9	10028.9	1476.6	10037.3	1477.0	10042.3
GR	1478.7	10050.1	1478.8	10061.3	1478.8	10076.0	1478.6	10089.6	1478.6	10100.2
GR	1478.6	10113.3	1478.8	10124.4	1478.9	10135.2	1480.0	10150	1482.0	10170

ET		7.1	9.1				9914.3	10202.0	9970.7	10025.8
X1	1.1780	75	9978.2	10007.7	230	250	265			
GR	1483.5	9129.1	1483.5	9141.4	1483.7	9154.0	1483.4	9160.9	1483.5	9172.5
GR	1483.3	9184.8	1484.0	9198.6	1483.1	9212.5	1482.9	9226.1	1482.6	9235.1
GR	1482.5	9313.7	1482.4	9329.3	1482.3	9342.4	1482.6	9357.1	1483.3	9369.0
GR	1483.5	9382.1	1483.5	9395.5	1483.8	9410.0	1483.9	9420.9	1483.6	9433.6
GR	1482.8	9513.4	1483.0	9527.0	1483.1	9536.4	1482.8	9545.7	1482.8	9557.3
GR	1483.1	9572.3	1483.1	9581.2	1482.8	9594.8	1482.9	9607.8	1482.8	9621.5
GR	1482.6	9636.2	1482.6	9648.3	1482.7	9660.4	1482.6	9670.2	1482.7	9681.9
GR	1482.8	9693.1	1483.0	9705.0	1483.1	9720.0	1483.5	9739.2	1483.8	9758.3
GR	1483.6	9771.5	1483.8	9784.3	1483.8	9799.0	1483.5	9816.9	1484.0	9838.8
GR	1484.4	9859.5	1485.0	9872.2	1485.3	9914.3	1484.0	9931.6	1483.8	9947.9

```
GR   1483.3    9955.3    1483.3    9963.9    1482.0    9968.1    1481.9    9978.2    1480.3    9989.8
GR   1480.0    9994.7    1480.7   10000.0    1480.6   10000.1    1480.6   10001.0    1482.0   10007.7
GR   1482.1   10018.6    1482.1   10030.8    1481.2   10048.2    1481.2   10057.0    1481.5   10063.1
GR   1481.3   10073.8    1480.2   10085.9    1481.5   10093.7    1482.1   10111.3    1482.5   10122.6
GR   1482.8   10130.0    1484.2   10138.9    1487.2   10154.1    1487.4   10160.8    1488.2   10202.0

ET                7.1       9.1                                   9798.3   10145.0    9910.0   10015.1
        ENCROACHMENT (ET CARD) APPLIED TO BLOCK OUT INEFFECTIVE FLOW OUTSIDE
        4:1 FLARE FROM CULVERT OUTLET.
X1   1.2254        70    9985.2   10015.1       240       220       260
GR   1486.5    9296.7    1486.4    9306.9    1486.2    9313.2    1486.3    9324.1    1485.9    9337.2
GR   1485.8    9349.0    1485.9    9364.4    1486.2    9380.3    1486.0    9390.0    1486.0    9402.6
GR   1486.1    9417.5    1485.8    9426.7    1485.9    9437.0    1485.9    9446.7    1485.8    9459.8
GR   1485.7    9470.8    1485.5    9483.6    1485.6    9496.9    1485.6    9511.0    1485.8    9525.4
GR   1486.0    9539.3    1486.2    9552.9    1486.6    9567.0    1487.1    9576.5    1486.8    9585.0
GR   1486.9    9600.9    1487.0    9612.4    1487.0    9623.8    1486.8    9636.4    1486.4    9649.6
GR   1486.5    9659.3    1486.5    9669.9    1486.4    9679.1    1486.3    9689.0    1486.3    9704.2
GR   1487.4    9798.3    1487.2    9812.7    1487.0    9827.4    1486.6    9837.5    1486.2    9846.8
GR   1486.0    9853.2    1485.2    9870.5    1484.8    9876.6    1485.0    9885.2    1484.7    9892.6
GR   1485.3    9899.1    1485.2    9904.0    1484.8    9913.9    1485.1    9921.4    1485.1    9933.4
GR   1485.1    9942.4    1485.3    9957.6    1485.4    9972.6    1484.5    9985.2    1483.9    9995.7
GR   1483.7   10000.0    1483.8   10000.1    1483.6   10007.0    1484.2   10015.1    1484.2   10026.3
GR   1484.2   10035.4    1485.0   10043.7    1487.5   10049.0    1488.1   10054.9    1488.5   10065.1
GR   1489.5   10078.1    1489.4   10090.2    1489.4   10097.4    1489.9   10126.6    1490.1   10145.0

NC    .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (4- 10' X 4' RCBS  - STRUC. NO.31)
X1   1.2368         4    9978.5   10021.5        60        60        60
X3       10                                                          1490.5    1490.5
GR   1490.5    9978.5    1486.0    9978.5    1486.0   10021.5    1490.5   10021.5

BT        2      1094      1094
NC     .012      .012      .012
SC    4.012        .2      2.63         0         4        10       170      12.3    1486.6    1486.0
        END CULVERTS (STRUC. #31).   NO WEIR FLOW OVER ROAD EXPECTED, BUT
        FLOW OVER WEIR TO RIGHT OF CULVERT IS EXPECTED. HOWEVER THIS WEIR
        FLOW WILL NOT IMMEDIATELY RETURN TO CHANNEL.
X1   1.2690         0         0         0       170       170       170                  .6
X2                             2    1490.6    1490.0
X3       10                                                          1491.5    1491.5
BT       10      9900    1494.9                10000    1493.8              10000.1    1493.3
BT    10040    1492.5              10048.1    1492.1                10055    1491.0                10071
BT   1491.0              10071.1    1490.0              10176.1      1490                 10188    1491.0
BT        0

NC    .035      .035      .035
ET                7.1       9.1                                      9968     10040      9968     10040
        ENCROACHMENT APPLIED LIMITING FLOW TO ARMORED WEIR LEVEE WITH TOP
        OF LEVEE EL.= 1490.0.
X1   1.2822         4      9968     10040        70        70        70
GR    1490      9968      1488      9976      1488     10025      1490     10040
```

```
NC     .049      .049      .042       .1        .3
QT        2      1408      1408
ET               7.1       9.1                                  9788.2    10086.5     9980.0    10038.0
         BEGIN TRIBUTARY 6A.  REPEAT SECTION 1.097.
X1    -1.097        95    9996.8   10009.9       280       305       290
GR    1479.2    9024.6    1480.0    9039.0    1480.2    9043.3    1480.2    9056.9    1480.0    9073.7
GR    1479.2    9090.2    1478.9    9098.3    1479.1    9112.3    1479.0    9129.7    1478.8    9146.0
GR    1478.8    9164.6    1479.0    9186.3    1479.2    9205.6    1479.3    9224.6    1479.5    9245.7
GR    1479.6    9262.3    1479.5    9285.9    1479.3    9305.7    1479.0    9324.6    1478.8    9342.1
GR    1478.6    9513.8    1478.5    9530.0    1478.7    9545.7    1479.1    9562.2    1479.7    9576.0
GR    1479.6    9664.9    1479.7    9680.9    1479.9    9701.7    1480.0    9736.2    1480.8    9788.2
GR    1480.1    9812.6    1479.3    9829.1    1478.7    9845.4    1477.8    9863.8    1479.1    9882.6
GR    1478.8    9895.6    1478.3    9905.0    1478.4    9915.4    1477.9    9925.7    1477.0    9937.4
GR    1476.0    9948.1    1476.6    9955.4    1476.9    9962.3    1476.9    9970.6    1476.1    9980.6
GR    1475.5    9988.9    1475.8    9996.8    1475.6   10000.0    1474.8   10000.1    1474.9   10004.4
GR    1475.8   10009.9    1476.3   10015.1    1476.4   10021.3    1476.4   10029.9    1476.3   10038.2
GR    1477.1   10045.4    1478.8   10053.5    1479.6   10063.6    1480.9   10071.8    1482.1   10077.0
GR    1482.1   10086.5    1481.3   10095.3    1480.9   10104.8    1480.3   10117.6    1479.3   10130.1
GR    1478.0   10143.3    1477.9   10156.0    1477.9   10167.7    1477.6   10179.6    1477.8   10191.1
GR    1478.0   10260.7    1479.1   10274.8    1479.6   10292.0    1480.0   10306.1    1480.2   10320.8
GR    1480.5   10335.8    1480.5   10355.2    1480.0   10374.4    1478.8   10393.3    1478.0   10408.8
GR    1477.2   10421.0    1477.2   10431.4    1478.0   10440.0    1478.3   10447.7    1478.0   10458.8
GR    1479.8   10542.8    1479.8   10557.7    1479.7   10575.8    1479.6   10582.9    1479.9   10591.9
GR    1480.6   10602.2    1481.0   10612.9    1481.0   10623.5    1480.8   10631.0    1481.1   10636.9

QT        2       412       412
ET               7.1       9.1                                 10160.0    10260.0     10165      10245
         ADD 10 TO CROSS-SECTION I.D. NUMBER FOR TRIB 6A.
         STA. 10210= BASELINE TRIB. 6A.
         ENCRAOCHMENT (ET CARD) APPLIED AT SEC.11.139 TO LIMIT INEFFECTIVE TO
         WITHIN 4:1 FLARE FROM CULVERT OUTLET>
X1    11.139        18   10186.5   10216.9       235       175       225
GR    1484.0   10100.0    1482.0   10115.0    1480.0   10125.2    1478.7   10145.8    1477.7   10155.3
GR    1477.1   10163.5    1476.8   10174.3    1476.0   10186.5    1475.5   10194.2    1475.7   10205.0
GR    1476.1   10216.8    1476.8   10227.0    1477.8   10236.7    1478.7   10248.3    1479.9   10260.5
GR    1481.0   10271.4    1480.8   10284.0    1481.0   10284.1

NC     .035      .035      .035       .3        .5
         BEGIN SUN VALLEY PARKWAY CULVERTS ( 6- 12' X 6' RCBS. -STRUC. NO. 32)
X1    11.148         4    9961.5   10038.5        45        45        45
X3        10                                                            1484.9    1484.9
GR    1484.9    9961.5    1478.4    9961.5    1478.4   10038.5    1484.9   10038.5

NC     .012      .012      .012
SC    6.012        .2       2.9         0         6        12       144      12.3    1479.0    1479.4
         END CULVERTS (STRUC. #32).  NO WEIR FLOW OVER ROAD EXPECTED.
X1    11.175         0         0         0       144       144       144                .6
X2                             2      1485      1484
X3        10                                                            1485.5    1485.5
BT        10      9902    1489.3                10000    1488.8              10131.9    1488.2
BT     10132    1487.7              10172.1    1486.9              10180.1    1486.5              10191
BT    1484.0              10196      1484                10198    1484.5               10248      1485
BT         0
```

```
NC     .035      .035      .035
ET                7.1       9.1                                    9943      10065      9943      10065
       ENCROACHMENT (ET CARD) APPLIED TO FLOODPLAIN\FLOODWAY TO LIMIT FLOW
       ON LEFT SIDE WITHIN ARMORED WEIR LEVEE AND ON RIGHT SIDE WITHIN 1:1
       FLARE FROM CULVERT INLET.
X1   11.180         8      9950     10048        30        30        30
GR    1454      9943      1481      9950      1480      9960      1480      10040      1481      10048
GR    1482     10055      1483     10080      1484     10125
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .254

3265 DIVIDED FLOW

        FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
        PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
        CONFLUENCE WITH TRILBY WASH.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        BEARDSLEY ROAD EXTENDED CROSSES AT THIS SECTION (NO ROAD CURRENTLY)
      .254      2.25   1435.25       .00   1435.25   1435.33       .08       .00       .00   1434.10
    1408.0     549.0      83.1     775.9     287.8      22.6     321.2        .0        .0   1434.30
       .00      1.91      3.69      2.42      .049      .042      .049      .000   1433.00   9471.67
   .007155        0.        0.        0.         0         0         0       .00   1028.39  10517.25


*SECNO  .366

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9889.3   10790.5  TYPE=      1  TARGET=      901.200
        MOUNTBATTEN ROAD (211TH AVE.) EXTENDED CROSSES 210 FT. UPSTREAM OF
        THIS SECTION (NO ROAD CURRENTLY)
        ENCROACHMENTS (ET CARD) APPLIED FROM SEC. .3655 TO .7367 TO BLOCK
        OUT INEFFECTIVE FLOW IN LEFT OVERBANK (LOOKING DOWNSTREAM) BEYOND RIDGE.
      .366      3.33   1440.33       .00       .00   1440.49       .16      5.13       .02   1439.40
    1408.0     119.4     160.3    1128.2      48.5      28.8     394.5       7.6      11.6   1439.30
       .05      2.46      5.57      2.86      .049      .042      .049      .000   1437.00   9890.05
   .010337      600.      620.      600.         5         0         0       .00    654.43  10554.56


*SECNO  .498

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9911.0   10552.1  TYPE=      1  TARGET=      641.100
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

     .498      2.21   1447.01       .00       .00   1447.16       .15      6.67       .00   1446.20
   1408.0     268.9     170.8     768.4      90.6      37.7     333.3      15.1      21.0   1445.90
     .12      2.97      4.53      2.91      .049      .042      .049      .000   1444.50   9911.69
  .008757     700.      720.      700.         5         0         0       .00    515.05  10438.50


#SECNO  .617

3470 ENCROACHMENT STATIONS=     9502.0   10239.2  TYPE=      1  TARGET=      737.200
     .617      2.25   1452.35       .00       .00   1452.52       .16      5.35       .00   1451.60
   1408.0    1012.8     113.2     282.0     303.8      30.3     106.7      21.6      27.5   1451.50
     .17      3.33      3.73      2.64      .049      .042      .049      .000   1450.10   9759.76
  .008424     640.      650.      600.         4         0         0       .00    408.69  10168.45


#SECNO  .737

3470 ENCROACHMENT STATIONS=     9739.8   10040.2  TYPE=      1  TARGET=      300.400
     .737      3.38   1458.38       .00       .00   1458.83       .45      6.23       .07   1457.00
   1408.0     757.0     411.2     239.7     155.1      61.0      57.2      26.9      31.8   1456.20
     .20      4.88      6.74      4.19      .049      .042      .049      .000   1455.00   9862.30
  .010867     670.      650.      600.         4         0         0       .00    161.15  10023.45


#SECNO  .849
     .849      3.27   1463.77       .00       .00   1463.88       .11      5.02       .03   1463.20
   1408.0     884.3     167.5     356.2     378.8      39.3     141.9      32.6      37.3   1463.30
     .27      2.33      4.26      2.51      .049      .042      .049      .000   1460.50   9523.28
  .006636     600.      610.      590.         4         0         0       .00    648.01  10171.29


#SECNO  .950

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69


3470 ENCROACHMENT STATIONS=     9680.5   10441.1  TYPE=      1  TARGET=      760.600
        ENCROACHMENT (ET CARD) APPLIED FROM SEC. .9498 TO 1.2254 TO BLOCK
        OUT INEFFECTIVE FLOW IN LEFT (LOOKING DOWNSTREAM) OVERBANK BEYOND RIDGE.
     .950      2.38   1468.58       .00       .00   1468.86       .28      4.93       .05   1468.50
   1408.0    1273.8      86.3      47.7     295.6      19.8      21.0      38.1      43.2   1467.80
     .30      4.31      4.36      2.28      .049      .042      .049      .000   1466.20   9710.66
  .013789     530.      560.      530.         3         0         0       .00    318.53  10091.25
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.042

3470 ENCROACHMENT STATIONS= 9860.4 10339.6 TYPE= 1 TARGET= 479.199

1.042	3.93	1474.43	.00	.00	1474.86	.43	5.96	.05	1471.80
1408.0	149.7	463.4	794.9	41.3	62.0	209.9	41.8	46.6	1472.60
.33	3.63	7.47	3.79	.049	.042	.049	.000	1470.50	9945.07
.010593	490.	515.	490.	5	0	0	.00	278.21	10223.27

*SECNO 1.097

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9788.2 10086.5 TYPE= 1 TARGET= 298.300

1.097	3.35	1478.15	.00	.00	1478.86	.70	3.91	.08	1475.80
1408.0	686.7	344.4	376.8	119.0	37.9	65.6	43.6	48.0	1475.80
.34	5.77	9.09	5.74	.049	.042	.049	.000	1474.80	9856.41
.017332	280.	290.	305.	2	0	0	.00	142.77	10050.46

*SECNO 1.134

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

3470 ENCROACHMENT STATIONS= 9859.1 10170.0 TYPE= 1 TARGET= 310.900

1.134	3.76	1480.36	.00	.00	1480.51	.15	1.60	.06	1477.90
925.0	281.8	202.7	440.5	121.1	44.0	174.1	44.9	48.9	1477.00
.36	2.33	4.61	2.53	.049	.042	.049	.000	1476.60	9927.59
.003520	190.	205.	215.	3	0	0	.00	226.05	10153.64

*SECNO 1.178
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9914.3 10202.0 TYPE= 1 TARGET= 287.700

1.178	2.58	1482.58	1482.58	.00	1483.10	.53	1.75	.11	1481.70
925.0	20.8	368.1	536.1	6.9	51.4	112.4	46.3	50.0	1482.00
.37	3.03	7.17	4.77	.049	.042	.049	.000	1480.00	9966.23
.019888	230.	265.	250.	20	20	0	.00	158.27	10124.51

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.225

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45


3470 ENCROACHMENT STATIONS=     9798.3   10145.0  TYPE=      1  TARGET=      346.700
       ENCROACHMENT (ET CARD) APPLIED TO BLOCK OUT INEFFECTIVE FLOW OUTSIDE
       4:1 FLARE FROM CULVERT OUTLET.
    1.225      2.46   1486.06       .00       .00   1486.37       .31      3.24       .02   1484.50
    925.0     347.3     359.9     217.7     120.5      63.3      51.1      47.5      50.9   1484.20
      .39      2.88      5.68      4.26      .049      .042      .049      .000   1483.60   9851.20
  .009522      260.      260.      220.         5         0         0       .00    194.75  10045.95


CCHV=     .300 CEHV=     .500
*SECNO 1.237

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1490.50 ELREA=      1490.50

       BEGIN SUN VALLEY PARKWAY CULVERTS (4 - 10' X 8' BOXES - STRUC. NO.31)
    1.237      2.42   1488.42   1488.42       .00   1489.65      1.23       .72       .46   1490.50
    925.0        .0     925.0        .0        .0     103.9        .0      47.7      51.1   1490.50
      .39       .00      8.90       .00      .000      .035      .000      .000   1486.00   9978.50
  .015820       60.       60.       60.        20         5         0       .00     43.00  10021.50



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    4         .012      .20       2.63      .00       4.00      10.00     170.00    12        3         1486.60   1486.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 1.269

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.05
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT

    EGIC      EGOC        H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1491.10   1491.17      1.06      167.      932.     8.560     160.0   1490.00      113.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1491.50 ELREA=      1491.50

       END CULVERTS (STRUC. #31).    NO WEIR FLOW OVER ROAD EXPECTED, BUT
       FLOW OVER WEIR TO RIGHT OF CULVERT IS EXPECTED. HOWEVER THIS WEIR
       FLOW WILL NOT IMMEDIATELY RETURN TO CHANNEL.
    1.269      2.97   1489.57       .00       .00   1490.70      1.14      1.06       .00   1491.10
   1094.0        .0    1094.0        .0        .0    127.8        .0      48.2      51.3   1491.10
      .40       .00      8.56       .00      .000      .012      .000      .000   1486.60   9978.50
  .001329      170.      170.      170.         4         0         0       .00     43.00  10021.50


#SECNO 1.282
3280 CROSS SECTION      1.28 EXTENDED       .24 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9968.0   10040.0  TYPE=      1  TARGET=       72.000
       ENCROACHMENT APPLIED LIMITING FLOW TO ARMORED WEIR LEVEE WITH TOP
       OF LEVEE EL.= 1490.0.
    1.282      2.24   1490.24   1490.24       .00   1491.21       .97       .22       .05   1540.00
   1094.0        .0    1094.0        .0        .0     138.3        .0      48.4      51.4 100000.00
      .40       .00      7.91       .00      .000      .035      .000      .000   1488.00   9968.00
  .014835       70.       70.       70.        20        15         0       .00     72.00  10040.00


CCHV=     .100 CEHV=     .300
#SECNO -1.097
START TRIB COMP
   -1.097     1.097  1478.152

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9788.2   10086.5  TYPE=      1  TARGET=      298.300
```

```
      BEGIN TRIBUTARY 6A.  REPEAT SECTION 1.097.
  -1.097      3.35   1478.15       .00       .00   1478.86       .71       .00       .00   1475.80
  1408.0     686.1     345.4     376.5     118.1      37.8      65.2      49.6      52.1   1475.80
     .41      5.81      9.15      5.77      .049      .042      .049      .000   1474.80   9856.60
 .017620      280.      290.      305.         0         0         0       .00    142.20  10050.41


#SECNO 11.139

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.83


3470 ENCROACHMENT STATIONS=    10160.0   10260.0  TYPE=      1  TARGET=      100.000
      ADD 10 TO CROSS-SECTION I.D. NUMBER FOR TRIB 6A.
      STA. 10210= BASELINE TRIB. 6A.
      ENCROACHMENT (ET CARD) APPLIED AT SEC.11.139 TO LIMIT INEFFECTIVE TO
      WITHIN 4:1 FLARE FROM CULVERT OUTLET>
  11.139      4.19   1479.69       .00       .00   1479.73       .04       .79       .07   1476.00
   412.0     101.2     222.4      88.4      78.3     119.1      77.8      50.8      52.7   1476.10
     .45      1.29      1.87      1.14      .049      .042      .049      .000   1475.50  10160.00
 .000449      235.      225.      175.         4         0         0       .00     98.33  10258.33


CCHV=     .300 CEHV=     .500
#SECNO 11.148

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .23


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1484.90 ELREA=      1484.90

      BEGIN SUN VALLEY PARKWAY CULVERTS ( 6- 12' X 6' RCBS. -STRUC. NO. 32)
  11.148      1.21   1479.61       .00       .00   1479.91       .30       .05       .13   1484.90
   412.0        .0     412.0        .0        .0      93.1        .0      51.0      52.8   1484.90
     .45       .00      4.42       .00      .000      .035      .000      .000   1478.40   9761.50
 .008777       45.       45.       45.         3         0         0       .00     77.00  10038.50



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       2.90      .00       6.00      12.00     144.00    12        3         1479.00   1478.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

#SECNO 11.175
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1480.583 EGOC = 1480.605 PCWSE= 1479.608 ELTRD= 1484.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.62

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1480.58	1480.60	.69	0.	412.	3.878	432.0	1484.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1485.50 ELREA= 1485.50

END CULVERTS (STRUC. #32). NO WEIR FLOW OVER ROAD EXPECTED.

11.175	1.37	1480.37	.00	.00	1480.60	.23	.69	.00	1485.50
412.0	.0	412.0	.0	.0	106.2	.0	51.3	53.0	1485.50
.46	.00	3.88	.00	.000	.012	.000	.000	1479.00	9961.50
.000669	144.	144.	144.	2	0	0	.00	77.00	10038.50

#SECNO 11.180
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9943.0 10065.0 TYPE= 1 TARGET= 122.000
ENCROACHMENT (ET CARD) APPLIED TO FLOODPLAIN\FLOODWAY TO LIMIT FLOW
ON LEFT SIDE WITHIN ARMORED WEIR LEVEE AND ON RIGHT SIDE WITHIN 1:1
FLARE FROM CULVERT INLET.

11.180	.90	1480.90	1480.90	.00	1481.32	.42	.06	.09	1481.00
412.0	.0	412.0	.0	.0	79.4	.0	51.4	53.1	1481.00
.46	.00	5.19	.00	.000	.035	.000	.000	1480.00	9950.98
.019291	30.	30.	30.	20	14	0	.00	96.23	10047.21

```
T1      SUN VALLEY PARKWAY NORTH FIS  CONTRACT:FCDMC NO. 90-04
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX.AZ.
T3      WASH NO.6  100-YR.FLOODWAY

J1  ICHECK    INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

    -10        3                            0                                   1436.25

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15                  -1
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#PROF 2



CCHV=     .100 CEHV=     .300
*SECNO  .254

3470 ENCROACHMENT STATIONS=     9899.9   10157.5  TYPE=      1  TARGET=      257.610
       FLOODWAY MODEL USING FIXED ENCROACHMENT METHOD (METHOD 1) BASED ON
       PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION METHOD (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM FROM
       CONFLUENCE WITH TRILBY WASH.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       BEARDSLEY ROAD EXTENDED CROSSES AT THIS SECTION (NO ROAD CURRENTLY)
     .254      3.25   1436.25       .00   1435.25   1436.46       .21       .00       .00   1434.10
   1408.0     400.8     206.6     800.6     116.8      39.1     242.1        .0        .0   1434.30
     .00      3.43      5.29      3.31      .049      .042      .049      .000   1433.00   9899.88
  .007103       0.        0.        0.         0         0         0       .00    257.61  10157.49


*SECNO  .366

3470 ENCROACHMENT STATIONS=     9890.0   10100.0  TYPE=      1  TARGET=      210.000
       MOUNTBATTEN ROAD (211TH AVE.) EXTENDED CROSSES 210 FT. UPSTREAM OF
       THIS SECTION (NO ROAD CURRENTLY)
       ENCROACHMENTS (ET CARD) APPLIED FROM SEC. .3655 TO .7367 TO BLOCK
       OUT INEFFECTIVE FLOW IN LEFT OVERBANK (LOOKING DOWNSTREAM) BEYOND RIDGE.
     .366      4.14   1441.14       .00   1440.33   1441.48       .33      4.98       .04   1439.40
   1408.0     466.4     275.1     666.5     124.8      40.6     163.4       5.0       3.2   1439.20
     .04      3.74      6.78      4.08      .049      .042      .049      .000   1437.00   9890.00
  .009693     600.      620.      600.         5         0         0       .00    210.00  10100.00


*SECNO  .498

3470 ENCROACHMENT STATIONS=     9980.0   10091.5  TYPE=      1  TARGET=      111.500
     .498      3.07   1447.87       .00   1447.01   1448.19       .49      5.83       .04   1446.20
   1408.0     136.5     368.3     903.2      33.9      58.0     168.3       9.8       5.8   1445.90
     .07      4.03      4.35      5.37      .049      .042      .049      .000   1444.00   9980.00
  .009677     700.      720.      700.         4         0         0       .00    111.50  10091.50
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENMST


*SECNO  .617

3470 ENCROACHMENT STATIONS=     9905.0   10075.0  TYPE=      1  TARGET=      170.000
      .617      3.14   1453.24      .00   1452.35   1453.51       .27      5.14       .02   1451.60
    1408.0     787.7     253.4    366.9     198.8      51.8      88.3      14.1       7.8   1451.50
      .11      3.96      4.89     4.15      .049      .042      .049      .000   1450.10   9905.00
   .007078      640.      650.     600.         5         0         0       .00    170.00  10075.00


*SECNO  .737

3470 ENCROACHMENT STATIONS=     9900.0   10020.0  TYPE=      1  TARGET=      120.000
      .737      3.58   1458.58      .00   1459.30   1459.10       .52      5.51       .07   1457.00
    1408.0     667.0     455.7    285.3     123.0      65.7      64.4      18.5      10.0   1456.20
      .13      5.42      6.93     4.43      .049      .042      .049      .000   1455.00   9900.00
   .010398      670.      650.     600.         2         0         0       .00    120.00  10020.00


*SECNO  .849

3470 ENCROACHMENT STATIONS=     9780.0    9991.6  TYPE=      1  TARGET=      211.600
      .849      4.06   1464.56      .00   1463.77   1464.86       .30      5.74       .02   1463.20
    1408.0    1072.7     335.3       .0     286.8      56.1       .0      22.6      12.3 100000.00
      .19      3.74      5.98      .00      .049      .042      .000      .000   1460.50   9780.00
   .008782      600.      610.     590.         5         0         0       .00    211.60   9991.60


*SECNO  .950

3470 ENCROACHMENT STATIONS=     9841.6    9969.9  TYPE=      1  TARGET=      128.301
        ENCROACHMENT (ET CARD) APPLIED FROM SEC. .9498 TO 1.2254 TO BLOCK
        OUT INEFFECTIVE FLOW IN LEFT (LOOKING DOWNSTREAM) OVERBANK BEYOND RIDGE.
      .950      3.37   1469.57      .00   1468.38   1469.98       .41      5.08       .03   1468.50
    1408.0    1201.0     207.0       .0     237.0      37.9       .0      26.4      14.4 100000.00
      .21      5.07      5.47      .00      .049      .042      .000      .000   1466.20   9841.60
   .010284      530.      560.     530.         3         0         0       .00    128.30   9969.90


*SECNO 1.042

3470 ENCROACHMENT STATIONS=     9989.4   10088.8  TYPE=      1  TARGET=       99.399
     1.042      4.62   1475.12      .00   1474.43   1475.90       .78      5.81       .11   1471.80
    1408.0        .0     665.0    743.0        .0      76.2     142.9      29.2      15.7   1472.60
      .23       .00      8.73     5.20      .000      .042      .049      .000   1470.50   9989.40
   .013356      490.      515.     490.         4         0         0       .00     99.40  10088.80
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.097

3470 ENCROACHMENT STATIONS=     9980.0   10038.0  TYPE=      1  TARGET=       58.000
     1.097      4.20   1479.00       .00   1478.15   1480.04      1.03      4.06       .08   1475.80
    1408.0     426.8     477.4     503.8      54.8      48.9      75.7      30.5      16.2   1475.80
       .24      7.79      9.76      6.66      .049      .042      .049      .000   1474.80   9980.00
   .014210      280.      290.      305.         3         0         0       .00     58.00  10038.00


*SECNO 1.134

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.56


3470 ENCROACHMENT STATIONS=    10015.0   10120.0  TYPE=      1  TARGET=      105.000
     1.134      4.58   1481.18       .00   1480.36   1481.36       .18      1.23       .09   1477.90
     925.0     109.9     249.0     566.1      39.0      54.9     200.0      31.7      16.6   1477.00
       .26      2.82      4.53      2.83      .049      .042      .049      .000   1476.60  10015.00
   .002533      190.      205.      215.         3         0         0       .00    105.00  10120.00


*SECNO 1.178

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9970.7   10025.8  TYPE=      1  TARGET=       55.100
     1.178      3.57   1483.57   1483.57   1482.58   1484.65      1.08      1.36       .27   1481.90
     925.0      59.7     729.6     135.8      12.2      80.6      27.1      32.9      17.0   1482.00
       .27      4.88      9.05      5.01      .049      .042      .049      .000   1480.00   9970.70
   .017410      230.      265.      250.        20        19         0       .00     55.10  10025.80


*SECNO 1.225

3301 HV CHANGED MORE THAN HVINS
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     CS        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.69


3470 ENCROACHMENT STATIONS=     9910.0   10015.1  TYPE=      1  TARGET=      105.100
       ENCROACHMENT (ET CARD) APPLIED TO BLOCK OUT INEFFECTIVE FLOW OUTSIDE
       4:1 FLARE FROM CULVERT OUTLET.
    1.225      3.29   1486.89       .00   1486.06   1487.20       .32      2.47       .08   1484.50
    925.0     453.3     471.7        .0     132.6      88.1        .0      33.9      17.5 100000.00
      .29      3.42      5.35       .00      .049      .042      .000      .000   1483.60   9910.00
  .006096      260.      260.      220.         3         0         0       .00    105.10  10015.10


CCHV=     .300 CEHV=     .500
*SECNO 1.237

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1490.50 ELREA=      1490.50

       BEGIN SUN VALLEY PARKWAY CULVERTS (4- 10' X 4' RCBS  - STRUC. NO.31)
    1.237      2.43   1488.43   1488.43   1488.42   1489.65      1.22       .55       .45   1490.50
    925.0        .0     925.0        .0        .0     104.3        .0      34.1      17.6   1490.50
      .29       .00      8.87       .00      .000      .035      .000      .000   1486.00   9978.50
  .015432       60.       60.       60.        20        15         0       .00     43.00  10021.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFD      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    4         .012      .20       2.63      .00       4.00      10.00     170.00    12        3         1486.60   1486.00

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 1.269

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.01
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1491.10	1491.17	1.05	167.	931.	8.585	160.0	1490.00	113.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1491.50 ELREA= 1491.50

END CULVERTS (STRUC. #31). NO WEIR FLOW OVER ROAD EXPECTED, BUT FLOW OVER WEIR TO RIGHT OF CULVERT IS EXPECTED. HOWEVER THIS WEIR FLOW WILL NOT IMMEDIATELY RETURN TO CHANNEL.

1.269	2.96	1489.56	.00	1499.57	1490.70	1.14	1.05	.00	1491.10
1094.0	.0	1094.0	.0	.0	127.4	.0	34.6	17.8	1491.10
.29	.00	8.59	.00	.000	.012	.000	.000	1486.60	9978.50
.001341	170.	170.	170.	4	0	0	.00	43.00	10021.50

*SECNO 1.282
3280 CROSS SECTION 1.28 EXTENDED .24 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9968.0 10040.0 TYPE= 1 TARGET= 72.000
ENCROACHMENT APPLIED LIMITING FLOW TO ARMORED WEIR LEVEE WITH TOP OF LEVEE EL.= 1490.0.

1.282	2.24	1490.24	1490.24	1490.24	1491.21	.97	.22	.05	1540.00
1094.0	.0	1094.0	.0	.0	138.3	.0	34.8	17.9	100000.00
.30	.00	7.91	.00	.000	.035	.000	.000	1488.00	9968.00
.014823	70.	70.	70.	20	15	0	.00	72.00	10040.00

CCHV= .100 CEHV= .300
*SECNO -1.097
START TRIB COMP

-1.097	1.097	1479.004

3470 ENCROACHMENT STATIONS= 9980.0 10038.0 TYPE= 1 TARGET= 58.000
BEGIN TRIBUTARY 6A. REPEAT SECTION 1.097.

-1.097	4.20	1479.00	.00	1478.15	1480.04	1.03	.00	.00	1475.80
1408.0	426.6	477.4	503.8	54.8	48.9	75.7	35.8	18.3	1475.80
.31	7.79	9.76	6.66	.049	.042	.049	.000	1474.80	9980.00
.014202	280.	290.	305.	0	0	0	.00	58.00	10038.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 11.139

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.29


3470 ENCROACHMENT STATIONS=    10165.0   10245.0  TYPE=      1  TARGET=       80.000
       ADD 10 TO CROSS-SECTION I.D. NUMBER FOR TRIB 6A.
       STA. 10210= BASELINE TRIB. 6A.
       ENCROACHMENT (ET CARD) APPLIED AT SEC.11.139 TO LIMIT INEFFECTIVE TO
       WITHIN 4:1 FLARE FROM CULVERT OUTLET>
   11.139      5.08   1480.58       .00   1479.69   1480.60       .03       .47       .10   1476.00
    412.0      90.8     224.4      76.8      84.9     146.1      94.3      37.1      18.6   1476.10
      .35      1.07      1.54      1.03      .049      .042      .049      .000   1475.50  10165.00
  .000231      235.      225.      175.         3         0         0       .00     80.00  10245.00


CCHV=     .300 CEHV=     .500
*SECNO 11.148

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .42


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, QLEF=      [illegible] CSA=      1484.90

       BEGIN SUN VALLEY PARKWAY CULVERTS ( 6- 12' X 6' RCBS. -STRUC. NO. 32)
   11.148      2.18   1480.56       .00   1479.61   1480.66       .09       .02       .03   1484.90
    412.0        .0     412.0        .0        .0     186.6        .0      37.3      18.7   1484.90
      .36       .00      2.47       .00      .000      .049      .000      .000   1478.40   9761.50
  .001303       45.       45.       45.         2         0         0       .00     77.00  10038.50


SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     CDFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    6         .012      .20       2.90      .00       6.00      12.00     144.00    12        3         1479.00   1478.40

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 11.175
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EE        HV        HL        DLOSS     L-BANK ELEV
Q         DLOB      DCH       DROB      ALOB      ACH       ARDB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


SPECIAL CULVERT OUTLET CONTROL
EGIC =   1480.503  EGOC =   1480.827  PCWSE=   1480.562  ELTRD=   1484.000


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.91

SPECIAL CULVERT

    EGIC      EGOC        H4     QWEIR     QCULV       VCH     ACULV     ELTRD    WEIRLN
  1480.58   1480.83       .17        0.       [illegible]    [illegible]     482.0   1484.00        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1485.50 ELREA=      1485.50

       END CULVERTS (STRUC. #32).  NO WEIR FLOW OVER ROAD EXPERIENCED.
   11.175      1.67   1480.67       .00   1480.37   1480.83       .16       .17       .00   1485.50
    412.0        .0     412.0        .0        .0     128.6        .0      37.6      19.0   1485.50
      .37       .00      3.20       .00      .000      .012      .000      .000   1479.00   9961.50
  .000358      144.      144.      144.         2         0         0       .00     77.00  10038.50


#SECNO 11.180
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9943.0   10065.0  TYPE=      1  TARGET=      122.000
       ENCROACHMENT (ET CARD) APPLIED TO FLOODPLAIN\FLOODWAY TO LIMIT FLOW
       ON LEFT SIDE WITHIN ARMORED WEIR LEVEE AND ON RIGHT SIDE WITHIN 1:1
       FLARE FROM CULVERT INLET.
   11.180       .90   1480.90   1480.90   1480.90   1481.32       .42       .03       .13   1481.00
    412.0        .0     412.0        .0        .0      79.4        .0      37.9      19.0   1481.00
      .37       .00      5.19       .00      .000      .035      .000      .000   1480.00   9950.99
  .019309       30.       30.       30.        20        11         0       .00     96.22  10047.21
```

THIS RUN EXECUTED 22AUG91 17:14:16

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO. 6 100-YEAR PRO

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.254	1408.00	1435.25	.00	3.68	.00	9974.20	9990.70	.00	.00	9471.67	10517.25
	.254	1408.00	1436.25	.00	5.29	.00	9974.20	9990.70	9899.88	10157.49	9899.88	10157.49
	.366	1408.00	1440.33	.00	5.57	620.00	9983.20	9997.60	9889.30	10790.50	9870.05	10354.56
	.366	1408.00	1441.14	.00	6.78	620.00	9983.20	9997.60	9890.00	10100.00	9890.00	10100.00
	.498	1408.00	1447.01	.00	4.53	720.00	10000.00	10023.40	9911.00	10382.10	9911.00	10416.50
	.498	1408.00	1447.87	.00	6.35	720.00	10000.00	10023.40	9980.00	10091.50	9980.00	10091.50
	.617	1408.00	1452.35	.00	3.73	650.00	10008.80	10033.00	9502.00	10239.20	9759.76	10168.45
	.617	1408.00	1453.24	.00	4.89	650.00	10008.80	10033.00	9905.00	10075.00	9905.00	10075.00
	.737	1408.00	1458.38	.00	6.74	650.00	9955.10	9979.60	9739.80	10040.20	9862.30	10023.45
	.737	1408.00	1458.58	.00	6.93	650.00	9955.10	9979.60	9900.00	10020.00	9900.00	10020.00
	.849	1408.00	1463.77	.00	4.26	610.00	9970.60	9991.60	.00	.00	9523.28	10171.29
	.849	1408.00	1464.56	.00	5.98	610.00	9970.60	9991.60	9780.00	9991.60	9780.00	9991.60
*	.950	1408.00	1468.58	.00	4.36	560.00	9951.70	9969.90	9680.50	10441.10	9710.66	10091.25
	.950	1408.00	1469.57	.00	5.47	560.00	9951.70	9969.90	9841.60	9969.90	9841.60	9969.90
	1.042	1408.00	1474.43	.00	7.47	515.00	9989.40	10009.90	9860.40	10339.60	9945.07	10223.27
	1.042	1408.00	1475.12	.00	8.73	515.00	9989.40	10009.90	9989.40	10088.80	9989.40	10088.80
	1.097	1408.00	1478.15	.00	9.09	290.00	9996.80	10009.90	9788.20	10086.50	9856.41	10050.46
	1.097	1408.00	1479.00	.00	9.76	290.00	9996.80	10009.90	9980.00	10038.00	9980.00	10038.00
*	1.134	925.00	1480.36	.00	4.61	205.00	10028.90	10042.30	9859.10	10170.00	9927.59	10153.64
*	1.134	925.00	1481.18	.00	4.53	205.00	10028.90	10042.30	10015.00	10120.00	10015.00	10120.00
*	1.178	925.00	1482.58	1482.58	7.17	265.00	9978.20	10007.70	9914.30	10202.00	9966.23	10124.51
*	1.178	925.00	1483.57	1483.57	9.05	265.00	9978.20	10007.70	9970.70	10025.80	9970.70	10025.80

	SECNO	Q	DWSEL	DRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	1.225	925.00	1486.06	.00	5.68	260.00	9985.20	10015.10	9798.30	10145.00	9851.20	10045.95
*	1.225	925.00	1486.89	.00	5.35	260.00	9985.20	10015.10	9910.00	10015.10	9910.00	10015.10
*	1.237	925.00	1488.42	1488.42	8.90	60.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.237	925.00	1488.43	1488.43	8.87	60.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.269	1094.00	1489.57	.00	8.56	170.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.269	1094.00	1489.56	.00	8.59	170.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.282	1094.00	1490.24	1490.24	7.91	70.00	9968.00	10040.00	9968.00	10040.00	9968.00	10040.00
*	1.282	1094.00	1490.24	1490.24	7.91	70.00	9968.00	10040.00	9968.00	10040.00	9968.00	10040.00
	-1.097	1408.00	1478.15	.00	9.15	290.00	9996.80	10009.90	9788.20	10056.50	9856.60	10050.41
	-1.097	1408.00	1479.00	.00	9.76	290.00	9996.80	10009.90	9980.00	10038.00	9980.00	10038.00
*	11.139	412.00	1479.69	.00	1.87	225.00	10186.50	10216.80	10160.00	10260.00	10160.00	10258.33
*	11.139	412.00	1480.58	.00	1.54	225.00	10186.50	10216.80	10165.00	10245.00	10165.00	10245.00
*	11.148	412.00	1479.61	.00	4.42	45.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.148	412.00	1480.56	.00	2.47	45.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.175	412.00	1480.37	.00	3.88	144.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.175	412.00	1480.67	.00	3.20	144.00	9961.50	10038.50	.00	.00	9961.50	10038.50
*	11.180	412.00	1480.90	1480.90	5.19	30.00	9950.00	10048.00	9943.00	10065.00	9950.98	10047.21
*	11.180	412.00	1480.90	1480.90	5.19	30.00	9950.00	10048.00	9943.00	10065.00	9950.99	10047.21

WASH NO. 6 100-YEAR PRO

SUMMARY PRINTOUT

	SECND	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.254	548.98	83.11	775.91	1.91	3.68	2.42	1435.70	1435.25	.00	1028.39	1433.00	1.09
	.254	400.75	206.63	800.61	3.43	5.29	3.31	1437.00	1436.25	.00	257.61	1433.00	1.09
	.366	119.43	160.32	1128.25	2.46	5.57	2.86	1441.80	1440.33	5.08	654.43	1437.00	1.19
	.366	466.40	275.07	666.53	3.74	6.78	4.08	1441.80	1441.14	4.89	210.00	1437.00	1.17
	.498	268.87	170.76	968.36	2.97	4.53	2.91	1448.60	1447.01	6.68	513.05	1444.80	1.07
	.498	136.50	368.26	903.24	4.03	6.35	5.37	1448.60	1447.87	6.73	111.50	1444.80	1.04
	.617	1012.77	113.22	282.01	3.33	3.73	2.64	1454.40	1452.35	5.35	408.69	1450.10	1.03
	.617	787.70	253.39	366.91	3.96	4.89	4.15	1454.40	1453.24	5.36	170.00	1450.10	1.02
	.737	757.03	411.23	239.74	4.88	6.74	4.19	1460.30	1458.38	6.02	161.15	1455.00	1.10
	.737	667.03	455.65	285.32	5.42	6.93	4.43	1460.30	1458.58	5.34	120.00	1455.00	1.08
	.849	884.27	167.48	356.25	2.33	4.26	2.51	1465.30	1463.77	5.39	648.01	1460.50	1.13
	.849	1072.73	335.27	.00	3.74	5.98	.00	1465.30	1464.56	5.98	211.60	1460.50	1.14
*	.950	1273.79	86.34	47.87	4.31	4.36	2.28	1472.50	1468.58	4.81	318.53	1466.20	1.04
	.950	1201.01	206.99	.00	5.07	5.47	.00	1472.50	1469.57	5.01	128.30	1466.20	1.00
	1.042	149.66	463.45	794.89	3.63	7.47	3.79	1477.90	1474.43	5.85	278.21	1470.50	1.38
	1.042	.00	664.97	743.03	.00	8.73	5.20	1477.90	1475.12	5.55	99.40	1470.50	1.22
	1.097	686.74	344.44	376.82	5.77	9.09	5.74	1481.10	1478.15	3.72	142.77	1474.80	1.13
	1.097	426.84	477.39	503.77	7.79	9.76	6.66	1481.10	1479.00	3.89	58.00	1474.80	1.08
*	1.134	281.83	202.72	440.46	2.33	4.61	2.53	1482.00	1480.36	2.21	226.05	1476.60	1.26
*	1.134	109.87	249.01	566.11	2.82	4.53	2.83	1482.00	1481.18	2.18	105.00	1476.60	1.15
*	1.178	20.84	368.06	536.10	3.03	7.17	4.77	1488.20	1482.58	2.21	158.27	1480.00	1.15
*	1.178	59.65	729.60	135.75	4.88	9.05	5.01	1488.20	1483.57	2.39	55.10	1480.00	1.17
*	1.225	347.35	359.94	217.71	2.88	5.68	4.26	1490.10	1486.06	3.48	194.75	1483.60	1.29
*	1.225	453.28	471.72	.00	3.42	5.35	.00	1490.10	1486.89	3.32	105.10	1483.60	1.16
*	1.237	.00	925.00	.00	.00	8.90	.00	1490.50	1488.42	2.36	43.00	1486.00	1.00
*	1.237	.00	925.00	.00	.00	8.87	.00	1490.50	1488.43	1.54	43.00	1486.00	1.00
*	1.269	.00	1094.00	.00	.00	8.56	.00	1491.10	1489.57	1.15	43.00	1486.60	1.00
*	1.269	.00	1094.00	.00	.00	8.59	.00	1491.10	1489.56	1.13	43.00	1486.60	1.00
*	1.282	.00	1094.00	.00	.00	7.91	.00	1490.00	1490.24	.68	72.00	1488.00	1.00
*	1.282	.00	1094.00	.00	.00	7.91	.00	1490.00	1490.24	.68	72.00	1488.00	1.00
	-1.097	686.07	345.42	376.52	5.81	9.15	5.77	1481.10	1478.15	-12.09	142.20	1474.80	1.13
	-1.097	426.84	477.37	503.79	7.79	9.76	6.66	1481.10	1479.00	-11.24	58.00	1474.80	1.08

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
*	11.139	101.20	222.38	88.42	1.29	1.87	1.14	1481.00	1479.69	1.53	98.33	1475.50	1.15
*	11.139	90.84	224.36	96.80	1.07	1.54	1.03	1481.00	1480.58	1.57	80.00	1475.50	1.11
*	11.148	.00	412.00	.00	.00	4.42	.00	1484.90	1479.61	-.08	77.00	1478.40	1.00
*	11.148	.00	412.00	.00	.00	2.47	.00	1484.90	1480.56	-.01	77.00	1478.40	1.00
*	11.175	.00	412.00	.00	.00	3.88	.00	1485.50	1480.37	.76	77.00	1479.00	1.00
*	11.175	.00	412.00	.00	.00	3.20	.00	1485.50	1480.67	.11	77.00	1479.00	1.00
*	11.180	.00	412.00	.00	.00	5.19	.00	1484.00	1480.90	.53	96.23	1480.00	1.00
*	11.180	.00	412.00	.00	.00	5.19	.00	1484.00	1480.90	.23	96.22	1480.00	1.00

WASH NO. 6 100-YEAR PRD

SUMMARY PRINTOUT

	SECND	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.254	.00	.00	1435.33	.08	.00	.00	71.55	.00	2.25	49.00	42.00	49.00
	.254	.00	.00	1436.46	.21	.00	.00	71.03	.00	3.25	49.00	42.00	49.00
	.366	620.00	6.45	1440.49	.16	5.13	.02	103.37	7.61	3.33	49.00	42.00	49.00
	.366	620.00	6.45	1441.48	.33	4.98	.04	96.93	5.02	4.14	49.00	42.00	49.00
	.498	720.00	10.83	1447.16	.15	6.67	.00	87.57	15.13	2.21	49.00	42.00	49.00
	.498	720.00	10.83	1448.35	.48	6.83	.04	96.97	9.78	3.07	49.00	42.00	49.00
	.617	650.00	8.15	1452.52	.16	5.38	.00	84.24	21.56	2.25	49.00	42.00	49.00
	.617	650.00	8.15	1453.51	.27	5.14	.02	70.78	14.07	3.14	49.00	42.00	49.00
	.737	630.00	7.54	1458.83	.45	6.23	.09	108.67	26.90	3.38	49.00	42.00	49.00
	.737	650.00	7.54	1459.10	.52	5.51	.07	103.98	18.48	3.58	49.00	42.00	49.00
	.849	610.00	9.02	1463.88	.11	5.02	.03	66.36	39.63	3.27	49.00	42.00	49.00
	.849	610.00	9.02	1464.86	.30	5.74	.02	87.82	22.59	4.06	49.00	42.00	.00
*	.950	560.00	10.18	1468.86	.28	4.93	.05	137.89	38.10	2.38	49.00	42.00	49.00
	.950	560.00	10.18	1469.98	.41	5.08	.03	102.84	26.38	3.37	49.00	42.00	.00
	1.042	515.00	8.35	1474.86	.43	5.96	.05	105.93	41.78	3.93	49.00	42.00	49.00
	1.042	515.00	8.35	1475.90	.78	5.81	.11	133.56	29.19	4.62	.00	42.00	49.00
	1.097	290.00	14.83	1478.86	.70	3.91	.08	173.32	43.59	3.35	49.00	42.00	49.00
	1.097	290.00	14.83	1480.04	1.03	4.06	.08	142.10	30.55	4.20	49.00	42.00	49.00
*	1.134	205.00	8.78	1480.51	.15	1.60	.06	35.20	44.90	3.76	49.00	42.00	49.00
*	1.134	205.00	8.78	1481.36	.18	1.23	.09	25.33	31.68	4.58	49.00	42.00	49.00
*	1.178	265.00	12.83	1483.10	.53	1.75	.11	198.88	46.35	2.58	49.00	42.00	49.00
*	1.178	265.00	12.83	1484.65	1.08	1.36	.27	174.10	32.88	3.57	49.00	42.00	49.00
*	1.225	260.00	13.85	1486.37	.31	3.24	.02	95.22	47.48	2.46	49.00	42.00	49.00
*	1.225	260.00	13.85	1487.20	.32	2.47	.00	60.96	33.88	3.29	49.00	42.00	.00
*	1.237	60.00	40.00	1489.65	1.23	.72	.46	156.20	47.72	2.42	.00	35.00	.00
*	1.237	60.00	40.00	1489.65	1.22	.55	.45	154.32	34.11	2.43	.00	35.00	.00
*	1.269	170.00	3.53	1490.70	1.14	1.06	.00	13.29	48.17	2.97	.00	12.00	.00
*	1.269	170.00	3.53	1490.70	1.14	1.05	.00	13.41	34.56	2.96	.00	12.00	.00
*	1.282	70.00	20.00	1491.21	.97	.22	.05	148.35	48.38	2.24	.00	35.00	.00
*	1.282	70.00	20.00	1491.21	.97	.22	.05	148.23	34.77	2.24	.00	35.00	.00
	-1.097	290.00	.00	1478.86	.71	.00	.00	176.20	47.55	3.35	49.00	42.00	49.00
	-1.097	290.00	.00	1480.04	1.03	.00	.00	142.02	35.84	4.20	49.00	42.00	49.00

	SECND	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	11.139	225.00	3.11	1479.73	.04	.79	.07	4.49	50.80	4.19	49.00	42.00	49.00
*	11.139	225.00	3.11	1480.60	.03	.47	.10	2.31	37.06	5.08	49.00	42.00	49.00
*	11.148	45.00	64.44	1479.91	.30	.05	.18	87.77	50.99	1.21	.00	35.00	.00
*	11.148	45.00	64.44	1480.66	.09	.02	.03	13.03	37.31	2.16	.00	35.00	.00
*	11.175	144.00	4.17	1480.60	.23	.67	.03	4.59	51.32	1.37	.00	12.00	.00
*	11.175	144.00	4.17	1480.83	.16	.17	.00	3.58	37.90	1.67	.00	12.00	.00
*	11.180	30.00	33.33	1481.32	.42	.06	.09	192.71	[illegible]	.15	.00	35.00	.00
*	11.180	30.00	33.33	1481.32	.42	.03	.13	193.09	37.87	.90	.00	35.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .950  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.134  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.134  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.178  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.178  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.178  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.178  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.178  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.178  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.225  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.225  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.237  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.237  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.237  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.237  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.237  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.237  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.269  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.269  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.282  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.282  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.282  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.282  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.282  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.282  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    11.139  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.139  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    11.148  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.148  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    11.175  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    11.175  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    11.180  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.180  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.180  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    11.180  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    11.180  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    11.180  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO. 6 100-YEAR PRO
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.254	258.	398.	3.5	1436.3	1435.3	1.0
.366	210.	329.	4.3	1441.1	1440.3	.8
.498	111.	260.	5.4	1447.9	1447.0	.9
.617	170.	339.	4.2	1453.3	1452.4	.9
.737	120.	253.	5.6	1458.6	1458.4	.2
.849	212.	343.	4.1	1464.6	1463.8	.8
.950	128.	275.	5.1	1469.6	1468.6	1.0
1.042	99.	219.	6.4	1475.1	1474.4	.7
1.097	58.	179.	7.8	1479.1	1478.2	.9
1.134	105.	294.	3.1	1481.2	1480.4	.8
1.178	55.	120.	7.7	1483.6	1482.6	1.0
1.225	105.	221.	4.2	1486.9	1486.1	.8
1.237	43.	104.	8.9	1488.4	1488.4	.0
1.269	43.	127.	8.6	1489.6	1489.6	.0
1.282	72.	138.	7.9	1490.2	1490.2	.0
-1.097	58.	179.	7.8	1479.1	1478.2	.9
11.139	80.	325.	1.3	1480.6	1479.7	.9
11.148	77.	167.	2.5	1480.6	1479.6	1.0
11.175	77.	109.	3.2	1480.7	1480.4	.3
11.180	96.	79.	5.2	1480.9	1480.9	.0

THIS RUN EXECUTED 04SEP91 08:52:40

```
**********************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
**********************************


T1      SUN VALLEY PARKWAY NORTH FIS. CONTRACT:FCDMC NO.90-04 FILE:WASH7-1
T2      100-YEAR WATER SURFACE PROFILE       A-N WEST INC. PHX.AZ.
T3      WASH NO 7, 100 YEAR PROFILE          DATE:7-25-91

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2                        .0055                              1392.3

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     1                 -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1        2       26       39       21       22       27       28
    53       54        0       38       13       14       15       55       26       56
    63        1       51        4       42       57        0       38       39       33
     3       10       11       12        5        7        8       16       17       18
     0      200

NC    .049     .049     .045       .1       .3
QT      2     1248     1248
ET                      9.1                                                   10050    10308.09
       FLOODWAY MODEL UTILIZING FIXED ENCROACHMENT OPTION (METHOD 1) AND
       BASED ON PREVIOUS MODEL USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
       CROSS-SECTION I. D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
       ALONG BASELINE FROM CONFLUENCE WITH TRILBY WASH.
       CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
       SEC. 0.2538 AND 1.4450. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
       ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
```

COURSE TO TRILBY WASH.

X1	.2538	13	10050	10080	0	0	0			
GR	1393.7	9600	1392.2	9960	1392	10050	1391.5	10056	1391.5	10062
GR	1391.7	10080	1391.7	10300	1391.8	10600	1392	10800	1391.8	10900
GR	1391.8	10950	1392	11060	1393	11350				
ET			9.1						10220	10444.9
X1	0.3977	10	10220	10245	750	660	720			
GR	1398.2	9715.0	1397.0	10000.0	1397.5	10100.0	1397.2	10220.0	1396.8	10230
GR	1396.8	10240	1397.2	10245	1397.5	10580	1398	11280	1398.2	11285
ET			9.1						10257.7	10470
X1	0.4952	20	10425	10470	500	630	540			
GR	1404.2	9750.0	1404.0	9815.0	1402.0	10000.0	1401.6	10070.0	1402.0	10140.0
GR	1402.3	10180.0	1402.0	10220.0	1401.7	10315.0	1402.0	10370.0	1402.2	10400.0
GR	1404.0	10425.0	1401.6	10450	1401.7	10455	1401.9	10470	1402.0	10550
GR	1403.8	11000	1402.6	11190	1402.6	11200	1404.0	11310	1405.0	11510
ET			9.1						10497.4	10850.0
X1	0.6505	25	10825	10850	820	740	790			
GR	1409.0	9425.0	1408.9	9498.0	1408.9	9540.0	1408.8	9570.0	1408.7	9720.0
GR	1407.8	9950.0	1407.9	10000.0	1408.0	10115.0	1407.8	10130.0	1408.0	10140.0
GR	1408.4	10240.0	1408.0	10280.0	1407.7	10315.0	1408.0	10345.0	1408.9	10470.0
GR	1408.6	10520.0	1408.3	10600.0	1408.0	10790.0	1407.8	10800.0	1407.8	10814.0
GR	1408.0	10825.0	1407.6	10845.0	1408.0	10850.0	1409.0	11000.0	1409.9	11330.0
ET			9.1						10414.2	11040
X1	0.7794	31	11020	11040	690	415	450			
GR	1413.5	9320	1412.5	9550	1412	9585	1411.9	9600	1412.0	9625
GR	1411.8	9650	1411.8	9654	1412	9660	1412	9750	1413	9850
GR	1412	9900	1411.9	9902	1411.9	9906	1412	9930	1413	10000
GR	1413	10430	1413.8	10650	1413.8	10750	1412.5	10980	1412.2	11000
GR	1412.2	11020	1411.8	11025	1411.8	11035	1412.2	11040	1412.7	11080
GR	1412.7	11230	1411.8	11240	1411.8	11244	1412.0	11250	1412.5	11320
GR	1414	11460								
ET			9.1						10488.1	11041.5
X1	0.8513	36	11003.3	11041.5	360	390	400			
GR	1418	8900	1416	9300	1416	9340	1415.8	9342	1415.8	9346
GR	1416	9350	1416	9650	1416	9750	1415.8	9770	1415.8	9800
GR	1416.0	9850	1416.0	10000	1416.1	10100	1416.5	10220	1416.2	10243.0
GR	1416.2	10296.9	1416.3	10395.4	1416.3	10487.1	1416.8	10555.6	1417.4	10617.9
GR	1416.6	10670.9	1416.8	10722.8	1417.1	10789.1	1417.2	10848.7	1416.9	10912.8
GR	1416.3	10953.2	1416.1	11003.3	1415.8	11025.5	1416.0	11041.5	1416.2	11073.9
GR	1416.2	11135.2	1416.2	11186.9	1416.2	11243.5	1416.3	11301.3	1417.1	11361.9
GR	1418.1	11431.3								
ET			9.1						10392.9	10939.3
X1	1.0047	62	10900	10939.3	740	750	770			
GR	1425.2	9276.9	1425.5	9286.4	1425.4	9295.7	1424.3	9304.1	1424.6	9310.5
GR	1425.2	9319.3	1425.2	9329.0	1425.2	9338.2	1425.2	9347.9	1425.1	9358.4
GR	1425.4	9370.3	1425.1	9382.3	1425.1	9391.1	1425.1	9402.9	1425.0	9415.6
GR	1425.5	9557.7	1425.5	9571.0	1424.0	9582.7	1423.9	9596.1	1423.9	9612.9
GR	1423.8	9741.4	1423.9	9751.7	1423.9	9764.8	1423.9	9778.0	1423.8	9790.8

```
GR   1424.0    9803.8    1423.8    9838.5    1423.9    9844.2    1424.0    9851.9    1424.1    9863.7
GR   1424.3    9926.1    1424.2    9935.7    1424.3    9944.3    1424.1    9956.0    1424.0    9967.4
GR   1424.0   10061.4    1423.8   10099.8    1423.9   10108.4    1423.9   10118.5    1423.9   10132.5
GR   1424.0   10202.2    1424.6   10217.5    1424.8   10227.6    1424.9   10239.5    1425.0   10251.9
GR   1423.9   10334.0    1423.9   10373.4    1424.2   10407.4    1424.2   10456.8    1424.2   10509.2
GR   1425.1   10618.5    1424.9   10735.3    1424.8   10815.8    1424.1   10875.6    1423.7     10900
GR   1423.6   10939.3    1423.9   10984.5    1424.1   11037.7    1423.9   11077.7    1423.6   11101.3
GR   1424.1   11153.9    1424.6   11193.2

DT       2      1009      1009
ET                         9.1                                                   10456.9   10773.4
        DECREASE DISCHARGE UPSTREAM OF TRIBUTARY.
X1   1.1439        45   10736.5   10773.4       700       740       740
GR   1432.4    9438.4    1432.5    9446.9    1432.5    9455.1    1432.7    9466.9    1432.3    9479.3
GR   1432.1    9488.1    1431.9    9499.8    1431.8    9512.2    1431.7    9522.4    1431.7    9525.9
GR   1430.9    9661.7    1431.0    9674.0    1431.3    9687.9    1431.2    9697.7    1431.3    9707.0
GR   1431.3    9723.9    1431.5    9743.6    1431.5    9779.9    1431.3    9813.1    1431.3    9836.2
GR   1431.8    9954.1    1432.0    9997.2    1432.0   10000.0    1432.0   10000.1    1431.8   10007.4
GR   1431.9   10083.7    1431.8   10095.5    1431.9   10108.9    1432.0   10122.1    1431.9   10136.8
GR   1432.0   10446.7    1432.0   10499.4    1431.9   10535.5    1431.3   10583.5    1431.9   10629.7
GR   1432.3   10648.3    1432.8   10659.8    1431.5   10736.5    1431.3   10746.5    1431.3   10763.4
GR   1431.4   10773.4    1431.7   10808.4    1431.9   10843.6    1432.4   10869.6    1432.2   10900.0

ET                         9.1                                                   10387.0   10666.3
X1   1.2064        52      10615   10666.3       320       290       300
GR   1436.3    9653.2    1435.5    9673.0    1435.6    9685.6    1434.8    9691.7    1434.8    9696.6
GR   1435.6    9731.7    1435.6    9738.1    1435.7    9747.9    1435.7    9758.5    1435.9    9766.1
GR   1435.0    9859.1    1435.1    9869.6    1434.9    9875.4    1434.9    9883.2    1434.9    9888.5
GR   1435.5   10000.0    1435.5   10000.1    1435.7   10008.2    1435.6   10017.7    1435.1   10026.8
GR   1434.9   10094.3    1434.6   10104.7    1434.5   10115.3    1434.5   10122.7    1434.8   10135.0
GR   1434.6   10143.1    1434.6   10150.3    1434.6   10156.0    1434.7   10162.6    1434.8   10169.3
GR   1434.6   10177.5    1435.0   10197.3    1435.4   10210.2    1435.7   10220.2    1435.8   10230.5
GR   1436.2   10279.5    1435.6   10338.1    1435.4   10376.5    1435.3   10420.2    1435.7   10468.9
GR   1435.8   10526.6    1435.5   10562.9    1434.8   10597.6    1434.5     10615    1434.2     10620
GR   1434.2     10660    1434.5   10666.3    1434.5   10715.0    1434.5   10762.9    1434.8   10807.6
GR   1435.5   10846.6    1436.3   10880.4

ET                         9.1                                                   10249.8   10515.8
X1   1.2822        69   10481.6   10515.8       400       425       430
GR   1440.2    9618.5    1440.2    9635.6    1439.4    9653.1    1439.6    9668.1    1439.8    9682.7
GR   1440.0    9694.6    1440.0    9707.3    1440.0    9719.6    1440.0    9730.9    1439.9    9745.4
GR   1439.8    9757.8    1439.5    9767.2    1439.6    9774.5    1439.4    9787.5    1439.3    9800.9
GR   1439.1    9949.5    1438.9    9960.2    1438.2    9967.8    1438.9    9973.7    1439.0    9982.3
GR   1439.1    9999.2    1438.9   10000.0    1438.9   10000.1    1438.8   10009.0    1438.7   10019.6
GR   1438.7   10086.4    1438.7   10096.4    1438.4   10104.0    1439.0   10117.2    1439.8   10130.4
GR   1440.2   10141.3    1440.3   10154.3    1440.0   10165.9    1439.5   10179.4    1439.3   10189.7
GR   1440.0   10202.3    1439.7   10215.9    1439.5   10234.6    1439.5   10252.3    1439.5   10270.5
GR   1439.2   10393.0    1439.0   10413.3    1439.3   10437.6    1439.5   10454.4    1439.3   10468.0
GR   1439.1   10481.6    1438.1   10494.2    1438.2   10505.3    1438.4   10515.8    1438.8   10527.4
GR   1439.1   10540.0    1438.8   10550.4    1438.7   10555.7    1438.6   10565.9    1438.7   10576.6
GR   1438.3   10586.7    1438.2   10597.7    1438.6   10612.6    1438.8   10627.3    1439.1   10643.1
GR   1438.6   10708.6    1439.2   10721.5    1439.2   10734.1    1439.3   10745.2    1439.7   10760.5
GR   1440.2   10774.9    1440.5   10787.9    1440.5   10798.9    1440.5   10802.1
```

```
ET                7.1       9.1                                   9537.5    10548.1    10030.4    10240.2
        ENCROACHMENT (ET CARD) APPLIED TO CONTAIN FLOW WITHIN RIDGE  ON LEFT.
X1   1.3769        68   10210.1   10240.2       470       400       430
GR   1443.8    9509.8    1444.0    9518.3    1444.0    9530.5    1444.3    9537.5    1443.8    9545.3
GR   1443.9    9555.2    1443.6    9561.0    1443.7    9570.0    1443.9    9581.4    1444.0    9590.2
GR   1443.7    9593.9    1443.6    9598.8    1443.4    9603.8    1443.6    9608.3    1443.9    9614.1
GR   1443.9    9622.9    1443.9    9630.9    1444.2    9641.7    1443.8    9652.9    1443.8    9663.6
GR   1443.7    9675.6    1443.5    9686.3    1443.3    9697.9    1443.0    9710.7    1443.2    9719.0
GR   1443.3    9730.0    1443.4    9738.4    1443.2    9748.9    1443.2    9753.5    1443.2    9757.4
GR   1444.0    9815.3    1443.9    9824.4    1443.7    9832.3    1443.6    9840.7    1443.4    9850.0
GR   1444.1    9953.5    1444.1    9965.4    1444.0    9978.6    1444.1    9986.4    1444.0    9994.1
GR   1443.2    9997.9    1443.4   10000.0    1443.4   10000.1    1443.9   10004.6    1444.1   10010.3
GR   1444.0   10058.0    1444.0   10067.8    1444.0   10078.0    1443.9   10086.8    1443.9   10099.3
GR   1443.6   10177.9    1443.7   10187.9    1443.4   10197.4    1443.3   10210.1    1442.9   10222.1
GR   1442.5   10232.1    1442.6   10236.1    1443.1   10240.2    1443.0   10249.8    1443.2   10300.0
GR   1444.0   10360.0    1444.2   10412.4    1444.3   10426.7    1444.4   10438.1    1444.4   10450.3
GR   1444.1   10527.5    1444.3   10546.8    1444.3   10548.1

NC     .049      .049      .042
ET                          9.1                                                        9842    10019.8
X1   1.4450        69   10000.1   10019.8       360       360       400
GR   1448.3    9436.1    1448.4    9450.9    1448.1    9465.2    1447.5    9483.7    1446.7    9501.6
GR   1446.2    9517.4    1446.2    9528.0    1446.5    9539.3    1447.1    9548.7    1447.9    9559.7
GR   1446.9    9570.1    1446.4    9581.1    1446.2    9589.0    1446.4    9596.0    1445.5    9602.2
GR   1445.8    9605.8    1446.7    9611.8    1446.0    9618.6    1446.7    9631.6    1447.4    9641.7
GR   1447.5    9649.6    1447.0    9660.3    1446.8    9667.4    1446.8    9677.7    1447.1    9687.7
GR   1446.8    9697.9    1446.8    9710.4    1447.0    9721.1    1446.5    9726.7    1446.7    9733.7
GR   1447.0    9744.5    1446.9    9754.8    1447.0    9763.7    1447.1    9773.2    1447.2    9784.7
GR   1447.3    9800.2    1447.2    9810.6    1446.7    9821.0    1446.9    9828.5    1447.0    9835.8
GR   1446.8    9844.3    1446.8    9853.4    1447.0    9863.9    1447.0    9875.0    1447.0    9888.6
GR   1447.2    9902.1    1447.2    9915.3    1447.0    9927.8    1447.5    9941.3    1447.5    9958.0
GR   1447.6    9971.7    1447.6    9984.9    1447.2    9996.2    1446.9   10000.0    1446.9   10000.1
GR   1446.0   10006.2    1445.9   10012.4    1446.0   10017.0    1446.6   10019.8    1446.8   10028.1
GR   1447.0   10040.9    1447.3   10055.8    1447.4   10069.9    1447.5   10083.8    1447.9   10094.3
GR   1447.9   10108.0    1447.8   10119.5    1447.9   10130.9    1448.7   10145.3

ET                          9.1                                                      9891.1     9991.1
X1   1.5094        53    9967.7    9991.1       325       340       340
GR   1450.8    9567.8    1451.1    9577.1    1451.1    9587.6    1450.7    9600.6    1450.3    9612.4
GR   1450.0    9625.2    1450.0    9634.8    1449.7    9647.9    1449.7    9667.9    1449.6    9677.4
GR   1449.6    9692.1    1449.0    9696.6    1449.6    9700.8    1449.8    9710.1    1450.1    9719.0
GR   1450.3    9731.0    1450.2    9743.1    1449.8    9757.1    1449.9    9764.5    1450.1    9771.4
GR   1449.8    9780.0    1449.9    9788.8    1449.9    9802.4    1450.1    9811.0    1450.3    9822.9
GR   1450.1    9836.2    1450.1    9848.5    1449.9    9859.5    1449.8    9866.0    1449.5    9871.2
GR   1449.8    9879.3    1449.8    9889.9    1449.7    9899.7    1449.9    9910.2    1448.9    9920.3
GR   1449.8    9926.8    1449.9    9935.6    1449.5    9944.9    1449.3    9955.7    1449.3    9967.7
GR   1449.4    9979.5    1448.5    9986.3    1449.0    9991.1    1449.5   10000.0    1449.2   10000.1
GR   1449.2   10000.2    1449.6   10010.1    1450.4   10021.0    1451.0   10034.3    1451.2   10048.0
GR   1452.3   10059.8    1452.4   10069.9    1452.4   10070.0
```

```
ET                7.1       9.1                                   9676.6    10272.1     9892.5    10049.2
        ET CARD APPLIED TO CONTAIN FLOW WITHIN RIDGE ON LEFT.
X1   1.5549        57   10000.1   10020.0       215       250       240
GR   1452.0    9648.3    1452.9    9655.4    1452.9    9666.0    1452.9    9676.6    1452.0    9690.2
GR   1452.0    9701.7    1452.0    9713.6    1451.9    9724.0    1451.9    9732.8    1451.8    9741.1
GR   1451.6    9748.5    1451.6    9756.1    1451.5    9769.8    1451.5    9783.5    1451.7    9798.5
GR   1451.5    9818.0    1451.5    9831.0    1451.7    9845.3    1451.9    9860.0    1451.9    9871.1
GR   1451.8    9881.5    1451.6    9896.3    1451.5    9906.1    1451.5    9920.2    1451.2    9925.8
GR   1451.1    9935.6    1451.0    9943.0    1451.3    9953.8    1451.6    9965.8    1451.6    9978.1
GR   1451.4   10000.0    1451.4   10000.1    1451.4   10007.9    1450.4   10011.8    1450.5   10015.4
GR   1451.5   10020.0    1451.4   10028.6    1451.2   10040.2    1451.2   10048.1    1451.4   10057.6
GR   1451.3   10067.5    1451.4   10079.3    1451.3   10089.8    1451.0   10098.4    1451.0   10109.9
GR   1451.0   10124.9    1450.9   10139.5    1451.2   10152.5    1451.9   10168.7    1452.4   10186.2
GR   1453.0   10199.6    1453.3   10210.8    1453.5   10223.9    1454.3   10238.5    1454.9   10255.8
GR   1455.2   10268.4    1455.3   10272.1

ET                          9.1                                                       9969.2    10086.0
X1   1.5909        41       9995   10014.9       200       185       190
GR   1454.7    9786.7    1454.5    9796.3    1454.4    9805.8    1454.1    9817.3    1453.8    9828.3
GR   1453.7    9838.8    1453.3    9847.9    1453.2    9861.2    1453.2    9873.7    1453.1    9887.9
GR   1453.1    9900.2    1453.2    9912.1    1453.2    9927.2    1453.2    9940.1    1453.1    9952.8
GR   1453.2    9965.4    1453.1    9978.7    1453.2    9991.4    1452.8       9995   1452.5   10000.1
GR   1452.5   10006.6    1452.9   10014.9    1453.0   10027.2    1453.3   10039.7    1453.1   10053.2
GR   1453.1   10064.6    1453.0   10074.9    1453.0   10092.3    1452.7   10103.0    1452.8   10113.1
GR   1452.7   10125.5    1452.6   10133.9    1452.6   10144.0    1452.6   10151.1    1452.7   10156.8
GR   1453.3   10163.9    1453.6   10175.1    1453.7   10190.5    1454.4   10208.4    1454.8   10217.9
GR   1455.3   10221.2

ET                          9.1                                                       9900.8    10024.6
X1   1.6297        45    9989.5   10024.6       220       195       200
GR   1456.1    9669.1    1455.3    9716.6    1455.3    9733.6    1455.1    9743.5    1455.1    9755.6
GR   1454.9    9769.1    1454.5    9782.3    1454.4    9792.1    1454.8    9802.1    1454.3    9810.5
GR   1455.0    9818.4    1454.8    9835.1    1454.7    9848.9    1455.1    9866.4    1455.0    9878.3
GR   1455.3    9893.7    1455.3    9902.5    1454.8    9909.3    1455.1    9915.3    1455.4    9922.4
GR   1455.1    9933.0    1455.3    9944.7    1455.0    9954.8    1455.5    9963.8    1455.5    9978.3
GR   1455.5    9989.5    1454.1   10000.0    1454.1   10000.1    1454.2   10012.7    1455.1   10024.6
GR   1454.6   10030.0    1455.0   10041.9    1455.2   10057.1    1455.3   10068.2    1455.5   10076.6
GR   1454.6   10085.1    1454.9   10089.6    1456.0   10095.1    1456.5   10103.6    1456.7   10113.3
GR   1456.8   10120.9    1457.6   10130.8    1458.2   10142.7    1458.4   10154.7    1458.7   10157.2

ET                          9.1                                                       9917.1    10005.2
X1   1.6723        39    9988.3   10005.2       260       215       225
GR   1458.1    9717.0    1457.3    9733.1    1457.3    9749.2    1457.5    9777.2    1457.5    9790.0
GR   1456.9    9799.0    1456.4    9807.7    1457.3    9816.0    1456.9    9826.6    1456.9    9838.7
GR   1456.9    9906.2    1457.1    9919.5    1456.9    9929.2    1457.2    9942.5    1456.9    9952.8
GR   1456.9    9965.3    1457.3    9976.9    1457.2    9988.3    1455.8    9992.8    1455.8    9999.7
GR   1455.9   10000.0    1455.9   10000.1    1456.3   10005.2    1457.5   10013.7    1457.3   10024.2
GR   1456.3   10033.6    1457.9   10041.3    1458.3   10051.0    1459.3   10060.1    1459.1   10069.2
GR   1459.2   10079.0    1459.3   10091.3    1458.4   10100.9    1458.8   10112.4    1459.2   10127.3
GR   1460.1   10144.1    1460.5   10158.5    1460.6   10168.4    1460.8   10170.1
```

```
ET                7.1       9.1                                        9966      10034      9970.5    10014.0
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EXPANSION DOWNSTREAM OF
        CULVERT TO 4 TO 1 FLARE.
X1   1.7178        36   10000.0   10012.7       260       225       240
GR   1460.4    9689.8    1460.5    9720.1    1460.5    9744.2    1460.2    9764.9    1460.3    9778.4
GR   1460.2    9794.8    1460.4    9810.0    1460.2    9826.2    1459.8    9839.7    1459.4    9849.6
GR   1459.8    9862.1    1459.4    9872.6    1459.2    9884.8    1459.3    9898.5    1459.7    9908.5
GR   1458.1    9913.9    1459.4    9920.5    1459.1    9927.3    1458.4    9934.2    1458.3    9948.0
GR   1458.2    9967.7    1458.1    9985.7    1457.9   10000.0    1457.7   10000.1    1457.6   10006.4
GR   1457.7   10012.7    1458.3   10020.5    1459.0   10037.0    1460.1   10050.7    1460.7   10063.7
GR   1461.6   10070.8    1462.5   10085.1    1462.3   10094.8    1462.5   10106.8    1462.9   10120.4
GR   1462.9   10126.1

NC    .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (4- 10'X 4' RCB'S  \ STRUC. #36)
        WEIR FLOW OVER MEDIAN TO LEFT BEGINS AT EL. 1466.0 AND TO CHANN.
        AT RIGHT AT INVERT EL.=1466
X1   1.727         4    9978.5   10021.5        50        50        50
X3      10
GR   1464.1    9978.5    1459.6    9978.5    1459.6   10021.5    1464.1   10021.5

NC    .012      .012      .012
SC   4.012        .2       2.9         0         4        10       147      12.3    1460.2    1459.6
        END CULVERTS
X1   1.755         0         0         0       147       147       147                .6
X2                            2    1464.2    1466.0
X3      10                                                        1466.0    1466.0
BT      12      9237    1466.9                 9387      1466                9537    1466.1
BT    9587   1466.27               10000    1467.7                10312    1468.7               10312.5
BT   1468.2            10352.5    1467.4               10360.5      1467               10364.5      1466
BT            10369.5    1466.0               10377.5    1468.0

NC    .048      .048      .035
ET                7.1       9.1                                        9940      10068      9940      10068
        ENCROACHMENT (ET CARD) APPLIED AT THIS SECTION TO LIMIT EFFECTIVE
        FLOW AREA TO 45 DEGREE CONTRACTION ANGLE FROM INLET
X1   1.761        11      9980     10040        34        34        34
GR    1465      9605      1463      9868      1462      9920    1462.5      9950      1461      9980
GR    1461     10025      1462     10040      1463     10058      1463     10147      1464     10188
GR    1465     10215
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO  .254
        FLOODWAY MODEL UTILIZING FIXED ENCROACHMENT OPTION (METHOD 1) AND
        BASED ON PREVIOUS MODEL USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
        CROSS-SECTION I. D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
        ALONG BASELINE FROM CONFLUENCE WITH TRILBY WASH.
        CROSS-SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
        SEC. 0.2538 AND 1.4450. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
        ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
        COURSE TO TRILBY WASH.
      .254      .97  1392.47      .00  1392.30  1392.51      .04      .00      .00  1392.00
    1248.0     43.5     56.7    1147.8     42.1     28.8    685.1       .0       .0  1391.70
       .00     1.03     2.19      1.68     .049     .045     .049     .000  1391.50  9895.08
   .005403       0.       0.        0.        0        0        5      .00  1301.36 11196.43


*SECNO  .398

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

      .398     1.12  1397.92      .00      .00  1398.00      .08     5.48      .01  1397.20
    1248.0    547.9     94.2    605.9    236.0     25.0    314.7     10.4     21.0  1397.20
       .09     2.32     3.77      1.93     .049     .045     .049     .000  1396.80  9781.42
   .013020     750.     720.     660.        5        0        0      .00  1386.98 11168.40


*SECNO  .495

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41

      .495     1.23  1402.83      .00      .00  1402.90      .07     4.90      .00  1404.00
    1248.0    899.1     71.4    277.5    399.7     29.1    163.3     17.8     35.9  1401.90
       .16     2.25     2.46      1.70     .049     .045     .049     .000  1401.60  9923.68
   .006507     500.     540.     630.        5        0        0      .00   867.35 11217.69
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .650

3265 DIVIDED FLOW

.650	1.11	1408.71	.00	.00	1408.77	.06	5.87	.00	1408.00
1248.0	1132.4	63.7	51.9	576.6	22.7	37.8	29.2	54.8	1408.00
.27	1.96	2.80	1.37	.049	.045	.049	.000	1407.60	9705.18
.008158	820.	790.	740.	5	0	0	.00	1193.19	10956.48

*SECNO .779

3265 DIVIDED FLOW

.779	1.26	1413.06	.00	.00	1413.12	.05	4.35	.00	1412.20
1248.0	906.3	63.9	277.7	487.8	23.2	170.0	38.9	74.8	1412.20
.37	1.86	2.75	1.63	.049	.045	.049	.000	1411.80	9421.10
.005716	690.	450.	415.	4	0	0	.00	1516.97	11372.31

*SECNO .851

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

.851	.66	1416.46	.00	.00	1416.54	.08	3.42	.01	1416.10
1248.0	1076.5	58.2	113.2	482.9	20.2	68.3	44.1	88.1	1416.00
.41	2.23	2.88	1.66	.049	.045	.049	.000	1415.80	9208.40
.017804	360.	400.	390.	4	0	0	.00	1655.23	11313.27

*SECNO 1.005

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

1.005	.94	1424.54	.00	.00	1424.59	.05	8.05	.00	1423.70
1248.0	863.8	92.3	291.9	493.6	35.2	150.2	54.8	113.0	1423.60
.52	1.75	2.62	1.94	.049	.045	.049	.000	1423.60	9302.22
.007277	740.	770.	750.	5	0	0	.00	1261.97	11189.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.144

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

DECREASE DISCHARGE UPSTREAM OF TRIBUTARY.

1.144	1.07	1431.97	.00	.00	1432.09	.12	7.48	.02	1431.50
1009.0	887.4	78.4	43.1	328.5	23.4	21.2	63.4	132.3	1431.40
.60	2.70	3.35	2.04	.049	.045	.049	.000	1430.90	9495.41
.018890	700.	740.	740.	5	0	0	.00	1121.29	10847.50

*SECNO 1.206

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

1.206	1.30	1435.50	.00	.00	1435.59	.09	3.50	.00	1434.50
1009.0	426.1	218.7	364.2	242.4	65.3	149.3	66.3	139.3	1434.50
.63	1.76	3.35	2.44	.049	.045	.049	.000	1434.20	9672.85
.007456	320.	300.	290.	3	0	0	.00	803.92	10846.86

*SECNO 1.282

3265 DIVIDED FLOW

1.282	1.35	1439.45	.00	.00	1439.57	.12	3.97	.01	1439.10
1009.0	427.9	149.3	431.8	195.8	37.6	154.3	70.3	146.9	1438.40
.67	2.19	3.97	2.80	.049	.045	.049	.000	1438.10	9651.73
.012713	400.	430.	425.	4	0	0	.00	818.77	10751.42

*SECNO 1.377

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9537.5 10548.1 TYPE= 1 TARGET= 1010.600

ENCROACHMENT (ET CARD) APPLIED TO CONTAIN FLOW WITHIN RIDGE ON LEFT.

1.377	1.68	1444.18	.00	.00	1444.28	.10	4.70	.00	1443.30
1009.0	584.3	151.1	273.6	299.0	39.8	105.7	74.6	155.8	1443.10
.73	1.95	3.80	2.59	.049	.045	.049	.000	1442.50	9539.34
.009122	470.	430.	400.	5	0	0	.00	896.40	10535.44

*SECNO 1.445

3265 DIVIDED FLOW

1.445	2.05	1447.55	.00	.00	1447.68	.12	3.39	.01	1446.90
1009.0	838.9	118.6	51.5	323.1	27.6	26.1	78.0	161.9	1446.60
.76	2.60	4.29	1.98	.049	.042	.049	.000	1445.50	9481.93
.009456	360.	400.	360.	3	0	0	.00	583.11	10085.30

*SECNO 1.509

1.509	2.12	1450.62	.00	.00	1450.77	.15	3.09	.01	1449.30
1009.0	748.6	159.6	100.8	282.5	35.4	32.0	80.7	165.7	1449.00
.79	2.65	4.50	3.15	.049	.042	.049	.000	1448.50	9602.79
.009354	325.	340.	340.	3	0	0	.00	423.21	10026.00

*SECNO 1.555

3470 ENCROACHMENT STATIONS= 9676.6 10272.1 TYPE= 1 TARGET= 595.500
ET CARD APPLIED TO CONTAIN FLOW WITHIN RIDGE ON LEFT.

1.555	1.97	1452.37	.00	.00	1452.46	.09	1.68	.01	1451.40
1009.0	475.3	86.8	446.8	233.7	26.4	173.8	82.8	168.1	1451.50
.82	2.03	3.28	2.57	.049	.042	.049	.000	1450.40	9684.67
.005995	215.	240.	250.	4	0	0	.00	500.35	10185.02

*SECNO 1.591

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

1.591	1.42	1453.92	.00	.00	1454.11	.18	1.62	.03	1452.80
1009.0	330.7	124.0	554.3	118.0	26.0	161.7	84.4	170.0	1452.90
.83	2.80	4.78	3.43	.049	.042	.049	.000	1452.50	9823.67
.012796	200.	190.	185.	2	0	0	.00	372.62	10196.29

*SECNO 1.630

1.630	1.86	1455.96	.00	.00	1456.09	.12	1.98	.01	1455.50
1009.0	663.0	195.6	150.4	263.8	50.7	61.3	86.0	171.9	1455.10
.86	2.51	3.86	2.45	.049	.042	.049	.000	1454.10	9677.52
.007321	220.	200.	195.	3	0	0	.00	417.37	10094.89

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 1.672
    1.672      2.21   1458.01       .00       .00   1458.20       .19      2.09       .02   1457.20
   1009.0     729.3     176.6     103.1     247.1      32.7      34.5      88.0     174.0   1456.30
      .88      2.95      5.40      2.98      .049      .042      .049      .000   1455.80   9718.72
  .009824      260.      225.      215.         3         0         0       .00    325.36  10044.08


*SECNO 1.718

3470 ENCROACHMENT STATIONS=     9966.0   10034.0  TYPE=      1  TARGET=       68.000
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EXPANSION DOWNSTREAM OF
       CULVERT TO 4 TO 1 FLARE.
    1.718      2.87   1460.47       .00       .00   1461.12       .65      2.78       .14   1457.90
   1009.0     483.3     282.9     242.8      80.8      35.8      44.6      89.4     175.2   1457.70
      .89      5.98      7.91      5.44      .049      .042      .049      .000   1457.60   9966.00
  .012746      260.      240.      225.         3         0         0       .00     68.00  10034.00


CCHV=     .300 CEHV=     .500
*SECNO 1.727

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1464.10 ELREA=      1464.10

       BEGIN SUN VALLEY PARKWAY CULVERTS (4- 10'X 4' RCB'S  \ STRUC. #36)
       WEIR FLOW OVER MEDIAN TO LEFT BEGINS AT EL. 1466.0 AND TO CHANN.
       AT RIGHT AT INVERT EL.=1466
    1.727      2.57   1462.17   1462.17       .00   1463.46      1.30       .70       .32   1464.10
   1009.0        .0    1009.0        .0        .0     110.5        .0      89.5     175.3   1464.10
      .89       .00      9.13       .00      .000      .035      .000      .000   1459.60   9978.50
  .015293       50.       50.       50.        20        11         0       .00     43.00  10021.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL CULVERT

SC	CUND	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	4	.012	.20	2.90	.00	4.00	10.00	147.00	12	3	1460.20	1459.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 1.755

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1464.459 EGOC = 1464.526 PCWSE= 1462.169 ELTRD= 1466.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 5.20

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1464.46	1464.53	1.06	0.	1009.	6.335	160.0	1466.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1466.00 ELREA= 1466.00

END CULVERTS

1.755	3.70	1463.90	.00	.00	1464.53	.62	1.06	.00	1464.70
1009.0	.0	1009.0	.0	.0	159.3	.0	90.0	175.4	1464.70
.89	.00	6.34	.00	.000	.012	.000	.000	1460.20	9978.50
.000364	147.	147.	147.	3	0	0	.00	43.00	10021.50

*SECNO 1.761

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

3470 ENCROACHMENT STATIONS= 9940.0 10068.0 TYPE= 1 TARGET= 128.000
ENCROACHMENT (ET CARD) APPLIED AT THIS SECTION TO LIMIT EFFECTIVE
FLOW AREA TO 45 DEGREE CONTRACTION ANGLE FROM INLET

1.761	3.55	1464.55	.00	.00	1464.70	.14	.03	.14	1461.00
1009.0	217.9	704.6	86.6	105.8	206.1	52.7	90.2	175.5	1462.00
.90	2.06	3.42	1.64	.048	.035	.048	.000	1461.00	9940.00
.001251	34.	34.	34.	2	0	0	.00	128.00	10068.00

```
T1      SUN VALLEY PARKWAY NORTH FIS  CONTRACT:FCDMC NO.90-04
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC.,PHX.AZ.
T3      WASH #7,100-YEAR FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

    -10        3                          0                                1393.27

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15                 -1
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


$PROF 2



CCHV=     .100 CEHV=     .300
$SECNO  .254
3280 CROSS SECTION       .25 EXTENDED       .27 FEET


3470 ENCROACHMENT STATIONS=    10050.0   10308.1  TYPE=      1  TARGET=      258.090
       FLOODWAY MODEL UTILIZING FIXED ENCROACHMENT OPTION (METHOD 1) AND
       BASED ON PREVIOUS MODEL USING EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
       CROSS-SECTION I. D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
       ALONG BASELINE FROM CONFLUENCE WITH TRILBY WASH.
       CROSS SECTIONS ARE CODED FROM LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
       SEC. 0.2538 AND 1.4450. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
       ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
       COURSE TO TRILBY WASH.
     .254      1.77   1393.27       .00   1392.47   1393.42       .15       .00       .00   1392.00
   1248.0        .0     166.0    1082.0        .0      49.8     358.1        .0        .0   1391.70
     .00       .00      3.33      3.02      .000      .045      .049      .000   1391.50  10050.00
  .005483        0.        0.        0.         0         0         0       .00    258.09  10308.09


$SECNO  .398
3280 CROSS SECTION       .40 EXTENDED       .37 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65


3470 ENCROACHMENT STATIONS=    10220.0   10444.9  TYPE=      1  TARGET=      224.900
     .398      1.77   1398.57   1398.25   1397.92   1398.85       .28      5.39       .04   1397.20
   1248.0        .0     209.1    1038.9        .0      41.2     255.9       5.4       3.7   1397.20
     .04       .00      5.07      4.06      .000      .045      .049      .000   1396.80  10220.00
  .012998      750.      720.      660.        17        15         0       .00    224.90  10444.90


$SECNO  .495
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 10257.7 10470.0 TYPE= 1 TARGET= 212.300

.495	2.14	1403.74	.00	1402.83	1403.94	.20	5.09	.01	1404.00
1248.0	1028.7	219.3	.0	282.7	63.8	.0	9.5	6.5	100000.00
.09	3.64	3.44	.00	.049	.045	.000	.000	1401.60	10257.70
.006682	500.	540.	630.	2	0	0	.00	206.18	10470.00

*SECNO .650

3470 ENCROACHMENT STATIONS= 10497.4 10850.0 TYPE= 1 TARGET= 352.600

.650	1.80	1409.40	.00	1408.71	1409.54	.14	5.59	.01	1408.00
1248.0	1102.2	145.8	.0	383.6	40.0	.0	16.7	11.7	100000.00
.16	2.87	3.65	.00	.049	.045	.000	.000	1407.60	10497.40
.007027	820.	790.	740.	5	0	0	.00	352.60	10850.00

*SECNO .779
3280 CROSS SECTION .78 EXTENDED .04 FEET

3470 ENCROACHMENT STATIONS= 10414.2 11040.0 TYPE= 1 TARGET= 625.800

.779	2.24	1414.04	.00	1413.06	1414.15	.12	4.61	.00	1412.20
1248.0	1063.7	184.3	.0	454.2	42.7	.0	23.8	19.4	100000.00
.23	2.34	4.31	.00	.049	.045	.000	.000	1411.80	10414.20
.006989	690.	450.	415.	6	0	0	.00	625.80	11040.00

*SECNO .851

3470 ENCROACHMENT STATIONS= 10488.1 11041.5 TYPE= 1 TARGET= 553.400

.851	1.67	1417.47	.00	1416.46	1417.66	.19	3.48	.02	1416.10
1248.0	954.1	293.9	.0	328.2	58.8	.0	27.5	24.3	100000.00
.26	2.91	5.00	.00	.049	.045	.000	.000	1415.80	10488.10
.013554	360.	400.	390.	5	0	0	.00	553.40	11041.50

*SECNO 1.005
3280 CROSS SECTION 1.00 EXTENDED .75 FEET

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     CG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       FLMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=    10392.9   10939.3  TYPE=      1  TARGET=      546.399
   1.005      1.74   1425.34       .00   1424.54   1425.48       .14      7.82       .01   1423.70
  1248.0     968.9     279.1        .0     382.4      66.9        .0      34.6      33.6 100000.00
     .33      2.53      4.17       .00      .049      .045      .000      .000   1423.60  10392.90
 .008330      740.      770.      750.         5         0         0       .00    546.40  10939.30


*SECNO 1.144

3265 DIVIDED FLOW

3280 CROSS SECTION      1.14 EXTENDED       .53 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .61


3470 ENCROACHMENT STATIONS=    10456.9   10773.4  TYPE=      1  TARGET=      316.500
       DECREASE DISCHARGE UPSTREAM OF TRIBUTARY.
   1.144      1.83   1432.73       .00   1431.97   1432.96       .22      7.45       .03   1431.50
  1009.0     759.2     249.8        .0     225.1      51.4        .0      40.5      40.6 100000.00
     .39      3.37      4.86       .00      .049      .045      .000      .000   1430.90  10456.90
 .014597      700.      740.      740.         4         0         0       .00    311.05  10773.40


*SECNO 1.206

3470 ENCROACHMENT STATIONS=    10387.0   10666.3  TYPE=      1  TARGET=      279.300
   1.206      2.06   1436.26       .00   1435.50   1436.50       .25      3.54       .01   1434.50
  1009.0     498.7     510.3        .0     185.1     103.8        .0      42.6      42.7 100000.00
     .41      2.69      4.91       .00      .049      .045      .000      .000   1434.20  10387.00
 .009049      320.      300.      290.         3         0         0       .00    279.30  10666.30


*SECNO 1.282

3470 ENCROACHMENT STATIONS=    10249.8   10515.8  TYPE=      1  TARGET=      266.000
   1.282      2.18   1440.28       .00   1439.45   1440.51       .22      4.00       .00   1439.10
  1009.0     679.2     329.8        .0     223.5      65.7        .0      45.3      45.2 100000.00
     .44      3.04      5.02       .00      .049      .045      .000      .000   1438.10  10249.80
 .010420      400.      430.      425.         5         0         0       .00    266.00  10515.80
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#SECNO 1.377
3280 CROSS SECTION      1.38 EXTENDED       .64 FEET


3470 ENCROACHMENT STATIONS=    10030.4   10240.2  TYPE=      1  TARGET=      207.800
       ENCROACHMENT (ET CARD) APPLIED TO CONTAIN FLOW WITHIN RIDGE  ON LEFT.
    1.377      2.43   1444.93       .00   1444.18   1445.19       .25      4.67       .01   1443.30
   1009.0     686.2     322.8        .0     204.7      62.5        .0      48.2      47.8 100000.00
      .47      3.35      5.17       .00      .049      .045      .000      .000   1442.50  10030.40
  .010027      470.      430.      400.         5         0         0       .00    209.80  10240.20


#SECNO 1.445

3470 ENCROACHMENT STATIONS=     9842.0   10019.8  TYPE=      1  TARGET=      177.800
    1.445      3.03   1448.53       .00   1447.55   1448.81       .28      3.61       .01   1446.90
   1009.0     741.9     267.1        .0     207.5      46.7        .0      50.4      49.4 100000.00
      .50      3.58      5.72       .00      .049      .042      .000      .000   1445.50   9842.00
  .009424      360.      400.      360.         4         0         0       .00    177.80  10019.80


#SECNO 1.509

3470 ENCROACHMENT STATIONS=     9891.1    9991.1  TYPE=      1  TARGET=      100.000
    1.509      3.03   1451.53       .00   1450.62   1451.91       .38      3.07       .03   1449.30
   1009.0     685.9     323.1        .0     150.8      56.6        .0      52.2      50.4 100000.00
      .52      4.55      5.71       .00      .049      .042      .000      .000   1448.50   9891.10
  .009230      325.      340.      340.         3         0         0       .00    100.00   9991.10


#SECNO 1.555

3470 ENCROACHMENT STATIONS=     9892.5   10049.2  TYPE=      1  TARGET=      156.700
       ET CARD APPLIED TO CONTAIN FLOW WITHIN RIDGE ON LEFT.
    1.555      2.84   1453.24       .00   1452.37   1453.43       .18      1.50       .02   1451.40
   1009.0     638.2     185.9     184.9     197.5      43.9      56.4      53.5      51.1   1451.50
      .54      3.23      4.23      3.28      .049      .042      .049      .000   1450.40   9892.50
  .005056      215.      240.      250.         1         0         0       .00    156.70  10049.20


#SECNO 1.591
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .57

3470 ENCROACHMENT STATIONS= 9969.2 10086.0 TYPE= 1 TARGET= 116.800

1.591	2.12	1454.62	.00	1453.92	1455.11	.49	1.59	.09	1452.80
1009.0	184.7	278.6	545.7	38.4	39.6	109.1	54.5	51.7	1452.90
.54	4.81	7.03	5.00	.049	.042	.049	.000	1452.50	9969.20
.015787	200.	190.	185.	0	0	0	.00	116.80	10086.00

*SECNO 1.630

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

3470 ENCROACHMENT STATIONS= 9900.8 10024.6 TYPE= 1 TARGET= 123.800

1.630	2.86	1456.96	.00	1455.96	1457.27	.32	2.15	.02	1455.50
1009.0	552.4	456.5	.0	149.6	85.7	.0	55.6	52.3	100000.00
.56	3.69	5.32	.00	.049	.042	.000	.000	1454.10	9900.80
.007409	220.	200.	195.	3	0	0	.00	123.80	10024.60

*SECNO 1.672

3470 ENCROACHMENT STATIONS= 9917.1 10005.2 TYPE= 1 TARGET= 88.101

1.672	3.22	1459.02	.00	1458.01	1459.50	.48	2.17	.05	1457.20
1009.0	675.2	333.8	.0	139.1	49.6	.0	56.8	52.9	100000.00
.57	4.86	6.73	.00	.049	.042	.000	.000	1455.80	9917.10
.010700	260.	225.	215.	2	0	0	.00	88.10	10005.20

*SECNO 1.718

3470 ENCROACHMENT STATIONS= 9970.5 10014.0 TYPE= 1 TARGET= 43.500
ENCROACHMENT (ET CARD) APPLIED TO LIMIT EXPANSION DOWNSTREAM OF
CULVERT TO 4 TO 1 FLARE.

1.718	3.78	1461.38	.00	1460.47	1462.15	.77	2.57	.09	1457.90
1009.0	603.9	391.5	13.7	97.2	47.2	4.7	57.8	53.3	1457.70
.58	6.21	8.29	2.91	.049	.042	.049	.000	1457.60	9970.50
.009661	260.	240.	225.	1	0	0	.00	43.50	10014.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 1.727

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1464.10 ELREA= 1464.10

BEGIN SUN VALLEY PARKWAY CULVERTS (4- 10'X 4' RCB'S \ STRUC. #36)
WEIR FLOW OVER MEDIAN TO LEFT BEGINS AT EL. 1466.0 AND TO CHANN.
AT RIGHT AT INVERT EL.=1466

1.727	2.57	1462.17	1462.17	1462.17	1463.46	1.29	.60	.26	1464.10
1009.0	.0	1009.0	.0	.0	110.5	.0	57.9	53.3	1464.10
.58	.00	9.13	.00	.000	.035	.000	.000	1459.60	9978.50
.015272	50.	50.	50.	20	14	0	.00	43.00	10021.50

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	4	.012	.20	2.90	.00	4.00	10.00	147.00	12	3	1460.20	1459.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

*SECNO 1.755

SPECIAL CULVERT OUTLET CONTROL
EGIC = 1464.459 EGOC = 1464.526 PCWSE= 1462.170 ELTRD= 1466.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 5.20

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1464.46	1464.53	1.06	0.	1009.	6.335	160.0	1466.00	0.

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1466.00 ELREA= 1466.00

END CULVERTS

1.755	3.70	1463.90	.00	1463.90	1464.53	.62	1.06	.00	1464.70
1009.0	.0	1009.0	.0	.0	159.3	.0	58.4	53.5	1464.70
.59	.00	6.34	.00	.000	.012	.000	.000	1460.20	9978.50
.000564	147.	147.	147.	3	0	0	.00	43.00	10021.50

*SECND 1.761

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .67

3470 ENCROACHMENT STATIONS= 9940.0 10068.0 TYPE= 1 TARGET= 128.000
ENCROACHMENT (ET CARD) APPLIED AT THIS SECTION TO LIMIT EFFECTIVE
FLOW AREA TO 45 DEGREE CONTRACTION ANGLE FROM INLET

1.761	3.55	1464.55	.00	1464.55	1464.70	.14	.03	.14	1461.00
1009.0	217.9	704.5	86.6	105.8	206.2	52.7	58.6	53.5	1462.00
.59	2.06	3.42	1.64	.048	.035	.048	.000	1461.00	9940.00
.001250	34.	34.	34.	2	0	0	.00	128.00	10068.00

THIS RUN EXECUTED 04SEP91 08:53:13

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO 7, 100 YEAR PROF

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.254	1248.00	1392.47	.00	2.19	.00	10050.00	10080.00	.00	.00	9895.08	11196.43
	.254	1248.00	1393.27	.00	3.33	.00	10050.00	10080.00	10050.00	10308.09	10050.00	10308.09
*	.398	1248.00	1397.92	.00	3.77	720.00	10220.00	10245.00	.00	.00	9781.42	11168.40
*	.398	1248.00	1398.57	1398.25	5.07	720.00	10220.00	10245.00	10220.00	10444.90	10220.00	10444.90
*	.495	1248.00	1402.83	.00	2.46	540.00	10425.00	10470.00	.00	.00	9923.68	11217.69
	.495	1248.00	1403.74	.00	3.44	540.00	10425.00	10470.00	10257.70	10470.00	10257.70	10470.00
	.650	1248.00	1408.71	.00	2.80	790.00	10825.00	10850.00	.00	.00	9705.18	10956.48
	.650	1248.00	1409.40	.00	3.65	790.00	10825.00	10850.00	10497.40	10850.00	10497.40	10850.00
	.779	1248.00	1413.06	.00	2.75	450.00	11020.00	11040.00	.00	.00	9421.10	11372.31
	.779	1248.00	1414.04	.00	4.31	450.00	11020.00	11040.00	10414.20	11040.00	10414.20	11040.00
*	.851	1248.00	1416.46	.00	2.88	400.00	11003.30	11041.50	.00	.00	9208.40	11313.27
	.851	1248.00	1417.47	.00	5.00	400.00	11003.30	11041.50	10488.10	11041.50	10488.10	11041.50
*	1.005	1248.00	1424.54	.00	2.62	770.00	10900.00	10939.30	.00	.00	9302.22	11189.01
	1.005	1248.00	1425.34	.00	4.17	770.00	10900.00	10939.30	10392.90	10939.30	10392.90	10939.30
*	1.144	1009.00	1431.97	.00	3.35	740.00	10736.50	10773.40	.00	.00	9495.41	10847.50
*	1.144	1009.00	1432.73	.00	4.86	740.00	10736.50	10773.40	10456.90	10773.40	10456.90	10773.40
*	1.206	1009.00	1435.50	.00	3.35	300.00	10615.00	10666.30	.00	.00	9672.85	10846.86
	1.206	1009.00	1436.26	.00	4.91	300.00	10615.00	10666.30	10387.00	10666.30	10387.00	10666.30
	1.282	1009.00	1439.45	.00	3.97	430.00	10481.60	10515.80	.00	.00	9651.73	10751.42
	1.282	1009.00	1440.28	.00	5.02	430.00	10481.60	10515.80	10249.80	10515.80	10249.80	10515.80
	1.377	1009.00	1444.18	.00	3.80	430.00	10210.10	10240.20	9537.50	10548.10	9539.34	10535.44
	1.377	1009.00	1444.93	.00	5.17	430.00	10210.10	10240.20	10030.40	10240.20	10030.40	10240.20

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	1.445	1009.00	1447.55	.00	4.29	400.00	10000.10	10019.80	.00	.00	9481.93	10085.30
	1.445	1009.00	1448.53	.00	5.72	400.00	10000.10	10019.80	9842.00	10019.80	9842.00	10019.80
	1.509	1009.00	1450.62	.00	4.50	340.00	9967.70	9991.10	.00	.00	9602.79	10026.00
	1.509	1009.00	1451.53	.00	5.71	340.00	9967.70	9991.10	9891.10	9991.10	9891.10	9991.10
	1.555	1009.00	1452.37	.00	3.28	240.00	10000.10	10020.00	9676.60	10272.10	9684.67	10185.02
	1.555	1009.00	1453.24	.00	4.23	240.00	10000.10	10020.00	9892.50	10049.20	9892.50	10049.20
*	1.591	1009.00	1453.92	.00	4.78	190.00	9995.00	10014.90	.00	.00	9823.67	10196.29
*	1.591	1009.00	1454.62	.00	7.03	190.00	9995.00	10014.90	9969.20	10086.00	9969.20	10086.00
	1.630	1009.00	1455.96	.00	3.86	200.00	9989.50	10024.60	.00	.00	9677.52	10094.89
*	1.630	1009.00	1456.96	.00	5.32	200.00	9989.50	10024.60	9900.80	10024.60	9900.80	10024.60
	1.672	1009.00	1458.01	.00	5.40	225.00	9988.30	10005.20	.00	.00	9718.72	10044.08
	1.672	1009.00	1459.02	.00	6.73	225.00	9988.30	10005.20	9917.10	10005.20	9917.10	10005.20
	1.718	1009.00	1460.47	.00	7.91	240.00	10000.00	10012.70	9966.00	10034.00	9966.00	10034.00
	1.718	1009.00	1461.38	.00	8.29	240.00	10000.00	10012.70	9970.50	10014.00	9970.50	10014.00
*	1.727	1009.00	1462.17	1462.17	9.13	50.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.727	1009.00	1462.17	1462.17	9.13	50.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.755	1009.00	1463.90	.00	6.34	147.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.755	1009.00	1463.90	.00	6.34	147.00	9978.50	10021.50	.00	.00	9978.50	10021.50
*	1.761	1009.00	1464.55	.00	3.42	34.00	9980.00	10040.00	9940.00	10068.00	9940.00	10068.00
*	1.761	1009.00	1464.55	.00	3.42	34.00	9980.00	10040.00	9940.00	10068.00	9940.00	10068.00

WASH NO 7, 100 YEAR PROF

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.254	43.50	56.66	1147.85	1.03	2.19	1.68	1393.00	1392.47	.00	1301.36	1391.50	1.03
	.254	.00	165.99	1082.01	.00	3.33	3.02	1393.00	1393.27	.00	258.09	1391.50	1.00
*	.398	547.93	94.18	605.88	2.32	3.77	1.93	1398.20	1397.92	5.45	1386.98	1396.80	1.11
*	.398	.00	209.06	1038.94	.00	5.07	4.06	1398.20	1398.57	5.30	224.90	1396.80	1.02
*	.495	899.10	71.41	277.49	2.25	2.46	1.70	1404.20	1402.83	4.91	867.35	1401.60	1.04
	.495	1028.73	219.27	.00	3.64	3.44	.00	1405.00	1403.74	5.17	206.18	1401.60	1.00
	.650	1132.45	63.67	51.89	1.96	2.80	1.37	1409.00	1408.71	5.88	1193.19	1407.60	1.04
	.650	1102.15	145.85	.00	2.87	3.65	.00	1409.90	1409.40	5.66	352.60	1407.60	1.02
	.779	906.34	63.91	277.74	1.86	2.75	1.63	1413.50	1413.06	4.35	1516.97	1411.80	1.04
	.779	1063.67	184.33	.00	2.34	4.31	.00	1414.00	1414.04	4.64	625.80	1411.80	1.18
*	.851	1076.54	58.22	113.23	2.23	2.88	1.66	1418.00	1416.46	3.40	1655.23	1415.80	1.03
	.851	954.08	293.92	.00	2.91	5.00	.00	1418.10	1417.47	3.43	553.40	1415.80	1.19
*	1.005	863.77	92.31	291.92	1.75	2.62	1.94	1424.60	1424.54	8.08	1261.97	1423.60	1.04
	1.005	968.93	279.07	.00	2.53	4.17	.00	1424.60	1425.34	7.88	546.40	1423.60	1.15
*	1.144	887.44	78.41	43.14	2.70	3.35	2.04	1432.20	1431.97	7.43	1121.27	1430.90	1.02
*	1.144	759.22	249.78	.00	3.37	4.86	.00	1432.20	1432.73	7.39	311.05	1430.90	1.08
*	1.206	426.14	218.71	364.15	1.76	3.35	2.44	1436.30	1435.50	3.53	803.92	1434.20	1.21
	1.206	498.72	510.28	.00	2.69	4.91	.00	1436.30	1436.26	3.53	279.30	1434.20	1.30
	1.282	427.90	149.32	431.78	2.19	3.97	2.80	1440.20	1439.45	3.95	818.77	1438.10	1.14
	1.282	679.18	329.82	.00	3.04	5.02	.00	1440.50	1440.28	4.02	266.00	1438.10	1.19
	1.377	584.32	151.07	273.61	1.95	3.80	2.59	1444.30	1444.18	4.73	896.40	1442.50	1.20
	1.377	686.20	322.80	.00	3.35	5.17	.00	1444.30	1444.93	4.65	209.80	1442.50	1.13
	1.445	838.88	118.60	51.52	2.60	4.29	1.98	1448.30	1447.55	3.37	583.11	1445.50	1.11
	1.445	741.85	267.15	.00	3.58	5.72	.00	1448.70	1448.53	3.59	177.80	1445.50	1.15
	1.509	748.56	159.61	100.83	2.65	4.50	3.15	1450.80	1450.62	3.07	423.21	1448.50	1.13
	1.509	685.90	323.10	.00	4.55	5.71	.00	1452.40	1451.53	3.00	100.00	1448.50	1.03
	1.555	475.33	86.85	446.82	2.03	3.28	2.57	1455.30	1452.37	1.74	500.35	1450.40	1.07
	1.555	638.19	185.87	184.94	3.23	4.23	3.28	1455.30	1453.24	1.72	156.70	1450.40	1.03
*	1.591	330.72	123.97	554.30	2.80	4.78	3.43	1454.70	1453.92	1.35	372.62	1452.50	1.09
*	1.591	184.69	278.64	545.67	4.81	7.03	5.00	1455.30	1454.62	1.37	116.80	1452.50	1.08
	1.630	662.97	195.63	150.40	2.51	3.86	2.45	1456.10	1455.96	2.04	417.37	1454.10	1.10
*	1.630	552.45	456.55	.00	3.69	5.32	.00	1458.70	1456.96	2.34	123.80	1454.10	1.10

	SECND	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	1.672	729.34	176.57	103.09	2.95	5.40	2.98	1458.10	1458.01	2.04	325.36	1455.80	1.19
	1.672	675.22	333.78	.00	4.86	6.73	.00	1460.80	1459.02	2.06	88.10	1455.80	1.08
	1.718	483.28	282.90	242.81	5.98	7.91	5.44	1462.90	1460.47	2.46	68.00	1457.60	1.07
	1.718	603.86	391.46	13.68	6.21	8.29	2.91	1462.90	1461.38	2.36	43.50	1457.60	1.09
*	1.727	.00	1009.00	.00	.00	9.13	.00	1464.10	1462.17	1.70	43.00	1459.60	1.00
*	1.727	.00	1009.00	.00	.00	9.13	.00	1464.10	1462.17	.79	43.00	1459.60	1.00
*	1.755	.00	1009.00	.00	.00	6.34	.00	1464.70	1463.90	1.73	43.00	1460.20	1.00
*	1.755	.00	1009.00	.00	.00	6.34	.00	1464.70	1463.90	1.73	43.00	1460.20	1.00
*	1.761	217.86	704.56	86.58	2.06	3.42	1.64	1465.00	1464.55	.65	128.00	1461.00	1.21
*	1.761	217.87	704.55	86.58	2.06	3.42	1.64	1465.00	1464.55	.65	128.00	1461.00	1.21

WASH ND 7, 100 YEAR PROF

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.254	.00	.00	1392.51	.04	.00	.00	54.03	.00	.97	49.00	45.00	49.00
	.254	.00	.00	1393.42	.15	.00	.00	54.83	.00	1.77	.00	45.00	49.00
*	.398	720.00	7.36	1398.00	.08	5.48	.01	130.20	10.39	1.12	49.00	45.00	49.00
*	.398	720.00	7.36	1398.85	.28	5.39	.04	129.98	5.40	1.77	.00	45.00	49.00
*	.495	540.00	8.89	1402.90	.07	4.90	.00	65.07	17.83	1.23	49.00	45.00	49.00
	.495	540.00	8.89	1403.94	.20	5.09	.01	66.82	9.53	2.14	49.00	45.00	.00
	.650	790.00	7.59	1408.77	.06	5.87	.00	81.58	29.20	1.11	49.00	45.00	49.00
	.650	790.00	7.59	1409.54	.14	5.59	.01	70.27	16.74	1.80	49.00	45.00	.00
	.779	450.00	9.33	1413.12	.05	4.35	.00	57.16	38.86	1.26	49.00	45.00	49.00
	.779	450.00	9.33	1414.15	.12	4.61	.00	69.89	23.80	2.24	49.00	45.00	.00
*	.851	400.00	10.00	1416.54	.08	3.42	.01	178.04	44.13	.66	49.00	45.00	49.00
	.851	400.00	10.00	1417.66	.19	3.48	.02	135.54	27.50	1.67	49.00	45.00	.00
*	1.005	770.00	10.13	1424.59	.05	8.05	.00	72.77	54.80	.94	49.00	45.00	49.00
	1.005	770.00	10.13	1425.48	.14	7.82	.01	83.30	34.65	1.74	49.00	45.00	.00
*	1.144	740.00	9.86	1432.09	.12	7.48	.02	188.90	63.36	1.07	49.00	45.00	49.00
*	1.144	740.00	9.86	1432.96	.22	7.45	.03	145.97	40.54	1.83	49.00	45.00	.00
*	1.206	300.00	11.00	1435.59	.09	3.50	.00	74.56	66.33	1.30	49.00	45.00	49.00
	1.206	300.00	11.00	1436.50	.25	3.54	.01	90.49	42.58	2.06	49.00	45.00	.00
	1.282	430.00	9.07	1439.57	.12	3.97	.01	127.13	70.33	1.35	49.00	45.00	49.00
	1.282	430.00	9.07	1440.51	.22	4.00	.00	104.20	45.29	2.18	49.00	45.00	.00
	1.377	430.00	10.23	1444.28	.10	4.70	.00	91.22	74.58	1.68	49.00	45.00	49.00
	1.377	430.00	10.23	1445.19	.25	4.67	.01	100.27	48.23	2.43	49.00	45.00	.00
	1.445	400.00	7.50	1447.68	.12	3.39	.01	94.56	78.00	2.05	49.00	42.00	49.00
	1.445	400.00	7.50	1448.81	.28	3.61	.01	94.24	50.44	3.03	49.00	42.00	.00
	1.509	340.00	8.82	1450.77	.15	3.09	.01	93.54	80.73	2.12	49.00	42.00	49.00
	1.509	340.00	8.82	1451.91	.38	3.07	.03	92.30	52.18	3.03	49.00	42.00	.00
	1.555	240.00	7.92	1452.46	.09	1.68	.01	59.95	82.77	1.97	49.00	42.00	49.00
	1.555	240.00	7.92	1453.43	.18	1.50	.02	50.56	53.47	2.84	49.00	42.00	49.00
*	1.591	190.00	11.05	1454.11	.18	1.62	.03	127.96	84.40	1.42	49.00	42.00	49.00
*	1.591	190.00	11.05	1455.11	.49	1.59	.09	157.87	54.55	2.12	49.00	42.00	49.00
	1.630	200.00	8.00	1456.09	.12	1.98	.01	73.21	86.04	1.86	49.00	42.00	49.00
*	1.630	200.00	8.00	1457.27	.32	2.15	.02	74.09	55.56	2.86	49.00	42.00	.00

	SECNO	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	1.672	225.00	7.56	1458.20	.19	2.09	.02	98.24	88.02	2.21	49.00	42.00	49.00
	1.672	225.00	7.56	1459.50	.48	2.17	.05	107.00	56.77	3.22	49.00	42.00	.00
	1.718	240.00	7.50	1461.17	.65	2.78	.14	127.46	89.39	2.87	49.00	42.00	49.00
	1.718	240.00	7.50	1462.15	.77	2.57	.09	96.61	57.75	3.78	49.00	42.00	49.00
*	1.727	50.00	40.00	1463.46	1.29	.60	.26	152.93	89.54	2.57	.00	35.00	.00
*	1.727	50.00	40.00	1463.46	1.29	.60	.26	152.72	57.90	2.57	.00	35.00	.00
*	1.755	147.00	4.08	1464.53	.62	1.06	.00	5.64	90.00	3.70	.00	12.00	.00
*	1.755	147.00	4.08	1464.53	.62	1.06	.00	5.64	58.35	3.70	.00	12.00	.00
*	1.761	34.00	23.53	1464.70	.14	.03	.14	12.51	90.20	3.55	48.00	35.00	48.00
*	1.761	34.00	23.53	1464.70	.14	.03	.14	12.50	58.56	3.55	48.00	35.00	48.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .398  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .398  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .495  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .851  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.005  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.144  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.144  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.206  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.591  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.591  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.630  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.727  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.727  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.727  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     1.727  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.727  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.727  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.755  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.755  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.761  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.761  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

FLOODWAY DATA, WASH NO 7, 100 YEAR PROF
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.254	258.	408.	3.1	1393.3	1392.5	.8
.398	225.	297.	4.2	1398.5	1397.9	.6
.495	212.	346.	3.6	1403.7	1402.8	.9
.650	353.	424.	2.9	1409.4	1408.7	.7
.779	626.	497.	2.5	1414.1	1413.1	1.0
.851	553.	387.	3.2	1417.5	1416.5	1.0
1.005	546.	449.	2.8	1425.3	1424.5	.8
1.144	316.	276.	3.6	1432.8	1432.0	.8
1.206	279.	289.	3.5	1436.3	1435.5	.8
1.282	266.	289.	3.5	1440.3	1439.5	.8
1.377	210.	267.	3.8	1445.0	1444.2	.8
1.445	178.	254.	4.0	1448.6	1447.6	1.0
1.509	100.	207.	4.9	1451.5	1450.6	.9
1.555	157.	298.	3.4	1453.3	1452.4	.9
1.591	117.	187.	5.4	1454.6	1453.9	.7
1.630	124.	235.	4.3	1457.0	1456.0	1.0
1.672	88.	189.	5.3	1459.0	1458.0	1.0
1.718	43.	149.	6.8	1461.4	1460.5	.9
1.727	43.	111.	9.1	1462.2	1462.2	.0
1.755	43.	159.	6.3	1463.9	1463.9	.0
1.761	128.	365.	2.8	1464.6	1464.6	.0

THIS RUN EXECUTED 04SEP91 07:53:34

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.0;  February 1991
************************************


T1      SUN VALLEY PARKWAY NORTH FIS. CONTRACT:FCDMC NO.90-04    FILE:WASH8-2
T2      100-YEAR WATER SURFACE PROFILE                 A-N WEST INC PX.AZ.
T3      WASH NO 8 100 YEAR PROFILE                     DATE:7-25-91

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2                 0    .0069                                1355.8

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     1                -1


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1        2       26       39       21       22       27       28
    53       54        0       38       13       14       15       55       26       56
    63        1       51        4       42       57        0       38       39       33
     3       10       11       12        5        7        8       16       17       18
     0      200

NC    .049     .049     .045       .1       .3
QT       2     1447     1447
ET                      9.1                                                   7289.1    7621.26
        FLOODWAY ANALYSIS USING FIXED ENCROACHMENT OPTION (METHOD 1) AND
        BASED ON PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
        STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
        CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
        ALONG BASELINE FROM CONFLUENCE WITH MCMICKEN DAM 100-YR FLOOD POOL EL.
        CROSS -SECTINS ARE CODED FOR LEFT TO RIGHT LOOKING DOWNSTREAM WITH
        STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
        A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
        SEC. 0.1136 AND 1.6013. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
        ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
```

COURSE TO THE MCMICKEN DAM FLOODPOOL.

X1	0.1136	80	7289.1	7333.3	0	0	0			
GR	1357.1	4620	1356.1	4650	1356.1	4658	1356.9	4670	1357.0	5000
GR	1357.8	5350	1356.0	5800	1355.8	5862.5	1355.8	5883.5	1355.8	5891.0
GR	1355.8	5899.8	1355.8	5910.2	1355.9	5931.0	1356.1	5951.1	1356.1	6004.1
GR	1355.2	6209.5	1356.1	6252.0	1356.2	6284.3	1356.1	6299.4	1355.8	6446.0
GR	1354.5	6716.9	1354.7	6742.7	1354.9	6757.2	1354.5	6769.0	1355.8	6863.6
GR	1355.5	6877.0	1355.3	6888.3	1355.6	6898.6	1355.9	6909.7	1356.0	7001.6
GR	1355.9	7033.9	1355.8	7066.0	1355.6	7180.1	1355.5	7289.1	1354.2	7302.6
GR	1354.3	7309.2	1355.4	7333.3	1355.8	7679.9	1356.0	7691.1	1355.2	7850
GR	1355.2	7870	1355.7	8150	1355.7	8245.7	1355.0	8326.0	1355.2	8338.0
GR	1355.9	8722.9	1355.6	8728.6	1355.6	8735.0	1356.1	8809.1	1356.2	8838.5
GR	1355.6	8980.9	1355.5	8985.3	1355.8	8995.3	1355.7	8999.4	1355.7	9003.4
GR	1356.1	9073.8	1356.1	9101.1	1356.1	9110.5	1356.0	9118.4	1356.1	9124.6
GR	1356.2	9452.6	1356.1	9464.5	1356.1	9478.0	1356.1	9492.9	1356.1	9505.3
GR	1356.0	9698.5	1355.4	9725.9	1356.0	9782.9	1356.0	9789.4	1356.2	9796.8
GR	1356.0	9801.1	1355.9	9804.9	1355.9	9810.2	1355.8	9816.4	1356.2	9978.8
GR	1354.3	10000	1354.3	10010	1356.0	10025	1356	10130	1356.8	10140
ET			9.1						7142.8	7463.8
X1	0.2652	88	7371.7	7463.8	1240	800	1070			
GR	1365.0	4702.7	1364.2	4710.0	1364.4	4715.6	1364.8	4733.3	1364.9	4753.9
GR	1364.1	4920.6	1364.2	4973.8	1364.8	5195.5	1364.2	5293.8	1363.3	5426.4
GR	1363.3	5441.2	1363.0	5558.5	1362.6	5626.7	1362.5	5651.2	1362.6	5663.3
GR	1362.4	5671.2	1362.6	5673.4	1362.7	5687.0	1362.4	5745.2	1362.5	5807.2
GR	1362.4	5914.0	1362.4	5931.2	1362.6	6048.4	1362.4	6064.6	1362.3	6075.9
GR	1363.4	6235.1	1363.4	6267.8	1363.7	6285.0	1363.8	6394.6	[illegible]	[illegible]
GR	1364.2	6516.0	1364.0	6697.3	1364.2	6776.6	1362.8	6975.8	1362.8	6989.8
GR	1362.8	6995.8	1362.8	6999.8	1362.8	7001.6	1362.8	7014.0	1362.8	7025.4
GR	1362.8	7371.7	1362.3	7404.0	1362.3	7415.3	1362.7	7463.8	1362.5	7775.9
GR	1362.4	7804.0	1362.4	7814.8	1362.4	7851.5	1362.4	7856.8	1362.4	7916.9
GR	1363.2	8135.9	1363.4	8164.9	1363.8	8323.5	1363.8	8352.4	1363.2	8380.8
GR	1363.4	8626.3	1363.7	8645.8	1364.0	8652.6	1364.0	8663.6	1364.1	8672.4
GR	1364.0	8880	1363.5	9110.6	1363.5	9215.5	1362.5	9228.8	1362.7	9232.2
GR	1364.0	9363.6	1364.0	9379.7	1364.0	9453.9	1364.1	9573.8	1364.1	9594.4
GR	1364.1	9628.3	1363.9	9675.5	1364.2	9778.2	1364.2	9801.9	1364.6	9850.1
GR	1363.9	9878.3	1364.9	9934.4	1364.2	9966.8	1362.0	9980	1362.1	9990
GR	1364.1	10000	1364.9	10056.4	1364.6	10065.1	1364.6	10070.8	1364.7	10074.4
GR	1364.7	10079.7	1364.2	10086.2	1364.2	10120				
ET			9.1						7183.7	7500.0
X1	0.3620	91	7393.7	7450	625	480	480			
GR	1370.0	4497.9	1368.8	4691.8	1367.9	4962.6	1368.5	5017.9	1367.9	5036.0
GR	1368.1	5073.4	1367.8	5084.2	1367.8	5133.2	1368.3	5169.7	1367.7	5176.6
GR	1368.4	5220.1	1367.8	5234.0	1368.2	5290.2	1368.2	5317.3	1368.0	5332.0
GR	1367.9	5514.9	1368.3	5808.0	1368.0	5848.2	1368.4	5905.3	1368.1	6055.7
GR	1367.1	6071.8	1367.2	6087.0	1368.1	6106.9	1368.2	6186.1	1368.0	6188.3
GR	1368.3	6189.7	1368.0	6190.7	1368.1	6199.1	1367.5	6374.2	1367.5	6389.6
GR	1367.5	6406.4	1368.0	6457.4	1367.9	6494.1	1368.0	6517.5	1367.9	6637.7
GR	1367.5	6749.8	1367.8	6754.2	1367.5	6761.0	1367.9	6830.6	1367.7	6898.6
GR	1367.8	6898.6	1367.9	6983.6	1368.0	7005.8	1368.2	7023.4	1368.3	7080.3
GR	1367.9	7295.8	1367.7	7393.7	1367.0	7415.8	1367.0	7422	1367.5	7450
GR	1367.5	7601.9	1367.5	7828.6	1367.7	7841.7	1367.9	8028.3	1367.9	8038.6
GR	1367.7	8135.3	1368.0	8320	1368.9	8769.7	1368.0	9019.6	1368.0	9032.8

GR	1367.6	9193.5	1367.6	9202.2	1367.9	9351.9	1368.0	9498.6	1368.0	9499.3
GR	1368.0	9500.6	1368.0	9516.9	1368.0	9531.4	1368.0	9622.9	1368.9	9707.1
GR	1368.9	9727.5	1369.5	9738.7	1369.7	9748.5	1369.8	9778.2	1369.3	9834.1
GR	1369.9	9883.0	1379.0	9892.9	1370.1	9908.4	1370.1	9935.7	1370.0	9959.1
GR	1370.0	9964.3	1370	10000	1367.0	10002	1367.0	10010	1369	10025
GR	1369.3	10050	1369.5	10090	1369.5	10110	1370.0	10115	1370.0	10125
GR	1370.0	10140								
ET			9.1						7346.8	7880.6
X1	0.4735	64	7725	7780.6	425	525	420			
GR	1372.5	5000	1372.0	5250	1371.4	5600	1372.0	5750	1371.3	6000
GR	1371.9	6150	1371.2	6300	1372.0	6380	1371.2	6420	1371.3	6450
GR	1371.3	6800	1372.0	6845	1372.0	6970	1371.3	7000	1372.0	7220
GR	1372.0	7480.8	1371.8	7508.0	1372.0	7626.3	1372.0	7725	1371.0	7740
GR	1370.8	7758.9	1372.0	7780.6	1372.2	7792.5	1372.0	7840.0	1371.1	7945.7
GR	1371.1	7965.7	1371.0	7996.0	1371.0	8011.5	1371.1	8045.3	1371.4	8255.9
GR	1372.0	8342.1	1372.0	8354.2	1372.0	8382.1	1372.2	8459.2	1372.0	8492.8
GR	1371.7	8523.6	1371.6	8538.6	1371.6	8549.3	1371.3	8569.3	1371.8	8579.9
GR	1371.8	8590.6	1372.0	8729.6	1372.4	8816.9	1372.4	8894.8	1372.0	9073.9
GR	1371.8	9087.1	1372.0	9095.3	1372.3	9123.6	1372.0	9148.8	1372.0	9170.4
GR	1371.5	9356.0	1371.5	9412.8	1371.4	9536.4	1371.4	9599.6	1371.9	9735.2
GR	1373.0	9962.0	1371.8	9970	1371.8	9985	1373.1	10000	1373.0	10025
GR	1372.8	10030	1373.1	10040	1374.0	10120	1375.8	10270		
ET			9.1						8075	8400
X1	0.6231	83	8357.5	8400	390	430	410			
GR	1376.3	5549.7	1376.0	5650	1375.6	5670	1375.4	5680	1375.9	5688.0
GR	1375.7	5744.2	1375.9	5927.4	1376.0	5999.5	1375.7	6054.0	1375.8	6086.9
GR	1375.8	6111.5	1375.4	6194.8	1375.5	6254.0	1375.8	6336.7	1375.3	6340.7
GR	1376.1	6388.4	1375.8	6415.2	1376.5	6473.8	1376.5	6573.4	1376.0	6787.5
GR	1375.5	6880.8	1374.8	6989.0	1374.5	6994.6	1375.2	7024.6	1376.2	7126.2
GR	1376.0	7162.0	1375.9	7231.5	1375.9	7237.0	1375.4	7312.7	1375.7	7367.5
GR	1375.7	7529.8	1375.7	7602.5	1375.3	7677.9	1375.3	7691.2	1375.9	7785.9
GR	1376.0	7799.1	1376.3	7897.1	1376.3	7988.3	1376.4	8013.1	1376.2	8058.8
GR	1375.9	8114.2	1375.7	8154.2	1375.5	8357.5	1374.0	8360	1374.0	8380
GR	1375.5	8400	1375.9	8489.9	1376.0	8504.5	1375.7	8538.6	1375.7	8588.1
GR	1375.4	8639.7	1375.2	8707.1	1376.0	8795.7	1375.9	8832.8	1375.7	8883.2
GR	1375.9	9023.9	1375.8	9047.1	1375.7	9069.8	1375.6	9081.3	1375.4	9166.8
GR	1375.7	9200.8	1375.7	9504.3	1376.0	9634.6	1376.2	9655.4	1375.9	9691.1
GR	1376.1	9801.4	1375.9	9825.6	1375.9	9914.0	1376.0	9933.7	1376.1	9944.4
GR	1375.9	9950.6	1376.2	9955.6	1375.7	9979.2	1375.4	10002.1	1376.3	10009.8
GR	1377.0	10036.0	1376.1	10052.7	1376.0	10057.5	1376.0	10061.6	1376.7	10164.9
GR	1378.1	10264.9	1378.4	10285.1	1379.4	10332.4				
ET			9.1						8750	9073
X1	0.7727	87	9032.7	9073.4	600	600	600			
GR	1382.1	6250	1380.0	6270	1378.8	6290	1378.8	6300	1380.0	6310
GR	1381.5	6350	1382.0	7258.2	1381.6	7273.4	1381.1	7280.5	1381.5	7285.2
GR	1380.9	7402.7	1381.9	7440.9	1381.0	7487.5	1380.7	7532.9	1381.2	7567.0
GR	1381.8	7693.5	1381.2	7709.6	1381.8	7716.2	1381.2	7810.6	1381.4	7869.2
GR	1380.9	7887.0	1381.9	8032.2	1381.2	8075.4	1381.8	8089.1	1381.8	8479.3
GR	1382.0	8556.8	1381.5	8630.2	1380.7	8655.9	1381.1	8662.6	1380.9	8670.2
GR	1381.4	8680.6	1380.9	8704.2	1381.2	8725.3	1380.9	8742.0	1380.5	8746.4
GR	1381.1	8751.5	1380.5	8779.6	1381.2	8865.2	1380.9	8879.2	1381.8	8917.2

GR	1381.6	8946.7	1382.0	9000.7	1381.9	9011.7	1380.8	9032.7	1378.6	9037.0
GR	1378.8	9045.9	1379.0	9053.3	1379.5	9058.3	1380.0	9073.4	1382.1	9114.1
GR	1382.1	9124.7	1382.2	9131.9	1382.3	9165.2	1382.2	9190.9	1382.2	9254.4
GR	1382.1	9571.5	1382.1	9610.3	1382.7	9652.7	1382.1	9679.1	1381.9	9726.7
GR	1381.5	9744.2	1381.6	9761.4	1381.8	9768.2	1382.0	9860.4	1381.9	9927.3
GR	1379.9	9933.6	1380.0	9941.4	1381.5	9948.3	1381.4	9998.3	1380.4	10000.1
GR	1379.6	10013.3	1379.5	10026.7	1381.0	10067.3	1380.4	10089.8	1380.4	10094.5
GR	1381.9	10099.3	1381.8	10216.6	1380.9	10228.0	1381.3	10232.1	1381.9	10255.4
GR	1382.2	10306.1	1382.4	10317.4	1382.6	10357.6	1382.7	10362.2	1382.8	10379.0
GR	1383.5	10526.8	1384.0	10559.8						
ET			9.1						9245.6	9580.1
X1	0.8930	91	9547.1	9580.1	370	400	370			
GR	1385.7	6685.7	1384.0	6776.0	1383.8	6781.1	1383.8	6790.0	1385.1	6813.3
GR	1385.3	6822.6	1385.0	6892.0	1385.0	6901.7	1385.2	6957.5	1384.8	7006.0
GR	1385.2	7017.3	1385.0	7064.6	1385.3	7108.9	1384.8	7132.1	1385.2	7158.7
GR	1385.0	7167.1	1385.3	7190.0	1384.8	7228.1	1385.3	7320.2	1385.0	7329.8
GR	1385.3	7338.1	1385.6	7368.5	1385.0	7385.4	1386.1	7543.6	1385.7	7573.0
GR	1386.4	7607.2	1385.8	7854.5	1385.6	8009.4	1385.1	8203.6	1384.6	8212.1
GR	1385.0	8229.1	1385.4	8234.2	1385.0	8294.1	1385.0	8399.2	1384.5	8467.0
GR	1385.0	8516.2	1384.7	8538.5	1385.0	8550.0	1385.3	8590.0	1385.3	8706.4
GR	1384.9	8719.9	1385.4	8743.5	1385.6	8840.8	1385.4	8900.5	1385.5	8944.1
GR	1385.3	8990.0	1384.8	9000.1	1384.4	9139.4	1384.4	9212.3	1385.1	9259.7
GR	1385.0	9449.3	1385.4	9529.1	1385.7	9547.1	1383.0	9549.9	1383.0	9564.7
GR	1385.5	9580.1	1385.0	9594.7	1386.2	9686.0	1385.9	9723.1	1386.0	9781.8
GR	1385.4	9808.0	1386.3	9922.7	1385.6	9972.9	1384.6	9977.9	1385.7	9987.2
GR	1386.4	9996.6	1383.2	10000.0	1383.2	10000.1	1383.2	10005.8	1386.1	10019.3
GR	1385.0	10021.5	1385.1	10041.0	1387.0	10043.6	1386.5	10051.3	1386.6	10080.7
GR	1386.2	10091.2	1385.7	10106.0	1385.7	10115.2	1385.5	10119.1	1385.9	10125.5
GR	1386.7	10259.7	1386.1	10312.8	1387.0	10361.0	1386.0	10472.4	1386.0	10512.8
GR	1386.7	10566.9	1386.2	10580.0	1386	10671.5	1385.0	10690.0	1385.0	10710.7
GR	1386.1	10782.5								
ET			9.1						9675.1	9952.9
X1	1.0161	91	9920.9	9952.9	380	450	450			
GR	1390.2	7157.2	1388.0	7205	1388.2	7215	1389.9	7230	1389.8	7329.7
GR	1389.9	7409.3	1389.8	7435.7	1389.8	7443.9	1389.7	7499.0	1389.7	7532.2
GR	1389.7	7601.2	1389.7	7611.5	1389.7	7621.0	1389.7	7681.4	1390.0	7692.0
GR	1389.7	7699.1	1390.0	7707.3	1390	7753.1	1390	7854.2	1389.9	7981.3
GR	1389.9	7992.7	1390	8114.0	1390	8169.3	1389.5	8200	1390.2	8264.1
GR	1390	8301.1	1389.9	8329.2	1390	8368.2	1390.0	8376.8	1390.2	8388.2
GR	1390.0	8402.3	1390	8432.9	1389.9	8457.6	1389.9	8467.6	1389.9	8532.2
GR	1389.5	8541.4	1389.8	8548.8	1389.9	8560.1	1390.0	8617.3	1390	8670.2
GR	1389.9	8803.4	1389.6	8833.1	1389.9	8842.5	1389.5	8880.6	1389.8	8907.4
GR	1390	9013.2	1390	9026.0	1389.8	9187.4	1389.5	9337.2	1389.9	9515.9
GR	1390	9609.7	1389.2	9694.2	1389.6	9704.8	1389.6	9719.4	1389.6	9732.0
GR	1389.9	9748.5	1389.9	9757.6	1390.0	9853.1	1390.4	9862.3	1390.0	9888.5
GR	1390	9895.8	1389.4	9910.5	1388.5	9920.9	1387.7	9927.4	1387.7	9949.9
GR	1389.8	9952.9	1390.3	9962.5	1389.6	9967.1	1389.8	10000.0	1390.1	10083.9
GR	1390.2	10093.3	1390.1	10098.3	1390.9	10169.5	1390.1	10233.6	1390.6	10241.2
GR	1390.2	10250.8	1391.2	10374.1	1390.8	10406.3	1391.2	10430.6	1390.8	10511.4
GR	1390.3	10533.9	1390.0	10547.8	1390.5	10643.4	1390.7	10738.9	1390.3	10751.7
GR	1390.7	10798.8	1390.9	10886.0	1390.0	10960	1389.7	11000	1389.7	11030
GR	1391.7	11230								

ET			9.1						9488.8	10137.5
X1	1.0938	72	10077.3	10137.5	425	330	450			
GR	1394.2	7448.7	1393.8	7518.1	1393.8	7530.7	1393.8	7550.0	1393.9	7681.0
GR	1393.7	7813.9	1393.7	7848.0	1393.6	7857.3	1393.6	7871.2	1393.6	7880.0
GR	1393.6	7901.2	1393.6	7967.2	1394.0	8001.2	1394.1	8090.0	1393.7	8220.3
GR	1393.7	8231.4	1393.7	8264.7	1393.7	8277.4	1393.8	8291.7	1393.7	8433.2
GR	1393.7	8447.1	1394.0	8483.8	1394.0	8555.1	1393.8	8647.2	1393.8	8656.4
GR	1393.8	8712.7	1393.9	8745.2	1393.9	8780.7	1393.9	8841.3	1393.8	8968.7
GR	1394.0	8985.5	1393.9	9014.1	1393.9	9083.0	1393.9	9243.7	1394.0	9445.4
GR	1392.2	9480	1392.2	9510	1394.0	9519.2	1394.5	9559.0	1394.4	9858.0
GR	1394.3	9905.6	1394.2	9978.8	1394.1	9999.4	1394.3	10026.1	1394.0	10077.3
GR	1393.5	10086.5	1393.5	10107.5	1394.1	10137.5	1394.5	10242.8	1394.1	10249.4
GR	1394.2	10254.0	1395.0	10272.2	1394.1	10360.2	1394.4	10389.7	1394.1	10419.8
GR	1394.4	10430.1	1394.2	10507.5	1394.8	10541.8	1394.3	10552.3	1395.2	10579.0
GR	1395.2	10587.4	1394.7	10608.0	1394.9	10690.7	1394.1	10731.0	1394.7	10767.5
GR	1394.1	10821.2	1394.5	10835.6	1394.0	10860.1	1394.2	10883.0	1393.9	10893.6
GR	1395.2	10966.2	1395.8	11002.0						

ET			9.1						9550	10192.9
X1	1.1771	75	10121.2	10192.9	480	520	450			
GR	1401.8	7771.5	1400.6	7903.8	1400.1	7933.0	1400.0	7942.9	1398.7	7952.6
GR	1398.7	7954.7	1400.3	7956.0	1400.3	7963.5	1400.4	7976.2	1400.2	8043.9
GR	1400.2	8074.5	1400.3	8207.6	1400.3	8442.0	1400.1	8477.8	1400.3	8678.0
GR	1400.3	8745.5	1400.3	8909.3	1400.2	8947.7	1400.0	8992.6	1400.0	9009.1
GR	1399.9	9150.8	1399.9	9171.8	1398.9	9197.1	1398.9	9207.4	1399.9	9210.9
GR	1399.7	9229.7	1399.8	9235.8	1399.6	9249.6	1399.5	9315.8	1399.0	9343.5
GR	1399.1	9350.1	1399.1	9355.4	1399.1	9389.9	1399.1	9403.2	1399.1	9422.3
GR	1399.1	9574.0	1399.1	9589.7	1399.1	9617.9	1400.0	9690.9	1400.2	9707.3
GR	1400.0	9744.0	1400.9	9788.7	1398.9	9912.0	1399.2	9935.5	1399.2	9972.8
GR	1399.8	10096.3	1399.2	10113.7	1399.5	10121.2	1398.8	10137.7	1398.8	10152.9
GR	1400.0	10192.9	1400.3	10297.7	1400.0	10304.9	1400.4	10373.1	1400.1	10398.2
GR	1400.5	10485.4	1400.5	10499.9	1400	10551.9	1400	10558.6	1400.3	10586.2
GR	1399.8	10607.3	1400.0	10613.1	1400.0	10622.3	1399.8	10638.9	1399.6	10673.6
GR	1399.6	10680.8	1399.8	10687.7	1400.4	10723.5	1401.8	10772.1	1401.3	10788.3
GR	1400.9	10803.6	1401.2	10843.5	1400.9	10855.2	1400.9	10886.5	1402.6	10950.1

ET			9.1						9645	10015.7
X1	1.2850	61	9965.3	10015.7	540	590	590			
GR	1408.7	8032.7	1408.2	8045.9	1408.2	8056.1	1408.1	8062.3	1408.0	8114.6
GR	1407.9	8210.0	1406.0	8275.4	1405.5	8300.1	1405.5	8320.5	1406.0	8340.6
GR	1406.3	8520.7	1406.4	8550.0	1406.5	8781.0	1406.6	8850.8	1406.5	8897.0
GR	1406.0	9066.1	1406.0	9121.6	1406.0	9132.4	1405.9	9158.8	1405.9	9188.3
GR	1405.8	9335.1	1405.8	9390.9	1405.7	9414.6	1405.7	9418.3	1405.7	9422.6
GR	1405.7	9428.3	1405.4	9431.8	1405.9	9436.5	1405.6	9441.6	1405.6	9444.6
GR	1405.9	9467.0	1406.0	9532.7	1406.1	9574.6	1406.0	9584.5	1406.0	9597.2
GR	1406.0	9787.1	1406.0	9828.8	1406.3	9893.4	1406.3	9902.7	1406.1	9965.3
GR	1405.5	9976.4	1405.5	9984.0	1405.5	10000.1	1405.9	10008.1	1406.1	10015.7
GR	1406.6	10083.8	1406.6	10091.9	1406.4	10106.2	1407.0	10139.3	1406.5	10193.6
GR	1406.9	10208.5	1406.4	10213.3	1406.9	10334.5	1406.2	10398.2	1406.4	10406.1
GR	1406.7	10437.6	1406.7	10452.8	1406.8	10505.4	1406.3	10523.5	1406.3	10551.6
GR	1408	10680								

```
ET                          9.1                                                   9750.9    10000.0
X1   1.3750        62    9874.7    9941.0       520       500       620
GR   1414.6    8278.3    1414.0    8358.5    1413.8    8361.3    1413.6    8378.9    1413.4    8398.6
GR   1412.3    8510.7    1411.9    8552.4    1411.9    8566.4    1411.9    8623.9    1411.9    8632.1
GR   1411.9    8647.4    1411.9    8654.1    1411.9    8671.6    1412.1    8715.7    1412.6    8729.3
GR   1412.6    8796.8    1412.6    8940.1    1412.5    9010.8    1412.5    9026.0    1412.1    9055.2
GR   1412.1    9324.1    1412.3    9335.0    1412.1    9358.0    1412.1    9434.4    1412.1    9488.3
GR   1412.1    9529.2    1412.0    9536.1    1412.3    9556.3    1412.1    9572.8    1412.1    9582.2
GR   1412.0    9733.9    1412.1    9739.6    1412.2    9746.0    1412.1    9787.3    1412.1    9808.5
GR   1412.2    9864.7    1412.2    9874.7    1411.7    9882.8    1411.7    9891.0    1411.8    9921.7
GR   1412.1    9941.0    1412.1    9949.7    1412.8   10085.6    1412.3   10099.1    1412.4   10117.1
GR   1412.7   10169.4    1412.5   10182.1    1412.0   10211.7    1412.4   10265.6    1412.3   10275.6
GR   1412.2   10380.5    1412.2   10389.0    1412.3   10426.4    1412.2   10460.4    1412.6   10472.4
GR   1412.7   10517.8    1412.8   10525.4    1412.8   10533.4    1412.9   10540.1    1413.6   10560.8
GR   1413.9   10598.3    1414.0   10625.0

QT        2       1271       1271
ET                 7.1        9.1                                   8981.4   10284.1   10027.9   10248.2
        DECREASE DISCHARGE.
        ET CARDS APPLIED AT SECS. 1.4953 TO 2.112 TO BLOCK INEFFECTIVE FLOW
        SEPARATED BY RIDGE ON LEFT SIDE (LOOKING DOWNSTREAM).
X1   1.4953        65   10216.4   10248.2       640       625       690
GR   1420.0    8423.2    1418.4    8479.3    1418.6    8488.7    1418.3    8504.0    1418.1    8512.9
GR   1418.6    8564.6    1419.9    8602.3    1420.2    8619.0    1420.0    8665.4    1419.8    8682.0
GR   1419.9    8690.4    1420.0    8705.8    1420.0    8718.4    1420.3    8729.7    1420.2    8750.1
GR   1419.5    8846.2    1419.3    8872.0    1420.4    8981.4    1420.2    8992.1    1419.0    9049.0
GR   1419.0    9059.8    1419.0    9090.1    1419.0    9096.5    1419.0    9119.6    1419.0    9125.0
GR   1420.1    9213.9    1420.0    9222.4    1419.8    9230.2    1420.3    9259.6    1420.0    9331.1
GR   1420.0    9372.4    1420.0    9397.4    1419.8    9399.7    1419.8    9404.1    1419.7    9407.7
GR   1419.6    9467.1    1419.6    9486.3    1419.9    9525.9    1419.9    9535.6    1420.0    9559.7
GR   1419.7    9740.1    1419.0    9782.9    1420.1    9797.2    1420.0    9864.7    1420.2    9888.3
GR   1419.9    9976.7    1420.3   10000.1    1420.3   10021.9    1420.1   10031.5    1419.9   10060.7
GR   1419.9   10067.6    1419.9   10075.8    1419.7   10092.6    1419.7   10117.5    1419.7   10128.2
GR   1418.7   10138.2    1419.7   10152.8    1419.4   10181.0    1419.6   10200.3    1419.1   10206.5
GR   1418.5   10216.4    1418.1   10226.9    1418.0   10236.2    1419.7   10248.2    1420.3   10284.1

NC     .049       .049       .042
QT        2       1096       1096
ET                 7.1        9.1                                   9436.1   10180.4      9910      10000
        DECREASE DISCHARGE.
X1   1.6013        72    9918.9    9990.7       580       600       600
GR   1426.2    8558.0    1426.1    8568.7    1426.0    8577.9    1425.8    8600.8    1425.5    8612.1
GR   1425.4    8620.3    1425.4    8630.0    1425.2    8641.7    1425.5    8648.1    1426.0    8672.1
GR   1426.3    8702.3    1426.2    8714.7    1426.0    8749.2    1425.8    8768.4    1426.0    8779.6
GR   1425.9    8790.4    1426.0    8801.1    1426.1    8828.8    1426.1    8850.7    1426.1    8876.9
GR   1425.9    8888.2    1425.8    8899.3    1425.7    8910.5    1425.8    8919.6    1426.0    8931.1
GR   1424.9    9040.6    1424.4    9065.9    1424.2    9083.5    1423.9    9103.9    1423.9    9140.1
GR   1424.2    9151.9    1424.3    9171.4    1424.5    9181.6    1424.4    9201.5    1424.3    9211.4
GR   1424.5    9293.6    1424.5    9305.2    1424.6    9334.3    1424.7    9342.5    1425.9    9388.7
GR   1425.8    9402.4    1426.1    9428.1    1426.7    9436.1    1426.0    9469.4    1425.5    9537.0
GR   1425.5    9549.5    1425.5    9553.7    1426.1    9565.7    1426.1    9578.8    1426.0    9590.4
GR   1426.1    9756.0    1425.9    9788.4    1425.9    9804.9    1425.9    9811.1    1426.1    9818.1
GR   1426.1    9825.9    1426.1    9838.3    1426.2    9860.8    1425.8    9905.3    1425.7    9918.9
```

GR	1425.3	9942.8	1425.3	9951.3	1425.3	9958.1	1424.2	9965.3	1425.2	9975.6
GR	1425.9	9990.7	1425.9	9997.5	1425.9	10000.0	1425.9	10000.1	[illegible]	[illegible]
GR	1426.3	10080.1	1428.0	10180.4						
ET		7.1	9.1				9369.3	10040.0	9874.1	10000.5
X1	1.6676	66	9945.7	10000.5	480	340	390			
GR	1434.0	8771.1	1432.4	8847.7	1431.5	8872.1	1430.9	8888.8	1430.7	8918.8
GR	1430.7	8923.7	1430.6	8927.8	1430.6	8933.1	1430.6	8944.4	1430.6	8955.3
GR	1432.1	8975.2	1431.9	9067.8	1430.6	9081.2	1430.7	9092.5	1431.0	9107.7
GR	1430.7	9117.2	1431.5	9134.3	1431.9	9142.6	1431.9	9152.0	1432.0	9160.1
GR	1432.3	9203.1	1431.2	9233.0	1432.0	9239.9	1432.0	9245.1	1433.0	9250.4
GR	1432.0	9261.9	1431.9	9273.7	1431.3	9306.2	1432.0	9316.7	[illegible]	9369.3
GR	1432.2	9389.1	1432.5	9446.1	1432.2	9488.7	1431.9	9497.8	1431.8	9503.1
GR	1432.2	9516.5	1432.0	9615.4	1431.8	9626.8	1431.8	9630.1	1431.8	9635.5
GR	1432.0	9654.3	1432.0	9702.3	1431.0	9773.3	1431.0	9779.1	1431.0	9779.1
GR	1431.1	9782.9	1431.3	9790.2	1431.7	9796.5	1431.9	9805.4	1431.6	9815.0
GR	1431.6	9819.5	1432.1	9838.9	1432.2	9858.5	1432.6	9865.0	1432.0	9873.0
GR	1431.9	9879.4	1431.9	9887.5	1432.2	9893.1	1432.1	9900.1	1432.2	9907.0
GR	1432.0	9945.7	1431.0	9980.4	1431.0	10000.0	1431.9	10000.5	1432.2	10029.0
GR	1433.2	10040.0								
ET		7.1	9.1				9532.6	10142.1	9800	9940
X1	1.7301	75	9912.3	9937.3	300	350	320			
GR	1437.3	8700.0	1436.0	8758.7	1436.0	8780.6	1435.0	8791.6	1434.3	8814.7
GR	1434.2	8819.7	1434.2	8825.8	1435.1	8837.3	1436.0	8847.3	1436.1	8859.8
GR	1436.1	8985	1434.6	9017.6	1434.6	9026.2	1436.0	9036.7	1436.1	9049.4
GR	1436.0	9155.4	1434.9	9186.2	1434.9	9192.3	1434.9	9195.9	1435.1	9196.2
GR	1436.0	9212.2	1436.6	9309.7	1435.2	9329.3	1435.3	9337.0	1436.0	9346.6
GR	1436.1	9351.1	1436.0	9358.0	1436.1	9366.7	1436.1	9374.2	1436.0	9384.6
GR	1436.0	9497.8	1436.5	9532.6	1435.9	9542.1	1435.8	9582.4	1435.5	9593.7
GR	1435.9	9605.6	1435.6	9610.0	1435.8	9615.5	1436.0	9619.2	1436.0	9627.9
GR	1435.9	9676.7	1435.9	9745.9	1434.4	9765.9	1434.2	9781.2	1434.2	9786.9
GR	1434.4	9795.8	1435.6	9841.6	1435.6	9865.2	1436.0	9887.3	1436.0	9896.0
GR	1435.6	9907.7	1435.6	9912.3	1435.4	9921.6	1435.3	9931.3	1435.8	9937.3
GR	1435.9	9946.6	1436.1	9985.8	1435.6	9993.1	[illegible]	[illegible]	1436.2	10003.7
GR	1436.0	10006.5	1436.0	10014.0	1435.7	10022.9	1435.7	10033.0	1435.7	10041.0
GR	1435.7	10047.6	1435.7	10058.3	1436.0	10067.6	1436.1	10079.3	1436.1	10092.7
GR	1437.0	10105.0	1437.7	10116.8	1438.0	10126.6	1438.4	10135.9	1438.5	10142.1
ET		7.1	9.1				9892.5	10215.6	9864.3	9988.5
X1	1.8078	64	9962.1	9988.5	350	415	410			
GR	1440.2	8901.3	1440.3	8910.7	1440.6	8959.2	1442.0	8973.0	1442.0	8983.0
GR	1442.1	8992.7	1442.0	9004.0	1441.7	9012.2	1441.7	9024.3	1441.0	9032.1
GR	1440.5	9145.4	1441.0	9157.5	1441.5	9192.7	1440.5	9220.8	1440.4	9232.0
GR	1440.7	9239.4	1439.9	9247.0	1439.7	9258.7	1439.9	9264.2	1440.2	9276.3
GR	1440.6	9288.0	1440.0	9321.9	1439.9	9331.3	1439.9	9335.7	1440.1	9343.4
GR	1442.0	9455.3	1442.0	9576.0	1442.2	9592.5	1441.2	9629.9	1441.2	9647.3
GR	1441.2	9653.2	1441.2	9660.7	1441.3	9678.6	1441.9	9706.7	1442.0	9726.0
GR	1441.6	9831.4	1441.4	9861.6	1441.6	9869.3	1441.5	9906.2	1441.7	9914.1
GR	1440.7	9940.6	1440.7	9952.4	1440.9	9962.1	1440.5	9968.4	1440.3	9974.6
GR	1440.4	9980.7	1440.7	9988.5	1440.6	9998.6	1440.3	10006.4	1440.6	10016.6
GR	1440.9	10025.9	1440.5	10035.8	1440.9	10056.9	1441.5	10066.3	1441.5	10078.7
GR	1441.2	10094.2	1440.5	10102.0	1440.6	10135.2	1440.8	10145.3	1441.9	10155.5
GR	1442.0	10165.8	1443.0	10198.0	1442.9	10206.2	1443.9	10215.6		

ET		7.1	9.1				9478.7	10090.2	9972	10032.3
X1	1.8598	65	9997.5	10032.3	260	320	275			
GR	1446.0	8975.6	1445.9	8988.0	1445.8	8999.5	1445.6	9005.7	1445.8	9020.8
GR	1445.4	9072.4	1445.2	9081.9	1444.8	9091.6	1444.5	9103.0	1443.9	9118.1
GR	1443.9	9127.3	1443.9	9132.2	1444.0	9137.4	1444.1	9146.9	1444.6	9157.4
GR	1445.9	9169.8	1446.1	9179.9	1446.1	9190.6	1446.1	9201.1	1446.1	9213.5
GR	1446.9	9223.8	1446.5	9232.0	1446.1	9239.3	1445.9	9250.6	1445.0	9262.8
GR	1445.6	9371.3	1444.8	9379.8	1444.8	9383.3	1445.9	9390.1	1445.7	9402.5
GR	1446.4	9478.7	1446.3	9672.8	1446.3	9683.6	1445.8	9694.6	1445.7	9700.0
GR	1445.8	9752.4	1446.0	9764.4	1446.0	9773.5	1445.9	9792.9	1446.0	9802.6
GR	1446.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1445.6	9899.8	[illegible]	[illegible]
GR	1445.0	9921.4	1444.9	9929.3	1444.5	9939.8	1444.1	9948.0	1444.0	9954.5
GR	1444.1	9958.8	1444.6	9965.2	1444.8	9974.0	1445.0	9981.7	1444.6	9990.3
GR	1444.7	9997.5	1443.9	10000.0	1443.9	10000.1	1443.9	10008.8	1443.9	10018.1
GR	1443.9	10024.2	1444.3	10032.3	1445.0	10041.1	1446.0	10052.7	1446.2	10090.2

ET		7.1	9.1				9760.4	10235	9864.7	9965.6
X1	1.9167	58	9938.5	9964.8	230	320	310			
GR	1450.0	9444.0	1450.0	9457.7	1450.2	9469.1	1450.3	9477.2	1450.2	9487.2
GR	1450.1	9497.9	1450.0	9508.1	1449.3	9515.6	1449.5	9531.1	[illegible]	9540.2
GR	1449.5	9544.7	1449.5	9551.5	1449.5	9560.0	1449.9	9571.8	1450.2	9584.6
GR	1450.9	9746.3	1450.4	9752.0	1450.9	9760.4	1450.8	9773.7	1450.7	9785.3
GR	1449.9	9862.3	1449.9	9885.6	1449.6	9899.5	1449.6	9917.0	1449.9	9922.9
GR	1449.7	9932.3	1449.9	9938.5	1448.9	9944.2	1448.9	9959.0	1449.5	9964.8
GR	1449.8	9971.7	1450.0	9978.5	1448.8	9983.9	1449.5	9988.1	1450.0	9992.9
GR	1449.3	10000.0	1449.3	10000.1	1449.4	10006.2	1449.7	10006.9	1450.5	10011.1
GR	1450.1	10046.5	1449.9	10054.2	1449.9	10060.0	1450.3	10065.6	1450.1	10071.6
GR	1449.9	10113.5	1448.8	10122.0	1448.9	10129.8	1449.7	10136.1	1449.8	10141.6
GR	1449.3	10147.3	1448.9	10154.6	1448.9	10158.9	1449.6	10163.6	1449.7	10172.2
GR	1449.8	10181.8	1450.3	10188.4	1452.4	10235				

ET		7.1	9.1				9973.5	10266.5	9985.3	10082.8
X1	1.9754	67	9985.3	10082.8	270	330	300			
GR	1454.1	9543.4	1454.4	9551.0	1454.6	9562.6	1454.8	9570.8	1454.5	9580.1
GR	1454.4	9589.0	1454.7	9598.2	1454.6	9604.9	1454.0	9612.3	1454.1	9620.1
GR	1454.3	9671.2	1454.1	9679.6	1454.1	9689.9	1454.2	9700.5	1454.5	9710.0
GR	1455.5	9719.1	1455.9	9728.3	1456.1	9740.5	1456.2	9754.1	1456.2	9770.3
GR	1456.2	9796.1	1456.2	9811.5	1456.3	9826.0	1456.2	9839.6	1455.9	9854.7
GR	1455.9	9862.5	1455.9	9870.4	1455.9	9877.5	1455.7	9886.0	1455.5	9897.1
GR	1455.5	9909.6	1455.9	9915.1	1455.9	9923.1	1455.8	9935.6	1455.9	9964.9
GR	1456.1	9973.5	1454.9	9985.3	1454.1	9996.4	1454.1	10000.0	1454.1	10000.1
GR	1454.1	10005.9	1454.1	10022.3	1454.2	10031.7	1454.1	10045.3	1454.1	10059.8
GR	1454.1	10070.1	1454.1	10076.5	1454.5	10082.8	1454.6	10094.8	1454.9	10101.8
GR	1454.4	10114.6	1454.5	10121.6	1454.5	10128.7	1454.2	10136.2	1454.4	10144.4
GR	1454.3	10149.1	1454.1	10158.2	1455.0	10167.0	1455.3	10177.7	1456.0	10189.0
GR	1456.3	10201.0	1456.4	10212.2	1457.0	10223.1	1457.4	10232.8	1457.8	10242.1
GR	1458.0	10249.5	1458.5	10266.5						

```
ET              7.1       9.1                                   9922.6    10234.0    9955.8    10035.5
X1   2.027       51    9955.8    9986.8       220       230       270
GR  1458.3    9820.5  1458.7    9829.9    1458.6    9836.9    1458.8    9844.6    1458.8    9852.7
GR  1458.6    9862.4  1458.7    9868.6    1458.8    9876.6    1459.0    9888.5    1459.3    9898.0
GR  1460.0    9906.4  1460.1    9915.4    1460.1    9922.6    1459.9    9931.0    1459.9    9936.9
GR  1458.7    9946.1  1458.1    9955.8    1457.2    9960.1    1457.0    9973.5    1457.5    9979.7
GR  1458.0    9986.8  1458.3    9997.8    1458.3   10000.0    1458.3   10000.1    1458.3   10010.4
GR  1458.4   10012.9  1458.5   10018.3    1458.0   10025.3    1458.3   10031.2    1458.2   10037.3
GR  1458.3   10042.4  1458.4   10049.5    1458.3   10055.8    1458.5   10061.4    1458.1   10066.5
GR  1457.9   10072.4  1457.0   10080.2    1457.1   10086.8    1457.5   10094.1    1457.1   10098.6
GR  1456.2   10105.9  1456.1   10112.2    1457.9   10118.9    1459.6   10126.1    1460.1   10134.3
GR  1460.0   10144.3  1460.2   10152.8    1460.2   10162.2    1460.2   10170.3    1460.3   10180.4
GR  1462.0   10234.0

DT       2       982       982
ET              7.1       9.1                                   9942.2    10153.5   10020.6   10066.5
        DECREASE DISCHARGE FOR FLOW FROM CULVERT  STRUC. NOS. 50 AND 51.
X1  2.0720        66   10020.6   10066.5       220       200       230
GR  1462.2    9731.8  1462.1    9750.7    1462.1    9761.4    1461.8    9769.9    1461.2    9778.1
GR  1460.8    9785.3  1461.0    9795.8    1461.0    9808.9    1461.5    9820.2    1461.3    9829.1
GR  1461.0    9839.3  1460.9    9853.4    1461.2    9867.0    1461.3    9875.7    1461.0    9882.0
GR  1461.7    9890.1  1462.0    9900.3    1462.1    9911.3    1462.6    9922.7    1462.5    9933.0
GR  1462.8    9942.2  1462.3    9950.8    1462.0    9960.5    1461.4    9967.6    1461.8    9973.8
GR  1461.8   10012.4  1461.1   10020.6    1460.3   10025.9    1460.3   10031.9    1460.2   10037.4
GR  1460.5   10043.6  1460.2   10049.2    1460.6   10053.0    1460.8   10058.4    1461.9   10066.5
GR  1462.0   10076.6  1462.3   10085.2    1462.1   10093.0    1461.9   10101.1    1461.7   10109.5
GR  1462.0   10117.9  1462.1   10124.3    1462.2   10134.2    1462.5   10145.7    1463.2   10153.5
GR  1463.2   10161.2  1463.0   10171.9    1463.2   10182.5    1463.2   10192.8    1463.0   10204.4
GR  1462.8   10216.6  1462.6   10231.6    1462.2   10241.0    1461.5   10253.2    1460.6   10262.3
GR  1459.9   10271.9  1459.9   10277.5    1459.9   10288.4    1461.5   10297.2    1462.2   10306.6
GR  1463.0   10316.6  1463.6   10326.1    1464.5   10335.6    1464.9   10343.4    1465.1   10351.6
GR  1465.1   10351.7

ET              7.1       9.1                                   9975.5    10200.3   9996.5    10120.0
X1  2.112        49    9996.5   10010.1       210       205       215
GR  1466.5    9830.9  1466.3    9845.5    1466.4    9850.5    1466.4    9855.8    1466.3    9868.6
GR  1466.1    9880.3  1465.9    9890.5    1465.2    9904.0    1465.8    9912.6    1465.7    9925.6
GR  1465.8    9930.5  1465.9    9934.5    1465.9    9940.4    1465.9    9946.1    1466.0    9955.8
GR  1466.1    9965.0  1466.3    9975.5    1466.1    9982.1    1465.5    9989.2    1464.5    9996.5
GR  1463.9   10000.0  1463.9   10000.1    1463.9   10004.1    1464.6   10010.1    1465.0   10016.4
GR  1466.6   10021.8  1466.7   10028.3    1466.6   10034.8    1466.2   10043.2    1465.9   10052.1
GR  1465.9   10058.6  1465.7   10066.7    1465.6   10076.1    1465.2   10083.0    1464.4   10091.6
GR  1463.7   10097.3  1463.8   10104.3    1464.8   10114.4    1465.4   10121.7    1465.3   10128.1
GR  1465.1   10133.7  1464.9   10140.5    1465.0   10146.6    1465.7   10153.5    1466.8   10166.9
GR  1467.3   10175.9  1467.8   10184.4    1468.1   10193.1    1468.2   10200.3

DT       2       891       891
ET              7.1       9.1                                   9958      10042     10004     10034.4
```

```
        DECREASE DISCHARGE FOR FLOW FROM STRUC. NO. 50.
        ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 3:1
        FLARE ANGLE DOWNSTREAM OF STRUC. #50.
X1   2.1572        28   10004.0   10034.4       250       225       240
GR   1470.7    9932.0    1470.5    9940.2    1470.7    9946.5    1470.6    9952.2    1471.0    9958.8
GR   1470.3    9965.7    1469.5    9974.8    1469.9    9978.2    1469.7    9982.9    1469.7    9986.2
GR   1469.0    9991.6    1469.4    9997.2    1468.8   10000.0    1468.8   10000.1    1468.4   10004.0
GR   1468.2   10011.3    1467.9   10017.2    1468.0   10024.3    1468.3   10034.4    1469.1   10046.1
GR   1470.1   10056.1    1470.4   10065.4    1470.9   10074.4    1470.7   10084.5    1470.8   10090.5
GR   1472.0   10113.5    1472.7   10127.5    1472.9   10134.3

NC    .035      .035      .035        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (3- 10' X 3' RCBS.,  STRUC. NO. 50).
X1   2.172         4      9984     10016        80        80        80
X3      10
GR   1474.1      9984    1470.6      9984    1470.6     10016    1474.1     10016

NC    .012      .012      .012
QT       2      1107      1107
SC   3.012        .2       2.9         0         3        10       169      12.3    1471.3    1470.6
        END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
        INCREASE DISCHARGE AT THIS SECTION OF WHICH 891 CFS FLOWS THROUGH
        STRUCT. #50 AND 217 CFS FLOWS ON TO STRUCS. NO. 51 AND 52
X1   2.204         4      9984     10016       169       169       169
X2                            2    1474.3    1474.0
X3      10
BT      11      9900    1478.6                10000    1477.6               10009.9   1477.65
BT   10010   1477.13               10050.1   1476.33               10058.1   1475.93               10068.1
BT   1475.0              10073.1    1475.0               10083.1    1477.5              10093.1      1478
BT           10135.1    1479.0
GR   1477.5      9984    1471.3      9984    1471.3     10016    1477.5     10016

NC    .035      .035      .035
ET               7.1       9.1                                     9980     10042      9980     10042
        ET CARD USED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1 FLARE ANGLE UPSTREAM
        OF CULVERT.
X1   2.216        11      9915     10023        35        38        38
GR    1478      9840      1477      9855      1476      9875      1475      9918      1474      9962
GR    1473      9970      1472      9988      1472     10015      1473     10023      1477     10046
GR    1478     10060

NC    .049      .049      .042        .1        .3
QT       2       982       982
ET               7.1       9.1                                    9975.5   10200.3    9996.5   10120.0
        REPEAT SECTION TO BEGIN TRIB. ANALYSIS FOR TRIBUTARY "A" TO STRUC.#51.
        ADD 10 TO ALL SECTION NOS. TO IDENTFY TRIB."A"
X1  -2.112        49    9996.5   10010.1       210       205       215
GR   1466.5    9830.9    1466.3    9845.5    1466.4    9850.5    1466.4    9855.8    1466.3    9868.6
GR   1466.1    9880.3    1465.9    9890.5    1465.2    9904.0    1465.8    9912.6    1465.7    9923.6
GR   1465.8    9930.5    1465.9    9934.5    1465.9    9940.4    1465.9    9946.1    1466.0    9955.8
GR   1466.1    9965.0    1466.3    9975.5    1466.1    9982.1    1465.3    9988.2    1464.5    9996.5
GR   1463.9   10000.0    1463.9   10000.1    1463.9   10004.1    1464.6   10010.1    1465.0   10016.4
GR   1466.6   10021.8    1466.7   10028.3    1466.6   10034.8    1466.2   10043.2    1465.9   10052.1
GR   1465.9   10058.6    1465.7   10066.7    1465.6   10076.1    1465.2   10083.0    1464.4   10091.6
```

```
GR   1463.7    10097.3    1463.8    10104.3    1464.8    10114.4    1465.4    10121.7    1465.3    10128.1
GR   1465.1    10133.7    1464.9    10140.5    1465.0    10146.6    1465.7    10153.5    1466.8    10166.9
GR   1467.3    10175.9    1467.8    10184.4    1468.1    10193.1    1468.2    10200.3

NC    .049      .049      .042        .3         .5
QT      2        91        91
        DECREASE DISCHARGE TO 91 CFS FOR FLOW THROUGH STRUC. #51.
        BEGIN SUN VALLEY PARKWAY CULVERTS (2-42" X 29" CSPAS. STRUC. NO.51).
X1   12.152        4    9996.5    10003.5      215       180       215
X3      10
GR   1472.4    9996.5    1467.6    9996.5    1467.6    10003.5    1472.4    10003.5

NC    .024      .024      .024
QT      2       217       217
SB    1.25      5.84       2.9         0       7.0       1.7      12.8         0    1470.8    1467.6
        END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
        INCREASE DISCHARGE AT THIS SEC.TO 217 CFS OF WHICH 91 CFS FLOWS TO
        STRUC. 51, 128CFS FLOWS TO STRUC. 52.
X1   12.181        0         0         0       155       155       155                3.2
X2                            1   1473.22    1473.7
X3      10
BT      10    10000   1475.83              10058.9   1475.31              10059   1474.81
BT   10098   1474.0               10106    1473.7               10116    1473.7               10121
BT   1473.8              10153   1474.0               10163    1475.0               10182    1475.5
BT       0

NC    .016      .049      .035
ET                        9.1                                                    9970.5    10076
X1   12.189       10      9991     10006        40        40        40
GR   1476.7     9943    1476.1      9943   1475.26      9983   1474.86      9991    1474.1      9997
GR   1474.1    10002    1474.9     10006    1474.8     10040      1475    10085    1476.9    10085

NC   0.016      .049      .035        .1        .3
ET                        9.1                                                    9969.4   10009.7
X1   12.197        8      9993     10010        43        43        43
GR   1477.0     9945    1476.5      9945   1475.68      9985   1475.28      9993   1474.39      9997
GR   1474.4    10002    1476.5     10010     1477     10050

ET                        9.1                                                    9947.3   10008.5
        UPSTREAM END TRIB."A"  ANALYSIS
X1   12.209        8      9988     10010        65        65        65
GR   1477.6     9940   1477.13      9940   1476.33      9980   1475.93      9988      1475      9998
GR     1475    10003    1477.5     10013     1478     10023

NC    .049      .049      .042        .1        .3
QT      2      1096      1096
ET                7.1       9.1                                   9922.6   10234.0    9955.8   10055.5
        REPEAT SEC. FOR START OF TRIB. "B" ANALYSIS. ADD 20 TO ALL SEC. NOS.
        TO IDENTIFY TRIB. "B".
X1  -2.027       51    9955.8    9986.8       220       230       270
GR   1458.3   9820.5    1458.7    9829.9    1458.6    9836.9    1458.8    9844.6    1458.8    9852.7
GR   1458.6   9862.4    1458.7    9868.6    1458.8    9876.6    1459.0    9888.5    1459.3    9898.0
GR   1460.0   9906.4    1460.1    9915.4    1460.1    9922.6    1459.9    9931.0    1459.9    9936.9
GR   1458.7   9946.1    1458.1    9955.8    1457.2    9960.1    1457.0    9973.5    1457.5    9979.7
```

```
GR   1458.0    9986.8    1458.3    9997.8    1458.3   10000.0    1458.3   10000.1    1458.3   10010.4
GR   1458.4   10012.9    1458.5   10018.3    1458.0   10025.3    1458.3   10031.2    1458.2   10037.3
GR   1458.3   10042.4    1458.4   10049.5    1458.3   10055.8    1458.5   10061.4    1458.1   10066.5
GR   1457.9   10072.4    1457.0   10080.2    1457.1   10086.8    1457.5   10094.1    1457.1   10098.6
GR   1456.2   10105.9    1456.1   10112.2    1457.9   10118.9    1459.6   10126.1    1460.1   10134.3
GR   1460.0   10144.3    1460.2   10152.8    1460.2   10162.2    1460.2   10170.3    1460.3   10180.4
GR   1462.0   10234.0

QT       2       117       117
ET               7.1       9.1                                  10153.5    10351.7    10252.5    10297.7
        DECREASE DISCHARGE TO 117 CFS FLOW THROUGH STRUC. 52.
X1  22.080        66   10262.3   10297.2       200       200       200
GR   1462.2    9731.8    1462.1    9750.7    1462.1    9761.4    1461.8    9769.9    1461.2    9778.1
GR   1460.8    9785.3    1461.0    9795.8    1461.0    9808.9    1461.5    9820.2    1461.3    9829.1
GR   1461.0    9839.3    1460.9    9853.4    1461.2    9867.0    1461.3    9875.7    1461.0    9882.0
GR   1461.7    9890.1    1462.0    9900.3    1462.1    9911.3    1462.6    9922.7    1462.5    9933.0
GR   1462.6    9942.2    1462.3    9950.8    1462.0    9960.5    1461.4    9967.6    1461.8    9973.8
GR   1461.8   10012.4    1461.1   10020.6    1460.3   10025.9    1460.3   10031.9    1460.2   10037.4
GR   1460.5   10043.6    1460.2   10049.2    1460.6   10053.0    1460.8   10058.4    1461.9   10066.5
GR   1462.0   10076.6    1462.3   10085.2    1462.1   10093.0    1461.9   10101.1    1461.7   10109.5
GR   1462.0   10117.9    1462.1   10124.3    1462.2   10134.2    1462.5   10145.7    1463.2   10153.5
GR   1463.2   10161.2    1463.0   10171.9    1463.2   10182.5    1463.2   10192.8    1463.0   10204.4
GR   1462.8   10216.6    1462.6   10231.6    1462.2   10241.0    1461.5   10253.2    1460.6   10262.3
GR   1459.9   10271.9    1459.9   10277.5    1459.9   10288.4    1461.5   10297.2    1462.2   10306.6
GR   1463.0   10316.6    1463.6   10326.1    1464.5   10335.6    1464.9   10343.4    1465.1   10351.6
GR   1465.1   10351.7

NC    .049      .049      .042        .3        .5
        BEGIN SUN VALLEY PARKWAY CULVERTS (2-49" X 33" CSPAS. STRUC. NO 52)
X1  22.097         4   9995.75  10004.25        90        90        90
X3      10
GR   1465.7   9995.75    1461.9   9995.75    1461.9  10004.25    1465.7  10004.25

NC    .024      .024      .024
SB    1.25      5.36       2.9         0       8.5      2.17      17.4         0      1465    1461.9
        END CULVERTS.  NO WEIR FLOW OVER ROAD EXPECTED.
X1  22.129         0         0         0       169       169       169                 3.1
X2                           1   1467.75    1468.8
X3      10
BT       9     10000   1472.09              10077.9    1471.4                10078    1470.8
BT   10118    1470.0               10126    1469.6                10130    1468.8                10135
BT   1468.8               10147    1471.7                10163      1472

QT       2       128       128
NC    .016      .049      .035
ET                          9.1                                                     9977.6   10009.3
        INCREASE DISCHARGE TO 128CFS WHICH SPLITS ALONG RD. FROM STRUC.51.
        THIS FLOW IS ATTENUATED FROM 128CFS TO 117CFS AS IT IS ROUTED THROUGH
        STRUC. 52.
X1  22.140         8      9991     10010        55        55        55
GR   1473.0      9943    1472.5      9943   1471.71      9983   1471.31      9991    1470.0      9997
GR   1470.0     10002      1472     10010      1473     10040
```

ET			9.1						9960.4	10043.7
X1	22.182	8	9992	10002	227	227	227			
GR	1475.3	9944	1474.8	9944	1474.0	9984	1473.7	9992	1473.7	10002
GR	1473.8	10007	1474.0	10039	1475.0	10049				

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
*SECNO .114

3265 DIVIDED FLOW

FLOODWAY ANALYSIS USING FIXED ENCROACHMENT OPTION (METHOD 1) AND
BASED ON PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
ALONG BASELINE FROM CONFLUENCE WITH MCMICKEN DAM 100-YR FLOOD POOL EL.
CROSS -SECTINS ARE CODED FOR LEFT TO RIGHT LOOKING DOWNSTREAM WITH
STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
SEC. 0.1136 AND 1.6013. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
COURSE TO THE MCMICKEN DAM FLOODPOOL.

.114	1.61	1355.81	.00	1355.80	1355.86	.05	.00	.00	1355.50
1447.0	736.9	131.9	578.2	407.1	46.5	456.5	.0	.0	1355.40
.00	1.81	2.83	1.28	.049	.045	.049	.000	1354.20	5858.38
.006897	0.	0.	0.	0	0	5	.00	2495.92	10023.35

*SECNO .265

3265 DIVIDED FLOW

.265	1.10	1363.10	.00	.00	1363.14	.04	7.28	.00	1362.80
1447.0	750.5	112.0	584.4	479.8	56.4	352.7	21.3	51.5	1362.70
.18	1.56	1.99	1.66	.049	.045	.049	.000	1362.00	5517.51
.006977	1240.	1070.	800.	5	0	0	.00	1940.97	9995.02

*SECNO .362

3265 DIVIDED FLOW

.362	1.05	1368.05	.00	.00	1368.11	.06	4.97	.00	1367.70
1447.0	475.9	141.8	829.3	325.9	44.7	435.4	32.1	84.3	1367.50
.26	1.46	3.18	1.82	.049	.045	.049	.000	1367.00	4916.03
.012597	625.	480.	480.	5	0	0	.00	3183.27	10017.91

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .474

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

.474	1.08	1371.88	.00	.00	1371.91	.03	3.80	.00	1372.00
1447.0	717.2	66.8	662.9	591.1	35.3	464.7	42.5	117.2	1372.00
.36	1.21	1.89	1.43	.049	.045	.049	.000	1370.80	5515.30
.005507	425.	420.	525.	6	0	0	.00	2924.54	9986.02

*SECNO .623

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.623	1.85	1375.85	1375.85	.00	1375.98	.13	3.45	.03	1375.50
1447.0	805.7	315.1	326.2	418.4	61.7	211.0	50.8	143.3	1375.50
.40	1.93	5.11	1.55	.049	.045	.049	.000	1374.00	5657.59
.014788	390.	410.	430.	4	14	0	.00	2688.35	10005.93

*SECNO .773

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.53

.773	2.79	1381.39	.00	.00	1381.52	.13	5.54	.00	1380.80
1447.0	691.0	360.7	395.4	343.5	85.0	152.2	59.5	168.9	1380.00
.46	2.01	4.24	2.60	.049	.045	.049	.000	1378.60	6256.79
.006307	600.	600.	600.	6	0	0	.00	1021.35	10235.47

*SECNO .893

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY

```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         QLOSS      L-BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

3720 CRITICAL DEPTH ASSUMED
     .893       2.22    1385.22    1385.22       .00    1385.37       .15       3.42        .01    1385.70
   1447.0     1049.1      271.7      126.2     478.3       50.6      38.5       64.5      180.3    1385.50
      .50       2.19       5.37       3.28      .049       .045      .049       .000    1383.00    6711.17
  .014261       370.       370.       400.         9         13         0        .00    1655.73   10725.09

*SECNO 1.016

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.016       2.36    1390.06    1390.06       .00    1390.20       .14       4.54        .00    1388.50
   1447.0     1020.4      368.6       58.0     657.2       69.9      49.9       70.5      200.7    1389.80
      .55       1.55       5.27       1.16      .049       .045      .049       .000    1387.70    7160.15
  .009265       380.       450.       450.         6          9         0        .00    2949.74   11066.40

*SECNO 1.094

3265 DIVIDED FLOW

    1.094       1.98    1394.18        .00       .00    1394.23       .05       4.02        .01    1394.00
   1447.0     1381.6       59.9        5.5     785.7       29.7       9.2       78.1      226.1    1394.10
      .61       1.83       2.02        .60      .049       .045      .049       .000    1392.20    7452.07
  .009604       425.       450.       330.         6          0         0        .00    2326.93   10909.27

*SECNO 1.177

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED
    1.177       1.03    1399.73    1399.73       .00    1399.97       .24       8.09        .06    1399.50
   1447.0     1269.7      174.3        3.0     332.0       38.0       2.6       84.5      243.5    1400.00
      .64       3.82       4.58       1.14      .049       .045      .049       .000    1398.70    7944.92
  .037479       480.       450.       520.        20         11         0        .00     817.51   10685.24

*SECNO 1.285
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.51

1.285	1.18	1406.58	.00	.00	1406.62	.04	6.64	.02	1406.10
1447.0	1293.7	108.9	44.4	794.0	45.7	52.5	92.5	261.3	1406.10
.74	1.63	2.38	.85	.049	.045	.049	.000	1405.40	8255.45
.005946	540.	590.	590.	11	0	0	.00	2021.84	10572.71

#SECNO 1.375

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .46

1.375	.76	1412.45	.00	.00	1412.58	.13	5.93	.03	1412.20
1447.0	1120.4	175.0	151.6	405.4	42.3	81.5	101.0	282.6	1412.10
.79	2.76	4.14	1.86	.049	.045	.049	.000	1411.70	8894.00
.028676	520.	620.	500.	6	0	0	.00	1540.93	10468.32

#SECNO 1.495

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.90

3470 ENCROACHMENT STATIONS= 8981.4 10284.1 TYPE= 1 TARGET= 1302.699
DECREASE DISCHARGE.
ET CARDS APPLIED AT SECS. 1.4953 TO 2.112 TO BLOCK INEFFECTIVE FLOW
SEPARATED BY RIDGE ON LEFT SIDE (LOOKING DOWNSTREAM).

1.495	2.27	1420.27	.00	.00	1420.35	.08	7.76	.00	1418.50
1271.0	1036.5	224.6	9.8	583.0	58.3	9.6	109.7	303.1	1419.70
.87	1.78	3.85	1.02	.049	.045	.049	.000	1418.00	8988.52
.006110	640.	690.	625.	6	0	0	.00	1258.39	10282.11

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.601
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9436.1 10180.4 TYPE= 1 TARGET= 744.301
DECREASE DISCHARGE.

1.601	2.54	1426.44	1426.44	.00	1426.68	.24	5.55	.05	1425.70
1096.0	587.4	444.8	63.7	221.8	83.7	31.0	116.3	315.8	1425.90
.91	2.65	5.32	2.05	.049	.042	.049	.000	1423.90	9448.30
.018447	580.	600.	600.	5	12	0	.00	640.27	10088.57

*SECNO 1.668

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9369.3 10040.0 TYPE= 1 TARGET= 670.700

1.668	1.96	1432.56	.00	.00	1432.69	.14	6.00	.01	1432.00
1096.0	788.3	278.6	29.0	321.9	67.8	15.2	120.2	322.6	1431.90
.96	2.45	4.11	1.91	.049	.042	.049	.000	1430.60	9380.25
.010309	480.	390.	340.	7	0	0	.00	651.42	10032.93

*SECNO 1.730

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9532.6 10142.1 TYPE= 1 TARGET= 609.500

1.730	1.95	1436.15	1436.15	.00	1436.42	.27	3.31	.04	1435.60
1096.0	938.1	71.7	86.3	216.7	17.3	39.7	122.0	325.8	1435.80
.97	4.33	4.13	2.17	.049	.042	.049	.000	1434.20	9538.18
.022233	200.	320.	350.	8	5	0	.00	554.11	10093.35

*SECNO 1.808

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	QSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.43

3470 ENCROACHMENT STATIONS= 9592.5 10215.6 TYPE= 1 TARGET= 623.100

1.808	2.21	1441.91	.00	.00	1442.09	.18	5.66	.01	1440.90
1096.0	303.9	170.1	622.1	138.0	37.0	178.2	124.7	330.3	1440.70
1.01	2.20	4.60	3.49	.049	.042	.049	.000	1439.70	9603.54
.010799	350.	410.	415.	6	0	0	.00	508.98	10155.99

*SECNO 1.860
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9478.7 10090.2 TYPE= 1 TARGET= 611.500

1.860	2.11	1446.01	1446.01	.00	1446.42	.41	3.39	.07	1444.70
1096.0	566.9	464.3	64.8	149.4	70.9	18.0	126.6	333.1	1444.30
1.02	3.80	6.55	3.61	.049	.042	.049	.000	1443.90	9689.92
.013326	260.	275.	320.	3	8	0	.00	365.21	10055.13

*SECNO 1.917

3470 ENCROACHMENT STATIONS= 9760.4 10235.0 TYPE= 1 TARGET= 474.600

1.917	1.73	1450.53	.00	.00	1450.81	.28	4.37	.01	1449.90
1096.0	230.9	231.3	633.8	76.2	38.2	165.3	128.3	335.4	1449.50
1.04	3.03	6.06	3.84	.049	.042	.049	.000	1448.80	9802.13
.017993	230.	310.	320.	4	0	0	.00	391.27	10193.40

*SECNO 1.975

3470 ENCROACHMENT STATIONS= 9973.5 10266.5 TYPE= 1 TARGET= 293.000

1.975	1.55	1455.55	.00	.00	1455.93	.37	5.09	.03	1454.90
1096.0	3.7	726.6	365.7	2.1	135.0	95.3	130.1	337.5	1454.50
1.06	1.76	5.38	3.84	.049	.042	.049	.000	1454.00	9978.86
.014997	270.	300.	330.	4	0	0	.00	202.96	10181.82

*SECNO 2.027

3470 ENCROACHMENT STATIONS= 9922.6 10234.0 TYPE= 1 TARGET= 311.400

```
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS      L-BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA        R-BANK ELEV
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

    2.027      2.96    1459.06        .00        .00    1459.45        .38       3.52        .00    1458.10
   1096.0      17.5      307.4      771.1        6.9       52.8      167.2      131.4      338.6    1458.00
     1.07      2.54       5.82       4.61       .049       .042       .049       .000    1456.10    9943.34
  .013348      220.       270.       230.          4          0          0        .00     180.47   10123.81


*SECNO 2.072
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9942.2   10153.5  TYPE=      1  TARGET=      211.300
       DECREASE DISCHARGE FOR FLOW FROM CULVERT  STRUC. NOS. 50 AND 51.
    2.072      2.83    1462.73    1462.73        .00    1463.18        .46       2.74        .02    1461.10
    982.0     218.1      626.8      137.1       67.7       97.9       52.6      132.5      339.5    1461.90
     1.08      3.22       6.40       2.60       .049       .042       .049       .000    1459.90    9943.45
  .011975      220.       230.       200.          3         10          0        .00     204.78   10148.23


*SECNO 2.112

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9975.5   10200.3  TYPE=      1  TARGET=      224.800
    2.112      2.51    1466.21    1466.21        .00    1466.77        .56       3.18        .03    1464.50
    982.0      49.6      228.4      704.0       12.0       28.3      132.7      133.4      340.4    1464.60
     1.09      4.15       8.08       5.31       .049       .042       .049       .000    1463.70    9978.45
  .019819      210.       215.       205.          5         15          0        .00     158.79   10159.72


*SECNO 2.157
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9958.0   10042.0  TYPE=      1  TARGET=       84.000
       DECREASE DISCHARGE FOR FLOW FROM STRUC. NO. 50.
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 3:1
       FLARE ANGLE DOWNSTREAM OF STRUC. #50.
    2.157      2.68    1470.58    1470.58        .00    1471.43        .84       4.25        .08    1468.40
    891.0     188.5      619.4       83.1       42.7       74.9       15.4      134.2      341.0    1468.30
     1.10      4.41       8.27       5.40       .049       .042       .049       .000    1467.90    9962.90
  .016405      250.       240.       225.          3          8          0        .00      79.10   10042.00
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .300 CEHV=     .500
*SECNO 2.172

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1474.10 ELREA=     1474.10

       BEGIN SUN VALLEY PARKWAY CULVERTS (3- 10' X 3' RCBS.,  STRUC. NO. 50).
    2.172      2.88   1473.48   1473.48       .00   1474.93      1.45      1.29       .30   1474.10
    891.0        .0     891.0        .0        .0      92.1        .0     134.4     341.1   1474.10
     1.10       .00      9.67       .00      .000      .035      .000      .000   1470.60   9984.00
  .015814       80.       80.       80.        20         8         0       .00     32.00  10016.00



SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    3         .012      .20       2.90      .00       3.00      10.00     169.00    12        3         1471.30   1470.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE  3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

5140, NORMAL DEPTH EXCEEDS CULVERT HEIGHT
*SECNO 2.204

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  7.38

SPECIAL CULVERT

    EGIC      EGOC       H4      QWEIR     QCULV      VCH      ACULV     ELTRD     WEIRLN
  1479.26   1477.12     2.31      217.      695.     6.563      90.0   1475.00       72.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1477.50 ELREA=     1477.50

       END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
       INCREASE DISCHARGE AT THIS SECTION OF WHICH 891 CFS FLOWS THROUGH
       STRUCT. #50 AND 217 CFS FLOWS ON TO STRUCS. NO. 51 AND 52
    2.204      5.27   1476.57       .00       .00   1477.24       .67      2.31       .00   1477.50
   1107.0        .0    1107.0        .0        .0     168.7        .0     135.0     341.2   1477.50
     1.11       .00      6.56       .00      .000      .012      .000      .000   1471.30   9984.00
  .000148      169.      169.      169.         3         0         0       .00     32.00  10016.00
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.216

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .53


3470 ENCROACHMENT STATIONS=     9980.0   10042.0  TYPE=      1  TARGET=      62.000
       ET CARD USED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1 FLARE ANGLE UPSTREAM
       OF CULVERT.
    2.216      5.08   1477.08       .00       .00   1477.38       .30       .03       .11 100000.00
   1107.0        .0     971.5     135.5        .0     212.6      46.1     135.1     341.3   1473.00
     1.11       .00      4.57      2.94      .000      .035      .035      .000   1472.00   9980.00
  .001578       35.       38.       38.         2         0         0       .00     62.00  10042.00


CCHV=     .100 CEHV=     .300
*SECNO -2.112
START TRIB COMP
    -2.112     2.112  1466.211

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY

3470 ENCROACHMENT STATIONS=     9975.5   10200.3  TYPE=      1  TARGET=     224.800
       REPEAT SECTION TO BEGIN TRIB. ANALYSIS FOR TRIBUTARY "A" TO STRUC.#51.
       ADD 10 TO ALL SECTION NOS. TO IDENTFY TRIB."A"
   -2.112      2.51   1466.21   1466.21       .00   1466.[illegible]       .36       .36      -.36   1464.50
    982.0      49.6     228.4     704.0      12.0      28.3     132.7     136.2     341.8   1464.60
     1.12      4.15      8.08      5.31      .049      .042      .049      .000   1463.78   9975.65
  .019819       210.      215.      205.         0         8         0       .00    158.79  10159.72


CCHV=     .300 CEHV=     .500
*SECNO 12.152

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .12


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1472.40 ELREA=     1472.40

       DECREASE DISCHARGE TO 91 CFS FOR FLOW THROUGH STRUC. #51.
       BEGIN SUN VALLEY PRIMARY DRAINAGE (2-42" & 3" CSPAS. STRUC. NO.51).
   12.152      2.65   1470.25       .00       .00   1470.63       .37      3.80       .06   1472.40
     91.0        .0     91.0        .0        .0      [illegible]        .0     136.6     347.2   1472.40
     1.14       .00      4.91       .00      .000      .042      .000      .000   1467.60   9996.50
  .011169       215.      215.      180.         1         0         0       .00      [illegible]  [illegible]
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	SLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1469.71 , NOT 1470.25 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	QWP	BAREA	HS	HIGHW	HECHD
	1.25	5.84	2.90	.00	7.00	1.70	12.80	.00	1470.80	1467.60

*SECNO 12.181
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELIRD	WEIRLN
1496.31	1476.75	.00	128.	89.	13.	13.	1473.22	1473.70	91.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1475.60 ELREA= 1475.60

END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
INCREASE DISCHARGE AT THIS SEC.TO 217 CFS OF WHICH 91 CFS FLOWS TO
STRUC. 51, 128CFS FLOWS TO STRUC. 52.

12.181	3.18	1473.98	.00	.00	1475.46	1.47	.00	.00	1475.60
217.0	.0	217.0	.0	.0	22.3	.0	136.7	342.2	1475.60
1.14	.00	9.74	.00	.000	.024	.000	.000	1470.80	9996.50
.012334	155.	155.	155.	20	0	8	.00	7.00	10003.50

*SECNO 12.189

3301 HV CHANGED MORE THAN HVTNS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.50

12.189	1.87	1475.97	1475.50	.00	1476.04	.07	.16	.42	1474.86
217.0	53.1	62.7	101.3	19.2	24.1	74.0	136.7	342.2	1474.90
1.15	2.77	2.60	1.37	.016	.035	.049	.000	[illegible]	[illegible]
.002008	40.	40.	40.	15	18	0	.00	135.03	10084.35

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      XLCH      XCH       XNOB      TOC       LOA       R BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 12.197
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   12.197      2.01   1476.40   1476.40       .00   1476.79       .38       .15       .09   1475.28
    217.0     107.3     109.7        .0      20.2      24.0        .0     136.8     342.3   1476.50
     1.15      5.32      4.58       .00      .016      .035      .000      .000   1474.39   9949.70
  .007343       43.       43.       43.        20         8         0       .00     59.93  10007.63


*SECNO 12.209
       UPSTREAM END TRIB."A"  ANALYSIS
   12.209      1.90   1476.90   1476.90       .00   1477.29       .39       .51       .00   1475.93
    217.0      73.1     125.0      18.8      14.2      23.8       7.2     136.9     342.4   1475.00
     1.15      5.13      5.25      2.61      .016      .035      .049      .000   1475.00   9951.55
  .008265       65.       65.       65.         2        11         0       .00     59.05  10010.60


CCHV=     .100 CEHV=     .300
*SECNO -2.027
START TRIB COMP
    -2.027     2.027  1459.064

3470 ENCROACHMENT STATIONS=     9922.6   10234.0  TYPE=      1  TARGET=      311.400
       REPEAT SEC. FOR START OF TRIB. "B" ANALYSIS. ADD 20 TO ALL SEC. NOS.
       TO IDENTIFY TRIB. "B".
   -2.027      2.96   1459.06       .00       .00   1459.44       .38       .00       .00   1458.10
   1096.0      17.6     307.2     771.2       6.9      53.0     167.8     137.6     343.1   1458.00
     1.17      2.54      5.80      4.60      .049      .042      .049      .000   1456.10   9943.31
  .013221      220.      270.      230.         0         0         0       .00    180.52  10123.83


*SECNO 22.080

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .22


3470 ENCROACHMENT STATIONS=    10153.5   10351.7  TYPE=      1  TARGET=      198.200
       DECREASE DISCHARGE TO 117 CFS FLOW THROUGH STRUC. 52.
   22.080      1.65   1461.55       .00       .00   1461.64       .08      2.16       .03   1460.60
    117.0       4.8     112.2        .0       4.6      47.3        .0     138.3     343.6   1461.50
     1.19      1.04      2.37       .02      .049      .042      .049      .000   1459.90  10252.29
  .003024      200.      200.      200.         2         0         0       .00     45.61  10297.90
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 22.097

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1465.70 ELREA= 1465.70

BEGIN SUN VALLEY PARKWAY CULVERTS (2-49" X 33" CSPAS. STRUC. NO 52)

22.097	1.80	1463.70	1463.70	.00	1464.61	.91	.65	.41	1465.70
117.0	.0	117.0	.0	.0	15.3	.0	138.3	343.7	1465.70
1.19	.00	7.65	.00	.000	.042	.000	.000	1461.90	9995.75
.034147	90.	90.	90.	20	8	0	.00	8.50	10004.25

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1463.11 , NOT 1463.70 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	5.36	2.90	.00	8.50	2.17	17.40	.00	1465.00	1461.90

*SECNO 22.129

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.15

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1465.65 BRIDGE VELOCITY= 8.41 CALCULATED CHANNEL AREA= 4.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1467.46	1468.57	.00	0.	117.	17.	17.	1467.75	1468.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1468.80 ELREA= 1468.80

END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.

22.129	3.30	1468.30	.00	.00	1468.57	.27	3.97	.00	1468.80
117.0	.0	117.0	.0	.0	28.1	.0	138.4	343.7	1468.80
1.20	.00	4.16	.00	.000	.024	.000	.000	1465.00	9995.75
.001979	169.	169.	169.	0	0	0	.00	8.50	10004.25

*SECNO 22.140
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
INCREASE DISCHARGE TO 128CFS WHICH SPLITS ALONG RD. FROM STRUC.51.
THIS FLOW IS ATTENUATED FROM 128CFS TO 117CFS AS IT IS ROUTED THROUGH
STRUC. 52.

22.140	1.82	1471.82	1471.82	.00	1472.22	.40	.22	.06	1471.31
128.0	11.4	116.6	.0	2.7	22.6	.0	138.5	343.7	1472.00
1.21	4.17	5.15	.00	.016	.035	.000	.000	1470.00	9977.61
.011331	55.	55.	55.	20	11	0	.00	31.66	10009.27

*SECNO 22.182

22.182	.77	1474.47	1474.46	.00	1474.70	.23	2.43	.05	1473.70
128.0	52.6	27.5	47.9	10.4	7.7	22.8	138.6	344.0	1473.70
1.22	5.08	3.58	2.10	.016	.035	.049	.000	1473.70	9960.70
.010162	227.	227.	227.	6	18	0	.00	82.96	10043.66

```
T1      SUN VALLEY PARKWAY NORTH FIS.  CONTRACT NO. 90-04
T2      100-YEAR WATER SURFACE PROFILE                    A-N WEST INC. PHX. AZ.
T3      WASH NO.8, 100-YEAR FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

    -10        3                          0                                1356.81

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15                 -1
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*PROF 2


CCHV=     .100 CEHV=     .300
*SECNO  .114
3280 CROSS SECTION       .11 EXTENDED       .01 FEET


3470 ENCROACHMENT STATIONS=     7289.1    7621.3  TYPE=      1  TARGET=      332.160
       FLOODWAY ANALYSIS USING FIXED ENCROACHMENT OPTION (METHOD 1) AND
       BASED ON PREVIOUS ANALYSIS BY EQUAL CONVEYANCE REDUCTION (METHOD 4).
       STARTING WATER SURFACE ELEVATION BASED ON SLOPE AREA METHOD.
       CROSS-SECTION I.D. NUMBERS ARE IN RIVER MILES INCREASING UPSTREAM
       ALONG BASELINE FROM CONFLUENCE WITH MCMICKEN DAM 100-YR FLOOD POOL EL.
       CROSS -SECTINS ARE CODED FOR LEFT TO RIGHT LOOKING DOWNSTREAM WITH
       STATION 10000 AT BASELINE UNLESS OTHERWISE NOTED.
       A CONTINUOUS DOMAINATE LOW FLOW CHANNEL WAS NOT EVIDENT BETWEEN
       SEC. 0.1136 AND 1.6013. THEREFORE CHANNEL BANK STATIONS WERE CHOSEN
       ALONG ONE SMALL CHANNEL ALIGNMENT WHICH PROVIDED THE MOST DIRECT
       COURSE TO THE MCMICKEN DAM FLOODPOOL.
     .114      2.61   1356.81       .00   1355.81   1356.99       .18       .00       .00   1355.50
    1447.0       .0     396.4    1050.6       .0      90.6     358.2       .0       .0   1355.40
      .00       .00      4.38      2.93      .000      .045      .049      .000   1354.20   7289.10
   .007029       0.        0.        0.         0         0         0       .00    332.16   7621.26


*SECNO  .265

3470 ENCROACHMENT STATIONS=     7142.8    7463.8  TYPE=      1  TARGET=      321.000
     .265      2.09   1364.09       .00   1363.10   1364.26       .17      7.27       .00   1362.80
    1447.0     892.2     554.8        .0     294.7     146.9        .0      10.4       7.6 100000.00
      .09      3.03      3.78       .00      .049      .045      .000      .000   1362.00   7142.80
   .007166     1240.     1070.      800.         2         0         0       .00    321.00   7463.80


*SECNO  .362

3470 ENCROACHMENT STATIONS=     7183.7    7500.0  TYPE=      1  TARGET=      316.300
     .362      1.93   1368.93   1368.67   1368.05   1369.18       .24      4.90       .02   1367.70
    1447.0     701.7     460.0     285.3     216.4      94.4      72.0      15.8      11.8   1367.50
      .13      3.24      4.87      3.96      .049      .045      .049      .000   1367.00   7183.70
   .010917      625.      480.      480.         6        16         0       .00    316.30   7500.00
```

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .474

3470 ENCROACHMENT STATIONS=    7346.8    7880.6  TYPE=      1  TARGET=      533.800
     .474      2.11   1372.91       .00   1371.88   1373.03       .13      3.84       .01   1372.00
   1447.0     872.7     354.5     219.8     355.5      91.4      91.2      20.5      16.1   1372.00
      .17      2.45      3.88      2.41      .049      .045      .049      .000   1370.80   7346.80
  .007113      425.      420.      525.         4         0         0       .00    533.80   7880.60


*SECNO  .623

3470 ENCROACHMENT STATIONS=    8075.0    8400.0  TYPE=      1  TARGET=      325.000
     .623      2.58   1376.58       .00   1375.85   1376.95       .36      3.84       .07   1375.50
   1447.0     855.1     591.9        .0     254.4      93.0        .0      24.5      20.0 100000.00
      .19      3.36      6.37       .00      .049      .045      .000      .000   1374.00   8075.00
  .013722      390.      410.      430.         2         0         0       .00    325.00   8400.00


*SECNO  .773

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42


3470 ENCROACHMENT STATIONS=    8750.0    9073.0  TYPE=      1  TARGET=      323.000
     .773      3.69   1382.29       .00   1381.39   1382.56       .27      5.61       .01   1380.80
   1447.0     794.2     652.8        .0     288.3     120.9        .0      29.7      24.5 100000.00
      .24      2.76      5.40       .00      .049      .045      .000      .000   1378.60   8750.00
  .006769      600.      600.      600.         5         0         0       .00    323.00   9073.00


*SECNO  .893

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .63


3470 ENCROACHMENT STATIONS=    9245.6    9580.1  TYPE=      1  TARGET=      334.500
     .893      2.96   1385.96       .00   1385.22   1386.38       .42      3.78       .05   1385.70
   1447.0     909.9     537.1        .0     254.1      74.6        .0      32.9      27.3 100000.00
      .26      3.58      7.20       .00      .049      .045      .000      .000   1383.00   9245.60
  .017131      370.      370.      400.         3         0         0       .00    334.50   9580.10
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.016

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.40

3470 ENCROACHMENT STATIONS= 9675.1 9952.9 TYPE= 1 TARGET= 277.801

1.016	3.20	1390.90	.00	1390.06	1391.24	.34	4.85	.01	1388.50
1447.0	845.7	601.3	.0	270.4	96.7	.0	36.0	30.0	100000.00
.28	3.13	6.22	.00	.049	.045	.000	.000	1387.70	9675.10
.008739	380.	450.	450.	4	0	0	.00	277.80	9952.90

*SECNO 1.094

3470 ENCROACHMENT STATIONS= 9488.8 10137.5 TYPE= 1 TARGET= 648.700

1.094	2.78	1394.98	.00	1394.18	1395.12	.13	3.86	.02	1394.00
1447.0	1157.4	289.6	.0	430.6	78.1	.0	40.4	34.6	100000.00
.32	2.69	3.71	.00	.049	.045	.000	.000	1392.20	9488.80
.009092	425.	450.	330.	5	0	0	.00	648.70	10137.50

*SECNO 1.177

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 9550.0 10192.9 TYPE= 1 TARGET= 642.900

1.177	1.53	1400.23	1400.00	1399.73	1400.40	.17	5.27	.01	1399.50
1447.0	1161.1	285.9	.0	365.1	72.8	.0	45.5	41.2	100000.00
.36	3.18	3.93	.00	.049	.045	.000	.000	1398.70	9550.00
.013928	480.	450.	520.	15	14	0	.00	568.39	10192.90

*SECNO 1.285

3470 ENCROACHMENT STATIONS= 9645.0 10015.7 TYPE= 1 TARGET= 370.700

1.285	1.72	1407.12	.00	1406.58	1407.33	.20	6.92	.01	1406.10
1447.0	1121.0	326.0	.0	335.3	73.2	.0	50.8	47.1	100000.00
.41	3.34	4.46	.00	.049	.045	.000	.000	1405.40	9645.00
.011386	540.	590.	590.	5	0	0	.00	370.70	10015.70

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


#SECNO 1.375

3470 ENCROACHMENT STATIONS=     9750.9   10000.0  TYPE=      1  TARGET=      249.100
     1.375      1.75   1413.45       .00   1412.45   1413.74       .29      6.38       .03   1412.20
    1447.0     635.2     535.7     276.1     161.6     107.6      73.1      55.5      50.9   1412.10
       .44      3.93      4.98      3.78      .049      .045      .049      .000   1411.70   9750.90
   .011931      520.      620.      500.         4         0         0       .00    249.10  10000.00


#SECNO 1.495
3280 CROSS SECTION      1.50 EXTENDED       .51 FEET


3470 ENCROACHMENT STATIONS=    10027.9   10248.2  TYPE=      1  TARGET=      220.300
        DECREASE DISCHARGE.
        ET CARDS APPLIED AT SECS. 1.4953 TO 2.112 TO BLOCK INEFFECTIVE FLOW
        SEPARATED BY RIDGE ON LEFT SIDE (LOOKING DOWNSTREAM).
     1.495      2.82   1420.82       .00   1420.27   1421.14       .32      7.39       .01   1418.50
    1271.0     825.3     445.7        .0     226.2      75.6        .0      60.3      54.4 100000.00
       .48      3.65      5.89       .00      .049      .045      .000      .000   1418.00  10027.90
   .010554      640.      690.      625.         4         0         0       .00    220.30  10248.20


#SECNO 1.601

3470 ENCROACHMENT STATIONS=     9910.0   10000.0  TYPE=      1  TARGET=       90.000
        DECREASE DISCHARGE.
     1.601      3.48   1427.38       .00   1426.44   1427.99       .61      6.76       .09   1425.70
    1096.0      62.0     977.8      56.2      14.6     150.8      13.7      63.6      56.3   1425.90
       .51      4.23      6.49      4.09      .049      .042      .049      .000   1423.90   9910.00
   .012527      580.      600.      600.         3         0         0       .00     90.00  10000.00


#SECNO 1.668
3280 CROSS SECTION      1.67 EXTENDED       .05 FEET


3470 ENCROACHMENT STATIONS=     9874.1   10000.5  TYPE=      1  TARGET=      126.400
     1.668      2.65   1433.25   1433.15   1432.56   1433.84       .59      5.85       .00   1432.00
    1096.0     364.5     731.5        .0      84.2     105.5        .0      65.3      57.6 100000.00
       .53      4.33      6.93       .00      .049      .042      .000      .000   1430.60   9874.10
   .016756      480.      390.      340.        13        19         0       .00    126.40  10000.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

#SECNO 1.730

3470 ENCROACHMENT STATIONS= 9800.0 9940.0 TYPE= 1 TARGET= 140.000

1.730	2.92	1437.12	.00	1436.15	1437.48	.37	3.62	.02	1435.60
1096.0	855.7	229.4	10.9	183.0	41.6	3.5	66.5	58.3	1435.80
.54	4.68	5.51	3.10	.049	.042	.049	.000	1434.20	9800.00
.012312	200.	320.	350.	4	0	0	.00	140.00	9940.00

#SECNO 1.808

3470 ENCROACHMENT STATIONS= 9864.3 9988.5 TYPE= 1 TARGET= 124.200

1.808	2.89	1442.59	.00	1441.91	1443.21	.62	5.65	.08	1440.90
1096.0	670.2	425.8	.0	128.1	55.1	.0	68.2	59.4	100000.00
.56	5.23	7.73	.00	.049	.042	.000	.000	1439.70	9864.30
.019649	350.	410.	415.	4	0	0	.00	124.20	9988.50

#SECNO 1.860
3280 CROSS SECTION 1.86 EXTENDED .64 FEET

3470 ENCROACHMENT STATIONS= 9972.0 10032.3 TYPE= 1 TARGET= 60.300

1.860	2.94	1446.84	.00	1446.01	1447.70	.87	4.42	.07	1444.70
1096.0	294.8	801.2	.0	52.4	99.7	.0	69.3	60.0	100000.00
.57	5.63	8.04	.00	.049	.042	.000	.000	1443.90	9972.00
.013991	260.	275.	320.	3	0	0	.00	60.30	10032.30

#SECNO 1.917

3470 ENCROACHMENT STATIONS= 9864.7 9965.6 TYPE= 1 TARGET= 100.899

1.917	2.53	1451.33	.00	1450.53	1452.01	.68	4.28	.02	1449.90
1096.0	617.4	474.7	3.9	115.8	59.5	1.5	70.3	60.4	1449.50
.58	5.33	7.98	2.70	.049	.042	.049	.000	1448.80	9864.70
.017225	230.	310.	320.	3	0	0	.00	100.90	9965.60

#SECNO 1.975

3470 ENCROACHMENT STATIONS= 9985.3 10082.8 TYPE= 1 TARGET= 97.500

1.975	1.99	1455.99	.00	1455.55	1456.58	.59	4.57	.01	1454.90
1096.0	.0	1096.0	.0	.0	177.1	.0	71.5	61.1	100000.00
.59	.00	6.19	.00	.000	.042	.000	.000	1454.00	9985.30
.014293	270.	300.	330.	2	0	0	.00	97.50	10082.80

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.027

3470 ENCROACHMENT STATIONS=     9955.8   10055.5  TYPE=      1  TARGET=       99.700
    2.027      3.70   1459.80       .00   1459.06   1460.46       .66      3.86       .02   1458.10
   1096.0        .0     579.5     516.5        .0      75.7     104.8      72.5      61.7   1458.00
      .61       .00      7.65      4.93      .000      .042      .049      .000   1456.10   9955.80
  .015338      220.      270.      230.         2         0         0       .00     99.70  10055.50


*SECNO 2.072

3470 ENCROACHMENT STATIONS=    10020.6   10066.5  TYPE=      1  TARGET=       45.900
       DECREASE DISCHARGE FOR FLOW FROM CULVERT  STRUC. NOS. 50 AND 51.
    2.072      3.25   1463.15       .00   1462.73   1464.24      1.09      3.65       .13   1461.10
    982.0        .0     982.0        .0        .0     117.3        .0      73.3      62.0 100000.00
      .61       .00      8.37       .00      .000      .042      .000      .000   1459.90  10020.60
  .017667      220.      230.      200.         2         0         0       .00     45.90  10066.50


*SECNO 2.112

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9996.5   10120.0  TYPE=      1  TARGET=      123.500
    2.112      3.10   1466.80       .00   1466.21   1467.24       .43      2.93       .07   1464.50
    982.0        .0     235.1     746.9        .0      36.3     154.1      74.0      62.4   1464.60
      .62       .00      6.47      4.85      .000      .042      .049      .000   1463.70   9996.50
  .011215      210.      215.      205.         3         0         0       .00    123.50  10120.00


*SECNO 2.157

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=    10004.0   10034.4  TYPE=      1  TARGET=       30.400
       DECREASE DISCHARGE FOR FLOW FROM STRUC. NO. 50.
       ENCROACHMENT (ET CARD) APPLIED TO LIMIT EFFECTIVE FLOW TO WITHIN 3:1
       FLARE ANGLE DOWNSTREAM OF STRUC. #50.
    2.157      3.19   1471.09   1471.09   1470.58   1472.60      1.51      3.56       .32   1468.40
    891.0        .0     891.0        .0        .0      90.4        .0      74.8      62.8 100000.00
      .63       .00      9.85       .00      .000      .042      .000      .000   1467.90  10004.00
  .022621      250.      240.      225.         3         8         0       .00     30.40  10034.40
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 2.172
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1474.10 ELREA= 1474.10

BEGIN SUN VALLEY PARKWAY CULVERTS (3- 10' X 3' RCBS., STRUC. NO. 50).

2.172	2.88	1473.48	1473.48	1473.48	1474.93	1.45	1.50	.02	1474.10
891.0	.0	891.0	.0	.0	92.1	.0	74.9	62.9	1474.10
.63	.00	9.68	.00	.000	.035	.000	.000	1470.60	9984.00
.015826	80.	80.	80.	2	11	0	.00	32.00	10016.00

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	3	.012	.20	2.90	.00	3.00	10.00	169.00	12	3	1471.30	1470.60

CHART 12 - BOX CULVERT; NON-OFFSET FLARED WINGWALLS; 3/4-INCH CHAMFER AT TOP OF INLET
SCALE 3 - WINGWALLS FLARED 18.4 DEGREES (3:1); INLET SKEWED 30 DEGREES

5140, NORMAL DEPTH EXCEEDS CULVERT HEIGHT
*SECNO 2.204

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 7.39

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
1479.26	1477.12	2.31	217.	895.	6.562	90.0	1475.00	72.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1477.50 ELREA= 1477.50

END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
INCREASE DISCHARGE AT THIS SECTION OF WHICH 891 CFS FLOWS THROUGH
STRUCT. #50 AND 217 CFS FLOWS ON TO STRUCS. NO. 51 AND 52

2.204	5.27	1476.57	.00	1476.57	1477.24	.67	2.31	.00	1477.50
1107.0	.0	1107.0	.0	.0	168.7	.0	75.4	63.0	1477.50
.64	.00	6.56	.00	.000	.012	.000	.000	1471.30	9984.00
.000447	169.	169.	169.	3	0	0	.00	32.00	10016.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 2.216

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .53


3470 ENCROACHMENT STATIONS=     9980.0   10042.0  TYPE=      1  TARGET=       62.000
       ET CARD USED TO LIMIT EFFECTIVE FLOW TO WITHIN 1:1 FLARE ANGLE UPSTREAM
       OF CULVERT.
    2.216      5.08   1477.08       .00   1477.08   1477.38       .30       .03       .11 100000.00
   1107.0        .0     971.5     135.5       .0     212.7      46.1      75.6      63.1   1473.00
      .64       .00      4.57      2.94      .000      .035      .035      .000   1472.00   9980.00
  .001578       35.       38.       38.         2         0         0       .00     62.00  10042.00


CCHV=     .100 CEHV=     .300
*SECNO -2.112
START TRIB COMP
    -2.112     2.112  1466.803

3470 ENCROACHMENT STATIONS=     9996.5   10120.0  TYPE=      1  TARGET=      123.500
       REPEAT SECTION TO BEGIN TRIB. ANALYSIS FOR TRIBUTARY "A" TO STRUC.#51.
       ADD 10 TO ALL SECTION NOS. TO IDENTFY TRIB."A"
   -2.112      3.10   1466.80       .00   1466.21   1467.24       .43       .00       .00   1464.50
    982.0        .0     235.1     746.9        .0      36.3     154.1      76.7      63.5   1464.60
      .65       .00      6.47      4.85      .000      .042      .049      .000   1463.70   9996.50
  .011210      210.      215.      205.         0         0         0       .00    123.50  10120.00


CCHV=     .300 CEHV=     .500
*SECNO 12.152
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1472.40 ELREA=      1472.40

       DECREASE DISCHARGE TO 91 CFS FOR FLOW THROUGH STRUC. #51.
       BEGIN SUN VALLEY PARKWAY CULVERTS (2-42" X 29" CSPAS. STRUC. NO.51).
   12.152      1.73   1469.33   1469.33   1470.25   1470.21       .87      2.44       .22   1472.40
     91.0        .0      91.0        .0        .0      12.1        .0      77.1      63.8   1472.40
      .66       .00      7.50       .00      .000      .042      .000      .000   1467.60   9996.50
  .036879      215.      215.      180.        20        11         0       .00      7.00  10003.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	5.84	2.90	.00	7.00	1.70	12.80	.00	1470.80	1467.60

*SECNO 12.181

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1495.40	1476.09	3.66	120.	97.	13.	13.	1473.22	1473.70	89.

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1475.60 ELREA= 1475.60

END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.
INCREASE DISCHARGE AT THIS SEC.TO 217 CFS OF WHICH 91 CFS FLOWS TO
STRUC. 51, 128CFS FLOWS TO STRUC. 52.

12.181	3.14	1473.94	1473.89	1473.98	1475.45	1.52	2.60	-2.60	1475.60
217.0	.0	217.0	.0	.0	22.0	.0	77.2	63.8	1475.60
.67	.00	9.88	.00	.000	.024	.000	.000	1470.80	9996.50
.013010	155.	155.	155.	20	14	0	.00	7.00	10003.50

*SECNO 12.189

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.47

3470 ENCROACHMENT STATIONS= 9970.5 10076.0 TYPE= 1 TARGET= 105.500

12.189	1.86	1475.96	1475.52	1475.97	1476.05	.09	.17	.43	1474.86
217.0	49.3	64.2	103.4	14.3	24.0	71.8	77.3	63.9	1474.90
.67	3.44	2.67	1.44	.016	.035	.049	.000	1474.10	9970.50
.002137	40.	40.	40.	16	13	0	.00	105.50	10076.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 12.197
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9949.4   10009.7  TYPE=      1  TARGET=       60.300
   12.197      1.99   1476.38   1476.38   1476.40   1476.79       .40       .16       .09   1475.28
    217.0     105.3     111.7        .0      19.3      23.6        .0      77.3      64.0 100000.00
      .67      5.47      4.73       .00      .016      .035      .000      .000   1474.39   9950.73
  .007945       43.       43.       43.        20         8         0       .00     58.82  10009.55


*SECNO 12.209

3470 ENCROACHMENT STATIONS=     9947.3   10008.5  TYPE=      1  TARGET=       61.200
       UPSTREAM END TRIB."A"  ANALYSIS
   12.209      1.92   1476.92       .00   1476.90   1477.29       .37       .50       .00   1475.93
    217.0      75.6     122.4      19.0      15.2      24.2       6.8      77.4      64.0   1475.00
      .68      4.97      5.06      2.79      .016      .035      .049      .000   1475.00   9950.27
  .007516       65.       65.       65.         2         0         0       .00     58.23  10008.50


CCHV=     .100 CEHV=     .300
*SECNO -2.027
START TRIB COMP
    -2.027     2.027  1459.797

3470 ENCROACHMENT STATIONS=     9955.8   10055.5  TYPE=      1  TARGET=       99.700
       REPEAT SEC. FOR START OF TRIB. "B" ANALYSIS. ADD 20 TO ALL SEC. NOS.
       TO IDENTIFY TRIB. "B".
   -2.027      3.70   1459.80       .00   1459.06   1460.46       .66       .00       .00   1458.10
   1096.0        .0     579.6     516.4        .0      75.7     104.7      78.0      64.5   1458.00
      .69       .00      7.66      4.93      .000      .042      .049      .000   1456.10   9955.80
  .015363      220.      270.      230.         0         0         0       .00     99.70  10055.50


*SECNO 22.080

3301 HV CHANGED MORE THAN HVINS
```

```
SECNO     DEPTH     CWSEL     CRIMS     WSELK     SG        AV        NL        QLOSS     L BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .48


3470 ENCROACHMENT STATIONS=    10252.5   10297.7  TYPE=      1  TARGET=       45.200
       DECREASE DISCHARGE TO 117 CFS FLOW THROUGH STRUC. 52.
   22.080      2.30   1462.20       .00   1461.55   1462.23       .03      1.71       .06   1460.60
    117.0       9.7     107.2        .1      10.9      69.8        .3      78.6      64.8   1461.50
      .72       .89      1.54       .37      .049      .042      .049      .000   1459.90  10252.50
  .000753      200.      200.      200.         3         0         0       .00     45.20  10297.70


CCHV=     .300 CEHV=     .500
*SECNO 22.097

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1465.70 ELREA=      1465.70

       BEGIN SUN VALLEY PARKWAY CULVERTS (2-49" X 33" CSPAS. STRUC. NO 52)
   22.097      1.80   1463.70   1463.70   1463.70   1464.61       .91       .21       .44   1465.70
    117.0        .0     117.0        .0        .0      15.3        .0      78.7      64.9   1465.70
      .73       .00      7.65       .00      .000      .042      .000      .000   1461.90   9995.75
  .034174       90.       90.       90.        20        15         0       .00      8.50  10004.25



SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1463.11 , NOT    1463.70 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      5.36      2.90       .00      8.50      2.17      17.40       .00   1465.00   1461.90

*SECNO 22.129

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.16
```

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1465.65 BRIDGE VELOCITY= 8.41 CALCULATED CHANNEL AREA= 4.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1467.46	1468.57	.00	0.	117.	17.	17.	1467.75	1468.80	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1468.80 ELREA= 1468.80

END CULVERTS. NO WEIR FLOW OVER ROAD EXPECTED.

22.129	3.30	1468.30	.00	1468.30	1468.57	.27	3.97	.00	1468.80
117.0	.0	117.0	.0	.0	28.1	.0	78.8	64.9	1468.80
.74	.00	4.16	.00	.000	.024	.000	.000	1465.00	9995.75
.001979	169.	169.	169.	0	0	0	.00	8.50	10004.25

*SECND 22.140
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 9977.6 10009.3 TYPE= 1 TARGET= 31.700
INCREASE DISCHARGE TO 128CFS WHICH SPLITS ALONG RD. FROM STRUC.51.
THIS FLOW IS ATTENUATED FROM 128CFS TO 117CFS AS IT IS ROUTED THROUGH
STRUC. 52.

22.140	1.81	1471.81	1471.81	1471.82	1472.22	.41	.23	.07	1471.31
128.0	11.1	116.9	.0	2.7	22.5	.0	78.9	64.9	100000.00
.74	4.18	5.19	.00	.016	.035	.000	.000	1470.00	9977.94
.011573	55.	55.	55.	20	11	0	.00	31.30	10009.24

*SECND 22.182

3470 ENCROACHMENT STATIONS= 9960.4 10043.7 TYPE= 1 TARGET= 83.300

22.182	.77	1474.47	.00	1474.47	1474.70	.23	2.43	.05	1473.70
128.0	52.8	27.4	47.9	10.5	7.7	22.9	79.0	65.2	1473.70
.76	5.04	3.56	2.09	.016	.035	.049	.000	1473.70	9960.53
.009948	227.	227.	227.	3	0	0	.00	83.17	10043.69

THIS RUN EXECUTED 04SEP91 07:55:11

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.0; February 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH NO 8 100 YEAR PROFI

SUMMARY PRINTOUT

	SECNO	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
	.114	1447.00	1355.81	.00	2.83	.00	7289.10	7333.30	.00	.00	5858.38	10023.35
	.114	1447.00	1356.81	.00	4.38	.00	7289.10	7333.30	7289.10	7621.26	7289.10	7621.26
	.265	1447.00	1363.10	.00	1.99	1070.00	7371.70	7463.80	.00	.00	5517.51	9995.02
	.265	1447.00	1364.09	.00	3.78	1070.00	7371.70	7463.80	7142.80	7463.80	7142.80	7463.80
	.362	1447.00	1368.05	.00	3.18	480.00	7393.70	7450.00	.00	.00	4916.03	10017.91
	.362	1447.00	1368.93	1368.67	4.87	480.00	7393.70	7450.00	7183.70	7500.00	7183.70	7500.00
*	.474	1447.00	1371.88	.00	1.89	420.00	7725.00	7780.60	.00	.00	5315.30	9986.02
	.474	1447.00	1372.91	.00	3.88	420.00	7725.00	7780.60	7346.80	7880.60	7346.80	7880.60
*	.623	1447.00	1375.85	1375.85	5.11	410.00	8357.50	8400.00	.00	.00	5657.59	10005.93
	.623	1447.00	1376.58	.00	6.37	410.00	8357.50	8400.00	8075.00	8400.00	8075.00	8400.00
*	.773	1447.00	1381.39	.00	4.24	600.00	9032.70	9073.40	.00	.00	6256.79	10235.47
*	.773	1447.00	1382.29	.00	5.40	600.00	9032.70	9073.40	8750.00	9073.00	8750.00	9073.00
*	.893	1447.00	1385.22	1385.22	5.37	370.00	9547.10	9580.10	.00	.00	6711.17	10725.09
*	.893	1447.00	1385.96	.00	7.20	370.00	9547.10	9580.10	9245.60	9580.10	9245.60	9580.10
*	1.016	1447.00	1390.06	1390.06	5.27	450.00	9920.90	9952.90	.00	.00	7160.15	11066.40
*	1.016	1447.00	1390.90	.00	6.22	450.00	9920.90	9952.90	9675.10	9952.90	9675.10	9952.90
	1.094	1447.00	1394.18	.00	2.02	450.00	10077.30	10137.50	.00	.00	7452.07	10909.27
	1.094	1447.00	1394.98	.00	3.71	450.00	10077.30	10137.50	9488.80	10137.50	9488.80	10137.50
*	1.177	1447.00	1399.73	1399.73	4.58	450.00	10121.20	10192.90	.00	.00	7944.92	10685.24
	1.177	1447.00	1400.23	1400.00	3.93	450.00	10121.20	10192.90	9550.00	10192.90	9550.00	10192.90
*	1.285	1447.00	1406.58	.00	2.38	590.00	9965.30	10015.70	.00	.00	8255.45	10572.71
	1.285	1447.00	1407.12	.00	4.46	590.00	9965.30	10015.70	9645.00	10015.70	9645.00	10015.70

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	1.375	1447.00	1412.45	.00	4.14	620.00	9874.70	9941.00	.00	.00	8494.00	10468.32
	1.375	1447.00	1413.45	.00	4.98	620.00	9874.70	9941.00	9750.90	10000.00	9750.90	10000.00
*	1.495	1271.00	1420.27	.00	3.85	690.00	10216.40	10248.20	8981.40	10284.10	8988.52	10282.11
	1.495	1271.00	1420.82	.00	5.89	690.00	10216.40	10248.20	10027.90	10248.20	10027.90	10248.20
*	1.601	1096.00	1426.44	1426.44	5.32	600.00	9918.90	9990.70	9436.10	10180.40	9448.30	10088.57
	1.601	1096.00	1427.38	.00	6.49	600.00	9918.90	9990.70	9910.00	10000.00	9910.00	10000.00
	1.668	1096.00	1432.56	.00	4.11	390.00	9945.70	10000.50	9369.30	10040.00	9380.25	10032.93
	1.668	1096.00	1433.25	1433.15	6.93	390.00	9945.70	10000.50	9874.10	10000.50	9874.10	10000.50
*	1.730	1096.00	1436.15	1436.15	4.13	320.00	9912.30	9937.30	9532.60	10142.10	9538.18	10093.35
	1.730	1096.00	1437.12	.00	5.51	320.00	9912.30	9937.30	9800.00	9940.00	9800.00	9940.00
*	1.808	1096.00	1441.91	.00	4.60	410.00	9962.10	9988.50	9592.50	10215.60	9603.54	10155.99
	1.808	1096.00	1442.59	.00	7.73	410.00	9962.10	9988.50	9864.30	9988.50	9864.30	9988.50
*	1.860	1096.00	1446.01	1446.01	6.55	275.00	9997.50	10032.30	9478.70	10090.20	9689.92	10055.13
	1.860	1096.00	1446.84	.00	8.04	275.00	9997.50	10032.30	9972.00	10032.30	9972.00	10032.30
	1.917	1096.00	1450.53	.00	6.06	310.00	9938.50	9964.80	9760.40	10235.00	9802.13	10193.40
	1.917	1096.00	1451.33	.00	7.98	310.00	9938.50	9964.80	9864.70	9965.60	9864.70	9965.60
	1.975	1096.00	1455.55	.00	5.38	300.00	9985.30	10082.80	9973.50	10266.50	9978.86	10181.82
	1.975	1096.00	1455.99	.00	6.19	300.00	9985.30	10082.80	9985.30	10082.80	9985.30	10082.80
	2.027	1096.00	1459.06	.00	5.82	270.00	9955.80	9986.80	9922.60	10234.00	9943.34	10123.81
	2.027	1096.00	1459.80	.00	7.65	270.00	9955.80	9986.80	9955.80	10055.50	9955.80	10055.50
*	2.072	982.00	1462.73	1462.73	6.40	230.00	10020.60	10066.50	9942.20	10153.50	9943.45	10148.23
	2.072	982.00	1463.15	.00	8.37	230.00	10020.60	10066.50	10020.60	10066.50	10020.60	10066.50
*	2.112	982.00	1466.21	1466.21	8.08	215.00	9996.50	10010.10	9975.50	10200.30	9978.45	10159.72
	2.112	982.00	1466.80	.00	6.47	215.00	9996.50	10010.10	9996.50	10120.00	9996.50	10120.00
*	2.157	891.00	1470.58	1470.58	8.27	240.00	10004.00	10034.40	9958.00	10042.00	9962.90	10042.00
*	2.157	891.00	1471.09	1471.09	9.85	240.00	10004.00	10034.40	10004.00	10034.40	10004.00	10034.40
*	2.172	891.00	1473.48	1473.48	9.67	80.00	9984.00	10016.00	.00	.00	9984.00	10016.00
*	2.172	891.00	1473.48	1473.48	9.68	80.00	9984.00	10016.00	.00	.00	9984.00	10016.00
*	2.204	1107.00	1476.57	.00	6.56	169.00	9984.00	10016.00	.00	.00	9984.00	10016.00
*	2.204	1107.00	1476.57	.00	6.56	169.00	9984.00	10016.00	.00	.00	9984.00	10016.00
*	2.216	1107.00	1477.08	.00	4.57	38.00	9915.00	10023.00	9980.00	10042.00	9980.00	10042.00
*	2.216	1107.00	1477.08	.00	4.57	38.00	9915.00	10023.00	9980.00	10042.00	9980.00	10042.00
*	-2.112	982.00	1466.21	1466.21	8.08	215.00	9996.50	10010.10	9975.50	10200.30	9978.45	10159.72
	-2.112	982.00	1466.80	.00	6.47	215.00	9996.50	10010.10	9996.50	10120.00	9996.50	10120.00

	SECND	Q	CWSEL	CRIWS	VCH	XLCH	STCHL	STCHR	STENCL	STENCR	SSTA	ENDST
*	12.152	91.00	1470.25	.00	4.91	215.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	12.152	91.00	1469.33	1469.33	7.50	215.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	12.181	217.00	1473.98	.00	9.74	155.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	12.181	217.00	1473.94	1473.89	9.88	155.00	9996.50	10003.50	.00	.00	9996.50	10003.50
*	12.189	217.00	1475.97	1475.50	2.60	40.00	9991.00	10006.00	.00	.00	9949.32	10084.35
*	12.189	217.00	1475.96	1475.52	2.67	40.00	9991.00	10006.00	9970.50	10076.00	9970.50	10076.00
*	12.197	217.00	1476.40	1476.40	4.58	43.00	9993.00	10010.00	.00	.00	9949.70	10009.63
*	12.197	217.00	1476.38	1476.38	4.73	43.00	9993.00	10010.00	9949.40	10009.70	9950.73	10009.55
	12.209	217.00	1476.90	1476.90	5.25	65.00	9988.00	10003.00	.00	.00	9951.55	10010.60
	12.209	217.00	1476.92	.00	5.06	65.00	9988.00	10003.00	9947.30	10008.50	9950.27	10008.50
	-2.027	1096.00	1459.06	.00	5.80	270.00	9955.80	9986.80	9922.60	10234.00	9943.31	10123.83
	-2.027	1096.00	1459.80	.00	7.66	270.00	9955.80	9986.80	9955.80	10055.50	9955.80	10055.50
*	22.080	117.00	1461.55	.00	2.37	200.00	10262.30	10297.20	10153.50	10351.70	10252.29	10297.90
*	22.080	117.00	1462.20	.00	1.54	200.00	10262.30	10297.20	10252.50	10297.70	10252.50	10297.70
*	22.097	117.00	1463.70	1463.70	7.65	90.00	9995.75	10004.25	.00	.00	9995.75	10004.25
*	22.097	117.00	1463.70	1463.70	7.65	90.00	9995.75	10004.25	.00	.00	9995.75	10004.25
*	22.129	117.00	1468.30	.00	4.16	169.00	9995.75	10004.25	.00	.00	9995.75	10004.25
*	22.129	117.00	1468.30	.00	4.16	169.00	9995.75	10004.25	.00	.00	9995.75	10004.25
*	22.140	128.00	1471.82	1471.82	5.15	55.00	9991.00	10010.00	.00	.00	9977.61	10009.27
*	22.140	128.00	1471.81	1471.81	5.19	55.00	9991.00	10010.00	9977.60	10009.30	9977.94	10009.24
	22.182	128.00	1474.47	1474.46	3.58	227.00	9992.00	10002.00	.00	.00	9960.70	10043.66
	22.182	128.00	1474.47	.00	3.56	227.00	9992.00	10002.00	9960.40	10043.70	9960.53	10043.69

WASH NO 8 100 YEAR PROFI

SUMMARY PRINTOUT

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	.114	736.95	131.90	578.15	1.81	2.83	1.28	1356.80	1355.81	.00	2495.92	1354.20	1.19
	.114	.00	396.38	1050.62	.00	4.38	2.93	1356.80	1356.81	.00	332.16	1354.20	1.11
	.265	750.54	112.01	584.44	1.56	1.99	1.66	1364.20	1363.10	7.28	1940.97	1362.00	1.01
	.265	892.20	554.79	.00	3.03	3.78	.00	1364.20	1364.09	7.28	321.00	1362.00	1.04
	.362	475.88	141.77	829.35	1.46	3.18	1.82	1370.00	1368.05	4.96	3183.27	1367.00	1.17
	.362	701.71	460.04	285.26	3.24	4.87	3.96	1370.00	1368.93	4.85	316.30	1367.00	1.10
*	.474	717.25	66.83	662.92	1.21	1.89	1.43	1372.50	1371.88	3.83	2924.54	1370.80	1.04
	.474	872.66	354.53	219.80	2.45	3.88	2.41	1375.80	1372.91	3.97	533.80	1370.80	1.13
*	.623	805.70	315.15	326.15	1.93	5.11	1.55	1376.30	1375.85	3.96	2688.35	1374.00	1.89
	.623	855.05	591.94	.00	3.36	6.37	.00	1379.40	1376.58	3.68	325.00	1374.00	1.34
*	.773	690.97	360.68	395.35	2.01	4.24	2.60	1382.10	1381.39	5.54	1021.35	1378.60	1.33
*	.773	794.22	652.78	.00	2.76	5.40	.00	1384.00	1382.29	5.71	323.00	1378.60	1.38
*	.893	1049.12	271.70	126.18	2.19	5.37	3.28	1385.70	1385.22	3.83	1655.73	1383.00	1.51
*	.893	909.85	537.14	.00	3.58	7.20	.00	1386.10	1385.96	3.67	334.50	1383.00	1.41
*	1.016	1020.37	368.59	58.03	1.55	5.27	1.16	1390.20	1390.06	4.84	2949.74	1387.70	2.85
*	1.016	845.67	601.33	.00	3.13	6.22	.00	1391.70	1390.90	4.94	277.80	1387.70	1.40
	1.094	1381.64	59.89	5.47	1.83	2.02	.60	1394.20	1394.18	4.12	2326.93	1392.20	1.01
	1.094	1157.36	289.64	.00	2.69	3.71	.00	1395.80	1394.98	4.08	648.70	1392.20	1.05
*	1.177	1269.73	174.26	3.01	3.82	4.58	1.14	1401.80	1399.73	5.55	817.51	1398.70	1.02
	1.177	1161.06	285.94	.00	3.18	3.93	.00	1402.60	1400.23	5.25	568.39	1398.70	1.02
*	1.285	1293.70	108.90	44.40	1.63	2.38	.85	1408.00	1406.58	6.85	2021.84	1405.40	1.07
	1.285	1120.96	326.04	.00	3.34	4.46	.00	1408.00	1407.12	6.89	370.70	1405.40	1.05
*	1.375	1120.39	174.99	151.62	2.76	4.14	1.86	1414.00	1412.45	5.87	1540.93	1411.70	1.12
	1.375	635.24	535.68	276.08	3.93	4.98	3.78	1414.00	1413.45	6.32	249.10	1411.70	1.05
*	1.495	1036.54	224.63	9.83	1.78	3.85	1.02	1420.30	1420.27	7.82	1258.39	1418.00	1.37
	1.495	825.30	445.70	.00	3.65	5.89	.00	1420.30	1420.82	7.37	220.30	1418.00	1.17
*	1.601	587.42	444.85	63.73	2.65	5.32	2.05	1428.00	1426.44	6.17	640.27	1423.90	1.46
	1.601	61.99	977.82	56.19	4.23	6.49	4.09	1428.00	1427.38	6.56	90.00	1423.90	1.05
	1.668	788.34	278.65	29.01	2.45	4.11	1.91	1433.20	1432.56	6.12	651.42	1430.60	1.19
	1.668	364.47	731.53	.00	4.33	6.93	.00	1433.20	1433.25	5.87	126.40	1430.60	1.15
*	1.730	938.07	71.66	86.27	4.33	4.13	2.17	1438.50	1436.15	3.59	554.11	1434.20	1.09
	1.730	855.69	229.41	10.90	4.68	5.51	3.10	1438.50	1437.12	3.87	140.00	1434.20	1.02

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPW1D	ELMIN	ALPHA
*	1.808	303.85	170.06	622.09	2.20	4.60	3.49	1443.90	1441.91	5.77	508.98	1439.70	1.20
	1.808	670.24	425.76	.00	5.23	7.73	.00	1443.90	1442.59	5.47	124.20	1439.70	1.12
*	1.860	566.88	464.30	64.82	3.80	6.55	3.61	1446.20	1446.01	4.10	365.21	1443.90	1.25
	1.860	294.85	801.15	.00	5.63	8.04	.00	1446.20	1446.84	4.25	60.30	1443.90	1.07
	1.917	230.89	231.33	633.78	3.03	6.06	3.84	1452.40	1450.53	4.51	391.27	1448.80	1.18
	1.917	617.42	474.66	3.92	5.33	7.98	2.70	1452.40	1451.33	4.49	100.90	1448.80	1.13
	1.975	3.71	726.62	365.67	1.76	5.38	3.84	1458.50	1455.55	5.03	202.96	1454.00	1.08
	1.975	.00	1096.00	.00	.00	6.19	.00	1458.50	1455.99	4.66	97.50	1454.00	1.00
	2.027	17.52	307.35	771.12	2.54	5.82	4.61	1462.00	1459.06	3.51	180.47	1456.10	1.05
	2.027	.00	579.49	516.51	.00	7.65	4.93	1462.00	1459.80	3.81	99.70	1456.10	1.15
*	2.072	218.13	626.79	137.08	3.22	6.40	2.60	1465.10	1462.73	3.66	204.78	1459.90	1.45
	2.072	.00	982.00	.00	.00	8.37	.00	1465.10	1463.15	3.35	45.90	1459.90	1.00
*	2.112	49.58	228.39	704.02	4.15	8.08	5.31	1468.20	1466.21	3.48	158.79	1463.70	1.12
	2.112	.00	235.15	746.85	.00	6.47	4.85	1468.20	1466.80	3.66	123.50	1463.70	1.05
*	2.157	188.53	619.36	83.11	4.41	8.27	5.40	1472.90	1470.58	4.37	79.10	1467.90	1.21
*	2.157	.00	891.00	.00	.00	9.85	.00	1472.90	1471.09	4.29	30.40	1467.90	1.00
*	2.172	.00	891.00	.00	.00	9.67	.00	1474.10	1473.48	2.89	32.00	1470.60	1.00
*	2.172	.00	891.00	.00	.00	9.68	.00	1474.10	1473.48	2.38	32.00	1470.60	1.00
*	2.204	.00	1107.00	.00	.00	6.56	.00	1477.50	1476.57	3.09	32.00	1471.30	1.00
*	2.204	.00	1107.00	.00	.00	6.56	.00	1477.50	1476.57	3.09	32.00	1471.30	1.00
*	2.216	.00	971.48	135.52	.00	4.57	2.94	1478.00	1477.08	.51	62.00	1472.00	1.06
*	2.216	.00	971.46	135.54	.00	4.57	2.94	1478.00	1477.08	.51	62.00	1472.00	1.06
*	-2.112	49.58	228.39	704.02	4.15	8.08	5.31	1468.20	1466.21	-10.87	158.79	1463.70	1.12
	-2.112	.00	235.13	746.87	.00	6.47	4.85	1468.20	1466.80	-10.28	123.50	1463.70	1.05
*	12.152	.00	91.00	.00	.00	4.91	.00	1472.40	1470.25	4.04	7.00	1467.60	1.00
*	12.152	.00	91.00	.00	.00	7.50	.00	1472.40	1469.33	2.53	7.00	1467.60	1.00
*	12.181	.00	217.00	.00	.00	9.74	.00	1475.60	1473.98	3.73	7.00	1470.80	1.00
*	12.181	.00	217.00	.00	.00	9.88	.00	1475.60	1473.94	4.60	7.00	1470.80	1.00
*	12.189	53.07	62.67	101.27	2.77	2.60	1.37	1476.00	1475.97	1.99	135.03	1474.10	1.37
*	12.189	49.34	64.21	103.45	3.44	2.67	1.44	1476.00	1475.96	2.03	105.50	1474.10	1.50
*	12.197	107.33	109.66	.00	5.32	4.58	.00	1477.00	1476.40	.44	59.93	1474.39	1.02
*	12.197	105.34	111.66	.00	5.47	4.73	.00	1477.00	1476.38	.42	58.82	1474.39	1.02
	12.209	73.13	125.04	18.82	5.13	5.25	2.61	1477.60	1476.90	.50	59.05	1475.00	1.10
	12.209	75.56	122.45	18.99	4.97	5.06	2.79	1478.00	1476.92	.54	58.23	1475.00	1.08

	SECNO	QLOB	QCH	QROB	VLOB	VCH	VROB	TELMX	CWSEL	DIFWSX	TOPWID	ELMIN	ALPHA
	-2.027	17.64	307.17	771.19	2.54	5.80	4.60	1462.00	1459.06	-17.84	180.52	1456.10	1.05
	-2.027	.00	579.60	516.40	.00	7.66	4.93	1462.00	1459.80	-17.13	99.70	1456.10	1.15
*	22.080	4.80	112.20	.00	1.04	2.37	.02	1465.10	1461.55	2.49	45.61	1459.90	1.07
*	22.080	9.69	107.18	.12	.89	1.54	.37	1465.10	1462.20	2.40	45.20	1459.90	1.07
*	22.097	.00	117.00	.00	.00	7.65	.00	1465.70	1463.70	2.15	8.50	1461.90	1.00
*	22.097	.00	117.00	.00	.00	7.65	.00	1465.70	1463.70	1.50	8.50	1461.90	1.00
*	22.129	.00	117.00	.00	.00	4.16	.00	1468.80	1468.30	4.60	8.50	1465.00	1.00
*	22.129	.00	117.00	.00	.00	4.16	.00	1468.80	1468.30	4.61	8.50	1465.00	1.00
*	22.140	11.40	116.59	.00	4.17	5.15	.00	1473.00	1471.82	3.51	31.66	1470.00	1.01
*	22.140	11.08	116.92	.00	4.18	5.19	.00	1473.00	1471.81	3.51	31.30	1470.00	1.01
	22.182	52.64	27.45	47.90	5.08	3.58	2.10	1475.00	1474.47	2.65	82.96	1473.70	1.53
	22.182	52.77	27.37	47.87	5.04	3.56	2.09	1475.00	1474.47	2.66	83.17	1473.70	1.53

WASH NO 8 100 YEAR PROFI

SUMMARY PRINTOUT

	SECNO	XLCH	K*CHSL	EG	HV	HL	DLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	.114	.00	.00	1355.86	.05	.00	.00	68.97	.00	1.61	49.00	45.00	49.00
	.114	.00	.00	1356.99	.18	.00	.00	70.29	.00	2.61	.00	45.00	49.00
	.265	1070.00	7.29	1363.14	.04	7.28	.00	69.77	21.26	1.10	49.00	45.00	49.00
	.265	1070.00	7.29	1364.26	.17	7.27	.00	71.66	10.40	2.09	49.00	45.00	.00
	.362	480.00	10.42	1368.11	.06	4.97	.00	123.97	32.05	1.05	49.00	45.00	49.00
	.362	480.00	10.42	1369.18	.24	4.90	.02	109.17	15.79	1.93	49.00	45.00	49.00
*	.474	420.00	9.05	1371.91	.03	3.80	.00	55.07	42.45	1.08	49.00	45.00	49.00
	.474	420.00	9.05	1373.03	.13	3.84	.01	71.13	20.46	2.11	49.00	45.00	49.00
*	.623	410.00	7.80	1375.98	.13	3.45	.03	147.88	50.77	1.85	49.00	45.00	49.00
	.623	410.00	7.80	1376.95	.36	3.84	.07	137.22	24.51	2.58	49.00	45.00	.00
*	.773	600.00	7.67	1381.52	.13	5.54	.00	63.07	59.52	2.79	49.00	45.00	49.00
*	.773	600.00	7.67	1382.56	.27	5.61	.01	67.69	29.72	3.69	49.00	45.00	.00
*	.893	370.00	11.89	1385.37	.15	3.42	.01	142.61	64.47	2.22	49.00	45.00	49.00
*	.893	370.00	11.89	1386.38	.42	3.78	.05	171.31	32.86	2.96	49.00	45.00	.00
*	1.016	450.00	10.44	1390.20	.14	4.54	.00	92.65	70.50	2.36	49.00	45.00	49.00
*	1.016	450.00	10.44	1391.24	.34	4.85	.01	87.39	36.03	3.20	49.00	45.00	.00
	1.094	450.00	10.00	1394.23	.05	4.02	.01	96.04	78.13	1.98	49.00	45.00	49.00
	1.094	450.00	10.00	1395.12	.13	3.86	.02	90.92	40.35	2.78	49.00	45.00	.00
*	1.177	450.00	14.44	1399.97	.24	8.09	.06	374.79	84.54	1.03	49.00	45.00	49.00
	1.177	450.00	14.44	1400.40	.17	5.27	.01	139.28	45.52	1.53	49.00	45.00	.00
*	1.285	590.00	11.36	1406.62	.04	6.64	.02	59.46	92.46	1.18	49.00	45.00	49.00
	1.285	590.00	11.36	1407.33	.20	6.92	.01	113.86	50.85	1.72	49.00	45.00	.00
*	1.375	620.00	10.16	1412.58	.13	5.93	.03	286.76	101.02	.76	49.00	45.00	49.00
	1.375	620.00	10.16	1413.74	.29	6.38	.03	119.31	55.52	1.75	49.00	45.00	49.00
*	1.495	690.00	9.13	1420.35	.08	7.76	.00	61.10	109.73	2.27	49.00	45.00	49.00
	1.495	690.00	9.13	1421.14	.32	7.39	.01	105.54	60.34	2.82	49.00	45.00	.00
*	1.601	600.00	9.83	1426.68	.24	5.55	.05	184.47	116.34	2.54	49.00	42.00	49.00
	1.601	600.00	9.83	1427.99	.61	6.76	.09	125.27	63.60	3.48	49.00	42.00	49.00
	1.668	390.00	17.18	1432.69	.14	6.00	.01	103.09	120.20	1.96	49.00	42.00	49.00
	1.668	390.00	17.18	1433.84	.59	5.85	.00	167.56	65.34	2.65	49.00	42.00	.00
*	1.730	320.00	11.25	1436.42	.27	3.31	.04	222.33	121.97	1.95	49.00	42.00	49.00
	1.730	320.00	11.25	1437.48	.37	3.62	.02	123.12	66.51	2.92	49.00	42.00	49.00

	SECND	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
*	1.808	410.00	13.41	1442.09	.18	5.66	.01	107.99	124.69	2.21	49.00	42.00	49.00
	1.808	410.00	13.41	1443.21	.62	5.65	.08	196.49	68.23	2.89	49.00	42.00	.00
*	1.860	275.00	15.27	1446.42	.41	3.39	.07	133.26	126.60	2.11	49.00	42.00	49.00
	1.860	275.00	15.27	1447.70	.87	4.42	.07	139.91	69.26	2.94	49.00	42.00	.00
	1.917	310.00	15.81	1450.81	.28	4.37	.01	179.93	128.26	1.73	49.00	42.00	49.00
	1.917	310.00	15.81	1452.01	.68	4.28	.02	172.25	70.28	2.53	49.00	42.00	49.00
	1.975	300.00	17.33	1455.93	.37	5.09	.03	149.97	130.09	1.55	49.00	42.00	49.00
	1.975	300.00	17.33	1456.58	.59	4.57	.01	142.93	71.46	1.99	.00	42.00	.00
	2.027	270.00	7.78	1459.45	.38	3.52	.00	133.48	131.38	2.96	49.00	42.00	49.00
	2.027	270.00	7.78	1460.46	.66	3.86	.02	153.38	72.52	3.70	.00	42.00	49.00
*	2.072	230.00	16.52	1463.18	.46	2.74	.02	119.75	132.48	2.83	49.00	42.00	49.00
	2.072	230.00	16.52	1464.24	1.09	3.65	.13	176.67	73.27	3.25	.00	42.00	.00
*	2.112	215.00	17.67	1466.77	.56	3.18	.03	198.19	133.42	2.51	49.00	42.00	49.00
	2.112	215.00	17.67	1467.24	.43	2.93	.07	112.15	74.01	3.10	.00	42.00	49.00
*	2.157	240.00	17.50	1471.43	.84	4.25	.08	164.05	134.24	2.68	49.00	42.00	49.00
*	2.157	240.00	17.50	1472.60	1.51	3.56	.32	226.21	74.75	3.19	.00	42.00	.00
*	2.172	80.00	33.75	1474.93	1.45	1.29	.30	158.14	134.45	2.88	.00	35.00	.00
*	2.172	80.00	33.75	1474.93	1.45	1.50	.02	158.26	74.92	2.88	.00	35.00	.00
*	2.204	169.00	4.14	1477.24	.67	2.31	.00	4.48	134.95	5.27	.00	12.00	.00
*	2.204	169.00	4.14	1477.24	.67	2.31	.00	4.47	75.43	5.27	.00	12.00	.00
*	2.216	38.00	18.42	1477.38	.30	.03	.11	15.78	135.14	5.08	.00	35.00	35.00
*	2.216	38.00	18.42	1477.38	.30	.03	.11	15.78	75.61	5.08	.00	35.00	35.00
*	-2.112	215.00	.00	1466.77	.56	.76	-.76	198.19	136.18	2.51	49.00	42.00	49.00
	-2.112	215.00	.00	1467.24	.43	.00	.00	112.10	76.70	3.10	.00	42.00	49.00
*	12.152	215.00	18.14	1470.63	.37	3.80	.06	111.69	136.60	2.65	.00	42.00	.00
*	12.152	215.00	18.14	1470.21	.87	2.44	.22	368.79	77.14	1.73	.00	42.00	.00
*	12.181	155.00	20.64	1475.46	1.47	.00	.00	125.34	136.67	3.18	.00	24.00	.00
*	12.181	155.00	20.64	1475.45	1.52	2.60	-2.60	130.10	77.20	3.14	.00	24.00	.00
*	12.189	40.00	82.50	1476.04	.07	.16	.42	20.08	136.74	1.87	16.00	35.00	49.00
*	12.189	40.00	82.50	1476.05	.09	.17	.43	21.37	77.26	1.86	16.00	35.00	49.00
*	12.197	43.00	6.75	1476.79	.38	.15	.09	73.43	136.82	2.01	16.00	35.00	.00
*	12.197	43.00	6.75	1476.79	.40	.16	.09	79.45	77.34	1.99	16.00	35.00	.00
	12.209	65.00	9.38	1477.29	.39	.51	.00	82.65	136.88	1.90	16.00	35.00	49.00
	12.209	65.00	9.38	1477.29	.37	.50	.00	75.16	77.40	1.92	16.00	35.00	49.00

	SECND	XLCH	K*CHSL	EG	HV	HL	OLOSS	10*KS	VOL	DEPTH	K*XNL	K*XNCH	K*XNR
	-2.027	270.00	.00	1459.44	.38	.00	.00	132.21	137.64	2.96	49.00	42.00	49.00
	-2.027	270.00	.00	1460.46	.66	.00	.00	153.63	78.04	3.70	.00	42.00	49.00
*	22.080	200.00	19.00	1461.64	.08	2.16	.03	30.24	138.28	1.65	49.00	42.00	49.00
*	22.080	200.00	19.00	1462.23	.03	1.71	.06	7.53	78.64	2.30	49.00	42.00	49.00
*	22.097	90.00	22.22	1464.61	.91	.65	.41	341.47	138.35	1.80	.00	42.00	.00
*	22.097	90.00	22.22	1464.61	.91	.21	.44	341.74	78.74	1.80	.00	42.00	.00
*	22.129	169.00	18.34	1468.57	.27	3.97	.00	19.79	138.43	3.30	.00	24.00	.00
*	22.129	169.00	18.34	1468.57	.27	3.97	.00	19.79	78.83	3.30	.00	24.00	.00
*	22.140	55.00	90.91	1472.22	.40	.22	.06	113.31	138.47	1.82	16.00	35.00	.00
*	22.140	55.00	90.91	1472.22	.41	.23	.07	115.73	78.86	1.81	16.00	35.00	.00
	22.182	227.00	16.30	1474.70	.23	2.43	.05	101.62	138.64	.77	16.00	35.00	49.00
	22.182	227.00	16.30	1474.70	.23	2.43	.05	99.48	79.03	.77	16.00	35.00	49.00

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      .474  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .623  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .623  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .773  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .773  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .893  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .893  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=      .893  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.016  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.016  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     1.016  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.177  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.177  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=     1.285  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.375  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.495  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.601  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.601  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.730  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.730  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.808  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.860  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.860  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.072  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.072  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.112  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.112  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.157  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.157  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.157  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.157  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     2.172  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.172  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.172  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=     2.172  PROFILE=  2  CRITICAL DEPTH ASSUMED
```

```
CAUTION SECNO=     2.172  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.204  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.204  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.216  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.216  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    -2.112  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    12.152  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    12.152  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.152  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.152  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    12.181  PROFILE=  1  WSEL ASSUMED BASED ON MIN DIFF
CAUTION SECNO=    12.181  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    12.181  PROFILE=  1  HYDRAULIC JUMP D.S.
CAUTION SECNO=    12.181  PROFILE=  2  WSEL ASSUMED BASED ON MIN DIFF
CAUTION SECNO=    12.181  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    12.189  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    12.189  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    12.197  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.197  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.197  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    12.197  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    12.197  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    12.197  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    22.080  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.080  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.097  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.097  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.097  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    22.097  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.097  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.097  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    22.129  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    22.129  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    22.129  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    22.129  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.140  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.140  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.140  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    22.140  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.140  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.140  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

FLOODWAY DATA, WASH NO 8 100 YEAR PROFI
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.114	332.	449.	3.2	1356.8	1355.8	1.0
.265	321.	442.	3.3	1364.1	1363.1	1.0
.362	316.	383.	3.8	1369.0	1368.1	.9
.474	534.	538.	2.7	1372.9	1371.9	1.0
.623	325.	347.	4.2	1376.5	1375.8	.7
.773	323.	409.	3.5	1382.3	1381.4	.9
.893	334.	329.	4.4	1385.9	1385.2	.7
1.016	278.	367.	3.9	1390.9	1390.1	.8
1.094	649.	509.	2.8	1395.0	1394.2	.8
1.177	643.	438.	3.3	1400.2	1399.7	.5
1.285	371.	409.	3.5	1407.1	1406.6	.5
1.375	249.	342.	4.2	1413.5	1412.5	1.0
1.495	220.	302.	4.2	1420.8	1420.3	.5
1.601	90.	179.	6.1	1427.3	1426.4	.9
1.668	126.	190.	5.8	1433.3	1432.6	.7
1.730	140.	228.	4.8	1437.1	1436.1	1.0
1.808	124.	183.	6.0	1442.6	1441.9	.7
1.860	60.	152.	7.2	1446.8	1446.0	.8
1.917	101.	177.	6.2	1451.3	1450.5	.8
1.975	97.	177.	6.2	1456.0	1455.6	.4
2.027	100.	181.	6.1	1459.8	1459.1	.7
2.072	46.	117.	8.4	1463.1	1462.7	.4
2.112	123.	190.	5.2	1466.8	1466.2	.6
2.157	30.	90.	9.9	1471.1	1470.6	.5
2.172	32.	92.	9.7	1473.5	1473.5	.0
2.204	32.	169.	6.6	1476.6	1476.6	.0
2.216	62.	259.	4.3	1477.1	1477.1	.0
-2.112	123.	190.	5.2	1466.8	1466.2	.6
12.152	7.	12.	7.5	1469.4	1470.3	-.9
12.181	7.	22.	9.9	1474.0	1474.0	.0
12.189	105.	110.	2.0	1476.0	1476.0	.0
12.197	59.	43.	5.1	1476.4	1476.4	.0
12.209	58.	46.	4.7	1476.9	1476.9	.0
-2.027	100.	180.	6.1	1459.8	1459.1	.7
22.080	45.	81.	1.4	1462.2	1461.6	.6
22.097	9.	15.	7.6	1463.7	1463.7	.0
22.129	9.	28.	4.2	1468.3	1468.3	.0
22.140	31.	25.	5.1	1471.8	1471.8	.0
22.182	83.	41.	3.1	1474.5	1474.5	.0