EXHIBIT F

NEW HEC-2 COMPUTER PROGRAM INPUT & OUTPUT FILE

ENCROACHMENT RUN (FILE CSKWPKE1)

COWSKIN CREEK

BETWEEN TYLER ROAD AND PAWNEE AVENUE

WICHITA, KANSAS

```
**********************************************************
*  WATER SURFACE PROFILES                                *
*  VERSION OF NOVEMBER 1976                              *
*  UPDATED MAY 1984                                      *
*  IBM-PC-XT VERSION                                     *
*  RUN DATE  04/11/88  TIME  17:59:38                    *
**********************************************************
```


```
**************************************
*  U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D        *
*  DAVIS, CALIFORNIA 95616           *
*  (916) 440-2105 (FTS) 448-2105     *
**************************************
```


```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                       X
XXXXXXX   XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```

THIS RUN EXECUTED 04/11/88 18:00:05

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************

C
T1 COWSKIN CREEK W\MKEC PROFILE 3 INPUT FILE CALIBRATION RUN FILE CSKWPKE1.HC2
T2 WICHITA KANSAS FIS REVISION FOR WOODLAND @ THE PARK ADDITION
T3              100YR NAT & FLDY PROFILE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

      0.         2.         0.         0.    .000000        .00        .0         0.   1301.200       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000       .000     -1.000       .000       .000       .000       .000       .000       .000       .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    110.000    200.000       .000       .000       .000       .000       .000       .000       .000       .000


NC       .035       .035       .038       .050       .050       .000       .000       .000       .000       .000
QT      3.000  17400.000  17400.000  17400.000       .000       .000       .000       .000       .000       .000
ET       .000       .000      2.400       .000       .000       .000       .000       .000       .000       .000
          FIRST MKEC CROSS SECTION
X1    258.250     17.000    920.000    983.000       .000       .000       .000       .000       .000       .000
GR   1320.000       .000   1310.000    280.000   1300.000    500.000   1298.000    655.000   1296.000    855.000
GR   1294.000    920.000   1290.000    940.000   1287.900    955.000   1288.000    970.000   1290.000    983.000
GR   1292.000   1025.000   1296.000   1040.000   1298.000   1875.000   1299.000   1900.000   1300.000   2420.000
GR   1305.000   2550.000   1310.000   2650.000       .000       .000       .000       .000       .000       .000

X1    276.250     13.000    580.000    780.000   1800.000   1800.000   1800.000       .000       .000       .000
GR   1320.000       .000   1310.000       .000   1305.000    150.000   1305.000    580.000   1290.000    660.000
GR   1289.000    680.000   1290.000    710.000   1295.000    780.000   1300.000   1600.000   1300.000   2080.000
GR   1300.000   2290.000   1310.000   2500.000   1320.000   2500.000       .000       .000       .000       .000

X1    283.500     15.000   1250.000   1415.000    725.000    725.000    725.000       .000       .000       .000
GR   1320.000       .000   1315.000    180.000   1310.000    370.000   1307.000    590.000   1302.000    870.000
GR   1300.000   1130.000   1298.000   1250.000   1290.000   1290.000   1289.500   1320.000   1290.000   1350.000
GR   1296.000   1415.000   1298.000   1520.000   1299.000   3400.000   1300.000   4100.000   1310.000   4100.000

ET       .000       .000      4.400       .000       .000       .000       .000       .000       .000       .000
          TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL
X1    284.900     21.000   1250.000   1455.000    140.000    140.000    140.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000   1304.000   1304.000       .000
GR   1320.000       .000   1310.000    370.000   1304.000    760.000   1302.000    870.000   1300.000   1130.000
GR   1298.000   1250.000   1298.000   1250.100   1298.000   1265.000   1292.000   1320.000   1290.000   1330.000
GR   1289.500   1345.000   1290.000   1365.000   1292.000   1375.000   1294.000   1435.000   1297.000   1455.000
GR   1297.000   1455.100   1298.000   1520.000   1298.500   1920.000   1299.000   3400.000   1299.000   3800.000
```

GR	1307.000	4750.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000
	TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.000	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
	TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.300	.000	.000	.000	30.000	30.000	30.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
	TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.400	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
NC	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	7.400	.000	.000	.000	.000	.000	.000	.000
X1	287.300	14.000	1405.000	1610.000	250.000	150.000	200.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1302.000	650.000	1300.000	1155.000	1298.000	1380.000
GR	1294.000	1405.000	1292.000	1460.000	1290.200	1495.000	1292.000	1517.000	1298.000	1540.000
GR	1298.000	1610.000	1299.500	2240.000	1300.000	3820.000	1310.000	4060.000	.000	.000
ET	.000	.000	8.100	.000	.000	.000	.000	983.000	2003.000	.000
	G&O CROSS SECTION A @ RM 6.47									
X1	301.300	15.000	1030.000	1170.000	700.000	1100.000	1800.000	.000	.000	.000
GR	1320.000	.000	1320.000	280.000	1305.000	400.000	1300.000	910.000	1298.000	1030.000
GR	1294.000	1060.000	1290.800	1100.000	1294.000	1130.000	1298.000	1170.000	1300.000	1290.000
GR	1300.000	1750.000	1297.000	1920.000	1300.000	2010.000	1310.000	2760.000	1314.000	2980.000
ET	.000	.000	8.100	.000	.000	.000	.000	1130.000	1912.000	.000
	G&O CROSS SECTION B @ RM 6.70									
X1	314.300	19.000	1785.000	1912.000	950.000	1450.000	1580.000	.000	.000	.000
GR	1330.000	.000	1320.000	.000	1310.000	220.000	1304.000	390.000	1302.000	490.000
GR	1300.000	1785.000	1298.000	1795.000	1296.000	1820.000	1294.000	1822.000	1292.000	1825.000
GR	1291.500	1830.000	1291.500	1840.000	1292.000	1850.000	1294.000	1863.000	1296.000	1880.000
GR	1304.000	1912.000	1310.000	2120.000	1320.000	2535.000	1330.000	2535.000	.000	.000
ET	.000	.000	6.400	.000	.000	.000	.000	.000	.000	.000
X1	335.000	17.000	1450.000	1675.000	1450.000	2050.000	2200.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1300.000	1530.000	1298.000	1550.000	1296.000	1630.000	1292.000	1640.000	1291.800	1650.000
GR	1292.000	1655.000	1302.000	1675.000	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000
GR	1315.000	3300.000	1325.000	3800.000	.000	.000	.000	.000	.000	.000
X1	336.300	15.000	1580.000	1675.000	130.000	130.000	130.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1302.000	1580.000	1292.000	1595.000	1292.000	1620.000	1294.000	1655.000	1302.000	1675.000
GR	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000	1315.000	3300.000	1325.000	3800.000

X1	336.400	15.000	1580.000	1675.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1302.000	1580.000	1292.000	1595.000	1292.000	1620.000	1294.000	1655.000	1302.000	1675.000
GR	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000	1315.000	3300.000	1325.000	3800.000
	PAWNEE AVENUE									
X1	336.650	.000	.000	.000	25.000	25.000	25.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X1	336.750	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
ET	.000	.000	8.100	.000	.000	.000	.000	1014.000	1764.000	.000
	G&O CROSS SECTION C @ RM 7.14									
X1	337.700	15.000	1395.000	1480.000	95.000	95.000	95.000	.000	.000	.000
GR	1320.000	.000	1310.000	25.000	1305.000	800.000	1302.000	1395.000	1292.000	1440.000
GR	1291.900	1450.000	1292.000	1460.000	1298.000	1480.000	1300.000	1545.000	1302.000	1575.000
GR	1304.000	1770.000	1308.000	2520.000	1310.000	2540.000	1314.000	2760.000	1320.000	3400.000
ET	.000	.000	6.400	.000	.000	.000	.000	.000	.000	.000
X1	357.700	21.000	1205.000	1530.000	1875.000	2225.000	3015.000	.000	.000	.000
GR	1324.000	.000	1314.000	.000	1306.000	335.000	1304.000	1050.000	1304.000	1205.000
GR	1302.000	1230.000	1296.000	1245.000	1293.700	1255.000	1302.000	1290.000	1302.000	1304.000
GR	1302.000	1370.000	1302.000	1470.000	1304.000	1530.000	1304.000	1820.000	1306.000	1960.000
GR	1306.000	2120.000	1308.000	2235.000	1310.000	2300.000	1312.000	2405.000	1314.000	2570.000
GR	1324.000	2570.000	.000	.000	.000	.000	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

*PROF 1

CCHV= .050 CEHV= .050

*SECNO 258.250

FIRST MKEC CROSS SECTION

258.25	13.30	1301.20	.00	1301.20	1301.30	.10	.00	.00	1294.00
17400.	3517.	2875.	11008.	1600.	725.	5014.	0.	0.	1290.00
.00	2.20	3.97	2.20	.035	.038	.035	.000	1287.90	473.60
.000401	0.	0.	0.	0	0	0	.00	1977.60	2451.20

*SECNO 276.250

276.25	12.97	1301.97	.00	.00	1302.09	.12	.79	.00	1305.00
17400.	0.	6171.	11229.	0.	1668.	5059.	291.	77.	1295.00
.18	.00	3.70	2.22	.035	.038	.035	.000	1289.00	596.18
.000478	1800.	1800.	1800.	2	0	0	.00	1735.10	2331.28

*SECNO 283.500

283.50	12.75	1302.25	.00	.00	1302.29	.04	.20	.00	1298.00
17400.	694.	4076.	12630.	717.	1681.	9527.	446.	118.	1296.00
.31	.97	2.42	1.33	.035	.038	.035	.000	1289.50	855.99
.000175	725.	725.	725.	2	0	0	.00	3244.01	4100.00

*SECNO 284.900

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

284.90	10.18	1299.68	.00	.00	1302.51	2.83	.08	.14	1298.00
17400.	0.	17400.	0.	0.	1289.	0.	467.	124.	1297.00
.31	.00	13.49	.00	.035	.038	.035	.000	1289.50	1850.00
.010322	140.	140.	140.	5	0	0	.00	205.00	1455.00

*SECNO 285.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
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= 1304.00 ELREA= 1304.00

TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.00	10.75	1300.25	.00	.00	1302.64	2.38	.11	.02	1298.00
17400.	0.	17400.	0.	0.	1404.	0.	467.	124.	1297.00
.31	.00	12.39	.00	.045	.045	.045	.000	1289.50	1250.00
.010890	10.	10.	10.	4	0	0	.00	205.00	1455.00

*SECNO 285.300

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.30	11.49	1300.99	.00	.00	1302.93	1.94	.27	.02	1298.00
17400.	0.	17400.	0.	0.	1557.	0.	468.	124.	1297.00
.31	.00	11.18	.00	.045	.045	.045	.000	1289.50	1250.00
.007721	30.	30.	30.	3	0	0	.00	205.00	1455.00

*SECNO 285.400

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.40	11.65	1301.15	.00	.00	1303.01	1.86	.07	.00	1298.00
17400.	0.	17400.	0.	0.	1589.	0.	469.	124.	1297.00
.31	.00	10.95	.00	.045	.045	.045	.000	1289.50	1250.00
.007209	10.	10.	10.	2	0	0	.00	205.00	1455.00

*SECNO 287.300

3301 HV CHANGED MORE THAN HVINS

287.30	13.00	1303.20	.00	.00	1303.24	.04	.14	.09	1294.00
17400.	2654.	4058.	10688.	2251.	1803.	8370.	497.	131.	1298.00
.35	1.18	2.25	1.28	.045	.045	.045	.000	1290.20	620.08
.000258	250.	200.	150.	2	0	0	.00	3276.64	3896.72

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

*SECNO 301.300
G&O CROSS SECTION A @ RM 6.47

	301.30	12.82	1303.62	.00	.00	1303.76	.14	.52	.01	1298.00
A	17400.	2376.	5499.	9525.	1224.	1319.	4045.	747.	191.	1298.00
	.47	1.94	4.17	2.35	.045	.045	.045	.000	1290.80	540.52
	.000806	700.	1800.	1100.	3	0	0	.00	1741.15	2281.67

*SECNO 314.300
G&O CROSS SECTION B @ RM 6.70

	314.30	13.26	1304.76	.00	.00	1304.91	.15	1.14	.00	1300.00
B	17400.	12576.	4819.	5.	5045.	1104.	10.	926.	236.	1304.00
	.59	2.49	4.36	.55	.045	.045	.045	.000	1291.50	368.64
	.001007	950.	1580.	1450.	2	0	0	.00	1569.49	1938.13

*SECNO 335.000

	335.00	15.08	1306.88	.00	.00	1307.23	.35	2.32	.01	1302.00
	17400.	2956.	10949.	3495.	1148.	1970.	1115.	1134.	286.	1302.00
	.70	2.57	5.56	3.13	.045	.045	.045	.000	1291.80	898.66
	.001599	1450.	2200.	2050.	2	0	0	.00	1113.08	2011.74

*SECNO 336.300

	336.30	15.03	1307.03	.00	.00	1307.44	.41	.20	.00	1302.00
	17400.	5638.	8128.	3633.	1884.	1198.	1165.	1146.	289.	1302.00
	.71	2.99	6.79	3.12	.045	.045	.045	.000	1292.00	877.66
	.001533	130.	130.	130.	2	0	0	.00	1140.55	2018.21

*SECNO 336.400

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

	336.40	15.03	1307.03	.00	.00	1307.47	.44	.03	.00	1302.00
	17400.	7159.	6139.	4103.	1480.	1009.	839.	1147.	290.	1302.00
	.71	4.84	6.09	4.89	.045	.045	.045	.000	1292.00	876.38
	.006432	10.	10.	10.	1	0	0	-928.75	1142.23	2018.61

*SECNO 336.650

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

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

PAWNEE AVENUE

336.65	15.24	1307.24	.00	.00	1307.62	.38	.15	.00	1302.00
17400.	7419.	5776.	4205.	1624.	1028.	909.	1149.	290.	1302.00
.71	4.57	5.62	4.63	.045	.045	.045	.000	1292.00	847.65
.005353	25.	25.	25.	2	0	0	-928.75	1179.81	2027.46

*SECNO 336.750

336.75	15.29	1307.29	.00	.00	1307.64	.35	.02	.00	1302.00
17400.	5894.	7776.	3730.	2077.	1223.	1258.	1150.	291.	1302.00
.71	2.84	6.36	2.96	.045	.045	.045	.000	1292.00	839.25
.001308	10.	10.	10.	0	0	0	.00	1190.80	2030.05

*SECNO 337.700

G&O CROSS SECTION C @ RM 7.14

337.70	15.70	1307.60	.00	.00	1307.74	.14	.09	.01	1302.00
17400.	6093.	4823.	6485.	2972.	1043.	2877.	1162.	294.	1298.00
.72	2.05	4.62	2.25	.045	.045	.045	.000	1291.90	395.66
.000715	95.	95.	95.	0	0	0	.00	2050.96	2446.62

*SECNO 357.700

357.70	15.25	1308.95	.00	.00	1309.02	.07	1.27	.00	1304.00
17400.	6451.	6287.	4662.	3773.	2435.	2699.	1570.	395.	1304.00
1.04	1.71	2.58	1.73	.045	.045	.045	.000	1293.70	211.48
.000421	1875.	3015.	2225.	3	0	0	.00	2054.38	2265.87

THIS RUN EXECUTED 04/11/88 18:04:32

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************

T1 COWSKIN CREEK W\MKEC PROFILE 3 INPUT FILE ENCROACHMENT RUN
T2 WICHITA KANSAS FIS REVISION FOR WOODLAND @ THE PARK ADDITION
T3               100 YR FLDY RUN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.        3.         0.         0.    .000000        .00        .0         0.   1302.200       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

    15.000       .000     -1.000       .000       .000       .000       .000       .000       .000       .000
```

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

*PROF 2

CCHV= .050 CEHV= .050

*SECNO 258.250

2800 NAT Q1= 8684.25 WSEL= 1301.20 ENC Q1= 8684.25 WSEL= 1301.40 RATIO= .0000

NAT Q1= 9340. RATIOS LOB,CH,ROB= .2037 .1581 .6382 WSEL= 1301.40

3470 ENCROACHMENT STATIONS= 663.0 2106.4 TYPE= 4 TARGET= .070

FIRST MKEC CROSS SECTION

258.25	14.30	1302.20	.00	1301.20	1302.28	.08	.00	.00	1294.00
17400.	3170.	2600.	11630.	1474.	788.	5647.	0.	0.	1290.00
.00	2.15	3.30	2.06	.035	.038	.035	.000	1287.90	663.00
.000249	0.	0.	0.	0	0	0	.00	1443.38	2106.38

*SECNO 276.250

2800 NAT Q1= 7961.09 WSEL= 1301.97 ENC Q1= 7961.09 WSEL= 1302.17 RATIO= .0000

NAT Q1= 8537. RATIOS LOB,CH,ROB= .0000 .3417 .6583 WSEL= 1302.17

3470 ENCROACHMENT STATIONS= 580.0 1931.7 TYPE= 4 TARGET= .067

276.25	13.70	1302.70	.00	1301.97	1302.81	.11	.52	.00	1305.00
17400.	0.	5911.	11489.	0.	1804.	5161.	307.	57.	1295.00
.19	.00	3.28	2.23	.035	.038	.035	.000	1289.00	592.26
.000347	1800.	1800.	1800.	2	0	0	.00	1339.44	1931.70

*SECNO 283.500

2800 NAT Q1= 13134.75 WSEL= 1302.25 ENC Q1= 13134.75 WSEL= 1302.45 RATIO= .0000

NAT Q1= 14218. RATIOS LOB,CH,ROB= .0427 .2236 .7337 WSEL= 1302.45

3470 ENCROACHMENT STATIONS= 1235.7 3843.4 TYPE= 4 TARGET= .076

283.50	13.42	1302.92	.00	1302.25	1302.95	.04	.14	.00	1298.00
17400.	78.	3856.	13467.	69.	1792.	10527.	468.	90.	1296.00
.33	1.13	2.15	1.28	.035	.038	.035	.000	1289.50	1235.66
.000127	725.	725.	725.	2	0	0	.00	2607.77	3843.43

*SECNO 284.900

2800 NAT Q1= 1712.63 WSEL= 1299.68 ENC Q1= 1895.40 WSEL= 1300.08 RATIO= -.1067

NAT Q1= 1895. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 1300.08

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 1250.0 1455.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

284.90	11.81	1301.31	.00	1299.68	1303.10	1.79	.05	.09	1298.00
17400.	0.	17400.	0.	0.	1622.	0.	491.	95.	1297.00
.33	.00	10.73	.00	.035	.038	.035	.000	1289.50	1250.00
.004937	140.	140.	140.	4	0	0	.00	205.00	1455.00

*SECNO 285.000
2800 NAT Q1= 1667.41 WSEL= 1300.25 ENC Q1= 1835.36 WSEL= 1300.65 RATIO= -.1007
NAT Q1= 1835. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 1300.65

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

3470 ENCROACHMENT STATIONS= 1250.0 1455.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.00	11.91	1301.41	.00	1300.25	1303.15	1.74	.06	.00	1298.00
17400.	0.	17400.	0.	0.	1644.	0.	491.	95.	1297.00
.33	.00	10.59	.00	.045	.045	.045	.000	1289.50	1250.00
.006627	10.	10.	10.	2	0	0	.00	205.00	1455.00

*SECNO 285.300
2800 NAT Q1= 1980.26 WSEL= 1300.99 ENC Q1= 2157.68 WSEL= 1301.39 RATIO= -.0896
NAT Q1= 2158. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 1301.39

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

3470 ENCROACHMENT STATIONS= 1250.0 1455.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.30	12.24	1301.74	.00	1300.99	1303.35	1.61	.19	.01	1298.00
17400.	0.	17400.	0.	0.	1711.	0.	492.	95.	1297.00
.34	.00	10.17	.00	.045	.045	.045	.000	1289.50	1250.00
.005812	30.	30.	30.	2	0	0	.00	205.00	1455.00

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

*SECNO 285.400
2800 NAT Q1= 2049.27 WSEL= 1301.15 ENC Q1= 2228.53 WSEL= 1301.55 RATIO= -.0875
NAT Q1= 2229. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 1301.55

3470 ENCROACHMENT STATIONS= 1250.0 1455.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1304.00 ELREA= 1304.00

TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL

285.40	12.34	1301.84	.00	1301.15	1303.41	1.57	.06	.00	1298.00
17400.	0.	17400.	0.	0.	1730.	0.	493.	95.	1297.00
.34	.00	10.06	.00	.045	.045	.045	.000	1289.50	1250.00
.005605	10.	10.	10.	2	0	0	.00	205.00	1455.00

*SECNO 287.300
2800 NAT Q1= 10843.01 WSEL= 1303.20 ENC Q1= 10843.01 WSEL= 1303.90 RATIO= .0000
NAT Q1= 14068. RATIOS LOB,CH,ROB= .1639 .2044 .6317 WSEL= 1303.90

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1301.3 3361.5 TYPE= 4 TARGET= .229

287.30	13.38	1303.58	.00	1303.20	1303.63	.06	.15	.08	1294.00
17400.	1125.	4824.	11451.	601.	1881.	7417.	516.	99.	1298.00
.36	1.87	2.57	1.54	.045	.045	.045	.000	1290.20	1301.27
.000316	250.	200.	150.	3	0	0	.00	2060.22	3361.49

*SECNO 301.300

3470 ENCROACHMENT STATIONS= 983.0 2003.0 TYPE= 1 TARGET= 1020.000
G&O CROSS SECTION A @ RM 6.47

301.30	13.29	1304.09	.00	1303.62	1304.27	.18	.63	.01	1298.00
17400.	760.	6068.	10573.	268.	1385.	3917.	733.	140.	1298.00
.47	2.84	4.38	2.70	.045	.045	.045	.000	1290.80	983.00
.000835	700.	1800.	1100.	3	0	0	.00	1020.00	2003.00

*SECNO 314.300

3470 ENCROACHMENT STATIONS= 1130.0 1912.0 TYPE= 1 TARGET= 782.000
G&O CROSS SECTION B @ RM 6.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
314.30	13.89	1305.39	.00	1304.76	1305.66	.28	1.39	.00	1300.00
17400.	11151.	6249.	0.	3197.	1185.	0.	883.	167.	100000.00
.56	3.49	5.27	.00	.045	.045	.045	.000	1291.50	1130.00
.001359	950.	1580.	1450.	2	0	0	.00	782.00	1912.00

*SECNO 335.000
2800 NAT Q1= 4351.54 WSEL= 1306.88 ENC Q1= 4351.54 WSEL= 1307.48 RATIO= .0000
NAT Q1= 5205. RATIOS LOB,CH,ROB= .1997 .5875 .2128 WSEL= 1307.48

3470 ENCROACHMENT STATIONS= 1296.6 1796.0 TYPE= 4 TARGET= .164

335.00	16.05	1307.85	.00	1306.88	1308.25	.39	2.58	.01	1302.00
17400.	2568.	12043.	2788.	741.	2189.	708.	1050.	192.	1302.00
.67	3.47	5.50	3.94	.045	.045	.045	.000	1291.80	1296.64
.001363	1450.	2200.	2050.	2	0	0	.00	499.33	1795.97

*SECNO 336.300
2800 NAT Q1= 4444.43 WSEL= 1307.03 ENC Q1= 4444.43 WSEL= 1307.63 RATIO= .0000
NAT Q1= 5300. RATIOS LOB,CH,ROB= .3561 .4233 .2206 WSEL= 1307.63

3470 ENCROACHMENT STATIONS= 1278.0 1801.8 TYPE= 4 TARGET= .161

336.30	15.98	1307.98	.00	1307.03	1308.42	.45	.17	.00	1302.00
17400.	5925.	8531.	2945.	1610.	1288.	757.	1061.	193.	1302.00
.68	3.68	6.62	3.89	.045	.045	.045	.000	1292.00	1277.99
.001326	130.	130.	130.	2	0	0	.00	523.76	1801.75

*SECNO 336.400
2800 NAT Q1= 2169.50 WSEL= 1307.03 ENC Q1= 2169.50 WSEL= 1307.63 RATIO= .0000
NAT Q1= 2825. RATIOS LOB,CH,ROB= .4523 .2965 .2512 WSEL= 1307.63

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

3470 ENCROACHMENT STATIONS= 1235.6 1803.0 TYPE= 4 TARGET= .232

336.40	15.90	1307.90	.00	1307.03	1308.45	.55	.02	.01	1302.00
17400.	7948.	6465.	2987.	1327.	1091.	499.	1062.	194.	1302.00
.68	5.99	5.93	5.98	.045	.045	.045	.000	1292.00	1235.58
.005502	10.	10.	10.	2	0	0	-855.35	567.46	1803.04

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

*SECNO 336.650
2800 NAT Q1= 2378.25 WSEL= 1307.24 ENC Q1= 2378.25 WSEL= 1307.84 RATIO= .0000
NAT Q1= 3082. RATIOS LOB,CH,ROB= .4645 .2802 .2553 WSEL= 1307.84

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 1304.00 MAX ELLC= 1302.00

3470 ENCROACHMENT STATIONS= 1220.1 1806.3 TYPE= 4 TARGET= .228
PAWNEE AVENUE

336.65	16.09	1308.09	.00	1307.24	1308.58	.49	.13	.00	1302.00
17400.	8224.	6125.	3052.	1447.	1109.	537.	1064.	194.	1302.00
.68	5.68	5.52	5.68	.045	.045	.045	.000	1292.00	1220.15
.004675	25.	25.	25.	2	0	0	-861.15	586.15	1806.29

*SECNO 336.750
2800 NAT Q1= 4810.66 WSEL= 1307.29 ENC Q1= 4810.66 WSEL= 1307.89 RATIO= .0000
NAT Q1= 5709. RATIOS LOB,CH,ROB= .3690 .4060 .2250 WSEL= 1307.89

3470 ENCROACHMENT STATIONS= 1252.6 1808.2 TYPE= 4 TARGET= .157

336.75	16.22	1308.22	.00	1307.29	1308.61	.38	.02	.01	1302.00
17400.	6197.	8152.	3051.	1784.	1311.	827.	1064.	194.	1302.00
.68	3.47	6.22	3.69	.045	.045	.045	.000	1292.00	1252.60
.001141	10.	10.	10.	2	0	0	.00	555.61	1808.21

*SECNO 337.700

3470 ENCROACHMENT STATIONS= 1014.0 1764.0 TYPE= 1 TARGET= 750.000
G&O CROSS SECTION C @ RM 7.14

337.70	16.59	1308.49	.00	1307.60	1308.70	.21	.09	.01	1302.00
17400.	5834.	5470.	6096.	2108.	1118.	1886.	1074.	195.	1298.00
.68	2.77	4.89	3.23	.045	.045	.045	.000	1291.90	1014.00
.000729	95.	95.	95.	1	0	0	.00	750.00	1764.00

*SECNO 357.700
2800 NAT Q1= 8480.29 WSEL= 1308.95 ENC Q1= 8480.29 WSEL= 1309.55 RATIO= .0000
NAT Q1= 10321. RATIOS LOB,CH,ROB= .3843 .3375 .2782 WSEL= 1309.55

3470 ENCROACHMENT STATIONS= 585.2 1879.3 TYPE= 4 TARGET= .178

357.70	16.12	1309.82	.00	1308.95	1309.90	.08	1.19	.01	1304.00
17400.	6343.	7025.	4032.	3307.	2720.	2009.	1423.	247.	1304.00
.98	1.92	2.58	2.01	.045	.045	.045	.000	1293.70	585.25
.000364	1875.	3015.	2225.	2	0	0	.00	1294.01	1879.26

THIS RUN EXECUTED 04/11/88 18:07:47

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************
```

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

100YR NAT & FLDY

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	GLOB	GCH	GROB	PERENC	STENCL	STCHL	STCHR	STENCR
	258.250	1301.20	.00	1301.30	1977.60	3517.06	2875.24	11007.71	.00	.00	920.00	983.00	.00
	258.250	1302.20	1.00	1302.28	1443.38	3170.05	2599.65	11630.30	.07	663.00	920.00	983.00	2106.39
	276.250	1301.97	.00	1302.09	1735.10	.00	6171.25	11228.75	.00	.00	580.00	780.00	.00
	276.250	1302.70	.74	1302.81	1339.44	.00	5910.70	11489.30	.07	580.00	580.00	780.00	1931.70
	283.500	1302.25	.00	1302.29	3244.01	693.74	4076.26	12630.00	.00	.00	1250.00	1415.00	.00
	283.500	1302.92	.67	1302.95	2607.77	77.64	3855.50	13466.86	.08	1235.66	1250.00	1415.00	3843.43
	284.900	1299.68	.00	1302.51	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
	284.900	1301.31	1.63	1303.10	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
	285.000	1300.25	.00	1302.64	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
	285.000	1301.41	1.16	1303.15	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
	285.300	1300.99	.00	1302.93	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
	285.300	1301.74	.75	1303.35	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
	285.400	1301.15	.00	1303.01	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
	285.400	1301.84	.69	1303.41	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
	287.300	1303.20	.00	1303.24	3276.64	2654.40	4057.59	10688.01	.00	.00	1405.00	1610.00	.00
	287.300	1303.58	.38	1303.63	2060.22	1124.82	4824.50	11450.68	.23	1301.27	1405.00	1610.00	3361.49
A	301.300	1303.62	.00	1303.76	1741.15	2375.73	5498.98	9525.29	.00	.00	1030.00	1170.00	.00
	301.300	1304.09	.47	1304.27	1020.00	759.51	6067.74	10572.74	1020.00	983.00	1030.00	1170.00	2003.00
B	314.300	1304.76	.00	1304.91	1569.49	12575.56	4819.06	5.38	.00	.00	1785.00	1912.00	.00
	314.300	1305.39	.63	1305.66	782.00	11150.59	6249.41	.00	782.00	1130.00	1785.00	1912.00	1912.00
	335.000	1306.88	.00	1307.23	1113.08	2955.83	10948.88	3495.29	.00	.00	1450.00	1675.00	.00
	335.000	1307.85	.97	1308.25	499.33	2568.24	12043.46	2788.30	.16	1296.64	1450.00	1675.00	1795.97

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
336.300	1307.03	.00	1307.44	1140.55	5638.33	8128.46	3633.21	.00	.00	1580.00	1675.00	.00
336.300	1307.98	.95	1308.42	523.76	5924.77	8530.63	2944.60	.16	1277.99	1580.00	1675.00	1801.75
336.400	1307.03	.00	1307.47	1142.23	7158.81	6138.57	4102.63	.00	.00	1580.00	1675.00	.00
336.400	1307.90	.87	1308.45	567.46	7948.45	6464.96	2986.59	.23	1235.58	1580.00	1675.00	1803.04
336.650	1307.24	.00	1307.62	1179.81	7418.98	5776.19	4204.83	.00	.00	1580.00	1675.00	.00
336.650	1308.09	.85	1308.58	586.15	8223.63	6124.76	3051.61	.23	1220.15	1580.00	1675.00	1806.29
336.750	1307.29	.00	1307.64	1190.80	5893.59	7776.27	3730.14	.00	.00	1580.00	1675.00	.00
336.750	1308.22	.93	1308.61	555.61	6197.38	8152.05	3050.57	.16	1252.60	1580.00	1675.00	1808.21
337.700	1307.60	.00	1307.74	2050.96	6092.61	4822.52	6484.86	.00	.00	1395.00	1480.00	.00
337.700	1308.49	.89	1308.70	750.00	5833.95	5469.78	6096.27	750.00	1014.00	1395.00	1480.00	1764.00
357.700	1308.95	.00	1309.02	2054.38	6451.03	6287.12	4661.85	.00	.00	1205.00	1530.00	.00
357.700	1309.82	.88	1309.90	1294.01	6342.86	7025.13	4032.01	.18	585.25	1205.00	1530.00	1879.26

SUMMARY OF ERRORS AND SPECIAL NOTES

FLOODWAY DATA, 100YR NAT & FLDY
PROFILE NO. 2

	STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
	258.250	1443.	7909.	2.2	1302.2	1301.2	1.0
	276.250	1339.	6965.	2.5	1302.7	1302.0	.7
	283.500	2608.	12388.	1.4	1303.0	1302.3	.7
	284.900	205.	1622.	10.7	1301.3	1299.7	1.6
	285.000	205.	1644.	10.6	1301.5	1300.3	1.2
	285.300	205.	1711.	10.2	1301.7	1301.0	.7
	285.400	205.	1730.	10.1	1301.8	1301.1	.7
	287.300	2060.	9898.	1.8	1303.6	1303.2	.4
A	301.300	1020.	5570.	3.1	1304.1	1303.6	.5
B	314.300	782.	4382.	4.0	1305.4	1304.8	.6
	335.000	499.	3638.	4.8	1307.9	1306.9	1.0
	336.300	524.	3655.	4.8	1307.9	1307.0	.9
	336.400	567.	2917.	6.0	1307.9	1307.0	.9
	336.650	586.	3093.	5.6	1308.1	1307.2	.9
	336.750	556.	3922.	4.4	1308.2	1307.3	.9
C	337.700	750.	5112.	3.4	1308.5	1307.6	.9
	357.700	1294.	8036.	2.2	1309.8	1308.9	.9

THIS RUN EXECUTED 04/11/88 18:09:18

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************
```

EXHIBIT G

NEW HEC-2 COMPUTER PROGRAM INPUT & OUTPUT FILE

ENCROACHMENT RUN (FILE CSKWPKEX)

COWSKIN CREEK

BETWEEN TYLER ROAD AND PAWNEE AVENUE

WICHITA, KANSAS

```
**********************************************************
*  WATER SURFACE PROFILES                                *
*  VERSION OF NOVEMBER 1976                              *
*  UPDATED MAY 1984                                      *
*  IBM-PC-XT VERSION                                     *
*  RUN DATE  04/14/88  TIME  16:52:45                    *
**********************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
```

```
X      X  XXXXXXX   XXXXX                XXXXX
X      X  X        X     X             X     X
X      X  X        X                         X
XXXXXXX   XXXX     X           XXXXX     XXXXX
X      X  X        X                     X
X      X  X        X     X               X
X      X  XXXXXXX   XXXXX                XXXXXXX
```

THIS RUN EXECUTED 04/14/88 16:53:24

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************

C
T1 COWSKIN CREEK W\MKEC PROFILE 3 INPUT FILE CALIBRATION RUN FILE CSKWPKEX.HC2
T2 WICHITA KANSAS FIS REVISION FOR WOODLAND @ THE PARK ADDITION
T3               100YR NAT & FLDY PROFILE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.        2.         0.         0.    .000000        .00        .0         0.   1301.200       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000       .000     -1.000       .000       .000       .000       .000       .000       .000       .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    110.000    200.000       .000       .000       .000       .000       .000       .000       .000       .000

J5  LPRNT      NUMSEC                        ********REQUESTED SECTION NUMBERS********

    -10.000    -10.000       .000       .000       .000       .000       .000       .000       .000       .000

NC       .035       .035       .038       .050       .050       .000       .000       .000       .000       .000
QT      3.000  17400.000  17400.000  17400.000       .000       .000       .000       .000       .000       .000
ET       .000       .000      2.400       .000       .000       .000       .000       .000       .000       .000
          FIRST MKEC CROSS SECTION
X1    258.250     17.000    920.000    983.000       .000       .000       .000       .000       .000       .000
GR   1320.000       .000   1310.000    280.000   1300.000    500.000   1298.000    655.000   1296.000    855.000
GR   1294.000    920.000   1290.000    940.000   1287.900    955.000   1288.000    970.000   1290.000    983.000
GR   1292.000   1025.000   1296.000   1040.000   1298.000   1875.000   1299.000   1900.000   1300.000   2420.000
GR   1305.000   2550.000   1310.000   2650.000       .000       .000       .000       .000       .000       .000

X1    276.250     13.000    580.000    780.000   1800.000   1800.000   1800.000       .000       .000       .000
GR   1320.000       .000   1310.000       .000   1305.000    150.000   1305.000    580.000   1290.000    660.000
GR   1289.000    680.000   1290.000    710.000   1295.000    780.000   1300.000   1600.000   1300.000   2080.000
GR   1300.000   2290.000   1310.000   2500.000   1320.000   2500.000       .000       .000       .000       .000

X1    283.500     15.000   1250.000   1415.000    725.000    725.000    725.000       .000       .000       .000
GR   1320.000       .000   1315.000    180.000   1310.000    370.000   1307.000    590.000   1302.000    870.000
GR   1300.000   1130.000   1298.000   1250.000   1290.000   1290.000   1289.500   1320.000   1290.000   1350.000
GR   1296.000   1415.000   1298.000   1520.000   1299.000   3400.000   1300.000   4100.000   1310.000   4100.000
```

ET	.000	.000	4.400	.000	.000	.000	.000	.000	.000	.000
	TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	284.900	21.000	1250.000	1455.000	140.000	140.000	140.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
GR	1320.000	.000	1310.000	370.000	1304.000	760.000	1302.000	870.000	1300.000	1130.000
GR	1298.000	1250.000	1298.000	1250.100	1298.000	1265.000	1292.000	1320.000	1290.000	1330.000
GR	1289.500	1345.000	1290.000	1365.000	1292.000	1375.000	1294.000	1435.000	1297.000	1455.000
GR	1297.000	1455.100	1298.000	1520.000	1298.500	1920.000	1299.000	3400.000	1299.000	3800.000
GR	1307.000	4750.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000
	TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.000	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
	TYLER ROAD BRIDGE FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.300	.000	.000	.000	30.000	30.000	30.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
	TYLER ROAD FLOW BELOW ELEVATION 1304 CONFINED TO CHANNEL									
X1	285.400	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	1304.000	1304.000	.000
NC	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.400	.000	.000	.000	.000	.000	.000	.000
X1	287.300	14.000	1405.000	1610.000	250.000	150.000	200.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1302.000	650.000	1300.000	1155.000	1298.000	1380.000
GR	1294.000	1405.000	1292.000	1460.000	1290.200	1495.000	1292.000	1517.000	1298.000	1540.000
GR	1298.000	1610.000	1299.500	2240.000	1300.000	3820.000	1310.000	4060.000	.000	.000
ET	.000	.000	9.400	.000	.000	.000	.000	.000	.000	.000
	G&O CROSS SECTION A @ RM 6.47									
X1	301.300	15.000	1030.000	1170.000	700.000	1100.000	1800.000	.000	.000	.000
GR	1320.000	.000	1320.000	280.000	1305.000	400.000	1300.000	910.000	1298.000	1030.000
GR	1294.000	1060.000	1290.800	1100.000	1294.000	1130.000	1298.000	1170.000	1300.000	1290.000
GR	1300.000	1750.000	1297.000	1920.000	1300.000	2010.000	1310.000	2760.000	1314.000	2980.000
	G&O CROSS SECTION B @ RM 6.70									
X1	314.300	19.000	1785.000	1912.000	950.000	1450.000	1580.000	.000	.000	.000
GR	1330.000	.000	1320.000	.000	1310.000	220.000	1304.000	390.000	1302.000	490.000
GR	1300.000	1785.000	1298.000	1795.000	1296.000	1820.000	1294.000	1822.000	1292.000	1825.000
GR	1291.500	1830.000	1291.500	1840.000	1292.000	1850.000	1294.000	1863.000	1296.000	1880.000
GR	1304.000	1912.000	1310.000	2120.000	1320.000	2535.000	1330.000	2535.000	.000	.000
X1	335.000	17.000	1450.000	1675.000	1450.000	2050.000	2200.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1300.000	1530.000	1298.000	1550.000	1296.000	1630.000	1292.000	1640.000	1291.800	1650.000
GR	1292.000	1655.000	1302.000	1675.000	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000
GR	1315.000	3300.000	1325.000	3800.000	.000	.000	.000	.000	.000	.000

X1	336.300	15.000	1580.000	1675.000	130.000	130.000	130.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1302.000	1580.000	1292.000	1595.000	1292.000	1620.000	1294.000	1655.000	1302.000	1675.000
GR	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000	1315.000	3300.000	1325.000	3800.000
X1	336.400	15.000	1580.000	1675.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
GR	1320.000	.000	1310.000	450.000	1305.000	1170.000	1304.000	1300.000	1302.000	1450.000
GR	1302.000	1580.000	1292.000	1595.000	1292.000	1620.000	1294.000	1655.000	1302.000	1675.000
GR	1302.000	1795.000	1310.000	2150.000	1311.000	2770.000	1315.000	3300.000	1325.000	3800.000

PAWNEE AVENUE

X1	336.650	.000	.000	.000	25.000	25.000	25.000	.000	.000	.000
X2	.000	.000	.000	1302.000	1304.000	.000	.000	.000	.000	.000
X1	336.750	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000

G&D CROSS SECTION C @ RM 7.14

X1	337.700	15.000	1395.000	1480.000	95.000	95.000	95.000	.000	.000	.000
GR	1320.000	.000	1310.000	25.000	1305.000	800.000	1302.000	1395.000	1292.000	1440.000
GR	1291.900	1450.000	1292.000	1460.000	1298.000	1480.000	1300.000	1545.000	1302.000	1575.000
GR	1304.000	1770.000	1308.000	2520.000	1310.000	2540.000	1314.000	2760.000	1320.000	3400.000
X1	357.700	21.000	1205.000	1530.000	1875.000	2225.000	3015.000	.000	.000	.000
GR	1324.000	.000	1314.000	.000	1306.000	335.000	1304.000	1050.000	1304.000	1205.000
GR	1302.000	1230.000	1296.000	1245.000	1293.700	1255.000	1302.000	1290.000	1302.000	1304.000
GR	1302.000	1370.000	1302.000	1470.000	1304.000	1530.000	1304.000	1820.000	1306.000	1960.000
GR	1306.000	2120.000	1308.000	2235.000	1310.000	2300.000	1312.000	2405.000	1314.000	2570.000
GR	1324.000	2570.000	.000	.000	.000	.000	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

THIS RUN EXECUTED 04/14/88 16:56:06

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************

T1 COWSKIN CREEK W\MKEC PROFILE 3 INPUT FILE ENCROACHMENT RUN
T2 WICHITA KANSAS FIS REVISION FOR WOODLAND @ THE PARK ADDITION
T3               100 YR FLDY RUN

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        3.         0.        0.   .000000       .00       .0        0.  1302.200      .000
J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000     .000    -1.000      .000      .000      .000      .000      .000      .000      .000
```

THIS RUN EXECUTED 04/14/88 16:56:56

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************
```

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

100YR NAT & FLDY

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
258.250	1301.20	.00	1301.30	1977.60	3517.06	2875.24	11007.71	.00	.00	920.00	983.00	.00
258.250	1302.20	1.00	1302.28	1443.38	3170.05	2599.65	11630.30	.07	663.00	920.00	983.00	2106.39
276.250	1301.97	.00	1302.09	1735.10	.00	6171.25	11228.75	.00	.00	580.00	780.00	.00
276.250	1302.70	.74	1302.81	1339.44	.00	5910.70	11489.30	.07	580.00	580.00	780.00	1931.70
283.500	1302.25	.00	1302.29	3244.01	693.74	4076.26	12630.00	.00	.00	1250.00	1415.00	.00
283.500	1302.92	.67	1302.95	2607.77	77.64	3855.50	13466.86	.08	1235.66	1250.00	1415.00	3843.43
284.900	1299.68	.00	1302.51	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
284.900	1301.31	1.63	1303.10	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
285.000	1300.25	.00	1302.64	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
285.000	1301.41	1.16	1303.15	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
285.300	1300.99	.00	1302.93	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
285.300	1301.74	.75	1303.35	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
285.400	1301.15	.00	1303.01	205.00	.00	17400.00	.00	.00	.00	1250.00	1455.00	.00
285.400	1301.84	.69	1303.41	205.00	.00	17400.00	.00	.00	1250.00	1250.00	1455.00	1455.00
287.300	1303.20	.00	1303.24	3276.64	2654.40	4057.59	10688.01	.00	.00	1405.00	1610.00	.00
287.300	1303.58	.38	1303.65	1909.14	652.93	5117.25	11629.82	.28	1358.03	1405.00	1610.00	3267.16
301.300	1303.62	.00	1303.76	1741.15	2375.73	5498.98	9525.29	.00	.00	1030.00	1170.00	.00
301.300	1304.17	.55	1304.38	924.17	603.22	6626.15	10170.64	.26	996.16	1030.00	1170.00	1920.33
314.300	1304.76	.00	1304.91	1569.49	12575.56	4819.06	5.38	.00	.00	1785.00	1912.00	.00
314.300	1305.52	.77	1305.74	875.02	11665.85	5734.15	.00	.27	1036.98	1785.00	1912.00	1912.00
335.000	1306.88	.00	1307.23	1113.08	2955.83	10948.88	3495.29	.00	.00	1450.00	1675.00	.00
335.000	1307.77	.88	1308.24	440.17	2212.65	12883.42	2303.93	.23	1332.31	1450.00	1675.00	1772.48

SECNO	CWSEL	DIFKWS	EG	TOPWID	GLOB	GCH	GROB	PERENC	STENCL	STCHL	STCHR	STENCR
336.300	1307.03	.00	1307.44	1140.55	5638.33	8128.46	3633.21	.00	.00	1580.00	1675.00	.00
336.300	1307.91	.88	1308.44	463.25	5778.18	9116.46	2505.36	.23	1315.38	1580.00	1675.00	1778.64
336.400	1307.03	.00	1307.47	1142.23	7158.81	6138.57	4102.63	.00	.00	1580.00	1675.00	.00
336.400	1307.66	.63	1308.49	454.03	8200.77	7884.52	1314.71	.32	1272.10	1580.00	1675.00	1726.13
336.650	1307.24	.00	1307.62	1179.81	7418.98	5776.19	4204.83	.00	.00	1580.00	1675.00	.00
336.650	1308.00	.76	1308.69	473.70	8679.34	7261.69	1458.97	.32	1257.23	1580.00	1675.00	1730.93
336.750	1307.29	.00	1307.64	1190.80	5893.59	7776.27	3730.14	.00	.00	1580.00	1675.00	.00
336.750	1308.28	.99	1308.72	488.02	6110.46	8640.16	2649.39	.22	1296.52	1580.00	1675.00	1784.54
337.700	1307.60	.00	1307.74	2050.96	6092.61	4822.52	6484.86	.00	.00	1395.00	1480.00	.00
337.700	1308.62	1.02	1308.82	763.04	5875.90	5347.83	6176.28	.26	1009.94	1395.00	1480.00	1772.97
357.700	1308.95	.00	1309.02	2054.38	6451.03	6287.12	4661.85	.00	.00	1205.00	1530.00	.00
357.700	1309.96	1.01	1310.05	1150.10	6183.15	7549.19	3667.66	.25	667.90	1205.00	1530.00	1818.00

SUMMARY OF ERRORS AND SPECIAL NOTES

FLOODWAY DATA, 100YR NAT & FLDY
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
258.250	1443.	7909.	2.2	1302.2	1301.2	1.0
276.250	1339.	6965.	2.5	1302.7	1302.0	.7
283.500	2608.	12388.	1.4	1303.0	1302.3	.7
284.900	205.	1622.	10.7	1301.3	1299.7	1.6
285.000	205.	1644.	10.6	1301.5	1300.3	1.2
285.300	205.	1711.	10.2	1301.7	1301.0	.7
285.400	205.	1730.	10.1	1301.8	1301.1	.7
287.300	1909.	9265.	1.9	1303.6	1303.2	.4
301.300	924.	5099.	3.4	1304.1	1303.6	.5
314.300	875.	4899.	3.6	1305.6	1304.8	.8
335.000	440.	3318.	5.2	1307.8	1306.9	.9
336.300	463.	3343.	5.2	1307.9	1307.0	.9
336.400	454.	2380.	7.3	1307.6	1307.0	.6
336.650	474.	2607.	6.7	1308.0	1307.2	.8
336.750	488.	3629.	4.8	1308.3	1307.3	1.0
337.700	763.	5270.	3.3	1308.6	1307.6	1.0
357.700	1150.	7476.	2.3	1309.9	1308.9	1.0

1309
1187.5
121.6

THIS RUN EXECUTED 04/14/88 16:58:27

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION APRIL 1985
**************************************************
```

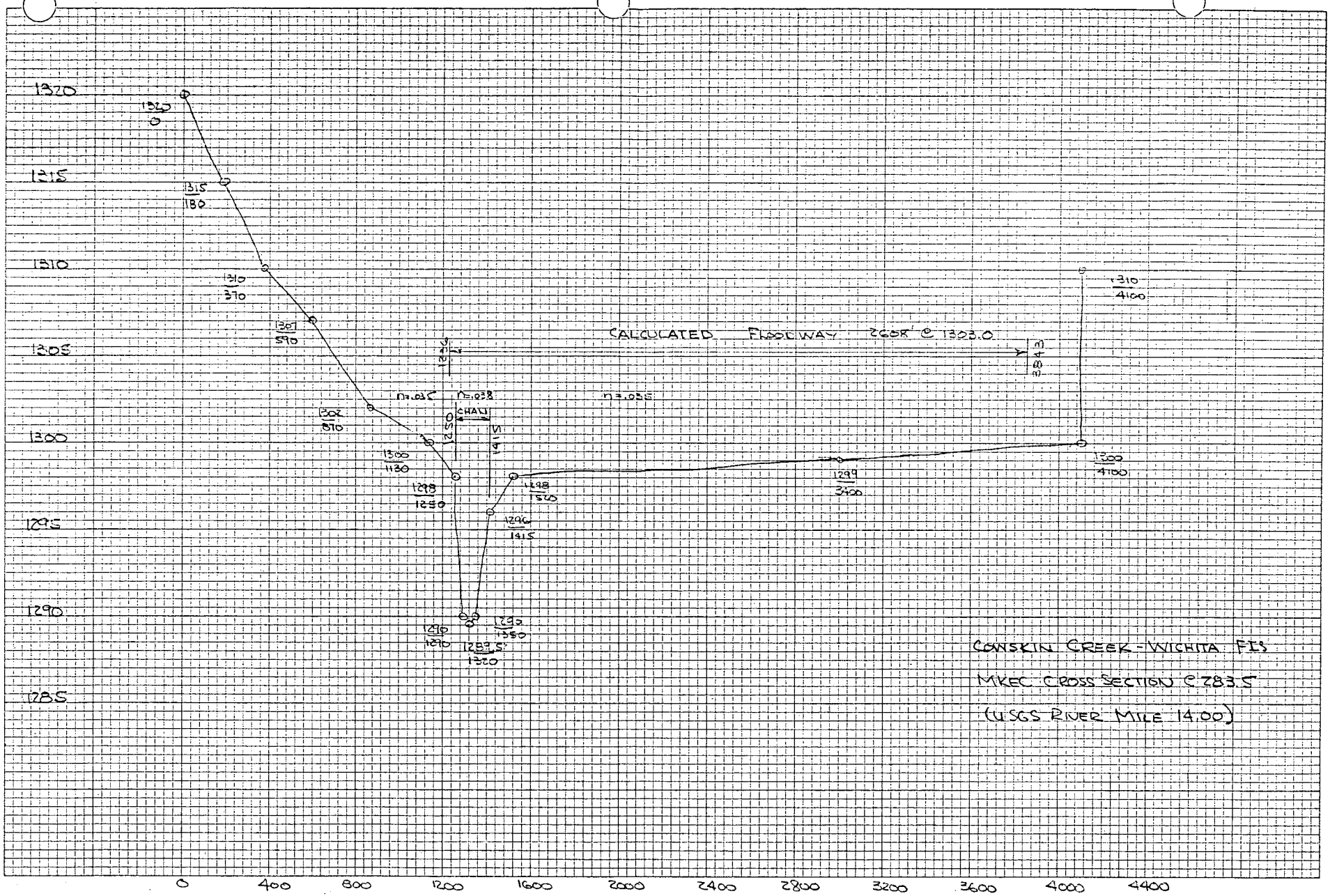
EXHIBIT H

PLOTTED CROSS SECTIONS

COWSKIN CREEK

BETWEEN TYLER ROAD AND PAWNEE AVENUE

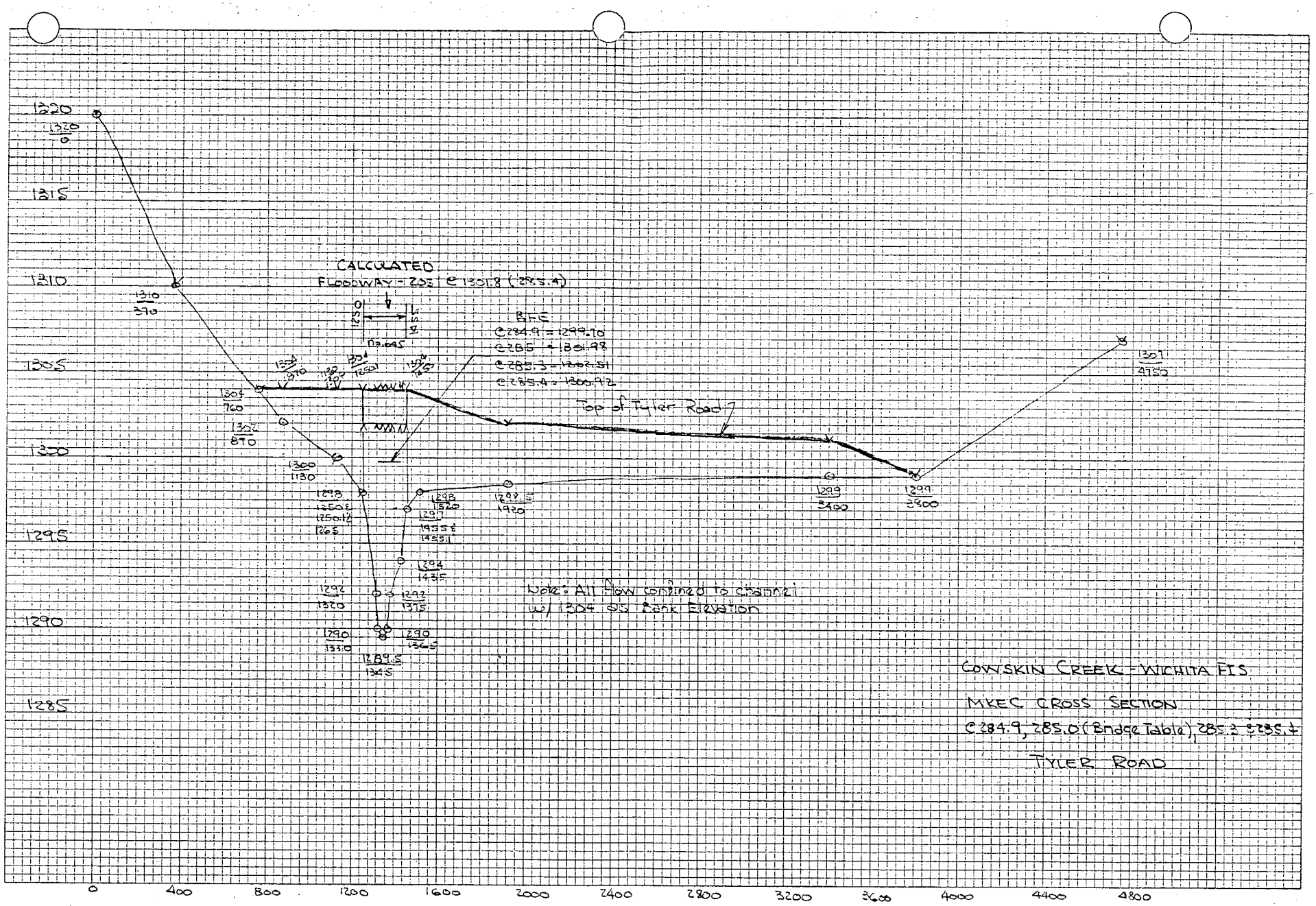
WICHITA, KANSAS



COWSKIN CREEK - WICHITA FIS

MKEC CROSS SECTION @ 283.5

(USGS RIVER MILE 14.00)

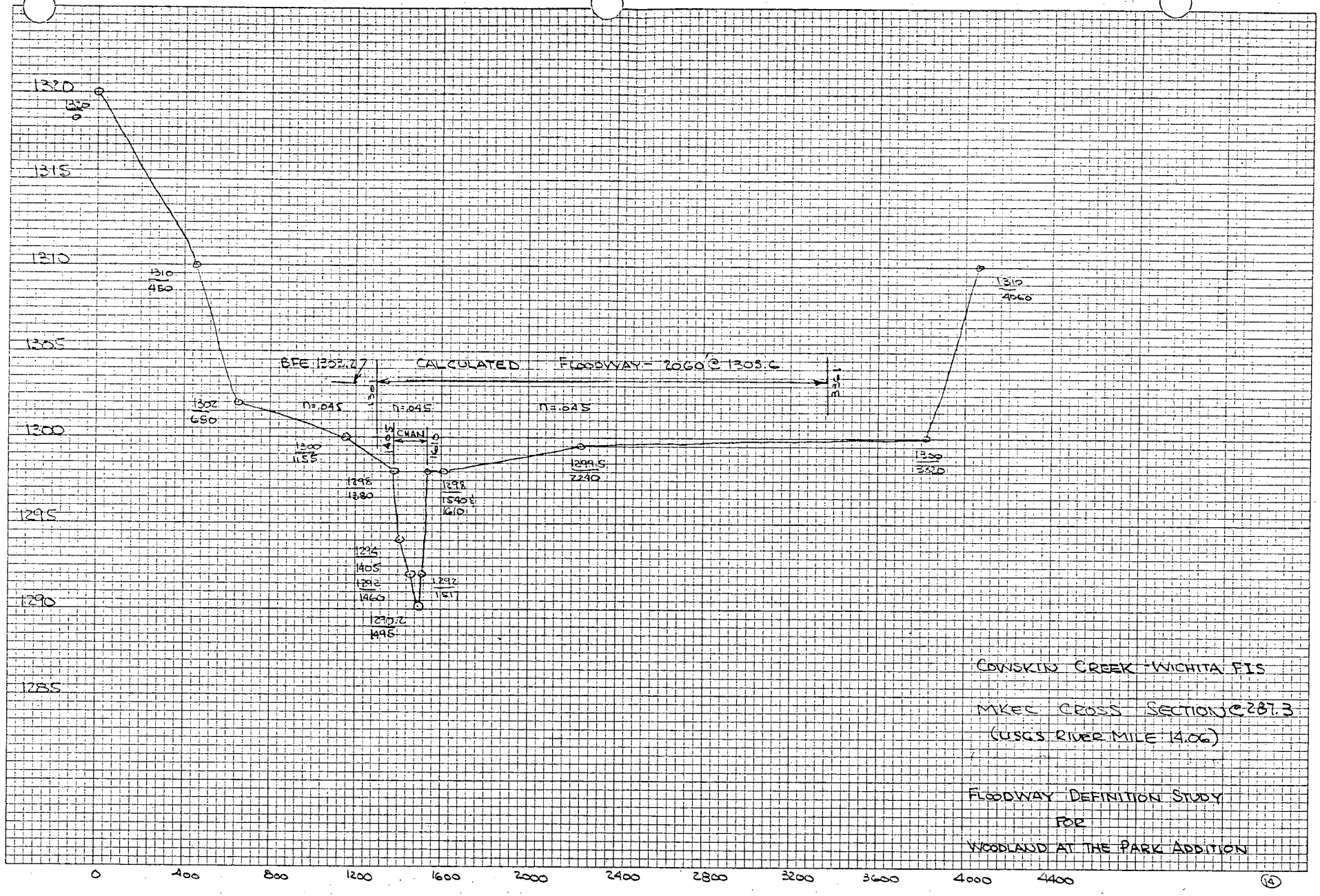


COWSKIN CREEK - WICHITA FTS.

MKEC CROSS SECTION

@284.9, 285.0 (Bridge Table), 285.3 & 285.4

TYLER ROAD



COWSKIN CREEK - WICHITA FIS

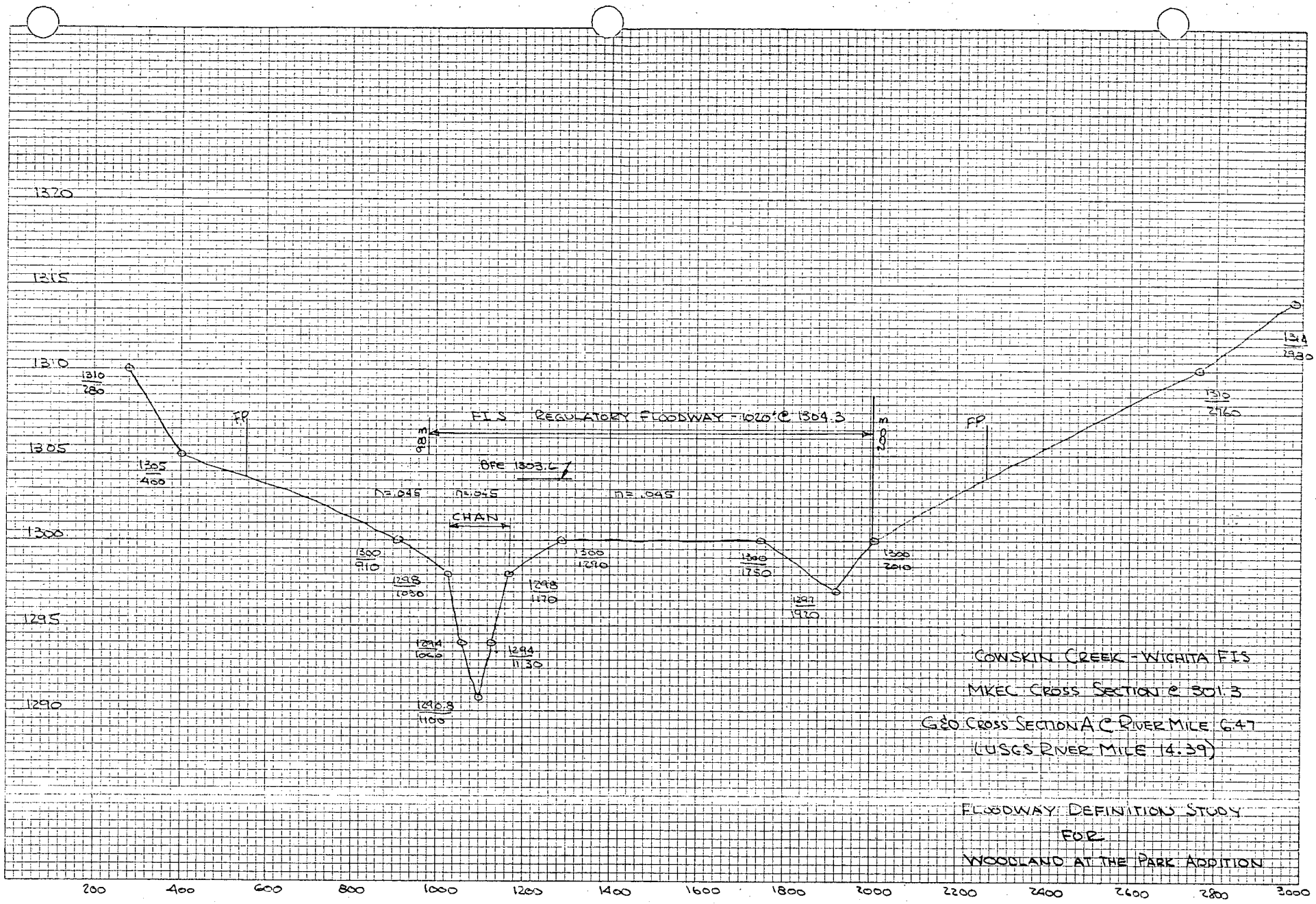
MKEC CROSS SECTION @ 287.3

(USGS RIVER MILE 14.06)

FLOODWAY DEFINITION STUDY

FOR

WOODLAND AT THE PARK ADDITION



COWSKIN CREEK - WICHITA FIS

MKEC CROSS SECTION @ 301.3

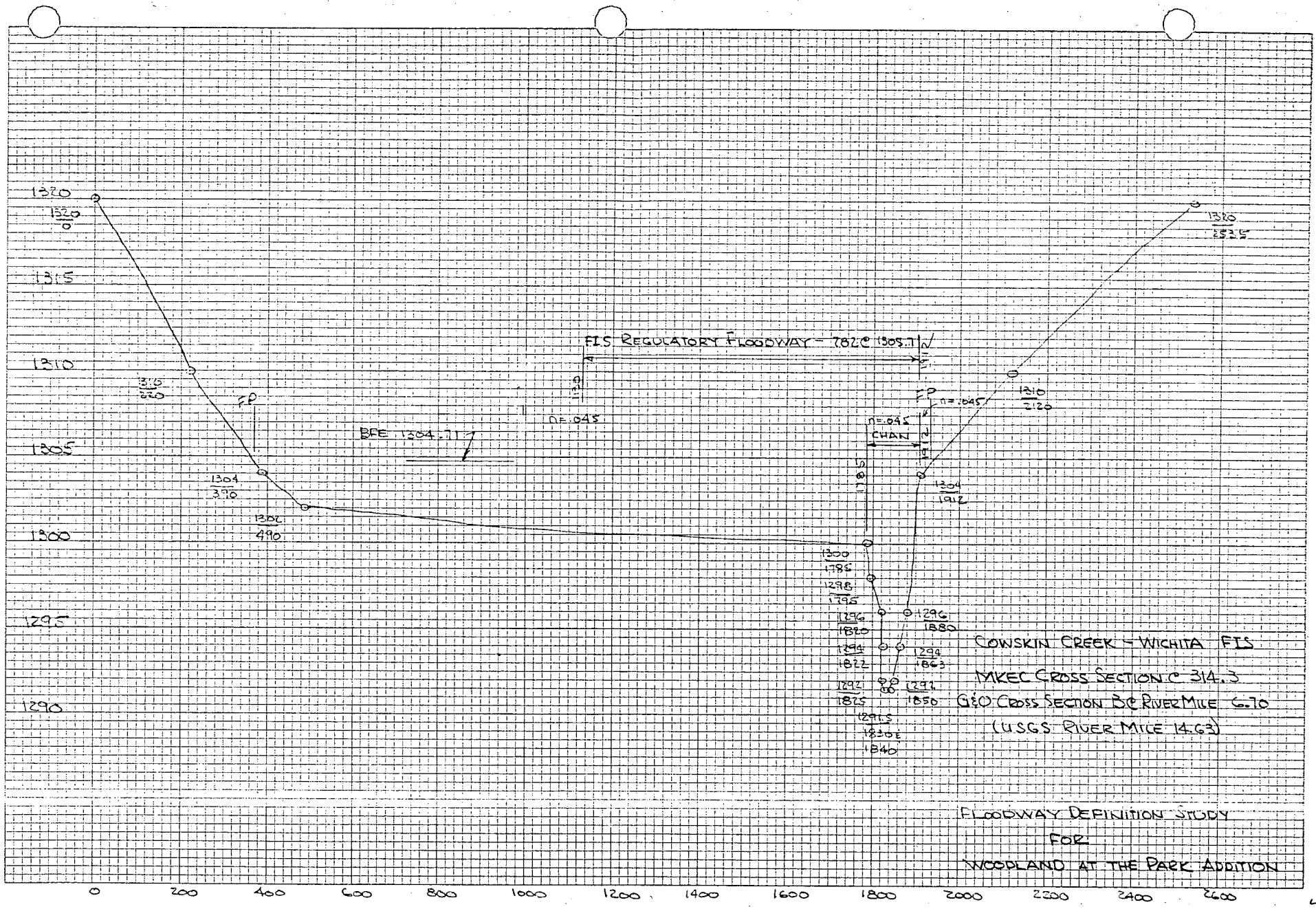
G&O CROSS SECTION A @ RIVER MILE 6.47

(USGS RIVER MILE 14.39)

FLOODWAY DEFINITION STUDY

FOR

WOODLAND AT THE PARK ADDITION



COWSKIN CREEK - WICHITA FIS

MKEC CROSS SECTION @ 314.3

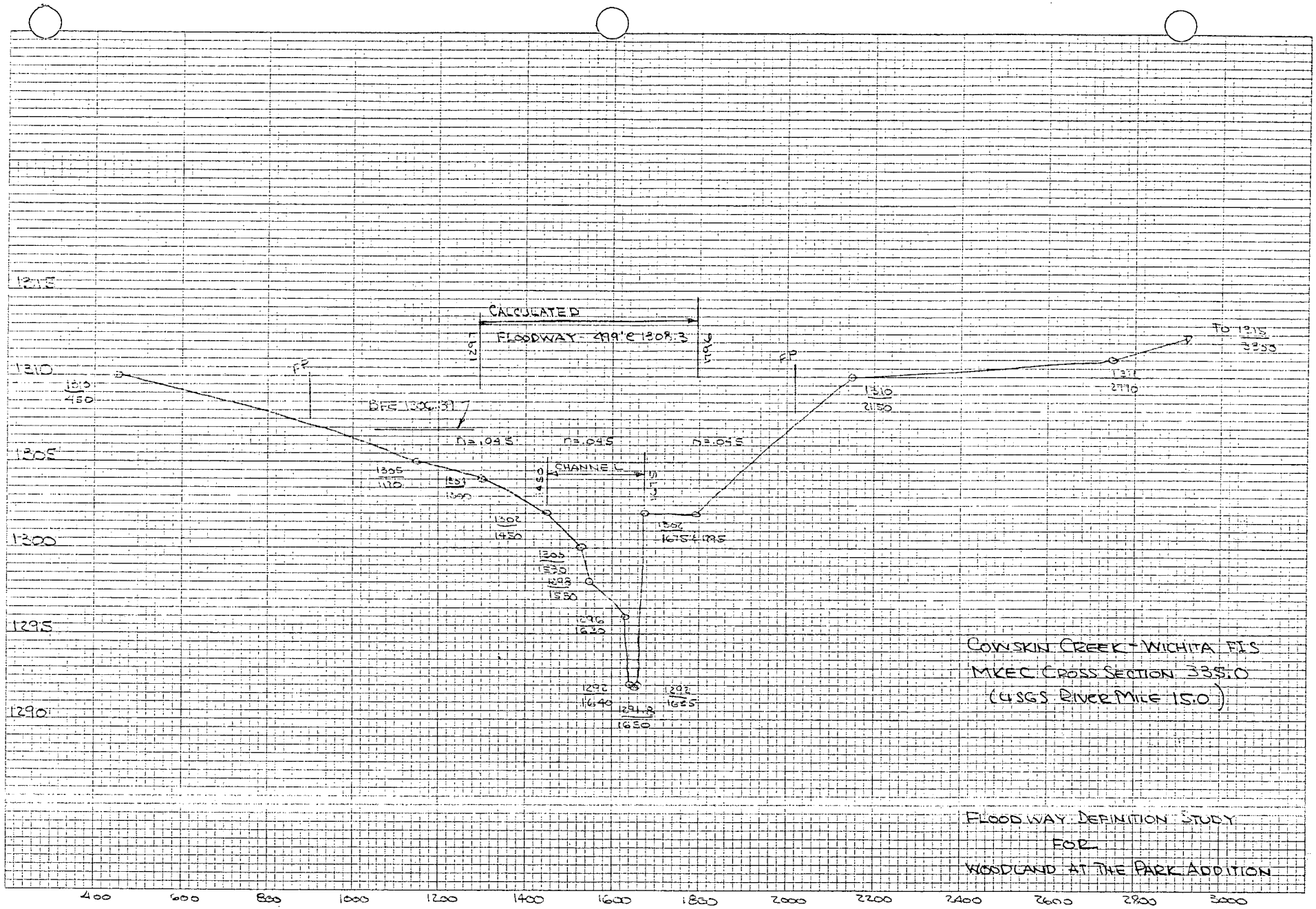
G&O CROSS SECTION B@ RIVER MILE 6.70

(USGS RIVER MILE 14.63)

FLOODWAY DEFINITION STUDY

FOR

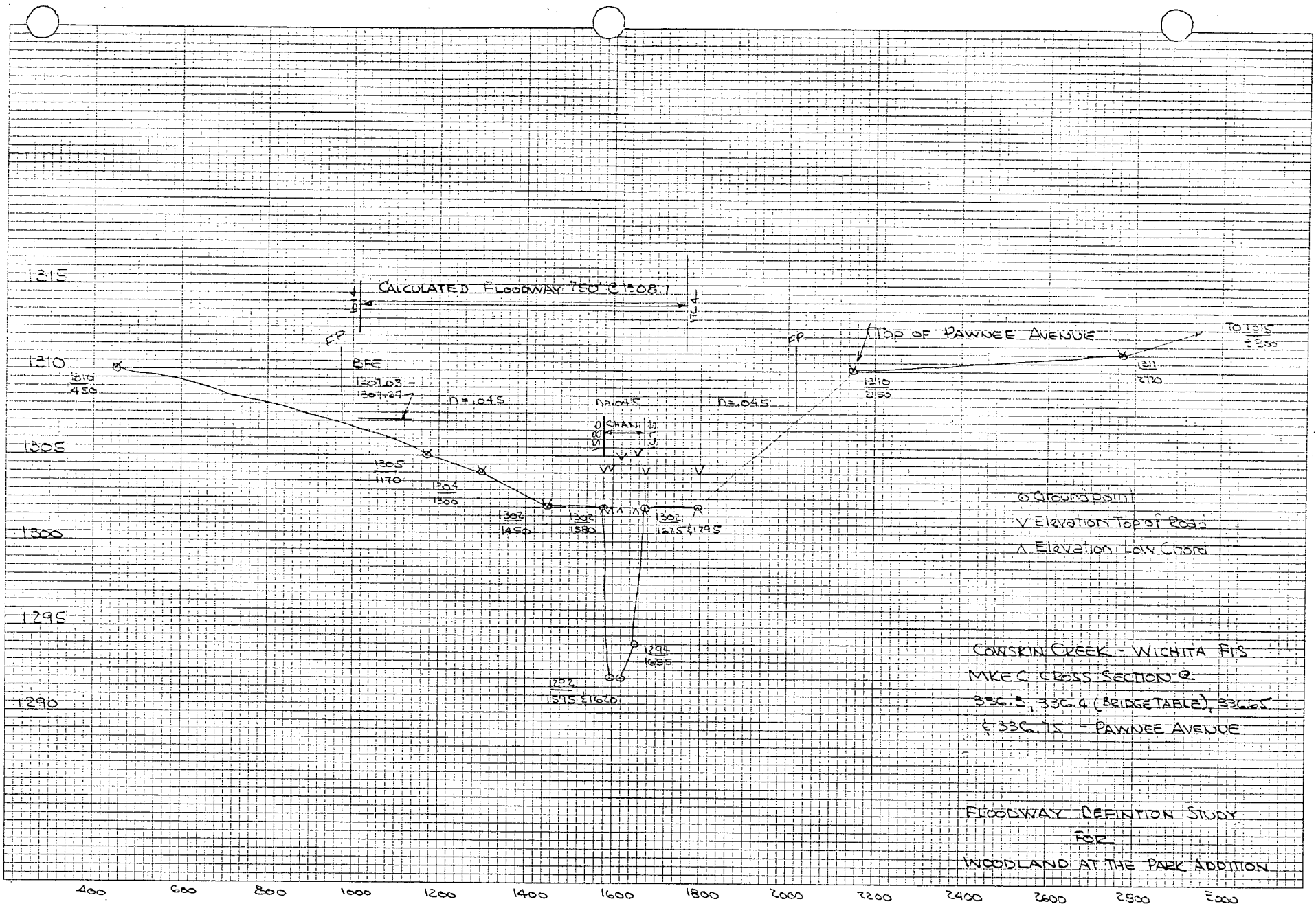
WOODLAND AT THE PARK ADDITION

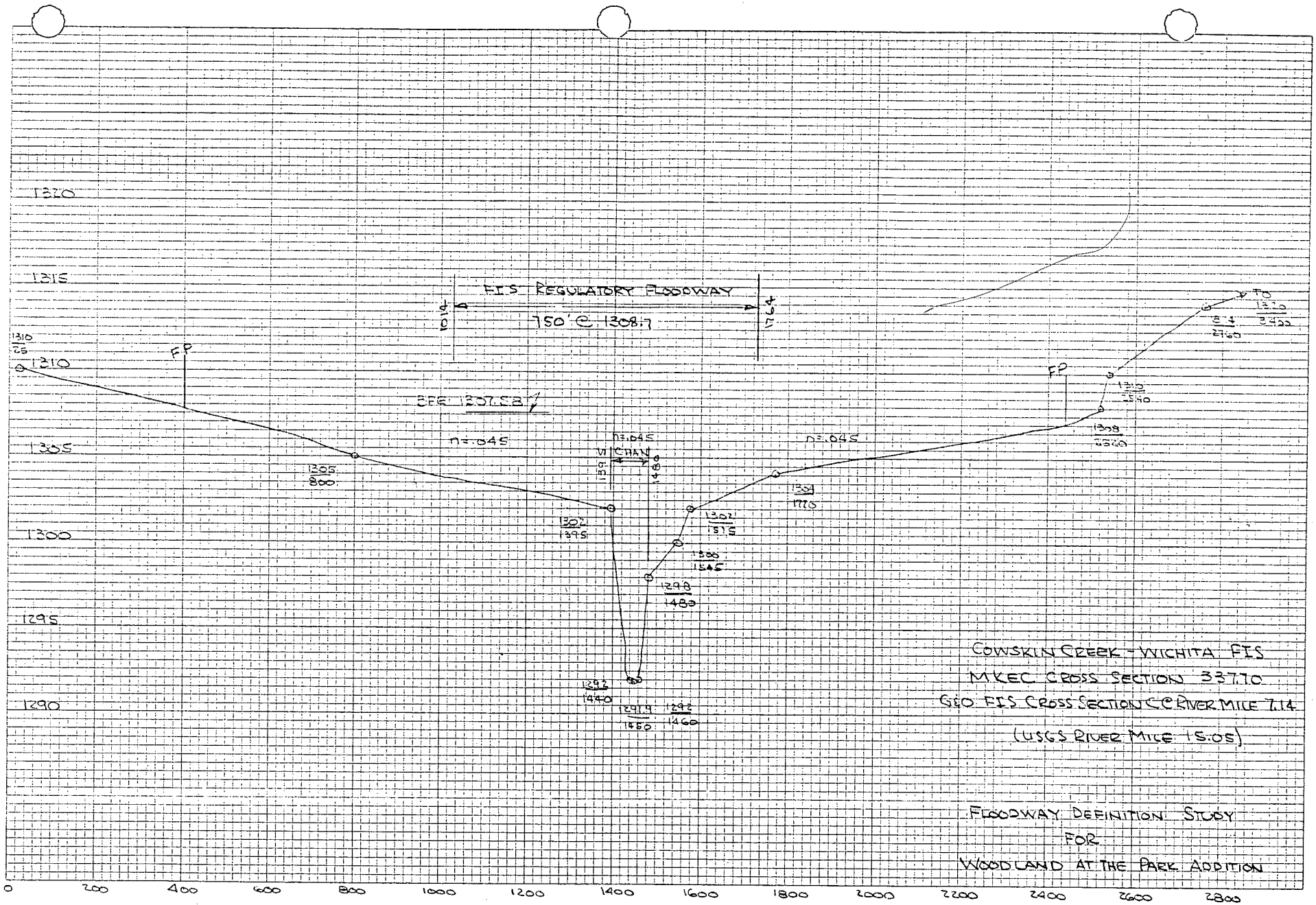


COWSKIN CREEK - WICHITA, KS
MKEC CROSS SECTION 335.0
(USGS RIVER MILE 15.0)

FLOODWAY DEFINITION STUDY
FOR
WOODLAND AT THE PARK ADDITION

47 0700





COWSKIN CREEK - WICHITA FIS

MKEC CROSS SECTION 33770

GEO FIS CROSS SECTION @ RIVER MILE 7.14

(USGS RIVER MILE 15.05)

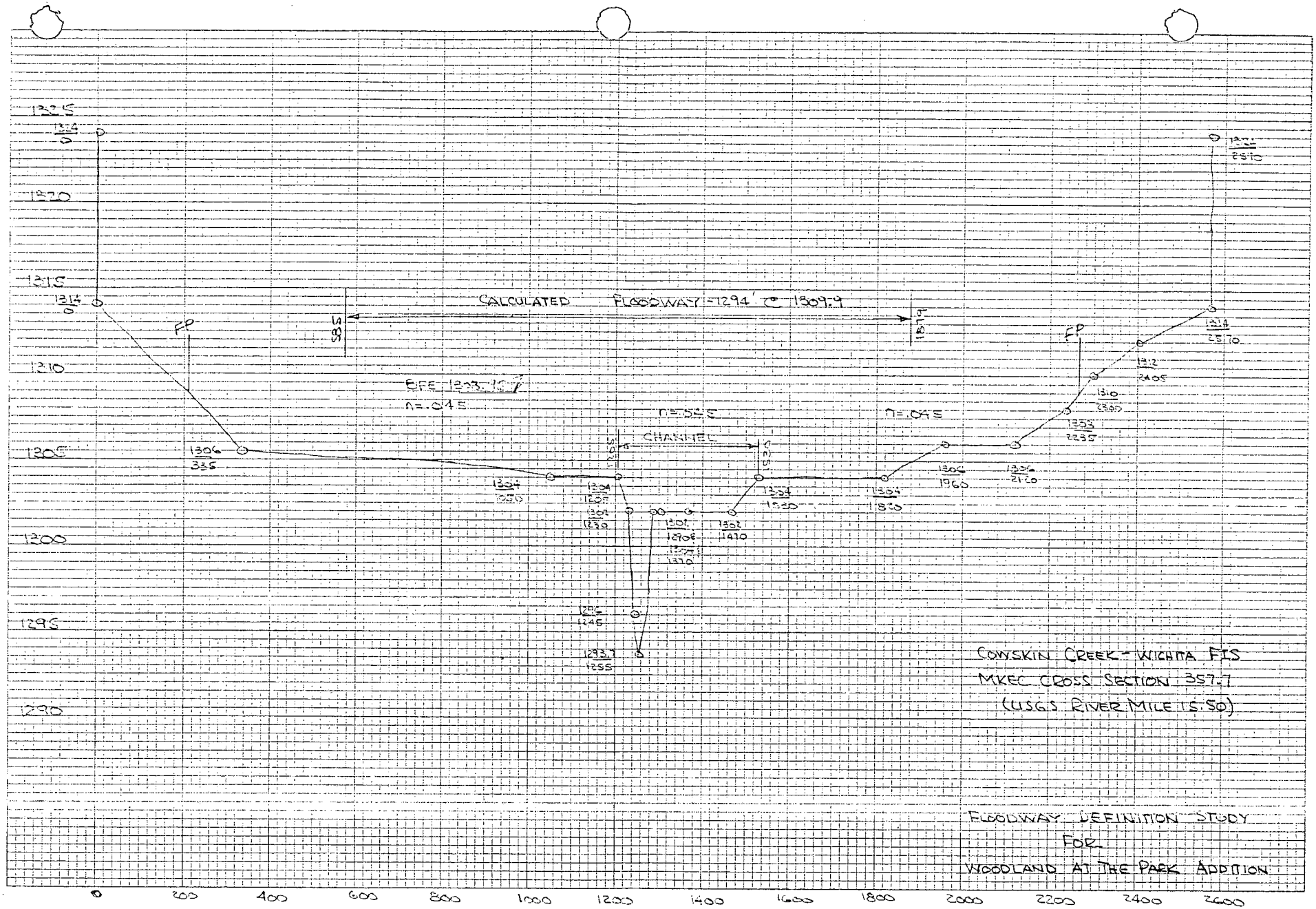
FLOODWAY DEFINITION STUDY

FOR

WOODLAND AT THE PARK ADDITION

47 0700

10 X 10 TO THE INCH 10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO MADE IN U.S.A.


CALCULATED FLOODWAY = 1294' @ 1809.9
FP
FP
EFF 1293.1
n=.045
n=.045
n=.045
CHANNEL
585
1879
1320
1315
1310
1305
1300
1295
1290
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
COWSKIN CREEK - WICHITA FIS
MKEC CROSS SECTION 357.7
(USGS RIVER MILE 15.50)
FLOODWAY DEFINITION STUDY
FOR
WOODLAND AT THE PARK ADDITION