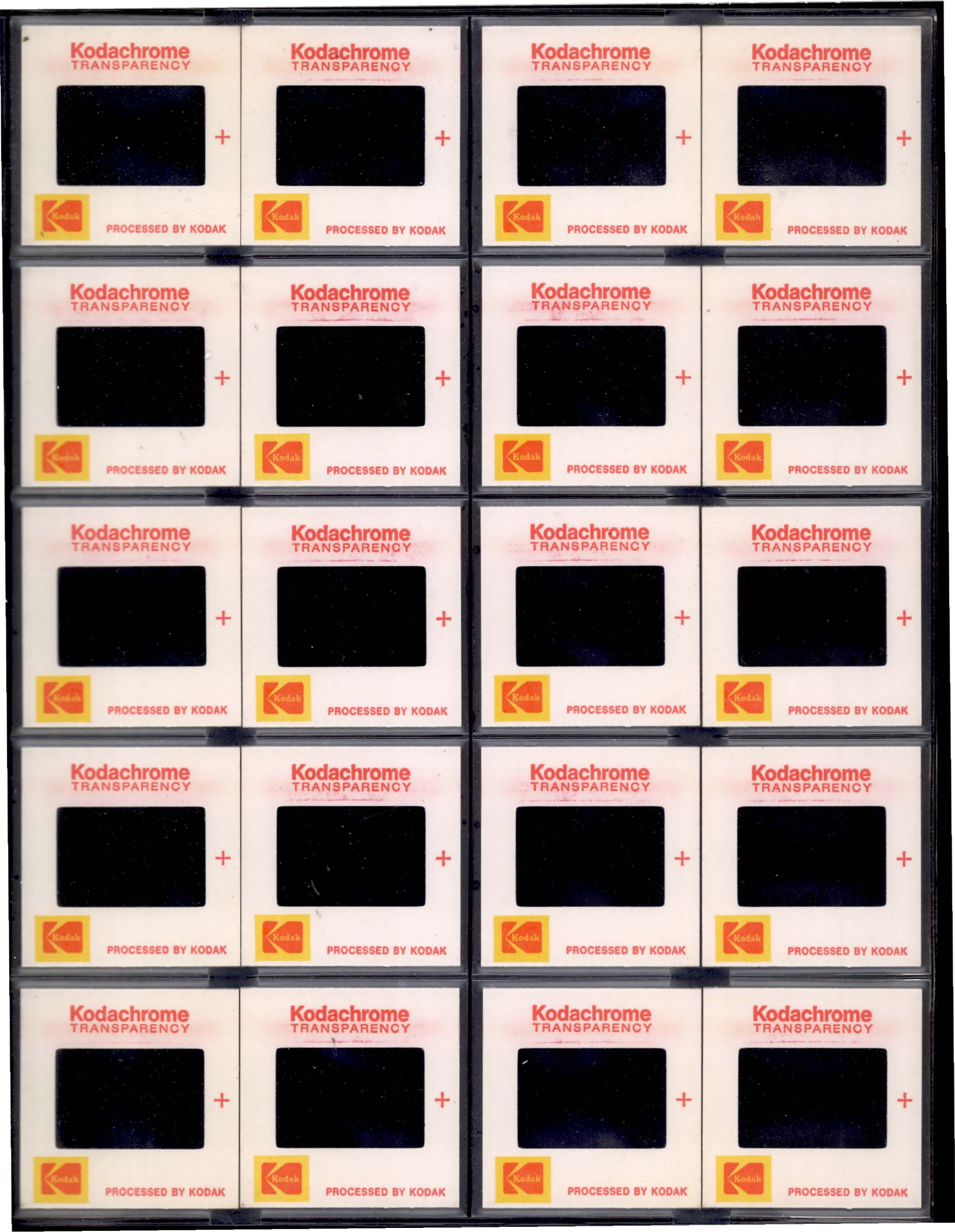
Gila Drain Technical Data Notebook

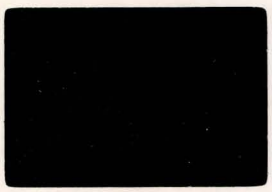
A660.902


Kodachrome
TRANSPARENCY
PROCESSED BY KODAK

WESTERN CANAL AT DOBSON ROAD - LOOKING EAST

GILA FLOODWAY 1

SAME AS #1

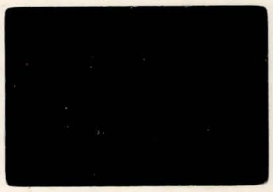


GILA FLOODWAY 2

SAME AS #1 & #2

GILA FLOODWAY 3

WESTERN CANAL AT DOBSON RD - looking west along levee



GILA FLOODWAY 4

Western Canal at Dobson Road - looking West at Salvation Channel

GILA FLOODWAY 5

Same as #5

GILA FLOODWAY 6

Consolidated Canal at S.P.R.R. looking west ~~not~~ low berm

GILA FLOODWAY 7

Consolidated Canal at S.P.R.R - looking N.E. toward Elliot Rd

GILA FLOODWAY 8

Ray Road / S.P.R.R. looking South

GILA FLOODWAY 9

Ray Road / S.P.R.R. looking North

GILA FLOODWAY 10

Galveston Rd / SPRR looking South

GILA FLOODWAY 11

Galveston Rd / S.P.R.R looking north

GILA FLOODWAY 12

Williams ~~Field~~ Rd / SPRR looking south

GILA FLOODWAY 13

Williams Field Rd / SPRR looking ~~north~~

GILA FLOODWAY 14

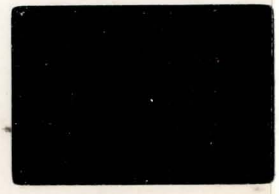
Recor Rd / SPRR looking ~~north~~

GILA FLOODWAY 15

Recor Rd / SPRR looking ~~South~~

GILA FLOODWAY 16

Germann Rd / S.P.R.R looking north



GILA FLOODWAY 17

Ocotillo Rd / SPRR looking South

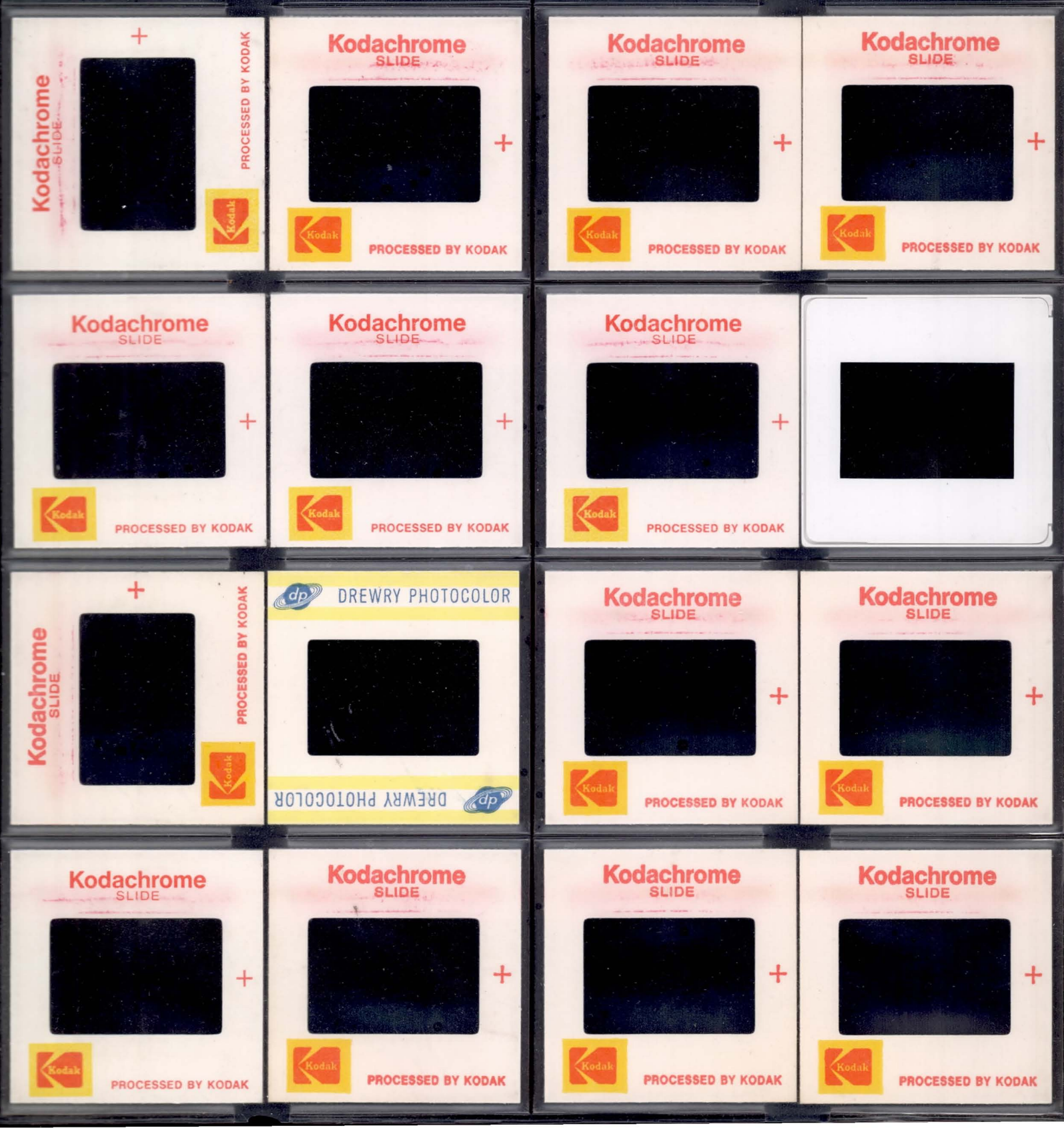
GILA FLOODWAY 18

Chandler Heights Rd / SPRR looking South

GILA FLOODWAY 19

Chandler Heights Rd / SPRR looking north

GILA FLOODWAY 20


Kodachrome
SLIDE
PROCESSED BY KODAK
Kodak
DREWRY PHOTOCOLOR

GILBERT

E

GILA FLOODWAY

JAN 76H7 13 +

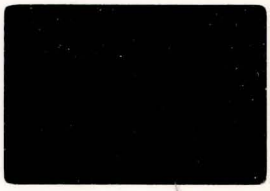
MESA
GILBERT

N

GILA FLOODWAY

JAN 76H12 13 +

CHANDLER, AZ



N

GILA FLOODWAY

JAN 76H12 9 +

E. of Chandler

E

GILA FLOODWAY

JAN 76H12 11 +

JAN 76H12

CONSOLIDATED CANAL
E of CHANDLER

N

GILA FLOODWAY

12 +

SUBJECT _____

MADE IN U.S.A.

GILA FLOODWAY

SUBJECT 6

FIREBIRD LAKE
GILA RIVER INDIAN
RESERVATION

N

GILA DRAIN N. of LAKE

JAN 76H12 18 +

FIREBIRD LAKE
GILA RIVER INDIAN
RESERVATION

N

GILA FLOOD-
WAY

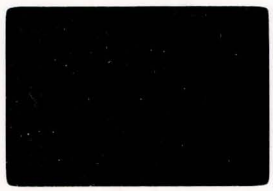
JAN 76H12 19 +

GILA DRAIN

N

JAN 76H7 15 +

GILA DRAIN

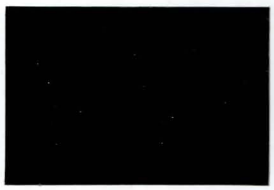


JAN 76H7 17 +

GILA DRAIN

JAN 76H7 18 +

GILA FLOODWAY



ON-SITE
STORAGE

GILA DRAIN

JAN 76H7

16 +

GILA DRAIN

W

JAN 76H12 20 +

GILA DRAIN

JAN 76H12 +

GILA DRAIN

W

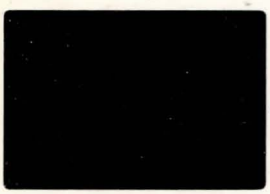
JAN 76H12 21 +

Kodachrome
SLIDE
PROCESSED BY KODAK
DREWRY PHOTOCOLOR
Kodachrome
TRANSPARENCY

SUBJECT GILA FLOODWAY

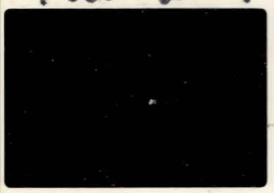
STUDY AREA

SUBJECT GILA FLOOD-WAY



CHANDLER, AZ

SUBJECT GILA FLOODWAY



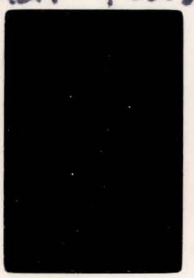
ON-SITE STORAGE

3 TOP JUN 75H3

GILA FLOODWAY

APRIL 1993

GILA TOP FLOODWAY



SUBJECT (2)

MADE IN U.S.A.

GILA FLOODWAY

GF

SUBJECT (7)

MADE IN U.S.A.

GILA FLOODWAY

SUBJECT (4)

MADE IN U.S.A.

GILA FLOODWAY

ON-SITE STORAGE

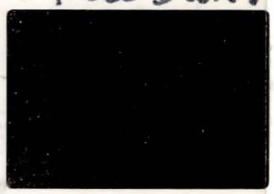
SUBJECT (3)

MADE IN U.S.A.

GILA FLOODWAY

GF

SUBJECT GILA FLOODWAY



MADE IN U.S.A.

ON-SITE STORAGE

GILA FLOODWAY

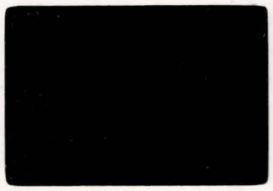
ON-SITE STORAGE

SUPERSTITION FWY

JAN 76H7

GILA FLOODWAY

WESTERN CANAL



GILA FLOODWAY

JAN 76H7

11

Western CANAL

GILA FLOODWAY

JAN 76H7

12

WESTERN CANAL

GILA FLOODWAY

JAN 76H12

16

TEMPE CANAL

JAN 76H7

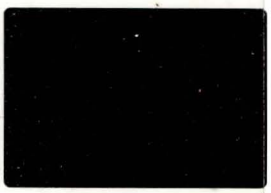
GILA FLOODWAY

WESTERN CANAL
Dobson RANCH Golf Course

GILA FLOODWAY

15

(1) New Development
SUBJECT ~~South EQ~~ Mesa



MADE IN U.S.A.

GILA FLOODWAY

WESTERN CANAL
Kyrene CANAL
KIWANIS PARK

GILA FLOODWAY

JAN 76H12

17

SUBJECT		DATE	PAGE
GILA FLOODWAY - INUNDATION ANALYSIS		7/23/75	OF PAGES
SOURCE OF DATA: TOPO			
COMPUTED BY: DJG	CHECKED BY	SECTION	

VOLUME OF STORAGE IN SUBAREA 653 & 652

ELEV.	P. UNITS AREA	AREA ACRES
1244	.31	42.66
1246	1.3	178.88
1248	2.37	326.11
1250	3.32	456.83

ELEV.	ΔH	SUB. AREA	AVG. AREA	Δ VOL.	TOT. VOL
1243		0			0
	1		21.33	21.33	
1244		42.66			21.33
	2		110.77	221.54	
1246		178.88			240.87
	2		252.50	504.99	
1248		326.11			747.86
	2		391.47	391.47	
1250		456.83			1139.72

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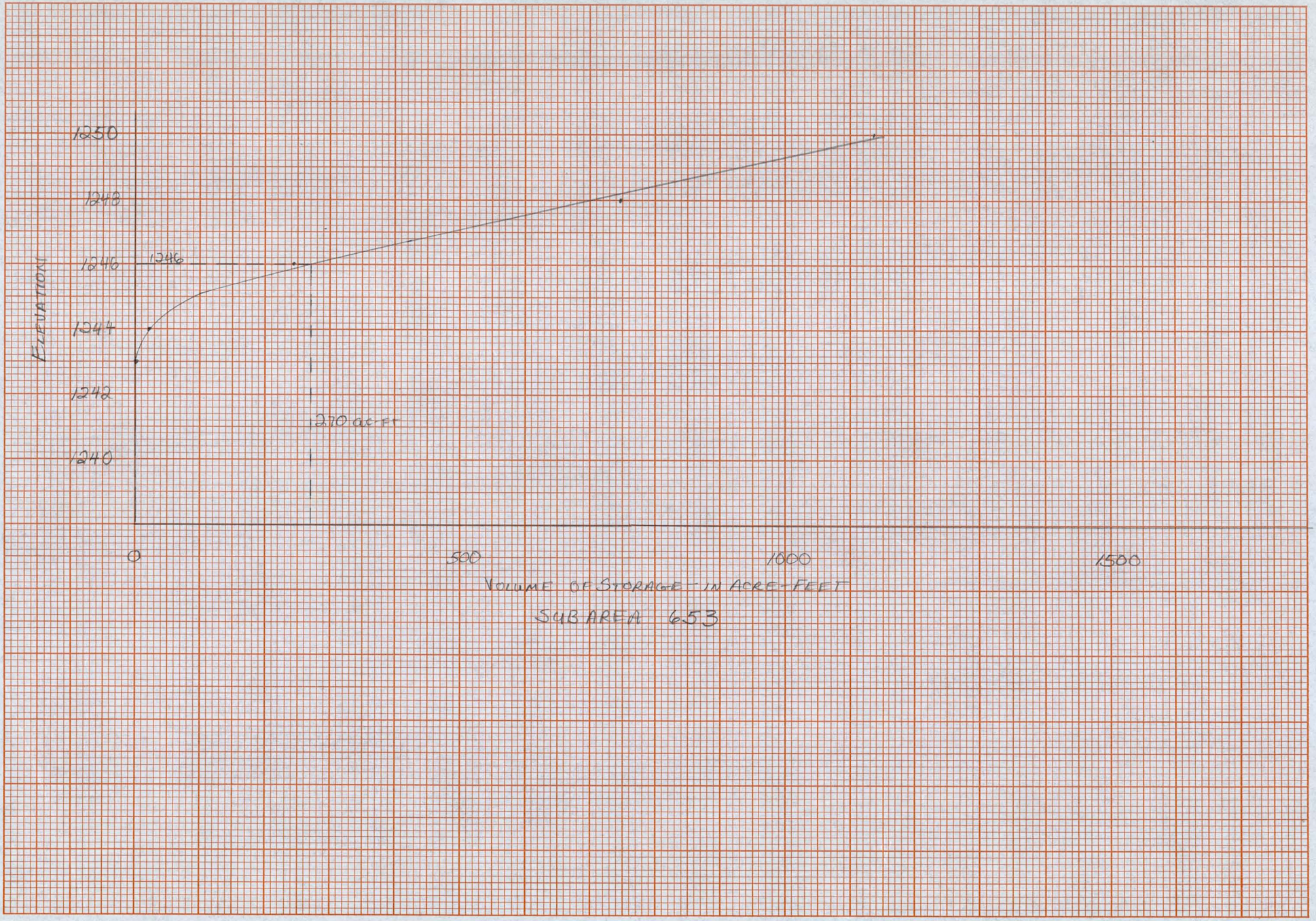
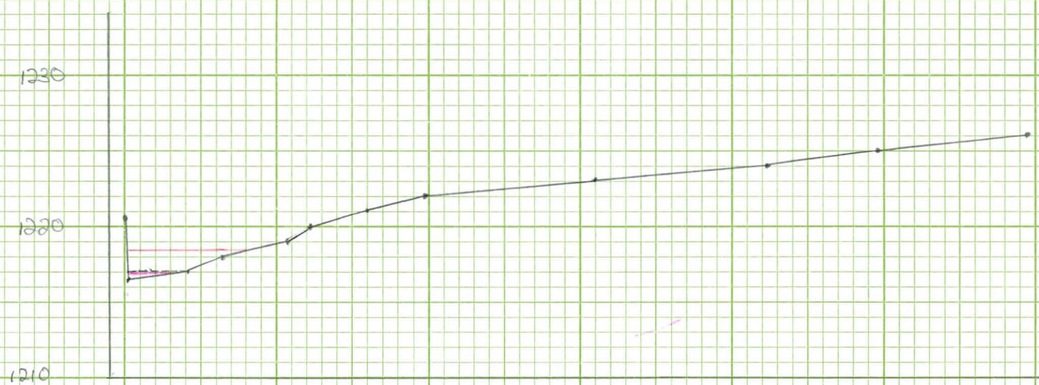
Please Return to
2801 W. Durango
Phoenix, AZ 85009

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



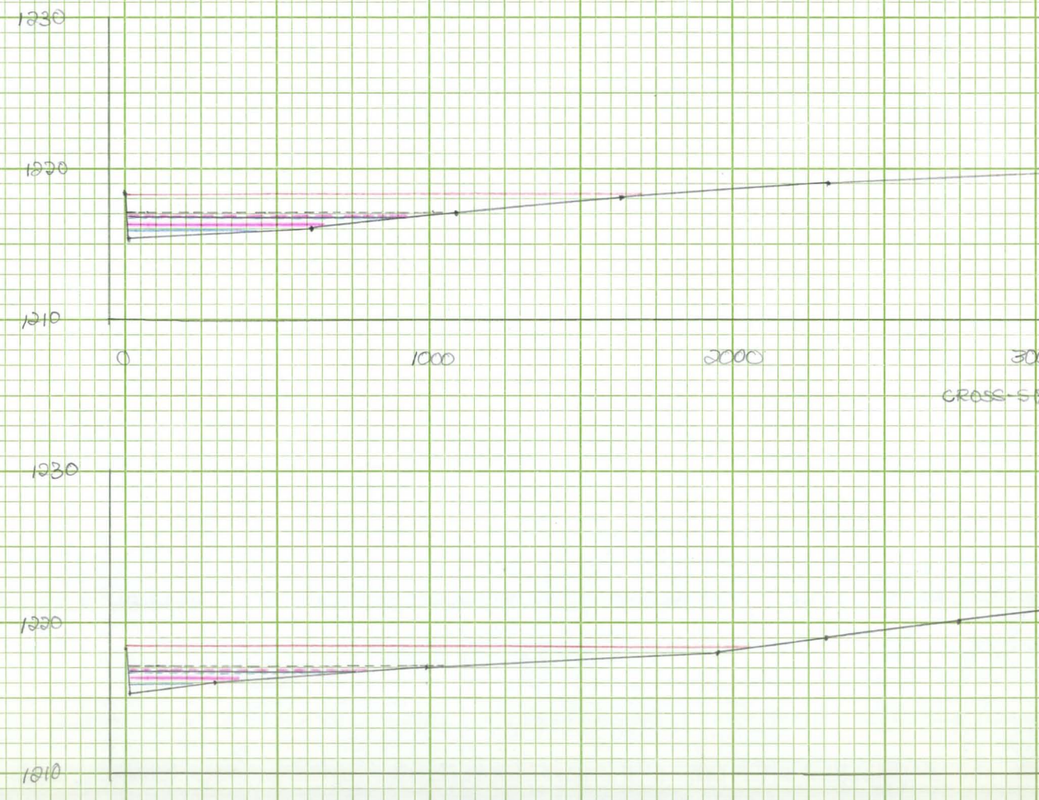
SUB AREA 653

CROSS-SECTIONS THRU CHANDLER * REVISED



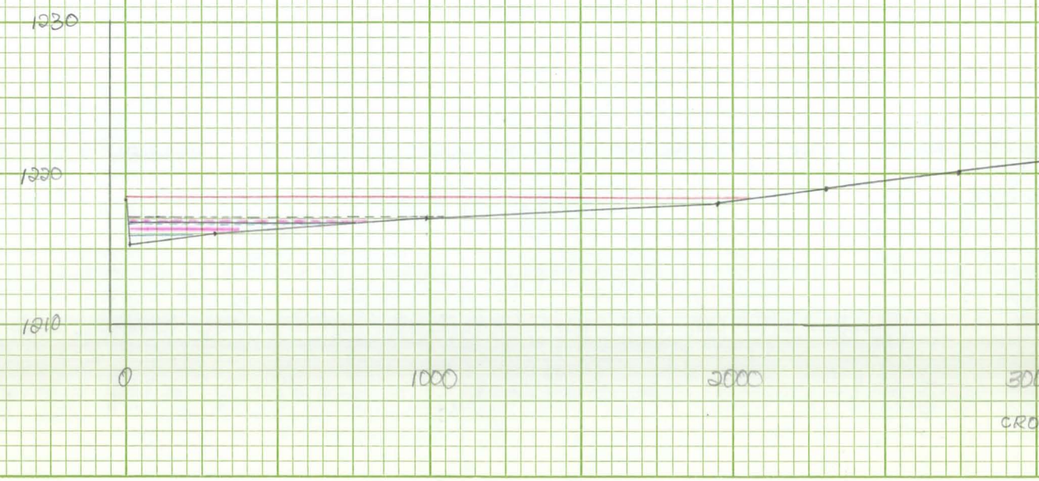
ELEV	STA
1220.5	0
1216.5	9
1217	210
1218	390
1219	540
1220	690
1221	800
1222	970
1223	1550
1224	2130
1225	2470
1226	2970

CROSS-SECTION AT WARNER ROAD



ELEV.	STA.
1216.4	0
1215.4	6
1216	650
1217	1090
1218	1630
1219	2310
1220	3510
1221	3760
1222	4070
1223	4420
1224	4760
1225	4980
1226	5150

CROSS-SECTION AT KNOX RD.



ELEV.	STA.
1216.3	0
1215.3	6
1216	290
1217	990
1218	1950
1219	2320
1220	2750
1221	3180
1222	3450
1223	3790
1224	4040
1225	5670
1226	6250

CROSS-SECTION AT RAY RD

OVERFLOW LEGEND

S.P.F - PRESENT + FUTURE — 1218.37

100 YEAR - PRESENT — 1216.8

100 YEAR - FUTURE — 1217.09

50 YEAR - PRESENT — 1216.08

50 YEAR - FUTURE — 1216.86

25 YEAR - PRESENT — 1215.9

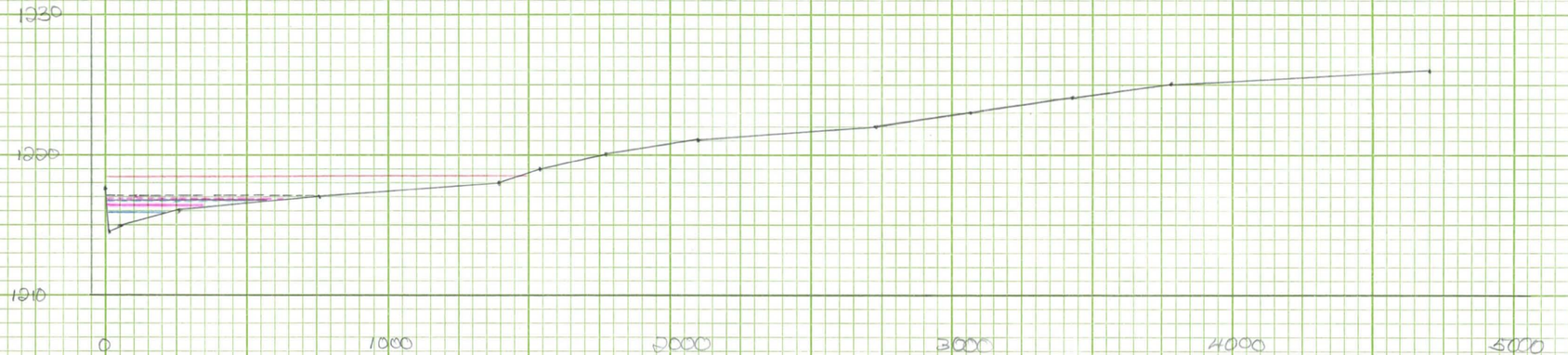
35 YEAR - FUTURE — 1216.7

10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

CROSS-SECTIONS THRU CHANDLER * REVISED

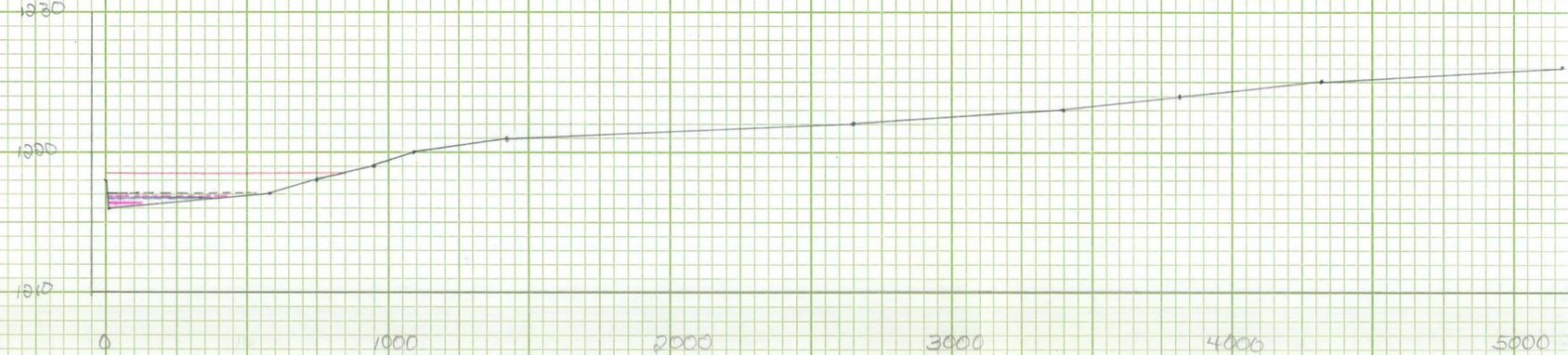
CROSS-SECTION AT GALVESTON RD

ELEV.	STA
1218.5	0
1215.5	6
1216	180
1217	540
1218	970
1219	1220
1220	1680
1221	2100
1222	2720
1223	3170
1224	3650
1225	4280
1226	4580



CROSS-SECTION AT WILLIAMS FIELD RD

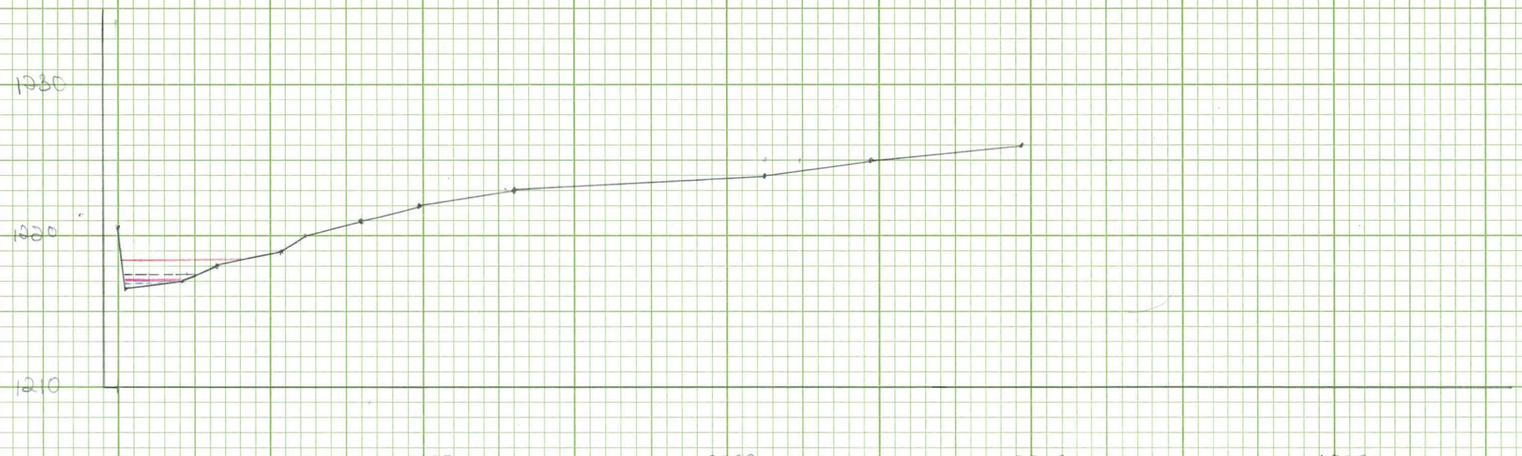
ELEV.	STA.
1217.8	0
1214.8	6
1215	50
1216	260
1217	760
1218	1390
1219	1540
1220	1770
1221	2100
1222	2730
1223	3060
1224	3430
1225	3780
1226	4700



CROSS-SECTION AT FRYE ROAD

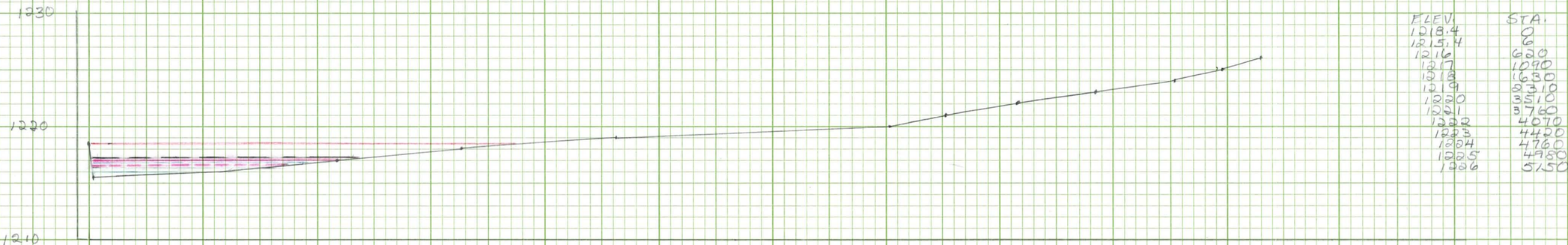
ELEV.	STA.
1218	0
1216	4
1217	570
1218	750
1219	900
1220	1090
1221	1420
1222	2650
1223	3400
1224	3810
1225	4320
1226	5180

K+E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.



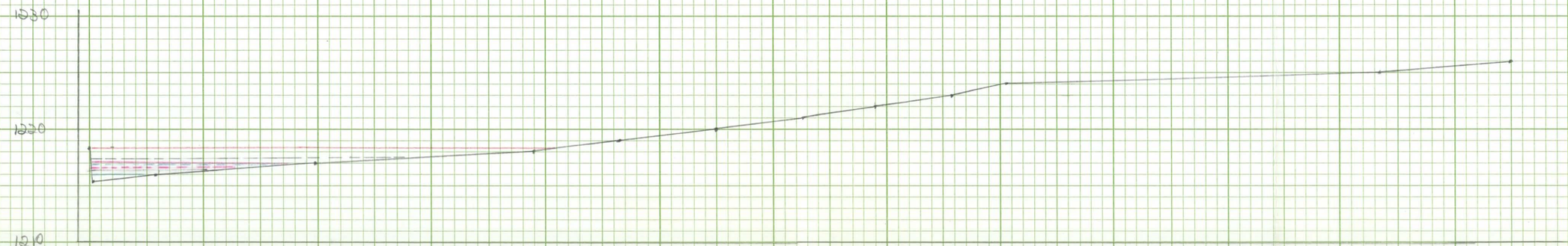
ELEV.	STA.
1220.5	0
1216.5	9
1211	210
1218	320
1219	540
1220	620
1221	800
1222	990
1225	1550
1224	2120
1225	2470
1226	2970

CROSS SECTION AT WARNER ROAD



ELEV.	STA.
1218.4	0
1215.4	6
1216	620
1217	1090
1218	1630
1219	2310
1220	3510
1221	3760
1222	4070
1223	4420
1224	4760
1225	4980
1226	5150

CROSS-SECTION AT KNOX ROAD



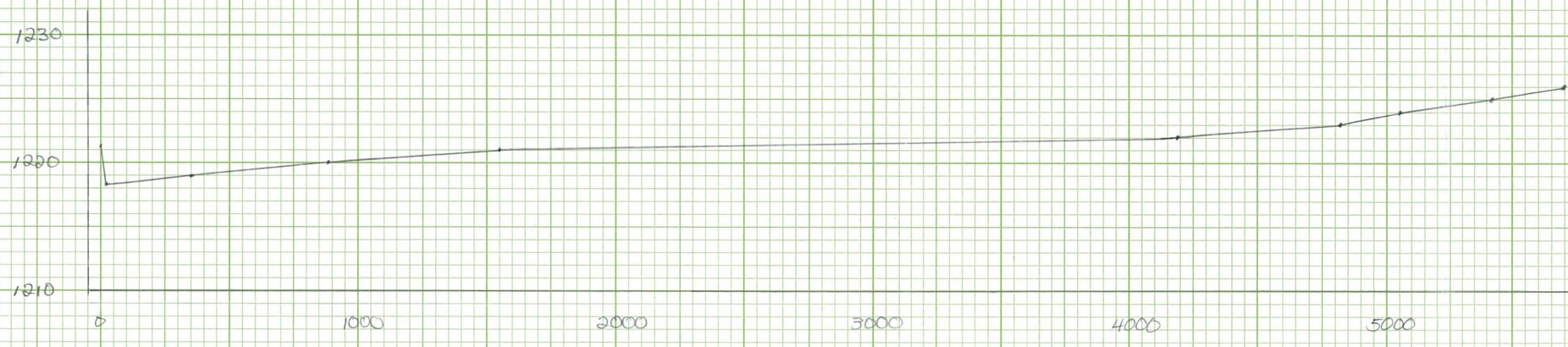
ELEV.	STA
1218.37	0
1215.37	6
1216	296
1217	990
1218	1950
1219	2330
1220	2750
1221	3130
1222	3450
1223	3770
1224	4040
1225	5670
1226	6050

CROSS-SECTION AT RAY ROAD

LEGEND

- S.P.F. - ELEVATION 1218.37
- 100 YEAR - 1216.86 - PRESENT
- 100 YEAR - ~~1217.32~~ 1217.09 - FUTURE
- 50 YEAR - ~~1217.03~~ 1216.86 - FUTURE
- 50 YEAR - 1216.54 - PRESENT
- 25 YEAR - ~~1216.85~~ 1216.7 - FUTURE
- 25 YEAR - 1216 - PRESENT

K+E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.



ELEV.	STA.
1221.6	0
1218.3	6
1219	350
1220	880
1221	1550
1222	4170
1223	4820
1224	5100
1225	5420
1226	5700

CROSS-SECTION AT PECOS ROAD

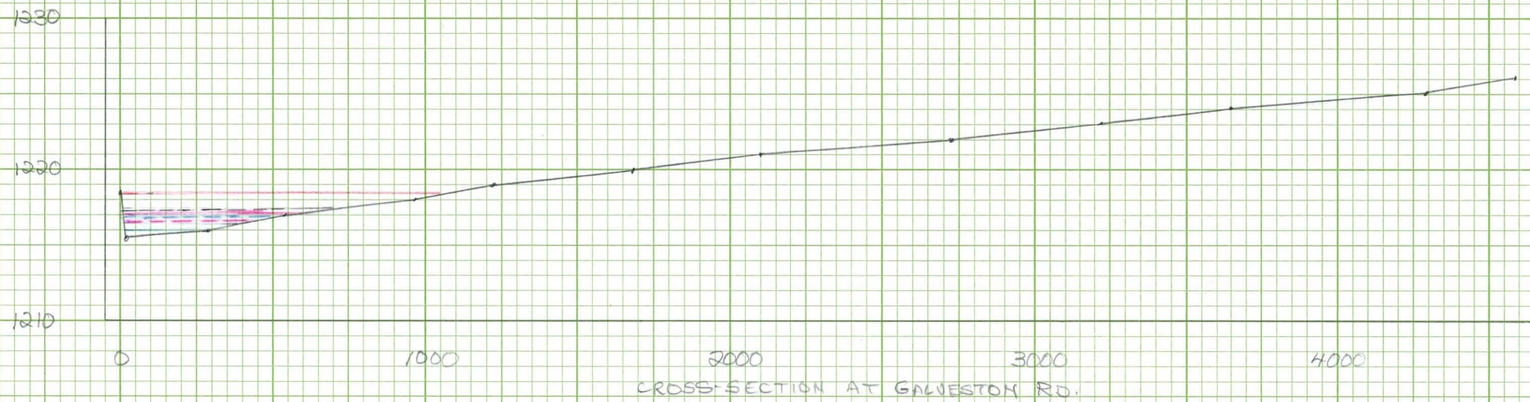
ELEV.	STA.
1222.6	0
1219.8	6
1220	400
1221	860
1222	3185
1223	3620
1224	4220
1225	4700
1226	5280

CROSS-SECTION AT WILLIS RD.

ELEV	STA.
1221	0
1215	12
1216	550
1218	2150
1220	3250
1222	3950
1224	4650

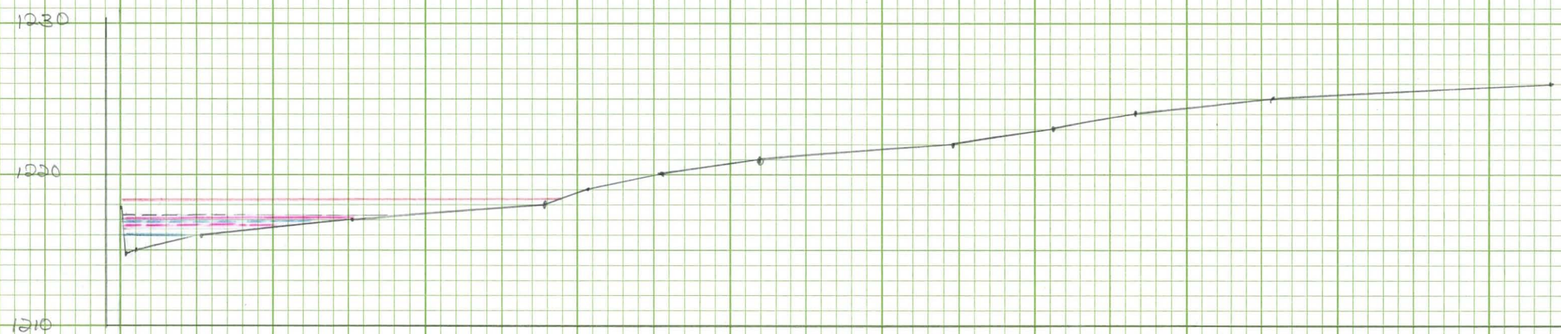
CROSS-SECTION AT GERMANN RD. - AREA 22A

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.



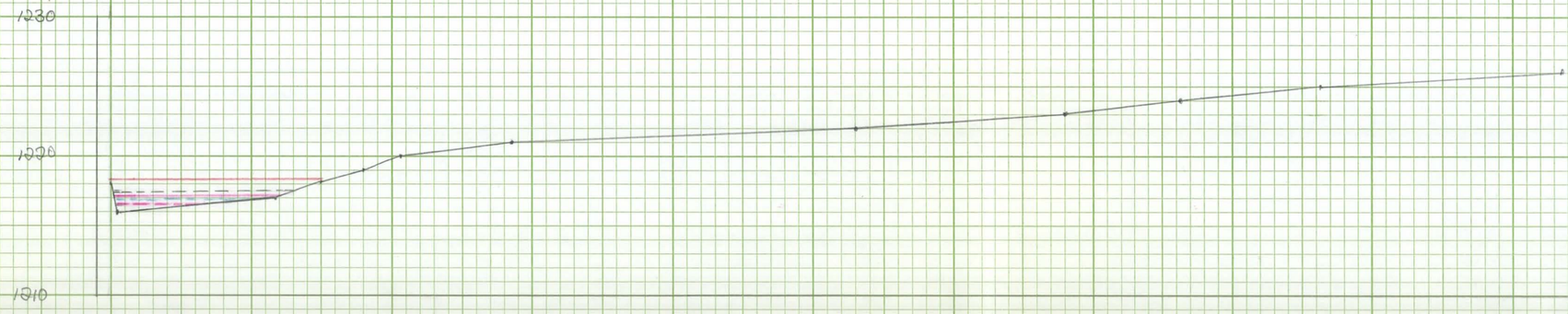
CROSS-SECTION AT GALVESTON RD.

ELEV.	STA.
1218.5	0
1215.5	6
1216	150
1217	540
1218	970
1219	1280
1220	1680
1221	2100
1223	2720
1223	3170
1224	3650
1225	4280
1226	4580



CROSS-SECTION AT WILLIAMS FIELD R.D.

ELEV.	STA.
1217.8	0
1214.8	6
1215	50
1216	260
1217	760
1218	1390
1219	1540
1220	1770
1221	2100
1223	2730
1223	3060
1224	3430
1225	3780
1226	4700

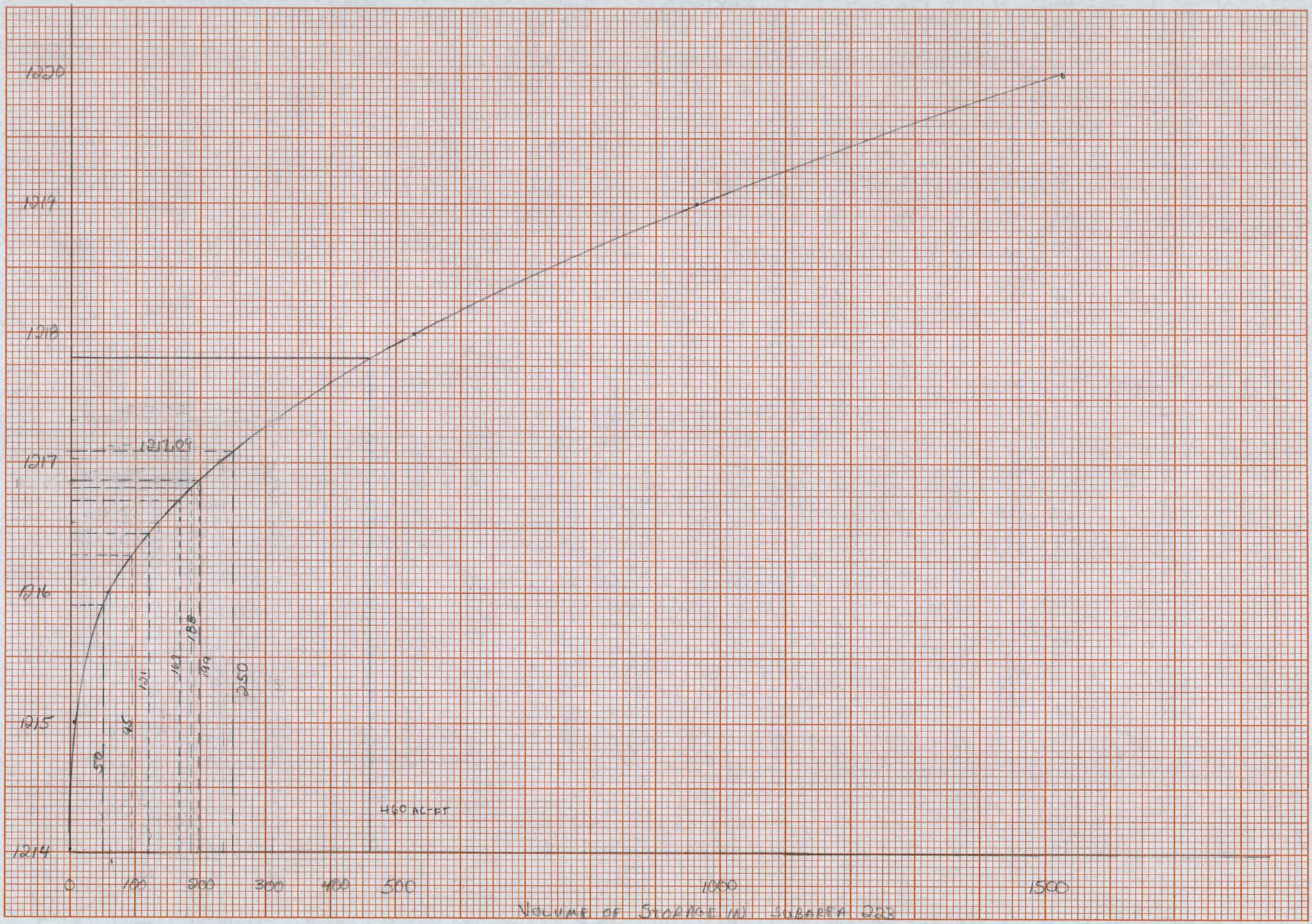


CROSS-SECTION AT FRYE ROAD.

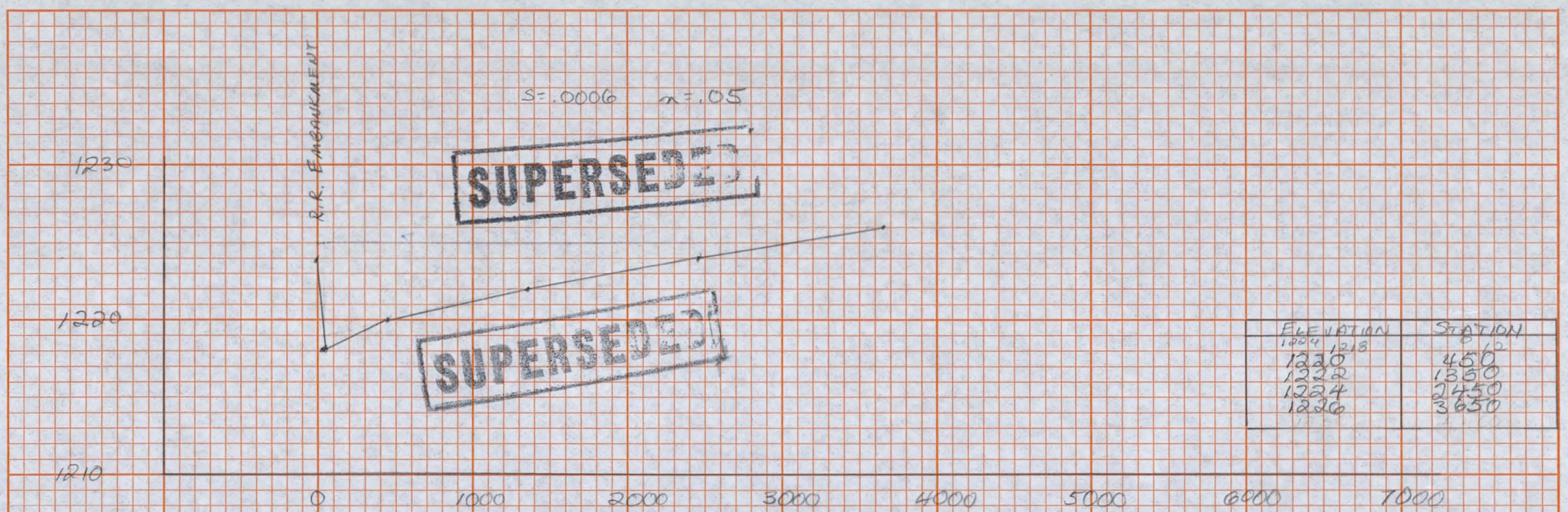
ELEV.	STA.
1218	0
1216	4
1217	570
1218	750
1219	900
1220	1090
1221	1450
1222	26.50
1223	3400
1224	3810
1225	4380
1226	5180

K+E 47 0780
10 X 10 TO THE INCH
10 X 15 INCHES
MADE IN U.S.A.
KEUFFEL & ESSER CO.

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



K+E 10 X 10 TO THE INCH 46 0703
7 X 10 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

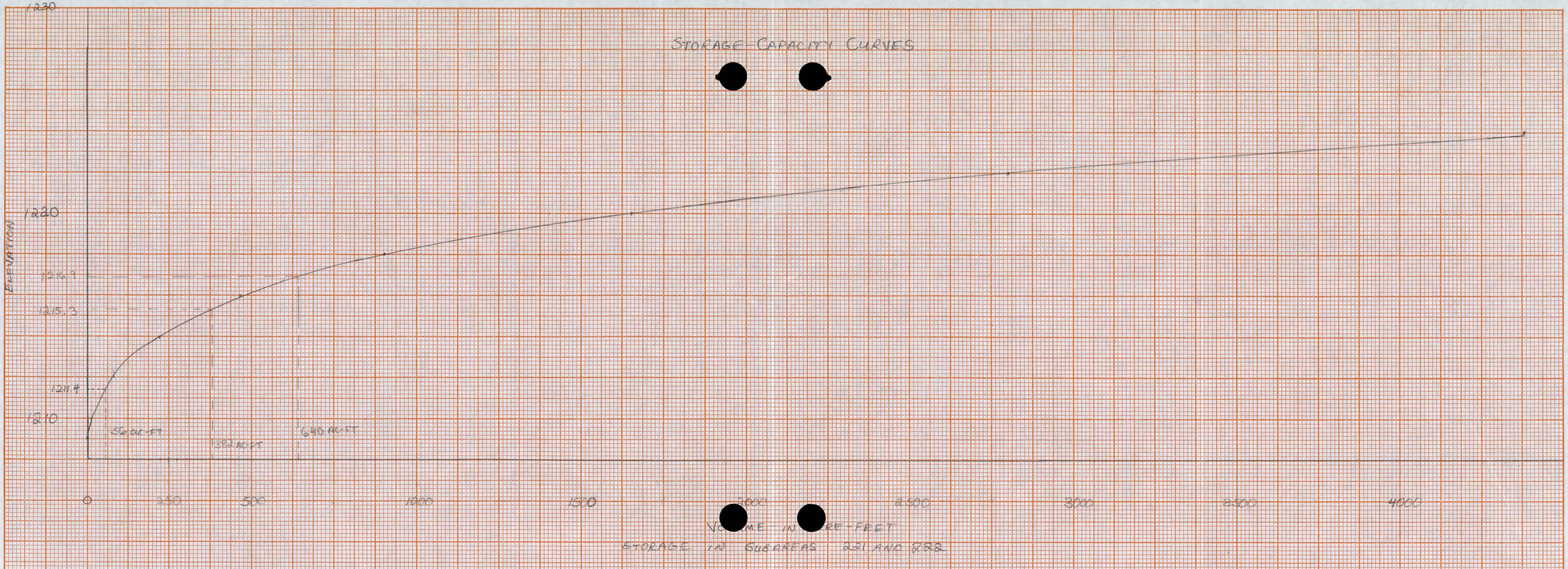


ELEVATION	STATION
1224 1218	0 12
1220	450
1222	1350
1224	2450
1226	3650

ELEVATION	STATION
1224	0
1218	12
1218	1050
1220	2300
1222	2800
1224	3200

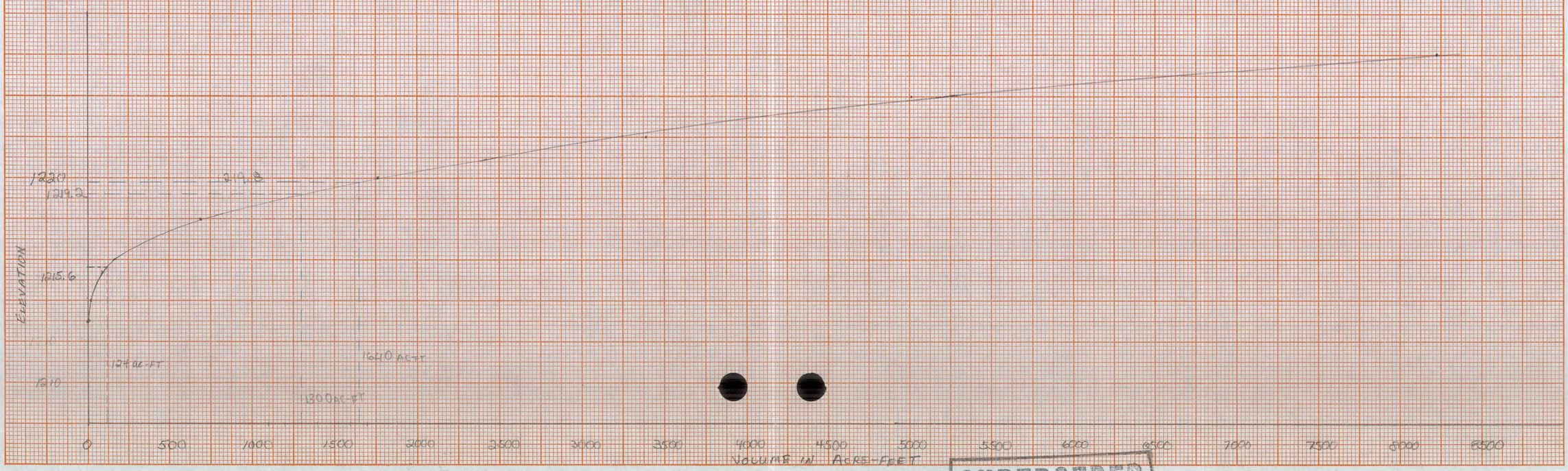
DJG. 7/10/75

STORAGE-CAPACITY CURVES



VOLUME IN ACRE-FEET

STORAGE IN SUBAREAS 221 AND 222



VOLUME IN ACRE-FEET

STORAGE IN SUBAREA 223

SUPERSEDED

DJG 7/21/75

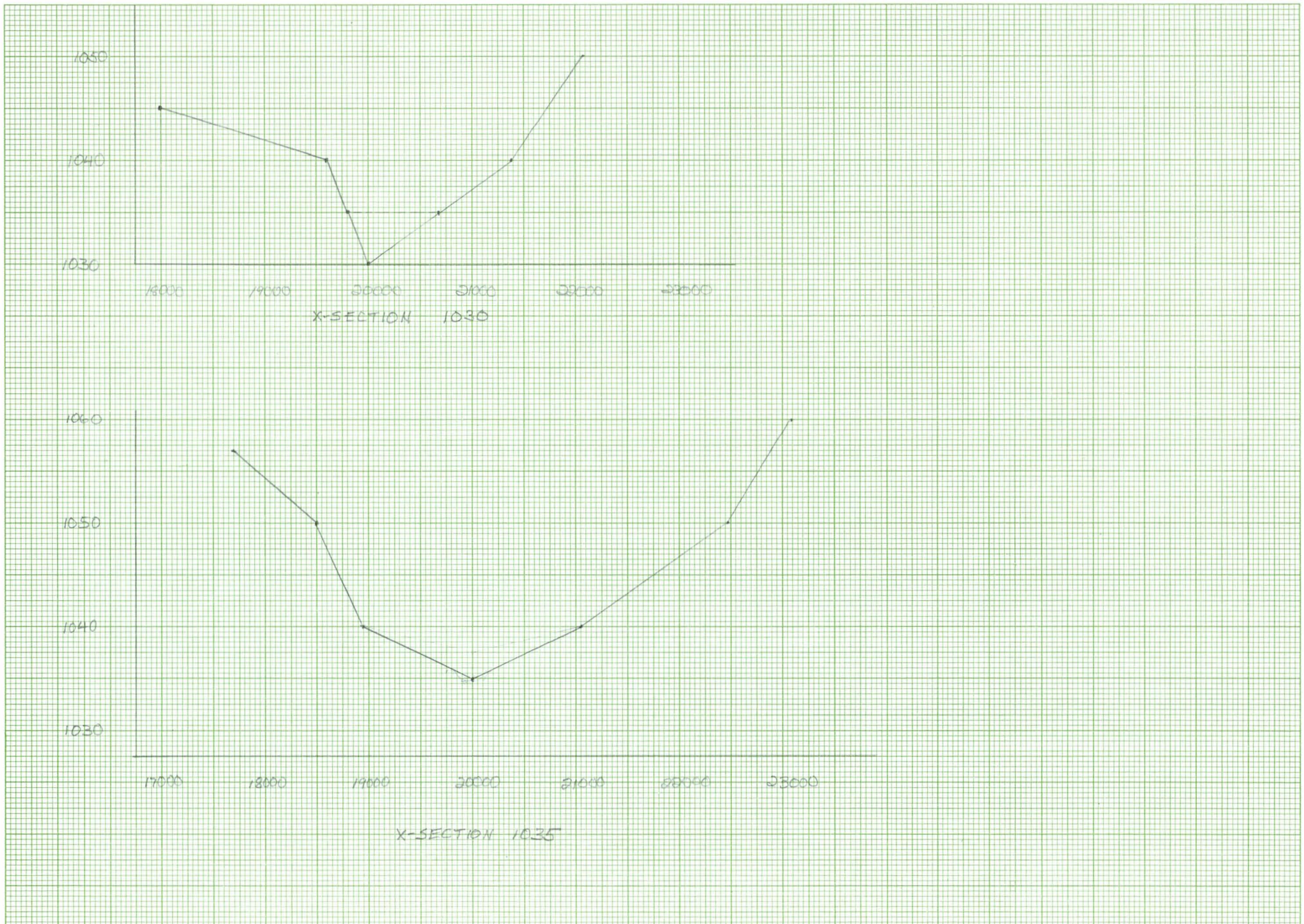
K&E 10 X 10 TO THE CENTIMETER 47 1513
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

K+E 10 X 10 TO THE CENTIMETER 46 1513
18 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

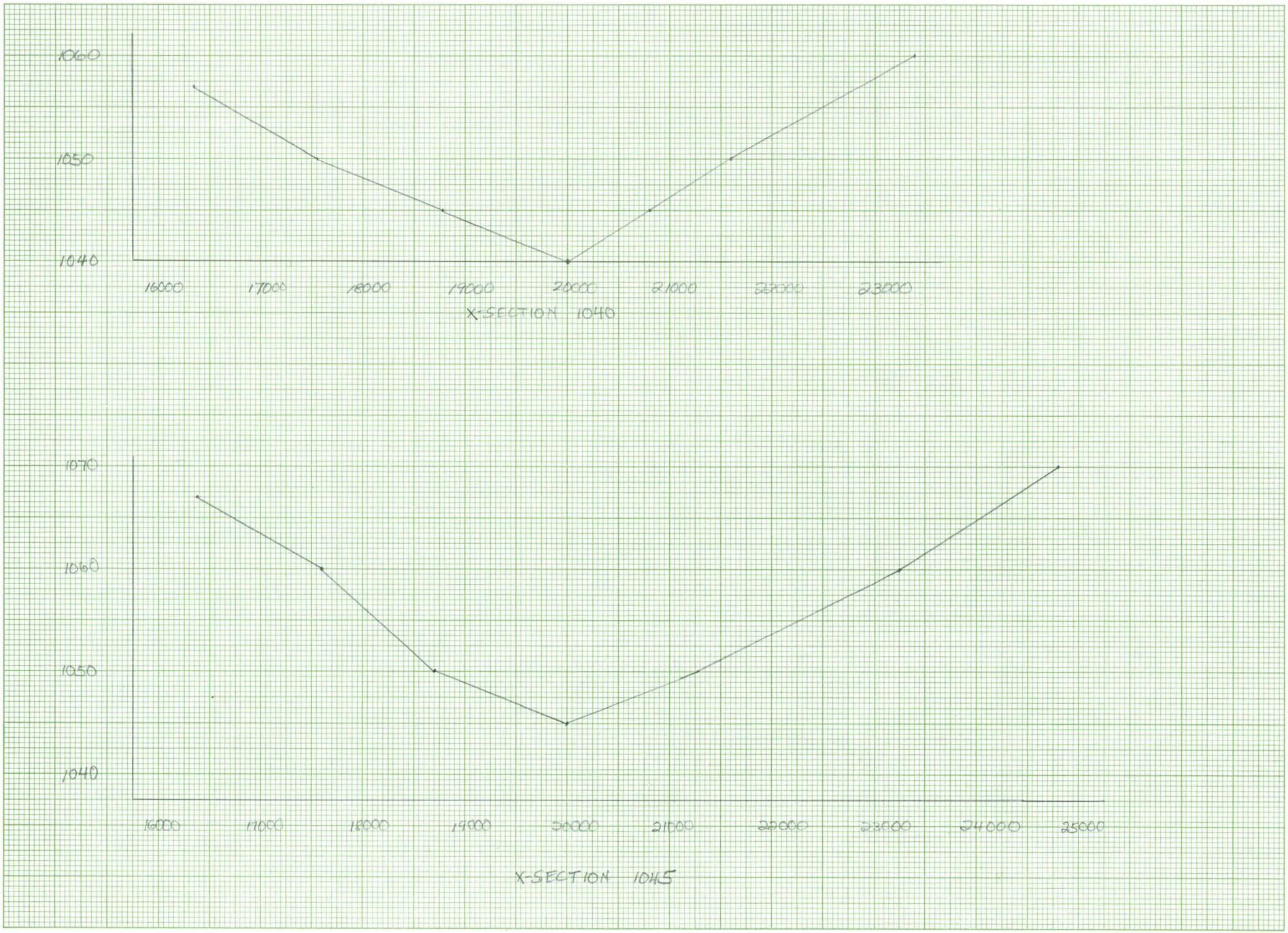
CROSS-SECTION 1020

CROSS-SECTION 1025

K+E 10 X 10 TO THE CENTIMETER 46 1510
18 X 25 CM. MADE IN U. S. A.
KEUFFEL & ESSER CO

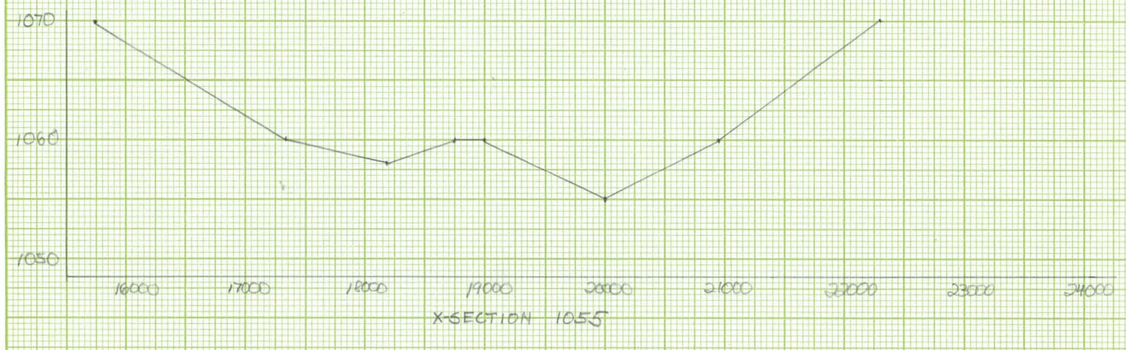


K+E 10 X 10 TO THE CENTIMETER 46 1510
18 X 25 CM. MADE IN U. S. A
KEUFFEL & ESSER CO



X-SECTIONS 1050 TO 1090

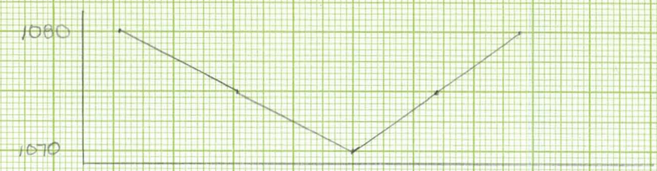
X-SECTION 1050



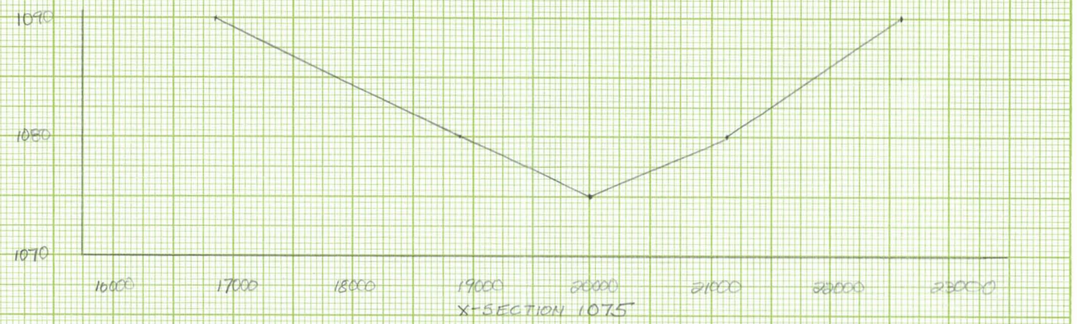
X-SECTION 1055

X-SECTION 1060

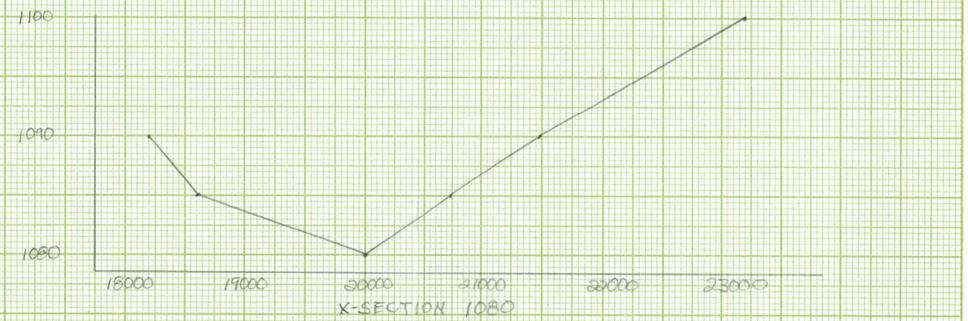
X-SECTION 1065



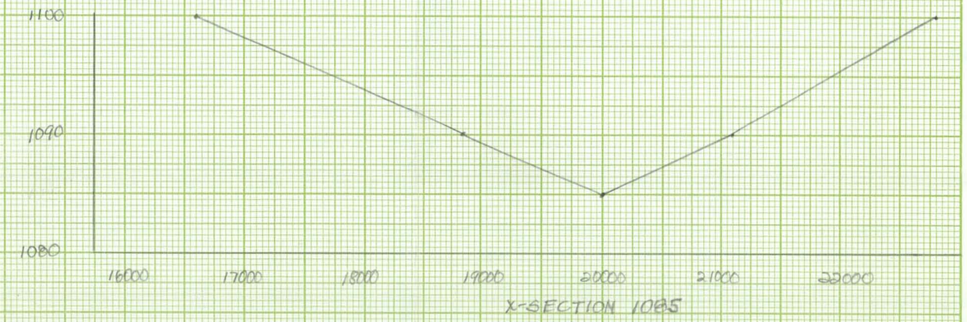
X-SECTION 1070



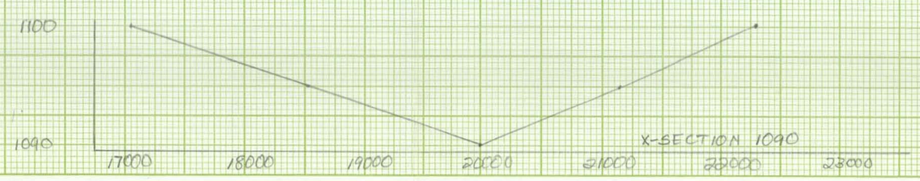
X-SECTION 1075



X-SECTION 1080



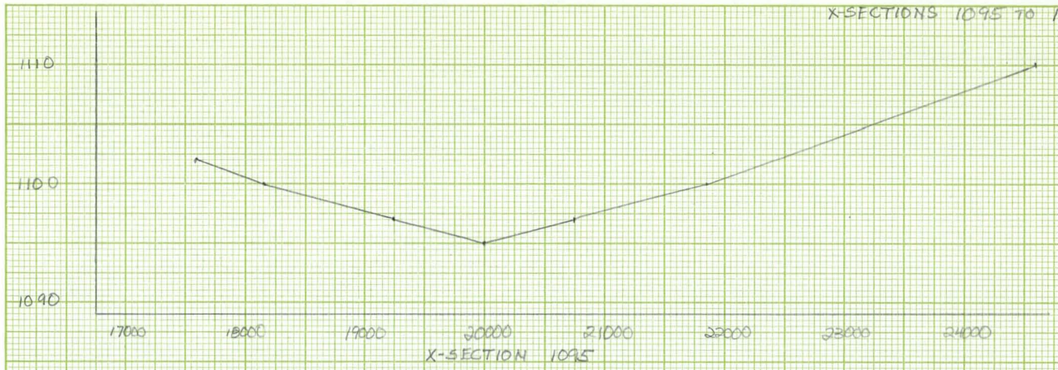
X-SECTION 1085



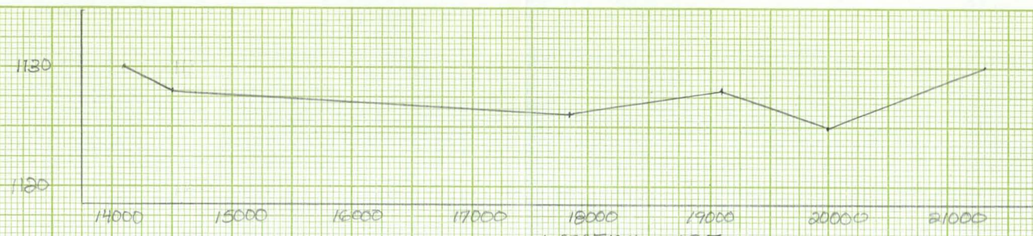
X-SECTION 1090

KE 10 X 10 TO THE CENTIMETER 47 1510
25 X 38 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

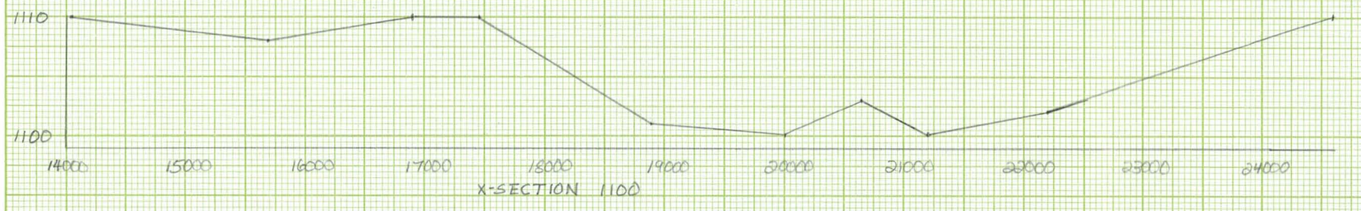
X-SECTIONS 1095 TO 1125



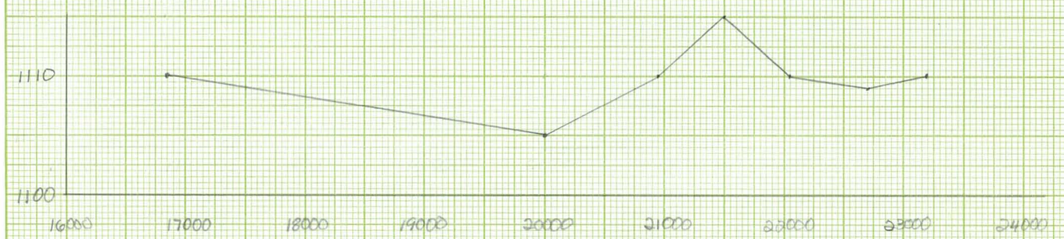
X-SECTION 1095



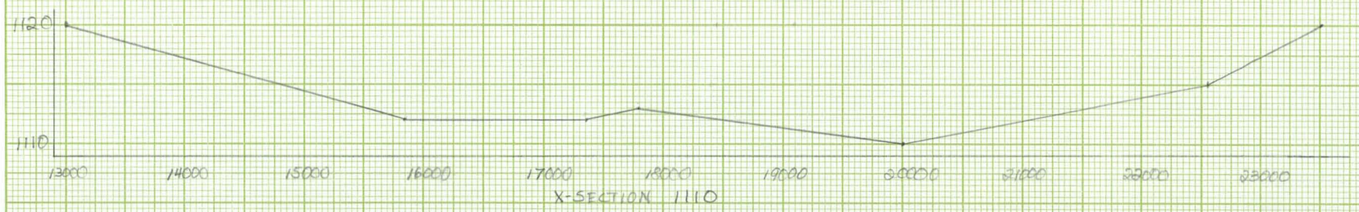
X-SECTION 1125



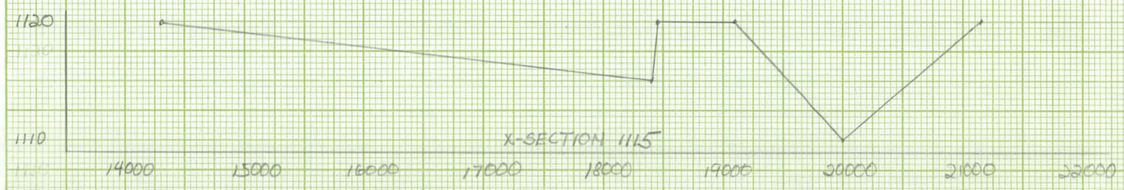
X-SECTION 1100



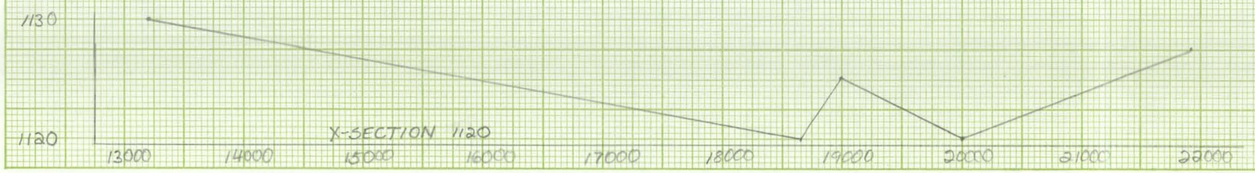
X-SECTION 1105



X-SECTION 1110



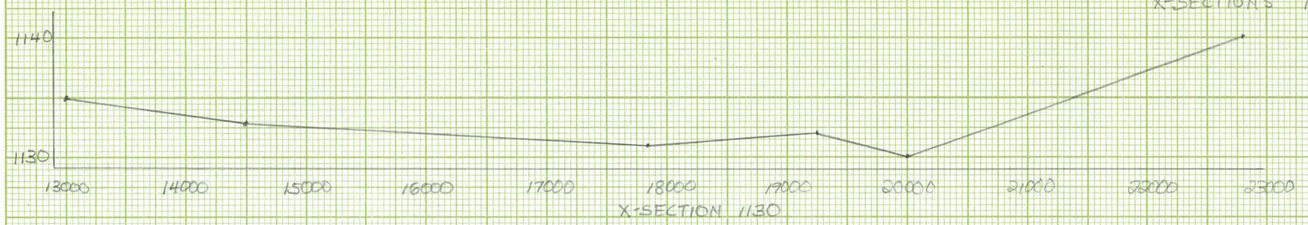
X-SECTION 1115



X-SECTION 1120

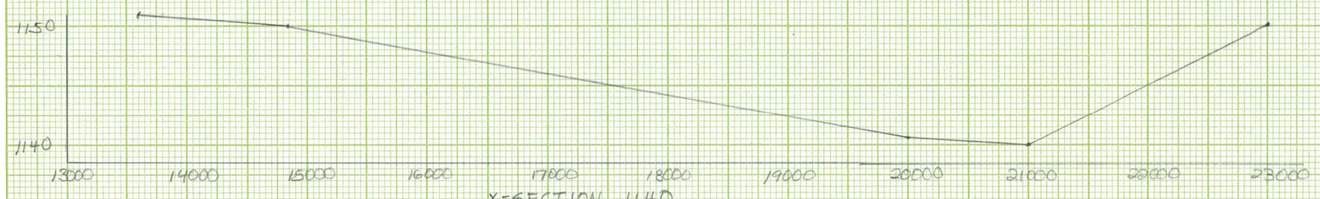
K+E 10 X 10 TO THE CENTIMETER 47 1510
25 X 38 CM MADE IN U.S.A.
KEUFFEL & ESSER CO.

X-SECTIONS 1130 - 1160

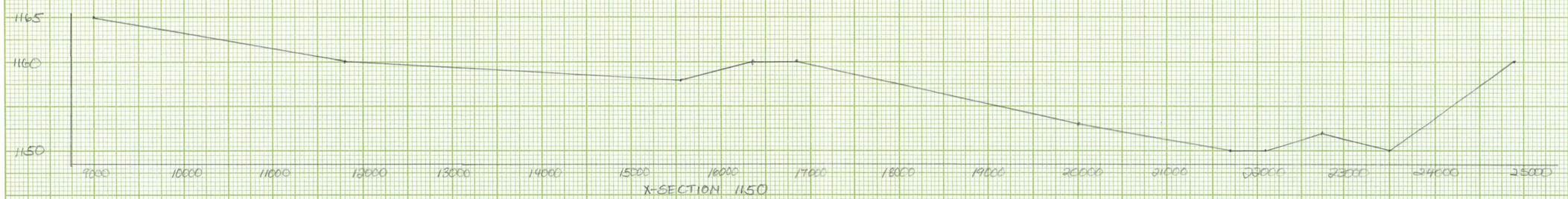


X-SECTION 1130

X-SECTION 1135



X-SECTION 1140



X-SECTION 1150

X-SECTION 1160

K+E 10 X 10 TO THE CENTIMETER 47 1510
25 X 25 CM.
MADE IN U.S.A.
KEUFFEL & ESSER CO.

X-SECTIONS 1162 TO 1166

X-SECTION 1162

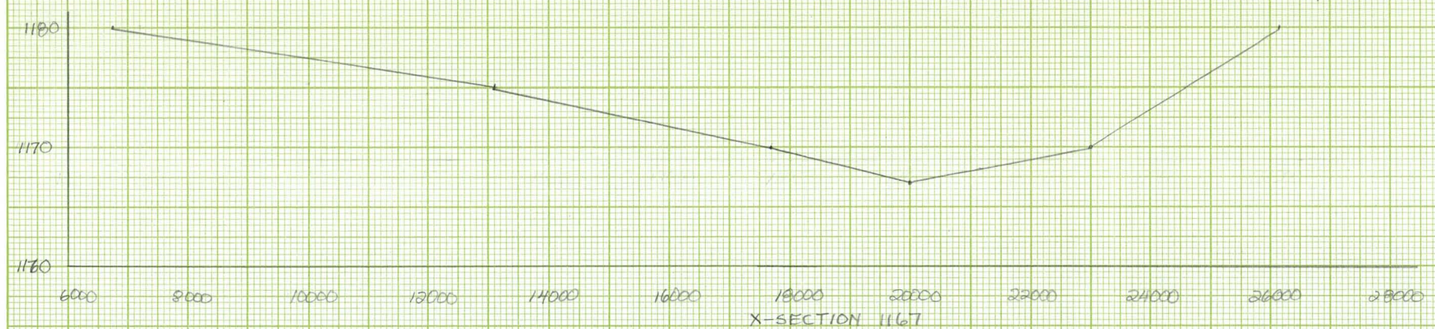
X-SECTION 1164

X-SECTION 1165

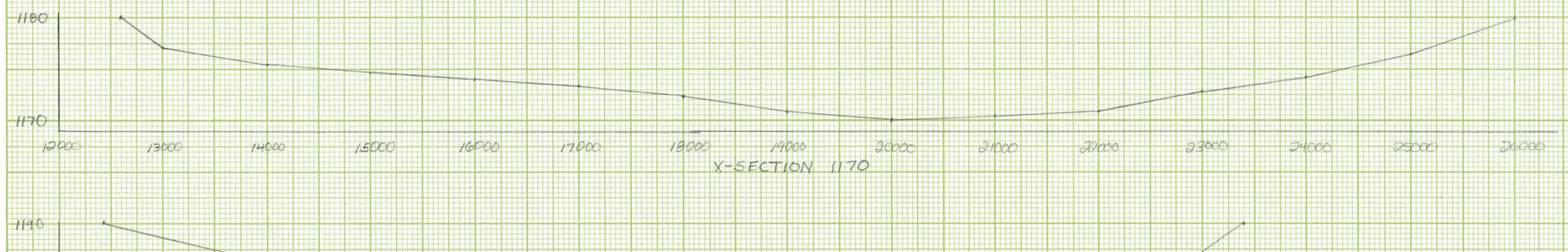
X-SECTION 1166

K&E 10 X 10 TO THE CENTIMETER 47 1510
25 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

X-SECTIONS 1167 TO 1180



X-SECTION 1167



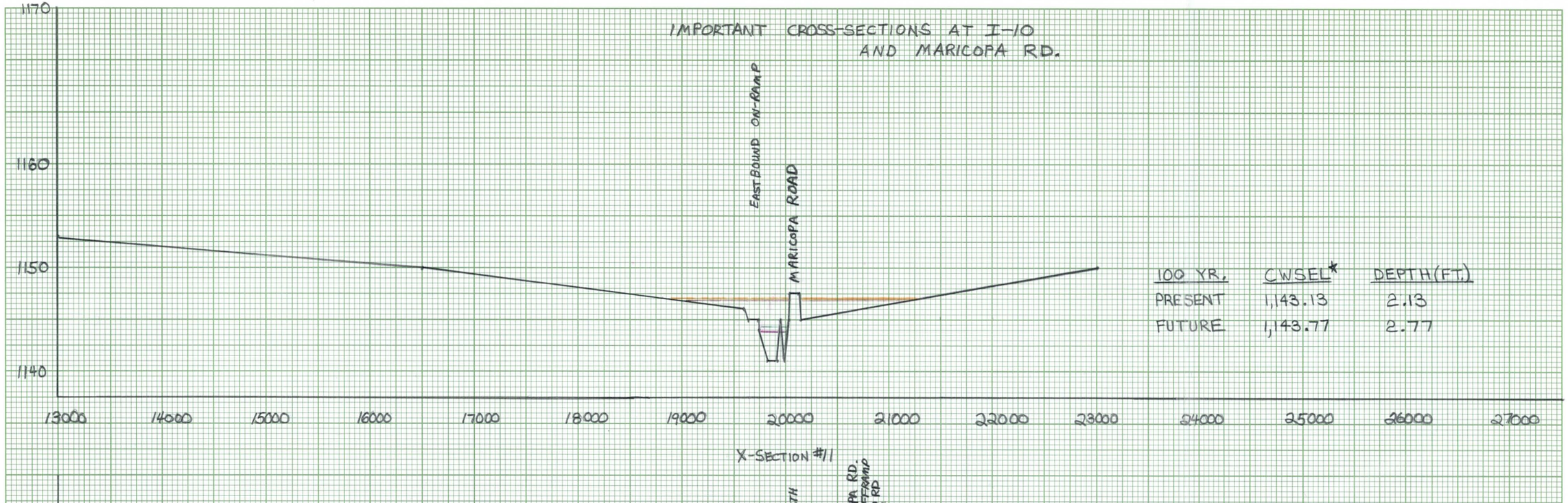
X-SECTION 1170

X-SECTION 1175

X-SECTION 1180

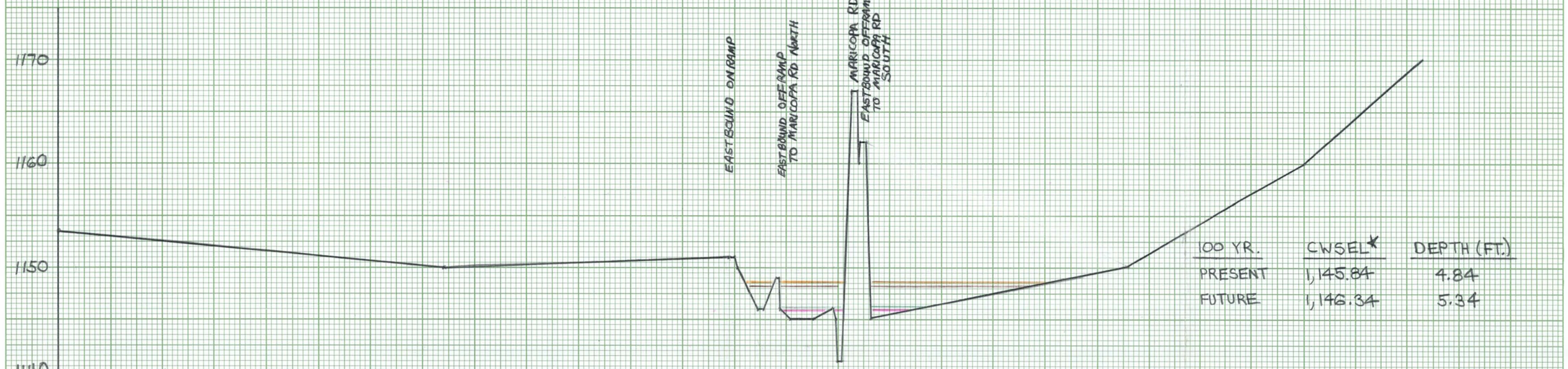
K+E 10 X 10 TO THE CENTIMETER 47 1510
25 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

IMPORTANT CROSS-SECTIONS AT I-10 AND MARICOPA RD.



100 YR.	CWSEL*	DEPTH(FT.)
PRESENT	1,143.13	2.13
FUTURE	1,143.77	2.77

X-SECTION #11



100 YR.	CWSEL*	DEPTH (FT.)
PRESENT	1,145.84	4.84
FUTURE	1,146.34	5.34

X-SECTION #22

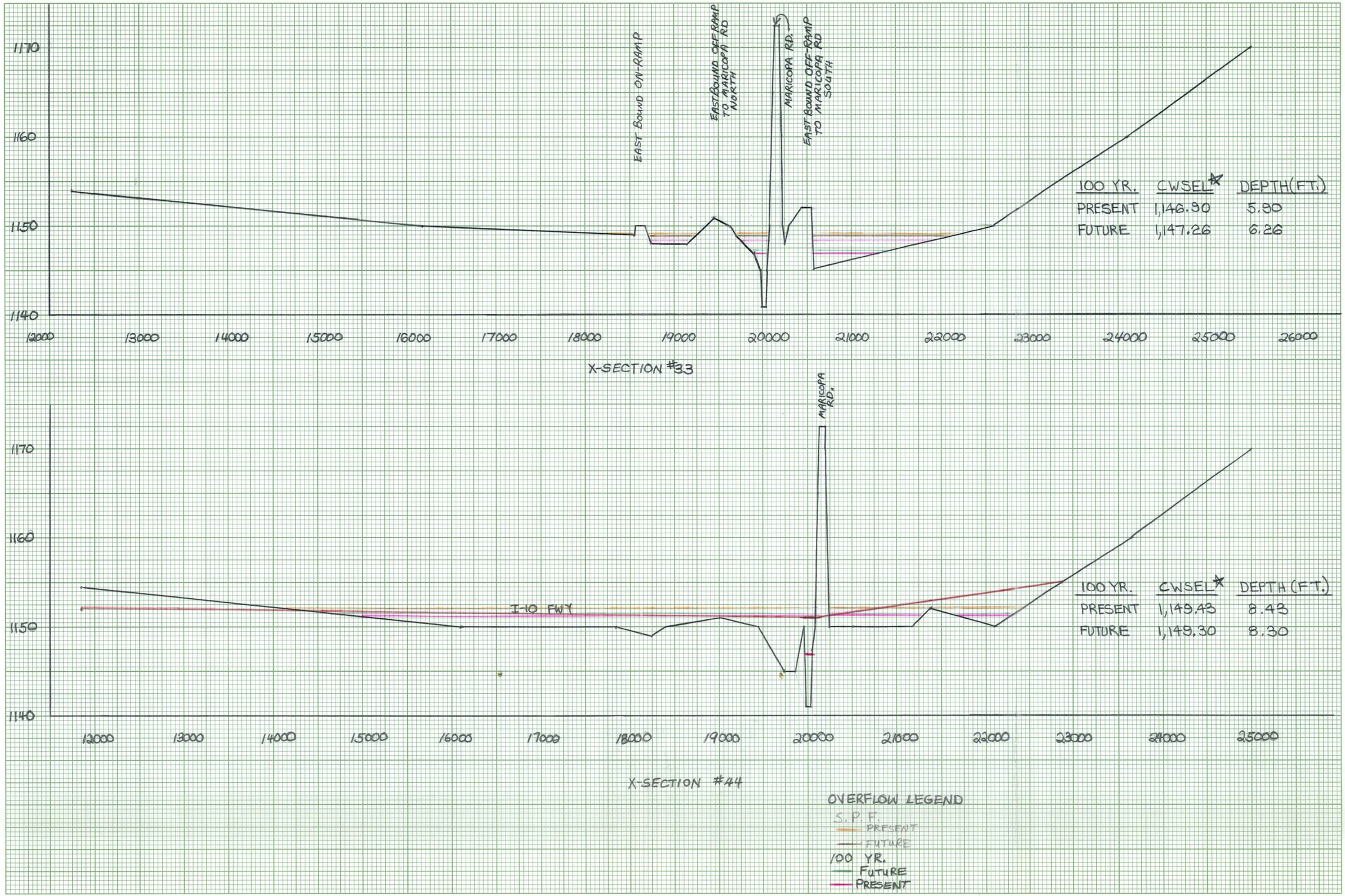
OVERFLOW LEGEND
S.P.F
— PRESENT
— FUTURE
100 YR.
— FUTURE
— PRESENT

* COMPUTED WATER SURFACE ELEVATION (FT.)

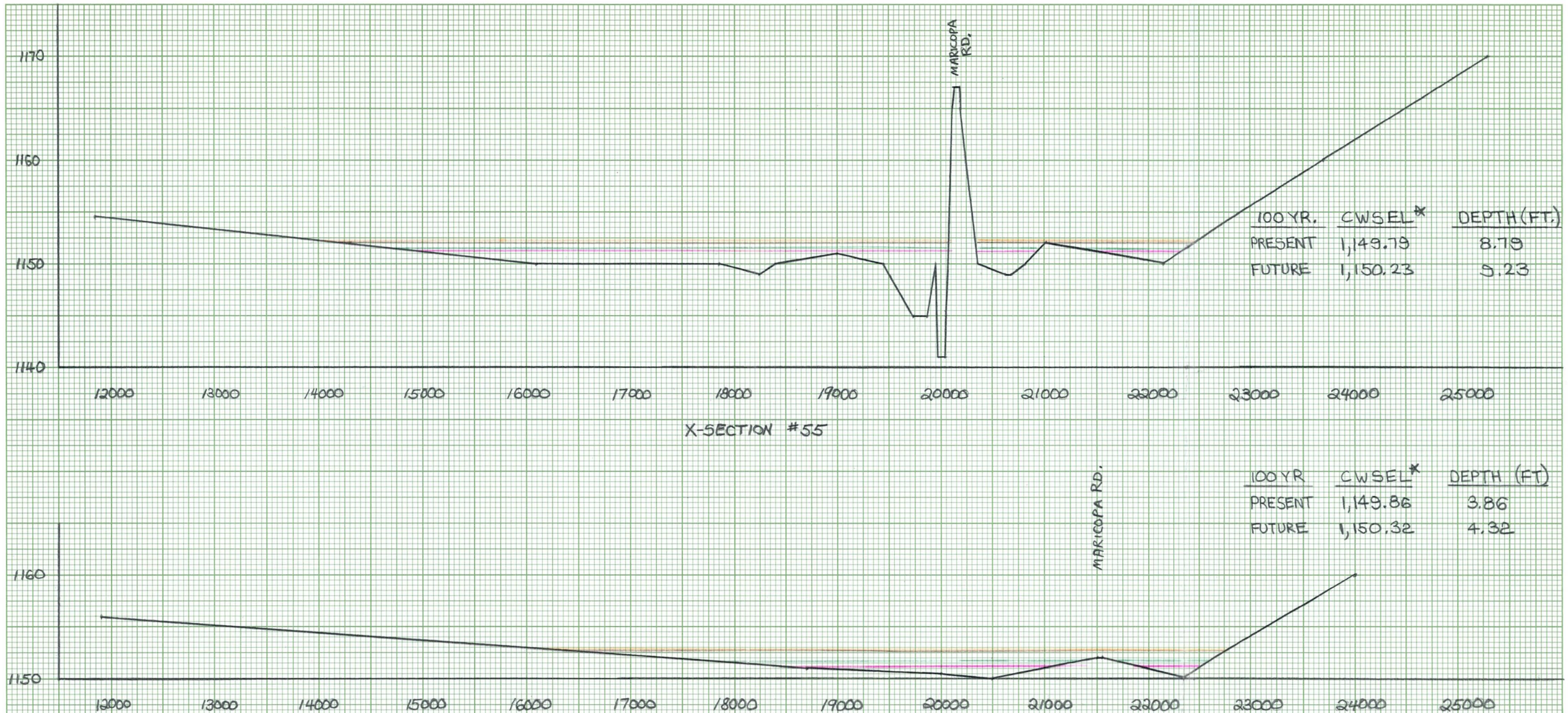
47 1320
K&E 10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 1320

10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



* COMPUTED WATER SURFACE ELEVATION



X-SECTION #55

X-SECTION #66

OVERFLOW LEGEND

S. P. F.
- PRESENT
- FUTURE

100 YR.
- FUTURE
- PRESENT

* COMPUTED WATER SURFACE ELEVATION (FT.)

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

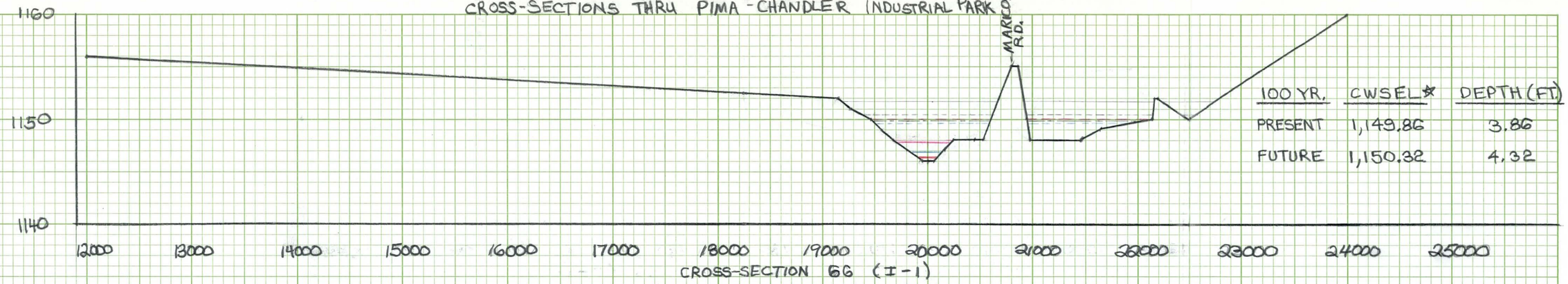
SUBJECT	DATE	PAGE OF PAGES
GILA FLOODWAY		

SOURCE OF DATA: WATER SURFACE ELEVATIONS - THRU PIMA-CHANDLER INDUSTRIAL PARK

COMPUTED BY: DJG | CHECKED BY: | SECTION: A

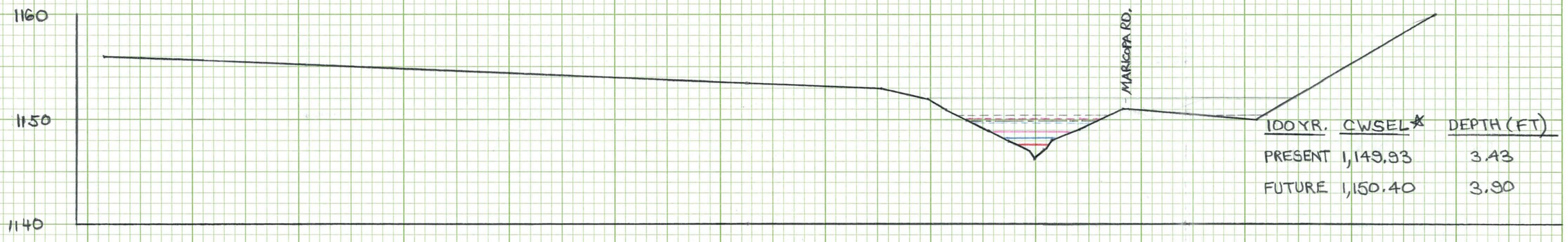
CROSS-SECTION NUMBER	S.P.F PRESENT & FUTURE	100 YEAR PRESENT	100 YEAR FUTURE	50 YEAR PRESENT	50 YEAR FUTURE	25 YEAR PRESENT	25 YEAR FUTURE	10 YR PRES.	10 YR FUTURE
66	1151.73	1149.86	1150.32	1147.71	1150.	1146.79	1149.77	1146.33	1147.71
77	1152.06	1149.93	1150.40	1148.82	1150.08	1148.38	1149.84	1147.61	1148.82
88	1152.29	1150.04	1150.54	1149.17	1150.20	1148.65	1149.95	1147.86	1149.17
99	1152.94	1150.45	1150.97	1149.79	1150.61	1149.21	1150.35	1148.46	1149.79
111	1153.25	1150.59	1151.13	1149.36	1150.75	1149.36	1150.49	1148.65	1149.96
222	1153.58	1150.76	1151.31	1150.16	1150.92	1149.59	1150.66	1149	1150.16
333	1153.78	1150.93	1151.46	1150.40	1151.09	1149.92	1150.84	1149.36	1150.40
444	1154.18	1151.39	1151.86	1150.99	1151.52	1150.58	1151.31	1150.04	1150.99
555	1154.81	1152.15	1152.58	1151.78	1152.28	1151.33	1152.09	1150.83	1151.78
666	1156.21	1153.52	1153.97	1153.11	1153.65	1152.64	1153.45	1152.07	1153.17

CROSS-SECTIONS THRU PIMA - CHANDLER INDUSTRIAL PARK



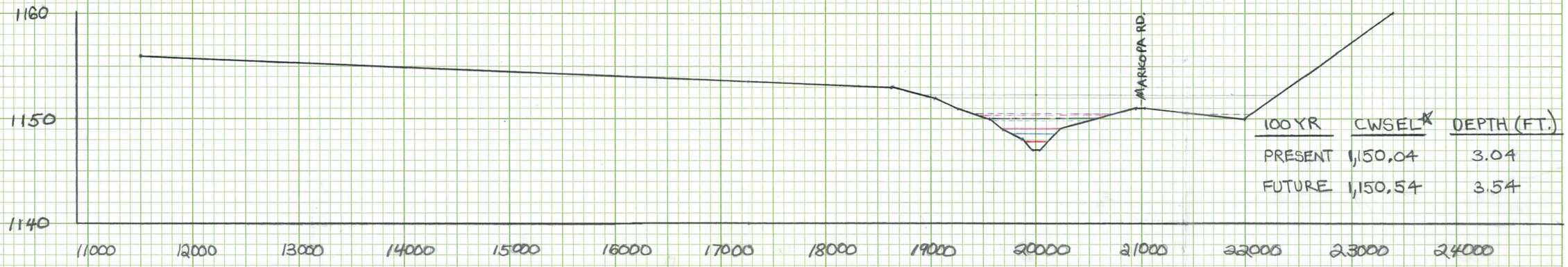
100 YR.	CWSEL ✱	DEPTH (FT)
PRESENT	1,149.86	3.86
FUTURE	1,150.32	4.32

CROSS-SECTION 66 (I-1)



100 YR.	CWSEL ✱	DEPTH (FT)
PRESENT	1,149.93	3.43
FUTURE	1,150.40	3.90

CROSS-SECTION 77 (I-2)



100 YR	CWSEL ✱	DEPTH (FT.)
PRESENT	1,150.04	3.04
FUTURE	1,150.54	3.54

CROSS-SECTION 88 (I-3)

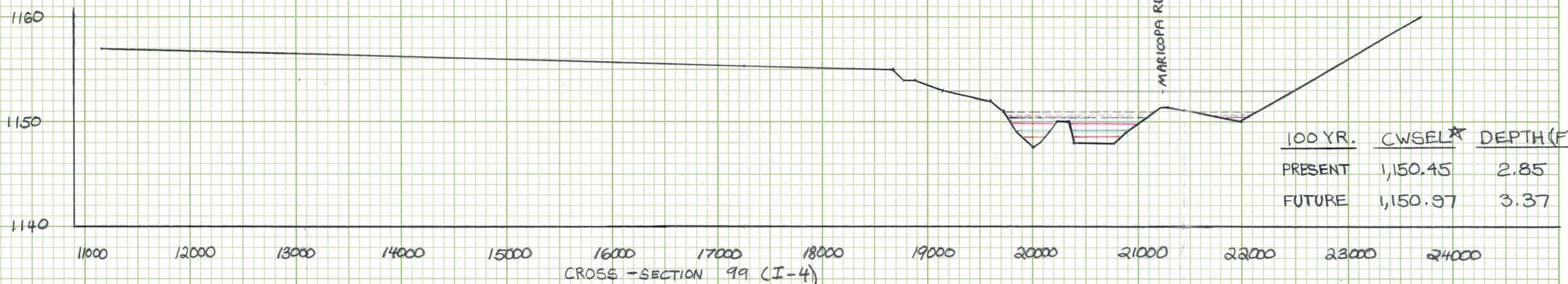
OVERFLOW LEGEND

- S.P.F - PRESENT & FUTURE
- 100 YEAR - PRESENT
- 100 YEAR - FUTURE
- 50 YEAR - PRESENT + 10 YEAR FUTURE
- 50 YEAR - FUTURE
- 25 YEAR - PRESENT
- 25 YEAR - FUTURE
- 10 YEAR - PRESENT

✱ COMPUTED WATER SURFACE ELEVATION (FT.)

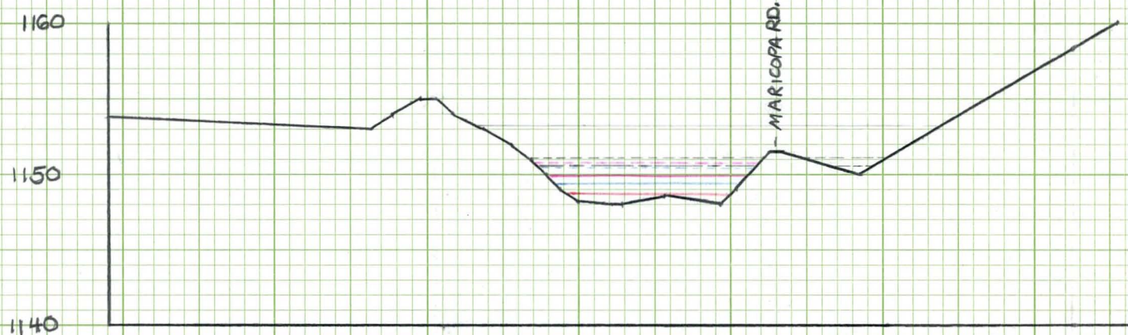
K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

CROSS-SECTIONS THRU PIMA-CHANDLER INDUSTRIAL PARK



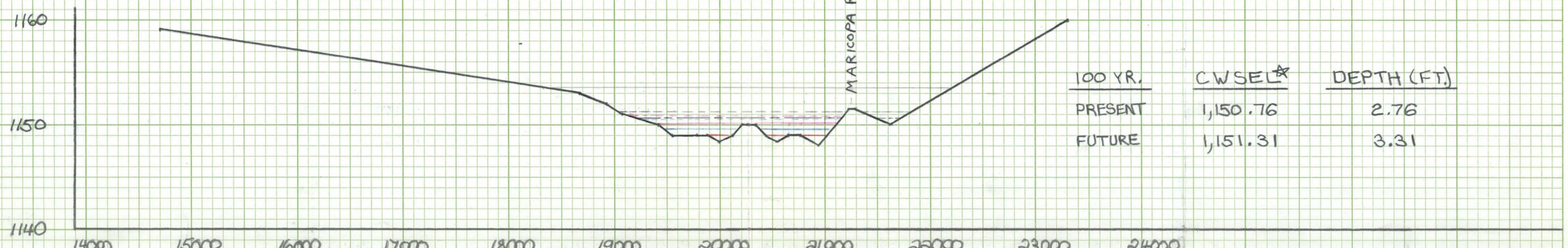
CROSS-SECTION 99 (I-4)

100 YR.	CWSEL*	DEPTH (FT.)
PRESENT	1,150.45	2.85
FUTURE	1,150.97	3.37



CROSS-SECTION 111 (I-5)

100 YR.	CWSEL*	DEPTH (FT.)
PRESENT	1,150.59	2.59
FUTURE	1,151.13	3.13



CROSS-SECTION 222 (I-6)

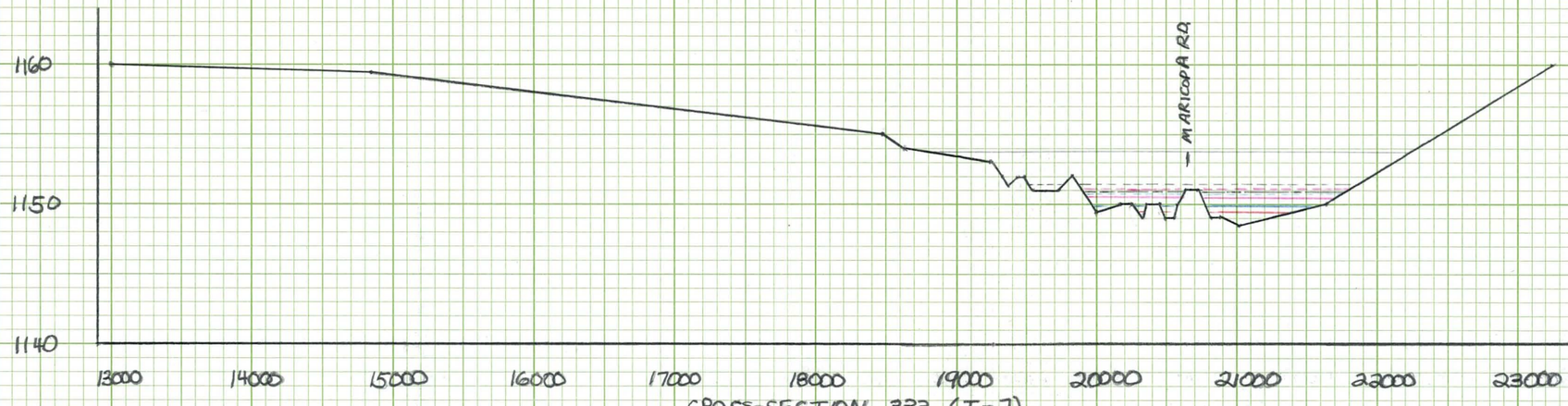
100 YR.	CWSEL*	DEPTH (FT.)
PRESENT	1,150.76	2.76
FUTURE	1,151.31	3.31

OVERFLOW LEGEND
100 YEAR - PRESENT
100 YEAR - FUTURE

* COMPUTED WATER SURFACE ELEVATION (FT.)

K+E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

CROSS-SECTIONS THRU PIMA-CHANDLER INDUSTRIAL PARK

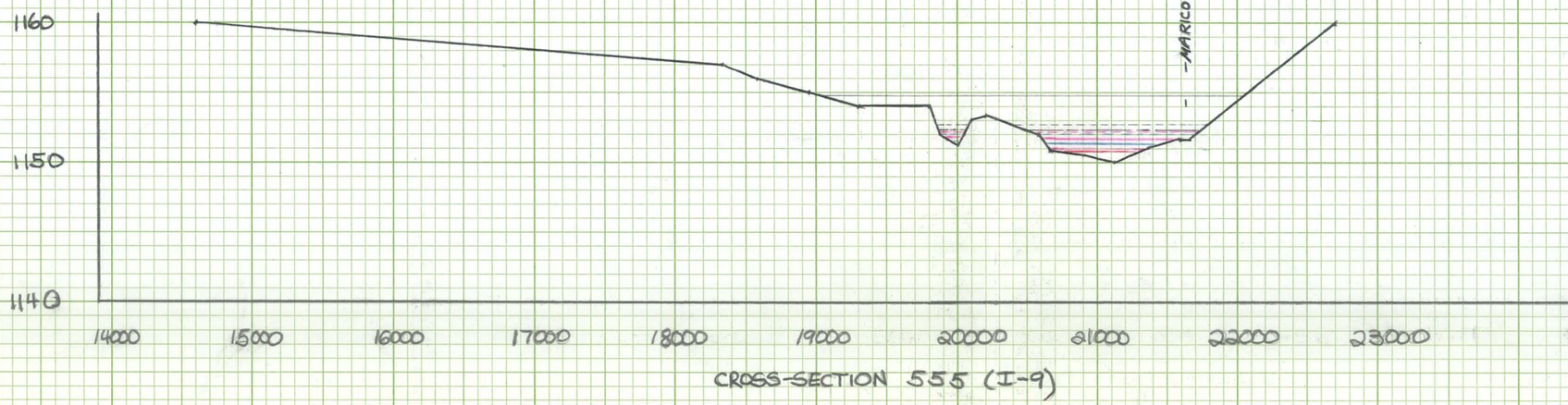


CROSS-SECTION 333 (I-7)

100 YR	CWSEL ★	DEPTH (FT.)
PRESENT	1,150.93	2.43
FUTURE	1,151.46	2.96

CROSS-SECTION 444 (I-8)

100 YR	CWSEL ★	DEPTH (FT.)
PRESENT	1,151.39	1.89
FUTURE	1,151.86	2.36



CROSS-SECTION 555 (I-9)

100 YR	CWSEL ★	DEPTH (FT.)
PRESENT	1,152.15	2.15
FUTURE	1,152.58	2.58

★ COMPUTED WATER SURFACE ELEVATION (FT.)

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

CROSS-SECTION SECTIONS THRU PIMA-CHANDLER INDUSTRIAL PARK

100 YR.	CWSEL ★	DEPTH (FT.)
PRESENT	1,153.52	2.02
FUTURE	1,153.97	2.47

★ COMPUTED WATER SURFACE ELEVATION (FT.)

10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

SPF Routing in Mesa

General: SPF will overtop RWCD Floodway beginning at about Apache Trail. Between Apache Trail and Southern, the channel capacity is exceeded by a relatively small amount. Therefore, for ease of calculations, assume all overflow occurs between Southern Ave and Superstitution Fwy.

The routed overflow from above RWCD will arrive at Eastern Canal at about period 30 (7½ hrs after storm begins). It will then fill the available storage and proceed west along the Fwy to Consolidated Canal, filling the detention basins along the way. After breaching Consolidated Canal, it will proceed to Center street, again filling the detention basins along the way.

Since the detention basins are being filled by SPF, any storm drain flow into the detention basin will stop. The following notes give assumption as to when this will happen.

Subarea 504: SPF will arrive at detention basin at Greenfield Road at about period 30 and rapidly fill the basin. Therefore, storm drain export from subarea 503 should cease at period 30. Levee storage will be filled by subarea 504 at about period

to consolidated canal without delay.

Subarea 604: The Val Vista detention basin will receive stormdrain export from subareas 502 & 603 until the RWCD fills it. This will occur at about period 33. Storm drain flow will then cease. Levee storage will be filled by subarea 604 at about period 22. RWCD overflow will proceed without delay to Center Street filling detention basins on the way

Subarea 701: The basins will be filled in the following periods:

Lindsay Rd: period 36
Gilbert " : " 40
Stapley Drive: " 44
Mesa " : " 49

Using the above figures and assumptions, the following conclusions were made:

1) Total volume of storm drain flow caught in basins ≈ 564 AF apportioned in the following way

Greenfield (subarea 503) = 25 AF
Val Vista (subareas 502 & 503) = 24+24 = 48 AF
Lindsay (subareas 501, 602, & 603) = 32 + 28 + 20 = 80 AF
Gilbert (subareas 602-701) = 34+60 = 94 AF
Stapley (subarea 701) = 129 AF
Mesa (" ") = 188 AF

564 AF

2) The SPF overflow hydrograph is as follows starting with period 23 : 3443, 4963, 4988, 5871, 4828, 4602, 3157, 2704, 1386, 929. Total volume ≈ 763 AF.

3) Total volume available in detention basins ≈ 1128 AF
Storm drain flow into basins + SPF overflow = 564 AF + 763 AF = 1327

4) It is therefore concluded that SPF overflow from RWCD will not significantly affect the peak at 1701 and will add only about 200 AF volume, assuming the detention basins can catch the flow. The channel on the north side of the Fwy may change this conclusion.

```
 S =  .001500
Q 1 = 4700


  1195.0  1190.0   189.0  1188.0  1189.0  1190.0  1190.0  1191.0
     .0    20.0  1600

OW AT 12750
```

T-1

```
READY

EDIT LIST 300;189;1189
300 DATA 1195,0,1190,20,1189,1600,1188,3500,11189,5250,1190,5800,1190,5800,1191,6
READY
EDIT LIST 300;11189;1189
300 DATA 1195,0,1190,20,1189,1600,1188,3500,1189,5250,1190,5800,1190,5800,1191,68
READY
RUN

*AAQL   10:26   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 4700


  1195.0  1190.0  1189.0  1188.0  1189.0  1190.0  1190.0  1191.0
     .0    20.0  1600.0  3500.0  5250.0  5800.0  5800.0  6800.0

  1190.0  1192.0
  8000.0  8600.0
          N =  .050000



ELMIN =  1188
 S =  .001500

   WSEL       Q          A       V       P      N      BSTA     ESTA

              4706.5   4407.2   1.07   4931.8  .050
            --------  -------  -----  -------
  1189.6      4706.5   4407.2   1.07   4931.8           649.2   5581.0

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,,.0015,4000
300 DATA 1185.0,1180,20,1180,1600,1179,4300,1177,7500,1178,9350,1180,11400,-999,
```

```
RUN

*AAQL   10:29   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
 1 = 4000


   118.0    20.0  1600.0  4300.0  7500.0  9350.0 11400.0       .0
90

READY
300 DATA 1185,0,1180,20,1180,1600,1179,4300,1177,7500,1178,9350,1180,11400,-999,.
RUN

*AAQL   10:30   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 4000

                                T-2

  1185.0  1180.0  1180.0  1179.0  1177.0  1178.0  1180.0
      .0    20.0  1600.0  4300.0  7500.0  9350.0 11400.0
         N =  .050000


ELMIN =  1177
 S =  .001500

   WSEL        Q          A       V       P      N      BSTA     ESTA

            4000.7   3978.3   1.01  4871.6  .050
           --------  -------  -----  ------
  1178.5    4000.7   3978.3   1.01  4871.6          5033.5  9905.1


FLOODWAY? 1 = YES, 0 = NO
?0




YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
200 DATA 1,.002,3900
300 DATA 1185,0,1180,20,1170,2800,1168,500,1169,7450,1168,10500,1170,11900,-999,.
RUN

*AAQL   10:32   11/07/75
```

```
FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 3900


  1185.0  1180.0  1170.0  1168.0  1169.0  1168.0  1170.0
      .0    20.0  2800.0   500.0  7450.0 10500.0 11900.0
          N =  .0509@

NOW AT 12750

READY
EDIT LIST 300;500;5000
300 DATA 1185,0,1180,20,1170,2800,1168,5000,1169,7450,1168,105000,1170,11900,-99
READY
EDIT LIST 300;105000;10500
300 DATA 1185,0,1180,20,1170,2800,1168,5000,1169,7450,1168,10500,1170,11900,-999
READY
RUN

*AAQL   10:33   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 3900
```

7-3

```
  1185.0  1180.0  1170.0  1168.0  1169.0  1168.0  1170.0
      .0    20.0  2800.0  5000.0  7450.0 10500.0 11900.0
          N =  .050000



ELMIN =  1168
 S =  .002000

   WSEL        Q          A        V        P       N      BSTA     ESTA

          5 3906.7   4263.9     .92  7449.8  .050
          --------  -------  -----  ------
  1169.1    3906.7   4263.9     .92  7449.8          3808.4 11258.3

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.0025,3800
300 DATA 1170,0,1160,2200,1158,3350,1157,4800,1158,7450,1156,9700,1160,10900,-99
```

```
RUN

*AAQL   10:35   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002500
Q 1 = 3800


  1170.0  1160.0  1158.0  1157.0  1158.0  1156.0  1160.0
      .0  2200.0  3350.0  4800.0  7450.0  9700.0 10900.0
          N =  .050000



ELMIN =  1156
 S =  .002500
```

T-4

WSEL	Q	A	V	P	N	BSTA	ESTA
	3800.0	3540.9	1.07	5769.2	.050		
1157.8	3800.0	3540.9	1.07	5769.2		3659.9	10235.9

```
FLOODWAY? 1 = YES, 0 = NO
?0
```

```
YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.0025,3700
300 DATA 1160,0,1150,3950,1149,5500,1148,7000,1149,9650,1150,12500,-999,.05
RUN

*AAQL   10:37   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0(
10320 DATA ITEM NOT VALID
NOW AT 10320
READY
RUN

*AAQL   10:38   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002500
Q 1 = 3700
```

```
 1160.0  1150.0  1149.0  1148.0  1149.0  1150.0
     .0  3950.0  5500.0  7000.0  9650.0 12500.0
         N =  .050000


ELMIN =  1148
 S =  .002500
```

T-5

WSEL	Q	A	V	P	N	BSTA	ESTA
	3693.9	3379.6	1.09	5357.5	.050		
1149.3	3693.9	3379.6	1.09	5357.5		5074.6	10432.1

```
FLOODWAY? 1 = YES, 0 = NO
?@

NOW AT 12750

READY
OFF

USAGE ON 11/07/75 AT 10:39:12
SRU'S:3.9  ELAPSED TIME: 00:16:11

GOOD BYE.


M765A8S578AW8EL8E7A8E55A785
```

```
FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 5100
```

Q=5100 CFS

```
  1195.0  1190.0  1189.0  1188.0  1189.0  1190.0  1191.0  1190.0
      .0    20.0  1600.0  3500.0  5250.0  5800.0 68800.0  8000.0

  1192.0
 9@

NOW AT 12750

READY
EDIT LIST 300;68800;6800
300 DATA 1195,0,1190,20,1189,1600,1188,3500,1189,5250,1190,5800,1191,6800,1190
READY
RUN

*AAQL   09:32   10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 5100


  1195.0  1190.0  1189.0  1188.0  1189.0  1190.0  1191.0  1190.0
      .0    20.0  1600.0  3500.0  5250.0  5800.0  6800.0  8000.0

  1192.0
  8600.0
          N =  .050000



ELMIN =  1188
 S =  .001500
```

T-1

```
   WSEL        Q          A        V        P      N      BSTA     ESTA

             5108.0    4671.1    1.09   5044.5  .050
           --------   -------   -----   ------
  1189.7     5108.0    4671.1    1.09   5044.5           565.6   5610.1


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
```

```
READY
300 DATA 1185,0,1180,20,1180,1600,1179,4300,1177,7500,1178,9350,1180,11400,-99
RUN

*AAQL    09:34    10/28/75
```

Q=5100 CFS

```
FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 5100



  1185.0  1180.0  1180.0  1179.0  1177.0  1178.0  1180.0
      .0    20.0  1600.0  4300.0  7500.0  9350.0 11400.0
         N =  .050000



ELMIN =  1177
 S =  .001500
```

T-2

WSEL	Q	A	V	P	N	BSTA	ESTA
	5101.3	4750.2	1.07	5271.2	.050		
1178.7	5101.3	4750.2	1.07	5271.2		4790.0	10061.1

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.002,5100
300 DATA 1185,0,1180,20,1170,2800,1168,5000,1169,7450,1168,10500,1170,11900,-9
RUN

*AAQL    09:36    10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 5100



  1185.0  1180.0  1170.0  1168.0  1169.0  1168.0  1170.0
      .0    20.0  2800.0  5000.0  7450.0 10500.0 11900.0
         N =  .050000
```

```
ELMIN =  1168
 S =  .002000
```

T-3 Q=5100 cfs

```
   WSEL        Q          A        V        P      N      BSTA     ESTA

             5094.7    5050.3    1.01   7637.5   .050
           --------   -------   -----   ------
  1169.2     5094.7    5050.3    1.01   7637.5           3693.8 11331.2


FLOODWAY? 1 = YES, 0 = NO
?0




YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.0025,5100
300 DATA 1170,0,1160,2200,1158,3350,1157,4800,1158,7450,1156,9700,1160,10900,-
RUN

*AAQL    09:38    10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002500
Q 1 = 5100



  1170.0  1160.0  1158.0  1157.0  1158.0  1156.0  1160.0
      .0  2200.0  3350.0  4800.0  7450.0  9700.0 10900.0
          N =  .050000




ELMIN =  1156
 S =  .002500
```

T-4

```
   WSEL        Q          A        V        P      N      BSTA     ESTA

             5094.1    4450.4    1.14   6582.9   .050
           --------   -------   -----   ------
  1157.9     5094.1    4450.4    1.14   6582.9           3446.4 10280.1


FLOODWAY? 1 = YES, 0 = NO
?0




YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
```

```
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1160,0,1150,3950,1149,5500,1148,7000,1149,9850,1150,12500,-999,.05
RUN
```

Q= 5100 CFS

```
*AAQL    09:40    10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002500
Q 1 = 5100


  1160.0  1150.0  1149.0  1148.0  1149.0  1150.0
      .0  3950.0  5500.0  7000.0  9850.0 12500.0
          N =  .050000



ELMIN =  1148
 S =  .002500

   WSEL        Q          A        V        P       N      BSTA     ESTA

            5109.2    4317.7    1.18   6076.3   .050
          --------   -------   -----   ------
  1149.4    5109.2    4317.7    1.18   6076.3           4862.9 10939.2


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.2
READY
LOGON
PROJECT CODE UNAVAILABLE
READY
```

T-5

Q= 3500 CFS

T-1

```
ELMIN =  1188
 S =  .001500

   WSEL        Q          A        V        P       N      BSTA     ESTA

             3502.2    3576.8     .98   4559.1   .050
           --------   -------   -----   ------
  1189.4     3502.2    3576.8     .98   4559.1            925.7   5484.7

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.2
READY
300 DATA 1185,0,1180,20,1180,1600,1179,4300,1177,7500,1178,9350,1180,11400,-999,
RUN

*AAQL   15:24   10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001500
Q 1 = 3500


  1185.0  1180.0  1180.0  1179.0  1177.0  1178.0  1180.0
      .0    20.0  1600.0  4300.0  7500.0  9350.0 11400.0
          N =  .050000



ELMIN =  1177
 S =  .001500
```

T-2

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

             3500.4    3610.0     .97   4668.9   .050
           --------   -------   -----   ------
  1178.5     3500.4    3610.0     .97   4668.9            5157.1   9825.9

FLOODWAY? 1 = YES, 0 = NO
?0=
```

```
YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.002,3500
300 DATA 1185,0,1180,20,1170,2800,1168,5000,1169,7450,1168,10500,1170,11900,-999
RUN

*AAQL   15:26   10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 3500


  1185.0  1180.0  1170.0  1168.0  1169.0  1168.0  1170.0
      .0    20.0  2800.0  5000.0  7450.0 10500.0 11900.0
          N =  .050000



ELMIN =  1168
 S =  .002000
```

Q=3500 CFS

T-3

```
   WSEL        Q          A       V        P      N      BSTA     ESTA

             3499.9    3976.7     .88   7380.1  .050
           --------   -------   -----   ------
  1169.0     3499.9    3976.7     .88   7380.1          3851.0 11231.2

FLOODWAY? 1 = YES, 0 = NO
?+
12750 DATA ITEM NOT VALID
NOW AT 12750
READY
0
RUN

*AAQL   15:27   10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 3500


  1185.0  1180.0  1170.0  1168.0  1169.0  1168.0  1170.0
      .0    20.0  2800.0  5000.0  7450.0 10500.0 11900.0
          N =  .050000



ELMIN =  1168
 S =  .002000
```

T-3 Q=3500cfs

WSEL	Q	A	V	P	N	BSTA	ESTA
	3499.9	3976.7	.88	7380.1	.050		
1169.0	3499.9	3976.7	.88	7380.1		3851.0	11231.2

FLOODWAY? 1 = YES, 0 = NO
?0

YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.0025,3500
300 DATA 1170,0,1160,2200,1158,3350,1157,4800,1158,7450,1156,9700,1160,10900,-99
RUN

*AAQL 15:29 10/28/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
S = .002500
Q 1 = 3500

1170.0 1160.0 1158.0 1157.0 1158.0 1156.0 1160.0
.0 2200.0 3350.0 4800.0 7450.0 9700.0 10900.0
N = .050000

ELMIN = 1156
S = .002500

T-4

WSEL	Q	A	V	P	N	BSTA	ESTA
	3500.0	3319.2	1.05	5552.9	.050		
1157.7	3500.0	3319.2	1.05	5552.9		3716.7	10224.1

FLOODWAY? 1 = YES, 0 = NO
?0

YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.2
READY

```
300 DATA 1160,0,1150,3950,1149,5500,1148,7000,1149,9850,1150,12500,-999,.05
RUN

*AAQL   15:31   10/28/75
```

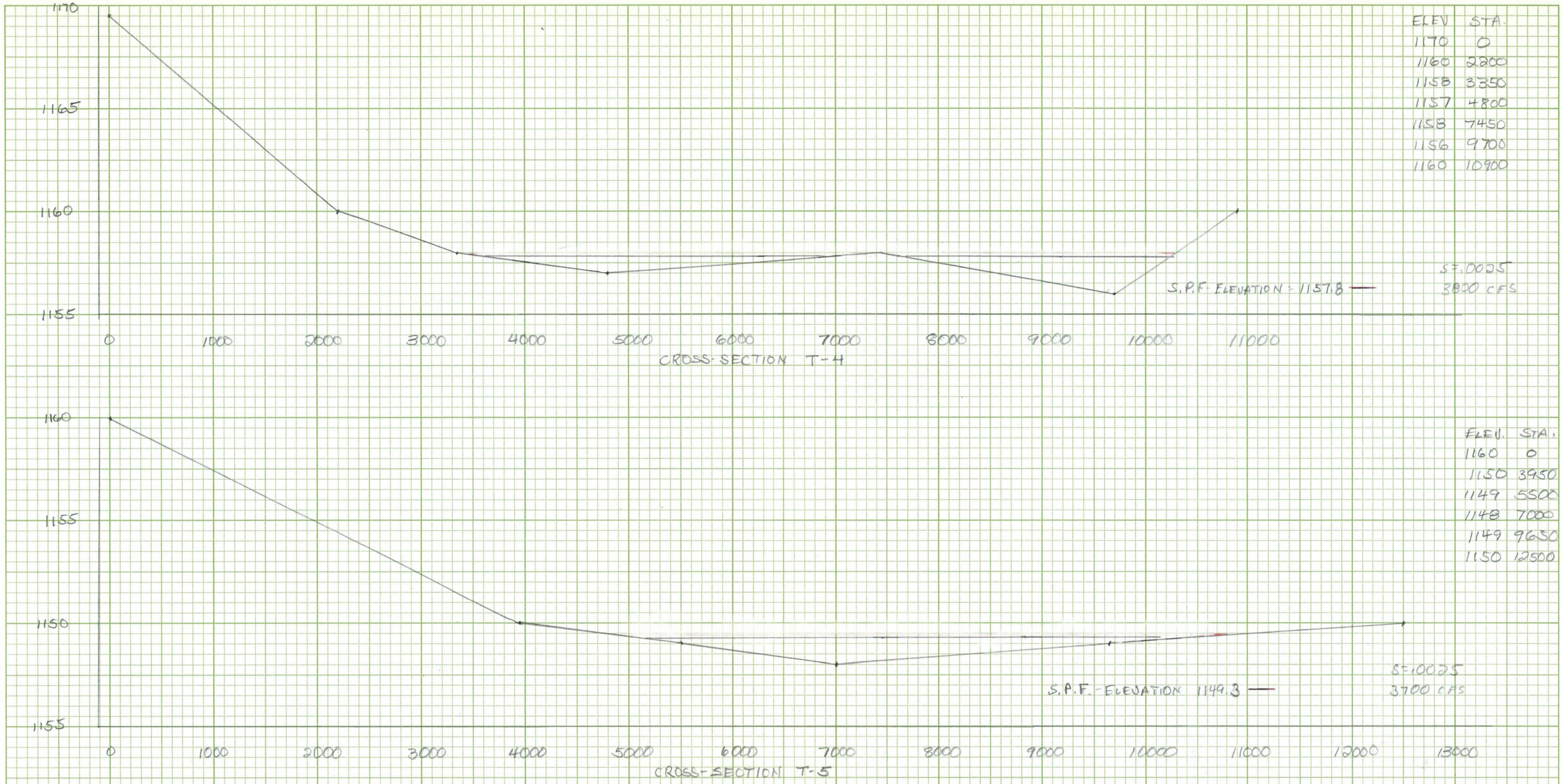
Q=3500CFS

```
FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
S =  .002500
Q 1 = 3500


  1160.0  1150.0  1149.0  1148.0  1149.0  1150.0
      .0  3950.0  5500.0  7000.0  9850.0 12500.0
          N =  .050000



ELMIN =  1148
 S =  .002500
```

T-5

WSEL	Q	A	V	P	N	BSTA	ESTA
	3502.3	3257.4	1.08	5292.9	.050		
1149.2	3502.3	3257.4	1.08	5292.9		5152.0	10444.9

```
FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.2
READY
LOGON
PROJECT CODE UNAVAILABLE
READY
```



ELEV	STA.
1170	0
1160	2200
1158	3350
1157	4800
1158	7450
1156	9700
1160	10900

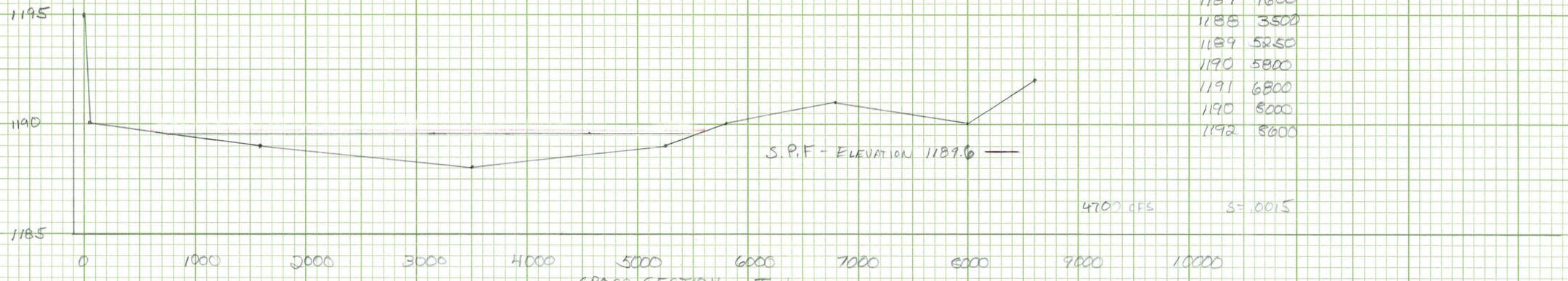
CROSS-SECTION T-4

ELEV.	STA.
1160	0
1150	3950
1149	5500
1148	7000
1149	9650
1150	12500

CROSS-SECTION T-5

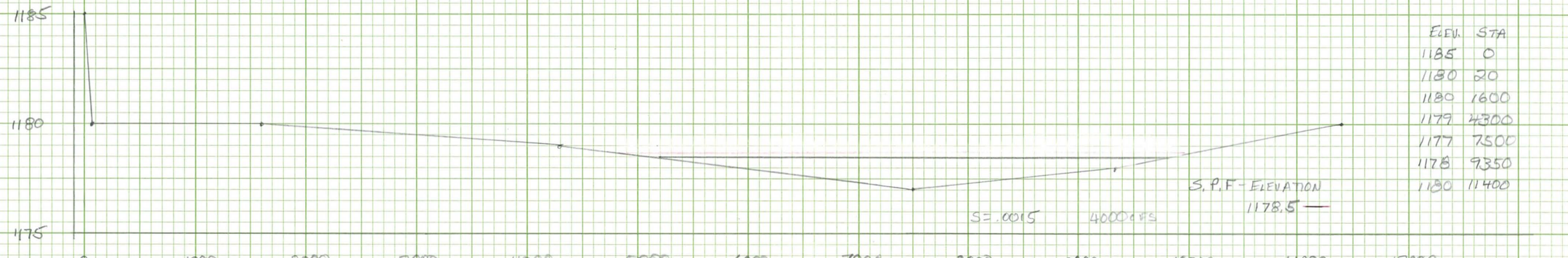
K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

CROSS-SECTIONS THRU TEMPE



ELEV	STA
1195	0
1190	20
1189	1600
1188	3500
1189	5250
1190	5800
1191	6800
1190	8000
1192	8600

CROSS-SECTION T-1



ELEV.	STA
1185	0
1180	20
1180	1600
1179	4300
1177	7500
1178	9350
1180	11400

CROSS-SECTION T-2

ELEV	STA
1185	0
1180	20
1170	2800
1168	5000
1169	7450
1168	10500
1170	11900

CROSS-SECTION T-3

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

GILA FLOODWAY
BREAKOUT FLOW FROM TEMPE CANAL ROUTED TO THE RURAL RD., FROM RURAL RD.
TO THE RAILROAD , FROM R.R. TO SALT RIVER

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	1.	=0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
2	100	=0.00	=0	=0	=0.	50	=0.

=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
0.	0.	0.	0.	503.	5047.	5126.	4675.	4301.	3917.
3554.	3254.	3060.	2982.	3006.	3108.	3249.	3392.	3506.	3570.
3589.	3641.	3624.	3556.	3463.	3404.	3328.	3240.	3150.	3135.
3529.	4215.	4669.	4897.	4819.	4604.	4325.	3989.	3629.	3268.
2931.	2642.	2371.	2120.	1901.	1791.	1694.	1593.	1488.	1371.
1246.	1053.	846.	487.	350.	309.	272.	232.	197.	167.
141.	120.	101.	86.	73.	62.	53.	45.	38.	31.
26.	21.	17.	13.	9.	7.	5.	=0.	=0.	=0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	5126.	3741.	1648.	791.

ITQR	ITQO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	18	3	=0.00	=0	=0	=0	=0.	=0.
AMSKK	X	QLOSS	CQLOS	NHGT	KPNCH	JPNCH			
.250	-0.000	=0.0	-0.000	=0	=0	=0			

HYDROGRAPH 2 ROUTED TO 3 NO. FLOWS= 200 INTERVAL= 15 MINUTES

=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
0.	0.	0.	0.	*	*	*	*	*	*
1.	4.	11.	30.	69.	143.	266.	452.	706.	1025.
1393.	1783.	2165.	2512.	2803.	3026.	3180.	3275.	3324.	3343.
3346.	3347.	3351.	3362.	3379.	3401.	3422.	3439.	3451.	3457.
3458.	3461.	3472.	3499.	3545.	3613.	3700.	3797.	3891.	3970.
4019.	4029.	3993.	3910.	3782.	3618.	3425.	3213.	2992.	2771.
2556.	2350.	2155.	1971.	1795.	1627.	1463.	1303.	1149.	1001.
862.	734.	619.	518.	430.	357.	295.	244.	202.	168.
140.	117.	98.	82.	69.	58.	49.	40.	34.	28.
22.	18.	14.	11.	9.	6.	5.	3.	2.	2.
1.	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4029.	3629.	1648.	791.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	1.	=0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
3	1	=0.00	=0	2	=0.	=0	=0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
3 NQ= 200 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1.	4.	11.	30.	69.	143.	266.	452.	706.	1025.
1393.	1783.	2165.	2512.	2803.	3026.	3180.	3275.	3324.	3343.
3346.	3347.	3351.	3362.	3379.	3401.	3422.	3439.	3451.	3457.
3458.	3461.	3472.	3499.	3545.	3613.	3700.	3797.	3891.	3970.
4019.	4029.	3993.	3910.	3782.	3618.	3425.	3213.	2992.	2771.
2556.	2350.	2155.	1971.	1795.	1627.	1463.	1303.	1149.	1001.
862.	734.	619.	518.	430.	357.	295.	244.	202.	168.
140.	117.	98.	82.	69.	58.	49.	40.	34.	28.
22.	18.	14.	11.	9.	6.	5.	3.	2.	2.
1.	1.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4029.	3629.	1648.	791.

ITQR	ITQD	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	5	4	-0.00	-0	-0	-0	-0.	-0.
AMSKK	X	QLOSS	COLOS	NHGT	KPNCH	JPNCH			
.250	-0.000	-0.0	-0.000	-0	-0	-0			

HYDROGRAPH 3 ROUTED TO 4 NO. FLOWS= 200 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
*	*	*	*	3.	8.	18.	40.	79.	146.
249.	398.	597.	846.	1138.	1459.	1792.	2116.	2414.	2672.
2882.	3043.	3158.	3236.	3285.	3316.	3337.	3354.	3369.	3385.
3402.	3417.	3431.	3441.	3451.	3461.	3477.	3501.	3537.	3588.
3651.	3723.	3797.	3864.	3915.	3940.	3933.	3889.	3808.	3691.
3542.	3369.	3179.	2978.	2773.	2569.	2370.	2177.	1992.	1813.
1642.	1477.	1318.	1165.	1021.	887.	763.	650.	550.	463.
387.	323.	268.	223.	186.	155.	129.	108.	90.	75.
63.	53.	44.	36.	30.	25.	20.	16.	13.	10.
8.	6.	4.	3.	2.	2.	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3940.	3608.	1648.	791.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	1.	-0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ

4	1	-0.00	-0	2	-0.	-0	-0.	

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

LUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 4 NQ= 200 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	1.	3.	8.	18.	40.	79.	146.
249.	398.	597.	846.	1138.	1459.	1792.	2116.	2414.	2672.
2882.	3043.	3158.	3236.	3285.	3316.	3337.	3354.	3369.	3385.
3402.	3417.	3431.	3441.	3451.	3461.	3477.	3501.	3537.	3588.
3651.	3723.	3797.	3864.	3915.	3940.	3933.	3889.	3808.	3691.
3542.	3369.	3179.	2978.	2773.	2569.	2370.	2177.	1992.	1813.
1642.	1477.	1318.	1165.	1021.	887.	763.	650.	550.	463.
387.	323.	268.	223.	186.	155.	129.	108.	90.	75.
63.	53.	44.	36.	30.	25.	20.	16.	13.	10.
8.	6.	4.	3.	2.	2.	1.	1.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3940.	3608.	1648.	791.

ITQR	ITQO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	14	5	-0.00	-0	-0	-0	-0.	-0.
AMSKK	X	QLOSS	CQLOS	NHGT	KPNCH	JPNCH			
.250	-0.000	-0.0	-0.000	-0	-0	-0			

HYDROGRAPH 4 ROUTED TO 5 NO. FLOWS= 200 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	*	*	*	*	*	*	*
*	*	*	1.	3.	6.	13.	23.	41.	68.
110.	169.	251.	358.	494.	657.	849.	1063.	1296.	1539.
1785.	2024.	2251.	2458.	2643.	2802.	2935.	3045.	3133.	3203.
3258.	3301.	3335.	3362.	3385.	3405.	3425.	3444.	3466.	3491.
3520.	3555.	3593.	3635.	3678.	3718.	3752.	3775.	3783.	3772.
3740.	3684.	3605.	3503.	3380.	3240.	3084.	2917.	2743.	2564.
2383.	2204.	2027.	1853.	1685.	1524.	1369.	1222.	1084.	955.
836.	727.	628.	540.	461.	392.	332.	280.	235.	197.
165.	138.	116.	97.	81.	67.	56.	46.	38.	32.
26.	21.	17.	14.	11.	9.	7.	5.	4.	3.
2.	2.	1.	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3783.	3554.	1648.	791.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	2.	=0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
5	1	=0.00	=0	2	=0.	=0	=0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 5 NQ= 200 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	1.	1.	3.	6.	13.	23.	41.	68.
110.	169.	251.	358.	494.	657.	849.	1063.	1296.	1539.
1785.	2024.	2251.	2458.	2643.	2802.	2935.	3045.	3133.	3203.
3258.	3301.	3335.	3362.	3385.	3405.	3425.	3444.	3466.	3491.
3520.	3555.	3593.	3635.	3678.	3718.	3752.	3775.	3783.	3772.
3740.	3684.	3605.	3503.	3380.	3240.	3084.	2917.	2743.	2564.
2383.	2204.	2027.	1853.	1685.	1524.	1369.	1222.	1084.	955.
836.	727.	628.	540.	461.	392.	332.	280.	235.	197.
165.	138.	116.	97.	81.	67.	56.	46.	38.	32.
26.	21.	17.	14.	11.	9.	7.	5.	4.	3.
2.	2.	1.	1.	1.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3783.	3554.	1648.	791.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	2	5126.	3741.	1648.	791.
ROUTED TO	3	4029.	3629.	1648.	791.
HYDROGRAPH AT	3	0.	0.	0.	0.
2 COMBINED	3	4029.	3629.	1648.	791.
ROUTED TO	4	3940.	3608.	1648.	791.
HYDROGRAPH AT	4	0.	0.	0.	0.
2 COMBINED	4	3940.	3608.	1648.	791.
ROUTED TO	5	3783.	3554.	1648.	791.
HYDROGRAPH AT	5	0.	0.	0.	0.
2 COMBINED	5	3783.	3554.	1648.	791.

Rural Rd

GILA FLOODWAY SURVEY STUDY 10/75 JTP
ROUTING OF SPF OVERFLOW FROM CP 17.01 TO TEMPE CANAL
LOCATION- CITY OF MESA, ALONG NORTH SIDE OF SUPERSTITION FREEWAY
PRESENT CONDITION

NHR	NMIN	OFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	1.	-0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1	100	-0.00	-0	-0	-0.	35	-0.

-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
0.	0.	0.	0.	5537.	5186.	4656.	4302.	3915.	3548.
3244.	3048.	2971.	2998.	3104.	3249.	3395.	3511.	3576.	3584.
3648.	3629.	3559.	3459.	3406.	3329.	3241.	3146.	3093.	3494.
4238.	4690.	4930.	4833.	4610.	4331.	3992.	3629.	3266.	2926.
2640.	2369.	2118.	1889.	1789.	1694.	1593.	1489.	1371.	1254.
1053.	865.	463.	339.	309.	272.	232.	196.	167.	141.
120.	101.	86.	73.	62.	53.	45.	38.	31.	26.
21.	17.	13.	9.	7.	5.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	5537.	3743.	1648.	1130.

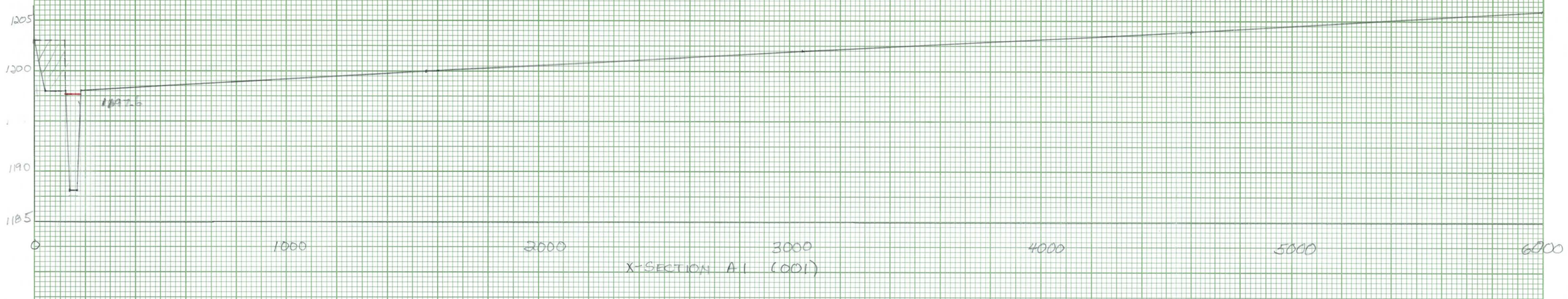
ITQR	ITDO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	1	2	-0.00	-0	-0	-0	-0.	-0.
AMSKK	X	QLOSS	CLOSS	NHGT	KPNCH	JPNCH			
.250	.400	-0.0	-0.000	-0	-0	-0			

HYDROGRAPH 1 ROUTED TO 2 NO. FLOWS= 140 INTERVAL= 15 MINUTES

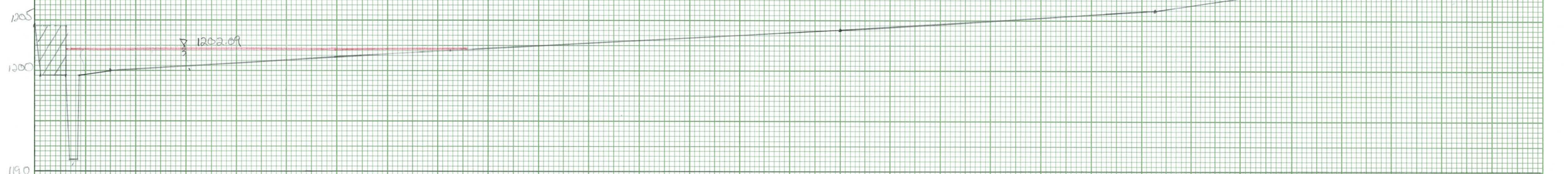
-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
0.	0.	0.	0.	503.	5047.	5126.	4675.	4301.	3917.
3554.	3254.	3060.	2982.	3006.	3108.	3249.	3392.	3506.	3570.
3589.	3641.	3624.	3556.	3463.	3404.	3328.	3240.	3150.	3135.
3529.	4215.	4669.	4897.	4819.	4604.	4325.	3989.	3629.	3268.
2931.	2642.	2371.	2120.	1901.	1791.	1694.	1593.	1488.	1371.
1246.	1053.	846.	487.	350.	309.	272.	232.	197.	167.
141.	120.	101.	86.	73.	62.	53.	45.	38.	31.
26.	21.	17.	13.	9.	7.	5.	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*

8.9	$L_1 = 17800'$	Breakout to the Rural Rd.	$V = 1.1'$ per sec.	18 Reaches
2.7	$L_2 = 5400'$	Rural Rd. R.R.	$V = 1.1$	5 "
7.0	$L_3 = 14000'$	R.R. to Salt River		14 "

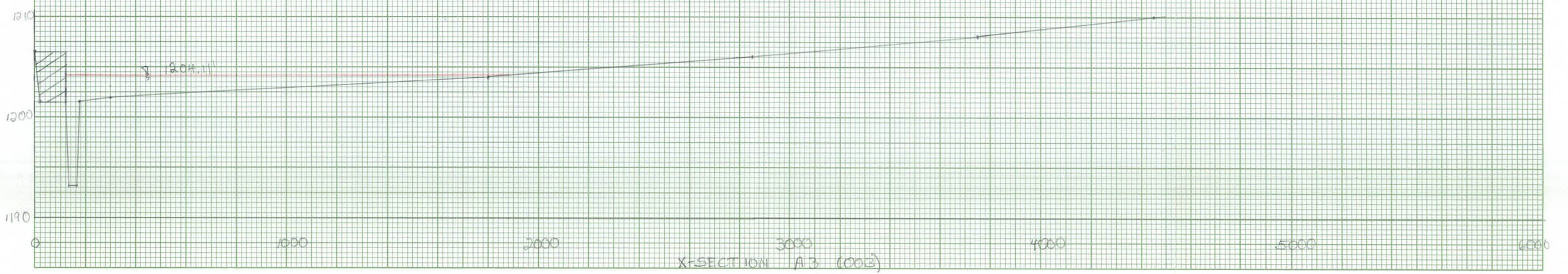
CROSS-SECTIONS NORTH OF SUPERSTITION FWY BETWEEN TEMPE CANAL AND CENTER STREET



X-SECTION A1 (0001)



X-SECTION A2 (0002)

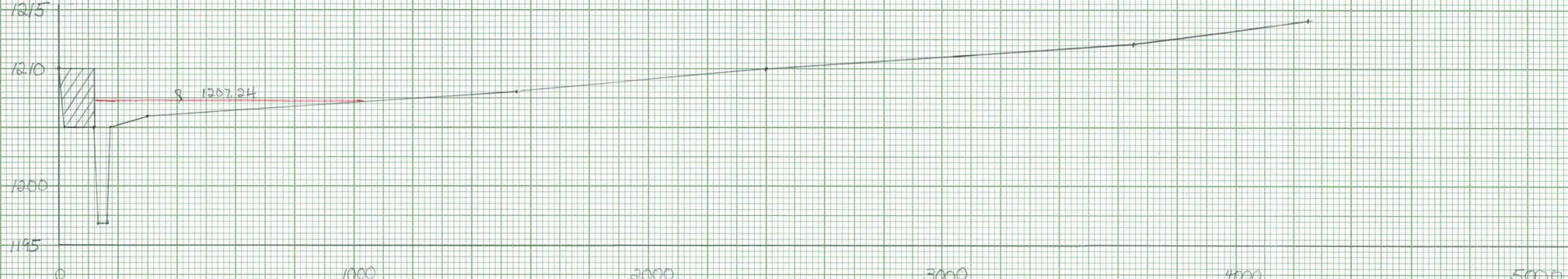


X-SECTION A3 (0003)

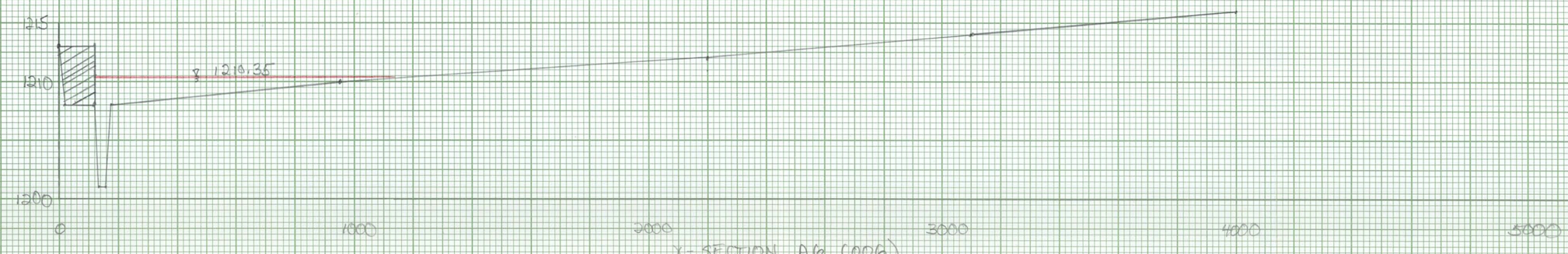
47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

X-SECTION A4 (004)

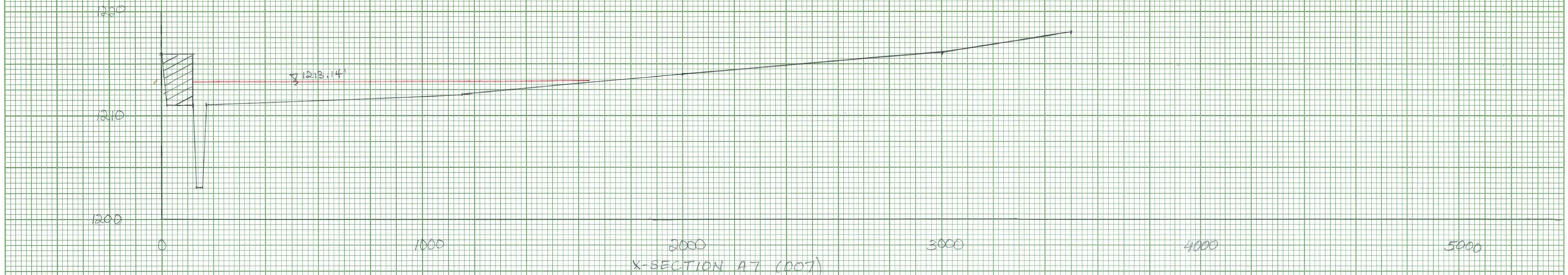


X-SECTION A5 (005)

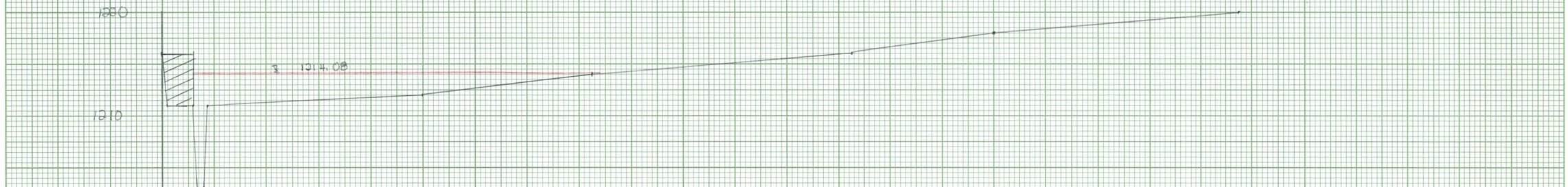


X-SECTION A6 (006)

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCH
KEUFFEL & ESSER CO. MADE IN U.S.A.



X-SECTION A7 (0007)

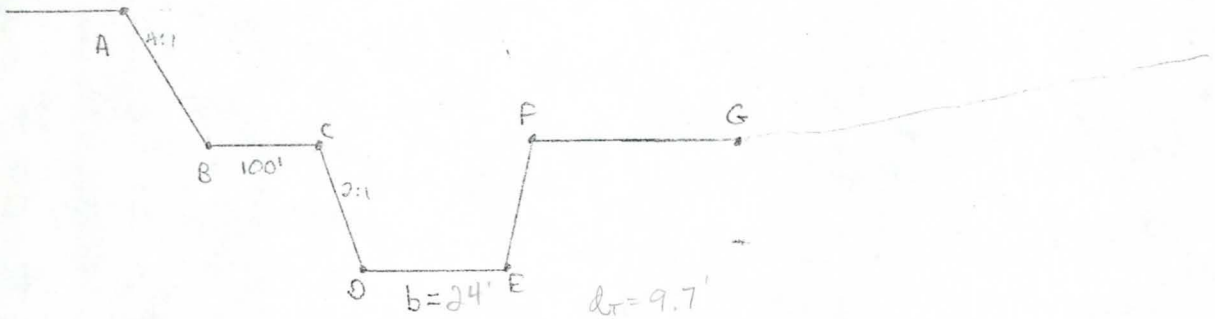


X-SECTION A8 (0008)

X-SECTION A9 (0009)

CROSS-SECTION # A1

Dobson Rd-West



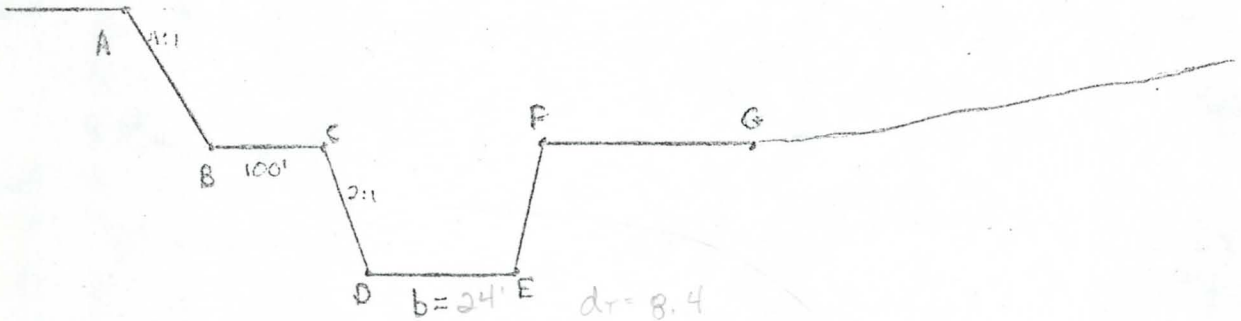
$d_r = 9.7'$

POINT	ELEVATION	STATION
A	1203	0
B	1198	20
C	1198	120
D	1188.3	139.4
E	1188.3	163.4
F	1198	182.8
G		

Elevation	Station
1198	□
1200	1550
1202	3050
1204	4600
1206	6000

CROSS-SECTION # A2

Olive School

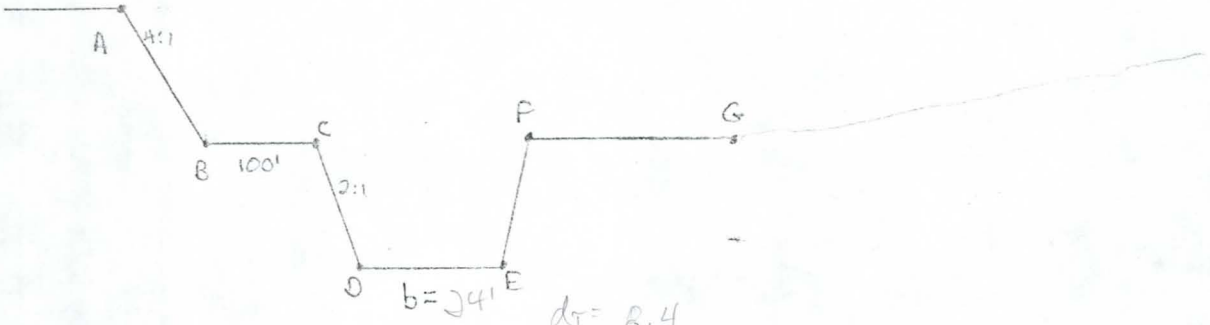


$d_r = 8.4$

POINT	ELEVATION	STATION
A	1204.5	0
B	1199.5	20
C	1199.5	120
D	1191.1	136.8
E	1191.1	160.8
F	1199.5	177.6
G	300	

Elevation	Station
1200	□
1202	1650
1204	3200
1206	4450
1208	5000

CROSS-SECTION #A3

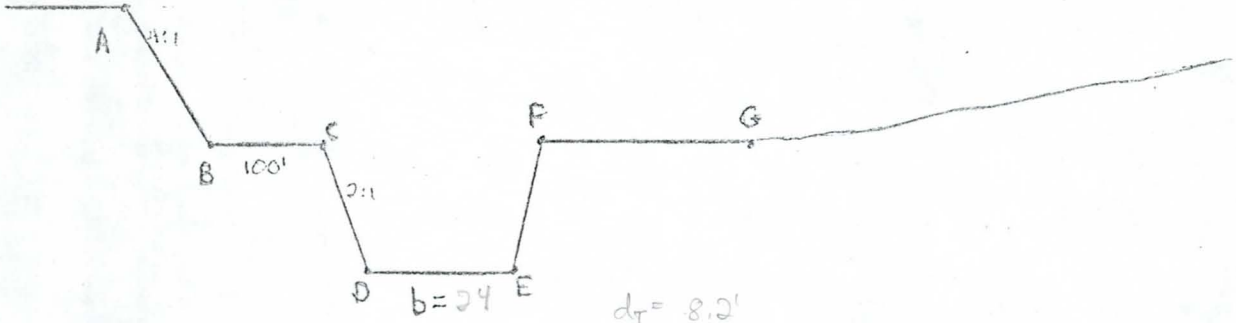


$d_T = 8.4$

POINT	ELEVATION	STATION
A	1206.5	0
B	1201.5	20
C	1201.5	120
D	1193.1	136.8
E	1193.1	160.8
F	1201.5	177.6
G	1202	300

Elevation	Station
1202	□
1204	1800
1206	2850
1208	3750
1210	4450

CROSS-SECTION #A4

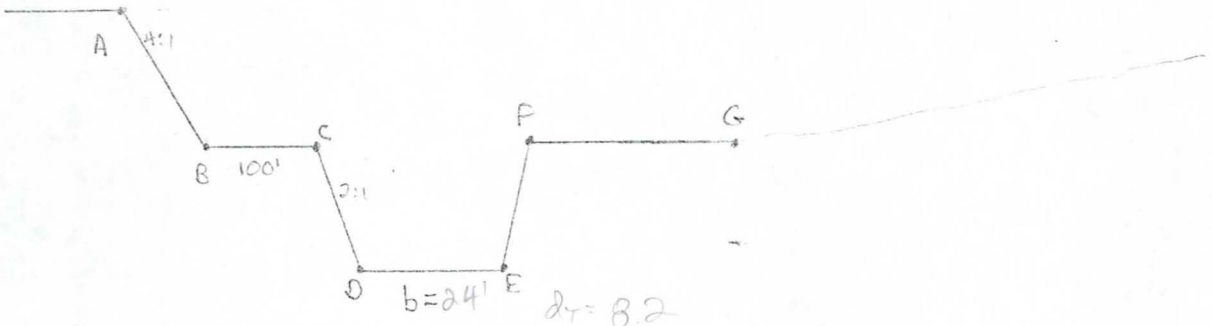


$d_T = 8.2'$

POINT	ELEVATION	STATION
A	1208	0
B	1203	120
C	1203	120
D	1194.8	136.4
E	1194.8	160.4
F	1203	176.8
G	1204	300

Elevation	Station
1204	□
1206	1650
1208	2850
1210	3500
1212	4600

CROSS-SECTION # A5

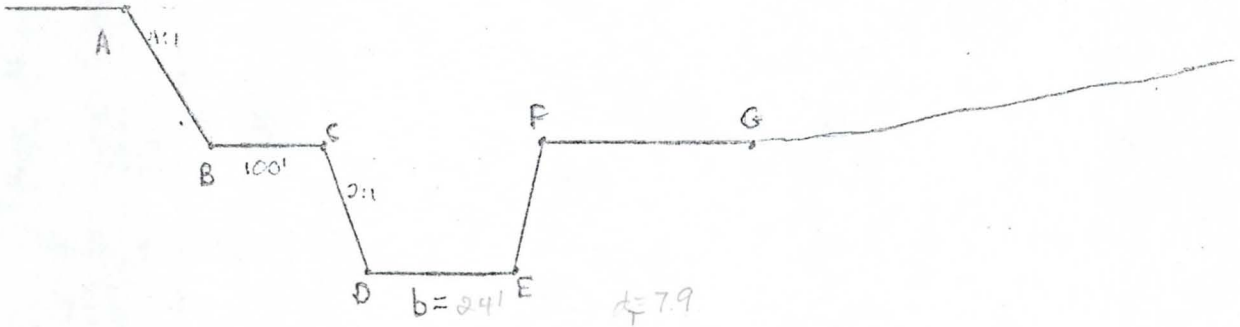


$d_T = 8.2$

POINT	ELEVATION	STATION
A	1210	0
B	1205	120
C	1205	120
D	1196.8	136.4
E	1196.8	160.4
F	1205	176.8
G	1206	300

Elevation	Station
1206	□
1208	1550
1210	2400
1212	3450
1214	4250

CROSS-SECTION # A6

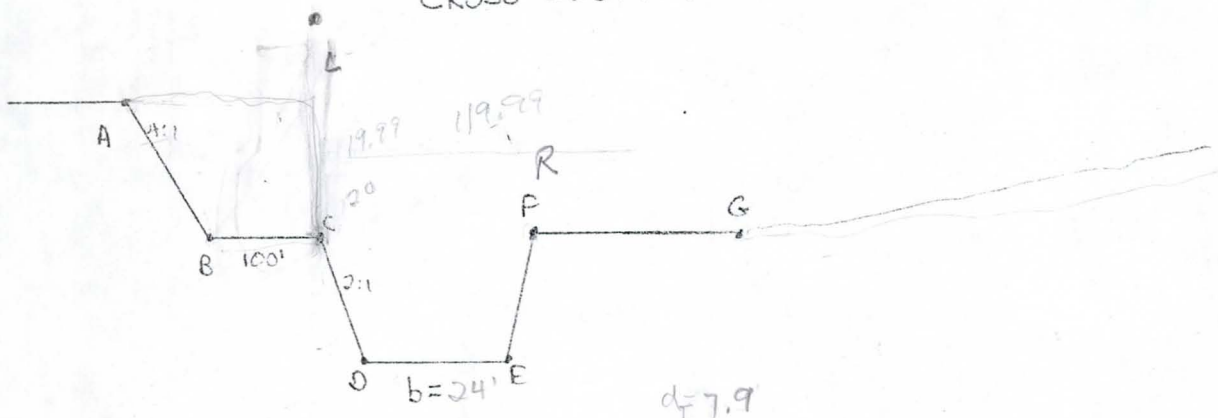


$d_T = 7.9$

POINT	ELEVATION	STATION
A	1213	0
B	1208	20
C	1208	120
D	1200.1	135.8
E	1200.1	159.8
F	1208	175.6
G		

Elevation	Station
1208	0
1210	950
1212	2200
1214	3100
1216	4000

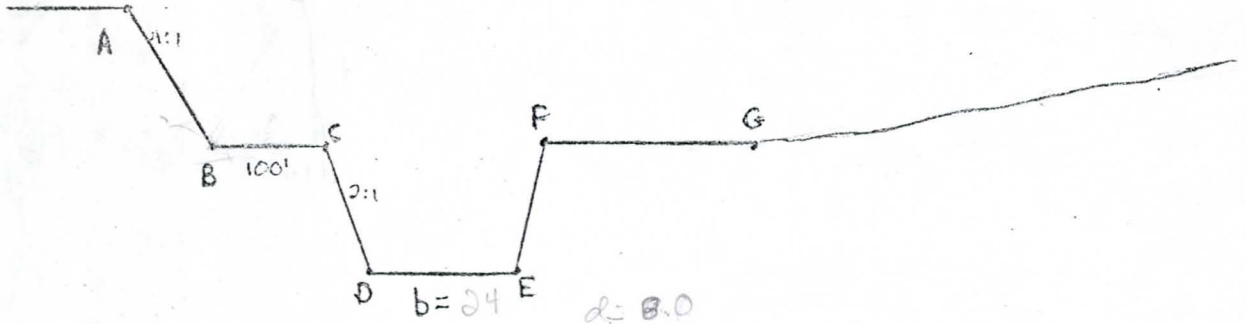
CROSS-SECTION #A7



POINT	ELEVATION	STATION
A	1216	0
B	1211	20
C	1211	120
D	1203.1	135.8
E	1203.1	159.8
F	1211	175.6
G		

Elevation	Station
1210	0
1210	250
1212	1150
1214	2000
1216	3000
1218	3500

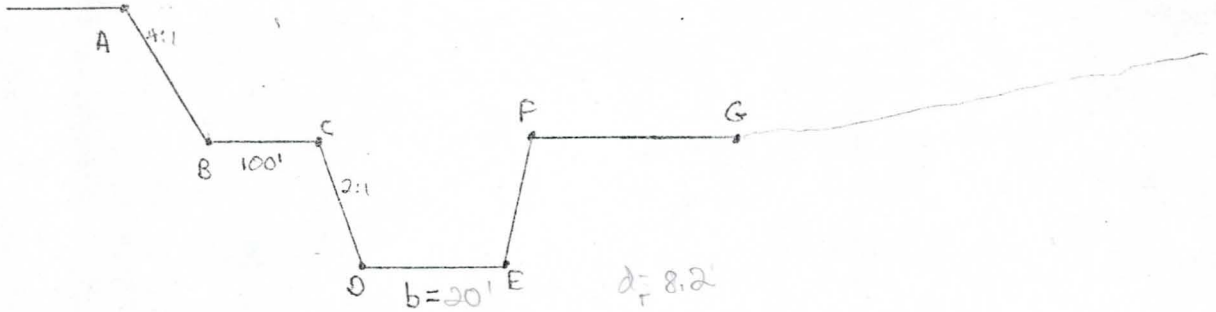
CROSS-SECTION #A8



POINT	ELEVATION	STATION
A	1216	0
B	1211	20
C	1211	120
D	1203	136
E	1203	160
F	1211	176
G		

Elevation	Station
1210	
1212	1000
1214	1650
1216	2650
1218	3200
1220	4150

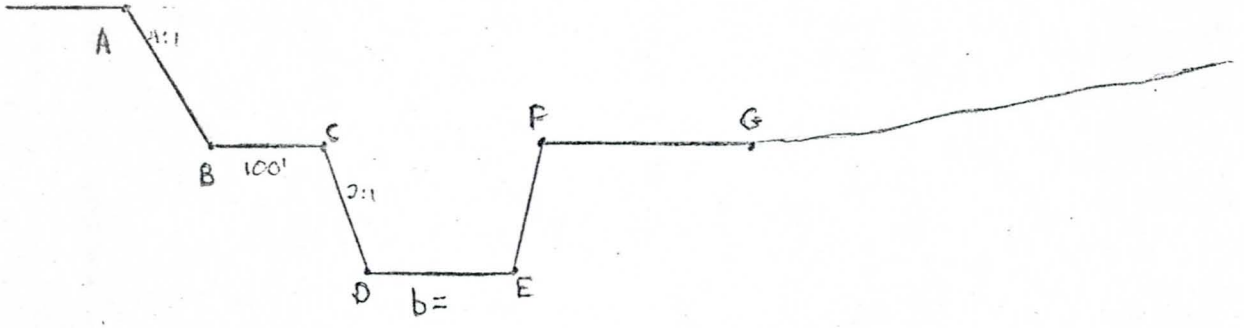
CROSS-SECTION # A9



POINT	ELEVATION	STATION
A	1218	0
B	1213	20
C	1213	120
D	1204.8	136.4
E	1204.8	156.4
F	1213	172.8
G		

Elevation	Station
1212	□
1214	1400
1216	2050
1218	3050
1220	3750
1222	4400

CROSS-SECTION



POINT	ELEVATION	STATION
A		
B		
C		
D		
E		
F		
G		

SUBJECT: GILA FLOODWAY S.P.F OVERFLOW FROM S.P.R.R. TO TEMPE CANAL NORTH OF SUPERSTITION FWY	COMPUTED BY: DJG	DATE: 10/8/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

ANALYSIS OF S.P.R.R. & CENTER STREET PONDING

1. FROM ANALYSIS OF DJG OF 8/19/75 AND BECAUSE HYDROGRAPH HAS MORE VOLUME THAN PREVIOUS HYDROGRAPH. S.P.F. FLOW WILL AGAIN WEIR OVER TRACKS AND ALSO GO THRU CULVERT MAXIMUM ELEVATION OF POND @ 1217.20

2. NEXT WILL HAVE TO CONSIDER BASIN WEST OF R.R. IT CAN HOLD 271 AC-FT ⇒ 271 AC-FT × .0207 = 13092 CFS-15min
THIS WILL TAKE SOME VOLUME OFF OF HYDROGRAPH
IT IS CALCULATED THUSLY:

65
679
1128
1587
2670
4219
2744/5397 ⇒ 2603 CFS
13092 CFS-15min × .0207 = 271 ac-ft
VOLUME LEFT IN HYDROGRAPH = 3723-271 = 3452 AC-FT

⇒ 3. AS IN ANALYSIS OF 8/02/75 - MOST OF FLOW WILL GO OVER COUNTRY CLUB DRIVE

4. BASIN AT EXTENSION WILL TAKE 180 AC-FT (230 AC-FT - 50 AC-FT - LOCAL INFLOW) OF VOLUME OFF OF HYDROGRAPH
IT IS CALCULATED THUSLY
180 AC-FT ÷ .0207 = 8696 CFS-15min
2744
5825
127/5664 = 5537 CFS
8696 CFS-15min × .0207 = 180 AC-FT
VOLUME LEFT IN HYDROGRAPH 3452-180 = 3272 AC-FT

5. SEE HOW MUCH VOLUME WILL BE PONDED BY AT 1600 CFS CULVERT UNDER SUPERSTITION FWY.

5537-1600 = 3937	3249-1600 = 1649	3241-1600 = 1641	3629-1600 = 2029
5186-1600 = 3586	3395-1600 = 1795	3146-1600 = 1546	3266-1600 = 1666
4666-1600 = 3066	3511-1600 = 1911	3093-1600 = 1493	2936-1600 = 1336
4302-1600 = 2702	3576-1600 = 1976	3494-1600 = 1894	2640-1600 = 1040
3915-1600 = 2315	3584-1600 = 1984	4283-1600 = 2683	2369-1600 = 769
3548-1600 = 1948	3648-1600 = 2048	4690-1600 = 3090	2118-1600 = 518
3244-1600 = 1644	3629-1600 = 2029	4930-1600 = 3330	1889-1600 = 289
3048-1600 = 1448	3559-1600 = 1959	4833-1600 = 3233	1789-1600 = 189
2971-1600 = 1371	3459-1600 = 1859	4610-1600 = 3010	1694-1600 = 94
2998-1600 = 1398	3406-1600 = 1806	4331-1600 = 2731	74248 CFS-15min
3104-1600 = 1504	3329-1600 = 1729	3992-1600 = 2392	× .0207 = 1537 AC-FT

SUPERSEDED

SUBJECT: GILA FLOODWAY S.P.F ANALYSIS - OVERFLOW ALONG NORTH SIDE OF SUPERSTITION FWY FROM TEMPE CANAL TO CENTER ST.	COMPUTED BY:	DATE:	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

VOLUME THAT WOULD BE PONDED BY 1600 CFS CULVERT THRU FREEWAY

503

5047 - 1600 = 3447
5126 - 1600 = 3526
4675 - 1600 = 3075
4301 - 1600 = 2701
3917 - 1600 = 2317
3554 - 1600 = 1954
3254 - 1600 = 1654
3060 - 1600 = 1460
2982 - 1600 = 1382
3006 - 1600 = 1406
3108 - 1600 = 1508
3249 - 1600 = 1649
3392 - 1600 = 1792
3506 - 1600 = 1906
3570 - 1600 = 1970
3589 - 1600 = 1989
3641 - 1600 = 2041
3624 - 1600 = 2024
3556 - 1600 = 1956
3463 - 1600 = 1863
3404 - 1600 = 1804
3328 - 1600 = 1728
3240 - 1600 = 1640
3150 - 1600 = 1550
3135 - 1600 = 1535
3529 - 1600 = 1929
4215 - 1600 = 2615
4669 - 1600 = 3069
4897 - 1600 = 3297
4819 - 1600 = 3219
4604 - 1600 = 3004
4325 - 1600 = 2725
3989 - 1600 = 2389
3629 - 1600 = 2029
3268 - 1600 = 1668

2931 - 1600 = 1331
2642 - 1600 = 1042
2371 - 1600 = 771
2120 - 1600 = 520
1901 - 1600 = 301
1791 - 1600 = 191
1694 - 1600 = 94

Σ = 8007 CFS - 15 min

× .0207

1658 AC-FT

OBJECT	DATE	PAGE
GILA FLOODWAY - OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION FWY - FLOW FROM CENTER SF TO TEMPE CANAL	10/9/75	OF PAGES

SOURCE OF DATA

COMPUTED BY	CHECKED BY	SECTION
DJG		INVESTIGATION SEC A

S.P.F. HYDROGRAPH AT CP 1701 15 min periods

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	73	644	1704	3606
5785	6717	6550	6133	5561	4878	4258	3740	3315	2981
2774	2145	2850	3042	3268	3474	3621	3689	3676	3596
3748	3600	3449	3305	3324	3209	3104	3000	3012	4114
5388	5390	5137	4770	4343	3899	3468	3067	2703	2384
2104	1860	1648	1461	1297	1149	1014	892	781	680
590	509	438	370	315	268	227	192	163	138
117	99	84	71	61	52	44	37	30	25
20	16	12	9	7	5	0	0	0	0

VOL = 179879 CFS-15min x .0207 = 3723 AC-FT

S.P.F. HYDROGRAPH AFTER WEIR & CULVERT FLOW OVER R.R. TRACKS

0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	65	679	1128	1587
2670	4219	5347	5825	5664	5186	4666	4302	3915	3548
3244	3048	2971	2998	3104	3249	3395	3511	3576	3584
3648	3629	3559	3459	3406	3329	3241	3146	3093	3494
4238	4690	4930	4833	4610	4331	3992	3629	3266	2926
2640	2369	2118	1889	1789	1694	1593	1489	1371	1254
1053	865	463	339	309	272	232	196	167	141
120	101	86	73	62	53	45	38	31	26
21	17	13	9	7	5	0	0	0	0

VOL = 179880 CFS-15min x .0207 = 3723 ac-ft

S.P.F. HYDROGRAPH AFTER BASIN WEST OF R.R.

0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	2744	5825	5664	5186	4666	4302	3915	3548
3244	3048	2971	2998	3104	3249	3395	3511	3576	3584
3648	3629	3559	3459	3406	3329	3241	3146	3093	3494
4238	4690	4930	4833	4610	4331	3992	3629	3266	2926
2640	2369	2118	1889	1789	1694	1593	1489	1371	1254
1053	865	463	339	309	272	232	196	167	141
120	101	186	73	62	53	45	38	31	26
21	17	13	9	7	5	0	0	0	0

VOL = 3723 - 271 = 3452 AC FT

SUBJECT	DATE	PAGE
GILA FLOODWAY-OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION - FLOW FROM CENTER ST. TO TEMPE CANAL	10/9/75	OF PAGES

SOURCE OF DATA

COMPUTED BY	CHECKED BY	SECTION
DJG		INVESTIGATION SEC A

S.P.F. HYDROGRAPH AFTER BASIN AT EXTENSION ROAD

1	2	3	4	15 MIN PERIODS 5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	6	0	0
0	0	0	0	5537	5186	4666	4302	3915	3548
3244	3048	2971	2998	3104	3249	3395	3511	3576	3584
3648	3629	3559	3459	3406	3329	3241	3146	3093	3494
4038	4690	4930	4833	4610	4331	3992	3629	3266	2926
2640	2369	2118	1889	1789	1694	1593	1489	1371	1254
1053	865	463	339	309	272	232	196	167	141
120	101	86	73	62	53	45	38	31	26
21	17	13	9	7	5	0	0	0	0

VOLUME = 3452 - 180 = 3272

WES FORM NO. 1114
JANUARY 1961

SUBJECT: GILA FLOODWAY - OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION FWY S.P.F. FLOW FROM TEMPE CANAL TO CENTER ST	COMPUTED BY: DJG.	DATE: 10/15/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

Q's FOR CROSS-SECTIONS A1 - A7

1. DISTANCE FROM SECTION A1 TO A7 IS 8000 FT
2. Q goes from 5500 CFS (after Extension Rd. Basin) to 5100 CFS at Tempe Canal - Route down of 400 CFS

$\therefore$ 400/8000 = x/y y = DISTANCE X = Δ CFS

SECTION	y	x	Qx = 5500 - x
A6	1800	90	5410
A5	3600	180	5320
A4	4750	238	5262
A3	5650	282	5218
A2	6950	348	5152
A1	8000	400	5100

Q AT SECTION A7 IS 5500
Q AT SECTION A8 & A9 IS 5800 CFS

3. VOLUME OF HYDROGRAPH AT TEMPE CANAL IS 3275 AC-FT.

SUBJECT: GILA FLOODWAY S.P.F. OVERFLOW FROM S.P.R.R. TO TEMPE CANAL NORTH OF SUPERSTITION FWY	COMPUTED BY: DJG	DATE: 10/9/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

PONDING AREA BEHIND TEMPE CANAL

ELEVATION	P. UNITS	AREA	AVG. AREA	Δ VOL.	Σ VOL.
1196	0	0		0	0
			20.5	41	
1198	.45	41			41.
			100.85	201.7	
1200	1.75	160.7			242.7

PROBABLE PONDING AREA AT JUNCTION OF R.R. TRACKS IN TEMPE

1158	0	0			0
			4.59	9.18	
1160	.1	9.18			9.18
			25.24	50.48	
1162	.45	41.3			59.66
			61.97	123.94	
1164	.9	82.65			183.6
			121.68	243.36	
1166	1.75	160.7			426.96
			206.6	413.2	
1168	2.75	250.5			840.16
			328.25	656.5	
1170	4.4	404			1496.66

584.	506.	436.	369.	315.	268.	227.	192.	163.	138.
117.	99.	84.	71.	61.	52.	44.	37.	30.	25.
20.	16.	12.	9.	7.	5.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	6717.	4043.	1667.	1000.

VALUE OF OUTFLOW INTERVAL
15 15

SPF Present Cond.

COMBINED HYDROGRAPH Include RWCD Overflow
AT 1701 NQ= 160 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	73.	644.	1704.	3606.
5785.	6717.	6550.	6133.	5561.	4878.	4258.	3740.	3315.	2961.
2774.	2745.	2850.	3042.	3268.	3474.	3621.	3689.	3676.	3596.
3748.	3600.	3449.	3305.	3324.	3209.	3104.	3000.	3012.	4114.
5388.	5390.	5137.	4770.	4343.	3899.	3468.	3067.	2703.	2384.
2104.	1860.	1648.	1461.	1297.	1149.	1014.	892.	781.	680.
590.	509.	438.	370.	315.	268.	227.	192.	163.	138.
117.	99.	84.	71.	61.	52.	44.	37.	30.	25.
20.	16.	12.	9.	7.	5.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	6717.	4043.	1874.	1124.

Vol = 3722 Ac. Ft.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	17012	2667.	828.	207.	124.
ROUTED TO	1701	2640.	828.	207.	124.
HYDROGRAPH AT	1701	6717.	4043.	1667.	1000.
2 COMBINED	1701	6717.	4043.	1874.	1124.

SUBJECT: GILA FLOODWAY S.P.F. OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION FWY BETWEEN CENTER ST & RWCD CANAL	COMPUTED BY: DJG CHECKED BY:	DATE: 9/8/75 DATE:	FILE NO. SHEET NO.

VALUES USED FOR WEIR ROUTING

ELEVATION (FT)	STORAGE (AC-FT)	OUTFLOWS (CFS)
1213	0	0
1213.5	4	313
1214	5.6	625
1214.5	10	900
1215	30	1250
1215.4	55	1475
1216	105.7	1868
1216.5	160	2975
1217	235	4748
1217.5	300	7500
1218	364.8	12062
1218.5	450	17875
1219.0	530	25068
1219.5	630	34625
1220	828.6	44955

FROM RATING CURVES

WEIR FLOW OVER SPRR TRACKS-NORTH OF SUPERSTITION FWY-ALONG CENTER STREET

S.P.E RESERVOIR FLOOD ROUTING-
AT C1701 PRESENT CONDITION Oct 8, 1975

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1213.00	0.0	0.0
1	0.	1213.00	0.0	0.0
2	0.	1213.00	0.0	0.0
3	0.	1213.00	0.0	0.0
4	0.	1213.00	0.0	0.0
5	0.	1213.00	0.0	0.0
6	0.	1213.00	0.0	0.0
7	0.	1213.00	0.0	0.0
8	0.	1213.00	0.0	0.0
9	0.	1213.00	0.0	0.0
10	0.	1213.00	0.0	0.0
11	0.	1213.00	0.0	0.0
12	0.	1213.00	0.0	0.0
13	0.	1213.00	0.0	0.0
14	0.	1213.00	0.0	0.0
15	0.	1213.00	0.0	0.0
16	0.	1213.00	0.0	0.0
17	73.	1213.10	0.8	65.3
18	644.	1214.10	6.5	678.5
19	1704.	1214.83	23.0	1127.6
20	3606.	1215.57	69.5	1587.1
21	5785.	1216.36	145.0	2669.5
22	6717.	1216.85	212.6	4219.2
23	6550.	1217.11	249.1	5346.7
24	6133.	1217.20	260.4	5825.2
25	5561.	1217.17	256.6	5664.4
26	4878.	1217.08	245.3	5185.8
27	4258.	1216.98	231.5	4666.2
28	3740.	1216.87	216.2	4302.6
29	3315.	1216.77	199.8	3914.9
30	2981.	1216.66	184.3	3548.3
31	2774.	1216.58	171.4	3244.3
32	2745.	1216.52	163.1	3048.3
33	2850.	1216.50	159.8	2971.0
34	3042.	1216.51	161.0	2998.3
35	3268.	1216.54	165.5	3104.2
36	3474.	1216.58	171.6	3249.4
37	3621.	1216.62	177.8	3395.3
38	3689.	1216.65	182.7	3510.6
39	3676.	1216.67	185.4	3575.5
40	3596.	1216.67	185.7	3583.6
41	3748.	1216.69	188.5	3648.1
42	3600.	1216.68	187.7	3629.2
43	3449.	1216.66	184.7	3558.5
44	3305.	1216.64	180.5	3459.0
45	3324.	1216.62	178.2	3406.0
46	3209.	1216.60	175.0	3328.7
47	3104.	1216.57	171.2	3240.5
48	3000.	1216.55	167.2	3146.1
49	3012.	1216.53	165.0	3093.4
50	4114.	1216.65	182.0	3494.1
51	5388.	1216.86	213.4	4237.6

52	5390.	1216.98	232.5	4690.0
53	5137.	1217.03	239.3	4930.1
54	4770.	1217.02	237.0	4832.7
55	4343.	1216.96	229.2	4610.4
56	3899.	1216.88	217.4	4331.1
57	3468.	1216.79	203.0	3992.3
58	3067.	1216.68	187.7	3629.1
59	2703.	1216.58	172.3	3265.5
60	2384.	1216.48	157.6	2925.8
61	2104.	1216.35	143.6	2639.9
62	1860.	1216.23	130.3	2368.5
63	1648.	1216.11	118.0	2117.8
64	1461.	1216.01	106.7	1889.3
65	1297.	1215.88	95.5	1789.2
66	1149.	1215.73	83.3	1694.3
67	1014.	1215.58	70.3	1593.4
68	892.	1215.42	56.9	1489.4
69	781.	1215.22	43.4	1371.0
70	680.	1215.01	30.4	1253.5
71	590.	1214.72	18.7	1053.1
72	509.	1214.44	9.4	865.3
73	438.	1213.74	4.8	463.2
74	370.	1213.54	4.1	338.6
75	315.	1213.49	3.9	309.0
76	268.	1213.44	3.5	272.3
77	227.	1213.37	3.0	231.8
78	192.	1213.31	2.5	196.2
79	163.	1213.27	2.1	166.5
80	138.	1213.23	1.8	141.0
81	117.	1213.19	1.5	119.5
82	99.	1213.16	1.3	101.2
83	84.	1213.14	1.1	85.8
84	71.	1213.12	0.9	72.6
85	61.	1213.10	0.8	62.2
86	52.	1213.08	0.7	53.1
87	44.	1213.07	0.6	45.0
88	37.	1213.06	0.5	37.8
89	30.	1213.05	0.4	30.8
90	25.	1213.04	0.3	25.6
91	20.	1213.03	0.3	20.6
92	16.	1213.03	0.2	16.5
93	12.	1213.02	0.2	12.5
94	9.	1213.01	0.1	9.4
95	7.	1213.01	0.1	7.3
96	5.	1213.01	0.1	5.2
97	0.	1213.00	0.0	0.6
98	0.	1213.00	0.0	0.1
99	0.	1213.00	0.0	0.0
100	0.	1213.00	0.0	0.0
101	0.	1213.00	0.0	0.0
102	0.	1213.00	0.0	0.0
103	0.	1213.00	0.0	0.0
104	0.	1213.00	0.0	0.0
105	0.	1213.00	0.0	0.0
106	0.	1213.00	0.0	0.0
107	0.	1213.00	0.0	0.0
108	0.	1213.00	0.0	0.0
109	0.	1213.00	0.0	0.0
110	0.	1213.00	0.0	0.0
111	0.	1213.00	0.0	0.0
112	0.	1213.00	0.0	0.0
113	0.	1213.00	0.0	0.0
114	0.	1213.00	0.0	0.0
115	0.	1213.00	0.0	0.0
116	0.	1213.00	0.0	0.0
117	0.	1213.00	0.0	0.0

118	0.	1213.00	0.0	0.0
119	0.	1213.00	0.0	0.0
120	0.	1213.00	0.0	0.0
121	0.	1213.00	0.0	0.0
122	0.	1213.00	0.0	0.0
123	0.	1213.00	0.0	0.0
124	0.	1213.00	0.0	0.0
125	0.	1213.00	0.0	0.0
126	0.	1213.00	0.0	0.0
127	0.	1213.00	0.0	0.0
128	0.	1213.00	0.0	0.0
129	0.	1213.00	0.0	0.0
130	0.	1213.00	0.0	0.0
131	0.	1213.00	0.0	0.0
132	0.	1213.00	0.0	0.0
133	0.	1213.00	0.0	0.0
134	0.	1213.00	0.0	0.0
135	0.	1213.00	0.0	0.0
136	0.	1213.00	0.0	0.0
137	0.	1213.00	0.0	0.0
138	0.	1213.00	0.0	0.0
139	0.	1213.00	0.0	0.0
140	0.	1213.00	0.0	0.0
141	0.	1213.00	0.0	0.0
142	0.	1213.00	0.0	0.0
143	0.	1213.00	0.0	0.0
144	0.	1213.00	0.0	0.0
145	0.	1213.00	0.0	0.0
146	0.	1213.00	0.0	0.0
147	0.	1213.00	0.0	0.0
148	0.	1213.00	0.0	0.0
149	0.	1213.00	0.0	0.0
150	0.	1213.00	0.0	0.0
151	0.	1213.00	0.0	0.0
152	0.	1213.00	0.0	0.0
153	0.	1213.00	0.0	0.0
154	0.	1213.00	0.0	0.0
155	0.	1213.00	0.0	0.0
156	0.	1213.00	0.0	0.0
157	0.	1213.00	0.0	0.0
158	0.	1213.00	0.0	0.0
159	0.	1213.00	0.0	0.0
160	0.	1213.00	0.0	0.0

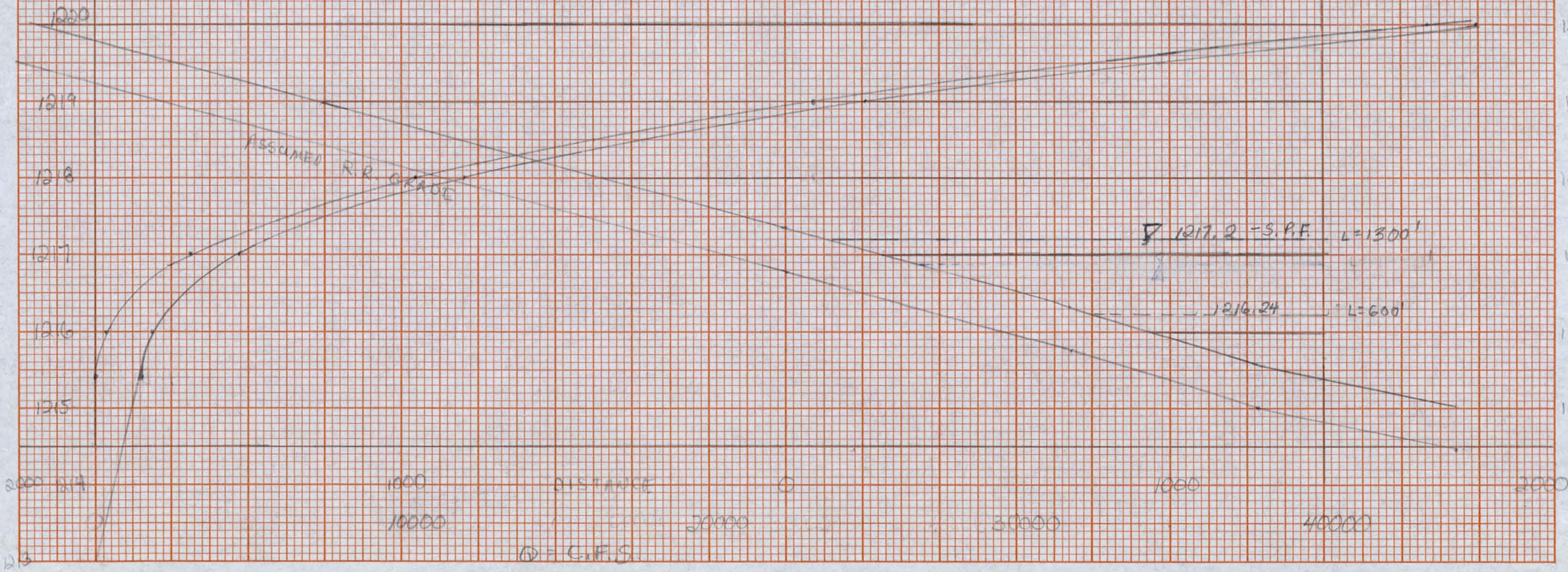
K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

WEIR FLOW OVER R.R. TRACK - AT CENTER ST. & SUPERSTITION FWY.

$Q = \frac{1}{2} C (C_H) H^{5/2}$ $C = 2.6$ $C_H = 3350/4.62 = 725$

$K = \frac{1}{2} C (C_H) = 942.5$

H	$H^{5/2}$	$KH^{5/2} = Q$
.6	.2789	263 + 1600 = 1863
1.62	3.34	3148 + 1600 = 4748
2.62	11.1	10462 + 1600 = 12062
3.62	24.9	23468 + 1600 = 25068
4.62	46.0	43355 + 1600 = 44955



SUBJECT: GILA FLOODWAY OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION FWY FROM CENTER ST. TO RWCD	COMPUTED BY: DJG	DATE: 10/8/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

Q's FOR CROSS-SECTIONS

1. FROM RWCD CANAL TO GREENFIELD RD. BASIN Q GOES FROM 7200 CFS TO 4900 CFS - A ROUTE DOWN OF 2300 CFS TOTAL DISTANCE FROM RWCD CANAL TO GREENFIELD RD. BASIN IS 10500 FT ∴ RATIO = $2300/10500 = x/y$ y = CROSS-SECTION DISTANCE FROM RWCD, x = REDUCTION IS Q AT CROSSSECTION

CROSS-SECTION	y	x - CFS	Qx = 7200 - x
1U	1800	394	6806
1T	3300	723	6477
1S	4800	1051	6149
1R	5850	1281	5919
1Q	7450	1632	5568
1P	9650	2113	5087

2. FROM GREENFIELD RD. BASIN TO VAL VISTA BASIN Q GOES FROM 4900 CFS TO 4300 CFS - A ROUTE DOWN OF 600 CFS DISTANCE BETWEEN BASINS IS 5280' = equation $600/5280 = x/y$

CROSS-SECTION	y	x - CFS	Qx = 4900 - x
1O	900	102	4798
1N	1800	204	4696
1M	3300	375	4525
1L	5280	600	4300

3. FROM VAL VISTA BASIN TO LINDSAY RD. BASIN, Q GOES FROM 4300 CFS TO 4000 CFS - A ROUTE DOWN OF 300 CFS - DISTANCE IS 3850 - EQUATION $\frac{300}{3850} = x/y$

CROSS-SECTION	y	x - CFS	Qx = 4300 - x
1K	1750	136	4164
1J	3850	300	4000

4. FROM LINDSAY RD BASIN TO GILBERT BASIN Q GOES FROM 4000 CFS TO 3400 CFS - A ROUTE DOWN OF 600 CFS - DISTANCE IS 5280'

CROSS-SECTION	y	x - CFS	Qx = 4000 - x	EQ = $\frac{600}{5280} = \frac{x}{y}$
1I	0	0	4000	
1H	1600	181	3819	
1G	3200	363	3637	

5. FROM GILBERT RD BASIN TO STAPLEY BASIN Q GOES FROM 3400 CFS TO 2700 CFS A ROUTE DOWN OF 700 CFS - DISTANCE IS 5280 EQ = $\frac{700}{5280} = \frac{x}{y}$

CROSS-SECTION	y	x - CFS	Qx = 3400 - x
1F	1650	219	3181
1E	3550	470	2930

SUBJECT: GILA FLOODWAY OVERFLOW ANALYSIS AREA NORTH OF SUPERSTITION FWY FROM CENTER ST. TO RWCD CANAL	COMPUTED BY: DJG	DATE: 10/8/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

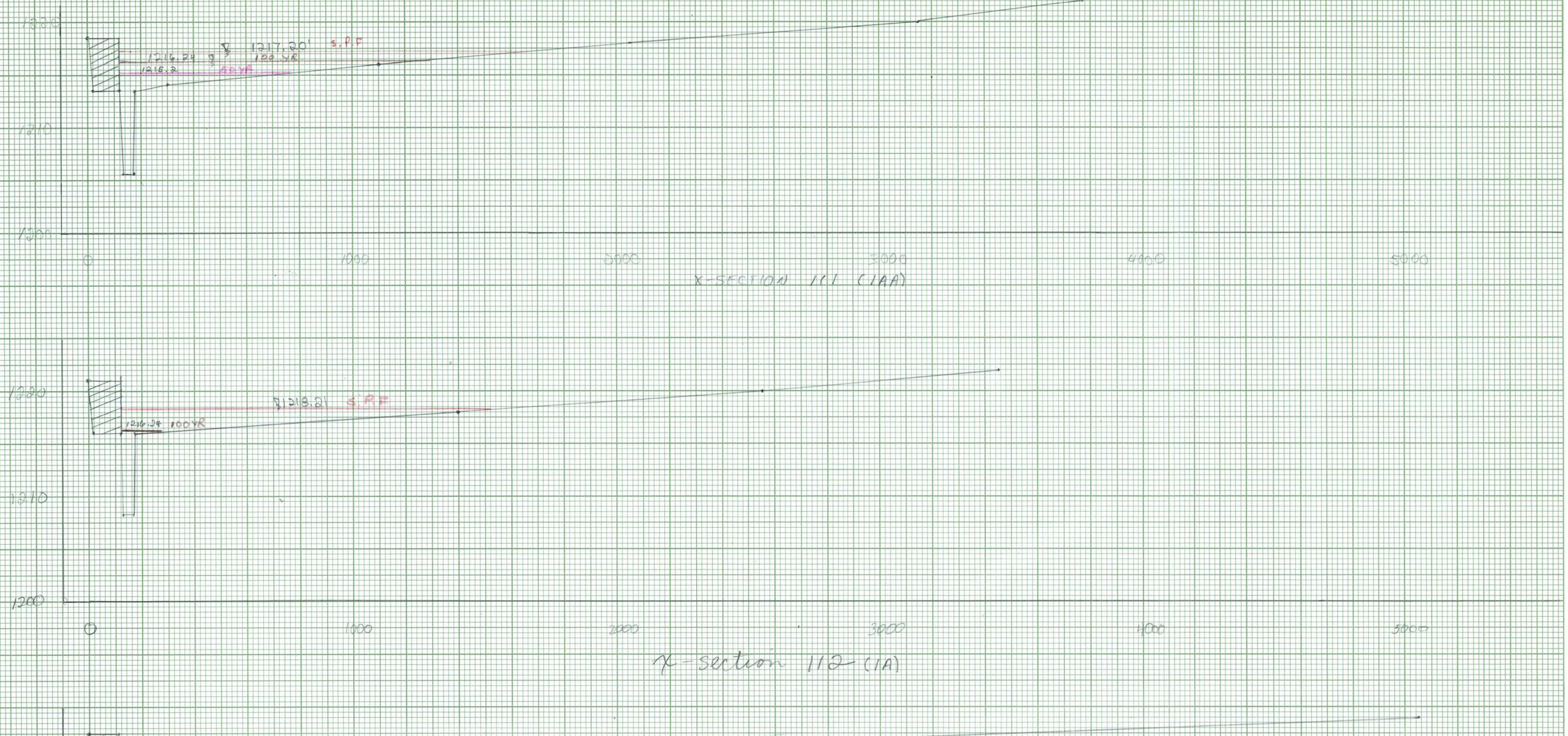
6. FROM STAPLEY DRIVE BASIN TO CENTER ST Q GOES FROM 2700 CFS TO 6700 CFS. IT DOES THIS BECAUSE WE ARE STARTING TO GET THE INFLOW INTO CENTER STREET & R.R. & FWY FROM AREA 701 + AREAS ABOVE CANALS

DISTANCE FROM STAPLEY TO CENTER STREET IS 7920'

Q BUILDS UP 4000 CFS $EQ = \frac{4000}{6350} = x/y$

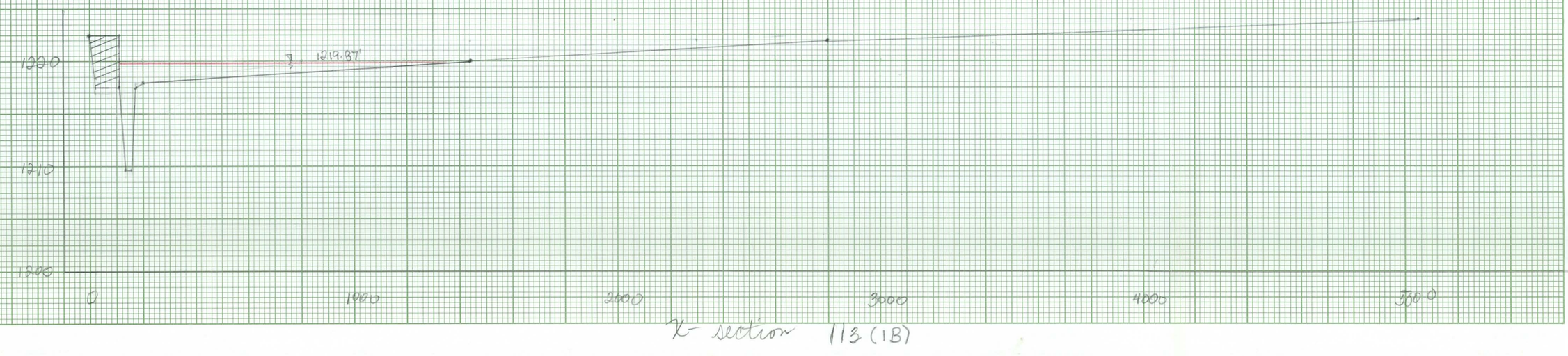
CROSS-SECTION	y	x CFS	$Q_x = 2700 + x$
1AD	0	0	2700
1C	2350	1480	4180
1B	2900	1827	4527
1A	4400	2772	5472
1AA	6350	4000	6700

CROSS-SECTIONS NORTH OF SUPERSTITION FWY. - FROM CENTER STREET TO RWCD CANAL



X-SECTION 111 (1AA)

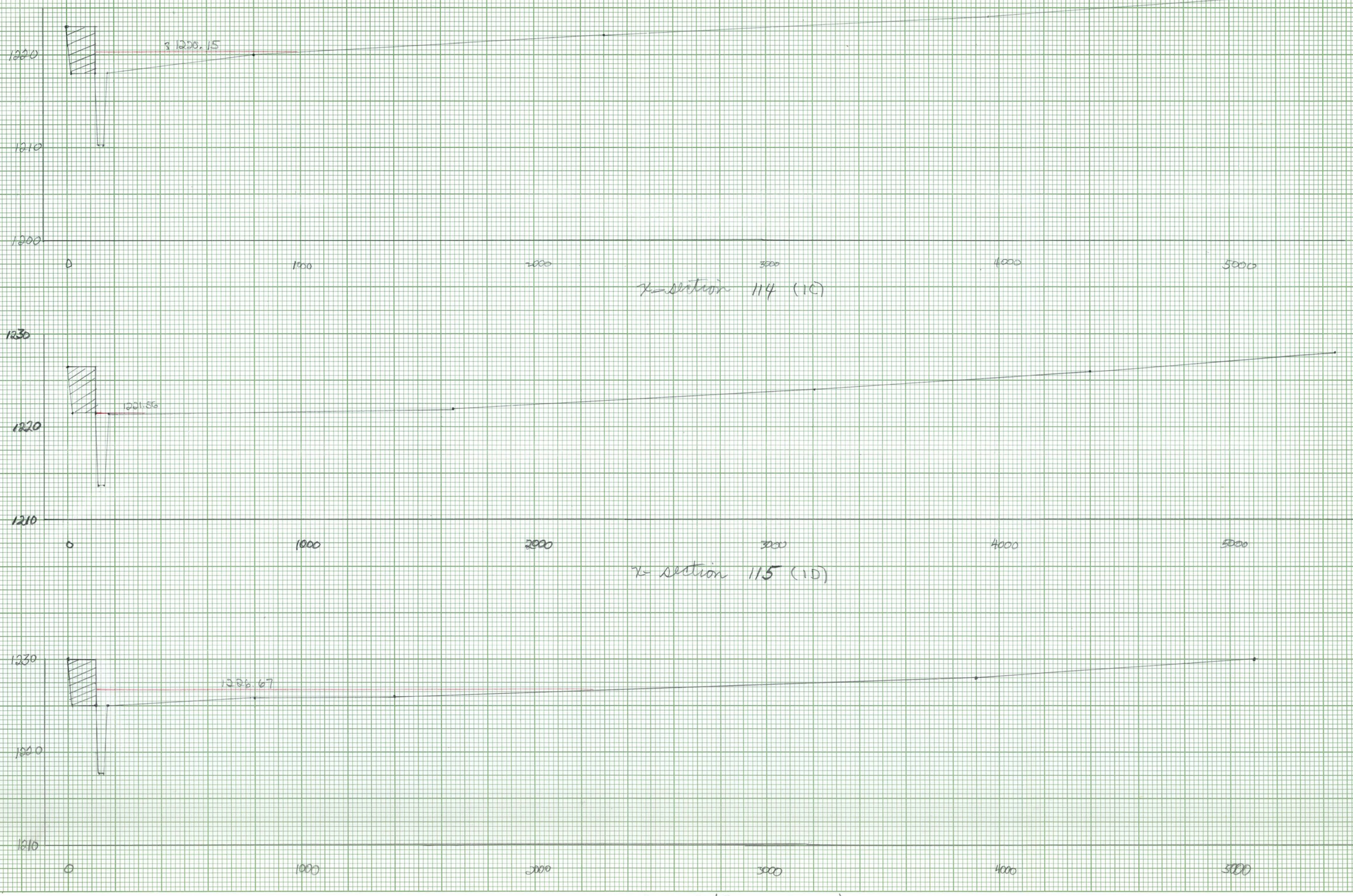
X-section 112 (1A)

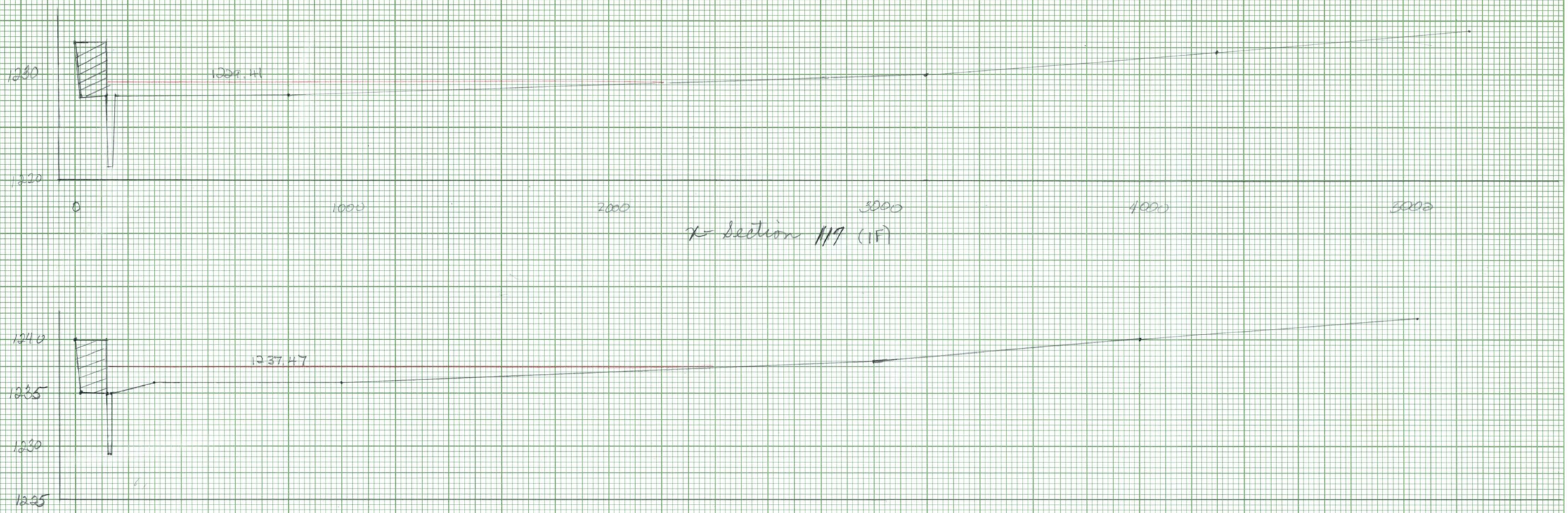


X-section 113 (1B)

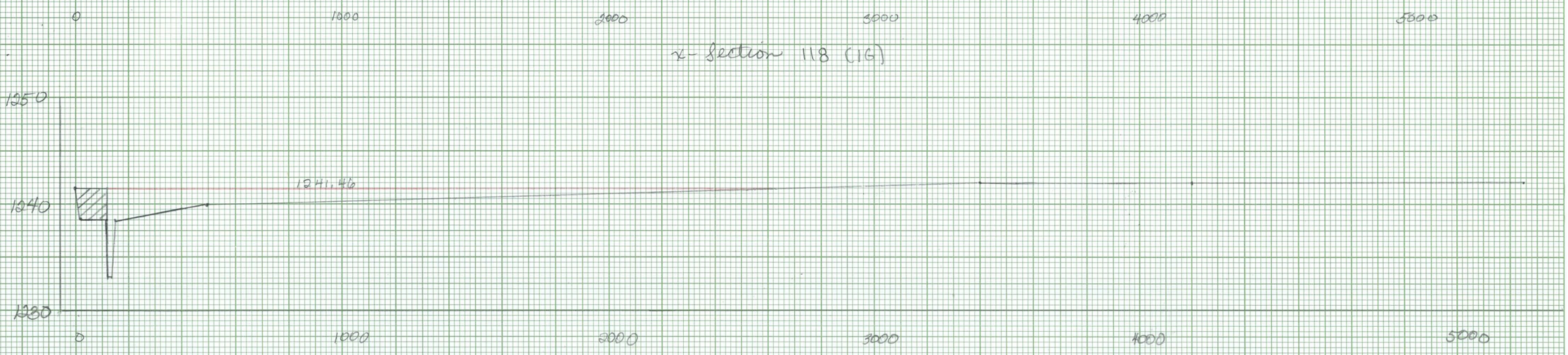
47 1320
K&E 10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.





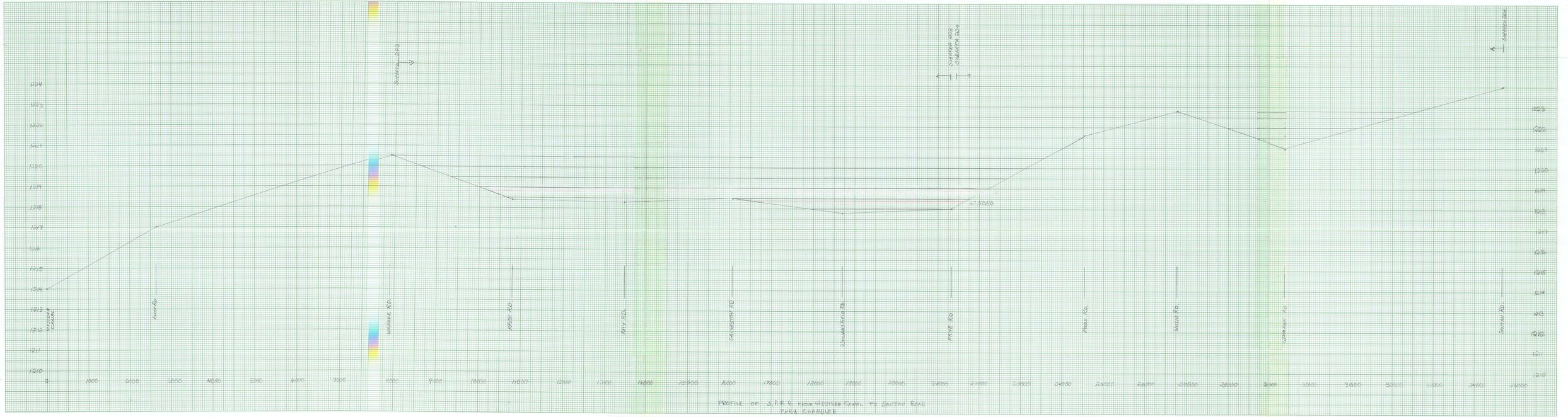
x-Section 119 (1F)



x-Section 118 (1G)

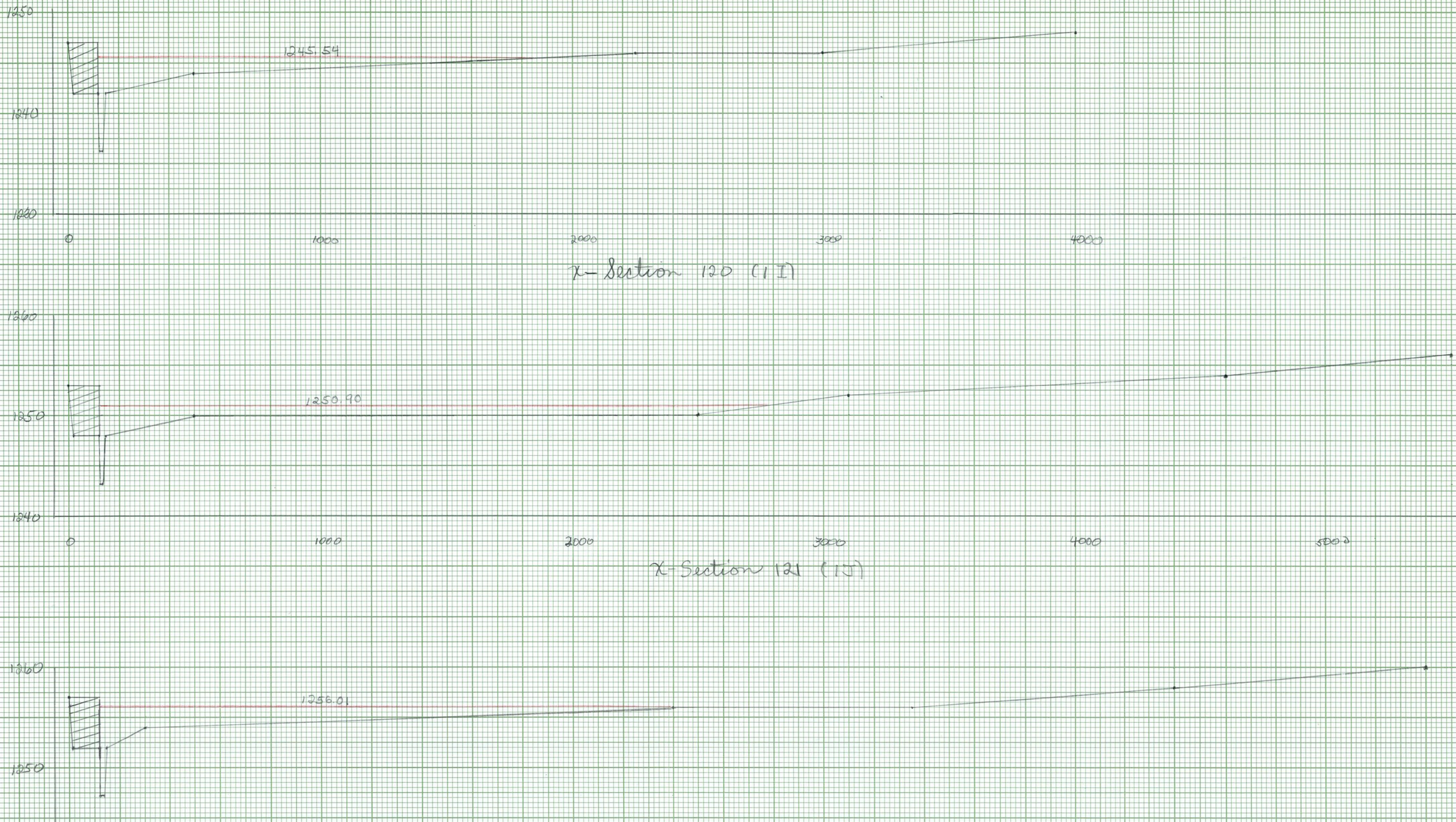
x-Section 119 (1H)

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



PROFILE OF S.P.R.R. FROM WESTERN CANAL TO SANTAN ROAD
THRU CHANDLER

K+E 10 X 10 TO ½ INCH 18 X 18 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.
47 1320

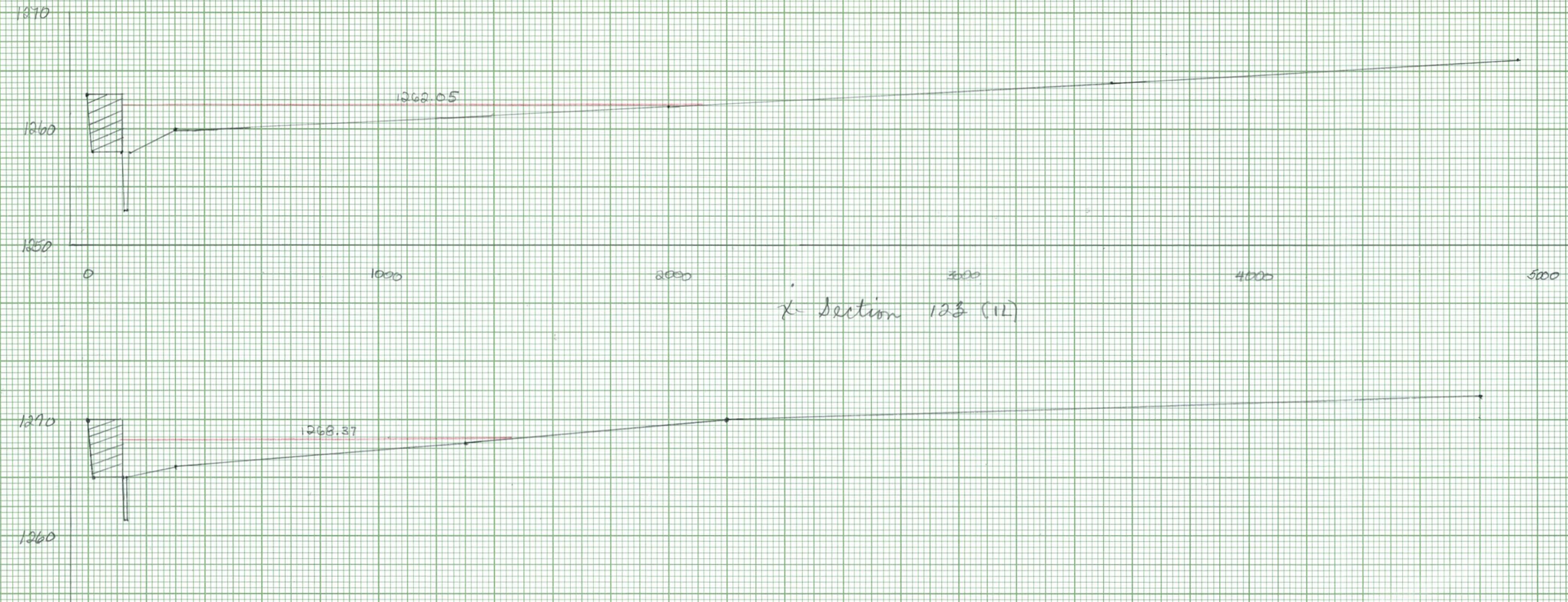


x-Section 120 (1 I)

x-Section 121 (1 J)

x-Section 122 (1 K)

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. • MADE IN U.S.A.

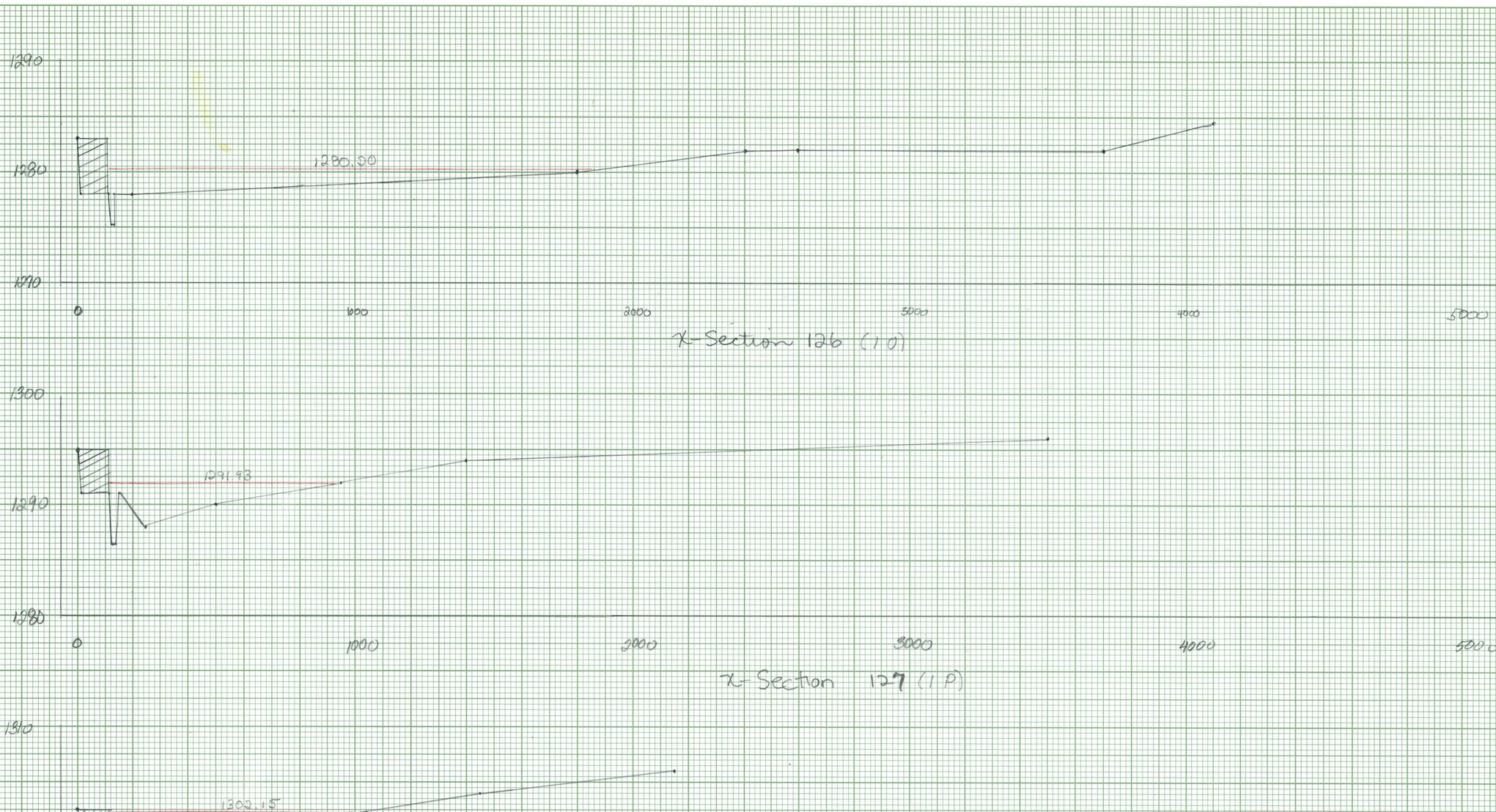


x- Section 123 (IN)

x- Section 124 (IN)

x- Section 125 (IN)

K&E 10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
47 1320

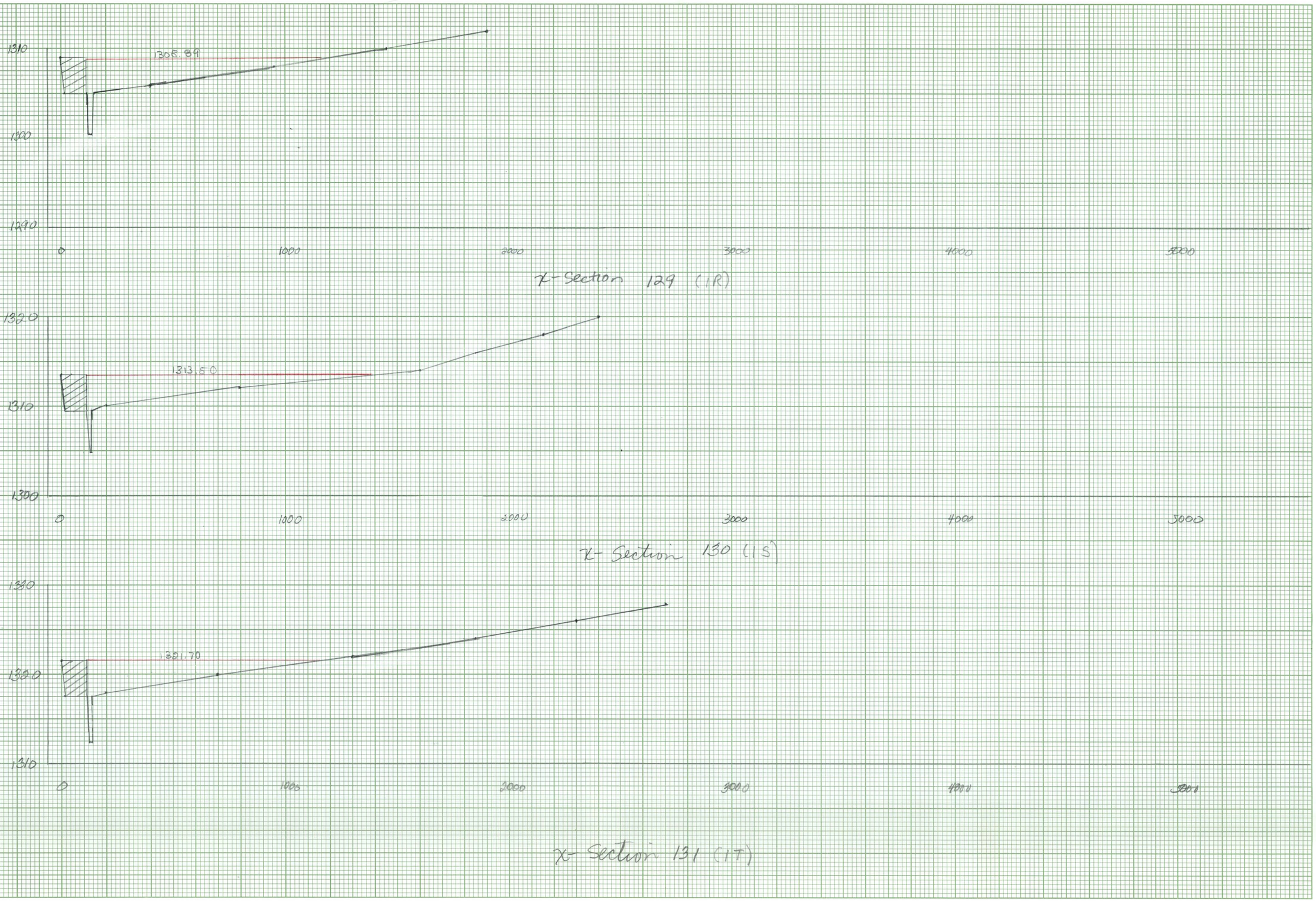


X-Section 126 (10)

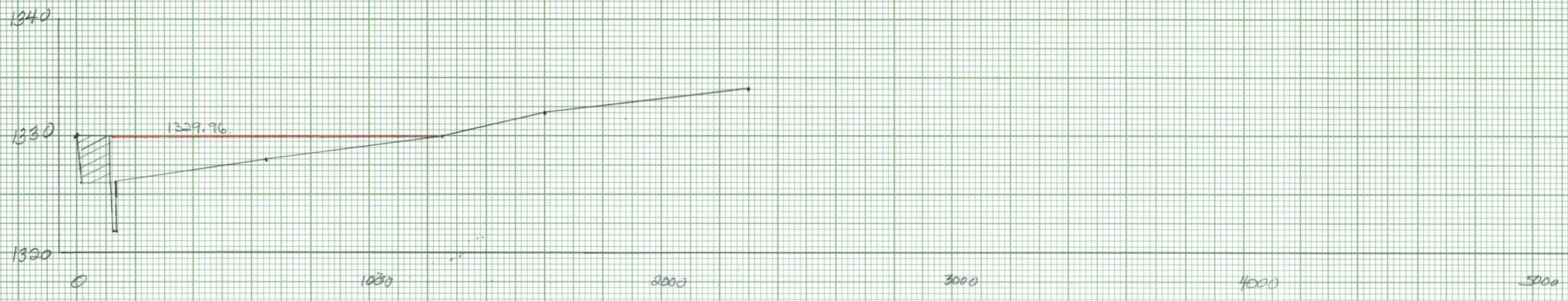
X-Section 127 (1P)

X-Section 128 (1Q)

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

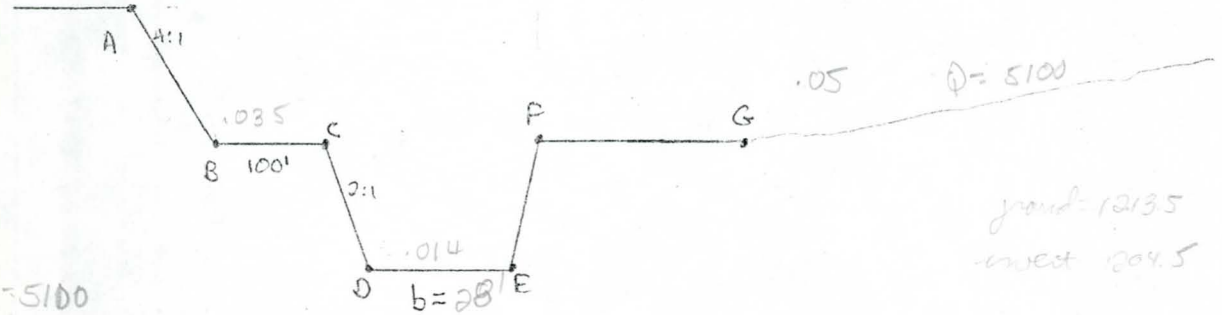


X-Section 132 (LT)

47 1320
10 X 10 TO ¼ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

CROSS-SECTION # 1AA

$S = \frac{4}{3500} = .001142$



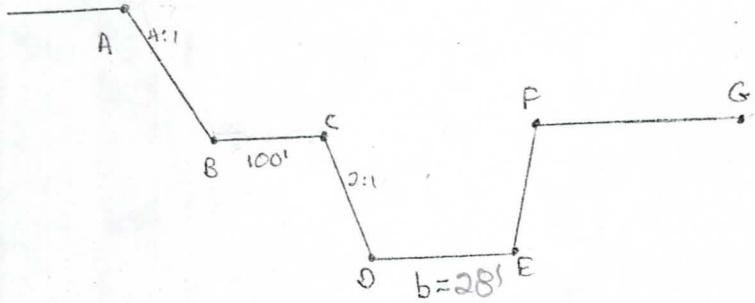
ground = 1213.5
invert 1204.5

Q=5100

POINT	ELEVATION	STATION
A	1218.5	0
B	1213.5	20
C	1213.5	120
D	1205.6	135.8
E	1205.6	163.8
F	1213.5	179.6
G	1214	

E Contour	Station
1214	0
1214	300
1216	1100
1218	2050
1220	3150
1222	3750

CROSS-SECTION # 1A



Q = 4000

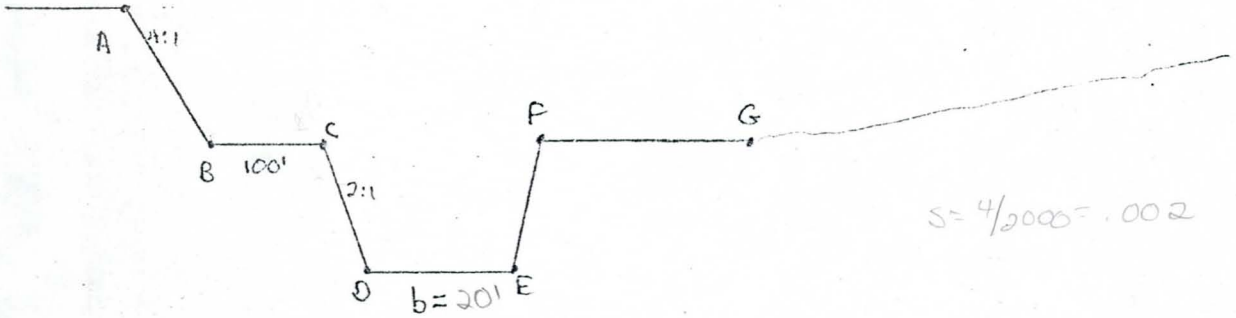
S = 4/3400 = .001176

POINT	ELEVATION	STATION
A	1221	0
B	1216	20
C	1216	120
D	1208.1	135.8
E	1208.1	163.8
F	1216	179.6
G	1216	—

Elev.	Station
1216	□
1218	1400
1220	2550
1222	3450

CROSS-SECTION # 1B

Q = 3000

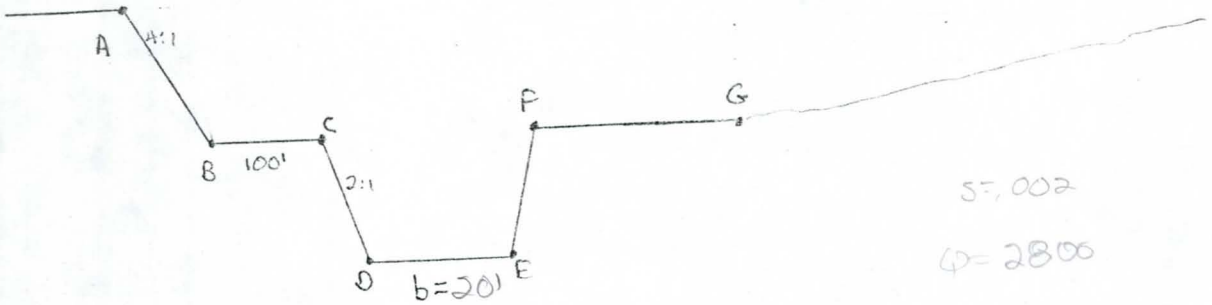


S = 4/2000 = .002

POINT	ELEVATION	STATION
A	1222.5	0
B	1217.5	20
C	1217.5	120
D	1209.6	135.8
E	1209.6	155.8
F	1217.5	171.6
G	1218	200

Elev.	Station
1218	□
1220	1400
1222	2800
1224	5050

CROSS-SECTION # 1C



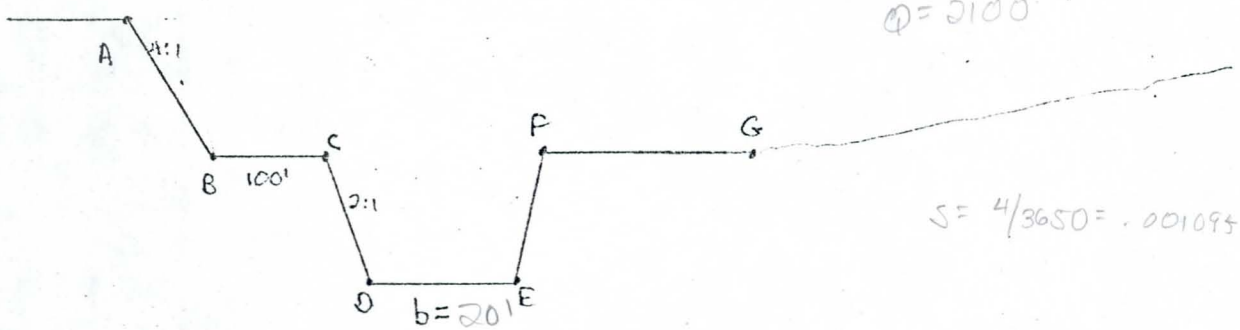
S=.002

Q=2800

POINT	ELEVATION	STATION
A	1223	0
B	1218	20
C	1218	120
D	1210.1	135.8
E	1210.1	155.8
F	1218	171.6
G	1220	

Elevation	Station
1220	□
1220	800
1222	2300
1224	3950
1226	5050

CROSS-SECTION # 1D



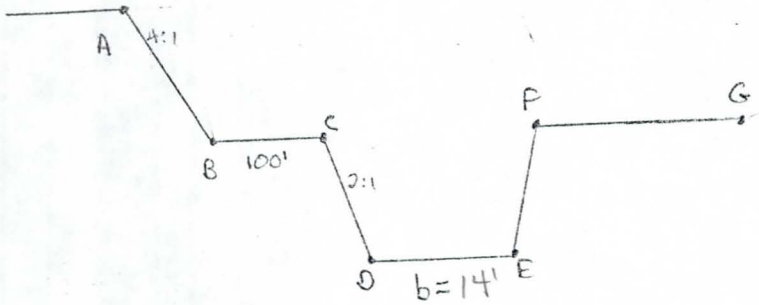
Q=2100

S= 4/3650 = .001095

POINT	ELEVATION	STATION
A	1226.5	0
B	1221.5	20
C	1221.5	120
D	1213.6	135.8
E	1213.6	155.8
F	1221.5	171.6
G	1222	

Elevation	Station
1222	□
1222	1650
1224	3200
1226	4400
1228	5450

CROSS-SECTION # 1E



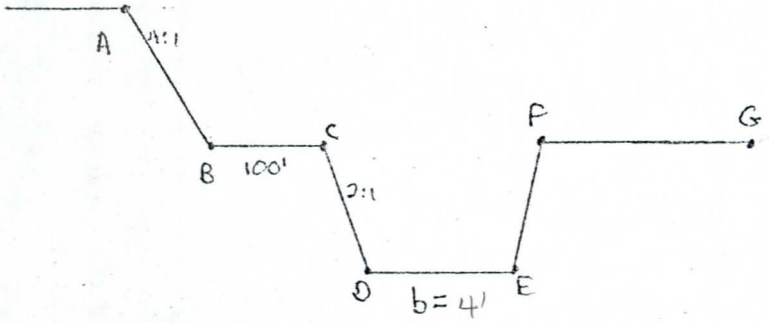
Q = 2400

S = 4/3000 = .001333

POINT	ELEVATION	STATION
A	1230	0
B	1225	20
C	1225	120
D	1217.75	134.5
E	1217.75	148.5
F	1225	163.
G	1226	

Elevation	Station
1226.	[illegible]
1225.9	800
1226	1400
1228	3900
1230	5100

CROSS-SECTION #1F



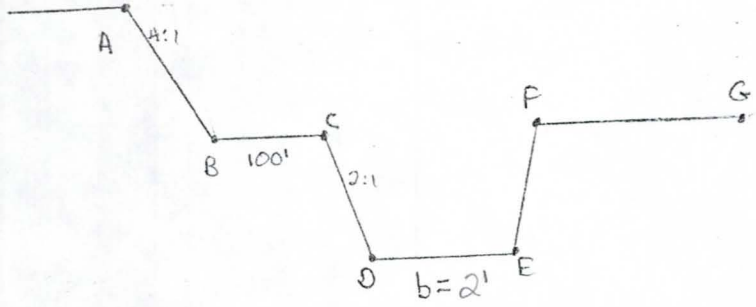
Q = 2400

S = 6/3600 = .001666

POINT	ELEVATION	STATION
A	1233	0
B	1228	20
C	1228	120
D	1221.25	133.5
E	1221.25	137.5
F	1228	151.0
G	1228	

Elevation	Station
1228	[illegible]
1228	800
1230	3200
1232	4300
1234	5250

CROSS-SECTION # 1G



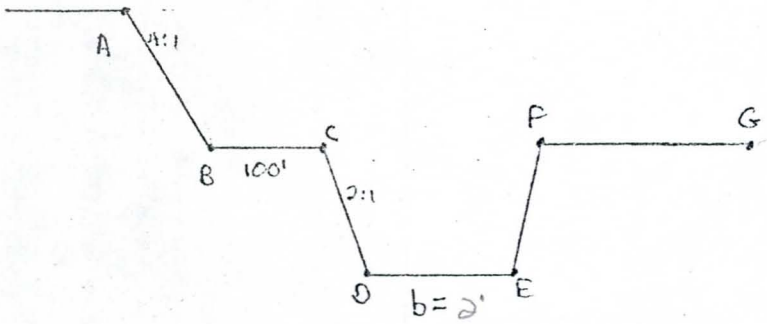
Q = 2756

S = 4/1800 = .00222

POINT	ELEVATION	STATION
A	1240	0
B	1235	20
C	1235	120
D	1229.15	131.7
E	1229.15	133.7
F	1235	145.4
G	1236	

Station	Elevation
1236	□
1236	1000
1228	3000
1240	4000
1242	5050

CROSS-SECTION # 1H



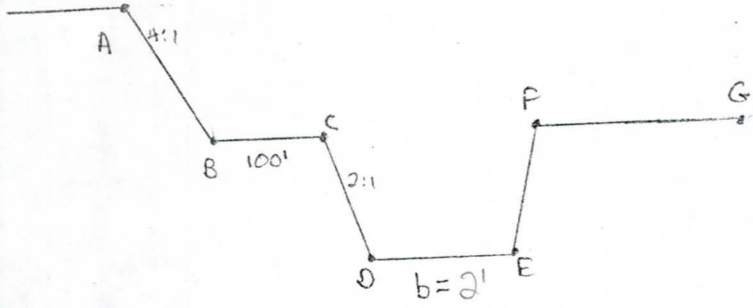
Q = 2953

S = 4/1550 = .00258

POINT	ELEVATION	STATION
A	1241.5	0
B	1238.5	20
C	1238.5	120
D	1233.15	130.7
E	1233.15	132.7
F	1238.5	143.4
G	1240	

Elevation	Station
1240	□
1240	500
1242	3400
1244	4200
1246	5250

CROSS-SECTION #1I



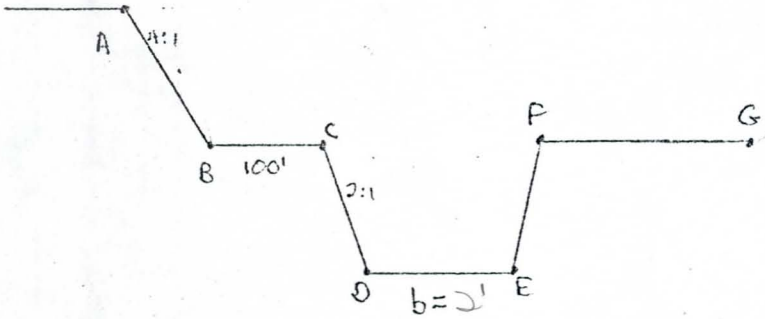
Q= 3150

S= 4/1350 = .002962

POINT	ELEVATION	STATION
A	1247	0
B	1242	20
C	1242	120
D	1236.65	130.7
E	1236.65	132
F	1242	143.4
G	1244	

Elevation	Station
1244	0
1244	500
1246	2250
1246	3000
1248	4000

CROSS-SECTION #1J



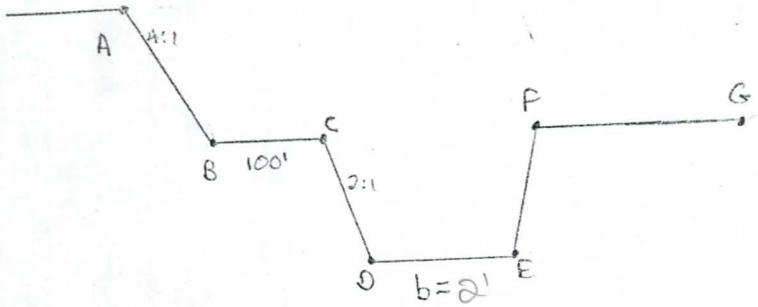
Q= 3146

S= .4/1400 = .000857

POINT	ELEVATION	STATION
A	1253	0
B	1248	20
C	1248	120
D	1243.15	129.7
E	1243.15	131.7
F	1248	141.4
G	1250	

Elevation	Station
1250	0
1250	2500
1252	3100
1254	4600
1256	5500

CROSS-SECTION #1K



Q=3312

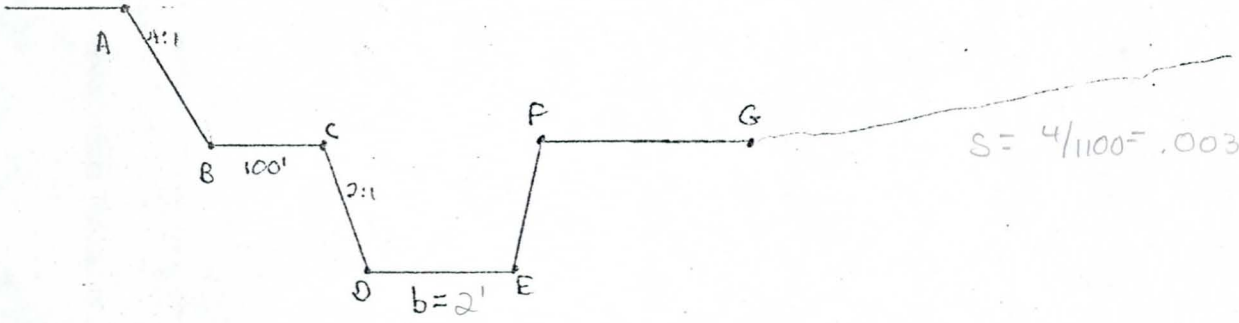
S = 4/1150 = .003498

POINT	ELEVATION	STATION
A	1257	0
B	1252	20
C	1252	120
D	1247.15	129.7
E	1247.15	131.7
F	1252	141.4
G	1254	300

Elevation	Station
1254	0
1256	2400
1256	3350
1258	4400
1260	5400

CROSS-SECTION #1L

Q=3450

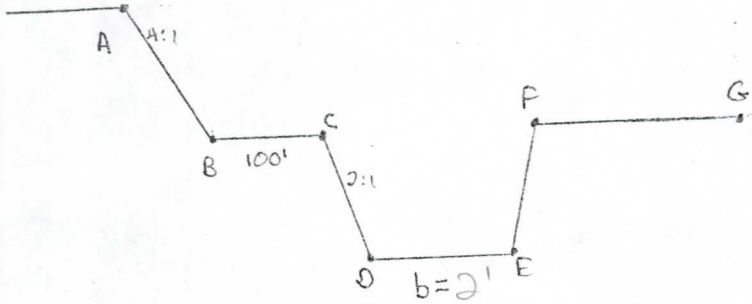


S = 4/1100 = .003636

POINT	ELEVATION	STATION
A	1263	0
B	1258	20
C	1258	120
D	1253.45	129.1
E	1253.45	131.1
F	1258	140.2
G	1260	300

Elevation	Station
1260	0
1262	2000
1264	3550
1266	4950

CROSS-SECTION # 1M



$S = 4/900 = .00444$

$Q = 3656$

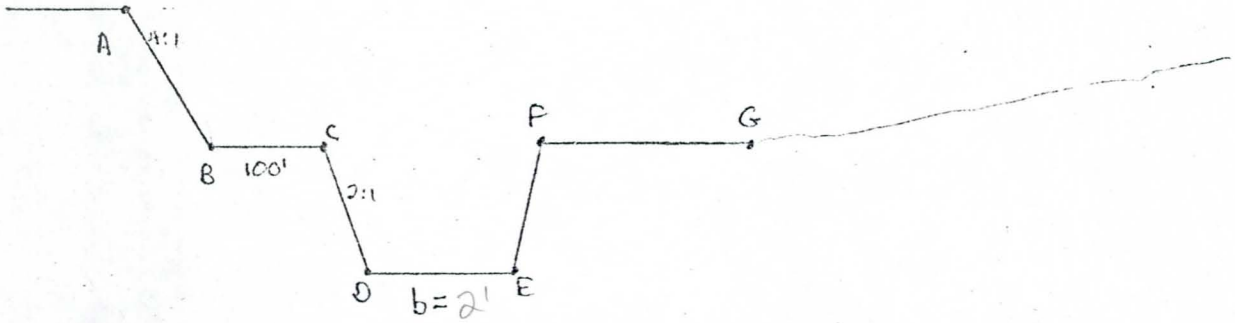
POINT	ELEVATION	STATION
A	1270	0
B	1265	20
C	1265	120
D	1261.4	127.2
E	1261.4	129.2
F	1265	136.4
G	1266	300

Elevation	Station
1266	□
1268	1300
1270	2200
1272	4800

CROSS-SECTION # 1N

$S = .00444$

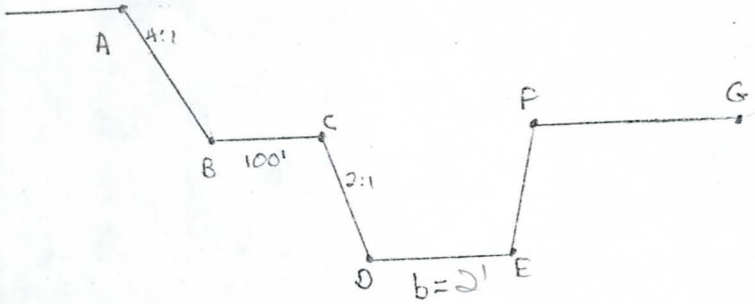
$Q = 3813$



POINT	ELEVATION	STATION
A	1277	0
B	1272	20
C	1272	120
D	1268.4	127.2
E	1268.4	129.2
F	1272	136.4
G	1274	350

Elevation	Station
1274	□
1276	2100
1278	4150
1280	5000

CROSS-SECTION # 10



S = 4/700 = .005714

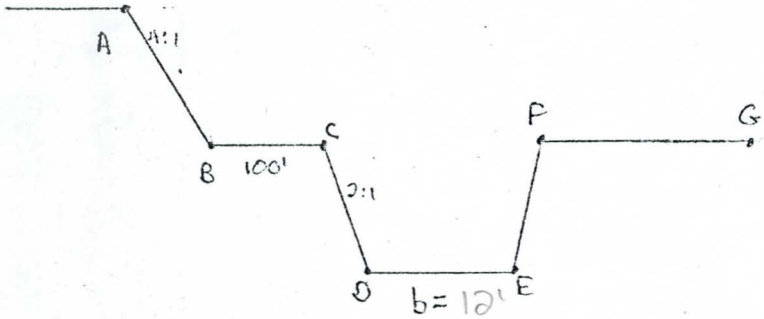
Q = 3927

POINT	ELEVATION	STATION
A	1283	0
B	1278	16
C	1278	116
D	1275.1	121.8
E	1275.1	123.8
F	1278	129.6
G	1278	300

Station	Elevation
1278	□
1286	1800
1282	2400
1282	2600
1282	3700
1284	4100

CROSS-SECTION # 1P

S = .4/1000 = .004

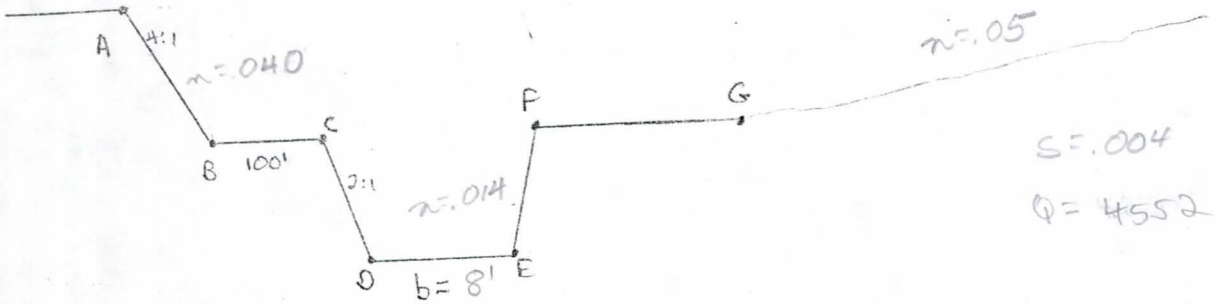


Q = 4154

POINT	ELEVATION	STATION
A	1295	0
B	1291	16
C	1291	116
D	1286.5	125
E	1286.5	137
F	1291	146
G	1288	250

Elevation	Station
1288	□
1290	500
1292	950
1294	1400
1296	3500

CROSS-SECTION #10



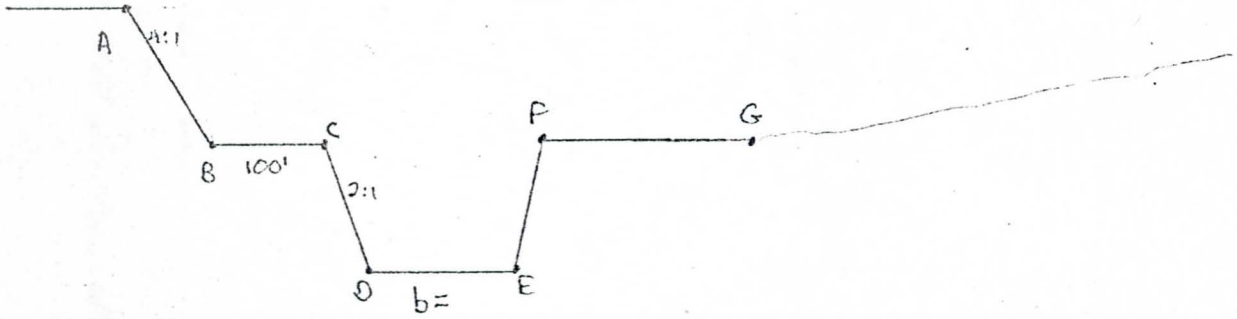
S=.004

Q=4552

POINT	ELEVATION	STATION
A	1302.5	0
B	1298.5	16
C	1298.5	116
D	1293.6	125.8
E	1293.6	133.8
F	1298.5	143.6
G	1290	200

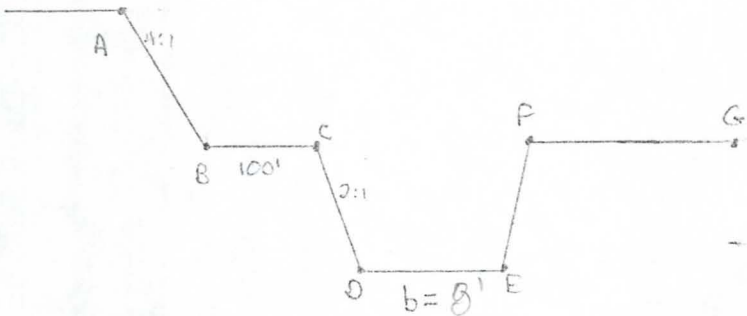
Elev.	Station
1298	□
1300	500
1302	950
1304	1450
1306	2150

CROSS-SECTION



POINT	ELEVATION	STATION
A		
B		
C		
D		
E		
F		
G		

CROSS-SECTION # 1R



$S = \frac{4}{1000} = .004$

$Q = 4832$

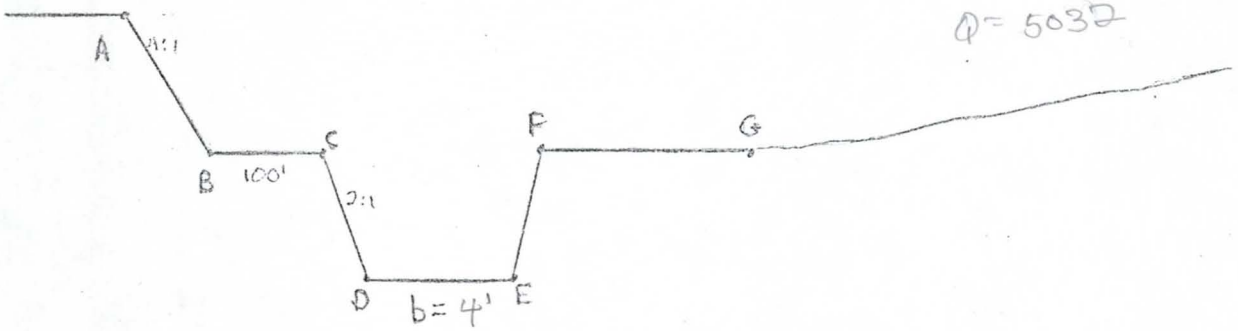
POINT	ELEVATION	STATION
A	1309	0
B	1305	16
C	1305	116
D	1300.5	125
E	1300.5	133
F	1305	142
G	1304	

Elevation	Station
1304	0
1306	400
1308	950
1310	1450
1312	1900

CROSS-SECTION # 1S

$S = 4/800 = .005$

$Q = 5032$



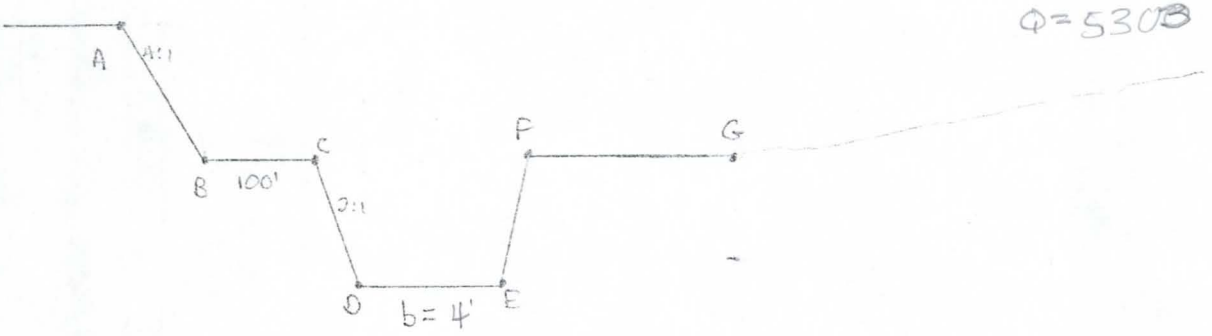
POINT	ELEVATION	STATION
A	1313.5	0
B	1309.5	16
C	1309.5	116
D	1304.9	125.2
E	1304.9	129.2
F	1309.5	138.4
G	1310	200

Elevation	Station
1310	0
1312	800
1314	1600
1316	1850
1318	2150
1320	2400

CROSS-SECTION #1T

S=.005

Q=5308



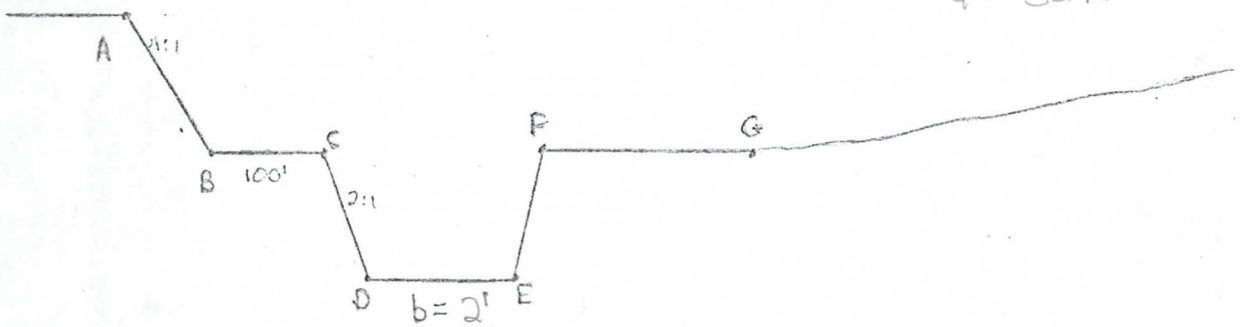
POINT	ELEVATION	STATION
A	1321.5	0
B	1317.5	16
C	1317.5	116
D	1312.9	125.2
E	1312.9	129.2
F	1317.5	138.4
G	1318	200

Elevation	Station
1318	0
1320	700
1322	1300
1324	1850
1326	2300
1328	2700

CROSS-SECTION #1U

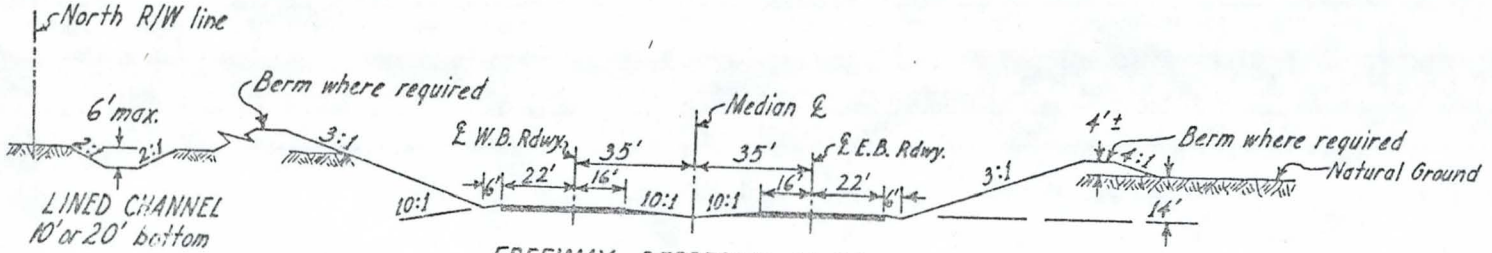
S=.005

Q=5574

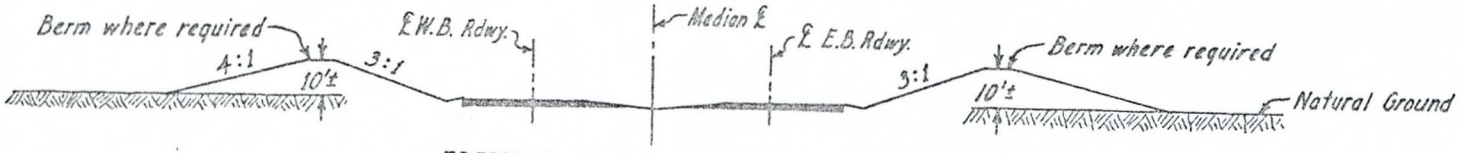


POINT	ELEVATION	STATION
A	1330	0
B	1326	16
C	1326	116
D	1321.95	124.1
E	1321.95	126.1
F	1326	134.2
G	1326	

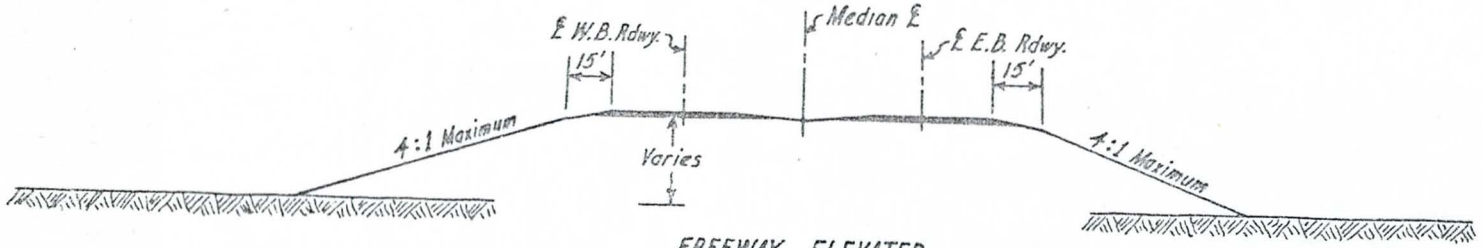
Elevation	Station
1326	0
1328	650
1330	1250
1332	1600
1334	2300



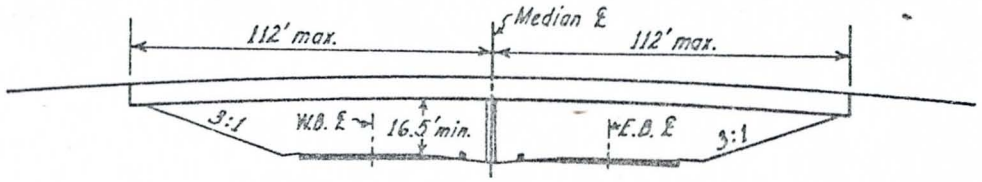
FREEWAY DEPRESSED 14 FEET



FREEWAY AT NATURAL GROUND



FREEWAY ELEVATED



TYPICAL SECTION AT CROSSROAD STRUCTURE
(Crossroad over Freeway)

FIGURE 9
TYPICAL SECTIONS

ARIZONA DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HIGHWAY PLANS SERVICES

SUPERSTITION FREEWAY
STATE ROUTE 360
GILBERT ROAD to U.S. ROUTE 60-80-89

DRAWN	12/2/74 PSH	REVISIONS
CHECKED		5/21/75 M.C.N.
APPROVED		

SUBJECT: GILA FLOODWAY OVERFLOW ANALYSIS	COMPUTED BY: DJG	DATE: 11/6/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

NON DAMAGING VOLUME AT CP 1220

A. PRESENT CONDITIONS — LOW SPOT ON TRACKS - BRANCH GOING GILBERT IS 1213.88 (TOP OF RAIL) CP 1751

FROM FREQUENCY-VOLUME CURVE-PRESENT CONDITIONS IT WILL SPILL = 120 YEARS INTO CP 1220

FROM FREQUENCY-VOLUME-PRESENT CONDITIONS AT CP 1220 SPILLING WILL OCCUR = 270 YEARS

∴ SPILL FREQUENCY WOULD BE A COMBINATION OF THE TWO SOMEWHERE BETWEEN 120 & 270 YEAR

TRY DIFFERENT FREQUENCIES – VOLUME SHOULD EQUAL 610 AC-FT AT CP 1220

	FREQUENCY →	.85	.6	.7	.5	.65
SUBAREA						
751	VOLUME →	515	900	700	1500	800
	NONE DAMAGING VOL. →	-515	-515	-515	-515	-515
	SPILL VOLUME →	0 FULL	385 SPILLS	185 SPILL	985 SPILL	285 SPILL
220	VOLUME	250	380	310	410	340
	+SPILL VOL. OF 1751	+0	385	185	985	285
	TOTAL VOLUME AT CP 1220 →	1250	765	495	1395	625
	NON-DAMAGING VOL →	-610	-610	-610	-610	-610
	SPILL VOLUME OVER TRACKS →	0	155 SPILLS	0	785 SPILLS	15 SPILLS

FREQUENCY OF SPILL FROM SUBAREA 220 IS 100/.65 = 154 YEARS

B) FUTURE CONDITIONS

	FREQUENCY →	1	.8	.9	.95
SUBAREA					
751	VOLUME →	690	900	800	760
	NON DAMAGING VOL. →	515	-515	515	515
	SPILL VOL. →	175	385	285	245
220	VOLUME →	375	445	406	395
	+SPILL VOL. OF 1751 →	-175	-385	-285	245
	TOTAL VOL AT 1220 →	550	830	695	640
	NON DAMAGING VOL. →	-610	-610	610	-610
	SPILL VOL. OVER TRACKS →	0	220	75	30

FREQUENCY OF SPILL FROM SUBAREA 220 IS = 100/.95 = 106 years

NHR	NMIN	UFLAG	PRELIP	RFLAG	HFLAG	HAS...			
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	2.	-0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVG...	LNGTH	CONQ
1751	1	-0.00	-0	3	-0.	-0	-0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15 15

SPF Future Conditions

COMBINED HYDROGRAPH
AT 1751 NQ= 160 15-MIN INTRVL

13.	25.	35.	44.	52.	60.	68.	77.	85.	93.
101.	110.	119.	128.	138.	147.	178.	243.	276.	327.
373.	380.	387.	398.	413.	434.	463.	506.	688.	1900.
844.	1944.	1048.	1911.	1591.	2300.	2230.	2843.	2918.	3415.
3557.	3977.	4077.	4371.	4431.	4602.	4557.	4583.	4457.	4378.
4184.	4047.	3856.	3732.	3589.	3521.	3465.	3476.	3499.	3576.
3660.	3776.	3884.	4003.	4104.	4197.	4271.	4323.	4351.	4353.
4328.	4276.	4195.	4085.	3948.	3785.	3599.	3394.	3172.	2939.
2698.	2454.	2210.	1971.	1740.	1521.	1317.	1130.	961.	783.
549.	438.	345.	268.	205.	155.	115.	85.	62.	44.
31.	22.	15.	10.	7.	5.	3.	2.	1.	1.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4602.	4009.	2154.	1294.

Vol = 4286 A.F.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1551	735.	281.	72.	43.
ROUTED TO	1651	515.	272.	72.	43.
HYDROGRAPH AT	16511	1075.	408.	109.	66.
ROUTED TO	1651	789.	166.	42.	25.
HYDROGRAPH AT	16512	1075.	408.	109.	66.
ROUTED TO	1651	1309.	257.	110.	66.
3 COMBINED	1651	2146.	695.	223.	134.

LOCI	NQI	RATIO	IAVRG	NHGT	AVGHG	LNGTH	CONQ
1751	1	-0.00	-0	3	-0.	-0	-0.
0.							

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15 15

SPF Present Conditions

COMBINED HYDROGRAPH
AT 1751 NQ= 160 15-MIN INTRVL

1.	2.	3.	4.	5.	5.	6.	6.	8.	8.
9.	10.	12.	13.	14.	15.	17.	20.	65.	323.
324.	325.	1328.	1378.	2584.	1120.	2292.	966.	1998.	1032.
2125.	1345.	2446.	1869.	2924.	2483.	3243.	3003.	3645.	3432.
3796.	3821.	4162.	4182.	4420.	4380.	4512.	4382.	4237.	4107.
3945.	3765.	3589.	3438.	3315.	3227.	3181.	3181.	3217.	3286.
3382.	3492.	3608.	3723.	3830.	3924.	3994.	4046.	4074.	4071.
4045.	3995.	3920.	3819.	3694.	3544.	3374.	3186.	2981.	2762.
2534.	2299.	2062.	1828.	1601.	1384.	1182.	995.	827.	678.
549.	438.	345.	268.	205.	155.	115.	85.	62.	44.
31.	22.	15.	10.	7.	5.	3.	2.	1.	1.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4512.	3770.	2164.	1299.

V_{01} = 4300 A.F.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1551	735.	281.	72.	43.
ROUTED TO	1651	515.	272.	72.	43.
HYDROGRAPH AT	1651	1204.	499.	129.	77.
2 COMBINED	1651	1206.	745.	200.	120.
ROUTED TO	1751	901.	689.	200.	120.
HYDROGRAPH AT	17511	500.	241.	66.	40.
ROUTED TO	1751	607.	179.	47.	28.
HYDROGRAPH AT	17512	500.	241.	66.	40.
ROUTED TO	1751	724.	242.	66.	40.
3 COMBINED	1751	1287.	901.	313.	188.

UEIR

'LOW OVER S.P.R.R LINE-CHRISTMAS BRANCH-GOING TO GILBERT -GILA DRAIN STUDY

RESERVOIR FLOOD ROUTING

SPF - PRESENT

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW	Combined Flo at CP1220
		1209.00	0.0	0.0	
1	1.	1209.01	0.0	0.0	1
2	2.	1209.03	0.1	0.0	1
3	3.	1209.06	0.1	0.0	1
4	4.	1209.10	0.2	0.0	1
5	5.	1209.15	0.3	0.0	1
6	5.	1209.21	0.4	0.0	2
7	6.	1209.27	0.5	0.0	2
8	6.	1209.33	0.7	0.0	3
9	8.	1209.41	0.8	0.0	4
10	8.	1209.50	1.0	0.0	5
11	9.	1209.59	1.2	0.0	6
12	10.	1209.69	1.4	0.0	8
13	12.	1209.82	1.6	0.0	9
14	13.	1209.95	1.9	0.0	10
15	14.	1210.01	2.2	0.0	12
16	15.	1210.02	2.5	0.0	13
17	17.	1210.03	2.9	0.0	14
18	20.	1210.05	3.3	0.0	15
19	65.	1210.10	4.6	0.0	16
20	323.	1210.36	11.3	0.0	626
21	324.	1210.57	18.0	0.0	1518
22	325.	1210.74	24.7	0.0	1838
23	1328.	1211.34	52.1	0.0	1884
24	1378.	1211.68	80.6	0.0	1990
25	2584.	1212.10	134.0	0.0	2231
26	1120.	1212.24	157.1	0.0	2560
27	2292.	1212.52	204.5	0.0	2920
28	966.	1212.62	224.4	0.0	3207
29	1998.	1212.83	265.7	0.0	3359
30	1032.	1212.94	287.0	0.0	3361
31	2125.	1213.13	331.0	0.0	3232
32	1345.	1213.24	358.7	0.0	3010
33	2446.	1213.46	409.3	0.0	2732
34	1869.	1213.61	447.9	0.0	2434
35	2924.	1213.85	508.3	0.0	2138
36	2483.	1213.98	559.0	59.2	1917
37	3243.	1214.25	618.7	647.0	2250
38	3003.	1214.38	663.7	1000.7	2375
39	3645.	1214.52	710.4	1771.4	2945
40	3432.	1214.60	739.4	2288.7	3290
41	3796.	1214.67	763.5	2970.5	3826
42	3821.	1214.71	777.0	3358.1	4091
43	4146.	1214.74	789.6	3717.2	4347
44	4182.	1214.76	797.0	3929.1	4470
45	4420.	1214.79	804.8	4152.8	4615
46	4380.	1214.80	808.5	4256.4	4649
47	4512.	1214.81	812.5	4377.1	4710
48	4382.	1214.81	812.6	4379.5	4662
49	4237.	1214.80	810.3	4310.7	4549
50	4107.	1214.79	807.1	4217.3	4419
51	3945.	1214.78	802.8	4093.2	4261

52	3765.	1214.76	797.5	3943.6
53	3589.	1214.75	791.9	3782.0
54	3438.	1214.73	786.4	3625.2
55	3315.	1214.72	781.4	3483.8
56	3227.	1214.71	777.3	3366.8
57	3181.	1214.70	774.4	3282.1
58	3181.	1214.69	772.8	3236.0
59	3217.	1214.69	772.5	3227.3
60	3286.	1214.70	773.4	3254.1
61	3382.	1214.70	775.4	3312.4
62	3492.	1214.71	778.3	3394.3
63	3608.	1214.72	781.7	3491.7
64	3723.	1214.73	785.4	3597.1
65	3830.	1214.74	789.1	3703.3
66	3924.	1214.75	792.6	3803.9
67	3994.	1214.76	795.7	3890.5
68	4046.	1214.77	798.1	3961.4
69	4074.	1214.77	799.9	4012.7
70	4071.	1214.77	800.9	4039.3
71	4045.	1214.77	801.0	4041.9
72	3992.	1214.77	800.2	4019.1
73	3920.	1214.77	798.6	3974.0
74	3819.	1214.76	796.1	3903.3
75	3694.	1214.75	792.8	3807.9
76	3544.	1214.74	788.6	3687.6
77	3374.	1214.72	783.6	3544.7
78	3186.	1214.71	777.8	3381.2
79	2981.	1214.69	771.5	3198.8
80	2762.	1214.67	764.5	2999.7
81	2534.	1214.65	757.1	2787.4
82	2299.	1214.63	749.3	2564.8
83	2062.	1214.60	741.2	2335.6
84	1828.	1214.58	732.5	2166.2
85	1601.	1214.55	722.6	1990.2
86	1384.	1214.52	712.1	1801.4
87	1182.	1214.49	701.3	1608.4
88	995.	1214.46	690.6	1417.4
89	827.	1214.43	680.3	1233.5
90	678.	1214.40	670.6	1060.4
91	549.	1214.37	660.9	978.2
92	438.	1214.34	650.5	897.1
93	345.	1214.31	640.0	814.2
94	268.	1214.28	629.6	732.2
95	205.	1214.26	619.5	653.0
96	155.	1214.23	610.0	578.3
97	115.	1214.20	601.1	508.7
98	85.	1214.16	593.4	406.4
99	62.	1214.11	587.2	318.3
100	44.	1214.08	582.3	248.1
101	31.	1214.06	578.3	192.6
102	22.	1214.04	575.3	148.9
103	15.	1214.02	572.9	114.7
104	10.	1214.01	571.0	87.9
105	7.	1214.00	569.5	73.3
106	5.	1214.00	568.1	71.4
107	3.	1213.99	566.7	69.5
108	2.	1213.99	565.3	67.7
109	1.	1213.99	563.9	65.8
110	1.	1213.98	562.6	64.1
111	0.	1213.98	561.3	62.3
112	0.	1213.98	560.0	60.6
113	0.	1213.98	558.8	58.9
114	0.	1213.97	557.6	57.3
115	0.	1213.97	556.4	55.8
116	0.	1213.97	555.3	54.2
117	0	1213.97	554.2	52.7

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118	0.	1213,96	553,1	51,3
119	0.	1213,96	552,1	49,9
120	0.	1213,96	551,1	48,5
121	0.	1213,96	550,1	47,2
122	0.	1213,95	549,1	45,9
123	0.	1213,95	548,2	44,6
124	0.	1213,95	547,3	43,4
125	0.	1213,95	546,4	42,2
126	0.	1213,95	545,5	41,1
127	0.	1213,94	544,7	39,9
128	0.	1213,94	543,9	38,8
129	0.	1213,94	543,1	37,8
130	0.	1213,94	542,3	36,7
131	0.	1213,94	541,6	35,7
132	0.	1213,94	540,8	34,8
133	0.	1213,93	540,1	33,8
134	0.	1213,93	539,4	32,9
135	0.	1213,93	538,8	32,0
136	0.	1213,93	538,1	31,1
137	0.	1213,93	537,5	30,2
138	0.	1213,93	536,9	29,4
139	0.	1213,93	536,3	28,6
140	0.	1213,93	535,7	27,8
141	0.	1213,92	535,1	27,1
142	0.	1213,92	534,6	26,3
143	0.	1213,92	534,0	25,6
144	0.	1213,92	533,5	24,9
145	0.	1213,92	533,0	24,2
146	0.	1213,92	532,5	23,5
147	0.	1213,92	532,0	22,9
148	0.	1213,92	531,6	22,3
149	0.	1213,92	531,1	21,7
150	0.	1213,91	530,7	21,1
151	0.	1213,91	530,2	20,5
152	0.	1213,91	529,8	19,9
153	0.	1213,91	529,4	19,4
154	0.	1213,91	529,0	18,9
155	0.	1213,91	528,6	18,3
156	0.	1213,91	528,3	17,8
157	0.	1213,91	527,9	17,3
158	0.	1213,91	527,5	16,9
159	0.	1213,91	527,2	16,4
160	0.	1213,91	526,9	16,0
161	0.	1213,91	526,5	15,5
162	0.	1213,90	526,2	15,1
163	0.	1213,90	525,9	14,7
164	0.	1213,90	525,6	14,3
165	0.	1213,90	525,3	13,9
166	0.	1213,90	525,0	13,5
167	0.	1213,90	524,8	13,1
168	0.	1213,90	524,5	12,8
169	0.	1213,90	524,2	12,4
170	0.	1213,90	524,0	12,1
171	0.	1213,90	523,7	11,8
172	0.	1213,90	523,5	11,4
173	0.	1213,90	523,3	11,1
174	0.	1213,90	523,0	10,8
175	0.	1213,90	522,8	10,5
176	0.	1213,90	522,6	10,2
177	0.	1213,90	522,4	9,9
178	0.	1213,90	522,2	9,7
179	0.	1213,90	522,0	9,4
180	0.	1213,89	521,8	9,2
181	0.	1213,89	521,6	8,9
182	0.	1213,89	521,4	8,7
183	0.	1213,89	521,3	8,4

184	0.	1213.89	521.1	8.2
185	0.	1213.89	520.9	8.0
186	0.	1213.89	520.8	7.7
187	0.	1213.89	520.6	7.5
188	0.	1213.89	520.4	7.3
189	0.	1213.89	520.3	7.1
190	0.	1213.89	520.2	6.9

EIR

LOW OVER S.P.R.R LINE-CHRISTMAS BRANCH-GOING TO GILBERT -GILA DRAIN STUDY

RESERVOIR FLOOD ROUTING

S.P.F - FUTURE

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW		Combine at cp
		1209.00	0.0	0.0		
1	13.	1209.13	0.3	0.0		8
2	25.	1209.39	0.8	0.0		13
3	35.	1209.75	1.5	0.0		17
4	44.	1210.02	2.4	0.0		2
5	52.	1210.06	3.5	0.0		25
6	60.	1210.11	4.7	0.0		3
7	68.	1210.16	6.1	0.0		3
8	77.	1210.22	7.7	0.0		44
9	85.	1210.29	9.5	0.0		52
10	93.	1210.36	11.4	0.0		6
11	101.	1210.44	13.5	0.0		6
12	110.	1210.52	15.8	0.0		7
13	119.	1210.58	18.2	0.0		8
14	128.	1210.65	20.9	0.0		9
15	138.	1210.72	23.7	0.0		103
16	147.	1210.79	26.8	0.0		11
17	178.	1210.89	30.4	0.0		13
18	243.	1211.01	35.5	0.0		17
19	276.	1211.12	41.2	0.0		18
20	327.	1211.26	47.9	0.0		19
21	373.	1211.41	55.6	0.0		21
22	380.	1211.53	63.5	0.0		22
23	387.	1211.60	71.5	0.0		249
24	398.	1211.67	79.7	0.0		279
25	413.	1211.75	88.2	0.0		295
26	434.	1211.83	97.2	0.0		202
27	463.	1211.91	106.8	0.0		200
28	506.	1212.00	117.2	0.0		197
29	688.	1212.09	131.4	0.0		271
30	1900.	1212.32	170.7	0.0		276
31	844.	1212.43	188.1	0.0		301
32	1944.	1212.64	228.3	0.0		300
33	1048.	1212.75	249.9	0.0		298
34	1911.	1212.95	289.4	0.0		275
35	1591.	1213.09	322.3	0.0		251
36	2300.	1213.29	369.8	0.0		220
37	2230.	1213.48	415.9	0.0		193
38	2843.	1213.72	474.6	0.0		163
39	2918.	1213.92	534.6	26.4	1387	1413
40	3415.	1214.20	599.8	497.1	1164	1164
41	3557.	1214.37	658.3	957.7	987	1945
42	3977.	1214.52	711.9	1799.1	835	2634
43	4077.	1214.63	750.7	2605.2	721	3326
44	4371.	1214.71	778.9	3410.1	627	4037
45	4431.	1214.76	795.1	3875.4	558	4433
46	4602.	1214.79	806.7	4206.6	504	4710
47	4557.	1214.81	812.3	4370.2	462	4832
48	4583.	1214.81	815.6	4472.9	432	4905
49	4457.	1214.81	815.4	4465.2	409	4874
50	4378.	1214.81	814.0	4423.1	391	4814
51	4184.	1214.80	810.3	4307.8	377	4684

52	4047.	1214,79	806,1	4188,5	367	4556
53	3856.	1214,77	800,8	4036,9	358	4395
54	3732.	1214,76	795,9	3898,0	352	4250
55	3589.	1214,75	791,0	3757,1	347	4104
56	3521.	1214,73	787,2	3649,5	343	3993
57	3465.	1214,73	784,3	3565,4	340	3905
58	3476.	1214,72	782,9	3524,7	334	3859
59	3499.	1214,72	782,5	3513,0	332	3845
60	3576.	1214,72	783,5	3541,7	331	3873
61	3660.	1214,73	785,3	3595,6	329	3925
62	3776.	1214,74	788,2	3677,8	329	4007
63	3884.	1214,75	791,5	3771,8	328	4100
64	4003.	1214,76	795,2	3877,2	328	4205
65	4104.	1214,77	798,8	3980,6	327	4307
66	4197.	1214,78	802,3	4079,2	293	4372
67	4271.	1214,79	805,3	4166,6	222	4389
68	4323.	1214,79	807,8	4237,9	222	4460
69	4351.	1214,80	809,6	4289,4	222	4511
70	4353.	1214,80	810,6	4319,5	222	4542
71	4328.	1214,80	810,8	4323,6	220	4544
72	4276.	1214,80	810,0	4300,6	214	4515
73	4195.	1214,80	808,3	4252,5	200	4452
74	4085.	1214,79	805,7	4176,1	178	4354
75	3948.	1214,78	802,0	4072,2	151	4223
76	3785.	1214,76	797,4	3941,3	126	4067
77	3599.	1214,75	792,0	3785,3	105	3890
78	3394.	1214,73	785,7	3606,9	90	3697
79	3172.	1214,71	778,8	3408,7	80	3489
80	2939.	1214,69	771,3	3194,6	74	3269
81	2698.	1214,67	763,4	2968,3	71	3039
82	2454.	1214,64	755,2	2733,9	68	2802
83	2210.	1214,62	746,8	2495,1	66	2561
84	1971.	1214,60	738,3	2270,1	61	2331
85	1740.	1214,57	729,1	2105,0	55	2160
86	1521.	1214,54	718,9	1923,1	46	1969
87	1317.	1214,51	708,3	1734,3	36	1770
88	1130.	1214,48	697,8	1546,1	27	1573
89	961.	1214,45	687,6	1363,8	18	1382
90	783.	1214,42	677,4	1182,9	12	1195
91	549.	1214,39	666,0	1018,9	7	1026
92	438.	1214,36	654,9	931,7	4	936
93	345.	1214,32	643,7	843,6	3	847
94	268.	1214,29	632,7	757,2	1	758
95	205.	1214,26	622,2	674,2	1	675
96	155.	1214,24	612,3	596,3		
97	115.	1214,21	603,1	524,0		
98	85.	1214,17	595,0	428,6		
99	62.	1214,12	588,4	334,8		
100	44.	1214,09	583,1	260,4		
101	31.	1214,06	579,0	201,7		
102	22.	1214,04	575,8	155,7		
103	15.	1214,02	573,2	119,7		
104	10.	1214,01	571,2	91,6		
105	7.	1214,00	569,7	73,6		
106	5.	1214,00	568,3	71,7		
107	3.	1213,99	566,9	69,8		
108	2.	1213,99	565,5	67,9		
109	1.	1213,99	564,1	66,1		
110	1.	1213,98	562,8	64,3		
111	0.	1213,98	561,5	62,6		
112	0.	1213,98	560,2	60,8		
113	0.	1213,98	559,0	59,2		
114	0.	1213,97	557,8	57,6		
115	0.	1213,97	556,6	56,0		
116	0.	1213,97	555,5	54,4		
117	0.	1213,97	554,4	53,0		

118	0.	1213,96	553,3	51,5
119	0.	1213,96	552,2	50,1
120	0.	1213,96	551,2	48,7
121	0.	1213,96	550,2	47,4
122	0.	1213,95	549,2	46,1
123	0.	1213,95	548,3	44,8
124	0.	1213,95	547,4	43,6
125	0.	1213,95	546,5	42,4
126	0.	1213,95	545,6	41,2
127	0.	1213,95	544,8	40,1
128	0.	1213,94	544,0	39,0
129	0.	1213,94	543,2	37,9
130	0.	1213,94	542,4	36,9
131	0.	1213,94	541,7	35,9
132	0.	1213,94	540,9	34,9
133	0.	1213,94	540,2	33,9
134	0.	1213,93	539,5	33,0
135	0.	1213,93	538,9	32,1
136	0.	1213,93	538,2	31,2
137	0.	1213,93	537,6	30,4
138	0.	1213,93	537,0	29,5
139	0.	1213,93	536,3	28,7
140	0.	1213,93	535,8	27,9
141	0.	1213,92	535,2	27,2
142	0.	1213,92	534,6	26,4
143	0.	1213,92	534,1	25,7
144	0.	1213,92	533,6	25,0
145	0.	1213,92	533,1	24,3
146	0.	1213,92	532,6	23,6
147	0.	1213,92	532,1	23,0
148	0.	1213,92	531,6	22,4
149	0.	1213,92	531,2	21,8
150	0.	1213,91	530,7	21,2
151	0.	1213,91	530,3	20,6
152	0.	1213,91	529,9	20,0
153	0.	1213,91	529,5	19,5
154	0.	1213,91	529,1	18,9
155	0.	1213,91	528,7	18,4
156	0.	1213,91	528,3	17,9
157	0.	1213,91	527,9	17,4
158	0.	1213,91	527,6	16,9
159	0.	1213,91	527,2	16,5
160	0.	1213,91	526,9	16,0
161	0.	1213,91	526,6	15,6
162	0.	1213,90	526,3	15,2
163	0.	1213,90	526,0	14,7
164	0.	1213,90	525,7	14,3
165	0.	1213,90	525,4	13,9
166	0.	1213,90	525,1	13,6
167	0.	1213,90	524,8	13,2
168	0.	1213,90	524,5	12,8
169	0.	1213,90	524,3	12,5
170	0.	1213,90	524,0	12,1
171	0.	1213,90	523,8	11,8
172	0.	1213,90	523,5	11,5
173	0.	1213,90	523,3	11,2
174	0.	1213,90	523,1	10,9
175	0.	1213,90	522,8	10,6
176	0.	1213,90	522,6	10,3
177	0.	1213,90	522,4	10,0
178	0.	1213,90	522,2	9,7
179	0.	1213,90	522,0	9,4
180	0.	1213,89	521,8	9,2
181	0.	1213,89	521,6	8,9
182	0.	1213,89	521,5	8,7
183	0.	1213,89	521,3	8,5

184	0.	1213,89	521,1	8,2
185	0.	1213,89	520,9	8,0
186	0.	1213,89	520,8	7,8
187	0.	1213,89	520,6	7,6
188	0.	1213,89	520,5	7,4
189	0.	1213,89	520,3	7,2
190	0.	1213,89	520,2	7,0

WEIR FLOW OVER SPRR TRACK- BETWEEN WESTERN CANAL AND SUPERSTITION FWY-GILA DRAIN

RESERVOIR FLOOD ROUTING

S.P.F. PRESENT

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1209;00	0,0	0;0
1	1;	1209;00	0,0	0;0
2	1;	1209;00	0,0	0;0
3	1;	1209;00	0,1	0;0
4	1;	1209;00	0,1	0;0
5	1;	1209;00	0,1	0;0
6	2;	1209;00	0,1	0;0
7	2;	1209;01	0,2	0;0
8	3;	1209;01	0,2	0;0
9	4;	1209;01	0,3	0;0
10	5;	1209;01	0,4	0;0
11	6;	1209;02	0,6	0;0
12	8;	1209;02	0,7	0;0
13	9;	1209;03	0,9	0;0
14	10;	1209;04	1,1	0;0
15	12;	1209;05	1,4	0;0
16	13;	1209;05	1,6	0;0
17	14;	1209;06	1,9	0;0
18	15;	1209;07	2,2	0;0
19	16;	1209;09	2,6	0;0
20	626;	1209;51	15,5	0;0
21	1518;	1209;96	46,9	0;0
22	1838;	1210;23	84,8	0;0
23	1884;	1210;49	123,8	0;0
24	1990;	1210;70	164,9	0;0
25	2231;	1210;93	211,0	0;0
26	2560;	1211;16	263,9	0;0
27	2920;	1211;41	324,2	0;0
28	3207;	1211;65	390,5	0;0
29	3359;	1211;88	459,9	0;0
30	3361;	1212;10	529,3	0;0
31	3232;	1212;30	596,1	0;0
32	3010;	1212;46	657,1	116;0
33	2732;	1212;60	709,1	311;1
34	2434;	1212;70	751,0	497;0
35.	2138;	1212;78	781,2	855;1
36	1917;	1212;82	799,4	1225;6
37	2250;	1212;86	816,8	1583;0
38	2375;	1212;89	830,3	1859;3
39	2945;	1212;93	848,9	2238;1
40	3290;	1212;97	866,8	2605;1
41	3826;	1213;02	887,3	3058;6
42	4091;	1213;05	904,3	3482;4
43	4347;	1213;08	918,5	3837;3
44	4470;	1213;10	928,9	4097;1
45	4615;	1213;12	937,4	4309;7
46	4649;	1213;13	943,0	4449;0
47	4710;	1213;14	947,2	4556;1
48	4662;	1213;15	949,0	4599;6
49	4549;	1213;15	948,2	4578;8

50	4419;	1213;14	945,5	4513,2
51	4264;	1213;13	941,4	4410;9
52	4088;	1213;12	936,1	4278;4
53	3905;	1213;11	930,0	4125;1
54	3730;	1213;09	923,5	3962;9
55	3569;	1213;08	917,0	3801;2
56	3440;	1213;07	911,1	3652;9
57	3343;	1213;06	906,0	3525;7
58	3289;	1213;05	902,1	3428;5
59	3272;	1213;04	899,6	3364;3
60	3292;	1213;04	898,4	3334;6
61	3345;	1213;04	898,6	3338;9
62	3422;	1213;04	899,9	3373;0
63	3516;	1213;05	902,3	3431;7
64	3617;	1213;05	905,3	3507;8
65	3720;	1213;06	908,8	3594;9
66	3817;	1213;07	912,4	3686;1
67	3901;	1213;08	916,0	3774;3
68	3969;	1213;08	919,2	3854;2
69	4019;	1213;09	921,9	3921;9
70	4043;	1213;09	923,9	3971;6
71	4045;	1213;10	925,1	4001;7
72	4021;	1213;10	925,4	4009;6
73	3975;	1213;10	924,8	3995;4
74	3904;	1213;09	923,3	3957;9
75	3808;	1213;09	920,9	3896;4
76	3688;	1213;08	917,4	3810;8
77	3545;	1213;07	913,1	3701;7
78	3381;	1213;06	907,8	3570;1
79	3198;	1213;05	901,7	3417;3
80	3000;	1213;03	894,8	3246;0
81	2787;	1213;02	887,3	3057;6
82	2565;	1213;00	879,2	2858;3
83	2336;	1212;98	870,3	2676;1
84	2166;	1212;96	861,6	2498;1
85	1990;	1212;94	852,9	2320;8
86	1801;	1212;92	844,0	2139;5
87	1608;	1212;90	835,0	1954;0
88	1417;	1212;88	825,8	1766;7
89	1235;	1212;86	816,7	1581;2
90	1060;	1212;84	807,9	1399;3
91	978;	1212;82	800,7	1252;3
92	897;	1212;81	794,6	1128;4
93	814;	1212;79	789,2	1018;7
94	732;	1212;78	784,4	918;7
95	653;	1212;77	779,8	826;0
96	578;	1212;76	775,6	739;5
97	509;	1212;75	771,7	659;1
98	406;	1212;74	767,0	604;7
99	318;	1212;73	761,5	567;4
100	248;	1212;71	755,3	525;7
101	193;	1212;70	748,8	484;9
102	149;	1212;68	742,2	455;9
103	115;	1212;66	735,5	426;4
104	88;	1212;65	728,8	397;1
105	73;	1212;63	722,4	369;1
106	71;	1212;62	716,5	343;3
107	70;	1212;60	711,1	319;7
108	68;	1212;59	706,1	297;9
109	66;	1212;58	701,5	277;9
110	64;	1212;57	697,3	259;4
111	62;	1212;56	693,4	242;3
112	61;	1212;55	689,8	226;6
113	59;	1212;54	686,5	212;1
114	57;	1212;53	683,4	198;7
115	56;	1212;53	680,6	186;4

116	54;	1212;52	678,0	174,9
117	53;	1212;51	675,6	164;4
118	51;	1212;51	673,3	154;6
119	50;	1212;50	671,3	145;5
120	49;	1212;50	669,3	138;8
121	47;	1212;49	667,5	135;3
122	46;	1212;49	665,7	132;0
123	45;	1212;48	663,9	128;7
124	43;	1212;48	662,2	125;5
125	42;	1212;47	660,5	122;3
126	41;	1212;47	658,8	119;2
127	40;	1212;46	657,2	116;3
128	39;	1212;46	655,7	113;4
129	38;	1212;45	654,1	110;5
130	37;	1212;45	652,6	107;8
131	36;	1212;45	651,2	105;1
132	35;	1212;44	649,8	102;4
133	34;	1212;44	648,4	99;8
134	33;	1212;43	647,0	97;3
135	32;	1212;43	645,7	94;9
136	31;	1212;43	644,4	92;5
137	30;	1212;42	643,1	90;1
138	29;	1212;42	641,9	87;8
139	29;	1212;42	640,7	85;6
140	28;	1212;41	639,5	83;4
141	27;	1212;41	638,4	81;3
142	26;	1212;41	637,3	79;2
143	26;	1212;40	636,2	77;2
144	25;	1212;40	635,1	75;2
145	24;	1212;40	634,1	72;3
146	23;	1212;40	633,1	69;4
147	23;	1212;39	632,2	66;6
148	22;	1212;39	631,3	63;9
149	22;	1212;39	630,5	61;4
150	21;	1212;39	629,6	58;9
151	20;	1212;39	628,9	56;6
152	19;	1212;38	628,1	54;3
153	19;	1212;38	627,4	52;2
154	19;	1212;38	626,7	50;2
155	18;	1212;38	626,1	48;3
156	18;	1212;38	625,5	46;5
157	17;	1212;38	624,9	44;7
158	17;	1212;37	624,3	43;0
159	16;	1212;37	623,8	41;4
160	16;	1212;37	623,3	39;9
161	16;	1212;37	622,8	38;4
162	15;	1212;37	622,3	37;0
163	15;	1212;37	621,9	35;7
164	14;	1212;37	621,5	34;4
165	14;	1212;37	621,1	33;2
166	13;	1212;37	620,7	32;0
167	13;	1212;36	620,3	30;8
168	12;	1212;36	619,9	29;7
169	12;	1212;36	619,5	28;6
170	12;	1212;36	619,2	27;6
171	11;	1212;36	618,9	26;6
172	11;	1212;36	618,6	25;7
173	11;	1212;36	618,3	24;8
174	10;	1212;36	618,0	23;9
175	10;	1212;36	617,7	23;1
176	10;	1212;36	617,4	22;3
177	9;	1212;36	617,2	21;5
178	9;	1212;36	616,9	20;7
179	9;	1212;36	616,7	20;0
180	9;	1212;36	616,5	19;4
181	8;	1212;35	616,2	18;7

182	8;	1212;35	616,0	18,0
183	8;	1212;35	615,8	17;4
184	8;	1212;35	615,6	16;9
185	8;	1212;35	615,4	16;3
186	8;	1212;35	615,3	15;8
187	7;	1212;35	615,1	15;3
188	7;	1212;35	614,9	14;8
189	7;	1212;35	614,8	14;3
190	7;	1212;35	614,6	13;9
191	0;	1212;35	614,4	13;1
192	0;	1212;35	614,1	12;3
193	0;	1212;35	613,8	11;5
194	0;	1212;35	613,6	10;8
195	0;	1212;35	613,4	10;2
196	0;	1212;35	613,2	9;6
197	0;	1212;35	613,0	9;0
198	0;	1212;35	612,8	8;5
199	0;	1212;35	612,7	8;0
200	0;	1212;35	612,5	7;5
201	0;	1212;35	612,3	7;0
202	0;	1212;35	612,2	6;6
203	0;	1212;34	612,1	6;2
204	0;	1212;34	611,9	5;8
205	0;	1212;34	611,8	5;5
206	0;	1212;34	611,7	5;2
207	0;	1212;34	611,6	4;8
208	0;	1212;34	611,5	4;6
209	0;	1212;34	611,4	4;3
210	0;	1212;34	611,3	4;0
211	0;	1212;34	611,3	3;8
212	0;	1212;34	611,2	3;6
213	0;	1212;34	611,1	3;3
214	0;	1212;34	611,0	3;1
215	0;	1212;34	611,0	2;9
216	0;	1212;34	610,9	2;8
217	0;	1212;34	610,9	2;6
218	0;	1212;34	610,8	2;4
219	0;	1212;34	610,8	2;3
220	0;	1212;34	610,7	2;2
221	0;	1212;34	610,7	2;0
222	0;	1212;34	610,6	1;9
223	0;	1212;34	610,6	1;8
224	0;	1212;34	610,6	1;7
225	0;	1212;34	610,5	1;6
226	0;	1212;34	610,5	1;5
227	0;	1212;34	610,5	1;4
228	0;	1212;34	610,4	1;3
229	0;	1212;34	610,4	1;2
230	0;	1212;34	610,4	1;2
231	0;	1212;34	610,4	1;1
232	0;	1212;34	610,3	1;0
233	0;	1212;34	610,3	1;0
234	0;	1212;34	610,3	0;9
235	0;	1212;34	610,3	0;9
236	0;	1212;34	610,3	0;8
237	0;	1212;34	610,3	0;8
238	0;	1212;34	610,2	0;7
239	0;	1212;34	610,2	0;7
240	0;	1212;34	610,2	0;6
241	0;	1212;34	610,2	0;6
242	0;	1212;34	610,2	0;6
243	0;	1212;34	610,2	0;5
244	0;	1212;34	610,2	0;5
245	0;	1212;34	610,2	0;5
246	0;	1212;34	610,1	0;4
247	0;	1212;34	610,1	0;4

248	0;	1212;34	610,1	0;4
249	0;	1212;34	610,1	0;4
250	0;	1212;34	610,1	0;3
251	0;	1212;34	610,1	0;3
252	0;	1212;34	610,1	0;3
253	0;	1212;34	610,1	0;3
254	0;	1212;34	610,1	0;3
255	0;	1212;34	610,1	0;2
256	0;	1212;34	610,1	0;2
257	0;	1212;34	610,1	0;2
258	0;	1212;34	610,1	0;2
259	0;	1212;34	610,1	0;2
260	0;	1212;34	610,1	0;2
261	0;	1212;34	610,1	0;2
262	0;	1212;34	610,1	0;2
263	0;	1212;34	610,1	0;2
264	0;	1212;34	610,0	0;1
265	0;	1212;34	610,0	0;1
266	0;	1212;34	610,0	0;1
267	0;	1212;34	610,0	0;1
268	0;	1212;34	610,0	0;1
269	0;	1212;34	610,0	0;1
270	0;	1212;34	610,0	0;1
271	0;	1212;34	610,0	0;1
272	0;	1212;34	610,0	0;1
273	0;	1212;34	610,0	0;1
274	0;	1212;34	610,0	0;1
275	0;	1212;34	610,0	0;1
276	0;	1212;34	610,0	0;1
277	0;	1212;34	610,0	0;1
278	0;	1212;34	610,0	0;1
279	0;	1212;34	610,0	0;1
280	0;	1212;34	610,0	0;1

CFS-15min 234460
x. 0207

4853 AC-FT - 610 AC-FT = 4243 ac-FT

WEIR FLOW OVER SPRR TRACK- BETWEEN WESTERN CANAL AND SUPERSTITION FWY-GILA DRAIN

RESERVOIR FLOOD ROUTING

S.P.F - FUTURE

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1209.00	0.0	0.0
1	8.	1209.01	0.2	0.0
2	13.	1209.01	0.4	0.0
3	17.	1209.03	0.8	0.0
4	20.	1209.04	1.2	0.0
5	25.	1209.06	1.7	0.0
6	30.	1209.08	2.3	0.0
7	37.	1209.10	3.1	0.0
8	44.	1209.13	4.0	0.0
9	52.	1209.17	5.1	0.0
10	60.	1209.21	6.3	0.0
11	69.	1209.26	7.7	0.0
12	77.	1209.31	9.3	0.0
13	86.	1209.37	11.1	0.0
14	95.	1209.44	13.1	0.0
15	103.	1209.50	15.2	0.0
16	110.	1209.54	17.5	0.0
17	135.	1209.58	20.3	0.0
18	179.	1209.63	24.0	0.0
19	186.	1209.68	27.8	0.0
20	196.	1209.74	31.9	0.0
21	210.	1209.80	36.2	0.0
22	229.	1209.87	40.9	0.0
23	2491.	1210.28	92.4	0.0
24	2799.	1210.63	150.2	0.0
25	2953.	1210.93	211.2	0.0
26	2025.	1211.12	253.1	0.0
27	2066.	1211.29	295.8	0.0
28	1977.	1211.47	336.6	0.0
29	2710.	1211.66	392.6	0.0
30	2763.	1211.85	449.7	0.0
31	3013.	1212.05	511.9	0.0
32	3009.	1212.23	574.1	0.0
33	2987.	1212.40	635.1	75.1
34	2753.	1212.55	688.9	222.5
35	2518.	1212.66	734.2	421.0
36	2208.	1212.75	769.1	619.0
37	1932.	1212.80	791.6	1067.0
38	1636.	1212.82	801.3	1265.5
39	1413.	1212.83	803.8	1317.0
40	1164.	1212.82	801.2	1263.6
41	1945.	1212.85	812.8	1501.3
42	2634.	1212.89	832.2	1896.5
43	3326.	1212.95	856.5	2395.2
44	4037.	1213.01	884.4	2984.5
45	4433.	1213.06	908.2	3579.1
46	4710.	1213.10	926.7	4043.3
47	4832.	1213.13	939.7	4367.1
48	4905.	1213.15	948.5	4587.9
49	4874.	1213.16	953.2	4705.4

50	4814;	1213;16	955,0	4750;0
51	4684;	1213;16	953,9	4722;9
52	4556;	1213;15	951,2	4654;4
53	4395;	1213;14	946,9	4547;9
54	4250;	1213;13	942,0	4425;6
55	4104;	1213;12	936,7	4293;6
56	3993;	1213;11	931,8	4170;2
57	3905;	1213;10	927,5	4061;3
58	3859;	1213;09	924,1	3978;3
59	3845;	1213;09	921,9	3923;6
60	3873;	1213;09	921,1	3902;8
61	3925;	1213;09	921,5	3911;9
62	4007;	1213;09	923,0	3950;9
63	4100;	1213;10	925,5	4012;1
64	4205;	1213;10	928,7	4091;3
65	4307;	1213;11	932,2	4179;9
66	4372;	1213;12	935,3	4258;7
67	4389;	1213;12	937,5	4312;2
68	4460;	1213;13	939,9	4372;9
69	4511;	1213;13	942,2	4429;6
70	4542;	1213;14	944,0	4475;7
71	4544;	1213;14	945,2	4503;8
72	4515;	1213;14	945,3	4508;4
73	4452;	1213;14	944,4	4485;2
74	4354;	1213;13	942,3	4431;4
75	4223;	1213;13	938,8	4345;8
76	4067;	1213;12	934,3	4231;4
77	3890;	1213;10	928,6	4091;2
78	3697;	1213;09	922,2	3929;4
79	3489;	1213;07	914,9	3748;6
80	3269;	1213;06	907,1	3551;7
81	3039;	1213;04	898,6	3341;2
82	2802;	1213;02	889,8	3119;9
83	2561;	1213;00	880,6	2890;5
84	2331;	1212;98	871,1	2692;9
85	2160;	1212;96	862,0	2507;0
86	1969;	1212;94	852,8	2319;3
87	1770;	1212;92	843,5	2127;7
88	1573;	1212;90	834,0	1934;1
89	1382;	1212;87	824,6	1741;5
90	1195;	1212;85	815,3	1550;8
91	1026;	1212;83	806,3	1367;7
92	936;	1212;82	798,9	1217;1
93	847;	1212;80	792,6	1088;0
94	758;	1212;79	787,0	972;8
95	675;	1212;78	781,9	868;9
96	596;	1212;77	777,3	773;7
97	524;	1212;76	773,0	686;6
98	429;	1212;75	768,4	614;4
99	335;	1212;73	763,0	578;0
100	260;	1212;72	756,9	536;5
101	202;	1212;70	750,4	492;9
102	156;	1212;68	743,8	462;8
103	120;	1212;67	737,0	433;2
104	92;	1212;65	730,3	403;7
105	74;	1212;63	723,7	375;1
106	72;	1212;62	717,8	348;9
107	70;	1212;61	712,2	324;8
108	68;	1212;59	707,2	302;6
109	66;	1212;58	702,5	282;1
110	64;	1212;57	698,2	263;3
111	63;	1212;56	694,2	245;9
112	61;	1212;55	690,6	230;0
113	59;	1212;54	687,2	215;2
114	58;	1212;54	684,1	201;6
115	56;	1212;53	681,2	189;0

116	54;	1212;52	678,5	177,3
117	53;	1212;52	676,1	166,6
118	52;	1212;51	673,8	156,7
119	50;	1212;50	671,7	147,4
120	49;	1212;50	669,7	139,5
121	47;	1212;49	667,9	136,0
122	46;	1212;49	666,0	132,7
123	45;	1212;48	664,3	129,4
124	44;	1212;48	662,5	126,1
125	42;	1212;47	660,8	123,0
126	41;	1212;47	659,2	119,9
127	40;	1212;46	657,6	116,9
128	39;	1212;46	656,0	113,9
129	38;	1212;46	654,4	111,1
130	36;	1212;45	652,9	108,3
131	35;	1212;45	651,4	105,5
132	34;	1212;44	650,0	102,8
133	33;	1212;44	648,6	100,2
134	32;	1212;43	647,2	97,6
135	31;	1212;43	645,8	95,1
136	30;	1212;43	644,5	92,7
137	30;	1212;42	643,2	90,3
138	29;	1212;42	642,0	88,0
139	28;	1212;42	640,8	85,7
140	27;	1212;41	639,6	83,5
141	26;	1212;41	638,4	81,4
142	26;	1212;41	637,3	79,3
143	25;	1212;40	636,2	77,2
144	24;	1212;40	635,1	75,2
145	24;	1212;40	634,1	72,3
146	23;	1212;40	633,1	69,3
147	22;	1212;39	632,2	66,5
148	22;	1212;39	631,3	63,8
149	21;	1212;39	630,4	61,2
150	21;	1212;39	629,6	58,8
151	20;	1212;39	628,8	56,5
152	20;	1212;38	628,1	54,3
153	19;	1212;38	627,4	52,2
154	18;	1212;38	626,7	50,1
155	18;	1212;38	626,1	48,2
156	17;	1212;38	625,4	46,3
157	17;	1212;38	624,8	44,5
158	17;	1212;37	624,3	42,9
159	16;	1212;37	623,8	41,3
160	16;	1212;37	623,2	39,7
161	15;	1212;37	622,8	38,3
162	15;	1212;37	622,3	36,9
163	14;	1212;37	621,8	35,5
164	14;	1212;37	621,4	34,2
165	14;	1212;37	621,0	33,0
166	13;	1212;37	620,6	31,8
167	13;	1212;36	620,2	30,7
168	13;	1212;36	619,9	29,6
169	12;	1212;36	619,5	28,5
170	12;	1212;36	619,2	27,5
171	12;	1212;36	618,9	26,6
172	11;	1212;36	618,6	25,7
173	11;	1212;36	618,3	24,8
174	11;	1212;36	618,0	24,0
175	10;	1212;36	617,7	23,1
176	10;	1212;36	617,4	22,3
177	9;	1212;36	617,2	21,5
178	9;	1212;36	616,9	20,8
179	9;	1212;36	616,7	20,1
180	9;	1212;36	616,5	19,4
181	8;	1212;35	616,2	18,7

182	8;	1212;35	616,0	18;1
183	8;	1212;35	615,8	17;5
184	8;	1212;35	615,6	16;9
185	8;	1212;35	615,5	16;4
186	7;	1212;35	615,3	15;8
187	7;	1212;35	615,1	15;3
188	7;	1212;35	614,9	14;8
189	7;	1212;35	614,8	14;3
190	7;	1212;35	614,6	13;9
191	0;	1212;35	614,3	13;0
192	0;	1212;35	614,1	12;2
193	0;	1212;35	613,8	11;5
194	0;	1212;35	613,6	10;8
195	0;	1212;35	613,4	10;2
196	0;	1212;35	613,2	9;6
197	0;	1212;35	613,0	9;0
198	0;	1212;35	612,8	8;4
199	0;	1212;35	612,6	7;9
200	0;	1212;35	612,5	7;5
201	0;	1212;35	612,3	7;0
202	0;	1212;35	612,2	6;6
203	0;	1212;34	612,1	6;2
204	0;	1212;34	611,9	5;8
205	0;	1212;34	611,8	5;5
206	0;	1212;34	611,7	5;1
207	0;	1212;34	611,6	4;8
208	0;	1212;34	611,5	4;5
209	0;	1212;34	611,4	4;3
210	0;	1212;34	611,3	4;0
211	0;	1212;34	611,3	3;8
212	0;	1212;34	611,2	3;5
213	0;	1212;34	611,1	3;3
214	0;	1212;34	611,0	3;1
215	0;	1212;34	611,0	2;9
216	0;	1212;34	610,9	2;8
217	0;	1212;34	610,9	2;6
218	0;	1212;34	610,8	2;4
219	0;	1212;34	610,8	2;3
220	0;	1212;34	610,7	2;2
221	0;	1212;34	610,7	2;0
222	0;	1212;34	610,6	1;9
223	0;	1212;34	610,6	1;8
224	0;	1212;34	610,6	1;7
225	0;	1212;34	610,5	1;6
226	0;	1212;34	610,5	1;5
227	0;	1212;34	610,5	1;4
228	0;	1212;34	610,4	1;3
229	0;	1212;34	610,4	1;2
230	0;	1212;34	610,4	1;2
231	0;	1212;34	610,4	1;1
232	0;	1212;34	610,3	1;0
233	0;	1212;34	610,3	1;0
234	0;	1212;34	610,3	0;9
235	0;	1212;34	610,3	0;9
236	0;	1212;34	610,3	0;8
237	0;	1212;34	610,3	0;8
238	0;	1212;34	610,2	0;7
239	0;	1212;34	610,2	0;7
240	0;	1212;34	610,2	0;6
241	0;	1212;34	610,2	0;6
242	0;	1212;34	610,2	0;6
243	0;	1212;34	610,2	0;5
244	0;	1212;34	610,2	0;5
245	0;	1212;34	610,2	0;5
246	0;	1212;34	610,1	0;4
247	0;	1212;34	610,1	0;4

248	0;	1212;34	610,1	0;4
249	0;	1212;34	610,1	0;4
250	0;	1212;34	610,1	0;3
251	0;	1212;34	610,1	0;3
252	0;	1212;34	610,1	0;3
253	0;	1212;34	610,1	0;3
254	0;	1212;34	610,1	0;3
255	0;	1212;34	610,1	0;2
256	0;	1212;34	610,1	0;2
257	0;	1212;34	610,1	0;2
258	0;	1212;34	610,1	0;2
259	0;	1212;34	610,1	0;2
260	0;	1212;34	610,1	0;2
261	0;	1212;34	610,1	0;2
262	0;	1212;34	610,1	0;2
263	0;	1212;34	610,1	0;2
264	0;	1212;34	610,0	0;1
265	0;	1212;34	610,0	0;1
266	0;	1212;34	610,0	0;1
267	0;	1212;34	610,0	0;1
268	0;	1212;34	610,0	0;1
269	0;	1212;34	610,0	0;1
270	0;	1212;34	610,0	0;1

CFS-15min 239444
x.0207
4965AC-FT — 610AC-FT = 4355

SUBJECT: GILA FLOODWAY - OVERFLOW ANALYSIS	COMPUTED BY: D. J. G.	DATE: 11/5/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

VALUES USED FOR WEIR FLOW
OVER S.P.R.R. BRANCH TO CHANDLER

ELEVATION	STORAGE	DISCHARGE
1209	0	0
1209.5	15	0
1210	50	0
1210.5	125	0
1211.	225	0
1211.5	345	0
1212.	495	0
1212.34	610	0
1212.4	635	75
1212.5	670	140
1212.7	750	490
1212.75	770	625
1213.	880	2875
1213.5	1115	8750
1213.7	1215	12156
1214.	1375	18000
1214.5	1650	33750
1214.7	1770	44390

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

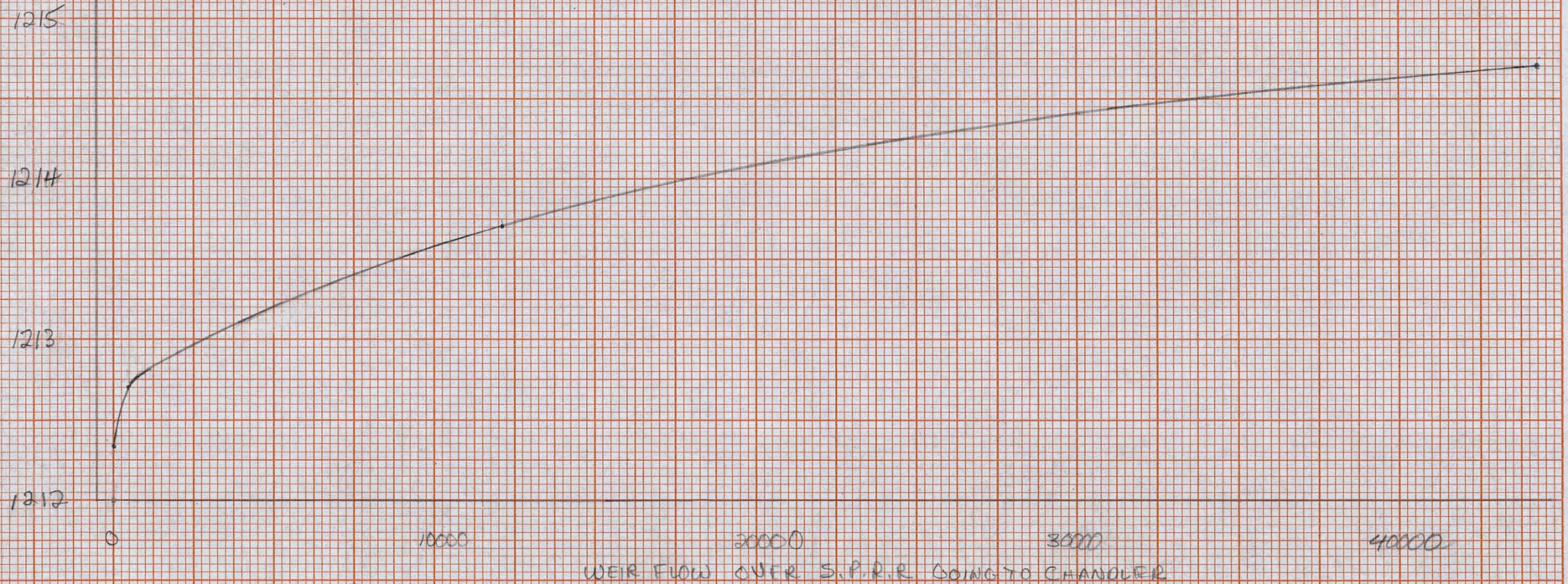
ELEVATION 1212.7 $Q = 2.6(.065)2900 = 490$ CFS

1213.7 $Q_1 = 2.6(.87)(5165) = 11683$

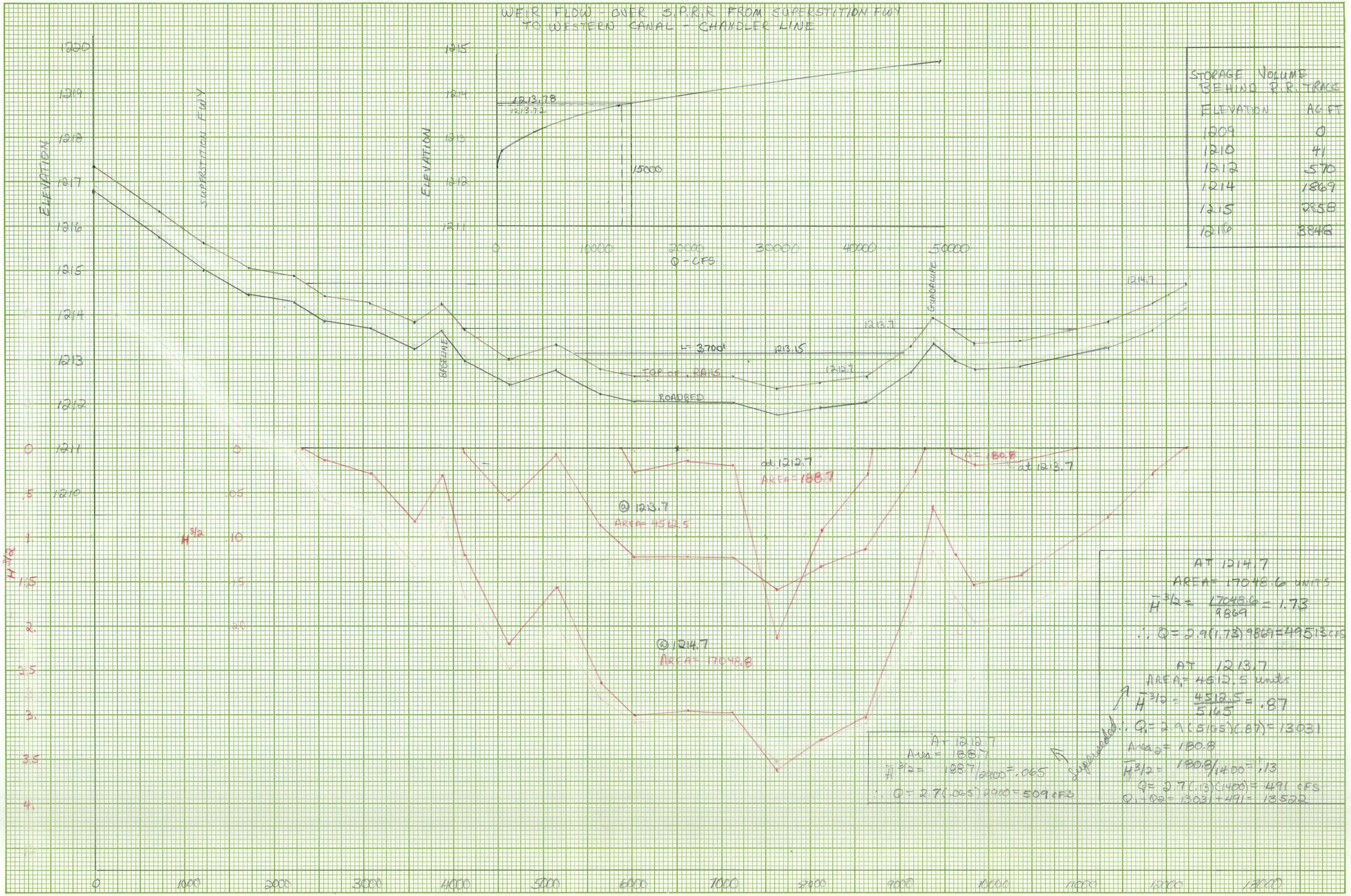
$Q_2 = 2.6(.13)(1400) = 473$

$Q_{TOTAL} = 12156$

1214.7 $Q = 2.6(1.73)(9869) = 44390$



WEIR FLOW OVER S.P.R.R. GOING TO CHANDLER



STORAGE VOLUME BEHIND R.R. TRACKS

ELEVATION	AC FT
1209	0
1210	41
1212	570
1214	1869
1215	2858
1216	3848

K+E 10 X 10 TO ½ INCH 47 1320
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

SUBJECT	DATE	PAGE
GILA FLOODWAY - [illegible] R	9/6/75	OF PAGES

SOURCE OF DATA: SURVEY OF APRIL 1970 - CLOSE ENGINEERS - PROFILE OF S.P.R.R - SUPERSTITION FWY WESTERN CANAL CHANDLER LINE

COMPUTED BY	CHECKED BY	SECTION

		① STATION	② BED ELEVATION	③ RAIL ELEVATION ②+.581	④ H_1 = 1214.7 - ③	⑤ H_2 = 1213.7 - ③	⑥ H_3 = 1212.7 - ③	⑦ $(H_1)^{3/2}$	⑧ $(H_2)^{3/2}$	⑨ $(H_3)^{3/2}$
		0+00	1216.77	1217.35	—	—	—	—	—	—
		7+44	1215.76	1216.34	—	—	—	—	—	—
		12+05	1215.03	1215.61	—	—	—	—	—	—
		17+40	1214.47	1215.05	—	—	—	—	—	—
		22+40	1214.31	1214.89	—	—	—	—	—	—
		25+56	1213.84	1214.42	.28	—	—	.1482	—	—
		30+69	1213.70	1214.28	.42	—	—	.2722	—	—
		35+35	1213.24	1213.82	.88	—	—	.8255	—	—
		38+70	1213.67	1214.25	.45	—	—	.3019	—	—
		41+30	1212.99	1213.57	1.13	.13	—	1.2012	.0469	—
		46+34	1212.93	1213.01	1.69	.69	—	2.197	.5732	—
		51+49	1212.77	1213.55	1.15	.15	—	1.2332	.0581	—
		56+49	1212.21	1212.79	1.91	.91	—	2.64	.8681	—
		61+07	1212.04	1212.62	2.08	1.08	.08	3.0	1.1224	.0226
		66+13	1212.06	1212.64	2.06	1.06	.06	2.957	1.0913	.0147
		71+14	1212.05	1212.63	2.07	1.07	.07	2.978	1.1068	.0185
		76+11	1211.76	1212.34	2.36	1.36	.36	3.626	1.586	.2160
		81+14	1211.91	1212.49	2.21	1.21	.21	3.285	1.331	.0926
		86+26	1212.03	1212.61	2.09	1.09	.09	3.022	1.138	.0270
		91+15	1212.72	1213.3	1.40	.4	—	1.6565	.253	—
		93+27	1213.37	1213.95	.75	—	—	.6495	—	—
		96+16	1212.99	1213.57	1.13	.13	—	1.2012	.0469	—

WES FORM NO. 1114
JANUARY 1961

SUBJECT		DATE	PAGE OF PAGES
SOURCE OF DATA			
COMPUTED BY	CHECKED BY	SECTION	

		① STATION	② BED ELEVATION	③ RAIL ELEVATION ②+.581	④ H_1 1214.7 − ③	⑤ H_2 1213.7 − ③	⑥ H_3 1212.7 − ③	⑦ $(H_1)^{3/2}$	⑧ $(H_2)^{3/2}$	⑨ $(H_3)^{3/2}$
		1034+48	1212.79	1213.37	1.33	.33	—	1.5338	.1896	—
		108+56	1212.85	1213.43	1.27	.27	—	1.4312	.1403	—
		113+56	1213.26	1213.84	.86	—	—	.7975	—	—
		118+52	1213.68	1214.26	.44	—	—	.2919	—	—
		122+19	1214.12	1214.70	0	—	—	0	—	—

SUBJECT: GILA FLOODWAY | DATE: 8/7/75 | PAGE OF PAGES

SOURCE OF DATA: SURVEY OF APRIL, 1970 - CLOUSE ENGINEERS - PROFILE OF S.P.R.R. FROM SUPERSTITION FWY TO GILBERT RD. - CHRISTMAS LINE

COMPUTED BY | CHECKED BY | SECTION

		① STATION	② BED ELEV.	③ = .58+② RAIL ELEV.	ELEV 1214 - ③	ELEV 1214.5 - ③	ELEV 1215 - ③	ELEV. 1215.5 - ③	ELEV. 1216 - ③
		0+00	1237.97	1238.55					
		4+85	1236.96	1237.48					
		10+00	1236.08	1236.66					
		15+05	1235.15	1235.73					
		19+95	1234.43	1235.01					
		24+80	1233.44	1234.02					
		29+90	1232.38	1232.96					
		34+90	1231.37	1231.95					
		39+98	1230.47	1231.05					
		46+06	1229.24	1229.82					
		50+02	1227.70	1228.28					
		54+85	1226.40	1226.98					
		59+98	1225.39	1225.97					
		62+54	1224.14	1224.72					
		67+49	1223.49	1224.07					
		72+49	1222.77	1223.35					
		77+62	1221.79	1222.37					
		82+65	1220.84	1221.42					
		87+68	1219.89	1220.47					
		92+57	1218.96	1219.54					
		97+68	1217.97	1218.55					
		102+54	1216.96	1217.54					
		107+47	1215.86	1216.44					
		112+54	1215.18	1215.76					.24
		117+40	1215.27	1215.85					.15
		122+45	1215.18	1215.76					.24
		127+34	1214.97	1215.55					.45
		132+36	1214.52	1215.10				.4	.96
		137+26	1213.62	1214.20		.3	.8	1.3	1.80
		142+34	1213.48	1214.06		.44	.94	1.44	1.94
		147+28	1213.80	1214.38		.12	.62	1.12	1.62
		152+19	1213.45	1214.03		.47	.97	1.47	1.97
		162+27	1213.30	1213.88	.12	.62	1.12	1.62	2.12
		167+30	1213.79	1214.37		.13	.63	1.13	1.63
	TRACK INTERSECTION	168+52	1213.84	1214.42		.08	.58	1.08	1.58
		173+54	1214.31	1214.89		Σ=2.16	.11	.61	1.11
		178+81	1214.47	1215.05			Σ=5.77	.45	.95
		181+25	1215.03	1215.61				Σ=10.62	.39
		186+04	1215.76	1216.34					Σ=17.09
		199+86	1216.77	1217.35					
				AVG. H	.12	.31	.72	1.06	1.14

WES FORM NO. 1114
JANUARY 1961

SUBJECT: GILA FLOODWAY SPF ANALYSIS PONDING AREA AT JUNCTION OF R.R.'S	COMPUTED BY: DJG	DATE: 10/16/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

VALUES USED FOR WEIR

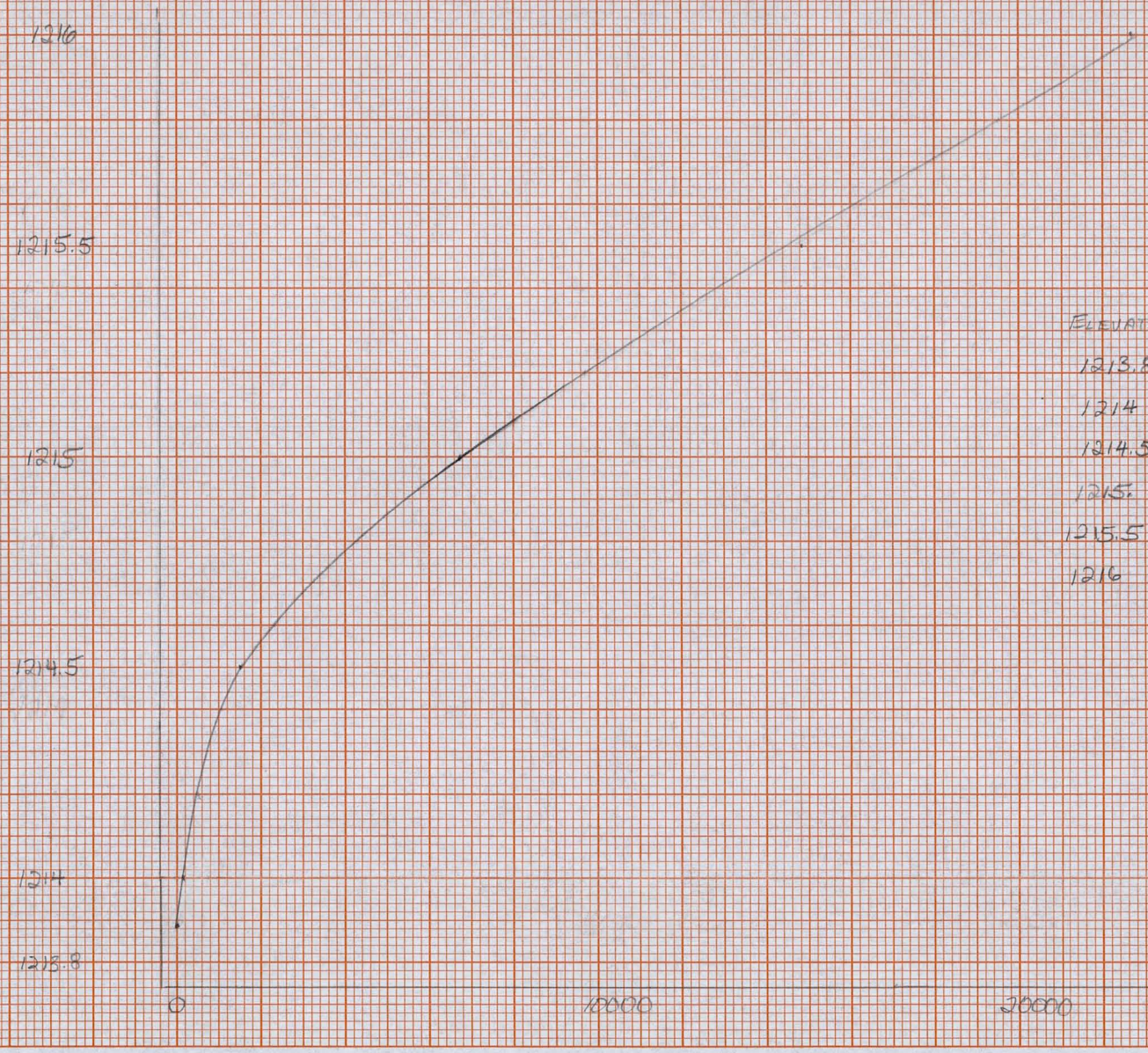
ROUTING OVER S.P.R.R - CHRISTMAS BRANCH - GOING TO GILBERT

ELEVATION	STORAGE	OUTFLOW
1209	0	0
1210	2	0
1210.5	15	0
1211	35	0
1211.5	60	0
1212	117	0
1212.5	200	0
1213	300	0
1213.5	420	0
1213.88	515	0
1214	570	74
1214.2	600	500
1214.4	670	1050
1214.6	740	2300
1214.8	810	4300
1215	890	6762
1215.2	975	9700
1215.4	1060	12800
1215.6	1160	16100
1215.8	1275	18500
1216	1426	22673

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1323

WEIR FLOW OVER S.P.R.R. CHRISTMAS BRANCH

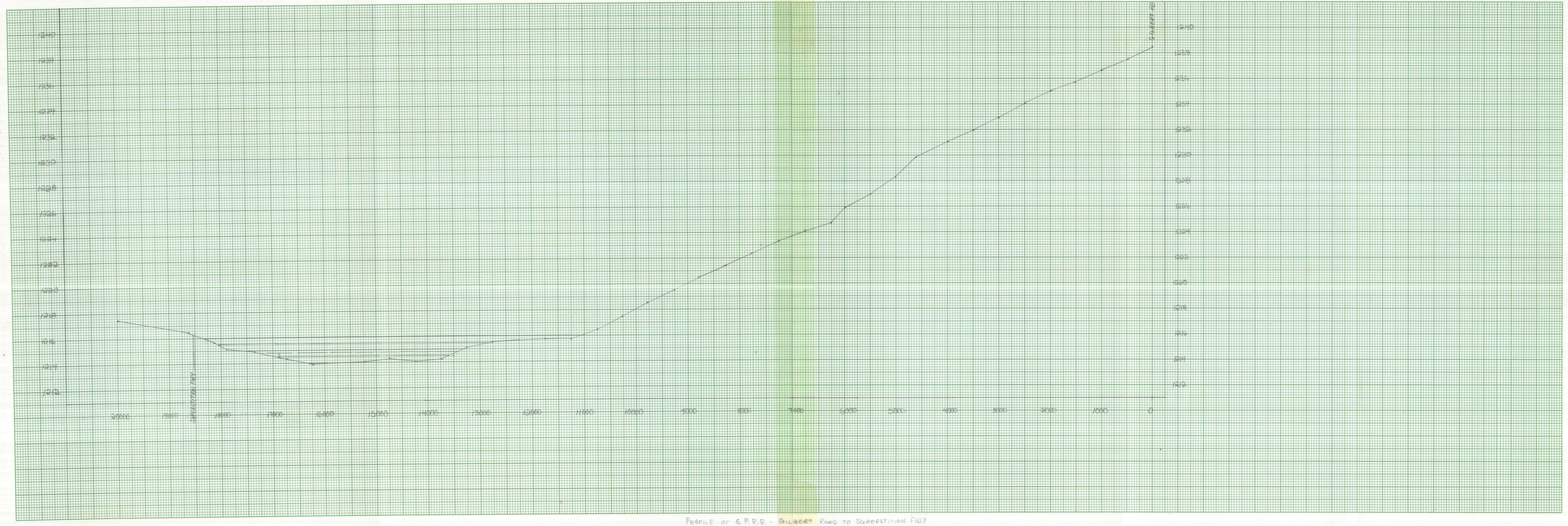


$Q = CLH^{3/2}$ $C = 2.6$

WEIR CALCULATIONS

ELEVATION	H	$H^{3/2}$	L	$CLH = Q$
1213.86	0	0	0	0
1214	.12	.0416	630	74
1214.5	.31	.1726	3340	1500
1215.	.73	.6237	4170	6762
1215.5	1.06	1.0913	5220	14811
1216	1.13	1.2012	7260	22673

DJG 10/16/75



PROFILE OF S.P.R.R. - GILBERT ROAD TO SUPERSTITION FWY

47 1320
KE 10 X 10 TO 1/4 INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4162.	1654.	433.	260.

VALUE OF OUTFLOW INTERVAL
15 15 15

SPF Present Cond.

COMBINED HYDROGRAPH
AT 1223 NQ= 160 15-MIN INTRVL

2.	5.	7.	10.	13.	16.	18.	21.	24.	26.
28.	30.	33.	35.	36.	38.	43.	61.	283.	1685.
3496.	4198.	4203.	4105.	4061.	4102.	4295.	4562.	4811.	4972.
5024.	4968.	4831.	4641.	4423.	4192.	3955.	3711.	3460.	3202.
2937.	2672.	2409.	2154.	1912.	1686.	1479.	1293.	1125.	977.
847.	733.	634.	548.	473.	409.	353.	305.	263.	227.
196.	169.	146.	127.	110.	95.	81.	66.	56.	48.
41.	35.	29.	25.	21.	17.	14.	12.	10.	8.
7.	5.	4.	3.	2.	2.	1.	1.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	5024.	3974.	1171.	702.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1201	2153.	908.	237.	142.
ROUTED TO	1211	1579.	874.	237.	142.
HYDROGRAPH AT	1211	2596.	1076.	280.	168.
2 COMBINED	1211	2600.	1870.	517.	310.
ROUTED TO	1223	2263.	1787.	517.	310.
HYDROGRAPH AT	1210	2354.	866.	221.	133.
ROUTED TO	1223	1626.	840.	221.	133.
HYDROGRAPH AT	1223	4162.	1654.	433.	260.
3 COMBINED	1223	5024.	3974.	1171.	702.

15 15 15 15

COMBINED HYDROGRAPH
AT 1223 NQ= 160 15-MIN INTRVL SPF Future Cond.

9.	22.	33.	42.	52.	63.	73.	84.	95.	103.
113.	121.	131.	139.	149.	155.	211.	384.	387.	392.
405.	450.	2438.	5090.	4876.	4708.	4786.	4984.	5160.	5242.
5220.	5094.	4959.	4768.	4545.	4309.	4068.	3824.	3577.	3325.
3071.	2816.	2567.	2324.	2097.	1886.	1693.	1518.	1363.	1227.
1107.	1003.	913.	835.	765.	708.	658.	616.	579.	547.
372.	146.	126.	108.	93.	80.	68.	58.	50.	42.
36.	30.	25.	22.	18.	16.	13.	11.	10.	8.
7.	5.	4.	3.	2.	2.	1.	1.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	5242.	3989.	1190.	714.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1201	2153.	908.	237.	142.
ROUTED TO	1211	1579.	874.	237.	142.
HYDROGRAPH AT	1211	2965.	1166.	304.	182.
2 COMBINED	1211	2969.	1955.	541.	325.
ROUTED TO	1223	2400.	1870.	541.	325.
HYDROGRAPH AT	1210	2775.	972.	250.	150.
ROUTED TO	1223	1883.	951.	250.	150.
HYDROGRAPH AT	12231	2419.	554.	139.	83.
HYDROGRAPH AT	12232	2217.	697.	260.	156.
4 COMBINED	1223	5242.	3989.	1190.	714.

LOCI	NQI	RATIO	IAVMO	NHGT	AVGUO	LNGTH	CONS		
1224	70	-0.00	-0	2	-0.	-0	-0.		
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	125.	1094.
2368.	2821.	2722.	2474.	2164.	1814.	1510.	1252.	1037.	859.
712.	589.	488.	404.	335.	277.	230.	190.	158.	131.
108.	90.	74.	61.	51.	42.	35.	29.	24.	20.
16.	14.	11.	9.	8.	6.	5.	4.	-0.	-0.
-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	2821.	998.	254.	152.

VALUE OF OUTFLOW INTERVAL
15 15

SPF Present Cond.

COMBINED HYDROGRAPH
AT 1224 NQ= 160 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	125.	1101.
2420.	3030.	3281.	3582.	3918.	4165.	4303.	4308.	4215.	4090.
3995.	3972.	4038.	4177.	4359.	4544.	4697.	4786.	4798.	4725.
4572.	4354.	4085.	3782.	3462.	3138.	2822.	2521.	2239.	1981.
1747.	1537.	1350.	1184.	1038.	908.	795.	696.	606.	531.
465.	407.	357.	312.	274.	240.	210.	184.	161.	141.
123.	108.	93.	81.	70.	61.	53.	46.	40.	35.
30.	26.	22.	19.	16.	14.	11.	9.	7.	6.
5.	4.	3.	2.	1.	1.	1.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4798.	4140.	1350.	810.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1202	2073.	943.	251.	150.
ROUTED TO	1212	1445.	888.	251.	150.
HYDROGRAPH AT	1203	2182.	977.	259.	155.
ROUTED TO	1212	1633.	935.	259.	155.

VALUE OF OUTFLOW INTERVAL
15 15 15 15

5 Future Cond.

COMBINED HYDROGRAPH

AT 1224	NQ= 160	15-MIN INTRVL							
10.	19.	27.	35.	43.	53.	64.	75.	86.	96.
106.	116.	125.	135.	143.	150.	193.	278.	285.	314.
421.	700.	4327.	5630.	4725.	5963.	4856.	5756.	4772.	4717.
4273.	4483.	4067.	4478.	4395.	4760.	4740.	4920.	4856.	4854.
4647.	4463.	4182.	3903.	3574.	3271.	2950.	2662.	2382.	2134.
1902.	1697.	1515.	1354.	1211.	1086.	976.	880.	796.	722.
658.	423.	347.	304.	266.	233.	203.	177.	155.	135.
118.	103.	90.	79.	69.	60.	53.	46.	40.	35.
30.	26.	22.	19.	16.	14.	11.	9.	7.	6.
5.	4.	3.	2.	1.	1.	1.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	5963.	4609.	1460.	876.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1202	2073.	943.	251.	150.
ROUTED TO	1212	1445.	888.	251.	150.
HYDROGRAPH AT	1203	2182.	977.	259.	155.
ROUTED TO	1212	1633.	935.	259.	155.
HYDROGRAPH AT	1204	1900.	773.	200.	120.
ROUTED TO	1212	1349.	743.	200.	120.
HYDROGRAPH AT	1212	4788.	1807.	472.	285.
4 COMBINED	1212	4891.	3948.	1181.	709.
ROUTED TO	1224	4649.	3811.	1182.	709.
HYDROGRAPH AT	12241	2152.	685.	180.	108.
ROUTED TO	1224	2541.	393.	98.	59.
HYDROGRAPH AT	12242	2152.	685.	180.	108.
ROUTED TO	1224	2258.	506.	180.	108.
HYDROGRAPH AT	1224	0.	0.	0.	0.
4 COMBINED	1224	5963.	4609.	1460.	876.

SUBJECT		DATE	PAGE
GILA FLOODWAY - WEIR FLOW OVER S.P.R.R.		10/17/75	OF PAGES
SOURCE OF DATA	THRU CHANDLER - S.P.F. SUBAREA 223		
COMPUTED BY DJG	CHECKED BY	SECTION A INVESTIGATION	

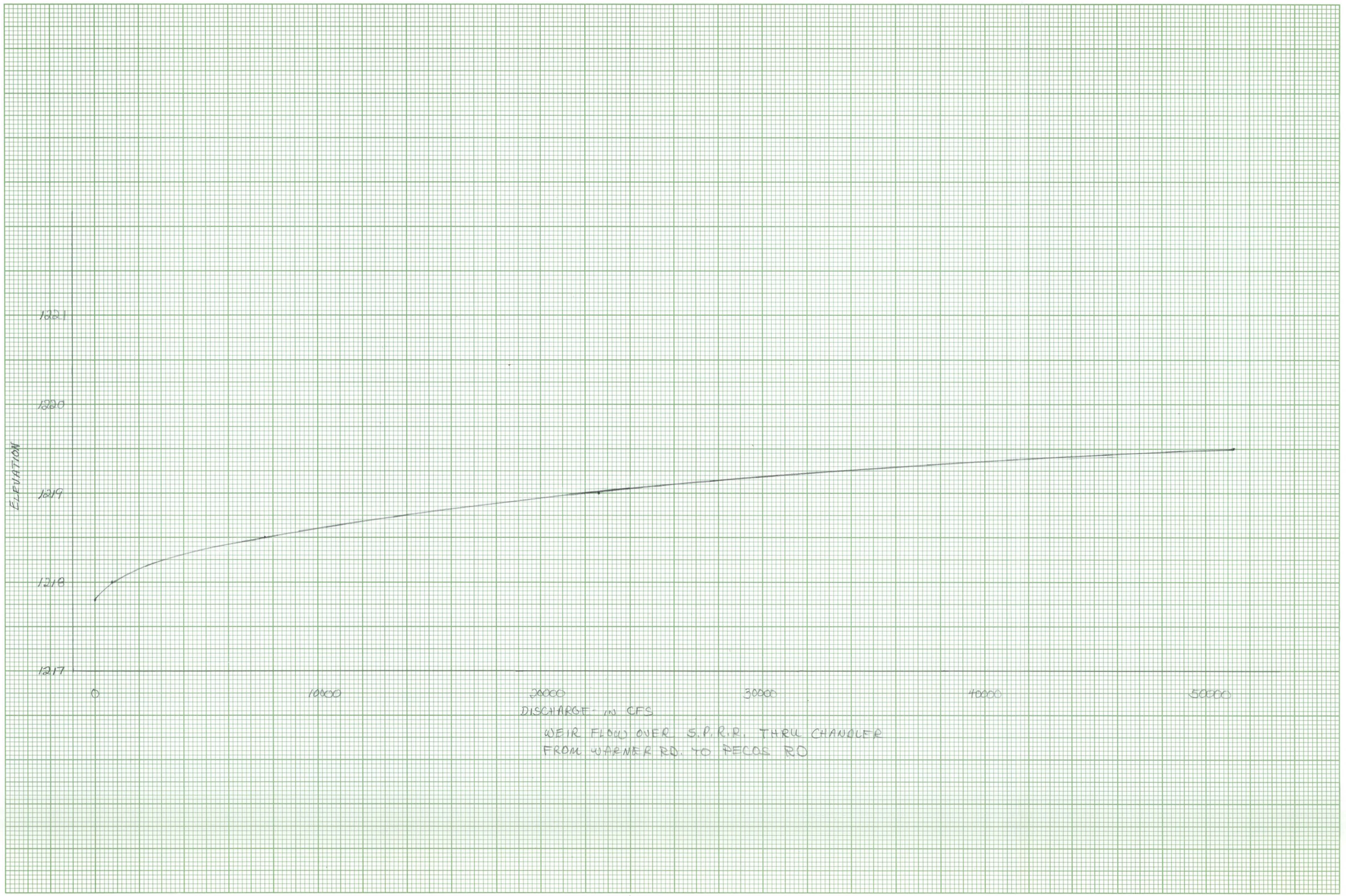
	(1) LOCATION	(2) STATION	(3) ELEVATION	1218 - (3)	1218.5 - (3)	1219 - (3)	1219.5 - (3)	1220 - (3)	1220.5 (3)
	WESTERN CANAL	10	1214						
	ELIOT RD	2640	1217						
BOUNDARY									
	WARNER RD	7920	1220.5						
	KNOX RD	10800	1218.4		.1	.6	1.1	1.6	2.1
223	RAY RD	13460	1218.3		.2	.7	1.2	1.7	2.2
	GALVESTON RD	16080	1218.5		0	.5	1	1.5	2.0
subarea	WILLIAMS FIELD RD	18700	1217.8	.2	.7	1.2	1.7	2.2	2.7
	FRYE RD	21320	1218		.5	1	1.5	2.0	2.5
	PECOS RD	24040	1221.6						
	WILLIS RD	26780	1222.8						
	GERMANN RD	29400	1221						
	SANTAN RD	34680	1224						
				Σ=.2	Σ .3/1.2	Σ=4.00	Σ=6.5	Σ=9.00	Σ=11.50
			AVERAGE H	.2	.15/.6	.8	1.3	1.8	2.3
			LENGTH	3400	5400/5670	12150	13300	14450	15110
			$H^{5/2}$	.0894	.0581/.4648	.7155	1.4822	2.415	3.488
			$Q = CLH^{5/2}$	790	815/6851	22603	51254	90732	137030
			C=2.6						
			TOTAL Q	790	7666	22603	51254	90732	137030

SUBJECT: GILA FLOODWAY SPF INUNDATION THRU CHANDLER - SUBAREA 223	COMPUTED BY: DJG	DATE: 10/17/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

VALUES USED FOR WEIR FLOW - SUBAREA 223

ELEVATION	STORAGE	DISCHARGE
1214	0	0
1214.5	1	0
1215.	2.2	0
1215.5	25	0
1216.	58	0
1216.5	130	0
1217.	223	0
1217.5	365	0
1217.8	460	0
1218	523	790
1218.2	610	2600
1218.4	690	5500
1218.6	780	10000
1218.8	870	15000
1219.	961	22603
1219.2	1065	30200
1219.4	1175	44000
1220.	1524	137000

47 1320
10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



R FLOW OVER S.P.R.R. GOING THRU CHANDLER-FROM WARNER RD TO PECOS RD. DJG1075

SUBAREA 223

RESERVOIR FLOOD ROUTING — PRESENT CONDITIONS

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1214.00	0.0	0.0
1	2.	1214.02	0.0	0.0
2	5.	1214.07	0.1	0.0
3	7.	1214.14	0.3	0.0
4	10.	1214.25	0.5	0.0
5	13.	1214.38	0.8	0.0
6	16.	1214.54	1.1	0.0
7	18.	1214.69	1.5	0.0
8	21.	1214.88	1.9	0.0
9	24.	1215.00	2.4	0.0
10	26.	1215.02	2.9	0.0
11	28.	1215.03	3.5	0.0
12	30.	1215.04	4.1	0.0
13	33.	1215.06	4.8	0.0
14	35.	1215.07	5.5	0.0
15	36.	1215.09	6.3	0.0
16	38.	1215.11	7.1	0.0
17	43.	1215.13	8.0	0.0
18	61.	1215.15	9.2	0.0
19	283.	1215.28	15.1	0.0
20	1685.	1215.88	49.9	0.0
21	3496.	1216.45	122.1	0.0
22	4198.	1216.92	208.8	0.0
23	4203.	1217.26	295.7	0.0
24	4105.	1217.55	380.5	0.0
25	4061.	1217.81	463.9	48.9
26	4102.	1218.03	537.0	1080.8
27	4295.	1218.16	591.6	2218.0
28	4562.	1218.25	629.0	3288.9
29	4811.	1218.30	651.9	4118.3
30	4972.	1218.34	664.7	4583.5
31	5024.	1218.35	671.3	4823.5
32	4968.	1218.36	673.5	4902.3
33	4831.	1218.36	672.4	4863.4
34	4641.	1218.35	669.1	4742.2
35	4423.	1218.34	664.3	4568.3
36	4192.	1218.32	658.6	4363.2
37	3955.	1218.31	652.5	4140.8
38	3711.	1218.29	646.0	3906.6
39	3460.	1218.27	639.3	3663.2
40	3202.	1218.26	632.4	3411.9
41	2937.	1218.24	625.3	3153.1
42	2672.	1218.22	618.0	2891.0
43	2409.	1218.20	610.8	2628.3
44	2154.	1218.18	602.8	2450.6
45	1912.	1218.16	593.7	2260.0
46	1686.	1218.14	583.9	2056.9
47	1479.	1218.12	574.1	1852.5
48	1293.	1218.10	564.6	1654.5

49	1125.	1218.07	555.5	1467.2
50	977.	1218.06	547.2	1293.7
51	847.	1218.04	539.6	1135.7
52	733.	1218.02	532.8	993.2
53	634.	1218.01	526.7	866.1
54	548.	1217.99	521.1	766.4
55	473.	1217.98	515.8	699.1
56	409.	1217.96	510.4	632.6
57	353.	1217.94	505.3	568.4
58	305.	1217.93	500.5	508.0
59	263.	1217.91	496.0	451.8
60	227.	1217.90	491.9	400.2
61	196.	1217.89	488.2	353.4
62	169.	1217.88	484.8	311.1
63	146.	1217.87	481.8	273.2
64	127.	1217.86	479.1	239.7
65	110.	1217.85	476.7	209.9
66	95.	1217.85	474.6	183.6
67	81.	1217.84	472.8	160.0
68	66.	1217.84	471.0	138.5
69	56.	1217.83	469.5	119.6
70	48.	1217.83	468.2	103.1
71	41.	1217.82	467.1	88.9
72	35.	1217.82	466.1	76.5
73	29.	1217.82	465.2	65.6
74	25.	1217.81	464.5	56.3
75	21.	1217.81	463.8	48.2
76	17.	1217.81	463.3	41.1
77	14.	1217.81	462.8	34.8
78	12.	1217.81	462.4	29.6
79	10.	1217.81	462.0	25.1
80	8.	1217.81	461.7	21.2
81	7.	1217.80	461.4	17.9
82	5.	1217.80	461.2	15.0
83	4.	1217.80	461.0	12.5
84	3.	1217.80	460.8	10.3
85	2.	1217.80	460.7	8.4
86	2.	1217.80	460.6	6.9
87	1.	1217.80	460.4	5.6
88	1.	1217.80	460.4	4.5
89	0.	1217.80	460.3	3.5
90	0.	1217.80	460.2	2.7
91	0.	1217.80	460.2	2.1
92	0.	1217.80	460.1	1.6
93	0.	1217.80	460.1	1.2
94	0.	1217.80	460.1	0.9
95	0.	1217.80	460.1	0.7
96	0.	1217.80	460.0	0.6
97	0.	1217.80	460.0	0.4
98	0.	1217.80	460.0	0.3
99	0.	1217.80	460.0	0.3
100	0.	1217.80	460.0	0.2
101	0.	1217.80	460.0	0.2
102	0.	1217.80	460.0	0.1
103	0.	1217.80	460.0	0.1
104	0.	1217.80	460.0	0.1
105	0.	1217.80	460.0	0.1
106	0.	1217.80	460.0	0.0
107	0.	1217.80	460.0	0.0
108	0.	1217.80	460.0	0.0
109	0.	1217.80	460.0	0.0
110	0.	1217.80	460.0	0.0
111	0.	1217.80	460.0	0.0
112	0.	1217.80	460.0	0.0
113	0.	1217.80	460.0	0.0
114	0.	1217.80	460.0	0.0

115	0.	1217.80	460.0	0.0
116	0.	1217.80	460.0	0.0
117	0.	1217.80	460.0	0.0
118	0.	1217.80	460.0	0.0
119	0.	1217.80	460.0	0.0
120	0.	1217.80	460.0	0.0
121	0.	1217.80	460.0	0.0
122	0.	1217.80	460.0	0.0
123	0.	1217.80	460.0	0.0
124	0.	1217.80	460.0	0.0
125	0.	1217.80	460.0	0.0
126	0.	1217.80	460.0	0.0
127	0.	1217.80	460.0	0.0
128	0.	1217.80	460.0	0.0
129	0.	1217.80	460.0	0.0
130	0.	1217.80	460.0	0.0
131	0.	1217.80	460.0	0.0
132	0.	1217.80	460.0	0.0
133	0.	1217.80	460.0	0.0
134	0.	1217.80	460.0	0.0
135	0.	1217.80	460.0	0.0
136	0.	1217.80	460.0	0.0
137	0.	1217.80	460.0	0.0
138	0.	1217.80	460.0	0.0
139	0.	1217.80	460.0	0.0
140	0.	1217.80	460.0	0.0
141	0.	1217.80	460.0	0.0
142	0.	1217.80	460.0	0.0
143	0.	1217.80	460.0	0.0
144	0.	1217.80	460.0	0.0
145	0.	1217.80	460.0	0.0
146	0.	1217.80	460.0	0.0
147	0.	1217.80	460.0	0.0
148	0.	1217.80	460.0	0.0
149	0.	1217.80	460.0	0.0
150	0.	1217.80	460.0	0.0
151	0.	1217.80	460.0	0.0
152	0.	1217.80	460.0	0.0
153	0.	1217.80	460.0	0.0
154	0.	1217.80	460.0	0.0
155	0.	1217.80	460.0	0.0
156	0.	1217.80	460.0	0.0
157	0.	1217.80	460.0	0.0
158	0.	1217.80	460.0	0.0
159	0.	1217.80	460.0	0.0
160	0.	1217.80	460.0	0.0

WEIR FLOW OVER S.P.R.R. GOING THRU CHANDLER-FROM WARNER RD TO PECOS RD. DJG

RESERVOIR FLOOD ROUTING -SUBAREA 223
FUTURE CONDITIONS

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1214.00	0.0	0.0
1	9.	1214.09	0.2	0.0
2	22.	1214.32	0.6	0.0
3	33.	1214.63	1.3	0.0
4	42.	1215.00	2.2	0.0
5	52.	1215.02	3.3	0.0
6	63.	1215.05	4.6	0.0
7	73.	1215.08	6.1	0.0
8	84.	1215.12	7.8	0.0
9	95.	1215.17	9.8	0.0
10	103.	1215.21	11.9	0.0
11	113.	1215.26	14.2	0.0
12	121.	1215.32	16.7	0.0
13	131.	1215.38	19.4	0.0
14	139.	1215.44	22.3	0.0
15	149.	1215.51	25.4	0.0
16	155.	1215.55	28.6	0.0
17	211.	1215.62	33.0	0.0
18	384.	1215.74	40.9	0.0
19	387.	1215.86	48.9	0.0
20	392.	1215.98	57.0	0.0
21	405.	1216.05	65.4	0.0
22	450.	1216.12	74.6	0.0
23	2438.	1216.47	125.0	0.0
24	5090.	1217.03	230.2	0.0
25	4876.	1217.38	330.9	0.0
26	4708.	1217.70	428.2	0.0
27	4786.	1217.99	519.4	744.8
28	4984.	1218.16	591.7	2220.1
29	5160.	1218.27	638.1	3616.9
30	5242.	1218.33	662.5	4502.4
31	5220.	1218.36	673.3	4893.4
32	5094.	1218.37	676.3	5002.7
33	4959.	1218.36	675.6	4978.9
34	4768.	1218.36	672.5	4864.0
35	4545.	1218.34	667.7	4690.2
36	4309.	1218.33	661.9	4482.5
37	4086.	1218.31	656.0	4266.4
38	3824.	1218.30	649.3	4025.3
39	3577.	1218.28	642.6	3781.0
40	3325.	1218.26	635.7	3532.5
41	3071.	1218.25	628.8	3281.0
42	2816.	1218.23	621.8	3027.6
43	2567.	1218.21	614.9	2776.6
44	2324.	1218.19	607.8	2554.5
45	2097.	1218.18	600.0	2392.7
46	1886.	1218.16	591.4	2213.4
47	1693.	1218.14	582.6	2029.3
48	1518.	1218.12	573.9	1848.4
49	1363.	1218.10	565.6	1676.7
50	1227.	1218.08	558.0	1517.6
51	1107.	1218.06	551.0	1372.3

52	1003.	1218.05	544.7	1241.6
53	913.	1218.04	539.1	1125.4
54	835.	1218.03	534.2	1022.6
55	765.	1218.02	529.8	931.5
56	708.	1218.01	526.0	852.4
57	658.	1218.00	522.7	785.9
58	616.	1217.99	519.6	746.9
59	579.	1217.98	516.5	708.4
60	547.	1217.97	513.5	671.4
61	372.	1217.95	508.1	602.7
62	146.	1217.93	499.7	498.0
63	126.	1217.90	492.9	412.6
64	108.	1217.89	487.3	342.8
65	93.	1217.87	482.8	285.5
66	80.	1217.86	479.0	238.3
67	68.	1217.85	475.9	199.3
68	58.	1217.84	473.3	166.9
69	50.	1217.84	471.2	140.1
70	42.	1217.83	469.4	117.6
71	36.	1217.83	467.9	98.9
72	30.	1217.82	466.6	83.1
73	25.	1217.82	465.6	69.7
74	22.	1217.81	464.7	58.8
75	18.	1217.81	463.9	49.4
76	16.	1217.81	463.3	41.8
77	13.	1217.81	462.8	35.2
78	11.	1217.81	462.4	29.6
79	10.	1217.81	462.0	25.1
80	8.	1217.81	461.7	21.2
81	7.	1217.80	461.4	17.9
82	5.	1217.80	461.2	15.0
83	4.	1217.80	461.0	12.5
84	3.	1217.80	460.8	10.3
85	2.	1217.80	460.7	8.4
86	2.	1217.80	460.6	6.9
87	1.	1217.80	460.4	5.6
88	1.	1217.80	460.4	4.5
89	0.	1217.80	460.3	3.5
90	0.	1217.80	460.2	2.7
91	0.	1217.80	460.2	2.1
92	0.	1217.80	460.1	1.6
93	0.	1217.80	460.1	1.2
94	0.	1217.80	460.1	0.9
95	0.	1217.80	460.1	0.7
96	0.	1217.80	460.0	0.6
97	0.	1217.80	460.0	0.4
98	0.	1217.80	460.0	0.3
99	0.	1217.80	460.0	0.3
100	0.	1217.80	460.0	0.2
101	0.	1217.80	460.0	0.2
102	0.	1217.80	460.0	0.1
103	0.	1217.80	460.0	0.1
104	0.	1217.80	460.0	0.1
105	0.	1217.80	460.0	0.1
106	0.	1217.80	460.0	0.0
107	0.	1217.80	460.0	0.0
108	0.	1217.80	460.0	0.0
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110	0.	1217.80	460.0	0.0
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117	0.	1217.80	460.0	0.0

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119	0.	1217.80	460.0	0.0
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128	0.	1217.80	460.0	0.0
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135	0.	1217.80	460.0	0.0
136	0.	1217.80	460.0	0.0
137	0.	1217.80	460.0	0.0
138	0.	1217.80	460.0	0.0
139	0.	1217.80	460.0	0.0
140	0.	1217.80	460.0	0.0
141	0.	1217.80	460.0	0.0
142	0.	1217.80	460.0	0.0
143	0.	1217.80	460.0	0.0
144	0.	1217.80	460.0	0.0
145	0.	1217.80	460.0	0.0
146	0.	1217.80	460.0	0.0
147	0.	1217.80	460.0	0.0
148	0.	1217.80	460.0	0.0
149	0.	1217.80	460.0	0.0
150	0.	1217.80	460.0	0.0
151	0.	1217.80	460.0	0.0
152	0.	1217.80	460.0	0.0
153	0.	1217.80	460.0	0.0
154	0.	1217.80	460.0	0.0
155	0.	1217.80	460.0	0.0
156	0.	1217.80	460.0	0.0
157	0.	1217.80	460.0	0.0
158	0.	1217.80	460.0	0.0
159	0.	1217.80	460.0	0.0
160	0.	1217.80	460.0	0.0

SUBJECT: S.P.F ANALYSIS AREA ALONG CHANDLER BRANCH CRP. SUBAREAS 223 & 224	COMPUTED BY: DJG	DATE: 10/21/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

SUBAREA 223

1. PRESENT CONDITION
   MAXIMUM ELEVATION OF POND IS 1218.36'
2. FUTURE CONDITION
   MAXIMUM ELEVATION OF POND IS 1218.37

3. LENGTH OF WEIR IS 5050 LONG'
   WITH PEAK OUTFLOW OF 4900 CFS - Present conditions
   " " " " 5000 CFS - FUTURE CONDITIONS
4. CONTOURS SHOW A RIDGE RUNNING APPROXIMATELY ALONG COMMONWEALTH STREET.
   ASSUME SPLIT FLOW BECAUSE OF RIDGE
   38% OF FLOW WILL GO SOUTH OF COMMONWEALTH ST.
   62% OF FLOW WILL GO NORTH OF COMMONWEALTH ST

∴ .38 x 4900 = 1862 CFS - PRESENT .62 x 4900 = 3038 CFS - PRESENT
.38 x 5000 = 1900 CFS - PRESENT .62 x 5000 = 3100 CFS - FUTURE
SOUTH OF COMMONWEALTH NORTH OF COMMONWEALTH

AREA NORTH OF COMMONWEALTH

CROSSECTION C-1

CONTOUR	P.U.	AREA (SQ. FT.)	LENGTH	AVERAGE SLOPE	X-SECTIONAL AREA
12	.75	480000	2200	.002	960
13	2.72	1740800	3220	.002	3481
13a	1.7	1,088,000	2970	.002	2176

$R_{12} = 960/2200 = .44$ Using the "wheel" $V = .76$ $Q = .76(960) = 730$
$R_{13} = 3481/3220 = 1.08$ $V = 1.38$ ∴ $Q = 1.38 \times 3481 = 4804$
$R_{13a} = 2176/2970 = .73$ $V = 1.06$ $Q = 1.06 \times 2176 = 2306$

FOR A Q OF 3038 L = 3025'
FOR A Q OF 3100 L = 3030'

CROSS-SECTION C-2

9	.56	358400	1970	.002	717
10	2.45	1,568,000	2940	.002	3136
11	6.2	3,968,00	4400	.002	7936

n = .05

$R_9 = 717/1970 = .36$ $V = .67$ $Q = 717(.67) = 480$
$R_{10} = 3136/2940 = 1.07$ $V = 1.37$ $Q = 1.37(3136) = 4296$
$R_{11} = 7936/4400 = 1.80$ $V = 1.96$ $Q = 1.96(7936) = 15555$

FOR Q OF 3038 L = 2730
FOR Q OF 3100 L = 2750'

SUBJECT: GILA FLOODWAY - S.P.F. ANALYSIS AREA ALONG CHANDLER BRANCH OF R.R. Subareas 223 0224	COMPUTED BY: OJG	DATE: 10/22/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

CROSS-SECTION C-3

CONTOUR	P.U.	AREA (□')	LENGTH	AVE. SLOPE	X-SECTIONAL AREA
7	.3	192000	910	.0013	250
8	3.7	2,368,000	3900	.0013	3078
9	7.5	4,800,000	4600	.0013	6240

n=.05

$R_7 = 250/910 = .27$ V=.47 Q=.47(250)=117

$R_8 = 3078/3900 = .80$ V=.91 Q=.91(3078)=2800

$R_9 = 6240/4600 = 1.36$ V=1.3 Q=1.3(6240)=8112

FOR Q=3038, L=3950' FOR Q=3100, L=3980'

CROSS-SECTION C-4

4	.5	320,000	2100	.0014	448
5	2.7	1,728,000	3450	.0014	2419
6	9.5	6,080,000	7800	.0014	8512

n=.05

$R_4 = 448/2100 = .21$ V=.4 Q=.4(448)= 179

$R_5 = 2419/3456 = .70$ V=.88 Q=.88(2419)= 2130

$R_6 = 8512/7800 = 1.09$ V=1.29 Q=1.29(8512)= 10980

FOR Q=3038, L=3950 FOR Q=3100 CFS, L=4000'

CROSS-SECTION C-5

1	.25	160000	1050	.0022	352
2	2.6	1,664,000	3980	.0022	3661
3	5.5	3,520,000	5800	.0022	7744

n=.05

$R_1 = 352/1050 = .34$ V=.67 Q=.67(352) = 236

$R_2 = 3661/3980 = .92$ V=1.3 Q=1.3(3661)= 4760

$R_3 = 7744/5200 = 1.49$ V=1.65 Q=1.65(7744)= 12800

FOR Q=3038 L=3350' FOR Q=3100, L=3360'

CROSS-SECTION C-6

96	.3	192000	1170	.0022	422
97	1.2	768000	2100	.0022	1690
98	3.15	2,016,000	4040	.0022	4435

n=.05

$R_{96} = 422/1170 = .36$ V=.7 Q=.7(422)= 295

$R_{97} = 1690/2100 = .81$ V=1.2 Q=1.2(1690)= 2028

$R_{98} = 4435/4040 = 1.10$ V=1.46 Q=1.46(4435)= 6475

FOR Q=3038 L=2570'

FOR Q=3100 CFS, L=2600'

SUBJECT: Gila Floodway - S.P.F Analysis Area Along Chandler Branch of S.P.R.R. Subareas 223 & 224	COMPUTED BY: DJG	DATE: 10/22/75	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

North Side of Commonwealth
Depths at Cross-Sections

a) Cross-Section C-1

For Q = 3038 A = 2600 L = 3025'
$\bar{H}$ = 2600/3025 = .86'

For Q = 3100 A = 2650 L = 3030
$\bar{H}$ = 2650/3030 = .87'

b) Cross-Section C-2

For Q = 3038 A = 2410 L = 2730
$\bar{H}$ = 2410/2730 = .88'

For Q = 3100 A = 2490 L = 2750
$\bar{H}$ = 2490/2750 = .90'

c) Cross-Section C-3

For Q = 3038 A = 3250 L = 3950
$\bar{H}$ = 3250/3950 = .83'

For Q = 3100 A = 3300 L = 3980
$\bar{H}$ = 3300/3980 = .83'

d) Cross-Section C-4

For Q = 3038 A = 3100 L = 3950
$\bar{H}$ = 3100/3950 = .78'

For Q = 3100 A = 3200 L = 4000
$\bar{H}$ = 3200/4000 = .80'

e) Cross-Section C-5

For Q = 3038 A = 2600 L = 3350'
$\bar{H}$ = 2600/3350 = .77'

For Q = 3100 A = 2650 L = 3360'
$\bar{H}$ = 2650/3360 = .79'

f) Cross-Section C-6

For Q = 3038 A = 2325 L = 2570'
$\bar{H}$ = 2325/2570 = .90

For Q = 3100 A = 2350 L = 2600'
$\bar{H}$ = 2350/2600 = .90

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
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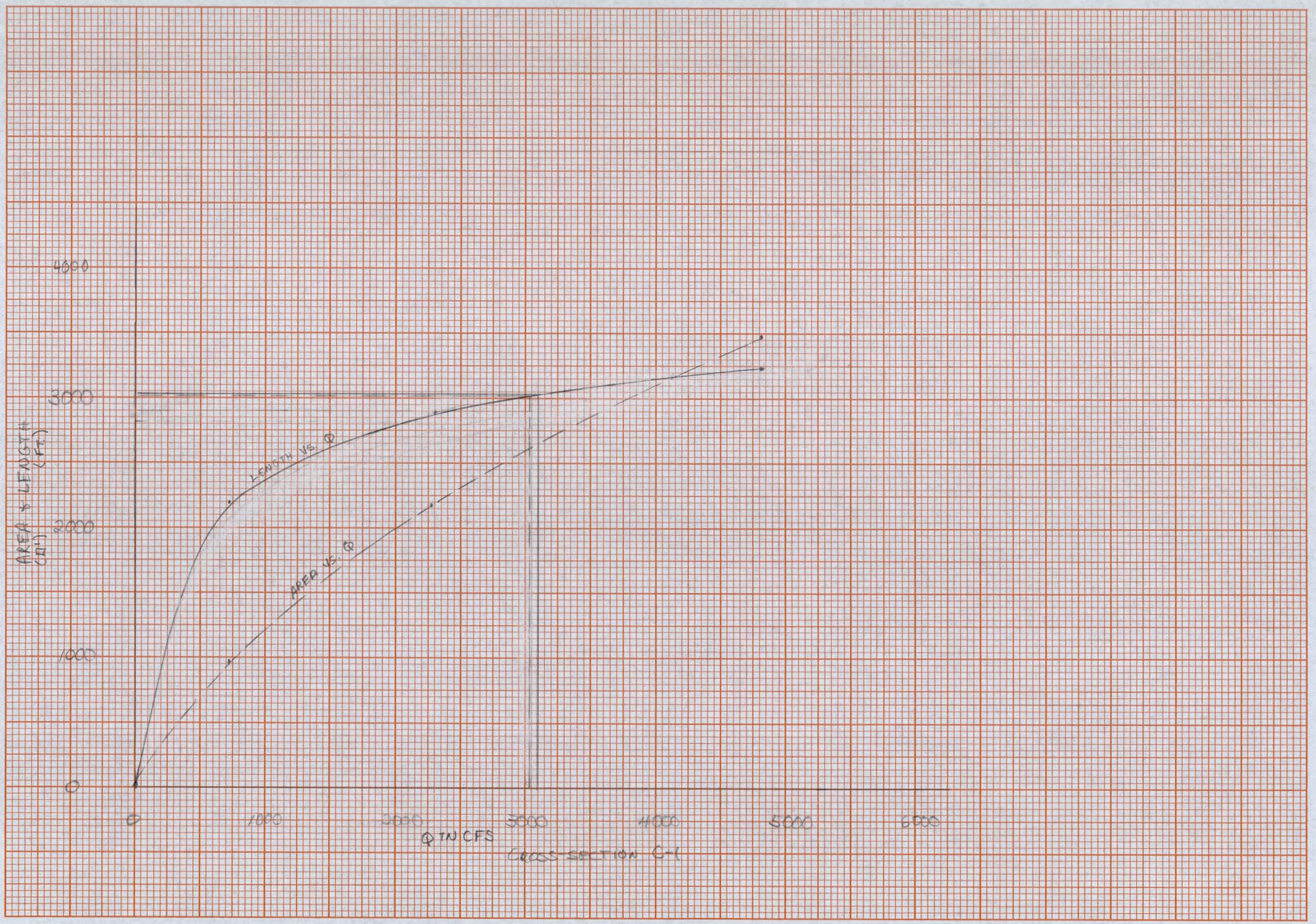

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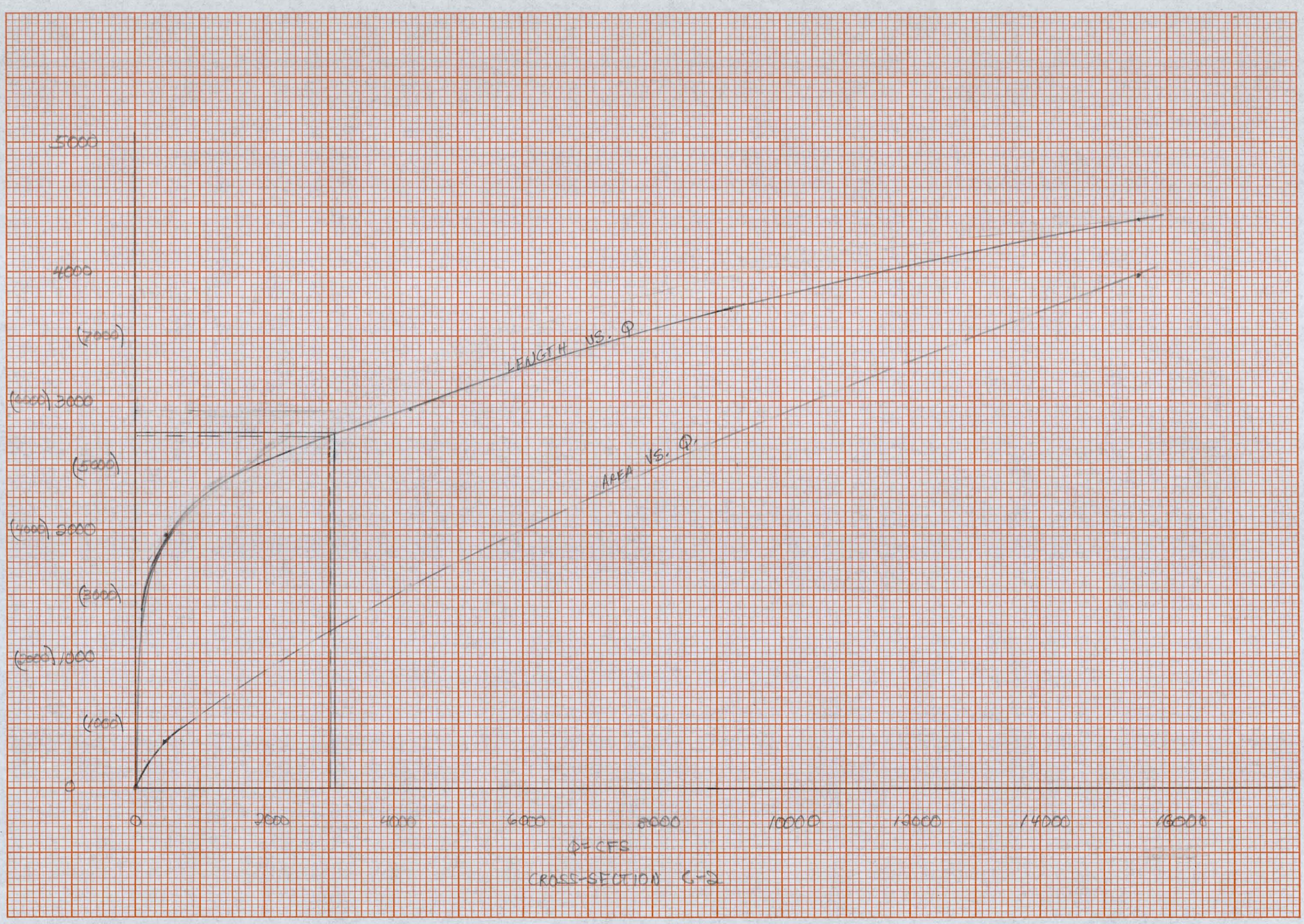
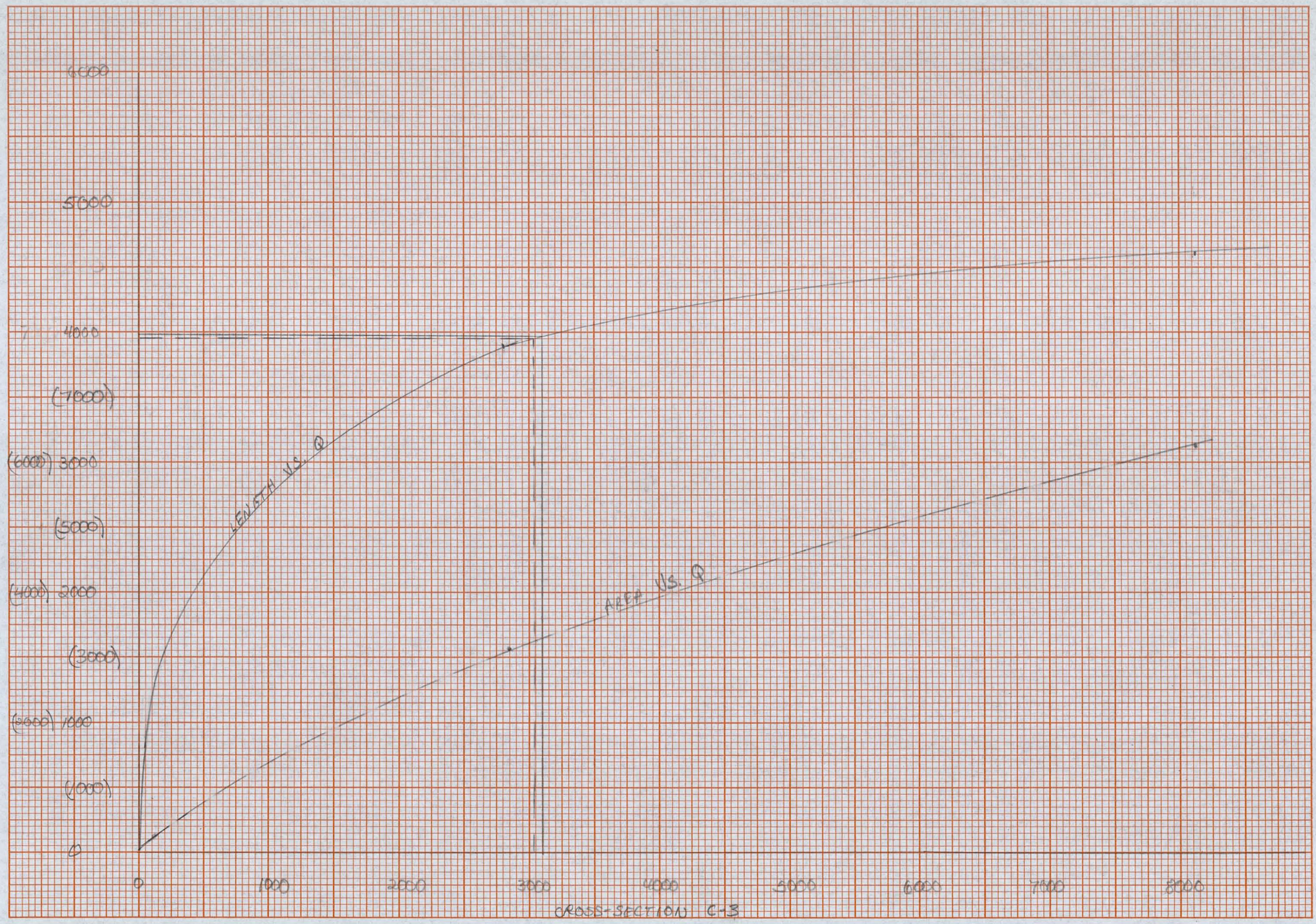
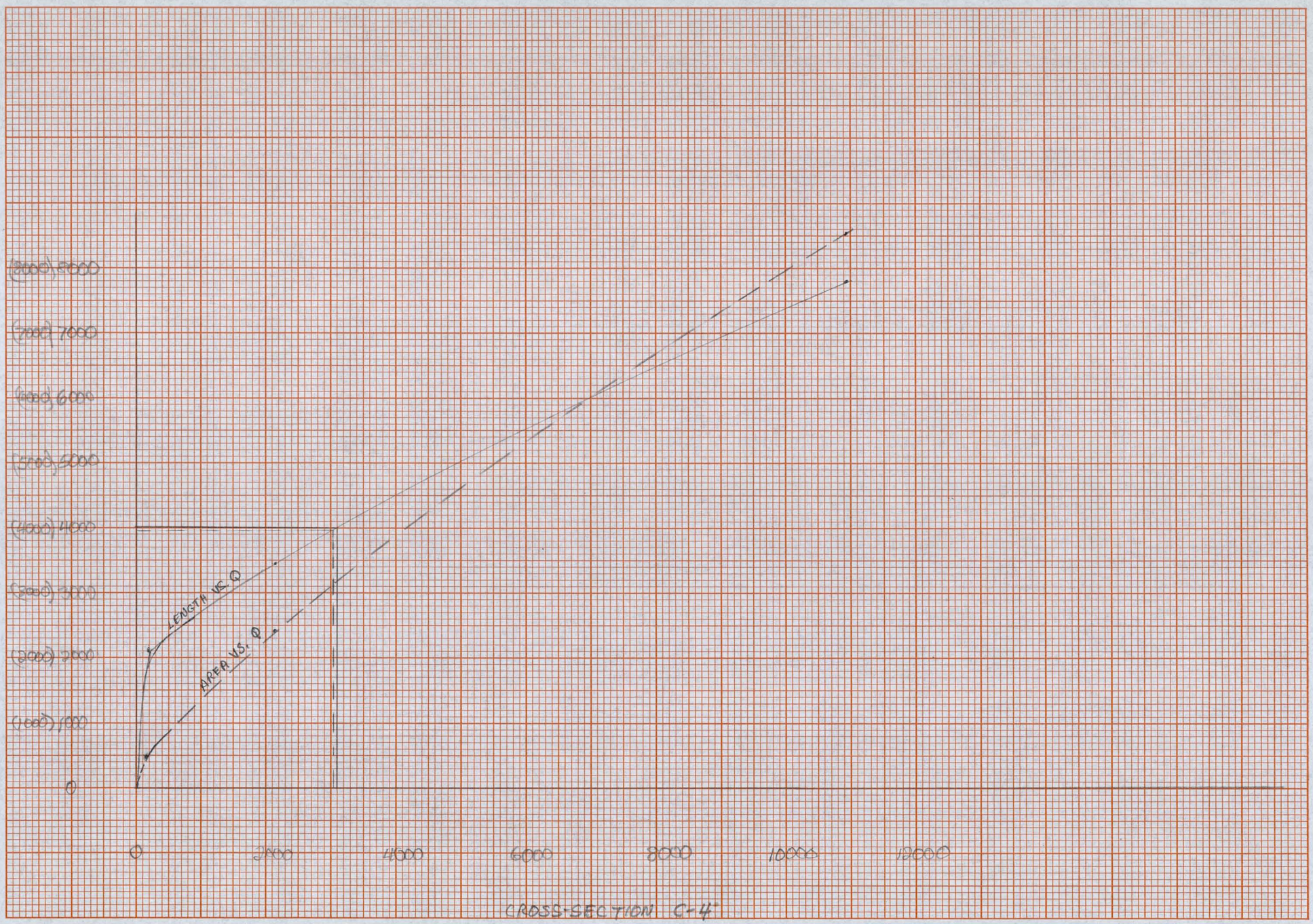


K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



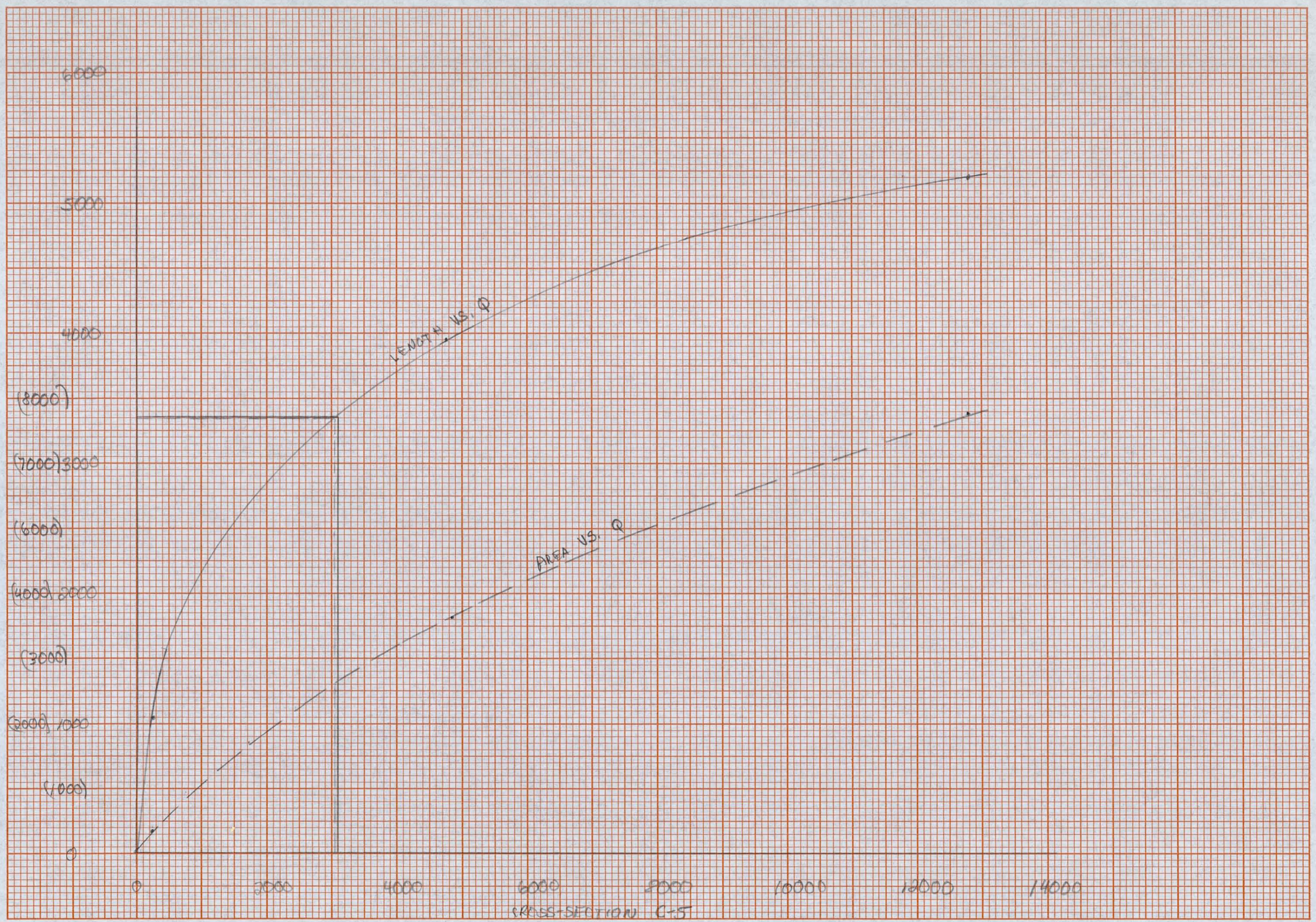
CROSS-SECTION C-3

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

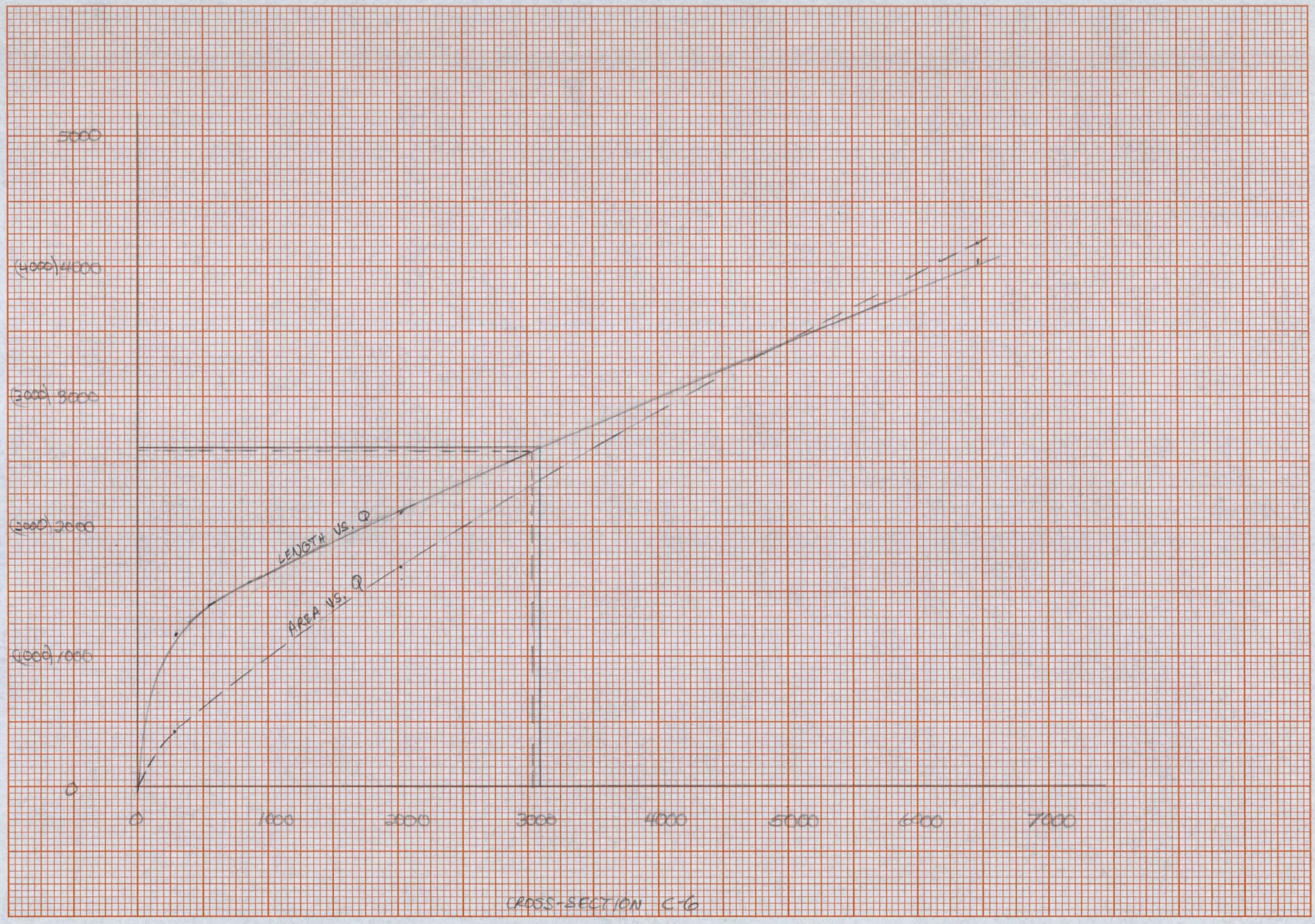


CROSS-SECTION C-4

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



CROSS-SECTION C-6

SUBJECT: GILA FLOODWAY - S.P.F AREA IN CHANDLER - ALONG S.P.R.R. SUBAREA 223 & 224	COMPUTED BY: DJG CHECKED BY:	DATE: 10/20/75 DATE:	FILE NO. SHEET NO.

X-SECTION D-1 — AREA SOUTH OF COMMONWEALTH

	CONTOUR	P.U.	AREA (□')	LENGTH	AVE. SLOPE	X-SECTIONAL AREA
	12	.41	262400	1470	.0018	472
	13	1.9	1,216,000	2120	.0018	2189
n=.05	14	3.35	2,144,000	2550	.0018	3859

$R_{12} = 472/1470 = .32$ V= .57 Q= 472(.57) = 269

$R_{13} = 2189/2100 = 1.03$ V= 1.27 Q= 1.27(2189) = 2780

$R_{14} = 3859/2550 = 1.51$ V= 1.57 Q= 1.57(3859) = 6059

X-SECTION D-2

	11	.3	192000	890	.0011	211
n=.05	12	2.2	1,408,000	1550	.0011	1549
	13	4.35	2,784,000	1960	.0011	3062

$R_{11} = 211/890 = .24$ V= .4 Q= .4(211) = 84

$R_{12} = 1549/1550 = 1.0$ V= .98 Q= .98(1549) = 1518

$R_{13} = 3062/1960 = 1.56$ V= 1.26 Q= 1.26(3062) = 3858

X-SECTION D-3

	8	.3	192000	890	.0015	288
n=.05	9	1.3	830,000	1800	.0015	1248
	9A	.55	352000	1230	.0015	528

$R_8 = 288/890 = .33$ V= .55 Q= .55(288) = 158

$R_9 = 1248/1800 = .69$ V= .9 Q= .9(1248) = 1123

$R_{9A} = 528/1230 = .43$ V= .65 Q= .65(528) = 343

10	1.5	960000	1690	.0015	1440

$R_{10} = 1440/1690 = .85$ V= 1.15 Q= 1.15 x 1440 = 1656

X-SECTION D-1

FOR Q= 1862 L= 2050 AREA= 1950

$\bar{H} = 1950/2050 = .95'$

FOR Q= 1900 L= 2070 AREA= 1970

$\bar{H} = 1970/2070 = .95'$

X-SECTION D-2

FOR Q= 1862 L= 1650 AREA= 1800

$\bar{H} = 1650/1800 = .92'$

FOR Q= 1900 L= 1660 AREA= 1825

$\bar{H} = 1660/1825 = .92'$

X-SECTION D-3

FOR Q= 1862 L= 2120 AREA= 1700

$\bar{H} = 1700/2120 = .80$

FOR Q= 1900 L= 2140 AREA= 1770

$\bar{H} = 1770/2140 = .83$

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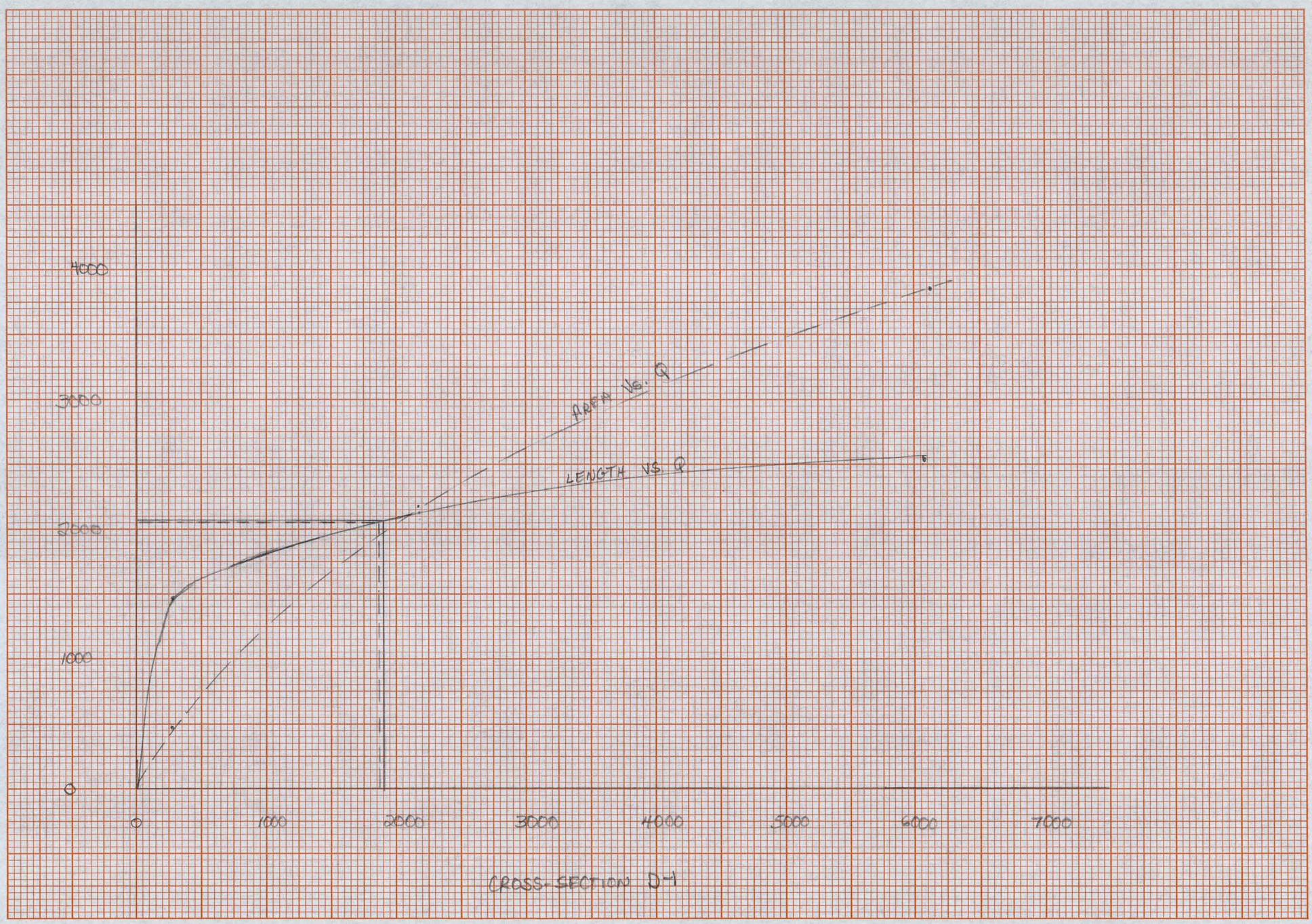
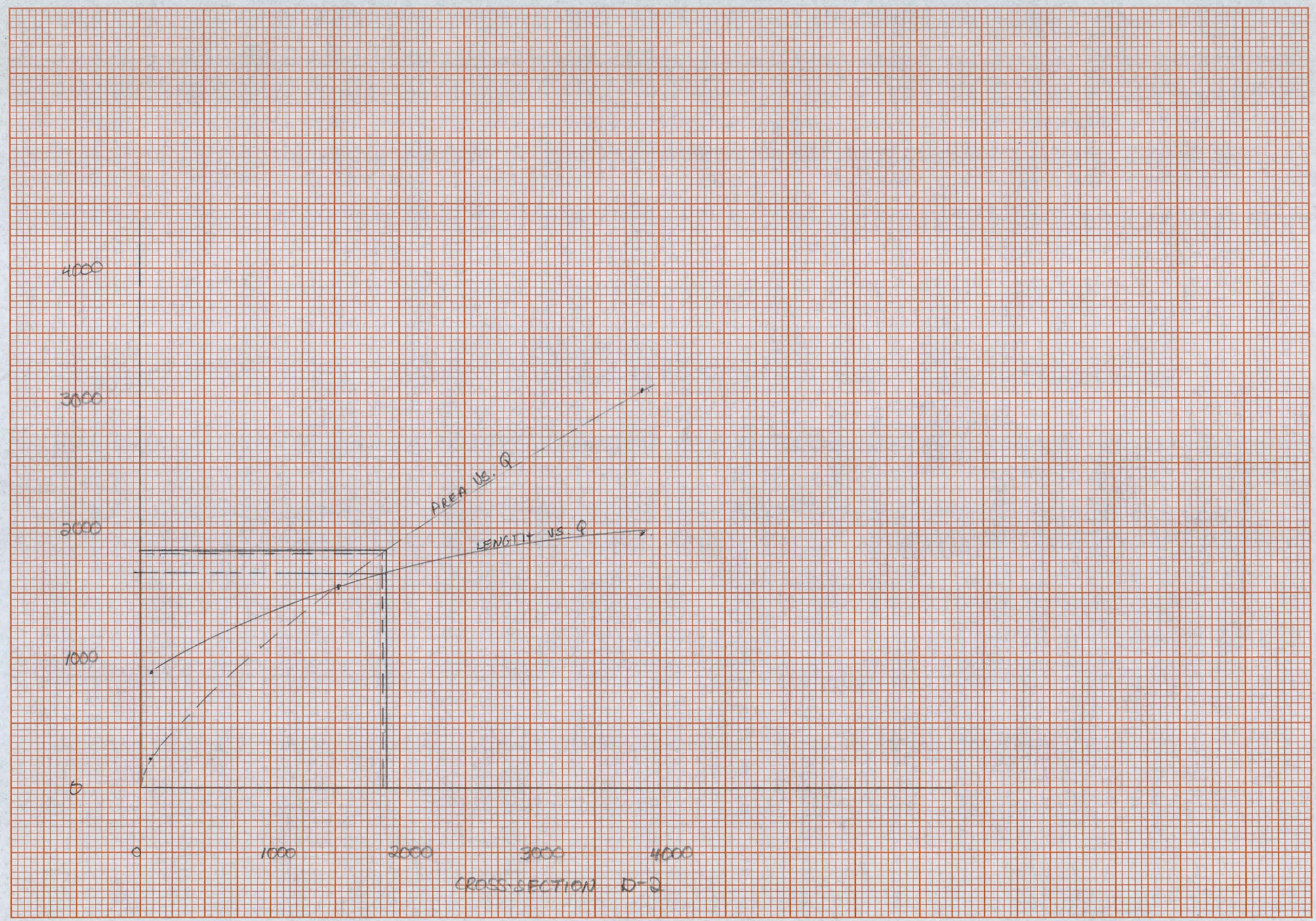


CROSS-SECTION D-1

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



CROSS-SECTION D-2

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

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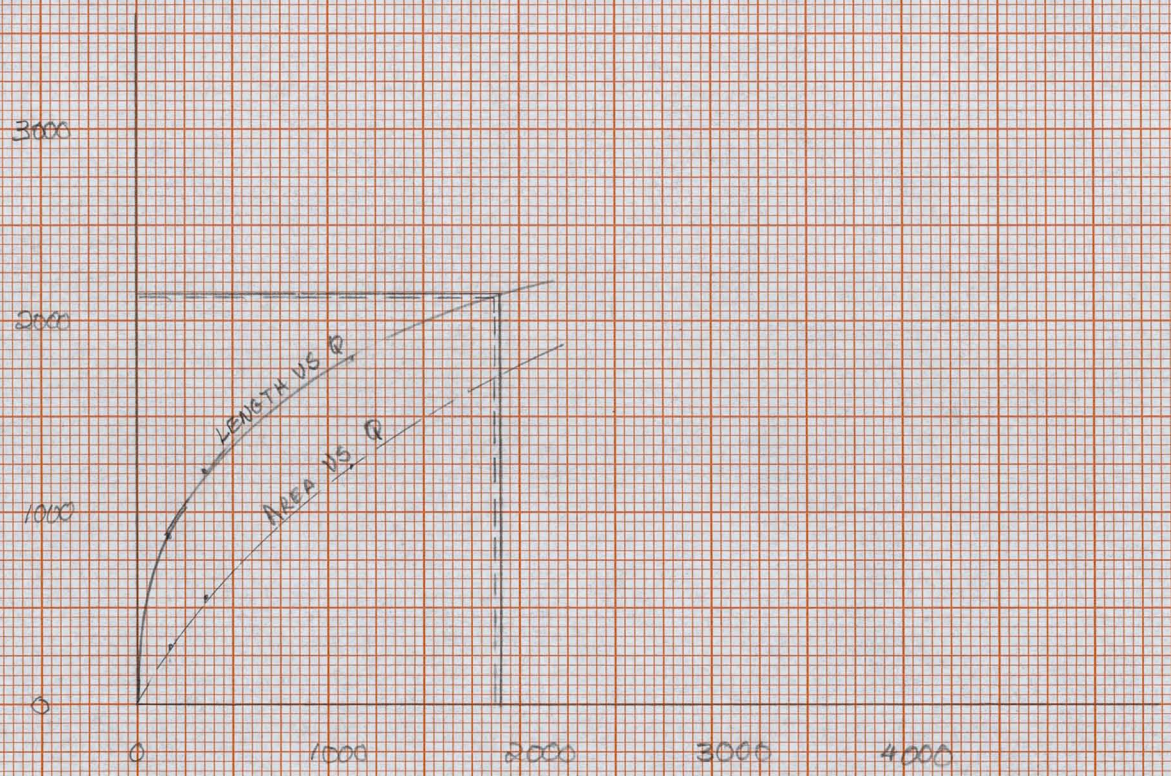


CROSS-SECTION D-3

SUBJECT: GILA FLOODWAY INUNDATION ANALYSIS – SPF AREA ALONG S.P.R.R THRU CHANDLER SUBAREA 204	COMPUTED BY: DJG CHECKED BY:	DATE: 10/00/75 DATE:	FILE NO. SHEET NO.

WEIR CALCULATIONS - FOR SUBAREA 204

ELEVATION	AVG. H	$H^{3/2}$	CL	$Q=CLH^{3/2}$ $C=2.6$
1221.5	.2	.0894	1550	360
1222.	.66	.5362	3200	4461
1222.5	1	1	4700	12220
1222.8	1.2	1.31545	575	19665
@ ⇒ 1221	0	0	0	0

VALUES USED FOR WEIR ROUTING

ELEVATION	STORAGE	OUTFLOW
1213	0	0
1214	3.2	0
1216	137.6	0
1218	685.4	0
1220	1874.7	0
1220.2	2125	0
1220.4	2250	0
1220.6	2375	0
1220.8	2525	0
1221.	2700	0
1221.2	2825	700
1221.4	3028	1200
1221.6	3250	1000
1221.8	3400	2500
1222.0	3666	4461
1222.2	3775	7000
1222.4	3975	10100
12226	4125	12000
1222.8	4375	19655

WEIR FLOW OVER S,P,R,R-THRU CHANDLER-FROM WILLIS RD, TO SANTAN RD DJG 10-75

RESERVOIR FLOOD ROUTING -SUBAREA 224

Present Conditions

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1213,00	0,0	0,0
1	0,	1213,00	0,0	0,0
2	0,	1213,00	0,0	0,0
3	0,	1213,00	0,0	0,0
4	0,	1213,00	0,0	0,0
5	0,	1213,00	0,0	0,0
6	0,	1213,00	0,0	0,0
7	0,	1213,00	0,0	0,0
8	0,	1213,00	0,0	0,0
9	0,	1213,00	0,0	0,0
10	0,	1213,00	0,0	0,0
11	0,	1213,00	0,0	0,0
12	0,	1213,00	0,0	0,0
13	0,	1213,00	0,0	0,0
14	0,	1213,00	0,0	0,0
15	0,	1213,00	0,0	0,0
16	0,	1213,00	0,0	0,0
17	0,	1213,00	0,0	0,0
18	0,	1213,00	0,0	0,0
19	125,	1213,81	2,6	0,0
20	1101,	1214,33	25,3	0,0
21	2420,	1215,07	75,3	0,0
22	3030,	1216,00	137,9	0,0
23	3281,	1216,25	205,7	0,0
24	3582,	1216,52	279,7	0,0
25	3918,	1216,81	360,7	0,0
26	4165,	1217,13	446,7	0,0
27	4303,	1217,45	535,6	0,0
28	4308,	1217,78	624,6	0,0
29	4215,	1218,04	711,7	0,0
30	4090,	1218,19	796,2	0,0
31	3995,	1218,33	878,8	0,0
32	3972,	1218,46	960,8	0,0
33	4038,	1218,60	1044,3	0,0
34	4177,	1218,75	1130,6	0,0
35	4359,	1218,90	1220,6	0,0
36	4544,	1219,06	1314,5	0,0
37	4697,	1219,22	1411,6	0,0
38	4786,	1219,39	1510,5	0,0
39	4798,	1219,55	1609,6	0,0
40	4725,	1219,72	1707,2	0,0
41	4572,	1219,88	1801,7	0,0
42	4354,	1220,01	1891,6	0,0
43	4085,	1220,08	1976,0	0,0
44	3782,	1220,14	2054,2	0,0
45	3462,	1220,20	2125,7	0,0
46	3138,	1220,30	2190,5	0,0
47	2822,	1220,40	2248,8	0,0
48	2521,	1220,48	2300,9	0,0
49	2239,	1220,56	2347,2	0,0
50	1981,	1220,62	2388,1	0,0

51	1747;	1220,67	2424,2	0;0
52	1537;	1220,71	2456,0	0;0
53	1350;	1220,75	2483,9	0;0
54	1184;	1220,78	2508,3	0;0
55	1038;	1220,81	2529,8	0;0
56	908;	1220,83	2548,5	0;0
57	795;	1220,85	2565,0	0;0
58	696;	1220,86	2579,3	0;0
59	606;	1220,88	2591,9	0;0
60	531;	1220,89	2602,8	0;0
61	465;	1220,90	2612,4	0;0
62	407;	1220,91	2620,8	0;0
63	357;	1220,92	2628,2	0;0
64	312;	1220,93	2634,7	0;0
65	274;	1220,93	2640,3	0;0
66	240;	1220,94	2645,3	0;0
67	210;	1220,94	2649,6	0;0
68	184;	1220,95	2653,4	0;0
69	161;	1220,95	2656,8	0;0
70	141;	1220,95	2659,7	0;0
71	123;	1220,96	2662,2	0;0
72	108;	1220,96	2664,4	0;0
73	93;	1220,96	2666,4	0;0
74	81;	1220,96	2668,0	0;0
75	70;	1220,97	2669,5	0;0
76	61;	1220,97	2670,7	0;0
77	53;	1220,97	2671,8	0;0
78	46;	1220,97	2672,8	0;0
79	40;	1220,97	2673,6	0;0
80	35;	1220,97	2674,3	0;0
81	30;	1220,97	2675,0	0;0
82	26;	1220,97	2675,5	0;0
83	22;	1220,97	2676,0	0;0
84	19;	1220,97	2676,3	0;0
85	16;	1220,97	2676,7	0;0
86	14;	1220,97	2677,0	0;0
87	11;	1220,97	2677,2	0;0
88	9;	1220,97	2677,4	0;0
89	7;	1220,97	2677,5	0;0
90	6;	1220,97	2677,6	0;0
91	5;	1220,97	2677,7	0;0
92	4;	1220,97	2677,8	0;0
93	3;	1220,97	2677,9	0;0
94	2;	1220,97	2677,9	0;0
95	1;	1220,97	2678,0	0;0
96	1;	1220,97	2678,0	0;0
97	1;	1220,97	2678,0	0;0
98	0;	1220,97	2678,0	0;0
99	0;	1220,97	2678,0	0;0
100	0;	1220,97	2678,0	0;0
101	0;	1220,97	2678,0	0;0
102	0;	1220,97	2678,0	0;0
103	0;	1220,97	2678,0	0;0
104	0;	1220,97	2678,0	0;0
105	0;	1220,97	2678,0	0;0
106	0;	1220,97	2678,0	0;0
107	0;	1220,97	2678,0	0;0
108	0;	1220,97	2678,0	0;0
109	0;	1220,97	2678,0	0;0
110	0;	1220,97	2678,0	0;0
111	0;	1220,97	2678,0	0;0
112	0;	1220,97	2678,0	0;0
113	0;	1220,97	2678,0	0;0
114	0;	1220,97	2678,0	0;0
115	0;	1220,97	2678,0	0;0
116	0;	1220,97	2678,0	0;0

117	0;	1220,97	2678,0	0;0
118	0;	1220,97	2678,0	0;0
119	0;	1220,97	2678,0	0;0
120	0;	1220,97	2678,0	0;0
121	0;	1220,97	2678,0	0;0
122	0;	1220,97	2678,0	0;0
123	0;	1220,97	2678,0	0;0
124	0;	1220,97	2678,0	0;0
125	0;	1220,97	2678,0	0;0
126	0;	1220,97	2678,0	0;0
127	0;	1220,97	2678,0	0;0
128	0;	1220,97	2678,0	0;0
129	0;	1220,97	2678,0	0;0
130	0;	1220,97	2678,0	0;0
131	0;	1220,97	2678,0	0;0
132	0;	1220,97	2678,0	0;0
133	0;	1220,97	2678,0	0;0
134	0;	1220,97	2678,0	0;0
135	0;	1220,97	2678,0	0;0
136	0;	1220,97	2678,0	0;0
137	0;	1220,97	2678,0	0;0
138	0;	1220,97	2678,0	0;0
139	0;	1220,97	2678,0	0;0
140	0;	1220,97	2678,0	0;0
141	0;	1220,97	2678,0	0;0
142	0;	1220,97	2678,0	0;0
143	0;	1220,97	2678,0	0;0
144	0;	1220,97	2678,0	0;0
145	0;	1220,97	2678,0	0;0
146	0;	1220,97	2678,0	0;0
147	0;	1220,97	2678,0	0;0
148	0;	1220,97	2678,0	0;0
149	0;	1220,97	2678,0	0;0
150	0;	1220,97	2678,0	0;0
151	0;	1220,97	2678,0	0;0
152	0;	1220,97	2678,0	0;0
153	0;	1220,97	2678,0	0;0
154	0;	1220,97	2678,0	0;0
155	0;	1220,97	2678,0	0;0
156	0;	1220,97	2678,0	0;0
157	0;	1220,97	2678,0	0;0
158	0;	1220,97	2678,0	0;0
159	0;	1220,97	2678,0	0;0
160	0;	1220,97	2678,0	0;0

WEIR FLOW OVER S,P,R,R-THRU CHANDLER-FROM WILLIS RD, TO SANTAN RD DJG 10-75

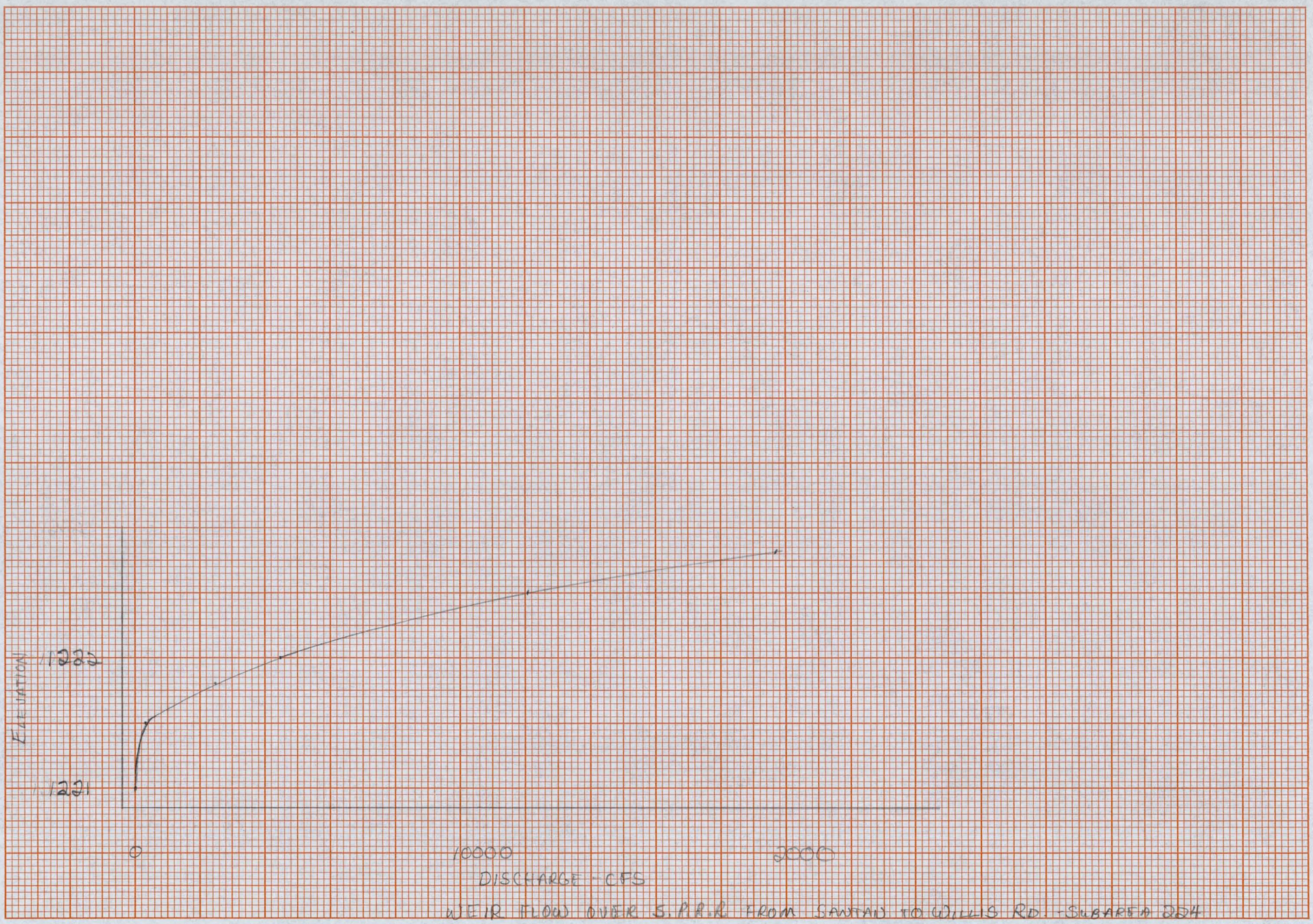
RESERVOIR FLOOD ROUTING - Subarea 224
Future Conditions

ROUTING PERIOD	INFLOW	WATER SURFACE ELEVATION	STORAGE	OUTFLOW
		1213,00	0,0	0,0
1	10,	1213,06	0,2	0,0
2	19,	1213,19	0,6	0,0
3	27,	1213,36	1,2	0,0
4	35,	1213,59	1,9	0,0
5	43,	1213,87	2,8	0,0
6	53,	1214,01	3,9	0,0
7	64,	1214,03	5,2	0,0
8	75,	1214,05	6,7	0,0
9	86,	1214,08	8,5	0,0
10	96,	1214,11	10,5	0,0
11	106,	1214,14	12,7	0,0
12	116,	1214,18	15,1	0,0
13	125,	1214,22	17,7	0,0
14	135,	1214,26	20,5	0,0
15	143,	1214,30	23,4	0,0
16	150,	1214,35	26,5	0,0
17	193,	1214,41	30,5	0,0
18	278,	1214,49	36,2	0,0
19	285,	1214,58	42,1	0,0
20	314,	1214,68	48,6	0,0
21	421,	1214,81	57,3	0,0
22	700,	1215,02	71,8	0,0
23	4327,	1216,09	161,2	0,0
24	5630,	1216,51	277,5	0,0
25	4725,	1216,87	375,1	0,0
26	5963,	1217,32	498,3	0,0
27	4856,	1217,68	598,7	0,0
28	5756,	1218,05	717,6	0,0
29	4772,	1218,22	816,2	0,0
30	4717,	1218,38	913,6	0,0
31	4273,	1218,53	1001,9	0,0
32	4483,	1218,69	1094,5	0,0
33	4067,	1218,83	1178,6	0,0
34	4478,	1218,98	1271,1	0,0
35	4395,	1219,14	1361,9	0,0
36	4760,	1219,30	1460,2	0,0
37	4740,	1219,47	1558,2	0,0
38	4920,	1219,64	1659,8	0,0
39	4856,	1219,81	1760,2	0,0
40	4854,	1219,98	1860,5	0,0
41	4647,	1220,07	1956,5	0,0
42	4463,	1220,14	2048,7	0,0
43	4182,	1220,22	2135,1	0,0
44	3903,	1220,35	2215,7	0,0
45	3574,	1220,46	2289,6	0,0
46	3271,	1220,57	2357,1	0,0
47	2950,	1220,66	2418,1	0,0
48	2662,	1220,73	2473,1	0,0
49	2382,	1220,80	2522,3	0,0
50	2134,	1220,85	2566,4	0,0

51	1902;	1220,89	2605,7	0;0
52	1697;	1220,93	2640,8	0;0
53	1515;	1220,97	2672,1	0;0
54	1354;	1221,00	2700,0	0;0
55	1211;	1221,04	2724,9	19;9
56	1086;	1221,07	2746,7	37;4
57	976;	1221,11	2765,9	52;7
58	880;	1221,13	2782,9	66;3
59	796;	1221,16	2797,8	78;3
60	722;	1221,18	2811,0	88;8
61	658;	1221,20	2822,7	98;2
62	423;	1221,20	2829,4	102;2
63	347;	1221,21	2834,4	104;6
64	304;	1221,21	2838,5	106;6
65	266;	1221,22	2841,8	108;3
66	233;	1221,22	2844,3	109;5
67	203;	1221,22	2846,3	110;5
68	177;	1221,22	2847,6	111;1
69	155;	1221,22	2848,5	111;6
70	135;	1221,22	2849,0	111;8
71	118;	1221,22	2849,1	111;9
72	103;	1221,22	2849,0	111;8
73	90;	1221,22	2848,5	111;6
74	79;	1221,22	2847,8	111;2
75	69;	1221,22	2847,0	110;8
76	60;	1221,22	2845,9	110;3
77	53;	1221,22	2844,7	109;7
78	46;	1221,22	2843,4	109;1
79	40;	1221,22	2842,0	108;4
80	35;	1221,22	2840,5	107;6
81	30;	1221,21	2838,9	106;9
82	26;	1221,21	2837,2	106;0
83	22;	1221,21	2835,5	105;2
84	19;	1221,21	2833,7	104;3
85	16;	1221,21	2831,9	103;4
86	14;	1221,21	2830,1	102;5
87	11;	1221,20	2828,2	101;6
88	9;	1221,20	2826,3	100;6
89	7;	1221,20	2824,4	99;5
90	6;	1221,20	2822,5	98;0
91	5;	1221,19	2820,6	96;5
92	4;	1221,19	2818,7	94;9
93	3;	1221,19	2816,8	93;4
94	2;	1221,18	2814,9	91;9
95	1;	1221,18	2813,1	90;4
96	1;	1221,18	2811,2	89;0
97	1;	1221,18	2809,4	87;5
98	0;	1221,17	2807,6	86;1
99	0;	1221,17	2805,9	84;7
100	0;	1221,17	2804,1	83;3
101	0;	1221,16	2802,4	81;9
102	0;	1221,16	2800,7	80;6
103	0;	1221,16	2799,1	79;3
104	0;	1221,16	2797,5	78;0
105	0;	1221,15	2795,9	76;7
106	0;	1221,15	2794,3	75;4
107	0;	1221,15	2792,7	74;2
108	0;	1221,15	2791,2	73;0
109	0;	1221,14	2789,7	71;8
110	0;	1221,14	2788,3	70;6
111	0;	1221,14	2786,8	69;4
112	0;	1221,14	2785,4	68;3
113	0;	1221,13	2784,0	67;2
114	0;	1221,13	2782,6	66;1
115	0;	1221,13	2781,3	65;0
116	0;	1221,13	2779,9	63;9

117	0;	1221,13	2778,6	62;9
118	0;	1221,12	2777,3	61;9
119	0;	1221,12	2776,1	60;8
120	0;	1221,12	2774,8	59;8
121	0;	1221,12	2773,6	58;9
122	0;	1221,12	2772,4	57;9
123	0;	1221,11	2771,2	57;0
124	0;	1221,11	2770,0	56;0
125	0;	1221,11	2768,9	55;1
126	0;	1221,11	2767,7	54;2
127	0;	1221,11	2766,6	53;3
128	0;	1221,10	2765,5	52;4
129	0;	1221,10	2764,5	51;6
130	0;	1221,10	2763,4	50;7
131	0;	1221,10	2762,4	49;9
132	0;	1221,10	2761,4	49;1
133	0;	1221,10	2760,3	48;3
134	0;	1221,09	2759,4	47;5
135	0;	1221,09	2758,4	46;7
136	0;	1221,09	2757,4	45;9
137	0;	1221,09	2756,5	45;2
138	0;	1221,09	2755,6	44;4
139	0;	1221,09	2754,6	43;7
140	0;	1221,09	2753,8	43;0
141	0;	1221,08	2752,9	42;3
142	0;	1221,08	2752,0	41;6
143	0;	1221,08	2751,2	40;9
144	0;	1221,08	2750,3	40;3
145	0;	1221,08	2749,5	39;6
146	0;	1221,08	2748,7	38;9
147	0;	1221,08	2747,9	38;3
148	0;	1221,08	2747,1	37;7
149	0;	1221,07	2746,3	37;1
150	0;	1221,07	2745,6	36;5
151	0;	1221,07	2744,8	35;9
152	0;	1221,07	2744,1	35;3
153	0;	1221,07	2743,4	34;7
154	0;	1221,07	2742,6	34;1
155	0;	1221,07	2741,9	33;6
156	0;	1221,07	2741,3	33;0
157	0;	1221,06	2740,6	32;5
158	0;	1221,06	2739,9	31;9
159	0;	1221,06	2739,3	31;4
160	0;	1221,06	2738,6	30;9

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



WEIR FLOW OVER S.P.R.R FROM SANTA'S TO GILLIS RD. - SUBAREA 204

BOUNDARY OF SUBAREA
172, 472 OR 187
187A
RWCD FLOODWAY
GILA RIVER
INDIAN
RESERVATION
187
188
190
CREEK
DA=1.64 mi²
Tc = 0.58 hrs.
DA=2.03 Mi²
USED IN RWCD ANALYSIS
INSTALLED
REVISED BDRY WITH
SOUTHERN
PACIFIC
LEVEE
T O N
Lower Santan Ch
Santan Day Sch
Cem
Gate

TABLE
Subarea Characteristics
Present and Future Conditions

Subarea Designation No.	Total Area (sq. mi.)	†Contributing Drainage Area Present	Future	L (mi)	Slope (ft/ft)	Manning's n Present	Future	Percent Imperviousness Present	Future
551	2.24	1.68	1.68	2.84	0.0055	0.070	0.070	0	0
552	2.26	2.26	2.26	2.92	0.0045	0.070	0.070	0	0
553	2.63	2.63	2.63	3.18	0.0042	0.070	0.070	0	0
554	2.42	2.42	2.42	3.07	0.0031	0.070	0.070	0	0
555	2.82	2.82	2.82	3.68	0.0027	0.070	0.070	0	0
556	3.04	3.04	3.04	3.79	0.0028	0.070	0.070	0	0
651 *	3.02	3.02	3.02	2.77	0.0033	0.070	0.045	0	20
652 *	3.35	3.30	3.35	2.39	0.0025	0.070	0.065	0	5
653 *	1.43	1.43	1.43	2.27	0.0025	0.070	0.060	0	10
701	9.91	9.91	9.91	4.21	0.0028	0.040	0.040	25	25
751 **	2.40	2.40	2.40	3.64	0.0019	0.060	0.040	5	25
752 **	3.23	3.23	3.23	3.60	0.0017	0.065	0.040	0	25
753 **	0.45	0.39	0.45	1.14	0.0022	0.040	0.035	25	35

* On-site storage accounted for in future conditions
** On-site storage accounted in both present and future conditions
† Due to citrus area
See plate 4 and 6 for location

TR

3/29/77

OVERFLOW FROM R.R. AT CP 1751 ROUTED TO WESTERN CANAL NR BY TEMPE CANAL
GILA FLOODWAY SURVEY STUDY 10/75 JTP TK
SPF RUNOFF GENERATED FROM CENTERING ABOVE CP 1751 PRESENT COND

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	1.	=0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONO
1751	220	=0.00	=0	=0	=0.	55	=0.

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	116.	311.	497.	855.	1226.	1583.	1859.	2238.	2605.
3059.	3482.	3837.	4097.	4310.	4449.	4556.	4600.	4579.	4513.
4411.	4278.	4125.	3963.	3801.	3653.	3526.	3429.	3365.	3335.
3339.	3373.	3432.	3508.	3594.	3686.	3774.	3854.	3922.	3972.
4002.	4010.	3995.	3958.	3896.	3810.	3702.	3570.	3417.	3246.
3058.	2858.	2676.	2498.	2321.	2140.	1954.	1767.	1581.	1399.
1252.	1128.	1019.	919.	826.	740.	659.	605.	567.	526.
485.	456.	426.	397.	369.	343.	320.	298.	278.	259.
242.	227.	212.	199.	186.	175.	164.	155.	146.	138.
135.	132.	129.	126.	122.	119.	116.	113.	111.	108.
105.	102.	100.	97.	95.	93.	90.	88.	86.	83.
81.	79.	77.	75.	72.	69.	67.	64.	61.	59.
57.	54.	52.	50.	48.	47.	45.	43.	41.	40.
38.	37.	36.	34.	33.	32.	31.	30.	29.	28.
27.	26.	25.	24.	23.	22.	22.	21.	20.	19.
19.	18.	17.	17.	16.	16.	15.	15.	14.	14.
13.	12.	12.	11.	10.	10.	9.	9.	8.	8.
7.	7.	6.	6.	6.	5.	5.	5.	4.	4.
4.	4.	3.	3.	3.	3.	3.	2.	2.	2.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4600.	3907.	2100.	931.

ITQR	ITQO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	30	1	=0.00	=0	=0	=0	=0.	=0.

AMSKK	X	QLOSS	COLOS	NHGT	KPNCH	JPNCH
.250	=0.000	=0.0	=0.000	=0	=0	1

HYDROGRAPH 1751 ROUTED TO 1 NO. FLOWS= 220 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	2.	4.
7.	13.	24.	40.	64.	99.	147.	213.	298.	405.
535.	691.	872.	1076.	1301.	1545.	1802.	2067.	2335.	2599.
2854.	3092.	3309.	3501.	3664.	3796.	3896.	3965.	4005.	4019.
4009.	3982.	3941.	3891.	3838.	3785.	3736.	3695.	3663.	3642.
3632.	3633.	3643.	3660.	3682.	3707.	3731.	3751.	3765.	3770.
3764.	3745.	3712.	3664.	3601.	3522.	3428.	3320.	3200.	3069.
2928.	2780.	2627.	2470.	2311.	2153.	1997.	1845.	1698.	1557.
1424.	1300.	1184.	1078.	981.	892.	812.	741.	676.	619.
567.	521.	480.	443.	410.	379.	352.	327.	304.	284.
265.	247.	231.	217.	204.	192.	181.	172.	163.	155.
148.	142.	137.	132.	127.	123.	119.	116.	112.	109.
106.	104.	101.	98.	96.	93.	91.	88.	86.	84.
81.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	56.	53.	51.	50.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.

27.	26.	25.	25.	24.	23.	22.	21.	20.	20.
19.	18.	18.	17.	16.	16.	15.	15.	14.	13.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4019.	3794.	2090.	931.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	2.	-0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1	1	-0.00	-0	2	-0.	-0	-0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 1 NO= 220 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	1.	2.	4.
7.	13.	24.	40.	64.	99.	147.	213.	298.	405.
535.	691.	872.	1076.	1301.	1545.	1802.	2067.	2335.	2599.
2854.	3092.	3309.	3501.	3664.	3796.	3896.	3965.	4005.	4019.
4009.	3982.	3941.	3891.	3838.	3785.	3736.	3695.	3663.	3642.
3632.	3633.	3643.	3660.	3682.	3707.	3731.	3751.	3765.	3770.
3764.	3745.	3712.	3664.	3601.	3522.	3428.	3320.	3200.	3069.
2928.	2780.	2627.	2470.	2311.	2153.	1997.	1845.	1698.	1557.
1424.	1300.	1184.	1078.	981.	892.	812.	741.	676.	619.
567.	521.	480.	443.	410.	379.	352.	327.	304.	284.
265.	247.	231.	217.	204.	192.	181.	172.	163.	155.
148.	142.	137.	132.	127.	123.	119.	116.	112.	109.
106.	104.	101.	98.	96.	93.	91.	88.	86.	84.
81.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	56.	53.	51.	50.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.
27.	26.	25.	25.	24.	23.	22.	21.	20.	20.
19.	18.	18.	17.	16.	16.	15.	15.	14.	13.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4019.	3794.	2090.	931.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1751	4600.	3907.	2100.	931.
ROUTED TO	1	4019.	3794.	2090.	931.
HYDROGRAPH AT	1	0.	0.	0.	0.
2 COMBINED	1	4019.	3794.	2090.	931.

GILA FLOODWAY SURVEY STUDY 10/75 JTP TK
SPF RUNOFF GENERATED FROM CENTERING ABOVE CP 1751 FUTURE COND
OVERFLOW FROM R.R. AT CP 1751 ROUTED TO WESTERN CANAL NR BY TEMPE CANAL

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	1.	-0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1751	220	-0.00	-0	-0	-0.	55	-0.

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	75.	223.	421.	619.	1067.	1266.	1317.	1264.
1501.	1897.	2395.	2985.	3579.	4043.	4367.	4588.	4705.	4750.
4723.	4654.	4548.	4426.	4294.	4170.	4061.	3978.	3924.	3903.
3912.	3951.	4012.	4091.	4180.	4259.	4312.	4373.	4430.	4476.
4504.	4508.	4485.	4431.	4346.	4231.	4091.	3929.	3749.	3552.
3341.	3120.	2891.	2693.	2507.	2319.	2128.	1934.	1742.	1551.
1368.	1217.	1088.	973.	869.	774.	687.	614.	578.	537.
493.	463.	433.	404.	375.	349.	325.	303.	282.	263.
246.	230.	215.	202.	189.	177.	167.	158.	147.	140.
136.	133.	129.	126.	123.	120.	117.	114.	111.	108.
106.	103.	100.	98.	95.	93.	90.	88.	86.	84.
81.	79.	77.	75.	72.	69.	67.	64.	61.	59.
57.	54.	52.	50.	48.	46.	45.	43.	41.	40.
38.	37.	36.	34.	33.	32.	31.	30.	29.	28.
27.	26.	25.	24.	23.	22.	22.	21.	20.	19.
19.	18.	18.	17.	16.	16.	15.	15.	14.	14.
13.	12.	12.	11.	10.	16.	9.	8.	8.	8.
7.	7.	6.	6.	6.	5.	5.	5.	4.	4.
4.	4.	3.	3.	3.	3.	3.	2.	2.	2.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4750.	4301.	2157.	956.

ITQR	ITQO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	30	1	-0.00	-0	-0	-0	-0.	-0.

AMSKK	X	QLOSS	CQLOS	NHGT	KPNCH	JPNCH
.250	-0.000	-0.0	-0.000	-0	-0	1

HYDROGRAPH 1751 ROUTED TO 1 NO. FLOWS= 220 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	1.
3.	6.	10.	18.	30.	48.	74.	110.	157.	218.
295.	389.	501.	633.	785.	959.	1154.	1370.	1605.	1855.
2118.	2386.	2654.	2914.	3160.	3386.	3586.	3758.	3899.	4008.
4089.	4142.	4174.	4187.	4188.	4180.	4169.	4158.	4150.	4147.
4150.	4160.	4175.	4194.	4215.	4236.	4254.	4267.	4272.	4265.
4247.	4213.	4164.	4099.	4016.	3918.	3803.	3675.	3533.	3381.
3220.	3051.	2878.	2702.	2525.	2349.	2176.	2008.	1845.	1689.
1541.	1403.	1274.	1155.	1047.	948.	860.	780.	709.	646.
590.	540.	495.	456.	420.	388.	360.	334.	310.	289.
269.	251.	235.	220.	207.	195.	184.	174.	165.	157.
150.	143.	138.	133.	128.	124.	120.	116.	113.	110.
107.	104.	101.	99.	96.	94.	91.	89.	86.	84.
81.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	55.	53.	51.	49.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.

27.	26.	25.	25.	24.	23.	22.	21.	21.	20.
19.	18.	18.	17.	17.	16.	15.	15.	14.	14.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4272.	4187.	2148.	955.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
-0	15	-0.	-0.	-0.	-0.	-0.	-0.	2.	-0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1	1	-0.00	-0	2	-0.	-0	-0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 1 NQ= 220 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	1.	1.
3.	6.	10.	18.	30.	48.	74.	110.	157.	218.
295.	389.	501.	633.	785.	959.	1154.	1370.	1605.	1855.
2118.	2386.	2654.	2914.	3160.	3386.	3586.	3758.	3899.	4008.
4089.	4142.	4174.	4187.	4188.	4180.	4169.	4158.	4150.	4147.
4150.	4160.	4175.	4194.	4215.	4236.	4254.	4267.	4272.	4265.
4247.	4213.	4164.	4099.	4016.	3918.	3803.	3675.	3533.	3381.
3220.	3051.	2878.	2702.	2525.	2349.	2176.	2008.	1845.	1689.
1541.	1403.	1274.	1155.	1047.	948.	860.	780.	709.	646.
590.	540.	495.	456.	420.	388.	360.	334.	310.	289.
269.	251.	235.	220.	207.	195.	184.	174.	165.	157.
150.	143.	138.	133.	128.	124.	120.	116.	113.	110.
107.	104.	101.	99.	96.	94.	91.	89.	86.	84.
81.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	55.	53.	51.	49.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.
27.	26.	25.	25.	24.	23.	22.	21.	21.	20.
19.	18.	18.	17.	17.	16.	15.	15.	14.	14.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4272.	4187.	2148.	955.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1751	4750.	4301.	2157.	956.
ROUTED TO	1	4272.	4187.	2148.	955.
HYDROGRAPH AT	1	0.	0.	0.	0.
2 COMBINED	1	4272.	4187.	2148.	955.

CROSS-SECTIONS BETWEEN TEMPE CANAL ON WEST AND S.P.R.R. ON EAST, SUPERSTITION FWY ON NORTH AND WESTERN CANAL ON SOUTH

ELEV.	STA
1197	0
1192	90
1192	4610
1193	6200
1194	7650
1194	7800
1194	8100
1196	8300

CROSS-SECTION A-A

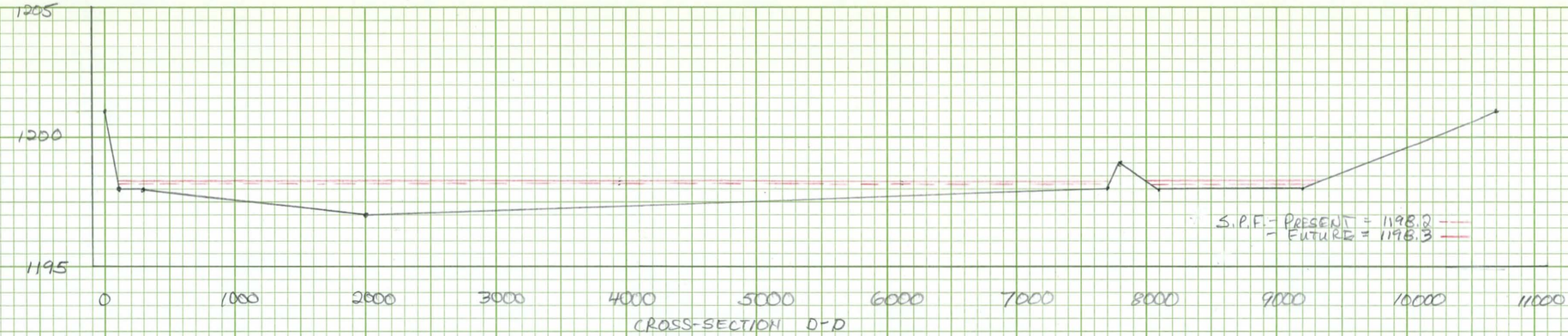
ELEV.	STA
1199	0
1194	100
1193	2000
1194	3600
1194	5400
1193	6500
1194	7800
1192	7900
1192	8200
1196	9700
1199	9800

CROSS-SECTION B-B

ELEV	STA
1199	0
1196	100
1195	1200
1196	2600
1196	5400
1195	6500
1196	7800
1196	7900
1195	8800
1196	9400
1196	9900
1199	10100

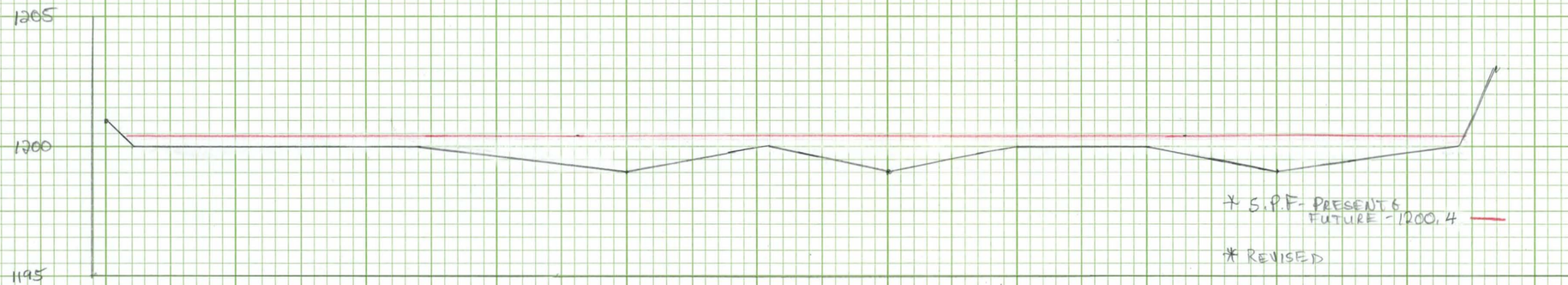
CROSS-SECTION C-C

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.



CROSS-SECTION D-D

ELEV	STA
1201	0
1198	100
1198	300
1197	2000
1198	7700
1199	7800
1198	8100
1198	9200
1201	10700



CROSS-SECTION E-E

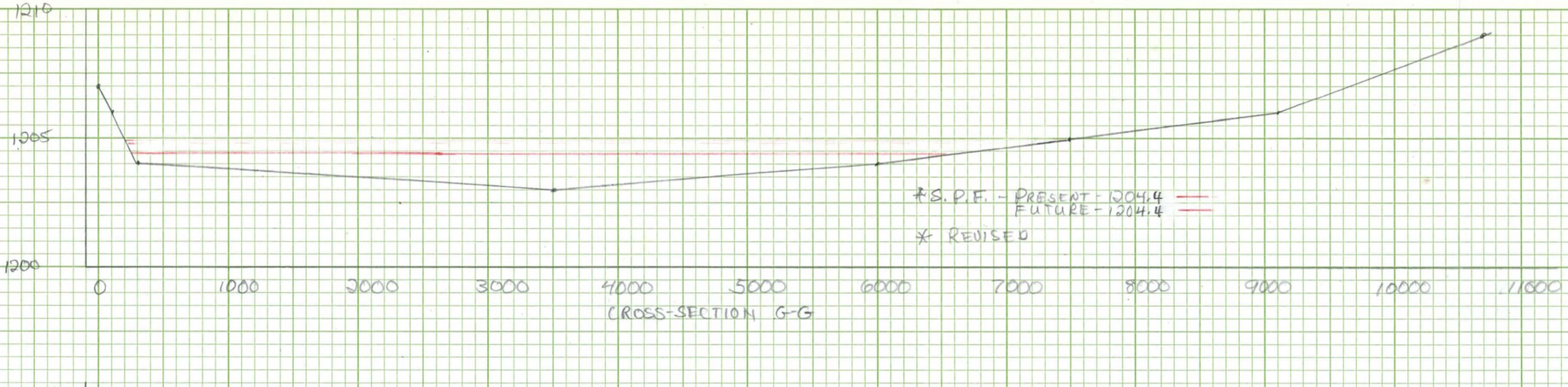
ELEV.	STA.
1201	0
1200	100
1200	2700
1199	4000
1200	5100
1199	6000
1200	7000
1200	8000
1199	9000
1200	10400

ELEV.	STA.
1203	10700

CROSS-SECTION F-F

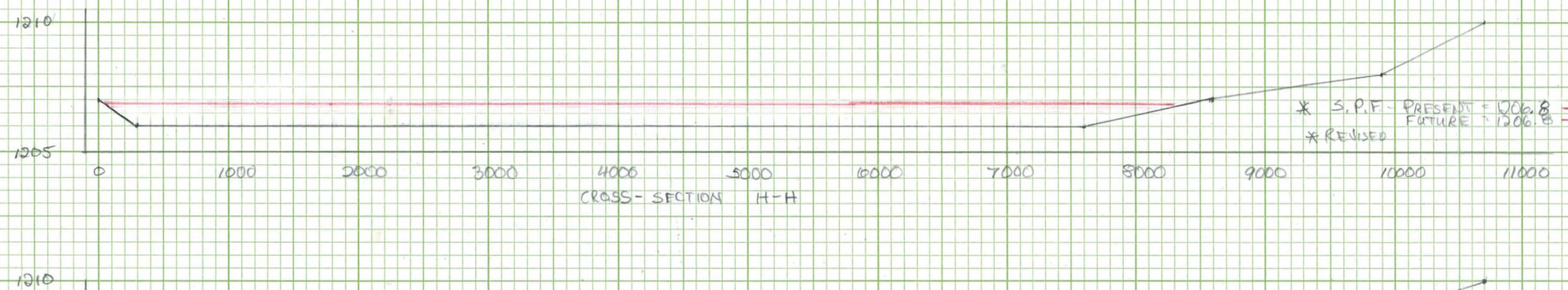
ELEV.	STA
1203	0
1202	300
1202	500
1201	1500
1202	2400
1202	2700
1201	4000
1202	5100
1202	5300
1201	6500
1202	7600
1203	9000
1204	9900
1207	10700

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.



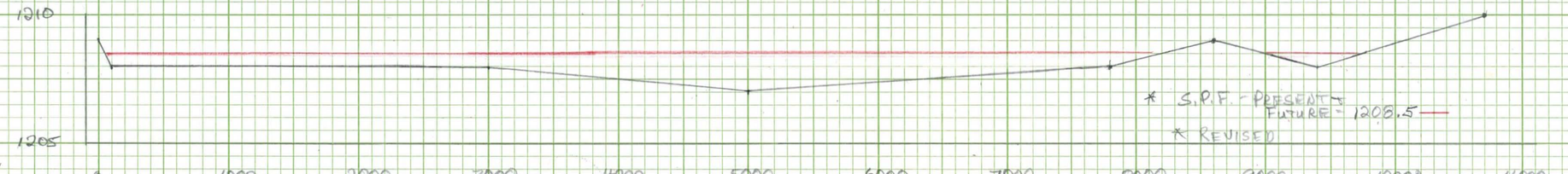
CROSS-SECTION G-G

ELEV.	STA
1207	0
1206	100
1204	300
1203	3500
1204	6000
1205	7500
1206	9100
1209	10700



CROSS-SECTION H-H

ELEV.	STA.
1207	0
1206	300
1206	7600
1207	8600
1208	9900
1210	10700



CROSS-SECTION I-I

ELEV.	STA.
1209	0
1208	100
1208	3000
1207	5000
1208	7800
1209	8600
1208	9400
1210	10700

CROSS-SECTION J-J

ELEV.	STA.
1211	0
1210	300
1210	2800
1209	5500
1210	8900
1213	10700

K&E 10 X 10 TO THE INCH 47 0780
10 X 15 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

USAGE ON 11/07/75 AT 11:10:00
SRU'S:4.0 ELAPSED TIME: 00:06:44

GOOD BYE.

SSS

PORT: 78
CENTER: AA
TERMINAL AA2035-AA09-02-078 11/07/75 13:29:12
LOGON: BAS UYP103,WRB,SECA
READY
LOA*AAQL
READY
RUN

*AAQL 13:29 11/07/75

FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 1,.001,4000,4300
300 DATA 1197,0,1192,90,1192,4610,1193,6200,1194,7650,1194,8100,1196,8300,-999,
RUN

*AAQL 13:31 11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S = .001000
Q 1 = 4000
Q 2 = 4300

1197.0	1192.0	1192.0	1193.0	1194.0	1194.0	1196.0
.0	90.0	4610.0	6200.0	7650.0	8100.0	8300.0

N = .050000

SEC A-A

ELMIN = 1192
 S = .001000

WSEL	Q	A	V	P	N	BSTA	ESTA
1192.9	3995.6	4883.2	.82	6011.3	.050		

```
 1192.9    3995.0    4003.2    .02   6011.3                  73.5   6004.9
```

SEC A-A

```
            4298.7    5123.9     .84   6075.3   .050
           --------  -------   -----  ------
 1193.0     4298.7    5123.9     .84   6075.3              72.6   6147.9

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.001,4053,4340
300 DATA 1199,0,1194,100,1193,2000,1194,3600,1194,5400,1193,6500,1194,7800,1192
301 DATA -999,.05
RUN

*AAQL   13:34   11/07/75

100(11) SYNTAX ERROR
READY
100 DATA 1,.001,4053,4340
RUN

*AAQL   13:35   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4053
Q 2 = 4340


  1199.0  1194.0  1193.0  1194.0  1194.0  1193.0  1194.0  1192.0
      .0   100.0  2000.0  3600.0  5400.0  6500.0  7800.0  7900.0

  1192.0  1196.0  1199.0
  8200.0  9700.0  9800.0
          N =  .050000



ELMIN =  1192
 S =  .001000
```

SEC-B-B

```
   WSEL        Q          A        V        P       N       BSTA     ESTA

            4054.1    5766.0     .70   8910.8   .050
           --------  -------   -----  ------
 1194.2     4054.1    5766.0     .70   8910.8              96.9   9007.7
```

```
          4340.3   6009.8    .72  8921.6  .050
         --------  -------  -----  ------
1194.2    4340.3   6009.8    .72  8921.6          96.4  9017.9
```

SEC B-B

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4104,4378
300 DATA 1199,0,1196,100,1195,1200,1196,2600,1196,5400,1195,6500,1196,7800,119
RUN

*AAQL   13:38   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4104
Q 2 = 4378


  1199.0  1196.0  1195.0  1196.0  1196.0  1195.0  1196.0  1196.0
      .0   100.0  1200.0  2600.0  5400.0  6500.0  7800.0  7900.0

  1195.0  1196.0  1196.0  1199.0
  8800.0  9400.0  9900.0 10100.0
          N =  .050000



ELMIN =  1195
 S =  .001000
```

SEC C-C

```
   WSEL        Q          A       V        P      N      BSTA     ESTA

            4105.4   6042.1    .68  9829.0  .050
           --------  -------  -----  ------
  1196.3    4105.4   6042.1    .68  9829.0           90.3  9919.3



            4378.1   6280.4    .70  9831.4  .050
           --------  -------  -----  ------
  1196.3    4378.1   6280.4    .70  9831.4           89.5  9920.9

FLOODWAY? 1 = YES, 0 = NO
?0
```

```
YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4189,4442
300 DATA 1201,0,1198,100,1198,300,1197,2000,1198,7700,1199,7800,1198,8100,1198
RUN

*AAQL   13:40   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4189
Q 2 = 4442


  1201.0  1198.0  1198.0  1197.0  1198.0  1199.0  1198.0  1198.0
      .0   100.0   300.0  2000.0  7700.0  7800.0  8100.0  9200.0

  1201.0
 10700.0
          N =  .050000


                                SEC  D-D
ELMIN =  1197
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             4189.0    5885.8     .71   8931.4   .050
            --------   -------   -----   ------
  1198.2     4189.0    5885.8     .71   8931.4             91.7   9324.0


             4442.1    6102.9     .73   8954.1   .050
            --------   -------   -----   ------
  1198.3     4442.1    6102.9     .73   8954.1             90.9   9336.1

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4277,4508
300 DATA 1201,0,1200,200,1299,2700,1199,4000,1200,5100,1199,6000,1200,7000,120
RUN
```

```
*AAQL   13:43   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4277
Q 2 = 4508


  1201.0  1200.0  1299.0  1199.0  1200.0  1199.0  1200.0  1200.0
      .0   200.0  2700.0  4000.0  5100.0  6000.0  7000.0  8000.0

  1199.0  1200.0  1203.0
  9000.0 10400.0 10700.0
          N =  .050000



ELMIN =  1199                    SEC E-E
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             4269.7    5257.9     .81   6546.3   .050
            --------   -------   -----   ------
  1200.4     4269.7    5257.9     .81   6546.3            121.2 10439.4


             4516.8    5441.5     .83   6555.7   .050
            --------   -------   -----   ------
  1200.4     4516.8    5441.5     .83   6555.7            115.6 10442.2

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4333,4483
300 DATA 1203,0,1202,300,1202,500,1201,1500,1202,2400,1203,2700,1201,4000,1202
301 DATA 1203,9000,1204,9900,1207,10700
302 DATA -999,.05
RUN

*AAQL   13:46   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4333
Q 2 = 4483
```

```
 1203.0  1202.0  1202.0  1201.0  1202.0  1202.0  1201.0  1202.0
     .0   300.0   500.0  1500.0  2400.0  2700.0  4000.0  5100.0

 1202.0  1201.0  1202.0  1203.0  1204.0  1207.0
 5300.0  6500.0  7600.0  9000.0  9900.0 10700.0
         N =  .050000



ELMIN =  1201
 S =  .001000                    SEC F-F

  WSEL        Q          A        V        P       N      BSTA     ESTA

            4330.5    5698.9     .76   7838.8   .050
           --------   -------   -----   ------
 1202.3     4330.5    5698.9     .76   7838.8            204.9   8043.7


            4490.0    5832.5     .77   7867.7   .050
           --------   -------   -----   ------
 1202.3     4490.0    5832.5     .77   7867.7            199.8   8067.5

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4395,4545
300 DATA 1207,0,1206,100,1204,300,1203,3500,1204,6000,1205,7500,1206,9100,1209
301
RUN

*AAQL   13:49   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4395
Q 2 = 4545


 1207.0  1206.0  1204.0  1203.0  1204.0  1205.0  1206.0  1209.0
     .0   100.0   300.0  3500.0  6000.0  7500.0  9100.0 10700.0
         N =  .050000
```

```
ELMIN =  1203
 S =  .001000
```

SEC G-G

WSEL	Q	A	V	P	N	BSTA	ESTA
	4395.3	5284.2	.83	6346.6	.050		
1204.4	4395.3	5284.2	.83	6346.6		259.6	6606.2
	4545.1	5401.5	.84	6376.1	.050		
1204.4	4545.1	5401.5	.84	6376.1		257.7	6633.9

```
FLOODWAY? 1 = YES, 0 = NO
?0




YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.001,4463,4647
300 DATA 1207,0,1206,300,1206,7600,1207,8600,1208,9900,1210,10700
RUN

*AAQL   13:51   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4463
Q 2 = 4647


  1207.0  1206.0  1206.0  1207.0  1208.0  1210.0
      .0   300.0  7600.0  8600.0  9900.0 10700.0
         N =  .050000



ELMIN =  1206
 S =  .001000
```

SEC H-H

WSEL	Q	A	V	P	N	BSTA	ESTA
	4461.4	5932.9	.75	8289.5	.050		
1206.8	4461.4	5932.9	.75	8289.5		71.7	8361.1
	4638.2	6079.6	.76	8312.5	.050		

```
  1206.8    4638.2    6079.6     .76  8312.5              66.4  8378.8
```

SEC H-H

```
FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.001,4519,4689
300 DATA 1209,0,1208,100,1208,3000,1207,5000,1208,7800,1209,8600,1208,9400,12
RUN

*AAQL   13:54   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4519
Q 2 = 4689


  1209.0  1208.0  1208.0  1207.0  1208.0  1209.0  1208.0  1210.0
      .0   100.0  3000.0  5000.0  7800.0  8600.0  9400.0 10700.0
          N =  .050000


ELMIN =  1207
 S =  .001000
```

SEC I-I

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

             4519.1    6112.3     .74   8760.0   .050
            --------   -------   -----   ------
  1208.5     4519.1    6112.3     .74   8760.0              54.9   9693.2


             4689.0    6260.4     .75   8799.7   .050
            --------   -------   -----   ------
  1208.5     4689.0    6260.4     .75   8799.7              53.2   9704.2

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
```

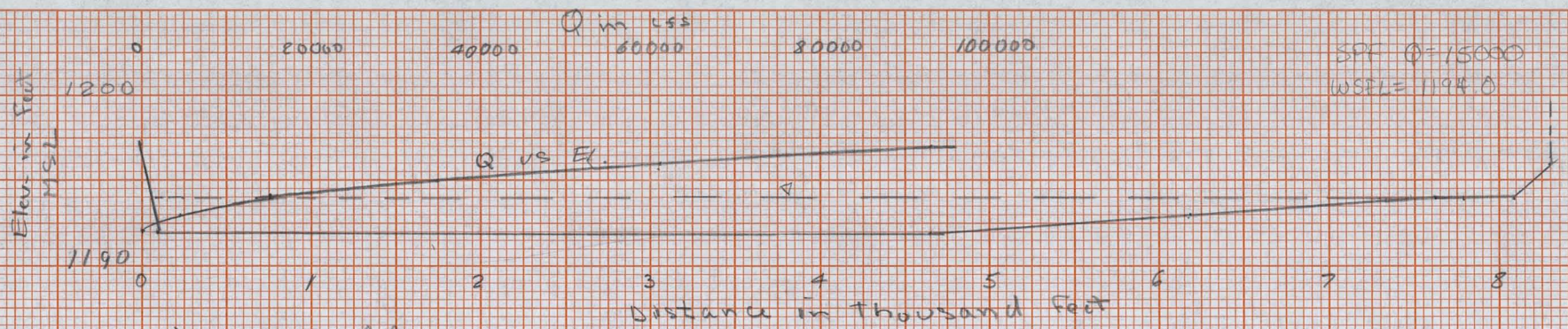
```
SRU'S:0.4
READY
100 DATA 1,.001,4600 4750
300 DATA 1211,0,1210,300,1210,2800,1209,5500,1210,8900,1213,10700
RUN

*AAQL   13:56   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 46004750


  1211.0  1210.0  1210.0  1209.0  1210.0  1213.0
      .0   300.0  2800.0  5500.0  8900.0 9@

NOW AT 12750

READY
EDIT LIST 100;4600;4600,
100 DATA 1,.001,4600, 4750
READY
RUN

*AAQL   13:57   11/07/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4600
Q 2 = 4750


  1211.0  1210.0  1210.0  1209.0  1210.0  1213.0
      .0   300.0  2800.0  5500.0  8900.0 10700.0
          N =  .050000


ELMIN =  1209                    SEC J-J
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             4600.1    6224.3     .74   8926.0   .050
            --------   -------   -----   ------
  1210.4     4600.1    6224.3     .74   8926.0            191.3   9117.3


             4749.9    6348.8     .75   8938.6   .050
            --------   -------   -----   ------
  1210.4     4749.9    6348.8     .75   8938.6            187.1   9125.7

FLOODWAY? 1 = YES, 0 = NO
?@

NOW AT 12750
```

SUBJECT: GILA FLOODWAY - S.P.F ANALYSIS Q CALCULATION FOR AREA BOUNDED BY FWY ON NORTH, WESTERN CANAL ON SOUTH R.R. ON EAST & TEMPE CANAL ON WEST	COMPUTED BY: DJG CHECKED BY:	DATE: 10/24/75 DATE:	FILE NO. SHEET NO.

1. DISTANCE FROM X-SECTION J-J TO X-SECTION A-A IS 17030
   a) FOR S.P.F. - PRESENT CONDITIONS - THE Q GOES FROM 4600 CFS TO 4000 - A ROUTE DOWN OF 600 CFS
   EQUATION IS $600/17030 = x/y = .0352$ WHERE X = INCREMENTAL Q
   y_F = INCREMENTAL DISTANCE
   b) FOR S.P.F. - FUTURE CONDITIONS - THE Q GOES FROM 4750 CFS TO 4300 CFS - A ROUTE DOWN OF 450 CFS
   EQUATION IS $450/17030 = x/y = .0264$

X-SECTION	$y_P = y_F$	x_P	x_F	$Q_{x_P} = 4600 - x_P$	$Q_{x_E} = 4750 - x_F$
J-J	0	0	0	4600	4750
I-I	2300	81	61	4519	4689
H-H	3700	137	103	4463	4647
G-G	5820	205	154	4395	4545
F-F	7580	267	200	4333	4483
E-E	9180	323	242	4277	4508
D-D	11680	411	308	4189	4442
C-C	14080	496	372	4104	4378
B-B	15530	547	410	4053	4340
A-A	17030	600	450	4000	4300

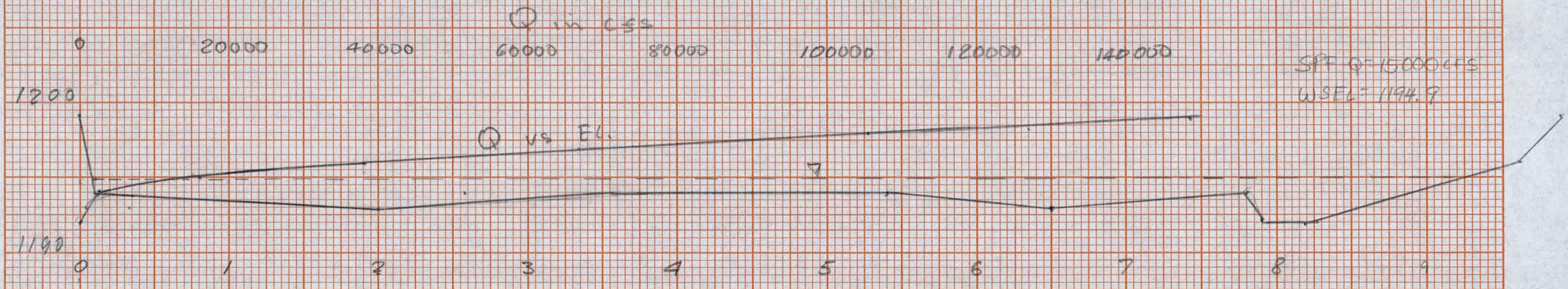
K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



SPF Q = 15000
WSEL = 1194.0

X-SECT. AA

Elev.	Sta.	Elev.	Sta
1197	0	1194	7650
1192	90	1194	8100
1192	4610	1196	8300
1193	6200		



SPF Q = 15,000 cfs
WSEL = 1194.9

X-Sect. B-B

El.	Sta.	El.	St.
1196	0	1194	7800
1194	100	1192	7900
1193	2000	1192	8200
1194	3600	1196	9700
1194	5400	1194	9800
1193	6500		

Jul, 75 V.V.

S = .001000

MIN. WSEL = 1193 INCR. WSEL = .5 MAX. WSEL = 1200

X-SECT. AA

1197.0	1192.0	1192.0	1193.0	1194.0	1194.0	1194.0	1196.0
.0	90.0	4610.0	6200.0	7650.0	7800.0	8100.0	8300.0

N = .050000

ELMIN = 1192
S = .001000

WSEL	Q	A	V	P	N	BSTA	ESTA
	4555.8	5324.0	.86	6128.0	.050		
1193.0	4555.8	5324.0	.86	6128.0		72.0	6200.0
	9343.5	8571.5	1.09	6862.0	.050		
1193.5	9343.5	8571.5	1.09	6862.0		63.0	6925.0
	15104.1	12186.0	1.24	8046.1	.050		
1194.0	15104.1	12186.0	1.24	8046.1		54.0	8100.0
	24217.5	16223.7	1.49	8105.1	.050		
1194.5	24217.5	16223.7	1.49	8105.1		45.0	8150.0
	34990.4	20291.0	1.72	8164.1	.050		
1195.0	34990.4	20291.0	1.72	8164.1		36.0	8200.0
	47312.7	24387.8	1.94	8223.1	.050		
1195.5	47312.7	24387.8	1.94	8223.1		27.0	8250.0

	61101.4	28514.0	2.14	8282.1	.050		
1196.0	61101.4	28514.0	2.14	8282.1		18.0	8300.0

	76548.9	32657.2	2.34	8291.1	.050		
1196.5	76548.9	32657.2	2.34	8291.1		9.0	8300.0

WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	93361.9	36805.0	2.54	8300.1	.050		
1197.0	93361.9	36805.0	2.54	8300.1		.0	8300.0

WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	111558.6	40955.0	2.72	8300.1	.050		
1197.5	111558.6	40955.0	2.72	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	131028.6	45105.0	2.90	8300.1	.050		
1198.0	131028.6	45105.0	2.90	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	151731.4	49255.0	3.08	8300.1	.050		
1198.5	151731.4	49255.0	3.08	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	173631.3	53405.0	3.25	8300.1	.050		
1199.0	173631.3	53405.0	3.25	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	196696.5	57555.0	3.42	8300.1	.050		
1199.5	196696.5	57555.0	3.42	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

	220898.2	61705.0	3.58	8300.1	.050		
1200.0	220898.2	61705.0	3.58	8300.1		.0	8300.0

WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
WSEL > GROUND AT ESTA. VERTICAL SIDEBOARD ADDED

MIN. WSEL = 1192 INCR. WSEL = 1 MAX. WSEL = 1199

X-SECT. B

X-Sect. B-B

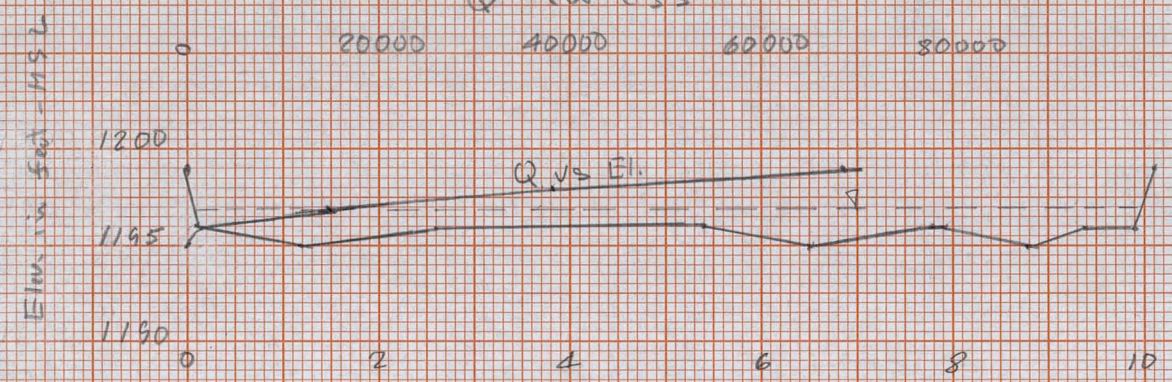
1199.0 1194.0 1193.0 1194.0 1194.0 1193.0 1194.0 1192.0
.0 100.0 2000.0 3600.0 5400.0 6500.0 7800.0 7900.0

1192.0 1196.0 1199.0
8200.0 9700.0 9800.0
N = .050000

ELMIN = 1192
S = .001000

WSEL	Q	A	V	P	N	BSTA	ESTA
	.0	.0	.00	300.0	.050		
1192.0	.0	.0	.00	.0		7900.0	8200.0
	382.2	512.5	.75	725.0	.050		
1193.0	382.2	512.5	.75	725.0		2000.0	8575.0
	2595.2	4400.0	.59	8850.0	.050		
1194.0	2595.2	4400.0	.59	8850.0		100.0	8950.0
	16224.8	13447.5	1.21	9245.1	.050		
1195.0	16224.8	13447.5	1.21	9245.1		80.0	9325.0
	38288.8	22890.0	1.67	9640.1	.050		
1196.0	38288.8	22890.0	1.67	9640.1		60.0	9700.0
	68622.0	32556.7	2.11	9693.4	.050		
1197.0	68622.0	32556.7	2.11	9693.4		40.0	9733.3
	105675.6	42276.7	2.50	9746.8	.050		
1198.0	105675.6	42276.7	2.50	9746.8		20.0	9766.7
	148911.0	52050.0	2.86	9800.2	.050		
1199.0	148911.0	52050.0	2.86	9800.2		.0	9800.0

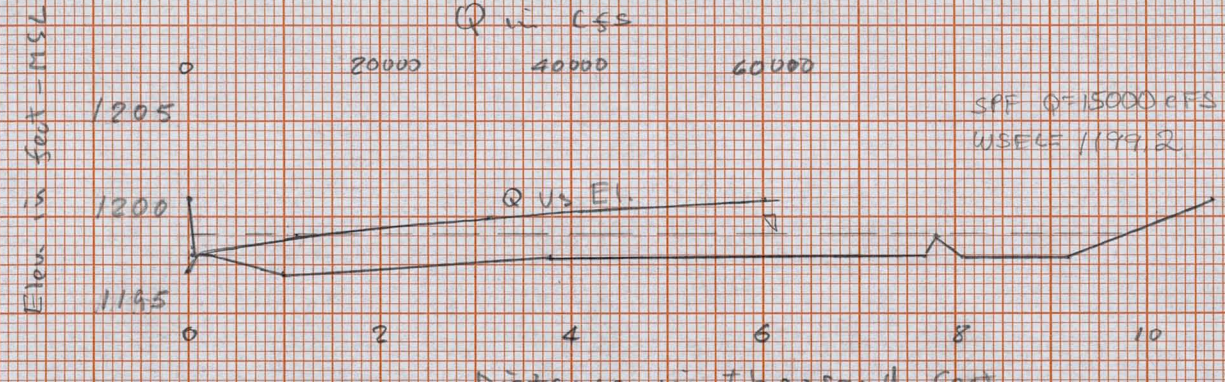
K&E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.



SPF Q=15000 cfs
WSEL 1196.9

EL.	Sta.	EL.	Sta.
1196	0	1196	7800
1196	100	1196	7500
1195	1200	1195	8800
1196	2600	1196	9400
1196	5400	1196	9500
1195	6500	1199	10100

X-SECT. C-C



SPF Q=15000 cfs
WSEL 1199.2

El.	Sta.
1201	0
1198	100
1198	300
1197	2000
1198	7700
1199	7800
1198	8100
1195	9200
1201	10700

X-SECT. D-D

July 75 - V.V.

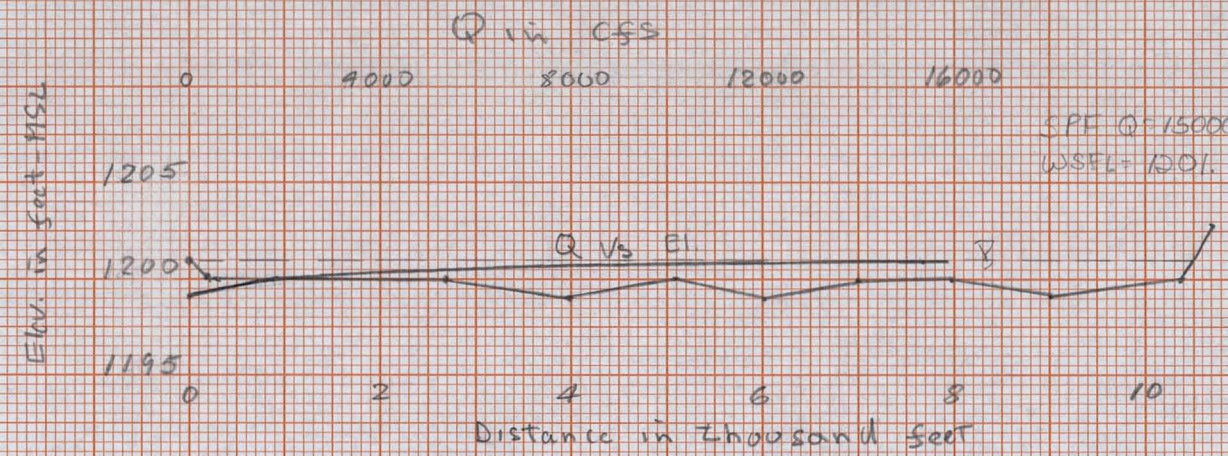
```
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 2,0.001,1196,,1
                      1,1199
30[illegible] DATA 1199,0,1196,100,1195,1200,1196,2600,1196,3000,1196,5400,1195,6500,119


310 DATA 1196,9900,1199,10100,-999,0.050
RUN

*AAQL   11:07   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1196 INCR. WSEL = 1 MAX. WSEL = 1199


  1199.0  1196.0  1195.0  1196.0  1196.0  1196.0  1195.0  1196.0
      .0   100.0  1200.0  2600.0  3000.0  5400.0  6500.0  7800.0

  1196.0  1195.0  1196.0  1196.0  1199.0
  7900.0  8800.0  9400.0  9900.0 10100.0
          N =  .050000


ELMIN =  1195
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

            1426.1    3200.0     .45   9800.0   .050
           --------   -------   -----   ------
  1196.0    1426.1    3200.0     .45   9800.0            100.0   9900.0



           14744.9   13050.0    1.13   9900.0   .050
           --------   -------   -----   ------
  1197.0   14744.9   13050.0    1.13   9900.0             66.7   9966.7



           37664.1   23000.0    1.64  10000.0   .050
           --------   -------   -----   ------
  [illegible]198.0   37664.1   23000.0    1.64  10000.0             33.3  10033.3



           68462.3   33050.0    2.07  10100.1   .050
           --------   -------   -----   ------
  1199.0   68462.3   33050.0    2.07  10100.1                  .0  10100.0
```

X-SECT. CC

```
*AAQL   11:09   07/30/75

FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 2,0.001,1198,1,1201
300 DATA 1201,0,1198,100,1198,300,1197,2000,1198,3800,1198,7700,1199,7800,119

RUN

*AAQL   11:14   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
MIN. WSEL = 1198 INCR. WSEL = 1 MAX. WSEL = 1201

  1201.0  1198.0  1198.0  1197.0  1198.0  1198.0  1199.0  1198.0
      .0   100.0   300.0  2000.0  3800.0  7700.0  7800.0  8100.0

  1198.0  1201.0
  9200.0 10700.0
          N =  .050000



ELMIN =  1197
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

              564.6    1750.0     .32   8700.0   .050
            --------   -------   -----   ------
  1198.0      564.6    1750.0     .32   8700.0            100.0   9200.0


            11151.9   10916.7    1.02   9633.4   .050
            --------   -------   -----   ------
  1199.0    11151.9   10916.7    1.02   9633.4             66.7   9700.0


            31546.2   20816.7    1.52  10166.7   .050
            --------   -------   -----   ------
  1200.0    31546.2   20816.7    1.52  10166.7             33.3  10200.0


            60007.9   31250.0    1.92  10700.1   .050
            --------   -------   -----   ------
  1201.0    60007.9   31250.0    1.92  10700.1               .0  10700.0
```

X-SECT. DD

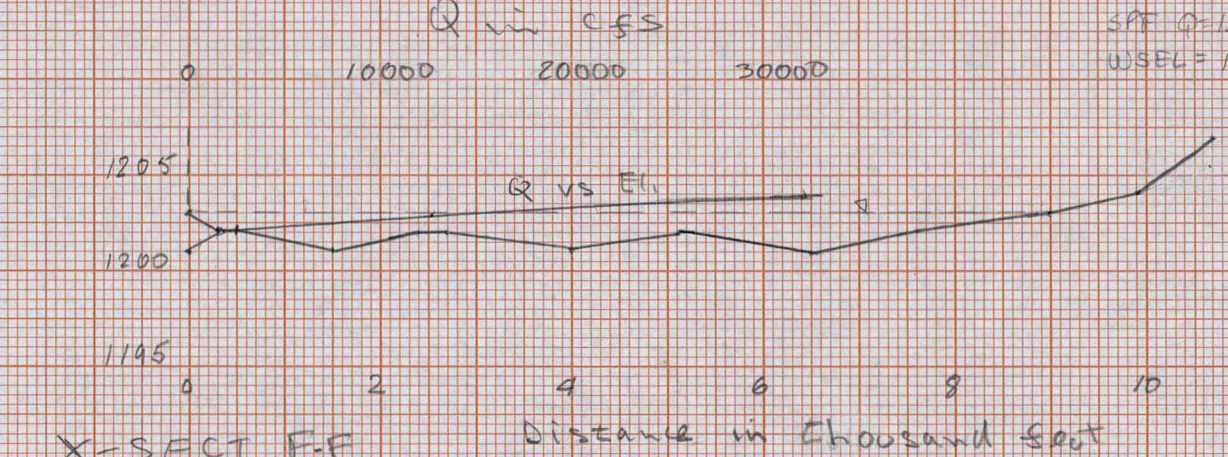
K&E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.



SPF Q=15000CFS
WSEL=1201.

Elev.	Sta.
1201	0
1200	200
1200	2700
1194	4000
1200	5100
1194	6000
1200	7000
1200	8000
1194	9000
1200	10400
1203	10700

X-SECT. E-E



SPF Q=15000CFS
WSEL=1203.1

Elev.	Sta.
1203	0
1202	300
1202	500
1201	1500
1202	2400
1202	2700
1201	4000
1202	5100
1202	5300
1201	6500
1202	7600
1203	9000
1204	9500
1207	10700

X-SECT. F-F

Aug. 75 - V.J.

```
FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA2
        2,0.001,1199,1,1201
```

X-Sect E.E.

```
300 DATA 1201,0,1200,200,1200,2700,1199,4000,1200,5100,1199,6000,1200,7000,

RUN

*AAQL   12:51   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1199 INCR. WSEL = 1 MAX. WSEL = 1201


  1201.0  1200.0  1200.0  1199.0  1200.0  1199.0  1200.0  1200.0
      .0   200.0  2700.0  4000.0  5100.0  6000.0  7000.0  8000.0

  1199.0  1200.0  1203.0
  9000.0 10400.0 10700.0
          N =  .050000



ELMIN =  1199
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

                .0         .0      .00       .0   .050
           --------   -------   -----   ------
  1199.0        .0         .0      .00       .0           4000.0   9000.0



            1498.7     3350.0      .45  10200.0   .050
           --------   -------   -----   ------
  1200.0    1498.7     3350.0      .45  10200.0            200.0  10400.0



           15374.1    13700.0     1.12  10500.0   .050
           --------   -------   -----   ------
  1201.0   15374.1    13700.0     1.12  10500.0               .0  10500.0
```

COMPUTATION SHEET

PROJECT GILA FLOODWAY — SHEET NO. 1 OF ____ SHEETS

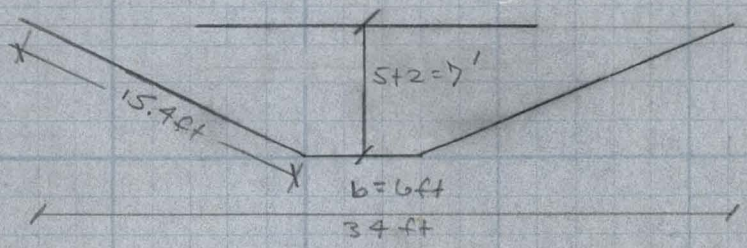
ITEM ____ DATE 10/15/76

FILE ____

COMPUTED BY P.A. — CHECKED BY ____ — REF. DRWG. NO. ____

Q = 500 cfs

Rect. trap. channel plus holding basin



1. Earthwork

Excavation =
Right-of-way = (100+6)(17700)/43560 = 43.1 acres

2. Concrete

Area of invert = 10/12 x 6 = 5 sq ft
Cu. yds. of conc. = (5)(17700)/27 = 3278 cu yds
Area of side slopes = 15.4 (8/12)(2) = 20.5 sq ft (rect. assumed)
Cu. yds of conc. = 20.5 (17700)/27 = 13439 cu yds.

Total Cu yds = 16717 cu yds ≈ 16720 C.Y.

3. Reinforcing steel (Assume) 80 lb steel/cu yd conc.

Pounds of steel = 16720 (80 lb/cu yd) = 1,337,600 lbs.

Assumptions
100 ft plus base for right-of-way (Due to excessive depth)
(Assume 25 ft depth x 3/1 slope x 2 sides = 100 ft)

Concrete 8" side thickness 12" base thickness

Assume land is flat

SPD Form 284 19 DEC 1959

COMPUTATION SHEET

PROJECT GILA FLOODWAY — SHEET NO. ___ OF ___ SHEETS

ITEM ___ DATE 10/15/76

FILE ___

COMPUTED BY PA — CHECKED BY ___ REF. DRWG. NO. ___

Channel from Tempe Canal to Price Road

1. Excavation = [7(6) + 14(7)] 3800/27 = 14,379 Cu yds
   Right-of-way = (100 + 6) 3800 / 43560 = 9.3 acres

2. Concrete

   invert - 5.0 (3800/27) = 704 cy
   Side slope - 20.5 (3800/27) = 2885 cy.
   Total cu yds. 3589 Cy. ≈ 3590

3. Steel 80 lbs steel / cu yd concrete

   80 lb/cy (3590) = 287,200 lbs

Basin 100 Ac-ft storage

Elev = 1181.88
1195.0
Depth = 13.12

Surface Area = $\frac{100 \text{ ac-ft}}{13 \text{ ft}}$ = 7.7 acre

Excavation = 100 × 43560 = 4356000/27 = 161,333

SPD Form 284 19 DEC 1959

QUANTITY TAKE-OFF

_____ ESTIMATE

LOCATION & FY PROGRAM: Gila Floodway

JOB NO.:

DIRECTIVE JOB NO.: 500 cfs.

COMPUTED BY: Paul

PREPARED BY:

LINE ITEM NO.:

CHECKED BY:

CHECKED BY:

DESCRIPTION: Basin & channel (500 cfs)

DATE:

DATE:

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL COST
	Channel to Salt River				
	Excavation	382,638	CY	$1	383,000
	Right-of-way	43.1	acre	$10,000	$431,000
	Concrete	16720	CY	$50	836,000
	steel	1,337,600	lbs.	$0.18	241,000
	subtotal				$1,891,000
	channel from Tempe Canal to Price Road				
	Excavation	14380	CY	$1	15,000
	Right-of-way	9.3	acre	$10,000	93,000
	Concrete	3590	CY	$50	180,000
	steel	287,200	lbs.	$0.18	52,000
	subtotal				$340,000
	Basin				
	Excavation	161,333	CY	$1	162,000
	Right-of-way	7.7	acre	$10,000	77,000
	Subtotal				$239,000
	Total				$2,470,000
				≈	$2.5 million

SPD FORM 31 AUG 60. 337 (RULED)

QUANTITY TAKE-OFF

_____ ESTIMATE

LOCATION & FY PROGRAM: Gila Floodway

JOB NO.:

DIRECTIVE JOB NO.:

COMPUTED BY:

PREPARED BY:

LINE ITEM NO.:

CHECKED BY:

CHECKED BY:

DESCRIPTION: Basin & Channel (500cfs)

DATE:

DATE:

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL COST
	Total				2,470,000
	subtract Right-of-way				601,000
	Total Construction				$1,869,000
	Contingencies	(21%)			
	Sub total				2,988,700
	Engr. & Design	(15%)			448,300
	Supervision & Admin	(6%)			179,300
					3,616,300
				x	$3,620,000
	Right-of-way				601,000
	Total Project				$4,220,000

SPD FORM 31 AUG 60 337 (RULED)

QUANTITY COMPUTATION

PROJECT: Gila Floodway

SHEET 1 OF 2 SHEETS

COMPUTED BY: Paul

MATERIAL: Earth

CHECKED BY:

DATE:

STATION	DISTANCE BETWEEN STATIONS	~~FACTOR~~ depth	$\frac{\Sigma \text{Area}}{2}(\frac{1}{27})$ AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.	AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.	AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.
0+00			550											
	540	15.0		1165	21.6	11664								
5+40			615											
	180	15.8		1105	20.5	3690								
7+20			490											
	590	13.9		1100	20.4	12036								
13+10			610											
	400	16.0		1125	20.8	8320								
17+10			515											
	220	14.5		875	16.2	3564								
19+30			360											
	580	11.8		790	14.6	8468								
25+10			430											
	610	13.1		930	17.2	10492								
31+20			500											
	400	14.3		960	17.8	7120								
35+20			460											
	400	13.5		980	18.1	7240								
39+20			520											
	540	14.4		1200	22.2	11988								
44+60			680											
	170	16.8		1285	23.8	4046								
46+30			605											
	270	15.8		1290	23.9	6453								
49+00			685											
	610	16.9		1340	24.8	15128								
55+10			655											
	210	16.6		1405	26.0	5460								
57+20			750											
	410	17.8		1360	25.2	10332								
61+30			610											
	580	16.2		1250	23.1	13398								
67+10			640											
	410	16.7		1555	28.8	11808								
71+20			915											
	210	19.8		1755	32.5	6825								
73+30			840											
	580	19.1		1680	31.1	18038								
79+10			840											
	330	19.1		2030	37.6	12408								
82+40			1190											
	180	21.7												

QUANTITY COMPUTATION

PROJECT: Gila Floodway Q=500cfs

SHEET 2 OF 2 SHEETS

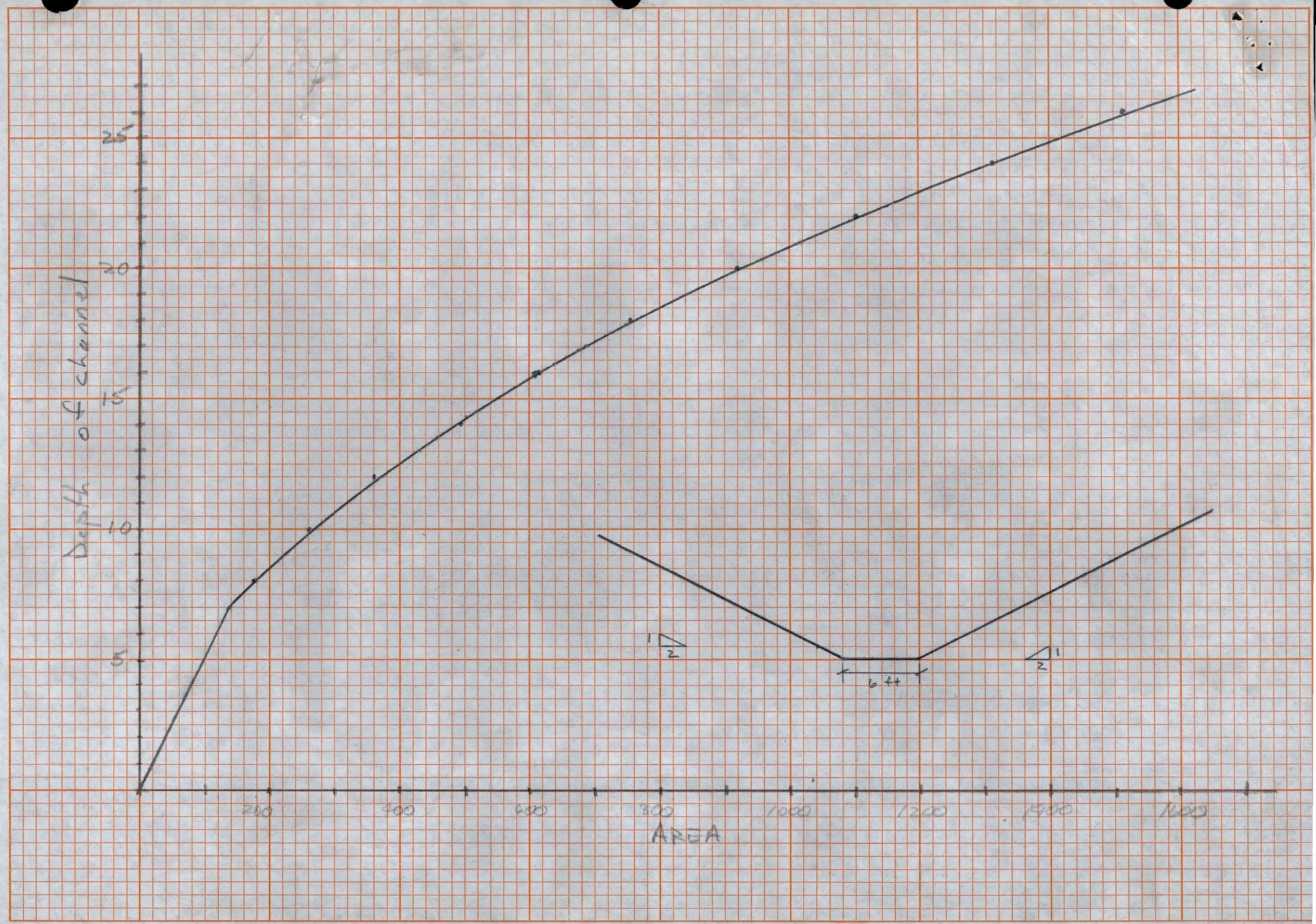
COMPUTED BY

CHECKED BY

DATE

MATERIAL: Earth

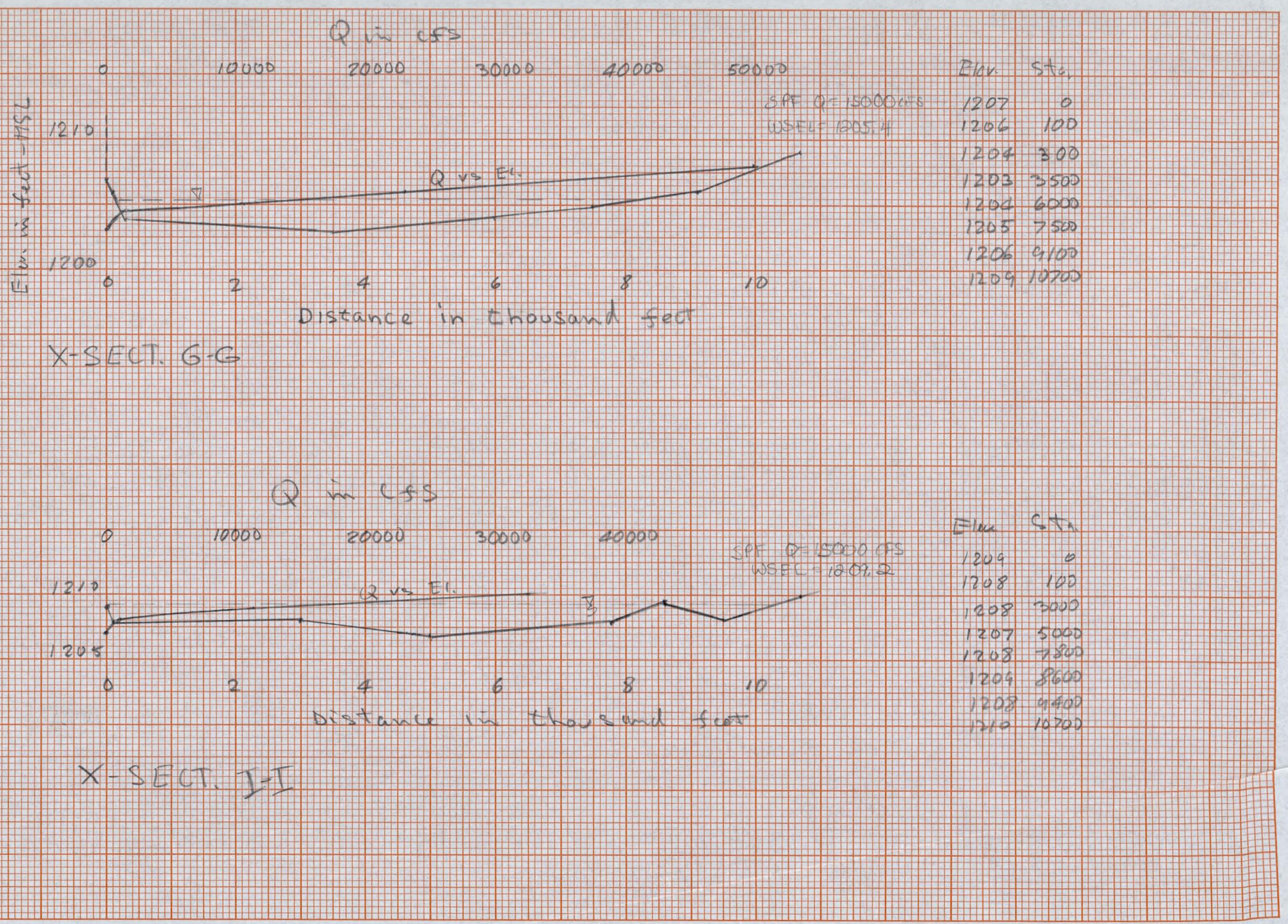
STATION	DISTANCE BETWEEN STATIONS	FACTOR depth	$\frac{\Sigma \text{Area}}{2}\left(\frac{1}{27}\right)$ AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.	AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.	AREA SQ. FT.	SUM 2 AREAS	CU. YDS.	TOTAL CU. YDS.
	180	21.7		2710	50.2	9036								
84+20	170	25.8	1520	2620	48.5	8245								
85+90	120	21.9	1100	2120	39.3	4716								
87+10	690	21.1	1020	2040	37.8	26082								
94+00	370	21.3	1020	2180	40.4	14948								
97+70	130	22.5	1160	2075	38.4	4992								
109+00	990	19.9	915	1665	30.8	30492								
118+90	1010	17.7	750	1420	26.3	26563								
129+00	800	16.8	670	1350	25.0	20000								
137+00	1200	15.0	680	1080	20.0	24000								
149+00	180	12.5	400	770	14.3	2574								
150+80	220	12.0	370	650	12.0	2640								
153+00	980	10.2	280	500	9.3	7114								
162+80	620	9.1	220	420	7.8	4836								
169+00	800	8.4	200	400	7.4	5920								
177+00		8.5	200											
						382,638								


25
20
15
10
5
Depth of channel
200
400
600
800
1000
1200
1400
1600
AREA
1
2
1
2
6 ft

```
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.4
READY
100 DATA 2,0.001,1202,1,1207
300 DATA 1203,0,1202,300,1202,500,1201,1500,1202,2400,1202,2700,1201,4000,12
310 DATA ~~1202~~,7600,1203,9000,1204,9900,1207,10700,-999,0.050
RUN

*AAQL   13:41   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1202 INCR. WSEL = 1 MAX. WSEL = 1207


  1203.0  1202.0  1202.0  1201.0  1202.0  1202.0  1201.0  1202.0
      .0   300.0   500.0  1500.0  2400.0  2700.0  4000.0  5100.0

  1202.0  1201.0  1202.0  1203.0  1204.0  1207.0
  5300.0  6500.0  7600.0  9000.0  9900.0 10700.0
          N =  .050000



ELMIN =  1201
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             1826.8    3300.0     .55   7300.0   .050
            --------   -------   -----   ------
  1202.0     1826.8    3300.0     .55   7300.0            300.0   7600.0



            12634.6   11450.0    1.10   9000.0   .050
            --------   -------   -----   ------
  1203.0    12634.6   11450.0    1.10   9000.0                .0   9000.0



            32324.8   20900.0    1.55   9900.0   .050
            --------   -------   -----   ------
  1204.0    32324.8   20900.0    1.55   9900.0                .0   9900.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



            61043.7   30933.3    1.97  10166.7   .050
            --------   -------   -----   ------
  1205.0    61043.7   30933.3    1.97  10166.7                .0  10166.7
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



            96868.1   41233.3    2.35  10433.3   .050
            --------   -------   -----   ------
  1206.0    96868.1   41233.3    2.35  10433.3                .0  10433.3
W  L > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



           139318.5   51800.0    2.69  10700.0   .050
           --------   -------   -----   ------
  1207.0   139318.5   51800.0    2.69  10700.0                .0  10700.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?1
ENTER Q, DESIRED WSEL,AND BEGINNING STATION OF FLOODWAY
?15000,1203,0

            12634.6   11450.0    1.10   9000.0   .050
            --------   -------   -----   ------
  1203.0    12634.6   11450.0    1.10   9000.0                .0   9000.0

BVEL =    .0  EVEL =    .0


CHECK CALC. Q VS. DESIRED Q; YOUR BSTA MAY BE TOO LARGE
NEW TRY? 1 = YES, 0 = NO
?1
ENTER Q, DESIRED WSEL,AND BEGINNING STATION OF FLOODWAY
?15000,1203.3,0

            15015.0   11192.2    1.34   6562.6   .050
            --------   -------   -----   ------
  1203.3    15015.0   11192.2    1.34   6562.6                .0   6562.6

BVEL =    .4  EVEL =   1.6
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
```

X-SECT. FF

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.



Elev.	Sta.
1207	0
1206	100
1204	300
1203	3500
1202	6000
1205	7500
1206	9100
1209	10700

X-SECT. G-G

Elev.	Sta.
1209	0
1208	100
1208	3000
1207	5000
1208	7800
1209	8600
1208	9400
1210	10700

X-SECT. I-I

Aug. 75 - U.V.

*AAQL 13:13 07/30/75 XSECT-GG

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
S = .001000

MIN. WSEL = 1203 INCR. WSEL = 1 MAX. WSEL = 1207

1207.0 1206.0 1204.0 1203.0 1204.0 1205.0 1206.0 1209.0
.0 100.0 300.0 3500.0 6000.0 7500.0 9100.0 10700.0
N = .050000

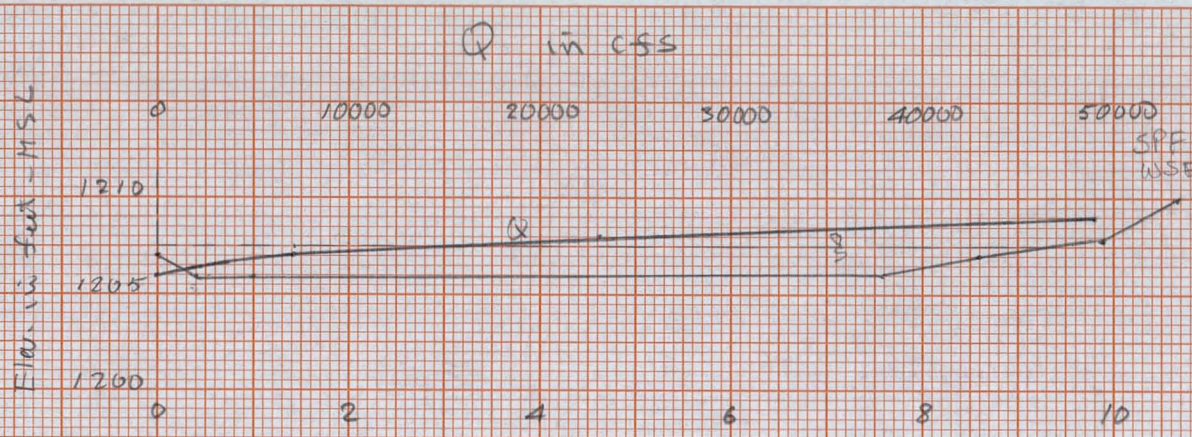
ELMIN = 1203
S = .001000

WSEL	Q	A	V	P	N	BSTA	ESTA
	.0	.0	.00	.0	.050		
1203.0	.0	.0	.00	.0		3500.0	3500.0
	1687.4	2850.0	.59	5700.0	.050		
1204.0	1687.4	2850.0	.59	5700.0		300.0	6000.0
	10363.8	9350.0	1.11	7300.0	.050		
1205.0	10363.8	9350.0	1.11	7300.0		200.0	7500.0
	25622.2	17500.0	1.46	9000.0	.050		
1206.0	25622.2	17500.0	1.46	9000.0		100.0	9100.0
	49873.7	26816.7	1.86	9633.4	.050		
1207.0	49873.7	26816.7	1.86	9633.4		.0	9633.3

```
FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 2,0.001,1207,1,1210,
200 DATA 1209,0,1208,100,1208,3000,1207,5000,1208,7800,1209,8600,1208,9400
RUN

*AAQL   13:18   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1207 INCR. WSEL = 1 MAX. WSEL = 1210


  1209.0  1208.0  1208.0  1207.0  1208.0  1209.0  1208.0  1210.0
      .0   100.0  3000.0  5000.0  7800.0  8600.0  9400.0 10700.0
          N =  .050000



ELMIN =  1207
 S =  .001000

   WSEL        Q          A        V        P      N      BSTA     ESTA

                .0         .0      .00       .0   .050
            --------   -------   -----   ------
  1207.0        .0         .0      .00       .0          5000.0   5000.0



            1036.9     2400.0      .43   7700.0   .050
            --------   -------   -----   ------
  1208.0    1036.9     2400.0      .43   7700.0           100.0   9400.0



           11441.0    11275.0     1.01  10050.0   .050
           --------   -------   -----   ------
  1209.0   11441.0    11275.0     1.01  10050.0              .0  10050.0



           32550.4    21650.0     1.50  10700.0   .050
           --------   -------   -----   ------
  1210.0   32550.4    21650.0     1.50  10700.0              .0  10700.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
```

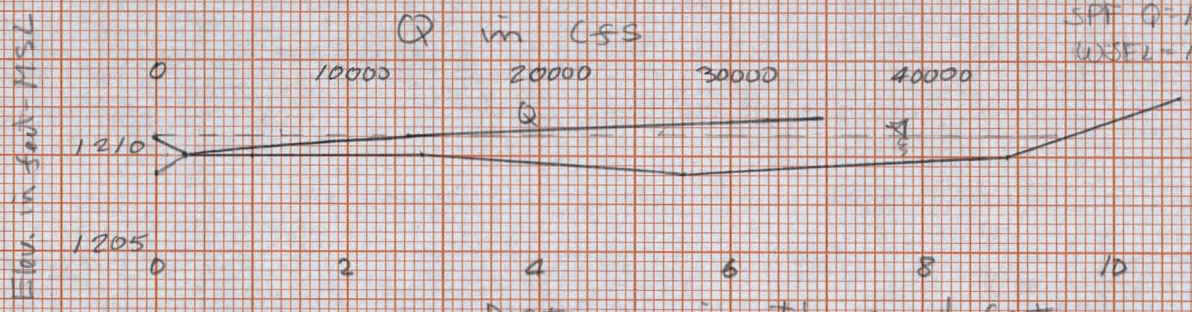
X-SECT-I-I

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



Elev.	Sta.
1207	0
1206	300
1206	7600
1207	8600
1208	9400
1210	10700

X-SECT. H-H



Elev.	Sta.
1211	0
1210	300
1210	2800
1204	5500
1210	8400
1213	10700

X-SECT. J-J

Aug-75-V.V

```
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 2,0.001,1206,1,1210
300 DATA 1207,0,1206,300,1206,1000,1206,7600,1207,8600,1208,9900,1210,107
RUN

*AAQL   13:24   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1206 INCR. WSEL = 1 MAX. WSEL = 1210


  1207.0  1206.0  1206.0  1206.0  1207.0  1208.0  1210.0
      .0   300.0  1000.0  7600.0  8600.0  9900.0 10700.0
          N =  .050000



ELMIN =  1206
 S =  .001000

   WSEL        Q          A       V       P      N      BSTA     ESTA

                .0        .0     .00  7300.0  .050
            --------  -------  -----  ------
  1206.0        .0        .0     .00      .0           300.0   7600.0



            7090.3    7950.0     .89  8600.0  .050
            --------  -------  -----  ------
  1207.0    7090.3    7950.0     .89  8600.0              .0   8600.0



           23361.8   17200.0    1.36  9900.0  .050
           --------  -------  -----  ------
  1208.0   23361.8   17200.0    1.36  9900.0              .0   9900.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



           49139.2   27300.0    1.80 10300.0  .050
           --------  -------  -----  ------
  1209.0   49139.2   27300.0    1.80 10300.0              .0  10300.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



           82403.5   37800.0    2.18 10700.0  .050
           --------  -------  -----  ------
  1210.0   82403.5   37800.0    2.18 10700.0              .0  10700.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?@

NOW AT 12750

READY
```

X-Sect - H-H.

```
FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 2,0.001,1210,1,1213
300 DATA 1211,0,1210,300,1210,1000,1210,2800,1209,5500,1210,8900,1213,10
RUN
```

XSECT - J-J

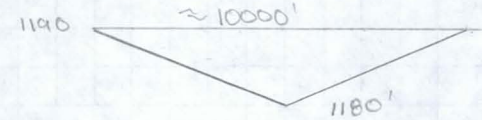
```
*AAQL   13:30   07/30/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000

MIN. WSEL = 1210 INCR. WSEL = 1 MAX. WSEL = 1213


  1211.0  1210.0  1210.0  1210.0  1209.0  1210.0  1213.0
      .0   300.0  1000.0  2800.0  5500.0  8900.0 10700.0
          N =  .050000



ELMIN =  1209
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             1436.2    3050.0     .47   8600.0   .050
            --------   -------   -----   ------
  1210.0     1436.2    3050.0     .47   8600.0            300.0   8900.0



            13362.1   12100.0    1.10   9500.0   .050
            --------   -------   -----   ------
  1211.0    13362.1   12100.0    1.10   9500.0               .0   9500.0



            34480.6   21900.0    1.57  10100.0   .050
            --------   -------   -----   ------
  1212.0    34480.6   21900.0    1.57  10100.0               .0  10100.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED



            63406.0   32300.0    1.96  10700.0   .050
            --------   -------   -----   ------
  1213.0    63406.0   32300.0    1.96  10700.0               .0  10700.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED
```

SUBJECT: GILA FLOODWAY S.P.R. OVERFLOW AREA FLOW SOUTH OF SUPERSTITION HWY FROM S.P.R.R WEST	COMPUTED BY: DJG	DATE: 8/07/1975	FILE NO.
	CHECKED BY:	DATE:	SHEET NO.

1. VOLUME OF STORAGE BETWEEN S.P.R.R. & PRICE CANAL

ELEV	AREA (IN²)	AREA (acres)	AVE. AREA (acres)	Δ VOL (ac-ft)	Σ VOL (ac-ft)
1191	0	0	0	0	0
1			36.7	36.7	
1192	.80	73.5			36.7
2			208.9	417.8	
1194	3.75	344.3			454.5
2			542.7	1085.4	
1196	8.07	741.0			1539.9
2			1035.3	2070.6	
1198	14.48	1329.6			3610.5

2. FOR AREA BELOW PRICE CANAL TO BRANCH LINE OF S.P.R.R. & NORTH OF WESTERN CANAL
ASSUME ROUGH TRIANGULAR SECTION - BECAUSE FROM CONTOURS IT APPEARS BOWL SHAPED OR V-SHAPED
BETWEEN THE 1190 CONTOURS IT IS ≈10000'



ASSUME 1180' IS LOW POINT.

NOW FIND LENGTH OF THIS SECTION THAT CAN HOLD APPROX. 10000 AC-FT OF WATER

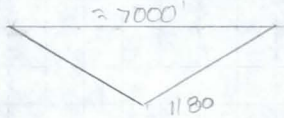
AREA OF SECTION = $10000 \times 10/2 = 50000$ S.F.
FOR A 1 FOOT SECTION VOLUME = $50000 \text{ S.F.}/43560 \text{ S.F./ACRE}$
$= 1.15$ AC-FT/FT OF FLOODWAY

SO FOR 10000 AC-FT DIVIDE BY 1.15 AC-FT/FT OF FLOODWAY
∴ $10000/1.15 = 8696'$ SECTION

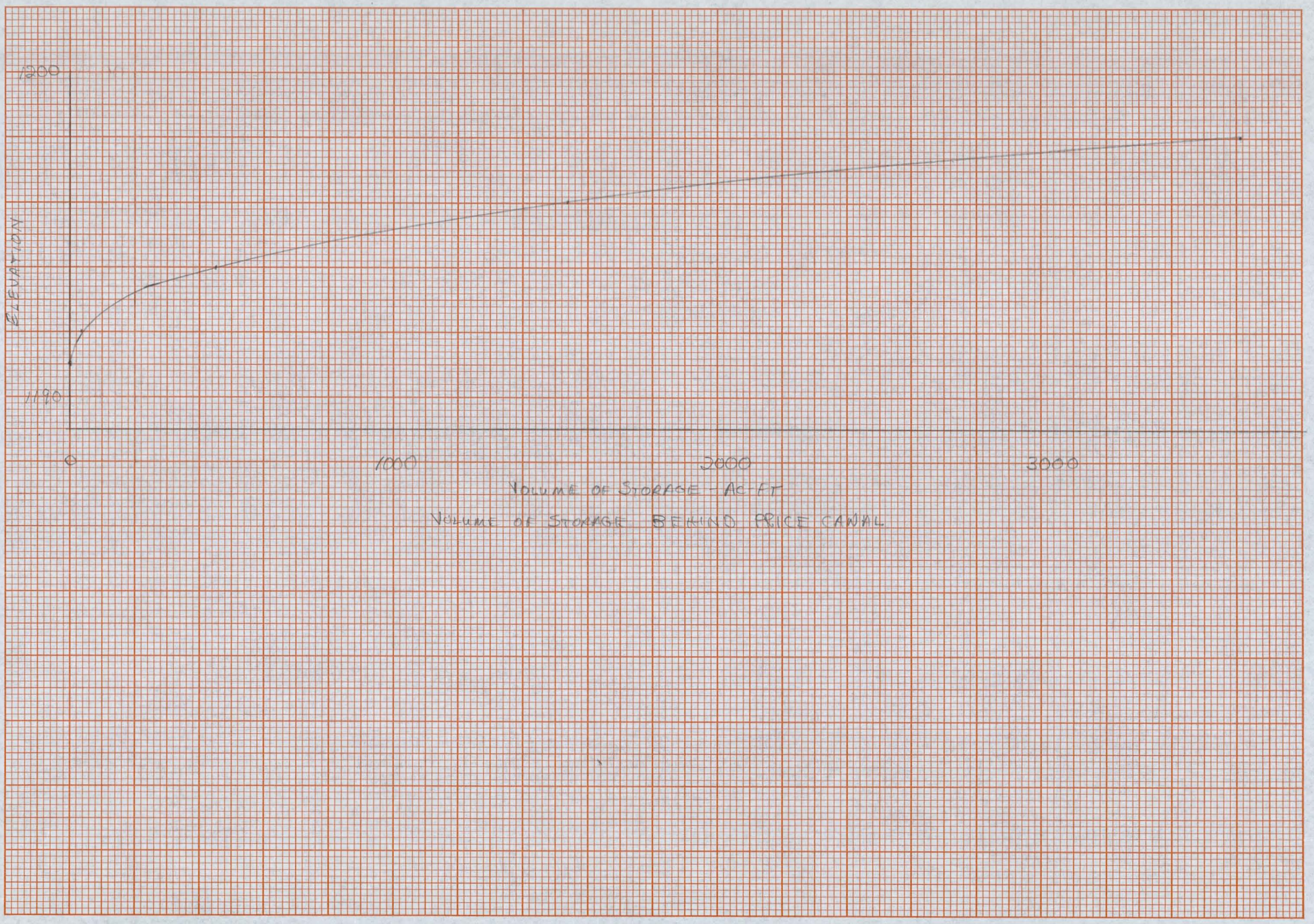
TRY SECTION GOING FROM 1188 TO 1180

AREA OF SECTION = $\frac{7000' \text{ LONG} \times 8'}{2}/43560 = .64$ AC-FT/FT OF FLOODWAY

FOR 10000 AC-FT
FLOODWAY LENGTH = $10000/.64 = 15625'$ LONG
THIS WOULD EXTEND BEYOND WESTERN CANAL



K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



BREACHED FLOW AT WESTERN CANAL NR BY TEMPE CANAL ROUTED TO CP 1304
GILA FLOODWAY SURVEY STUDY 10/75 JTP TK
SPF RUNOFF GENERATED FROM CENTERING ABOVE CP 1751 PRESENT CONDITIONS

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	1.	=0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1	220	=0.00	=0	=0	=0.	55	=0.

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	1.	2.	4.
7.	13.	24.	40.	64.	99.	147.	213.	298.	405.
535.	691.	872.	1076.	1301.	1545.	1802.	2067.	2335.	2599.
2854.	3092.	3309.	3501.	3664.	3796.	3896.	3965.	4005.	4019.
4009.	3982.	3941.	3891.	3838.	3785.	3736.	3695.	3663.	3642.
3632.	3633.	3643.	3660.	3682.	3707.	3731.	3751.	3765.	3770.
3764.	3745.	3712.	3664.	3601.	3522.	3428.	3320.	3200.	3069.
2928.	2780.	2627.	2470.	2311.	2153.	1997.	1845.	1698.	1557.
1424.	1300.	1184.	1078.	981.	892.	812.	741.	676.	619.
567.	521.	480.	443.	410.	379.	352.	327.	304.	284.
265.	247.	231.	217.	204.	192.	181.	172.	163.	155.
148.	142.	137.	132.	127.	123.	119.	116.	112.	109.
106.	104.	101.	98.	96.	93.	91.	88.	86.	84.
181.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	56.	53.	51.	50.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.
27.	26.	25.	25.	24.	23.	22.	21.	20.	20.
19.	18.	18.	17.	16.	16.	15.	15.	14.	13.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4019.	3794.	2090.	931.

ITQR	ITQO	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	42	1304	=0.00	=0	=0	=0	=0.	=0.

AMSKK	X	QLOSS	CQLOS	NHGT	KPNCH	JPNCH
.250	=0.000	=0.0	=0.000	=0	=0	=0

HYDROGRAPH 1 ROUTED TO 1304 NO. FLOWS= 220 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
1.	2.	3.	4.	7.	10.	15.	21.	30.	42.
58.	79.	105.	139.	180.	230.	290.	361.	444.	540.
649.	771.	905.	1052.	1209.	1377.	1552.	1733.	1918.	2103.
2288.	2468.	2641.	2806.	2960.	3101.	3228.	3341.	3438.	3520.
3588.	3642.	3683.	3713.	3733.	3745.	3751.	3752.	3749.	3744.
3739.	3732.	3726.	3719.	3713.	3706.	3698.	3688.	3674.	3658.
3636.	3608.	3574.	3532.	3482.	3424.	3357.	3281.	3196.	3104.
3004.	2896.	2783.	2665.	2542.	2417.	2290.	2162.	2035.	1909.
1785.	1665.	1548.	1437.	1330.	1229.	1133.	1044.	960.	883.
811.	745.	684.	629.	578.	532.	490.	452.	417.	385.
357.	331.	307.	286.	267.	249.	233.	219.	206.	194.
184.	174.	165.	157.	150.	144.	138.	132.	127.	123.

119.	116.	112.	109.	107.	104.	102.	100.	
93.	90.	88.	85.	82.	80.	77.	74.	71.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3752.	3688.	2079.	925.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	2.	=0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1304	1	=0.00	=0	2	=0.	=0	=0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 1304 NQ= 220 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
1.	2.	3.	4.	7.	10.	15.	21.	30.	42.
58.	79.	105.	139.	180.	230.	290.	361.	444.	540.
649.	771.	905.	1052.	1209.	1377.	1552.	1733.	1918.	2103.
2288.	2468.	2641.	2806.	2960.	3101.	3228.	3341.	3438.	3520.
3588.	3642.	3683.	3713.	3733.	3745.	3751.	3752.	3749.	3744.
3739.	3732.	3726.	3719.	3713.	3706.	3698.	3688.	3674.	3658.
3636.	3608.	3574.	3532.	3482.	3424.	3357.	3281.	3196.	3104.
3004.	2896.	2783.	2665.	2542.	2417.	2290.	2162.	2035.	1909.
1785.	1665.	1548.	1437.	1330.	1229.	1133.	1044.	960.	883.
811.	745.	684.	629.	578.	532.	490.	452.	417.	385.
357.	331.	307.	286.	267.	249.	233.	219.	206.	194.
184.	174.	165.	157.	150.	144.	138.	132.	127.	123.
119.	116.	112.	109.	107.	104.	102.	100.	97.	95.
93.	90.	88.	85.	82.	80.	77.	74.	71.	68.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	3752.	3688.	2079.	925.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1	4019.	3794.	2090.	931.
ROUTED TO	1304	3752.	3688.	2079.	925.
HYDROGRAPH AT	1304	0.	0.	0.	0.
2 COMBINED	1304	3752.	3688.	2079.	925.

GILA FLOODWAY SURVEY STUDY 10/75 JTP TK
SPF RUNOFF GENERATED FROM CENTERING ABOVE CP 1751
BREACHED FLOW AT WESTERN CANAL NR BY TEMPE CANAL ROUTED TO CP 1304
FUTURE CONDITIONS

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	1.	=0.

LOCI	NOI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1	220	=0.00	=0	=0	=0.	55	=0.

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	1.	1.
3.	6.	10.	18.	30.	48.	74.	110.	157.	218.
295.	389.	501.	633.	785.	959.	1154.	1370.	1605.	1855.
2118.	2386.	2654.	2914.	3160.	3386.	3586.	3758.	3899.	4008.
4089.	4142.	4174.	4187.	4188.	4180.	4169.	4158.	4150.	4147.
4150.	4160.	4175.	4194.	4215.	4236.	4254.	4267.	4272.	4265.
4247.	4213.	4164.	4099.	4016.	3918.	3803.	3675.	3533.	3381.
3220.	3051.	2878.	2702.	2525.	2349.	2176.	2008.	1845.	1689.
1541.	1403.	1274.	1155.	1047.	948.	860.	780.	709.	646.
590.	540.	495.	456.	420.	388.	360.	334.	310.	289.
269.	251.	235.	220.	207.	195.	184.	174.	165.	157.
150.	143.	138.	133.	128.	124.	120.	116.	113.	110.
107.	104.	101.	99.	96.	94.	91.	89.	86.	84.
81.	79.	76.	74.	72.	69.	67.	64.	62.	60.
58.	55.	53.	51.	49.	48.	46.	44.	42.	41.
39.	38.	37.	35.	34.	33.	32.	30.	29.	28.
27.	26.	25.	25.	24.	23.	22.	21.	21.	20.
19.	18.	18.	17.	17.	16.	15.	15.	14.	14.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4272.	4187.	2148.	955.

ITQR	ITQD	NRCHS	LOCO	TATMR	LAG	NSTRL	NPULS	STORA	RES
15	15	42	1304	=0.00	=0	=0	=0	=0.	=0.

AMSKK	X	QLOSS	CQLOS	NHGT	KPNCH	JPNCH
.250	=0.000	=0.0	=0.000	=0	=0	=0

HYDROGRAPH 1 ROUTED TO 1304 NO. FLOWS= 220 INTERVAL= 15 MINUTES

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	1.	2.	3.	5.	7.	11.	16.	22.
31.	43.	58.	78.	103.	133.	171.	217.	272.	337.
412.	499.	599.	710.	834.	971.	1119.	1278.	1447.	1623.
1806.	1992.	2181.	2368.	2553.	2732.	2903.	3065.	3216.	3355.
3482.	3595.	3694.	3781.	3856.	3920.	3974.	4019.	4056.	4086.
4111.	4131.	4146.	4157.	4164.	4166.	4164.	4157.	4144.	4125.
4098.	4064.	4020.	3968.	3905.	3834.	3752.	3660.	3560.	3450.
3332.	3208.	3077.	2941.	2801.	2658.	2514.	2369.	2226.	2084.
1946.	1811.	1681.	1556.	1437.	1325.	1219.	1120.	1027.	942.
862.	790.	723.	662.	607.	557.	511.	470.	432.	399.
368.	341.	316.	293.	273.	255.	238.	223.	210.	197.
186.	176.	167.	159.	152.	145.	139.	133.	128.	123.

119.	115.	111.	108.	104.	101.	98.	95.	92.	90.
87.	84.	82.	79.	77.	74.	72.	70.	67.	65.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4166.	4033.	2138.	949.

NHR	NMIN	UFLAG	PRECIP	RFLAG	HFLAG	BASFLO	PUNCHH	CNEXT	BASEOP
=0	15	=0.	=0.	=0.	=0.	=0.	=0.	2.	=0.

LOCI	NQI	RATIO	IAVHG	NHGT	AVGUG	LNGTH	CONQ
1304	1	=0.00	=0	2	=0.	=0	=0.

0.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	0.	0.	0.	0.

VALUE OF OUTFLOW INTERVAL
15 15

COMBINED HYDROGRAPH
AT 1304 NQ= 220 15-MIN INTRVL

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	1.	1.	2.	3.	5.	7.	11.	16.	22.
31.	43.	58.	78.	103.	133.	171.	217.	272.	337.
412.	499.	599.	710.	834.	971.	1119.	1278.	1447.	1623.
1806.	1992.	2181.	2368.	2553.	2732.	2903.	3065.	3216.	3355.
3482.	3595.	3694.	3781.	3856.	3920.	3974.	4019.	4056.	4086.
4111.	4131.	4146.	4157.	4164.	4166.	4164.	4157.	4144.	4125.
4098.	4064.	4020.	3968.	3905.	3834.	3752.	3660.	3560.	3450.
3332.	3208.	3077.	2941.	2801.	2658.	2514.	2369.	2226.	2084.
1946.	1811.	1681.	1556.	1437.	1325.	1219.	1120.	1027.	942.
862.	790.	723.	662.	607.	557.	511.	470.	432.	399.
368.	341.	316.	293.	273.	255.	238.	223.	210.	197.
186.	176.	167.	159.	152.	145.	139.	133.	128.	123.
119.	115.	111.	108.	104.	101.	98.	95.	92.	90.
87.	84.	82.	79.	77.	74.	72.	70.	67.	65.

	PEAK	6-HOUR	24-HOUR	72-HOUR
CFS	4166.	4033.	2138.	949.

RUNOFF SUMMARY, AVERAGE CFS

		PEAK	6-HOUR	24-HOUR	72-HOUR
HYDROGRAPH AT	1	4272.	4187.	2148.	955.
ROUTED TO	1304	4166.	4033.	2138.	949.
HYDROGRAPH AT	1304	0.	0.	0.	0.
2 COMBINED	1304	4166.	4033.	2138.	949.

SPLED-WA 2 December 1975

MEMORANDUM FOR INVESTIGATION SECTION A FILES

SUBJECT: Gila Floodway Project

1. On 19 and 20 November 1975, the writer accompanied Leland Anderson, Investigation Section A, Dan Young of Economics Section and John Pederson of the Hydrologic Engineering Section to meet with local officials and discuss the Gila Floodway Project. Two meetings were held: the first, on 19 November 1975, was attended by the City Engineers of Tempe, Mesa, Chandler and Gilbert; representatives from the Salt River Project, Arizona Department of Transportation, and Maricopa County Flood Control District; and the Corps of Engineers. The second meeting was held on 20 November 1975 for the Citizens Advisory Board of the Maricopa County Flood Control District to make a presentation on the Gila Floodway Project.

2. The meeting of 19 November opened with Mr. Anderson of the Corps giving an overall view of the major flooded areas from the SPF and 100-year storms in the project area. Then Mr. Anderson showed a proposed plan to alleviate the flooding with its associated costs for SPF protection ($25 million) and 100-year protection ($8 million). He then gave the damages associated with SPF and that could support a construction cost of $2.5-$3 million, and said this is the amount the Corps could spend to alleviate that amount of damages (1:1 B/C Ratio), but the Real B/C Ratio is 0.1:1; therefore, the project appears to be unjustified. Then Mr. Anderson asked for comments and questions. Most of the questions concerned hydrology or economics, which were referred to either Mr. Pederson (Hydrology) or Mr. Young (Economics).

3. Some key points or questions that were brought up:

a. If the Corps can't build the project then how can the local entities build it?

b. Did the Corps consider analysis of back to back storms, e.g., 100-year followed by 10-year?

c. What will happen if the size of the Mesa Freeway drainage system is reduced?

d. Pete Peterson of Mesa stated that the ground level for new construction in the vicinity of the canals is being built up to level of the top of canal levees to meet the FIA requirements. Did the Corps know about this? What will be its effect?

e. City of Chandler stated that their whole drainage plan was dependent on the Gila Floodway. Now it appears they may have to reevaluate the plan.

f. What will happen if Superstition Freeway and attendant drainage facility aren't built?

g. All entities need a disposal point for their floodwaters.

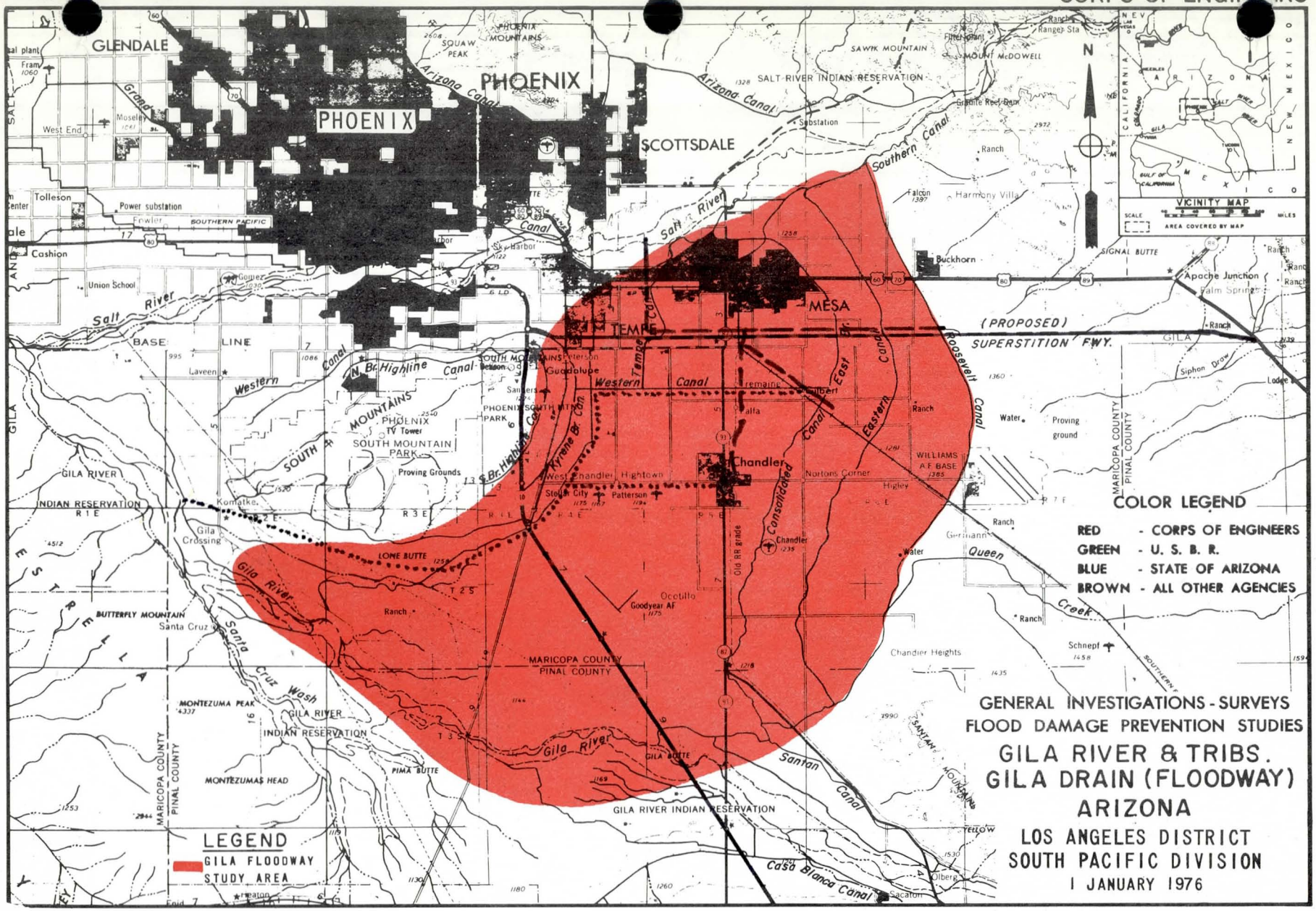
4. At the presentation before the Citizens Advisory Board on 20 November, Mr. Anderson gave overall view of the Corps study showing major flooded areas; then gave costs of proposed plan and damages due to SPF and 100-year storm. The B/C ratio for SPF was 0.1:1; for 100-year it would be similar. He then asked for questions and comments. The majority of the questions concerned hydrology or economics, which were answered by Mr. Pedersen or Mr. Young. Considerable time was spent explaining the Corps' economic evaluation. A representative from the Gila River Indian Community stated that the Indians would like to be involved in any future discussions concerning the Gila Floodway.

5. At both meetings, Mr. Anderson requested that attendees furnish any information they might have which could modify the Corps' findings. Emphasis was made that the findings given were tentative and that the Corps is well aware of the flooding problems that exist in the basin. It was also stressed, however, that the flooding in the basin experienced in the past would be greatly alleviated by the Soil Conservation construction program east of the Roosevelt canal. The SCS program will protect up to the 100-year flood frequency. Mr. Anderson closed both meetings by saying that the Corps is doing everything possible to solve the flooding problem and will welcome any information they have.

DONALD GROSS
Civil Engineer
Investigation Section A

U. S. ARMY ENGINEER DISTRICT

CORPS OF ENGINEERS



GENERAL INVESTIGATIONS - SURVEYS
FLOOD DAMAGE PREVENTION STUDIES

GILA RIVER & TRIBS. GILA DRAIN (FLOODWAY) ARIZONA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 1976

..... S.P.F. & 100 YEAR CHANNELS - DRAIN TO GILA

——— S.P.F CHANNEL - DRAIN TO SALT

GILA FLOODWAY

OVERFLOW ANALYSIS

PRELIMINARY

D.J.G.

charlotte t. berkman
18041 bluesail drive
pacific palisades, california 90272

FLOOD CONTROL DISTRICT
RECEIVED
NOV 12 '81

	CH ENG	1	HYDRO
	ASST		LMgt
	ADMIN		SUSP
	C & O		FILE
	ENGR		DESTROY
	FINANCE		
REMARKS			

November 9, 1981

Maricopa County Flood Control District
3335 Durango
Phoenix, AZ 85009

Re: Book 93 Page 11 Parcels 19 & 20

Gentlemen:

As owners of property in the area of Phoenix described above, we would appreciate it if you would evaluate susceptibility to flooding for our property. We are examining our continuing need for flood insurance and are hopeful that construction of the new dam will make insurance unnecessary.

Thank you in advance for your efforts on our behalf.

Very truly yours,

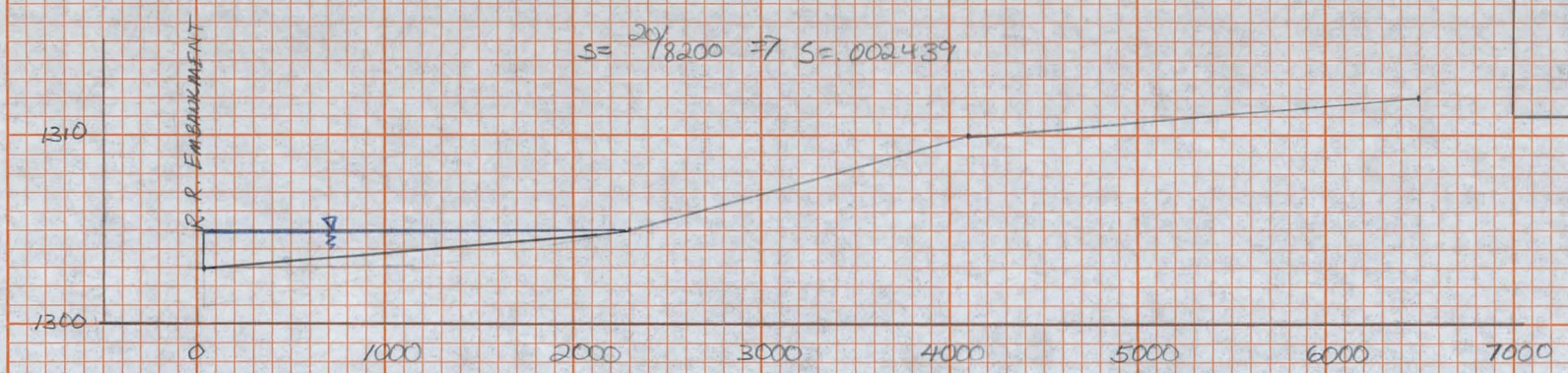
Lorraine Smith
Secretary to mrs. Berkman

:r

K+E 10 X 10 TO THE INCH 46 0703
7 X 10 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

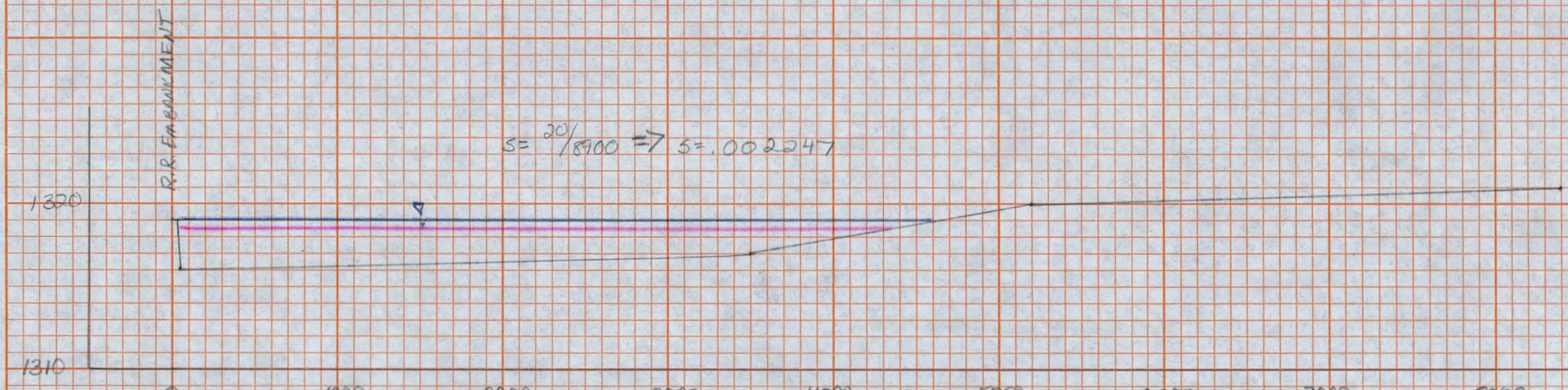
$S = 20/8200 \Rightarrow S = .002439$

ELEVATION	STATION
1305	0
1305	11
1303	15
1305	2300
1310	4100
1312	6500



CROSS-SECTION # 7 - AT WILLIAMS FIELD ROAD

$S = 20/8400 \Rightarrow S = .002247$



CROSS-SECTION #8 - AT RECKER ROAD

ELEVATION	STATION
1319	0
1319	11
1316	17
1317	3500
1320	5200
1321	8400

——— S.P.F. - Q=15000 CFS

——— MAXIMUM WATER SURFACE

D.J. GROSS
7/15/75

ELMIN = 1238
S = .001000

CROSS-SECTION 1-1

WSEL	Q	A	V	P	N	BSTA	ESTA	
	4005.9	4126.9	.97	3931.9	.050			S.P.F PRESENT & FUTURE
1240.1	4005.9	4126.9	.97	3931.9		97.1	4029.0	
	620.0	1028.6	.60	2002.9	.050			
1239.0	620.0	1028.6	.60	2002.9		537.8	2540.7	100 YR PRES.
	649.9	1065.6	.61	2038.6	.050			
1239.0	649.9	1065.6	.61	2038.6		529.6	2568.1	100 YR FUTURE
	100.0	261.8	.38	1010.4	.050			
1238.5	100.0	261.8	.38	1010.4		766.8	1777.3	50 YR PRES.
	130.0	318.7	.41	1114.9	.050			50 YR. FUTURE
1238.6	130.0	318.7	.41	1114.9		742.7	1857.6	
	75.0	211.0	.36	907.1	.050			25 YR PRES.
1238.5	75.0	211.0	.36	907.1		790.7	1697.8	
	120.0	300.2	.40	1082.0	.050			25 YR FUTURE
1238.6	120.0	300.2	.40	1082.0		750.3	1832.3	

FLOODWAY? 1 = YES, 0 = NO
?0

YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.6
READY
300 DATA 1238,0,1236,100,1234,800,1236,3000,1238,4700,-999,.05

RUN

*AAQL 14:14 10/14/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
S = .001000
Q 1 = 4000
Q 2 = 620
Q 3 = 650
Q 4 = 100
Q 5 = 130
Q 6 = 75
Q 7 = 120

1238.0 1236.0 1234.0 1236.0 1238.0
.0 100.0 800.0 3000.0 4700.0
N = .050000

ELMIN = 1234
S = .001000

CROSS-SECTION 1-2

WSEL	Q	A	V	P	N	BSTA	ESTA
	4000.2	3778.8	1.06	3161.0	.050		
1236.3	4000.2	3778.8	1.06	3161.0		85.5	3246.5
	619.8	955.0	.65	1664.2	.050		
1235.1	619.8	955.0	.65	1664.2		398.3	2062.5
	649.6	989.2	.66	1693.8	.050		
1235.2	649.6	989.2	.66	1693.8		391.2	2084.9
	100.0	243.1	.41	839.7	.050		
1234.6	100.0	243.1	.41	839.7		597.3	1437.0
	130.0	296.0	.44	926.5	.050		
1234.6	130.0	296.0	.44	926.5		576.4	1502.8
	75.0	195.9	.38	753.8	.050		
1234.5	75.0	195.9	.38	753.8		618.1	1371.8

```
              120.0     278.7     .43    899.1   .050
            --------  -------  -----  ------
  1234.6      120.0     278.7     .43    899.1            583.0  1482.0

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.5
READY
300 DATA 1233,0,1231,100,1230,800,1232,2400,1233,4000,-999,.05
RUN

*AAQL   14:17   10/14/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000
Q 2 = 620
Q 3 = 650
Q 4 = 100
Q 5 = 130
Q 6 = 75
Q 7 = 120


  1233.0  1231.0  1230.0  1232.0  1233.0
      .0   100.0   800.0  2400.0  4000.0
          N =  .050000


ELMIN =  1230
 S =  .001000
```

CROSS-SECTION 1-3

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

              4001.1    3690.7    1.08   2979.0   .050
            --------  -------  -----  ------
  1232.4      4001.1    3690.7    1.08   2979.0            30.9   3009.9


              620.0     941.4     .66   1604.8   .050
            --------  -------  -----  ------
  1231.1      620.0     941.4     .66   1604.8            93.8   1698.6


              650.2     972.6     .67   1621.2   .050
            --------  -------  -----  ------
  1231.1      650.2     972.6     .67   1621.2            92.9   1714.1
```

```
            100.0     245.1     .41    857.6   .050
          --------  -------  -----  ------
  1230.6    100.0     245.1     .41    857.6            399.8  1257.4


            129.6     297.7     .44    945.1   .050
          --------  -------  -----  ------
  1230.6    129.6     297.7     .44    945.1            359.0  1304.1


             75.0     197.6     .38    769.9   .050
          --------  -------  -----  ------
  1230.5     75.0     197.6     .38    769.9            440.7  1210.6


            120.0     281.1     .43    918.3   .050
          --------  -------  -----  ------
  1230.6    120.0     281.1     .43    918.3            371.5  1289.8

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.6
READY
300 DATA 1230,0,1225.5,100,1228,1300,1230,4000,1232,6200,-999,.05
RUN

*AAQL   14:20   10/14/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000
Q 2 = 620
Q 3 = 650
Q 4 = 100
Q 5 = 130
Q 6 = 75
Q 7 = 120


  1230.0  1225.5  1228.0  1230.0  1232.0
      .0   100.0  1300.0  4000.0  6200.0
          N =  .050000
```

ELMIN = 1229.9
S = .001000

CROSS-SECTION 1-4

WSEL	Q	A	V	P	N	BSTA	ESTA
	3999.6	3508.6	1.14	2626.5	.050		
1229.0	3999.6	3508.6	1.14	2626.5		22.2	2648.7
	620.0	732.8	.85	858.0	.050		
1227.2	620.0	732.8	.85	858.0		62.0	920.0
	650.0	759.3	.86	873.3	.050		
1227.2	650.0	759.3	.86	873.3		61.4	934.6
	100.0	186.5	.54	432.8	.050		
1226.4	100.0	186.5	.54	432.8		80.8	513.7
	130.0	227.1	.57	477.6	.050		
1226.5	130.0	227.1	.57	477.6		78.9	556.4
	75.0	150.3	.50	388.6	.050		
1226.3	75.0	150.3	.50	388.6		82.8	471.4
	120.0	213.8	.56	463.5	.050		
1226.4	120.0	213.8	.56	463.5		79.5	542.9

FLOODWAY? 1 = YES, 0 = NO
?0

NOW AT 12750

READY
OFF

USAGE ON 10/14/75 AT 14:22:33
SRU'S:4.0 ELAPSED TIME: 00:14:36

GOOD BYE.

```
S.P.F.   4000.0   3096.8   1.29   1922.0   .050
         --------  -------  -----  ------
 1222.9   4000.0   3096.8   1.29   1922.0            15.4   1937.4
```

X-SECTION 1-5

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1217,0,1213,100,1216,1000,1218,2000,1220,3900,-999,.05
RUN

*AAQL   14:52   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000


  1217.0  1213.0  1216.0  1218.0  1220.0
      .0   100.0  1000.0  2000.0  3900.0
          N =  .050000



ELMIN =  1213
 S =  .001000
```

X-SECTION 1-6

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

S.P.F.    3998.3    2837.2    1.41   1545.1   .050
          --------  -------   -----  ------
 1217.1    3998.3    2837.2    1.41   1545.1                .0   1545.0
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1214.5,0,1209.3,100,1212,300,1212,1200,1214,3000,1216,3600,-999,.05
RUN
```

```
*AAQL   15:04   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4500


  1214.5  1209.3  1212.0  1212.0  1214.0  1216.0
      .0   100.0   500.0  1200.0  3000.0  3600.0
          N =  .050000



ELMIN =  1209.3
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

             4502.0   3797.9    1.19   2681.1   .050
S.P.F.     --------  -------   -----   ------
  1213.7     4502.0   3797.9    1.19   2681.1              16.1   2697.0

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1217,0,1213,100,1216,1000,1218,2000,1220,3900,-999,.05
RUN

*AAQL   15:06   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4500


  1217.0  1213.0  1216.0  1218.0  1220.0
      .0   100.0  1000.0  2000.0  3900.0
          N =  .050000



ELMIN =  1213
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA
```

X-SECTION 1-7

```
12330 OUT OF RANGE ARG IN 1
NOW AT 12330
READY
300 DATA 1213.4,0,1209.7,100,1210,150,1210,600,1212,1750,1212,3050,1214,285
RUN

*AAQL   14:58   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000


  1213.4  1209.7  1210.0  1210.0  1212.0  1212.0  1214.0  1214.0
      .0   100.0   150.0   600.0  1750.0  2050.0  2850.0  3200.0

  1216.0
  4300.0
          N =  .050000
```

X-SECTION 1-8

```
ELMIN =  1209.7
 S =  .001000

   WSEL        Q          A        V        P       N       BSTA     ESTA

  S.P.F.   4000.2    3283.5    1.22   2224.8   .050
           --------  -------   -----  ------
  1212.5   4000.2    3283.5    1.22   2224.8              24.4   2249.1

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.001,4500
RUN

*AAQL   14:59   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4500


  1213.4  1209.7  1210.0  1210.0  1212.0  1212.0  1214.0  1214.0
      .0   100.0   150.0   600.0  1750.0  2050.0  2850.0  3200.0
```

1210.0
4300.0
N = .050000

ELMIN = 1209.7 X-SECTION 1-B
S = .001000

	WSEL	Q	A	V	P	N	BSTA	ESTA
S.P.F.		4500.5	3556.7	1.27	2276.6	.050		
	1212.6	4500.5	3556.7	1.27	2276.6		21.1	2297.7

FLOODWAY? 1 = YES, 0 = NO
?0

YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1214.5,0,1209.3,100 1212,500,12132,1200,1214,3000,1216,3600,-999,.05
RUN

*AAQL 15:01 10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
S = .001000
Q 1 = 4500

ELMIN = .05
S = .001000

WSEL Q A V P N BSTA ESTA
12450 SUBSCRIPT OUTSIDE ARRAY BOUNDS
NOW AT 12450
READY
EDIT LIST 300;100 1212,;100,1212,
(19) PARAM LIST HAS SYNTAX ERROR
READY
EDIT LIST 300;100;100,
300 DATA 1214.5,0,1209.3,100, 1212,500,12132,1200,1214,3000,1216,3600,-999,.0
READY
EDIT LIST 300;12132;1212
300 DATA 1214.5,0,1209.3,100, 1212,500,1212,1200,1214,3000,1216,3600,-999,.05
READY
RUN

```
*AAQL    14:54    10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000
```

X-SECTION 1-7

```
  1214.5  1209.3  1212.0  1212.0  1214.0  1216.0
      .0   100.0   300.0  1200.0  3000.0  3600.0
          N =  .050000


ELMIN =  1209.3
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA

   S.P.F.   4000.6    3540.3    1.13   2685.4   .050
          --------   -------   -----   ------
  1213.7    4000.6    3540.3    1.13   2685.4            16.0   2701.2

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1213.4,0,1209.7,1210,150,1210,600,1212,1750,1212,2050,1214,2850,12
RUN

*AAQL    14:56    10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4000


  1213.4  1209.7   150.0   600.0  1750.0  2050.0  2850.0  3200.0
      .0  1210.0  1210.0  1212.0  1212.0  1214.0  1214.0  1216.0


ELMIN =  .05
 S =  .001000

   WSEL        Q          A        V        P       N      BSTA     ESTA
```

```
S.P.F.   4498.5   3112.2   1.45   1631.7   .050
         --------  -------  -----  ------
  1217.3   4498.5   3112.2   1.45   1631.7                .0   1631.6
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?0

NOW AT 12750

READY
LOGON
PROJECT CODE UNAVAILABLE
READY




RUN

*AAQL   15:07   10/15/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 4500


  1217.0  1213.0  1216.0  1218.0  1220.0
      .0   100.0  1000.0  2000.0  3900.0
          N =  .050000



ELMIN =  1213          X-SECTION 1-6
 S =  .001000

   WSEL        Q          A        V        P       N       BSTA     ESTA

S.P.F.   4498.5   3112.2   1.45   1631.7   .050
         --------  -------  -----  ------
  1217.3   4498.5   3112.2   1.45   1631.7                .0   1631.6
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.*
```

```
SSS

PORT: 66
CENTER: AA
TERMINAL AA2017-AA09-02-066 11/17/75 14:46:13
LOGON: BAS UYP103,WRB,SECA
ADM999 A ATLANTA/SAN FRANCISCO/SEATTLE USERS PLEASE LIST INFORM
READY
LOA*AAQL
READY
RUN

*AAQL   14:47   11/17/75

FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 1,.001,600,650
300 DATA 1223.5,0,1219.8,100,1222,1450,1224,2500,-999,.05
RUN

*AAQL   14:48   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 600
Q 2 = 650


                          SECTION 1-5
  1223.5  1219.8  1222.0  1224.0
      .0   100.0  1450.0  2500.0
          N =  .050000



ELMIN =  1219.8
 S =  .001000

   WSEL        Q          A        V        P       N       BSTA     ESTA

              600.0     759.9     .79    986.8   .050                 100 YR - PRES.
           --------  -------  -----  ------
  1221.3      600.0     759.9     .79    986.8              58.4   1045.1
```

Section 1-5

	650.0	806.9	.81	1016.8	.050			100 YEAR - FUTURE
1221.4	650.0	806.9	.81	1016.8		57.1	1073.9	

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1217,0,1213,100,1216,1000,1218,2000,1220,3900,-999,.05
RUN

*AAQL   14:50   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 600
Q 2 = 650



  1217.0  1213.0  1216.0  1218.0  1220.0
     .0   100.0  1000.0  2000.0  3900.0
          N =  .050000



ELMIN =  1213
 S =  .001000
```

Section 1-6

WSEL	Q	A	V	P	N	BSTA	ESTA	
	599.9	641.2	.94	645.6	.050			
1215.0	599.9	641.2	.94	645.6		50.3	695.9	100 YR - PRES
	649.6	680.7	.95	665.2	.050			
1215.0	649.6	680.7	.95	665.2		48.8	714.0	100 YR - FUTURE

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
```

```
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
1214 DATA 1214.5,0,1209.3,100,1212,500,1212,1200,1214,3000,1216,3600,-999,.05
RUN

*AAQL   14:52   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 600
Q 2 = 650



  1214.5  1209.3  1212.0  1212.0  1214.0  1216.0
      .0   100.0   500.0  1200.0  3000.0  3600.0
          N =  .050000




ELMIN =  1209.3
 S =  .001000                    SECTION 1-7

   WSEL        Q          A        V        P       N      BSTA     ESTA

              599.6     543.0    1.10    426.4   .050
            --------  -------   -----   ------                          100 YR.-PRES.
  1211.8      599.6     543.0    1.10    426.4              51.0    477.4



              649.2     576.4    1.13    439.3   .050
            --------  -------   -----   ------                          100 YEAR- FUTURE
  1211.9      649.2     576.4    1.13    439.3              49.5    488.8

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.4
READY
100 DATA 1,.003125,375
300 DATA 1252,0,1252,11,1248,19,1250,2050,1251,3450,1255,7500,1260,9500,-999,.
RUN

*AAQL   14:54   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .003125
```

Q's FOR FPMS

Tom Sage

```
SS

PORT: 74
CENTER: AA
TERMINAL AA2030-AA09-02-074 11/05/75 09:25:36
LOGON: BAS UYP103,WRB,SECA
ADM888 A WASH DC USERS PLEASE LIST INFORM
READY
LOA*AAQL
READY
RUN

*AAQL   09:26   11/05/75

FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.5
READY
100 DATA 1,1001,1200
300 DATA 1242,0,1240,100,1238,1000,1240,4000,1242,5000,1244,6600,-999,.05
RUN

*AAQL   09:27   11/05/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 1200


  1242.0  1240.0  1238.0  1240.0  1242.0  1244.0
     .0   100.0  1000.0  4000.0  5000.0  6600.0
          N =  .050000



ELMIN =  1238
 S =  .001000

   WSEL       Q          A        V        P      N      BSTA     ESTA

              1200.0   1688.0     .71   2565.7  .050
             -------  -------   -----   ------
  1239.3     1200.0   1688.0     .71   2565.7                  407.9   2973.6


FLOODWAY? 1 = YES, 0 = NO
?0
```

```
YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1238,0,1236,100,1234,800,1236,3000,1238,4700,-999,.05
RUN

*AAQL    09:29    11/05/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 1200



  1238.0  1236.0  1234.0  1236.0  1238.0
      .0   100.0   800.0  3000.0  4700.0
          N =  .050000




ELMIN =  1234
 S =  .001000

   WSEL        Q          A       V        P      N      BSTA     ESTA

              1200.0   1567.5     .77   2132.1  .050
            --------  -------  -----  ------
  1235.5     1200.0   1567.5     .77   2132.1            285.4   2417.4

FLOODWAY? 1 = YES, 0 = NO
?0




YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1233,0,    1231,100,1230,800,1232,2400,1233,4000,-999,.05
RUN

*AAQL    09:30    11/05/75

300(14) SYNTAX ERROR
READY
0
300 DATA 1233,0,1231,100,1230,800,1232,2400,1233,4000,-999,.05
RUN

*AAQL    09:31    11/05/75
```

```
FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 1200

  1233.0  1231.0  1230.0  1232.0  1233.0
     .0   100.0   800.0  2400.0  4000.0
        N =  .050000


ELMIN =  1230
 S =  .001000

   WSEL        Q          A        V        P      N      BSTA     ESTA

             1200.7   1488.6     .81  1872.3  .050
            -------  -------  -----  ------
  1231.4     1200.7   1488.6     .81  1872.3             78.1  1950.4

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1230,0,1225.5,100,1228,1300,1230,4000,1232,6200,-999,.05
RUN

*AAQL   09:33   11/05/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .001000
Q 1 = 1200


  1230.0  1225.5  1228.0  1230.0  1232.0
     .0   100.0  1300.0  4000.0  6200.0
        N =  .050000


ELMIN =  1225.5
 S =  .001000

   WSEL        Q          A        V        P      N      BSTA     ESTA
```

```
          1199.1   1201.8   1.00   1098.8   .050
        --------  -------  -----  ------
  1227.7  1199.1   1201.8   1.00   1098.8            51.4   1150.1

FLOODWAY? 1 = YES, 0 = NO
?@

NOW AT 12750

READY
OFF

USAGE ON 11/05/75 AT 09:34:16
SRU'S:2.4  ELAPSED TIME: 00:08:24

GOOD BYE.
```

```
SS

PORT: 70
CENTER: AA
TERMINAL AA2035-AA09-02-070 11/17/75 11:10:28
LOGON: BAS UYP103,WRB,SECA
ADM999 A ATLANTA/SAN FRANCISCO/SEATTLE USERS PLEASE LIST INFORM
READY
LOA*AAQL
READY
RUN

*AAQL   11:11   11/17/75

FOR INSTRUCTIONS TYPE 1, FOR NONE TYPE 0.
?0
AFTER DATA IS ENTERED TYPE RUN
NOW AT 10070
SRU'S:0.6
READY
100 DATA 1,.003125,4000
100 DATA 1,.003125,4000
300 DATA 1252,0,1252,11,1248,19,1250,2050,1251,3450,1255,7500,1260,9500,-999,.
RUN

*AAQL   11:12   11/17/75

100(21) SYNTAX ERROR
READY
100 DATA 1,.003125,4000
RUN

*AAQL   11:13   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .003125
Q 1 = 4000


  1252.0  1252.0  1248.0  1250.0  1251.0  1255.0  1260.0
      .0    11.0    19.0  2050.0  3450.0  7500.0  9500.0
          N =  .050000



ELMIN =  1248
 S =  .003125

   WSEL        Q          A        V        P        N       BSTA      ESTA
```

SECT. 4

```
          3997.2   2335.1   1.71  2232.7  .050
         --------  -------  -----  ------
1250.1    3997.2   2335.1   1.71  2232.7  S.P.F      14.7  2246.9
```

SEC. 4

```
FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.002,4000
300 DATA 1273,0,1273,11,1270,17,1270,1970,1271,3500,1270,4900,1270,6500,1273,8
RUN

*AAQL   11:15   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 4000


  1273.0  1273.0  1270.0  1270.0  1271.0  1270.0  1270.0  1273.0
      .0    11.0    17.0  1970.0  3500.0  4900.0  6500.0  8400.0
          N =  .050000


ELMIN =  1270
 S =  .002000
```

SECTION 5

```
   WSEL        Q          A        V        P      N      BSTA    ESTA

S.P.F.      3998.6    4084.5     .98   6461.6  .050
          --------   -------   -----   ------
  1270.8    3998.6    4084.5     .98   6461.6            15.4  7016.6

FLOODWAY? 1 = YES, 0 = NO
?0


YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1284,0,1284,11,1281,17,1280,3500,1285,6700,1288,8700,-999,.05
RUN
```

```
Q 1 = 375


  1252.0  1252.0  1248.0  1250.0  1251.0  1255.0  1260.0
      .0    11.0    19.0  2050.0  3450.0  7500.0  9500.0
          N =  .050000



ELMIN =  1248
 S =  .003125
```

SECTION 4

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

      100 YR 374.6     390.8     .96    892.0   .050
          --------  -------  -----  ------                          100 YR
  1248.9     374.6     390.8     .96    892.0             17.2    909.1


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.002,375
300 DATA 1273,0,1273,11,1270,17,1270,1970,1271,3500,1270,4900,1270,6500,1273,8
RUN

*AAQL   14:56   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 375


  1273.0  1273.0  1270.0  1270.0  1271.0  1270.0  1270.0  1273.0
      .0    11.0    17.0  1970.0  3500.0  4900.0  6500.0  8400.0
          N =  .050000



ELMIN =  1270
 S =  .002000
```

SECTION 5

```
   WSEL        Q          A        V        P       N      BSTA     ESTA

              374.3     839.0     .45   4313.5   .050                    100 YR
  100 YR  --------  -------  -----  ------
  1270.2     374.3     839.0     .45   4313.5             16.6   6635.1
```

```
*AAQL   11:17   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 4000



  1284.0  1284.0  1281.0  1280.0  1285.0  1288.0
      .0    11.0    17.0  3500.0  6700.0  8700.0
          N =  .050000




ELMIN =  1280
 S =  .002000
```

SECTION 6

```
   WSEL        Q          A        V        P       N       BSTA     ESTA

   S.P.F    4004.0    3486.0    1.15   4339.2   .050
          --------   -------   -----   ------
  1281.3    4004.0    3486.0    1.15   4339.2              16.3   4355.5

FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
300 DATA 1302,0,1302,11,1299,17,1300,2150,1305,5000,1307,8500,-999,.05
RUN

*AAQL   11:19   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002000
Q 1 = 4000



  1302.0  1302.0  1299.0  1300.0  1305.0  1307.0
      .0    11.0    17.0  2150.0  5000.0  8500.0
          N =  .050000




ELMIN =  1299
 S =  .002000
```

```
WSEL        Q          A          V          P          N        BSTA     ESTA

     S.P.F  4002.8     2823.4     1.42     2563.0     .050
           --------   -------    -----    ------
  1300.7    4002.8     2823.4     1.42     2563.0                13.5    2576.1
```

SECTION 6A ↑

```
FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
READY
100 DATA 1,.002439,4000
300 DATA 1305,0,1305,11,1303,15,1305,2300,1310,4100,1312,6500,-999,.05
RUN

*AAQL   11:21   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002439
Q 1 = 4000



  1305.0  1305.0  1303.0  1305.0  1310.0  1312.0
      .0    11.0    15.0  2300.0  4100.0  6500.0
          N =  .050000



ELMIN =  1303
 S =  .002439
```

SECTION 7

```
   WSEL        Q          A          V          P          N        BSTA     ESTA

     S.P.F  4005.5     2567.8     1.56     2343.7     .050
           --------   -------    -----    ------
  1305.1    4005.5     2567.8     1.56     2343.7                  .0    2343.2
WSEL > GROUND AT BSTA. VERTICAL SIDEBOARD ADDED


FLOODWAY? 1 = YES, 0 = NO
?0



YOURDATA IS STILL PRESENT AND MAY BE EDITED
DON'T MODIFY LINE 199
AFTER EDITING TYPE RUN
NOW AT 12810
SRU'S:0.3
```

```
READY
100 DATA 1,.002247,4000
300 DATA 1319,0,1319,11,1316,17,1317,3500,1320,5200,1321,8400,-999,.05
RUN

*AAQL   11:22   11/17/75

FLOODWAY? 1 = YES, 0 = NO, SAY NO IF Q AND DESIRED WSEL NOT YET KNOWN
?0
INPUT DATA:
 S =  .002247
Q 1 = 4000


  1319.0  1319.0  1316.0  1317.0  1320.0  1321.0
      .0    11.0    17.0  3500.0  5200.0  8400.0
          N =  .050000



ELMIN =  1316                    SECTION 8
 S =  .002247

   WSEL        Q          A        V        P       N      BSTA     ESTA

             4007.3    3163.3    1.27   3709.9   .050
  S.P.F.   --------   -------   -----   ------
  1317.4     4007.3    3163.3    1.27   3709.9              14.2   3723.8


FLOODWAY? 1 = YES, 0 = NO
?@

NOW AT 12750

READY
OFF

USAGE ON 11/17/75 AT 11:23:54
SRU'S:3.0  ELAPSED TIME: 00:13:08

GOOD BYE.
```