FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW.	HAW.	NRH-9C	35	62	72

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9-F	1935	24	42

Revised June 1936

NOTE to Res. Engineer:
The finished grades as shown on the cross-sections between Sta. 361+50 and 372+65, and between Sta. 381+35 ¢ 469+89.8 are to be lowered by 0.08'.
The finished grade between Sta 372+65 ¢ Sta. 381+35 have been revised. For the corrected grades, see computation book #93 Page 74.

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	W. H. W.	33
NO.	PLOTTED	W. H. W.	33
	TEMPLATE	R. W.	3/35
	AREAS	R. W.	3/35
	AREAS CHECKED	F. C.	4/35

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

364+00
C=0
F=717
Exc.=
Emb=
363+50
C=0
F=736
Exc.=
Emb=
363+00
mud
C=0
F=762
Exc.=
Emb=
362+68.1
C=0
F=551
Exc.=
Emb=
362+00
C=0
F=490
Exc.=
Emb=
361+62.5
C=0
F=451
Exc.= 0
Emb=188.2
361+33.2
C=0
F=154
367+00
mud
C=0
F=620
Exc.=
Emb=
366+50
mud
C=0
F=708
Exc.=
Emb=
366+00
mud
C=0
F=713
Exc.=
Emb=
365+50
mud
C=0
F=719
Exc.=
Emb=
365+00
mud
C=0
F=721
Exc.=
Emb=
364+50
mud
C=0
F=728
Exc.=
Emb=
℄

PLATE 3—CROSS SECTION B.P.R.&R.E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

NRH 9 C

4338.24 4325.62

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H 9F	1935	25	42

Revised June 1936

FINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
C.C.H.
11-34
ORIGINAL SURVEY
Grades Changed
Exc.= 0
Emb.= ~~1176.9~~ 1149.1
370+50
C=0
F=~~585~~ 572
Exc.= 0
Emb.= ~~1295.4~~ 1279.6
370+00
C=0
F=~~686~~ 669
Exc.= 0
Emb.= 1253.7
369+50
C=0
F=713
Exc.= 0
Emb.= 1192.6
369+00
C=0
F=641
Exc.= 0
Emb.= 1316.7
368+50
C=0
F=647
C=0
F=775
Exc.= 0
Emb.= 1287.0
368+00
C=0
F=615
mud
Exc.= 0
Emb.= 1143.5
367+50
Exc= 0
Emb= ~~1075.0~~ ~~1127.8~~ 1263.9
New Grade
mud
373+50
Exc= 0
Emb= ~~1018.5~~ ~~1037.0~~ 1151.9
C=0
F=~~525~~ ~~545~~ 611
373+00
Exc.= 0
Emb.= ~~1092.6~~ 1183.9
C=0
F=~~575~~ 633
372+50
Exc.= 0
Emb.= ~~1111.6~~ 1159.3
C=0
F=~~605~~ 645
372+00
Exc.= 0
Emb.= ~~1101.9~~ 1123.9
C=0
F=~~595~~ 607
371+50
Exc.= 0
Emb.= ~~1103.7~~ 1113.9
C=0
F=~~595~~ 606
371+00
Exc.= 0
Emb.= ~~1094.4~~ 1082.5
C=0
F=597
℄
℄
25

PLATE 3 — CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.25

FED. ROAD DIST. NO.	STATE	PROJ. NO.	YEAR		
HAWAII	HAW.	N.R.H 9F	1935	26	42

Revised June 1936
" Sept. 1936

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Grades Changed

0.94
WAIMALU STREAM
Exc.= } Bridge
Emb= } Bridge
1384
1384
2.47
376+03.75 ~~Beg. of Bridge~~
1381
C=0
F=793
Exc.= 0
Emb= ~~113.3~~ 113.4
2.11
376+00
1341
~~13.28~~
C=0
F=838
Exc.= 0
Emb= ~~1474.1~~ 1489.9
2.68
375+50
13.04
~~12.53~~
C=0
F=~~754~~ 791
Exc= 0
Emb= ~~1346.3~~ 1400.0
2.45
375+00
1262
~~11.90~~
C=0
F=~~700~~ 741
Exc.= 0
Emb= ~~1240.8~~ 1339.9
2.67
374+50
1278
~~11.44~~
C=0
F=~~640.~~ 706
Exc. = 0
Emb= ~~1215.8~~ 1351.9
2.41
Mud
374+00
C=0
F=~~673~~ 754
~~Exc= 0~~
~~Emb= 1127.8~~
8.36
~~10.51~~
~~10.19~~ 12.04
381+50
C=0
F=~~65~~ ~~83~~ 164
Exc= 0
Emb= ~~112.0~~ ~~162.1~~ 291.6
8.83
~~10.86~~
~~10.28~~ 12.043
381+00
C=0
F=~~56~~ ~~92~~ 151
Exc= 0
Emb= ~~91.7~~ ~~170.4~~ 255.5
8.85
~~11.26~~
~~10.50~~ 12.08
380+50
C=0
F=~~43~~ ~~92~~ 125
Exc= 0
Emb= ~~77.8~~ ~~170.4~~ 219.4
9.08
~~11.66~~
~~10.83~~ 12.19
380+00
C=0
F=~~41.0~~ ~~92~~ 112
Exc= 0
Emb= ~~124.1~~ ~~220.4~~ 259.2
8.84
~~12.06~~
~~11.28~~ 12.36
379+50
C=0
F=~~93~~ ~~146~~ 168
Exc= 0
Emb= ~~194.4~~ ~~282.4~~ 302.8
8.82
~~12.46~~
~~11.84~~ 12.59
379+00
C=0
F=~~117~~ 159
Exc= 0
Emb= ~~275.0~~ 332.4
8.44
~~12.56~~
~~12.52~~ 12.89
378+50
C=0
F=~~180~~ 200
Exc= 0
Emb= ~~417.6~~ 436.1
13.76
~~13.28~~
7.69
378+00
C=0
F=271
Exc= 0
Emb= ~~357.5~~ 357.2
13.54
~~13.68~~
7.84
377+65.4
C=0
F=287
Exc= 0
Emb= ~~222.8~~ 218.7
13.69
~~13.84~~
7.09
377+46.25 ~~End of Bridge~~
C=0
F=~~343.0~~ 330

4338.26

26

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
#28994

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	Haw	N.R.H 9F	1935	27	42

Revised June 1936
" Sept 1936

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED	C.C.H.	11-34

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

Grades Changed

386+50
Exc.= ~~53.3~~ 0
Emb.= ~~0~~ ~~120.4~~ 233.3
C= ~~33.5~~ ~~0~~ 0
F= ~~0.69~~ 131
11.99 10.23 13.20
386+00
Exc.= ~~25.2~~ 0
Emb.= ~~5.6~~ ~~123.2~~ 245.3
C= ~~24.0~~ 0 0
F= ~~0~~ 61 121
11.60 12.88 10.00
385+50
Exc.= ~~9.4~~ 0
Emb.= ~~7.4~~ ~~111.1~~ 251.8
C= ~~3.2~~ 0 0
F= ~~6~~ ~~72~~ 144
11.21 12.61 9.94
385+00
Exc.= ~~7.6~~ 0
Emb.= ~~8.3~~ ~~89.8~~ 296.3
C= ~~7~~ 0 0
F= ~~2~~ ~~48~~ 128
10.82 12.40 9.90
384+50
Exc.= ~~1.1~~ 0
Emb.= ~~33.3~~ ~~91.7~~ 222.2
C= ~~1.2~~ 0 0
F= ~~7~~ ~~49~~ 92
10.48 9.21 12.23
384+00
Exc.= 0
Emb.= ~~57.4~~ ~~85.2~~ 268.5
C= 0
F= ~~29.0~~ ~~50~~ 0 148
10.23 9.94 12.11
383+50
Exc.= 0
Emb.= ~~76.9~~ ~~84.2~~ 266.6
C= 0 0
F= ~~33~~ ~~42~~ 142
10.09 9.99 12.05
383+00
Exc.= 0
Emb.= ~~92.6~~ 283.3
C= 0 0
F= ~~50~~ 146
10.05 10.24 12.025
382+50
Exc.= 0
Emb.= ~~101.2~~ ~~110.2~~ 296.3
C= 0 0
F= ~~50~~ 160
10.10 10.09 12.03
382+00
Exc.= 0
Emb.= ~~115.7~~ ~~140.8~~ 300
C= 0 0
F= ~~60~~ ~~69~~ 160
10.26 10.14 12.035
Exc.= ~~911.6~~ ?
Emb.= ~~0~~
389+00
Exc.= ~~330.0~~ ~~214.1~~ 167.4
Emb.= 0
C= ~~478.5~~ ~~318~~ 245
F= 0
19.35 13.93 10.85 15.12
388+80.6
Exc.= ~~475.0~~ ~~271.4~~ 206.7
Emb.= ~~0~~ ~~8.0~~ 21.3
C= ~~442.5~~ ~~278~~ 221
F= 0
19.59 14.97 13.78 10.87
388+44.5
Exc.= ~~131.9~~ ~~59.0~~ 36.0
Emb.= ~~0~~ ~~3.0~~ 10.7
C= ~~268.0~~ ~~128~~ 89
F= ~~0~~ ~~72~~ 32
17.36 13.51 10.73 14.69
388+31
Exc.= ~~253.5~~ ~~89.6~~ 35.0
Emb.= ~~0~~ 9.1
C= ~~259.5~~ ~~108~~ 55
F= ~~0~~ 8
12.62 14.58 13.40 10.67
388+00
Exc.= ~~276.9~~ ~~64.8~~ 12.9
Emb.= ~~0~~ ~~35.2~~ 75.9
C= ~~182.0~~ ~~48~~ 6
F= ~~0~~ 8
13.21 14.34 13.16 10.55
387+50
Exc.= ~~147.8~~ ~~21.3~~ 7.4
Emb.= ~~0~~ ~~103.7~~ 184.2
C= ~~117.0~~ ~~22~~ 8
F= 0 ~~38~~ 74
11.80 13.95 10.36 12.77
387+00
Exc.= ~~70.6~~ ~~0.9~~
Emb.= ~~0~~ ~~132.4~~ 237.0
C= ~~42.6~~ ~~1~~ 0
F= 0 ~~44~~ 125
9.64 13.56 12.38 10.21
℄
℄

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

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4338.27

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H.9F	1935	28	42

Revised June 1936
" Sept 1936

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
Grades Changed
18.55
15.65 16.89
11.95
C = ~~408~~ ~~200~~ 142
F = 0
Exc. = ~~836.1~~ ~~439.8~~ 333.3
Emb. = 0
391+50
19.34
15.39 16.5.9
11.75
C = ~~495~~ ~~275~~ 218
F = 0
Exc. = ~~905.0~~ ~~500.1~~ 396.3
Emb. = 0
391+00
19.40
~~15.07~~ 16.26
~~11.55~~
C = ~~482.5~~ ~~269~~ 210
F = 0
Exc. = ~~929.6~~ ~~540.1~~ 430.5
Emb. = 0
390+50
19.70
~~14.71~~ 15.89
~~11.35~~
C = ~~521.5~~ ~~315~~ 255
F = 0
Exc. = ~~951.4~~ ~~580.6~~ 465.7
Emb. = 0
390+00
19.15
15.50
~~14.32~~
~~11.15~~
C = ~~506~~ ~~312~~ 248
F = 0
Exc. = ~~911.6~~ ~~583.3~~ 456.5
Emb. = 0 0
389+50
~~Exc. = 0.9~~
~~Emb. = 27.8~~
12.42
~~16.27~~ 17.83
13.35
C = 0.5 0
F = ~~11.5~~ ~~175~~ 282
395+00
Exc. = ~~87.0~~ 0
Emb. = 10.6 ~~250.4~~ 421.3
14.15
~~16.29~~ 17.82
~~13.15~~
C = ~~93.50~~ 0
F ~~0~~ ~~68~~ 173
394+50
Exc. = ~~179.3~~ 0
Emb. = ~~0~~ ~~127.8~~ 308.3
14.20
~~16.27~~ 17.76
12.95
C = ~~100.0~~ 0
F = ~~0~~ ~~75~~ 160
394+00
Exc. = ~~215.7~~ 0
Emb. = ~~0~~ ~~115.7~~ 242.6
14.61
16.25 17.66
12.75
C = ~~133.0~~ 0
F = ~~0~~ ~~50~~ 102
393+50
Exc. = ~~285.2~~ ~~1.9~~
Emb. = ~~0~~ ~~60.2~~ 170.3
14.94
~~16.16~~ 17.52
~~12.55~~
C = ~~175~~ ~~2~~ 0
F = ~~0~~ ~~15~~ 82
393+00
Exc. = ~~323.6~~ ~~46.4~~ 3.7
Emb. = ~~0~~ ~~11.1~~ 23.6
16.55
~~16.07~~ 17.38
~~12.39~~
C = 264 ~~61~~ 5
F = ~~0~~ 4
Exc. = ~~373.3~~ ~~145.2~~ 80.6
Emb. = ~~0~~ 1.4
392+60.2
19.06
~~15.99~~ 17.27
~~12.27~~
C = 417 ~~204~~ 142
F = 0
Exc. = ~~453.2~~ ~~217.0~~ 138.8
Emb. = 0
392+30.6
18.42
~~15.88~~ 17.13
~~12.15~~
C = 384 ~~179~~ 103
F = 0
Exc. = ~~733.3~~ ~~250.9~~ 276.8
Emb. = 0
392+00
℄
℄

28

PLATE 3—CROSS SECTION O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.28

(25)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw	N.R.H.9F	1935	29	42

Revised June 1936
" Sept 1936

℄
399+09.6
C = 5.0 0
F = 193.9 292 392
Exc. = 4.5 0
Emb. = 233.2 364.0 514.2
398+70.6
C = 1.2
F = 136.0 220 320
Exc. = 0.8 0
Emb. = 79.7 151.3 221.6
398+50
C = 1.0 0
F = 73.0 174 261
Exc. = 6.1 0
Emb. = 74.8 181.1 277.2
398+20
C = 10.0
F = 62.0 152 238
Exc. = 6.5 0
Emb. = 74.8 198.9 327.5
397+85.8
C = 0.2
F = 56.0 168 256
Exc. = 7.7 0
Emb. = 37.3 167.7 285.8
397+50
C = 11.5 0
F = 0.2 94 175
Exc. = 13.8 0
Emb. = 4.1 188.9 349.1
397+00
C = 3.5
F = 4.5 112 202
Exc. = 25.8 0
Emb. = 4.2 192.6 354.6
396+50
C = 24.5 0
F = 0 46 181
Exc. = 26.1
Emb. = 5.2 216.7 378.7
396+00
C = 3.7 0
F = 5.7 138 228
Exc. = 3.9 0
Emb. = 22.4 283.7 470.3
395+50
C = 0.5 0
F = 18.8 168 280
Exc. = 0.2 0
Emb. = 27.8 317.6 520.3
16.27 17.83
17.81
17.75
Exc. = 3.8
Emb. = 111.7
400+75
C = 7.5 4
F = 119.8 160 269
Exc. = 7.8 6.8
Emb. = 183.3 232.0 341.8
400+50
C = 7.2 9
F = 276.2 341 469
Exc. = 0.9 6.7
Emb. = 289.8 354.6 471.8
400+25
C = 7.2 0
F = 360.0 425 550
Exc. = 5.3 0
Emb. = 337.0 400.6 522.7
400+00
C = 4.5 0
F = 378.0 440 579
Exc. = 3.9 0
Emb. = 347.2 404.7 529.6
399+75
C = 2.3 0
F = 371.6 445 565
Exc. = 2.8 10.7
Emb. = 254.8 317.4 441.8
399+50
C = 20.7 6
F = 177.0 245 389
Exc. = 2.8 10.4
Emb. = 197.7 266.7 384.2
399+25
C = 1.1 6
F = 250 331 441
Exc. = 1.7 0
Emb. = 126.6 178.2 237.6
Grades Changed
FINAL SURVEY
ORIGINAL SURVEY

PLATE 3 — CROSS SECTION O. P. R. & S. F. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.29

(26)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H.9F	1935	30	42

Revised June 1936
Revised Sept 1936

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED	C.C.H.	11-36

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

Grades Changed

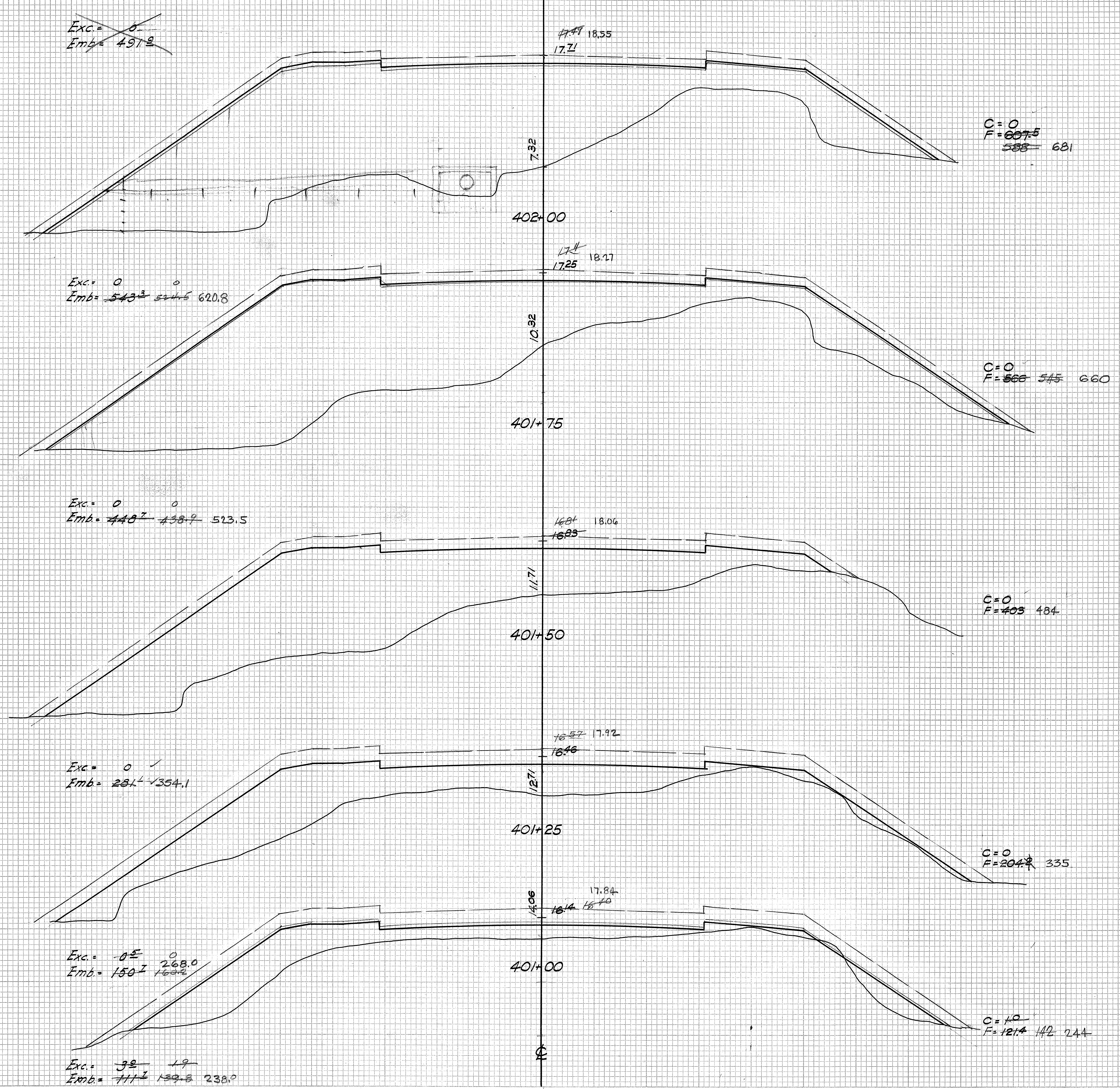
℄
℄
~~Exc.= 0~~
~~Emb.= 491.2~~
~~17.49~~ 18.55
17.71
7.32
C=0
F=~~607.5~~
~~588~~ 681
402+00
~~17.11~~ 18.27
17.25
Exc.= 0 0
Emb.= ~~543.3~~ ~~524.5~~ 620.8
10.32
C=0
F=~~560~~ ~~545~~ 660
401+75
Exc.= 0 0
Emb.= ~~448.7~~ ~~438.9~~ 523.5
~~16.84~~ 18.06
16.83
11.71
C=0
F=~~403~~ 484
401+50
~~16.57~~ 17.92
16.46
12.71
Exc.= 0 ✓
Emb.= ~~281.1~~ ✓354.1
401+25
C=0
F=~~204.2~~ 335
17.84
~~16.14~~ ~~16.40~~
14.06
Exc.= ~~0.5~~ 0
Emb.= ~~150.1~~ ~~160.2~~ 268.0
401+00
C=~~1.0~~
F=~~121.4~~ ~~142~~ 244
Exc.= ~~3.2~~ ~~1.9~~
Emb.= ~~111.1~~ ~~139.8~~ 238.0
℄

PLATE 3—CROSS SECTION ℄ P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

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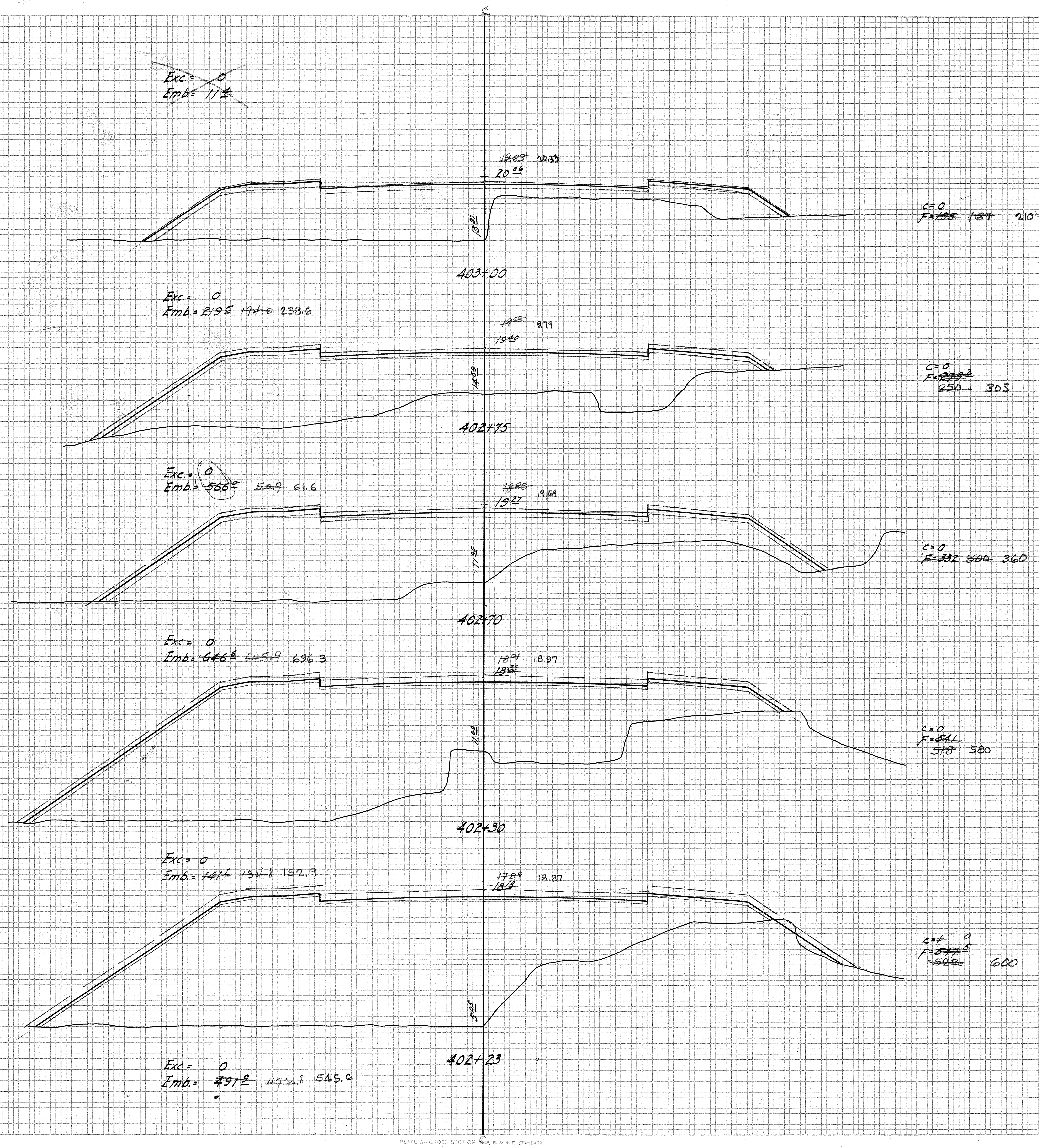
4338.30

(27)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H 9F	1935	31	42

Revised June 1936
" Sept 1936



℄
~~Exc. = 0~~
~~Emb. = 11.4~~
~~19.63~~ 20.33
20^{06}
13.91
403+00
C = 0
F = ~~195~~ ~~169~~ 210
Exc. = 0
Emb. = ~~219.5~~ ~~194.0~~ 238.6
~~19.00~~ 19.79
19^{40}
14.59
402+75
C = 0
F = ~~279.2~~
~~250~~ 305
Exc. = 0
Emb. = ~~566.0~~ ~~509~~ 61.6
~~18.88~~ 19.69
19^{27}
11.95
402+70
C = 0
F = ~~332~~ ~~300~~ 360
Exc. = 0
Emb. = ~~646.6~~ ~~605.9~~ 696.3
~~18.94~~ 18.97
18^{33}
11.82
402+30
C = 0
F = ~~541~~
~~518~~ 580
Exc. = 0
Emb. = ~~141.2~~ ~~134.8~~ 152.9
~~17.89~~ 18.87
~~18.18~~
5.25
402+23
C = ~~4~~ 0
F = ~~547.5~~
~~522~~ 600
Exc. = 0
Emb. = ~~491.9~~ ~~474.8~~ 545.6

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED	C.C.H.	11-34

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

Grades Changed

PLATE 3—CROSS SECTION ℄ P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

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4338.31

(28)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H.9F	1935	32	42

Revised June 1936
" Sept 1936

FINAL SURVEY NOTE BOOK NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS	C.C.H.	11-34
AREAS CHECKED		

ORIGINAL SURVEY NOTE BOOK NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

Grades Changed

Exc. = 1638^{0}
Emb. = 0

33.60
~~24.88~~ 25.03
~~25.05~~
c = ~~612~~ ~~620~~ 612
F = 0
404+50
Exc. = ~~806.7~~ ~~817.8~~ 806.7
Emb. = 0
28.78
~~23.03~~ 23.33
23.33
c = ~~335~~ ~~340~~ 335
F = 0
404+04
Exc. = ~~37.5~~ ~~39.1~~ 37.5
Emb. = 0
23.22
~~22.07~~ 23.20
~~23.19~~
c = ~~171~~ ~~188~~ 171
F = 0
404+00
Exc. = ~~231.2~~ ~~273.6~~ 231.2
Emb. = 0
22.12
~~21.47~~ 21.63
21.53
c = ~~80~~ ~~108~~ 80
F = 0
403+50.1
Exc. = ~~0~~ ~~15.8~~ 11.9
Emb. = ~~27.1~~ ~~23.7~~ 27.5
~~20.88~~ 21.41
21.29
16.97
c = 0
F = ~~185~~ ~~162~~ 188
403+42.2
Exc. = 0
Emb. = ~~264.7~~ ~~228.0~~ 272.2
~~19.88~~ 20.38
~~20.41~~
17.68
403+01.7
c = 0
F = ~~168~~ ~~142~~ 175
Exc. = 0
Emb. = ~~11.4~~ ~~9.8~~ 12.1
45.97
31.41
c = 836.2
F = 0
406+00
Exc. = ~~0~~ 1556.6
Emb. = ~~1556.6~~ 0
43.31
29.18
29.26
c = 845
F = 0
405+50
Exc. = 1662.0
Emb. = 0
42.18
27.03
27.11
c = 950
F = 0
405+00
Exc. = ~~1046.8~~ 1051.6
Emb. = 0
37.72
~~25.57~~ 25.69
25.69
c = ~~722.5~~ 730
F = 0
404+66.2
Exc. = ~~400.4~~ ~~404.0~~ 402.5
Emb. = 0
℄

℄

PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

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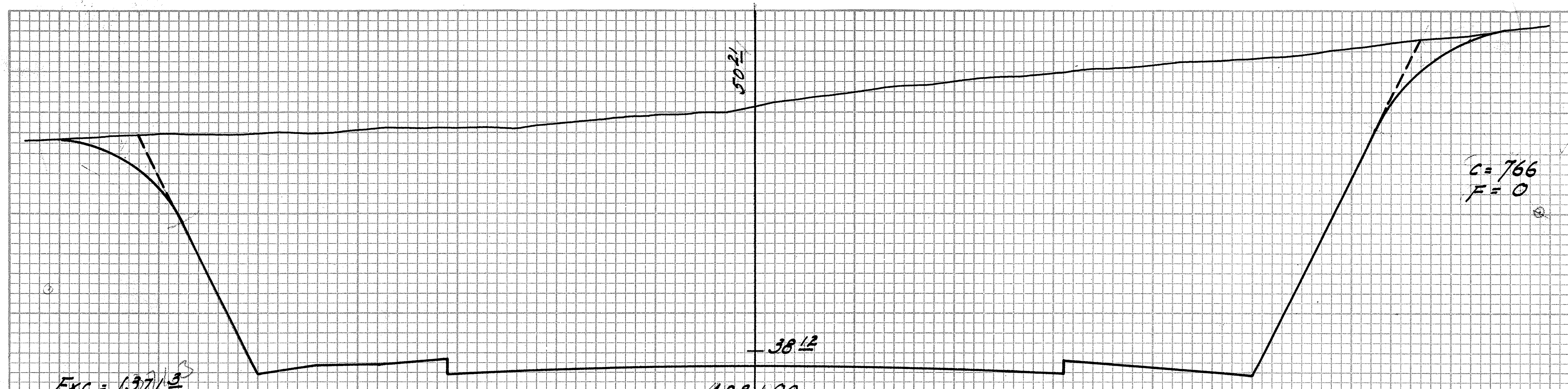
4338.32

(29)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.F. 9F	1935	33	42

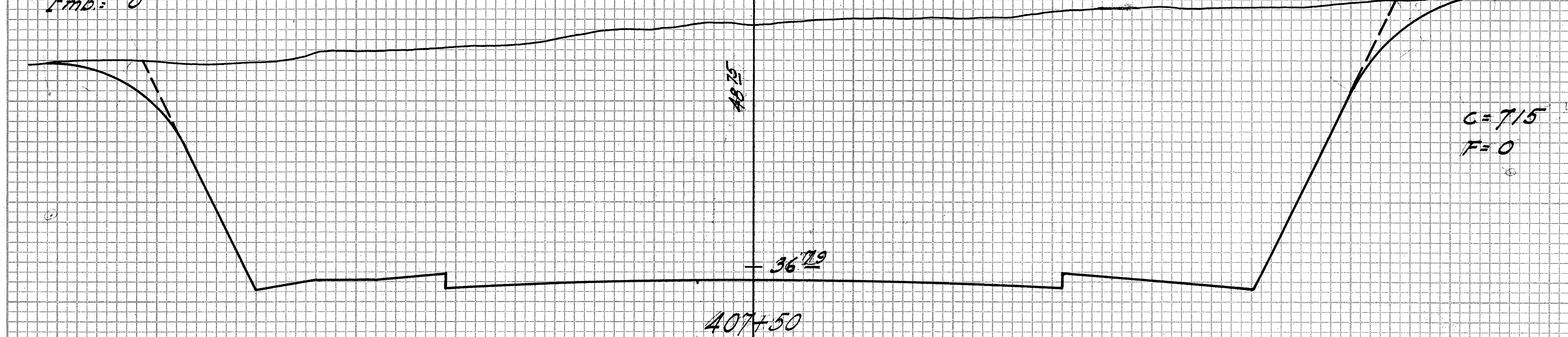
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED CCH 12-34
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE



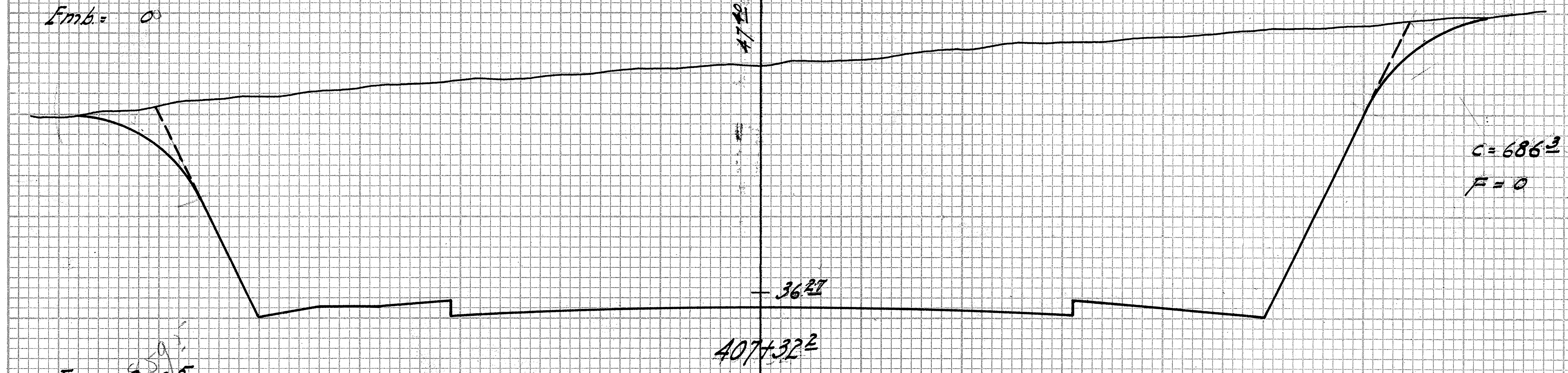
50^{21}
c = 766
F = 0
38^{12}
408+00

Exc. = 1371^{3}
Emb. = 0



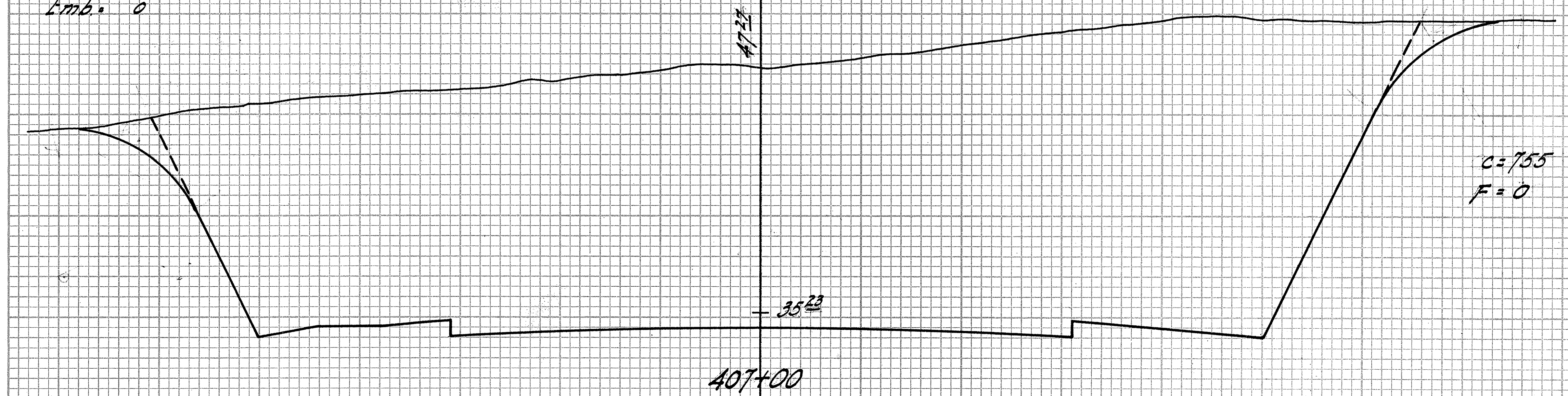
48^{75}
c = 715
F = 0
36^{79}
407+50

Exc. = 461^{9}
Emb. = 0



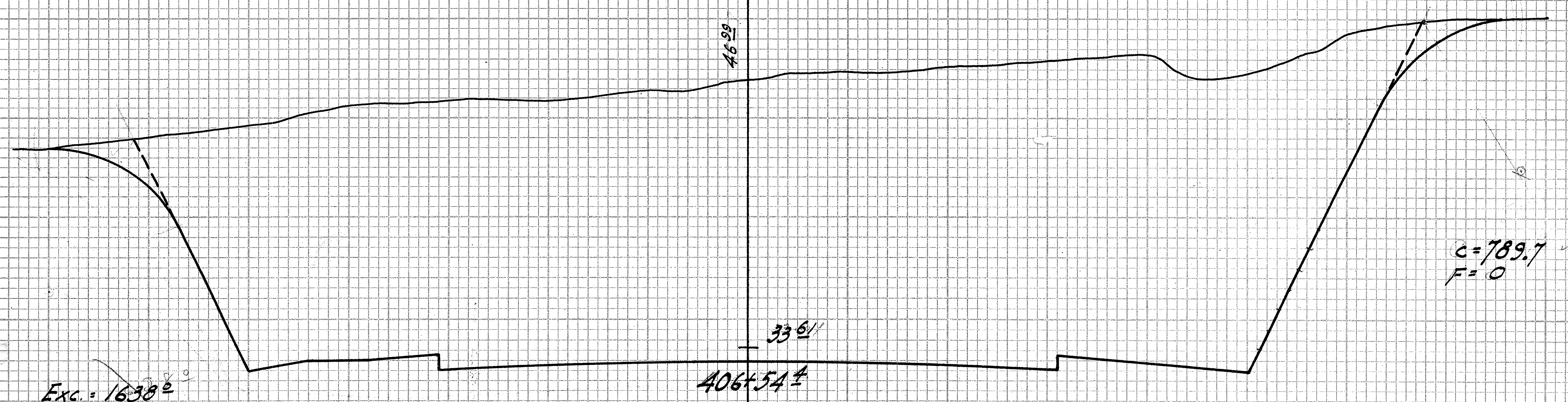
47^{40}
c = 686^{3}
F = 0
36^{27}
407+32^{2}

Exc. = 859^{5}
Emb. = 0



47^{27}
c = 755
F = 0
35^{23}
407+00

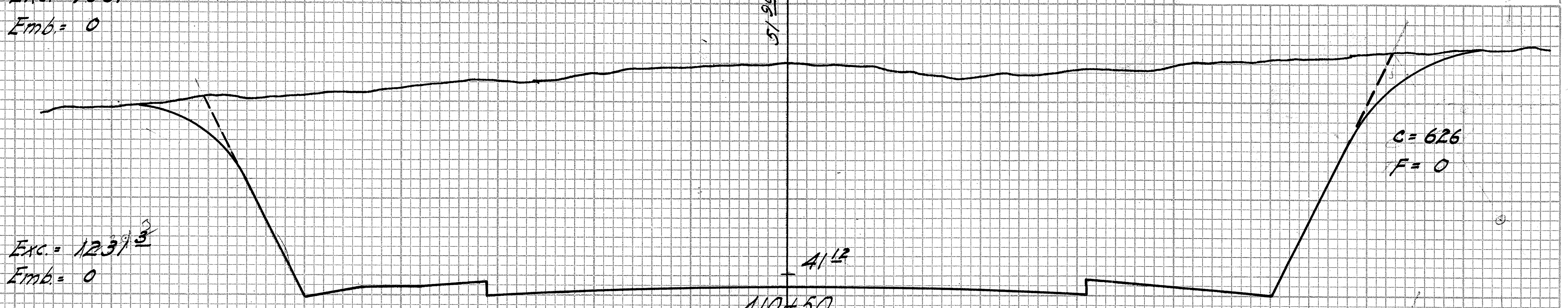
Exc. = 1304^{4}
Emb. =



46^{99}
c = 789.7
F = 0
33^{61}
406+54^{4}

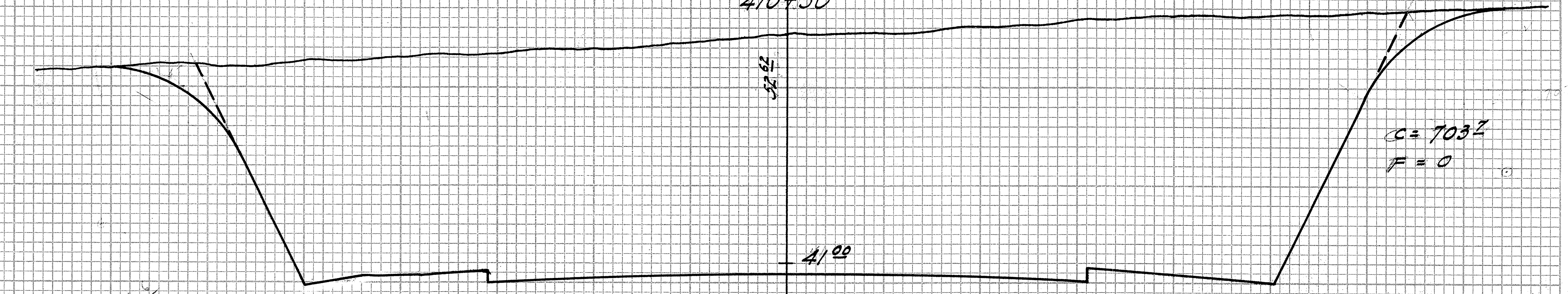
Exc. = 1638^{6}
Emb. = 0

Exc. = 1061^{1}
Emb. = 0



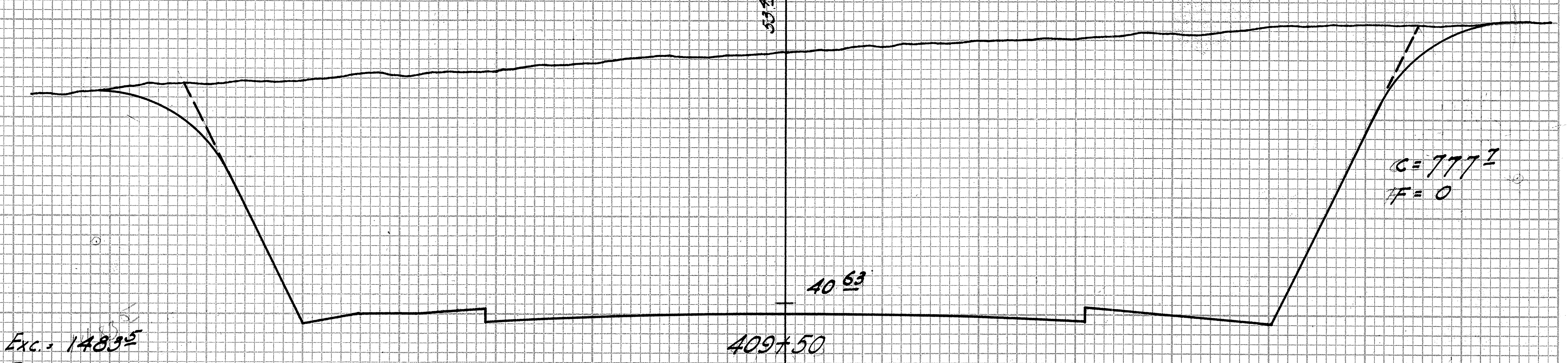
51^{90}
c = 626
F = 0
41^{12}
410+50

Exc. = 1231^{3}
Emb. = 0



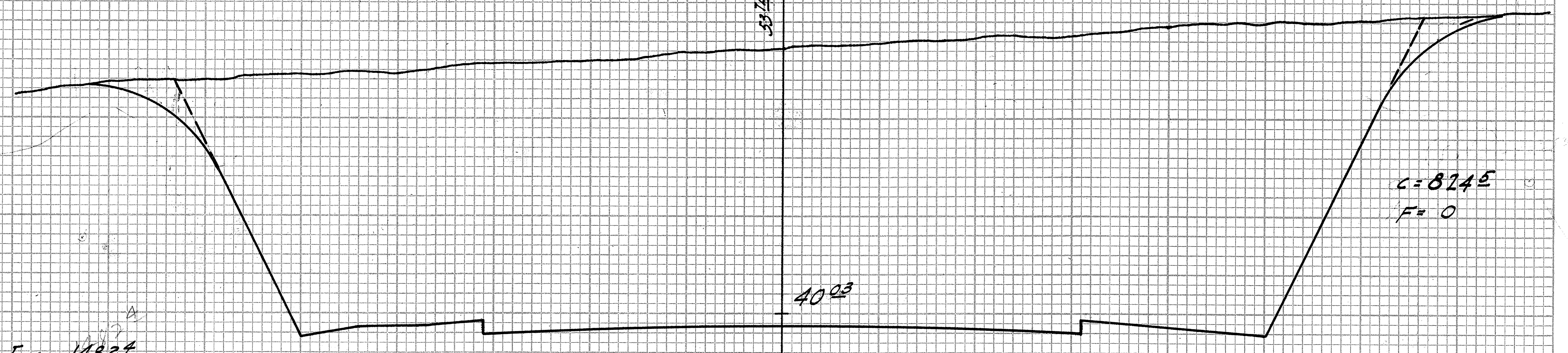
52^{62}
c = 703^{7}
F = 0
41^{00}
410+00

Exc. = 1371^{6}
Emb. = 0



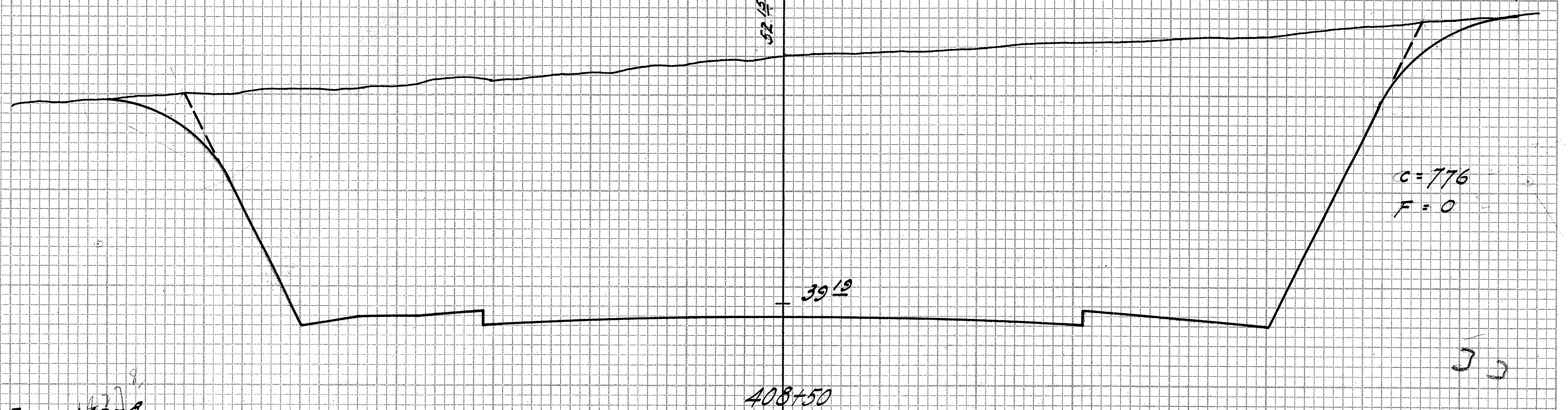
53^{44}
c = 777^{7}
F = 0
40^{63}
409+50

Exc. = 1483^{5}
Emb. = 0



53^{12}
c = 824^{5}
F = 0
40^{03}
409+00

Exc. = 1482^{4}
Emb. = 0



52^{15}
c = 776
F = 0
39^{19}
408+50

Exc. = 1427^{8}
Emb. = 0

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

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Areas

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H.9F	1935	34	42

℄
34^{76}
35^{81}
414+00
c = 10
F = 40
BEGIN REVISED GRADES
Exc. = 88^{7}
Emb. = 38^{2}
38^{06}
37^{00}
413+50
c = 85^{7}
F = 1^{1}
Exc. = 197^{4}
Emb. = 1^{1}
40^{00}
38^{18}
413+00
c = 127^{5}
F = 0
Exc. = 367^{0}
Emb. = 0
42^{25}
39^{41}
412+37^{6}
c = 190
F = 0
Exc. = 336^{1}
Emb. = 0
44^{08}
40^{08}
412+00
c = 292^{5}
F = 0
Exc. = 641^{3}
Emb. = 0
47^{33}
40^{67}
411+50
c = 400
F = 0
Exc. = 851^{2}
Emb. = 0
49^{61}
41^{02}
411+00
c = 520
F = 0
Exc. = 1061^{1}
Emb. = 0
Exc. = 21^{0}
Emb. = 68^{6}
34^{10}
35^{44}
418+36^{7}
c = 22^{5}
F = 62
Exc. = 19^{4}
Emb. = 96^{5}
34^{73}
32^{65}
418+00
c = 6
F = 80
Exc. = 19^{0}
Emb. = 107^{4}
32^{30}
33^{94}
417+50
c = 14^{5}
F = 36
Exc. = 64^{4}
Emb. = 34^{4}
33^{26}
33^{42}
417+00
c = 35
F = 1^{2}
Exc. = 85^{2}
Emb. = 23^{8}
32^{15}
33^{14}
416+42^{2}
c = 25
F = 21
Exc. = 120^{8}
Emb. = 16^{4}
34^{85}
33^{17}
416+00
c = 130
F = 0
Exc. = 281^{1}
Emb. = 0
35^{96}
33^{44}
415+50
c = 173^{5}
F = 0
Exc. = 302^{4}
Emb. = 0
36^{02}
33^{96}
415+00
c = 153
F = 0
Exc. = 203^{5}
Emb. = 0
35^{02}
34^{76}
414+50
c = 66^{7}
F = 0
Exc. = 71^{1}
Emb. = 37^{0}

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY C.C.H.
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

PLATE 7—CROSS SECTION (G. F. E. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.34

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 9F	1935	35	42

Revised June 1936

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED	CCH	11-34

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

Grades Changed

℄
45^{05}
45^{62}
422+00
c = 35
F = 23^{5}
Exc. = 55^{6}
Emb. = 53^{2}
43^{15}
44^{19}
421+50
c = 25
F = 34
Exc. = 24^{3}
Emb. = 182^{9}
42^{76}
39^{03}
421+00
c = 1^{1}
F = 163^{5}
Exc. = 1^{0}
Emb. = 363^{9}
41^{33}
36^{64}
420+50
c = 0
F = 229^{5}
Exc. = 0
Emb. = 360^{7}
39^{90}
36^{21}
420+00
c = 0
F = 160
Exc. = 3^{3}
Emb. = 235^{2}
38^{47}
36^{00}
419+50
c = 3^{5}
F = 94
Exc. = 56^{5}
Emb. = 193^{2}
37^{00}
37^{04}
419+50 00
c = 57^{5}
F = 114^{5}
Exc. = 86^{5}
Emb. = 227^{0}
34^{00}
35^{86}
WALL
418+54
c = 44
F = 152
Exc. = 21^{0}
Emb. = 68^{6}
℄
~~Exc. = 44^{4}~~
~~Emb. = 54^{3}~~
49^{44}
48^{98}
50^{62}
426+00
c = ~~16^{5}~~ 85
F = ~~44^{5}~~ 3
Exc. = ~~34^{8}~~ 120.4
Emb. = ~~88^{2}~~ 20.4
49^{36}
49^{72}
50^{70}
425+50
c = ~~21~~ 45
F = ~~50^{7}~~ 19
Exc. = ~~56^{5}~~ 99.1
Emb. = ~~61^{9}~~ 21.3
50^{24}
50^{99}
50^{58}
425+00
c = ~~40~~ 62
F = ~~16~~ 4
Exc. = ~~122^{9}~~ 142.6
Emb. = ~~15^{1}~~ 4.6
51^{45}
50^{14}
50^{25}
424+50
c = 91^{7}
F = 1
Exc. = ~~212^{2}~~ 199.1
Emb. = ~~0^{9}~~ 0.9
51^{67}
49^{86}
49^{73}
424+00
c = ~~137^{5}~~ 123
F = 0
Exc. = ~~251^{1}~~ 222.4
Emb. = 0 0
52^{19}
49^{40}
49^{17}
P.C. $423+59^{7}$
c = ~~199~~ 175
F = 0
Exc. = ~~506^{4}~~ 458.8
Emb. = 0 0
51^{85}
48^{22}
48^{08}
423+00
c = ~~259~~ 240
F = 0
Exc. = ~~431^{1}~~ 413.9
Emb. = 0 0
49^{42}
47^{05}
46^{95}
422+50
c = 206^{5}
F = 0
Exc. = 223^{7} ✓
Emb. = 21^{9} ✓
℄

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 9F	1935	36	42

Revised June 1936
℄
430+50
41.08
~~43^{42}~~ 38^{87}
c = ~~2~~ 168
F = ~~80^{5}~~ 0
Exc. = ~~16^{7}~~ 355.6
Emb. = ~~133^{0}~~ 0
430+00
42^{64}
~~44^{40}~~ 39^{69}
c = ~~16~~ 216
F = ~~63~~
Exc. = ~~166^{7}~~ 563.0
Emb. = ~~58^{3}~~ 0
429+50
47^{24}
~~45^{38}~~ 40^{76}
c = ~~164~~ 392
F = 0
Exc. = ~~165^{6}~~ 395.3
Emb. = 0 0
47^{81}
~~45^{91}~~ 41.41
c = ~~167~~ 398
F = 0
P.T. - 429+22^{98}
Exc. = ~~144^{7}~~ 340.0
Emb. = 0 0
429+00
48^{63}
~~46^{36}~~ 41^{96}
c = ~~173~~ 401
F = 0
Exc. = ~~289^{8}~~ 703.7
Emb. = 0 0
428+50
48^{91}
~~47^{34}~~ 43.16
c = ~~140~~ 360
F = 0
Exc. = ~~247^{2}~~ 647.2
Emb. = 0 0
428+00
49^{77}
~~48^{32}~~ 44^{36}
c = ~~127~~ 339
F = 0
Exc. = ~~169^{8}~~ 538.0
Emb. = 1^{9} 0
427+50
49^{29}
45.56
~~49^{19}~~
c = ~~56^{3}~~ 242
F = ~~2~~ 0
Exc. = ~~83^{7}~~ 400.0
Emb. = ~~17^{2}~~ 0
427+00
49^{21}
46.77
~~49^{87}~~
c = ~~34~~ 190
F = ~~16^{5}~~ 0
Exc. = ~~60^{7}~~ 310.2
Emb. = ~~28^{3}~~ 0
426+50
49^{79}
47^{97}
~~50^{35}~~
c = ~~31^{5}~~ 145
F = ~~14~~ 0
Exc. = ~~44^{4}~~ 213.0
Emb. = ~~54^{2}~~ 2.8
Grade Changed
Exc. = ~~3^{3}~~
Emb. = ~~145^{4}~~
435+50
37^{76}
40^{22}
c = 3
F = 7^{3}
Exc. = 3^{3}
Emb. = 160^{2}
435+00
37^{21}
39^{88}
39^{95}
c = 0^{5}
F = 100
Exc. = ~~7^{4}~~ 10.2
Emb. = ~~187^{0}~~ 183.3
434+50
36^{66}
39^{54}
39^{80}
c = ~~7^{5}~~ 11
F = ~~102~~ 98
Exc. = ~~13^{5}~~ 20.4
Emb. = ~~170^{0}~~ 150.9
434+00
37^{59}
39^{20}
39^{80}
c = ~~7~~ 11
F = ~~82^{5}~~ 65
Exc. = ~~20^{4}~~ 61.1
Emb. = ~~119^{1}~~ 71.3
433+50
38^{70}
38^{56}
~~39^{91}~~
c = ~~75~~ 55
F = ~~46~~ 12
Exc. = ~~25^{9}~~ 99.1
Emb. = ~~90^{7}~~ 16.7
433+00
38^{54}
38^{52}
40^{47}
c = ~~13~~ 52
F = ~~82~~ 6
Exc. = ~~26^{5}~~ 138.9
Emb. = ~~90^{7}~~ 5.6
432+50
38^{90}
38.18
40^{56}
c = ~~15^{5}~~ 98
F = ~~46~~ 0
Exc. = ~~27^{4}~~ 197.2
Emb. = ~~108^{0}~~ 0
432+00
39^{25}
~~41^{07}~~ 37^{97}
c = ~~14~~ 115
F = ~~70^{5}~~ 0
Exc. = ~~16^{3}~~ 222.2
Emb. = ~~141^{7}~~ 0
431+50
39^{06}
~~41^{72}~~ 38^{02}
c = ~~35~~ 125
F = ~~82^{5}~~ 0
Exc. = ~~5^{6}~~ 256.5
Emb. = ~~141^{3}~~ 0
431+00
40^{29}
~~42^{51}~~ 38^{32}
c = ~~2^{5}~~ 152
F = 70 0
Exc. = ~~4^{2}~~ 296.3
Emb. = ~~139^{4}~~ 0
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
CCH
11-34
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

PLATE 3 — CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.36

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	Haw	N.R.H.9F	1935	37	42

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

41^{65}
43^{62}
440+50
c=0
F=69^{5}
Exc.= 0
Emb.= 146^{5}
41^{14}
43^{28}
440+00
c=0
F=88^{7}
Exc.= 0
Emb.= 166^{9}
40^{71}
42^{94}
439+50
c=0
F=91^{5}
Exc.= 0
Emb.= 228^{3}
40^{60}
42^{60}
439+00
c=0
F=155
?
Exc.= ~~235^{2}~~ 0
Emb.= ~~0~~ 235^{2}
40^{34}
42^{26}
438+50
c=0
F=99
PEARL [illegible] BRIDGE
40^{88}
41^{58}
WALL
437+50
c=5^{5}
F=77^{2}
Exc.= 5^{2}
Emb.= 168^{2}
39^{85}
41^{24}
437+00
c=0
F=104^{3}
Exc.= 0
Emb.= 174^{4}
39^{23}
40^{90}
436+50
c=0
F=84
Exc.= 0^{6}
Emb.= 155^{6}
38^{89}
40^{56}
436+00
c=0^{6}
F=84
Exc.= 3^{3}
Emb.= 145^{4}
Exc.= 66^{5}
Emb.= 33^{5}
43.80
43^{61}
445+50
c=37^{7}
F=28^{5}
Exc.= 98^{3}
Emb.= 26^{4}
44.65
44^{07}
445+00
c=68^{5}
F=0
Exc.= 156^{1}
Emb.= 0
45.22
44^{42}
444+50
c=100
F=0
Exc.= 176^{0}
Emb.= 0
45.77
44^{67}
444+00
c=91
F=0
Exc.= 81^{5}
Emb.= 0
Plan Approaches to Pearl City Peninsula & Waimanu Home on 8% Grade Run back 35 ft. R/W
46.06
44^{74}
443+78
c=109
F=0
Exc.= 221^{8}
Emb.= 1^{7}
← Pearl City — INTERSECTION — WAIMANU RANCH
44.74
44^{84}
443+00
c=44^{5}
F=1^{2}
Exc.= 82^{2}
Emb.= 1^{1}
44.63
44^{77}
442+50
c=44^{2}
F=0
Exc.= 54^{1}
Emb.= 6^{5}
43.63
44^{59}
442+00
c=14^{2}
F=7
Exc.= 17^{8}
Emb.= 37^{0}
43.00
44^{30}
441+50
c=5
F=33
Exc.= 5^{6}
Emb.= 75^{0}
42.46
43^{96}
441+00
c=1^{0}
F=48
Exc.= 0^{9}
Emb.= 108^{7}

PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

4338.37

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H.9F	1935	38	42

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE	CCH	11-34
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

℄
43^{01}
43^{53}
fence
450+50
C = 9
F = 27^7
Exc. = 22^2
Emb. = 48^5
42^{17}
42^{52}
3:1
fence
3:1
450+00
C = 15
F = 24^7
Exc. = 37^8
Emb. = 35^6
41^{57}
41^{64}
fence
449+50
C = 25^7
F = 13^7
Exc. = 60^7
Emb. = 26^7
41^{24}
41^{07}
449+00
C = 40
F = 15
Exc. = 71^3
Emb. = 33^0
40^{99}
40^{78}
3:1
448+50
C = 37
F = 20^5
Exc. = 63^0
Emb. = 49^6
40^{86}
40^{78}
3:1
448+00
C = 31
F = 33
Exc. = 58^9
Emb. = 57^0
41^{06}
40^{97}
447+50
C = 32^5
F = 28^5
Exc. = 56^4
Emb. = 49^6
41^{60}
41^{65}
447+00
C = 28
F = 25
Exc. = 52^6
Emb. = 46^3
42^{32}
42^{38}
446+50
C = 29
F = 25
Exc. = 58^3
Emb. = 30^4
43^{15}
43^{04}
446+00
C = 34
F = 7^7
Exc. = 66^5
Emb. = 33^5
℄
Exc. = 74^6
Emb. = 4^8
52^{90}
52^{67}
455+00
C = 35^2
F = 3^0
Exc. = 48^2
Emb. = 19^6
51^{40}
51^{66}
454+50
C = 17
F = 17^5
Exc. = 29^6
Emb. = 35^4
50^{27}
50^{64}
454+00
C = 15
F = 20^7
Exc. = 22^2
Emb. = 40^6
49^{17}
49^{62}
453+50
C = 9
F = 23
Exc. = 16^3
Emb. = 47^2
48^{15}
48^{61}
3:1
453+00
C = 8^5
F = 28
Exc. = 16^3
Emb. = 58^2
47^{13}
47^{59}
452+50
C = 9
F = 34^7
Exc. = 18^5
Emb. = 60^4
46^{17}
46^{58}
452+00
C = 11
F = 30^5
Exc. = 22^8
Emb. = 53^7
3:1
45^{22}
45^{56}
3:1
451+50
C = 13^5
F = 27^5
Exc. = 28^7
Emb. = 48^7
44^{30}
44^{55}
451+00
C = 17^5
F = 25
Exc. = 24^6
Emb. = 48^9
℄

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

4338.38

(35)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H.9F	1935	39	42

Revised June 1936

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
CCH
DATE
11-32

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Grades Changed

Exc. = ~~298.6~~ 565.1
Emb. = 0
59.81
56.78
~~58.88~~
c = ~~222~~ 342
F = 0
P.C. 458+86.9
Exc. = ~~316.5~~ 450.9
Emb. = 0
59.61
57.03
~~58.24~~
c = ~~215~~ 285
F = 0
458+50
58.86
57.1
~~58.41~~
c = ~~126.7~~ 202
F = 0
Exc. = ~~185.2~~ 296.3
Emb. = 0
458+00
57.88
56.91
~~57.72~~
c = ~~74~~ 118
F = 0
457+50
Exc. = ~~119.1~~ 169.4
Emb. = 0
56.79
56.43
~~56.73~~
c = ~~54.5~~ 63
F = 0
457+00
Exc. = ~~91.3~~ 99.1
Emb. = 0
55.63
55.7
~~55.71~~
c = 44
F = 0
456+50
Exc. = 86.1
Emb. = 0
54.64
54.70
c = 50.3
F = 0
456+00
Exc. = 87.4
Emb. = 1.4
53.64
53.68
c = 45.4
F = 1.5
455+50
Exc. = 74.6
Emb. = 4.2
℄
~~Exc. = 351.3~~
~~Emb. = 0.1~~
Exc. = ~~455.4~~ 837.0
Emb. = 0
55.78
52.54
~~55.95~~
c = ~~227.7~~ 442
F = 0
461+00
Exc. = ~~492.6~~ 844.4
Emb. = 0
57.62
53.98
~~57.18~~
c = ~~264~~ 462
F = 0
460+50
Exc. = ~~469.4~~ 775.9
Emb. = 0
58.87
55.15
~~58.08~~
c = ~~268~~ 450
F = 0
460+00
Exc. = ~~229.6~~ 360.2
Emb. = 0
59.51
56.05
~~58.60~~
c = ~~239~~ 388
F = 0
459+50
Exc. = ~~337.9~~ 516.4
Emb. = 0
59.62
56.40
~~58.78~~
c = ~~257~~ 390
F = 0
459+25
℄

PLATE 3—CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

39

4338.39

(36)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	Haw	N.R.H.9F	1935	40	42

Revised June. 1936

Exc.= ~~0~~ 13.0
Emb= ~~342.8~~ 207.4
40.62
40.89
~~42.28~~
464+50
C=0 14
F=~~181.2~~ 108
Exc.= ~~0~~ 43.5
Emb.= ~~327.0~~ 181.5
42.66
42.35
~~44.12~~
464+00
C=0 33
F=~~172~~ 88
Exc.= ~~0~~ 81.5
Emb.= 327.4 116.5
44.78
43.99
~~46.17~~
463+50
C=~~0~~ 45
F=~~181.6~~ 81
Exc.= ~~0~~ 102.8
Emb.= ~~233.7~~ 75.0
47.00
45.7
~~48.32~~
463+00
C=~~0~~ 66
F=~~70.7~~ 0
Exc.= ~~3.0~~ 188.9
Emb.= ~~97.0~~ 0
49.09
47.42
~~50.47~~
462+50
C=~~4.2~~ 138
F=~~34~~ 0
Exc.= ~~49.1~~ 345.4
Emb.= ~~44.4~~ 0
51.48
49.14
~~52.54~~
462+00
C=~~49.2~~ 235
F=~~14~~ 0
Exc.= ~~78.3~~ 279.3
Emb.= ~~9.3~~ 0
52.76
50.06
~~53.55~~
P.T. 461+72.97
C=~~107.2~~ 323
F=~~4.5~~ 0
DITCH
Exc.= ~~110.1~~ 295.6
Emb.= ~~2.2~~ 0
53.76
50.85
~~54.38~~
461+50
C=~~161.7~~ 372
F=0.7 0
Exc.= ~~351.3~~ 753.7
Emb.= 0.7 0
Exc.= 55.6
Emb.= 37.6
35.19
35.03
35.03
468+50
C=25
F=36
Exc.= 43.0
Emb.= 101.1
35.21
35.19
35.22
468+00
C=21.4
F=73.2
Exc.= ~~29.8~~ 30.6
Emb.= ~~184.4~~ 150.9
35.29
35.51
35.62
467+50
C=~~10.7~~ 12
F=~~93.5~~ 90.
Exc.= ~~13.2~~ 24.1
Emb. ~~195.6~~ 184.3
35.43
35.97
~~36.19~~
467+00
C=~~3.5~~ 14
F=~~117.7~~ 109
14.8
Exc.= ~~3.3~~
Emb.= ~~233.2~~ 300.9
35.89
36.64
~~37.09~~
466+50
C=~~0~~ 2
F=~~134~~ 108
Exc.= ~~0~~ 1.9
Emb.= ~~285.2~~ 221.3
36.44
37.46
~~38.01~~
466+00
C=0
F=~~174~~ 131
Exc.= 0
Emb.= ~~330.2~~ 237.0
37.39
38.43
~~39.23~~
465+50
C=0
F=~~183.3~~ 125
Exc.= 0
Emb.= ~~344.8~~ 223.2
38.84
39.58
~~40.65~~
465+00
C=0
F=~~189~~ 116
Ro

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED CCH
BY
DATE 11-3-?

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Grades Changed

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.40

(37)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H.9F	1935	41	42

FINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED	CC H	11-34

ORIGINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

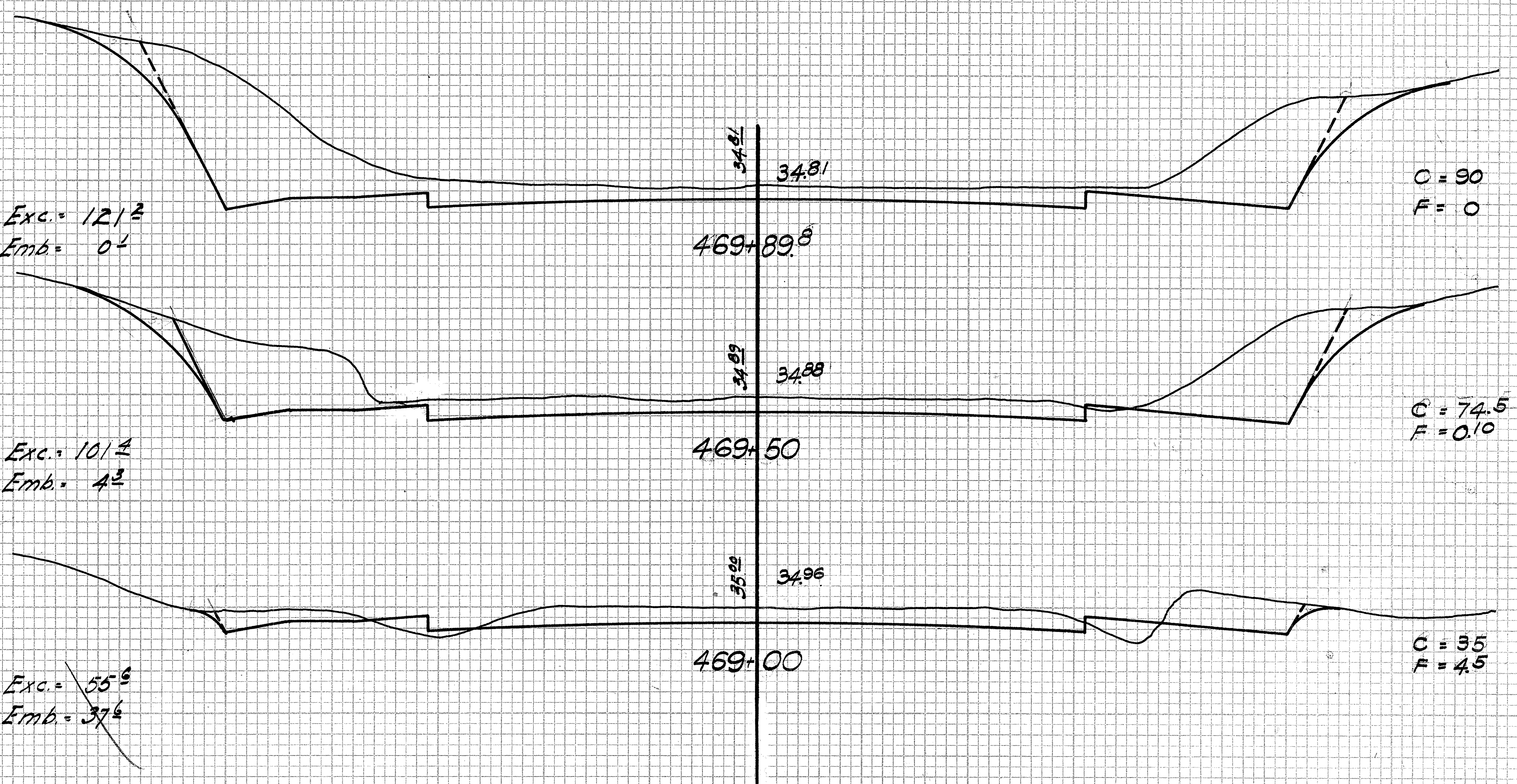

34.81
34.81
C = 90
F = 0
Exc. = 121.2
Emb. = 0.1
469+89.8
34.89
34.88
C = 74.5
F = 0.10
Exc. = 101.4
Emb. = 4.3
469+50
35.00
34.96
C = 35
F = 4.5
Exc. = 55.6
Emb. = 37.6
469+00

PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

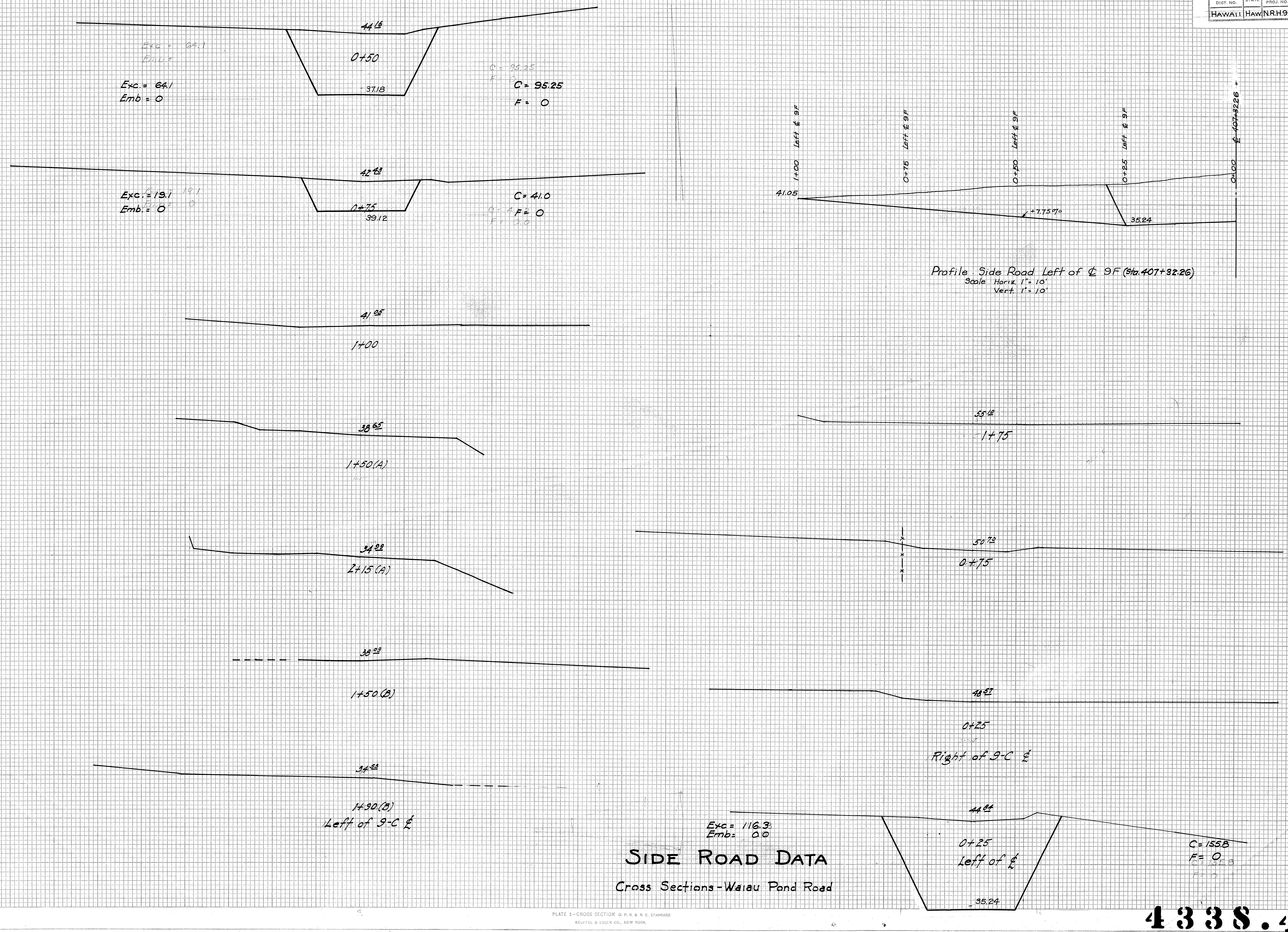
4338.41

(38)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H.9F	1935	42	42

FINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		


44.16
0+50
37.18
Exc.= 64.1
Emb = 0
C= 95.25
F= 0
42.43
0+75
39.12
Exc.=19.1
Emb.= 0
C= 41.0
F= 0
41.05
1+00
38.65
1+50(A)
34.99
2+15(A)
38.09
1+50(B)
34.53
1+90(B)
Left of 9-C ℄
1+00 Left ℄ 9F
0+75 Left ℄ 9F
0+50 Left ℄ 9F
0+25 Left ℄ 9F
0+00 ℄ 407+32.26
41.05
+7.75%
35.24
55.12
1+75
50.70
0+75
48.57
0+25
Right of 9-C ℄
44.84
0+25
Left of ℄
35.24
Exc= 116.3
Emb= 0.0
C= 155.8
F= 0

Profile Side Road Left of ℄ 9F (Sta. 407+32.26)
Scale Horiz. 1" = 10'
Vert. 1" = 10'

SIDE ROAD DATA

Cross Sections - Waiau Pond Road

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4338.42