no indication of [illegible] anywhere

1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	14	27

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

Aug. 20, 1946

552.53
552.64
$3+84^{19}$
C = 6 ¢
F = 12 ¢
Exc. = 7.0 C.Y.
Emb. = 14.8 C.Y.

553.02
552.97
$3+59^{19}$
C = 9 ¢
F = 20 ¢
Exc. = 16.7 C.Y.
Emb. = 10.2 C.Y.

553.66
553.24
$3+34^{19}$
C = 27 ¢
F = 2 ¢
Exc. = 30.6 C.Y.
Emb. = 3.7 C.Y.

554.46
553.62
$3+09^{19}$
C = 39 ¢
F = 6 ¢
Exc. = 32.9 C.Y.
Emb. = 7.0 C.Y.

555.42
554.39
$2+84^{19}$
C = 32 ¢
F = 9 ¢
Exc. = 27.8 C.Y.
Emb. = 7.0 C.Y.

556.63
555.56
$2+59^{19}$
C = 28 ¢
F = 6 ¢
Exc. = 17.6 C.Y.
Emb. = 9.3 C.Y.

557.81
557.11
$2+34^{19}$
C = 10 ¢
F = 14 ¢
Exc. = 6.0 C.Y.
Emb. = 15.8 C.Y.

558.97
558.86
$2+09^{19}$
C = 3 ¢
F = 20 ¢
Exc. = 3.3 C.Y.
Emb. = 14.4 C.Y.

560.22
560.30
$1+84^{19}$
C = 4 ¢
F = 11 ¢
Exc. = 8.2 C.Y.
Emb. = 9.5 C.Y.

561.86
561.90
1+50
C = 9 ¢
F = 4 ¢
Exc. = 8.4 C.Y.
Emb. = 10.5 C.Y.

563.07
563.00
$1+12^{27}$
C = 3 ¢
F = 11 ¢

540.66
540.33
7+75
C = 16 ¢
F = 7 ¢
Exc. = 8.8 C.Y.
Emb. = 7.9 C.Y.

541.57
541.38
7+50
C = 3 ¢
F = 10 ¢
Exc. = 7.4 C.Y.
Emb. = 18.5 C.Y.

543.62
543.54
7+00
C = 5 ¢
F = 10 ¢
Exc. = 7.4 C.Y.
Emb. = 25.9 C.Y.

545.56
545.60
6+50
C = 3 ¢
F = 18 ¢
Exc. = 4.6 C.Y.
Emb. = 37.0 C.Y.

547.09
547.41
6+00
C = 2 ¢
F = 22 ¢
Exc. = 1.9 C.Y.
Emb. = 19.0 C.Y.

547.96
548.24
5+75
C = 2 ¢
F = 19 ¢
Exc. = 2.3 C.Y.
Emb. = 16.2 C.Y.

548.89
549.00
5+50
C = 3 ¢
F = 16 ¢
Exc. = 5.6 C.Y.
Emb. = 25.0 C.Y.

550.39
550.37
5+00
C = 3 ¢
F = 11 ¢
Exc. = 8.3 C.Y.
Emb. = 16.7 C.Y.

551.53
551.49
4+50
C = 6 ¢
F = 7 ¢
Exc. = 3.8 C.Y.
Emb. = 3.8 C.Y.

551.83
551.81
$4+34^{19}$ S.C.
C = 7 ¢
F = 6 ¢
Exc. = 8.3 C.Y.
Emb. = 12.0 C.Y.

552.32
552.25
$4+09^{19}$
C = 11 ¢
F = 20 ¢
Exc. = 7.9 C.Y.
Emb. = 14.8 C.Y.

535.48
536.21
13+50
C = 0
F = 28 ¢
Exc. = 2.8 C.Y.
Emb. = 42.6 C.Y.

534.54
535.04
13+00
C = 3 ¢
F = 18 ¢
Exc. = 7.4 C.Y.
Emb. = 35.2 C.Y.

533.97
534.17
12+50
C = 5 ¢
F = 20 ¢
Exc. = 22.2 C.Y.
Emb. = 24.1 C.Y.

533.80
533.58
12+00
C = 19 ¢
F = 6 ¢
Exc. = 37.0 C.Y.
Emb. = 10.2 C.Y.

533.66
533.28
11+50
C = 21 ¢
F = 5 ¢
Exc. = 41.7 C.Y.
Emb. = 14.8 C.Y.

533.70
533.24
11+00
C = 24 ¢
F = 4 ¢
Exc. = 20.4 C.Y.
Emb. = 7.4 C.Y.

533.80
533.34
10+75
C = 20 ¢
F = 5 ¢
Exc. = 17.6 C.Y.
Emb. = 4.2 C.Y.

533.93
533.51
10+50.
C = 18 ¢
F = 4 ¢

End Bridge Sta. 10+28

Beg. Bridge Sta. 8+08

539.67
539.36
8+00
C = 11 ¢
F = 3 ¢
Exc. = 12.5 C.Y.
Emb. = 4.6 C.Y.

545.83
545.64
$16+43^{80}$
C = 7 ¢
F = 12 ¢
Exc. = 6.0 C.Y.
Emb. = 11.1 C.Y.

545.55
545.00
$16+18^{80}$
C = 6 ¢
F = 12 ¢
Exc. = 6.0 C.Y.
Emb. = 8.8 C.Y.

544.61
544.31
$15+93^{80}$
C = 7 ¢
F = 7 ¢
Exc. = 9.3 C.Y.
Emb. = 5.1 C.Y.

544.00
543.55
$15+68^{80}$
C = 13 ¢
F = 4 ¢
Exc. = 12.0 C.Y.
Emb. = 3.7 C.Y.

543.26
542.73
$15+43^{80}$
C = 13 ¢
F = 4 ¢
Exc. = 13.9 C.Y.
Emb. = 2.8 C.Y.

542.43
541.84
$15+18^{80}$
C = 17 ¢
F = 2 ¢
Exc. = 13.4 C.Y.
Emb. = 2.3 C.Y.

541.56
540.94
$14+93^{80}$
C = 12 ¢
F = 3 ¢
Exc. = 10.2 C.Y.
Emb. = 4.2 C.Y.

540.57
540.04
$14+68^{80}$
C = 10 ¢
F = 6 ¢
Exc. = 7.9 C.Y.
Emb. = 6.5 C.Y.

539.41
539.13
$14+43^{80}$ C.S.
C = 7 ¢
F = 8 ¢
Exc. = 7.3 C.Y.
Emb. = 19.4 C.Y.

537.29
537.64
14+00
C = 2 ¢
F = 16 ¢
Exc. = 1.9 C.Y.
Emb. = 40.7 C.Y.

548.23
547.76
20+00
C = 17 ¢
F = 0
Exc = 26.9 C.Y.
Emb. = 0

548.62
548.24
19+50
C = 12 ¢
F = 0
Exc = 28.7 C.Y.
Emb = 0

549.08
548.46
19+00
C = 19 ¢
F = 0
Exc. = 42.6 C.Y.
Emb. = 0

549.10
548.44
18+50
C = 27 ¢
F = 0
Exc = 35.2 C.Y.
Emb. = 1.9 C.Y.

548.55
548.16
18+00
C = 11 ¢
F = 2 ¢
Exc. = 16.7 C.Y.
Emb. = 5.6 C.Y.

547.74
547.62
17+50
C = 7 ¢
F = 4 ¢
Exc. = 14.8 C.Y.
Emb = 8.3 C.Y.

546.92
546.83
17+00
C = 9 ¢
F = 5 ¢
Exc = 2.9 C.Y.
Emb. = 1.0 C.Y.

546.80
546.71
$16+93^{80}$ S.T.
C = 16 ¢
F = 4 ¢
Exc = 9.7 C.Y.
Emb. = 7.4 C.Y.

546.34
546.20
$16+68^{80}$
C = 5 ¢
F = 12 ¢
Exc. = 5.6 C.Y.
Emb. = 11.1 C.Y.

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

K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

5221.14

5221. 14

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32 (2)	1946	15	27

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

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

Aug. 20, 1946

540.00 539.58
23+00
Exc = 11.1 C.Y.
Emb. = 1.9 C.Y.
C = 10 ϕ
F = 2 ϕ

541.06 540.60
22+75
Exc = 12.0 C.Y.
Emb = 1.9 C.Y.
C = 14 ϕ
F = 2 ϕ

542.05 541.57
22+50
Exc = 9.7 C.Y.
Emb = 1.9 C.Y.
C = 12 ϕ
F = 2 ϕ

542.84 542.47
22+25
Exc = 7.0 C.Y.
Emb. = 2.3 C.Y.
C = 9 ϕ
F = 2 ϕ

543.59 543.32
22+00
Exc. = 4.2 C.Y.
Emb. = 3.7 C.Y.
C = 6 ϕ
F = 3 ϕ

544.14 544.09
21+75
Exc. = 11.1 C.Y.
Emb. = 6.0 C.Y.
C = 5 ϕ
F = 5 ϕ

544.69 544.81
21+50
Exc. = 8.8 C.Y.
Emb. = 16.2 C.Y.
C = 19 ϕ
F = 8 ϕ

545.40 545.45
21+25
Exc = 0
Emb = 26.4 C.Y.
C = 0
F = 27 ϕ

545.91 546.04
21+00
Exc. = 4.6 C.Y.
Emb. = 31.5 C.Y.
C = 0
F = 30 ϕ

547.23 547.03
20+50
Exc = 20.4 C.Y.
Emb. = 3.7 C.Y.
C = 5 ϕ
F = 4 ϕ

524.47 524.05
25+75
Exc. = 11.6 C.Y.
Emb. = 2.8 C.Y.
C = 11 ϕ
F = 5 ϕ

526.36 525.78
25+50
Exc. = 12.0 C.Y.
Emb. = 1.9 C.Y.
C = 14 ϕ
F = 1 ϕ

528.00 527.44
25+25
Exc. = 10.7 C.Y.
Emb. = 2.8 C.Y.
C = 12 ϕ
F = 3 ϕ

529.53 529.04
25+00
Exc. = 11.1 C.Y.
Emb. = 2.3 C.Y.
C = 11 ϕ
F = 3 ϕ

531.09 530.57
24+75
Exc. = 9.7 C.Y.
Emb. = 2.3 C.Y.
C = 13 ϕ
F = 2 ϕ

532.53 532.05
24+50
Exc = 0.3 C.Y.
Emb = 3.3 C.Y.
C = 8 ϕ
F = 3 ϕ

533.92 533.46
24+25
Exc. = 11.1 C.Y.
Emb. = 3.7 C.Y.
C = 12 ϕ
F = 4 ϕ

535.20 534.81
24+00
Exc = 8.8 C.Y.
Emb = 3.7 C.Y.
C = 12 ϕ
F = 4 ϕ

536.44 536.10
23+75
Exc = 8.3 C.Y.
Emb. = 3.7 C.Y.
C = 7 ϕ
F = 4 ϕ

537.69 537.32
23+50
Exc = 9.3 C.Y.
Emb = 2.3 C.Y.
C = 11 ϕ
F = 4 ϕ

538.89 538.48
23+25
Exc = 8.8 C.Y.
Emb. = 1.4 C.Y.
C = 9 ϕ
F = 1 ϕ

505.62 504.69
28+50
Exc. = 22.2 C.Y.
Emb. = 2.3 C.Y.
C = 26 ϕ
F = 1 ϕ

507.23 506.45
28+25
Exc = 18.1 C.Y.
Emb = 3.7 C.Y.
C = 22 ϕ
F = 4 ϕ

508.91 508.21
28+00
Exc = 12.0 C.Y.
Emb. = 4.6 C.Y.
C = 17 ϕ
F = 4 ϕ

510.46 509.97
27+75
Exc. = 6.5 C.Y.
Emb = 6.0 C.Y.
C = 9 ϕ
F = 6 ϕ

511.96 511.73
27+50
Exc. = 4.6 C.Y.
Emb = 7.4 C.Y.
C = 5 ϕ
F = 7 ϕ

513.62 513.49
27+25
Exc. = 5.6 C.Y.
Emb. = 7.4 C.Y.
C = 5 ϕ
F = 9 ϕ

515.37 515.25
27+00
Exc. = 7.4 C.Y.
Emb. = 6.5 C.Y.
C = 7 ϕ
F = 7 ϕ

517.25 517.01
26+75
Exc. = 10.2 C.Y.
Emb. = 7.0 C.Y.
C = 13 ϕ
F = 7 ϕ

519.10 518.77
26+50
Exc. = 11.1 C.Y.
Emb. = 6.5 C.Y.
C = 9 ϕ
F = 8 ϕ

520.79 520.53
26+25
Exc. = 10.7 C.Y.
Emb. = 5.6 C.Y.
C = 11 ϕ
F = 6 ϕ

522.67 522.29
26+00
Exc. = 10.7 C.Y.
Emb. = 5.1 C.Y.
C = 12 ϕ
F = 6 ϕ

488.97 488.59
32+50
Exc. = 38.0 C.Y.
Emb. = 1.4 C.Y.
C = 15 ϕ
F = 2 ϕ

489.99 489.22
32+00
Exc. = 45.4 C.Y.
Emb. = 0.5 C.Y.
C = 27 ϕ
F = 1 ϕ

491.51 490.30
31+50
Exc. = 63.9 C.Y.
Emb. = 0
C = 32 ϕ
F = 0

493.14 491.76
31+00
Exc. = 77.8 C.Y.
Emb. = 0
C = 37 ϕ
F = 0

494.94 493.60
30+50
Exc. = 83.3 C.Y.
Emb. = 0
C = 47 ϕ
F = 0

497.32 495.81
30+00
Exc. = 44.0 C.Y.
Emb. = 0
C = 43 ϕ
F = 0

498.66 497.06
29+75
Exc. = 46.8 C.Y.
Emb. = 0
C = 52 ϕ
F = 0

499.86 498.40
29+50
Exc. = 45.8 C.Y.
Emb. = 0
C = 49 ϕ
F = 0

501.22 499.83
29+25
Exc. = 40.3 C.Y.
Emb. = 0
C = 50 ϕ
F = 0

502.57 501.36
29+00
Exc. = 30.6 C.Y.
Emb. = 0.5 C.Y.
C = 37 ϕ
F = 0

504.00 502.97
28+75
Exc. = 27.3 C.Y.
Emb. = 0.9 C.Y.
C = 29 ϕ
F = 1 ϕ

492.78 492.54
35+50
Exc. = 7.0 C.Y.
Emb. = 3.7 C.Y.
C = 10 ϕ
F = 4 ϕ

491.86 491.73
35+25
Exc. = 3.7 C.Y.
Emb. = 4.2 C.Y.
C = 7 ϕ
F = 4 ϕ

490.93 491.02
35+00
Exc. = 0.9 C.Y.
Emb. = 4.2 C.Y.
C = 1 ϕ
F = 5 ϕ

490.17 490.35
34+75
Exc. = 0.9 C.Y.
Emb = 6.0 C.Y.
C = 1 ϕ
F = 4 ϕ

489.68 489.79
34+50
Exc. = 0.5 C.Y.
Emb. = 7.9 C.Y.
C = 1 ϕ
F = 9 ϕ

489.06 489.31
34+25
Exc. = 0
Emb. = 6.0 C.Y.
C = 0
F = 8 ϕ

488.71 488.93
34+00
Exc. = 0.9 C.Y.
Emb. = 18.5 C.Y.
C = 0
F = 5 ϕ

488.53 488.45
33+50
Exc. = 5.6 C.Y.
Emb. = 27.8 C.Y.
C = 1 ϕ
F = 15 ϕ

488.54 488.32
33+00
Exc = 18.5 C.Y.
Emb. = 15.7 C.Y.
C = 5 ϕ
F = 15 ϕ

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

K & E CO. No. 345-3 MADE IN U. S. A. 42336-3

5221.15

5221.15

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	16	27

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		

Aug. 20, 1946

504.61
504.03
37+75
Exc. = 14.8 C.Y.
Emb. = 2.3 C.Y.
502.75
502.38
Exc. = 10.7 C.Y.
37+50
Emb. = 17.1 C.Y.
500.94
500.82
37+25
Exc. = 3.4 C.Y.
Emb. = 102.3 C.Y.
499.31
499.36
37+00
Exc. = 0.5 C.Y.
Emb = 119.0 C.Y.
499.00
497.99
36+75
Exc. = 3.7 C.Y.
Emb. = 38.4 C.Y.
496.81
496.71
36+50
Exc. = 7.9 C.Y.
Emb. = 6.5 C.Y.
495.69
495.53
36+25
Exc. = 7.9 C.Y.
Emb. = 1.9 C.Y.
494.65
494.44
36+00
Exc. = 6.0 C.Y.
Emb. = 1.9 C.Y.
493.63
493.44
35+75
Exc. = 8.3 C.Y.
Emb. = 3.1 C.Y.
C = 16 ¢
F = 3 ¢
C = 16 ¢
F = 2 ¢
C = 7 ¢
F = 35 ¢
C = 0
F = 186 ¢
C = 1 ¢
F = 71 ¢
C = 7 ¢
F = 12 ¢
C = 10 ¢
F = 2 ¢
C = 7 ¢
F = 2 ¢
C = 8 ¢
F = 2 ¢
520.80
520.89
40+00
Exc. = 1.4 C.Y.
Emb. = 10.2 C.Y.
C = 2 ¢
F = 9 ¢
519.09
519.13
39+75
Exc. = 2.8 C.Y.
Emb. = 7.0 C.Y.
C = 1 ¢
F = 13 ¢
517.37
517.33
39+50
Exc. = 2.3 C.Y.
Emb. = 4.6 C.Y.
C = 1 ¢
F = 6 ¢
515.51
515.44
39+25
Exc. = 3.7 C.Y.
Emb. = 5.1 C.Y.
C = 4 ¢
F = 4 ¢
513.69
513.51
39+00
Exc. = 4.6 C.Y.
Emb. = 7.0 C.Y.
C = 4 ¢
F = 7 ¢
511.81
511.54
38+75
Exc. = 5.6 C.Y.
Emb. = 6.5 C.Y.
C = 6 ¢
F = 8 ¢
509.96
509.56
38+50
Exc. = 8.8 C.Y.
Emb. = 5.6 C.Y.
C = 6 ¢
F = 6 ¢
508.12
507.62
38+25
Exc. = 12.5 C.Y.
Emb. = 5.1 C.Y.
C = 13 ¢
F = 6 ¢
506.36
505.78
38+00
Exc. = 13.9 C.Y.
Emb. = 3.7 C.Y.
C = 14 ¢
F = 5 ¢
534.02
533.67
42+50
Exc. = 7.5 C.Y.
Emb. = 5.9 C.Y.
C = 7 ¢
F = 8 ¢
Equation - minus 27.36 {Sta. 42+45.52
Sta. 42+18.16
532.93
532.60
42+00
Exc. = 8.3 C.Y.
Emb. = 6.0 C.Y.
C = 11 ¢
F = 6 ¢
531.57
531.36
41+75
Exc. = 10.7 C.Y.
Emb. = 5.1 C.Y.
C = 7 ¢
F = 7 ¢
530.41
530.05
41+50
Exc. = 12.0 C.Y.
Emb. = 4.6 C.Y.
C = 16 ¢
F = 4 ¢
529.11
528.68
41+25
Exc. = 11.6 C.Y.
Emb. = 6.0 C.Y.
C = 10 ¢
F = 6 ¢
527.76
527.25
41+00
Exc. = 11.1 C.Y.
Emb. = 6.5 C.Y.
C = 15 ¢
F = 7 ¢
526.10
525.76
40+75
Exc. = 6.0 C.Y.
Emb. = 6.5 C.Y.
C = 9 ¢
F = 7 ¢
524.45
524.20
40+50
Exc. = 2.3 C.Y.
Emb. = 6.5 C.Y.
C = 4 ¢
F = 7 ¢
522.55
522.58
40+25
Exc. = 1.4 C.Y.
Emb. = 7.4 C.Y.
C = 1 ¢
F = 7 ¢
543.27
542.83
45+44.92
C = 14 ¢
F = 7 ¢
Exc. = 13.9 C.Y.
Emb. = 6.5 C.Y.
543.18
542.41
45+19.92
C = 16 ¢
F = 7 ¢
Exc. = 14.4 C.Y.
Emb. = 5.6 C.Y.
542.70
541.91
44+94.92
C = 15 ¢
F = 5 ¢
Exc. = 14.8 C.Y.
Emb. = 5.6 C.Y.
542.14
541.35
44+69.92
C = 17 ¢
F = 7 ¢
Exc. = 16.2 C.Y.
Emb. = 4.2 C.Y.
541.49
540.72
44+44.92
C = 18 ¢
F = 4 ¢
Exc. = 17.6 C.Y.
Emb. = 3.7 C.Y.
540.88
540.03
44+19.92
C = 20 ¢
F = 4 ¢
Exc. = 17.6 C.Y.
Emb. = 4.2 C.Y.
540.09
539.28
43+94.92
C = 18 ¢
F = 5 ¢
Exc. = 17.1 C.Y.
Emb. = 3.3 C.Y.
539.34
538.46
43+69.92
C = 19 ¢
F = 2 ¢
Exc. = 19.4 C.Y.
Emb. = 1.4 C.Y.
538.39
537.59
43+44.92 T.S.
C = 23 ¢
F = 1 ¢
Exc. = 30.0 C.Y.
Emb. = 5.0 C.Y.
536.37
535.85
43+00
C = 13 ¢
F = 5 ¢
Exc. = 18.5 C.Y.
Emb. = 12.0 C.Y.
545.01
545.00
50+00
C = 0
F = 15 ¢
Exc. = 4.6 C.Y.
Emb = 24.1 C.Y.
544.96
544.85
49+50
C = 5 ¢
F = 11 ¢
Exc. = 6.5 C.Y.
Emb = 21.3 C.Y.
545.04
544.71
49+00
C = 2 ¢
F = 12 ¢
Exc. = 6.5 C.Y.
Emb = 10.2 C.Y.
544.78
544.57
48+50
C = 5 ¢
F = 9 ¢
Exc. = 10.2 C.Y.
Emb. = 11.1 C.Y.
544.69
544.43
48+00
C = 6 ¢
F = 3 ¢
Exc. = 8.3 C.Y.
Emb = 13.0 C.Y.
544.52
544.28
47+50
C = 3 ¢
F = 11 ¢
Exc. = 7.4 C.Y.
Emb. = 16.7 C.Y.
544.52
544.14
47+00
C = 5 ¢
F = 7 ¢
Exc. = 11.1 C.Y.
Emb = 12.0 C.Y.
544.33
543.97
46+50
C = 7 ¢
F = 6 ¢
Exc. = 17.6 C.Y.
Emb. = 11.1 C.Y.
544.11
543.58
46+00
C = 12 ¢
F = 6 ¢
Exc. = 15.0 C.Y.
Emb. = 6.1 C.Y.
543.70
543.21
45+69.92
C = 15 ¢
F = 5 ¢
Exc. = 13.4 C.Y.
Emb. = 5.6 C.Y.

PLATE 3-CROSS SECTION K. & E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

K & E CO. No. 345-3 MADE IN U.S.A.

5221.16

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	17	27

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

Aug. 20, 1946

552.16
552.14
55+00
C = 1∅
F = 14∅
Exc. = 0.9 C.Y.
Emb. = 23.2 C.Y.

550.12
550.35
54+50
C = 0
F = 11∅
Exc. = 0
Emb. = 24.1 C.Y.

548.80
548.90
54+00
C = 0
F = 15∅
Exc. = 4.6 C.Y.
Emb. = 22.2 C.Y.

547.72
547.70
53+50
C = 5∅
F = 9∅
Exc. = 7.4 C.Y.
Emb. = 13.9 C.Y.

546.84
546.76
53+00
C = 3∅
F = 6∅
Exc. = 4.6 C.Y.
Emb = 16.7 C.Y.

545.88
546.07
52+50
C = 2∅
F = 12∅
Exc. = 2.8 C.Y.
Emb. = 116.7 C.Y.

545.32
545.62
52+00
C = 1∅
F = 114∅
Exc. = 0.9 C.Y.
Emb. = 121.3 C.Y.

545.32
545.43
51+50
C = 0
F = 17∅
Exc. = 0
Emb = 25.0 C.Y.

545.33
545.28
51+00
C = 0
F = 10∅
Exc. = 0.9 C.Y.
Emb. = 18.5 C.Y.

545.25
545.14
50+50
C = 1∅
F = 10∅
Exc. = 0.9 C.Y.
Emb. = 23.2 C.Y.

562.03
561.84
57+88^{36}
C = 10∅
F = 5∅
Exc. = 4.6 C.Y.
Emb. = 5.1 C.Y.

561.38
561.29
57+63^{36}
C = 0
F = 6∅
Exc. = 0.5 C.Y.
Emb. = 5.6 C.Y.

560.72
560.68
57+38^{36}
C = 1∅
F = 6∅
Exc. = 0.5 C.Y.
Emb. = 5.6 C.Y.

560.06
560.01
57+13^{36}
C = 0
F = 6∅
Exc. = 0.5 C.Y.
Emb. = 8.8 C.Y.

559.27
559.28
56+88^{36}
C = 1∅
F = 13∅
Exc. = 0.9 C.Y.
Emb. = 8.3 C.Y.

558.46
558.49
56+63^{36}
C = 1∅
F = 5∅
Exc. = 0.9 C.Y.
Emb. = 6.0 C.Y.

557.53
557.64
56+38^{36}
C = 1∅
F = 8∅
Exc. = 0.5 C.Y.
Emb. = 7.4 C.Y.

556.73
556.74
56+13^{36}
C = 0
F = 8∅
Exc. = 0.5 C.Y.
Emb. = 7.4 C.Y.

555.63
555.77
55+88^{36}
C = 1∅
F = 8∅
Exc. = 1.4 C.Y.
Emb. = 9.9 C.Y.

554.08
554.18
55+50
C = 1∅
F = 6∅
Exc. = 1.9 C.Y.
Emb. = 18.5 C.Y.

564.40
564.04
60+59^{94}
C = 14∅
F = 3∅
Exc. = 10.7 C.Y.
Emb. = 2.8 C.Y.

564.64
564.13
60+34^{94}
C = 9∅
F = 3∅
Exc. = 8.3 C.Y.
Emb. = 3.3 C.Y.

564.67
564.16
60+09^{94}
C = 9∅
F = 4∅
Exc. = 6.5 C.Y.
Emb. = 3.7 C.Y.

564.49
564.13
59+84^{94}
C = 5∅
F = 4∅
Exc. = 6.0 C.Y.
Emb. = 4.2 C.Y.

564.39
564.03
59+59^{94}
C = 8∅
F = 5∅
Exc. = 7.4 C.Y.
Emb. = 5.1 C.Y.

564.24
563.89
59+34^{94}
C = 8∅
F = 6∅
Exc. = 7.0 C.Y.
Emb. = 5.1 C.Y.

564.01
563.69
59+09^{94}
C = 7∅
F = 5∅
Exc. = 6.5 C.Y.
Emb. = 5.1 C.Y.

563.88
563.42
58+84^{94} T.S.
C = 7∅
F = 6∅
Exc. = 14.2 C.Y.
Emb. = 3.9 C.Y.

563.39
562.96
58+50
C = 15∅
F = 0
Exc. = 16.3 C.Y.
Emb = 1.4 C.Y.

562.74
562.34
58+13^{36} S.T.
C = 9∅
F = 2∅
Exc. = 8.8 C.Y.
Emb. = 3.3 C.Y.

553.08
552.96
65+00
C = 5∅
F = 9∅
Exc. = 9.3 C.Y.
Emb. = 14.8 C.Y.

555.15
555.03
64+50
C = 5∅
F = 7∅
Exc. = 11.1 C.Y.
Emb. = 12.0 C.Y.

557.15
556.99
64+00
C = 7∅
F = 6∅
Exc. = 13.0 C.Y.
Emb. = 7.4 C.Y.

558.77
558.71
63+50
C = 7∅
F = 2∅
Exc. = 13.0 C.Y.
Emb. = 5.6 C.Y.

560.30
560.19
63+00
C = 7∅
F = 4∅
Exc. = 14.8 C.Y.
Emb. = 13.9 C.Y.

561.42
561.44
62+50
C = 9∅
F = 11∅
Exc. = 16.7 C.Y.
Emb. = 20.4 C.Y.

562.52
562.45
62+00
C = 9∅
F = 11∅
Exc. = 13.9 C.Y.
Emb. = 13.9 C.Y.

563.38
563.23
61+50
C = 6∅
F = 4∅
Exc. = 3.3 C.Y.
Emb. = 3.1 C.Y.

563.53
563.42
61+34^{94}
C = 6∅
F = 7∅
Exc. = 8.3 C.Y.
Emb. = 4.6 C.Y.

563.85
563.69
61+09^{94}
C = 12∅
F = 3∅
Exc. = 10.7 C.Y.
Emb. = 2.8 C.Y.

564.20
563.89
60+84^{94}
C = 11∅
F = 3∅
Exc. = 11.6 C.Y.
Emb. = 2.8 C.Y.

533.36
533.96
70+50
C = 0
F = 22∅
Exc. = 0.9 C.Y.
Emb = 19.4 C.Y.

534.46
534.87
70+00
C = 1∅
F = 9∅
Exc. = 0.9 C.Y.
Emb = 18.5 C.Y.

535.68
535.98
69+50
C = 0
F = 11∅
Exc. = 2.8 C.Y.
Emb = 15.7 C.Y.

537.42
537.31
69+00
C = 3∅
F = 6∅
Exc. = 4.6 C.Y.
Emb. = 10.2 C.Y.

538.82
538.85
68+50
C = 2∅
F = 5∅
Exc. = 3.7 C.Y.
Emb. = 8.3 C.Y.

540.64
540.61
68+00
C = 2∅
F = 4∅
Exc. = 7.4 C.Y.
Emb. = 6.5 C.Y.

542.73
542.57
67+50
C = 6∅
F = 3∅
Exc. = 13.0 C.Y.
Emb. = 6.5 C.Y.

544.84
544.66
67+00
C = 8∅
F = 4∅
Exc. = 13.0 C.Y.
Emb. = 7.4 C.Y.

546.93
546.73
66+50
C = 6∅
F = 4∅
Exc. = 16.7 C.Y.
Emb. = 3.7 C.Y.

548.95
548.81
66+00
C = 12∅
F = 0
Exc. = 17.6 C.Y.
Emb. = 2.8 C.Y.

551.05
550.88
65+50
C = 7∅
F = 3∅
Exc. = 11.1 C.Y.
Emb. = 11.1 C.Y.

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

K & E CO. No. 345-3 MADE IN U.S.A. 42336-3

5221.17

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	18	27

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

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

Aug. 20, 1946

534^{75}
534.13
74+31^{76}
C = 6#
F = 9#
Exc. = 9.7 C.Y.
Emb. = 8.8 C.Y.
534^{35}
533.74
74+06^{76}
C = 15#
F = 10#
Exc. = 12.5 C.Y.
Emb. = 7.9 C.Y.
533^{99}
533.36
73+81^{76}
C = 12#
F = 7#
Exc. = 9.7 C.Y.
Emb. = 7.9 C.Y.
533^{61}
533.12
73+56^{76}
C = 9#
F = 10#
Exc. = 7.0 C.Y.
Emb. = 8.8 C.Y.
533^{28}
532.88
73+31^{76}
C = 6#
F = 9#
Exc. = 9.4 C.Y.
Emb. = 10.6 C.Y.
533^{01}
532.67
73+00
C = 10#
F = 9#
Exc. = 10.2 C.Y.
Emb. = 24.1 C.Y.
532^{40}
532.51
72+50
C = 1#
F = 17#
Exc. = 0.9
Emb. = 28.7 C.Y.
532^{27}
532.55
72+00
C = 0
F = 14#
Exc. = 0.9
Emb. = 26.9 C.Y.
532^{59}
532.80
71+50
C = 1#
F = 15#
Exc. = 0.9
Emb. = 37.0 C.Y.
532^{83}
533.28
71+00
C = 0
F = 25#
Exc. = 0
Emb. = 43.5 C.Y.
539^{69}
539.55
C = 7#
F = 3#
Exc. = 5.1 C.Y. 77+27^{95}
Emb. = 3.3 C.Y.
539^{36}
539.09
77+02^{95}
C = 4#
F = 4#
Exc. = 7.9 C.Y.
Emb. = 2.3 C.Y.
538^{93}
538.63
76+77^{95} T.S.
C = 13#
F = 1#
Exc. = 11.4 C.Y.
Emb. = 3.1 C.Y.
538^{38}
538.12
76+50
C = 9#
F = 5#
Exc. = 17.6 C.Y.
Emb. = 9.3 C.Y.
537^{50}
537.20
76+00
C = 10#
F = 5#
Exc. = 16.8 C.Y.
Emb. = 7.2 C.Y.
536^{76}
536.41
75+56^{76} S.T.
C = 11#
F = 4#
Exc. = 10.2 C.Y.
Emb. = 4.2 C.Y.
536^{43}
535.95
75+31^{76}
C = 11#
F = 5#
Exc. = 10.7 C.Y.
Emb. = 5.1 C.Y.
536^{02}
535.50
75+06^{76}
C = 12#
F = 6#
Exc. = 11.6 C.Y.
Emb. = 5.1 C.Y.
535^{54}
535.04
74+81^{76}
C = 13#
F = 5#
Exc. = 11.6 C.Y.
Emb. = 6.0 C.Y.
535^{18}
534.58
74+56^{76}
C = 12#
F = 8#
Exc. = 8.3 C.Y.
Emb. = 7.9 C.Y.
545^{09}
544.53
80+00
C = 16#
F = 6#
Exc. = 26.9 C.Y.
Emb. = 8.3 C.Y.
543^{78}
543.61
79+50
C = 13#
F = 3#
Exc. = 7.8 C.Y.
Emb. = 1.5 C.Y.
543^{36}
543.21
79+27^{95}
C = 8#
F = 1#
Exc. = 6.0 C.Y.
Emb. = 1.9 C.Y.
542^{87}
542.75
79+02^{95}
C = 5#
F = 3#
Exc. = 2.3 C.Y.
Emb. = 3.7 C.Y.
542^{32}
542.29
78+77^{95}
C = 0
F = 5#
Exc. = 3.3 C.Y.
Emb. = 2.8 C.Y.
541^{79}
541.83
78+52^{95}
C = 7#
F = 1#
Exc. = 4.6 C.Y.
Emb. = 2.8 C.Y.
541^{31}
541.38
78+27^{95}
C = 3#
F = 5#
Exc. = 1.9 C.Y.
Emb. = 3.7 C.Y.
540^{87}
540.92
78+02^{95}
C = 1#
F = 3#
Exc. = 1.4 C.Y.
Emb. = 3.3 C.Y.
540^{40}
540.46
77+77^{95}
C = 2#
F = 4#
Exc. = 1.9 C.Y.
Emb. = 3.7 C.Y.
540^{00}
540.00
77+52^{95}
C = 2#
F = 4#
Exc. = 4.2 C.Y.
Emb. = 3.3 C.Y.
553^{89}
553.68
85+00
C = 6#
F = 4#
Exc. = 13.9 C.Y.
Emb. = 7.4 C.Y.
553^{04}
552.76
84+50
C = 9#
F = 4#
Exc. = 15.7 C.Y.
Emb. = 11.1 C.Y.
552^{23}
551.85
84+00
C = 8#
F = 8#
Exc. = 15.7 C.Y.
Emb. = 13.0 C.Y.
551^{45}
550.93
83+50
C = 9#
F = 6#
Exc. = 15.7 C.Y.
Emb. = 12.0 C.Y.
550^{44}
550.02
83+00
C = 8#
F = 7#
Exc. = 13.9 C.Y.
Emb. = 13.0 C.Y.
549^{41}
549.10
82+50
C = 7#
F = 7#
Exc. = 19.4 C.Y.
Emb. = 11.1 C.Y.
548^{73}
548.19
82+00
C = 14#
F = 5#
Exc. = 25.0 C.Y.
Emb. = 8.3 C.Y.
547^{81}
547.27
81+50
C = 13#
F = 4#
Exc. = 20.4 C.Y.
Emb. = 7.4 C.Y.
546^{81}
546.36
81+00
C = 9
F = 4#
Exc. = 17.6 C.Y.
Emb. = 9.3 C.Y.
545^{85}
545.44
80+50
C = 10#
F = 6#
Exc. = 24.1 C.Y.
Emb. = 11.1 C.Y.
562^{00}
561.91
89+50
C = 6#
F = 3#
Exc. = 7.4 C.Y.
Emb. = 6.5 C.Y.
561^{15}
561.00
89+00
C = 2#
F = 4#
Exc. = 4.6 C.Y.
Emb. = 8.3 C.Y.
560^{31}
560.08
88+50
C = 3#
F = 5#
Exc. = 13.9 C.Y.
Emb. = 6.5 C.Y.
559^{39}
559.17
88+00
C = 12#
F = 2#
Exc. = 23.2 C.Y.
Emb. = 3.7 C.Y.
558^{44}
558.25
87+50
C = 13#
F = 2#
Exc. = 13.0 C.Y.
Emb. = 15.7 C.Y.
557^{39}
557.34
87+00
C = 1#
F = 15#
Exc. = 1.9 C.Y.
Emb. = 23.2 C.Y.
556^{48}
556.42
86+50
C = 1#
F = 10#
Exc. = 7.4 C.Y.
Emb. = 12.0 C.Y.
555^{60}
555.51
86+00
C = 7#
F = 3#
Exc. = 24.1 C.Y.
Emb. = 6.5 C.Y.
554^{65}
554.59
85+50
C = 19#
F = 4#
Exc. = 23.2 C.Y.
Emb. = 7.4 C.Y.

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

K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

5221.18

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	19	27

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

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

Aug. 20, 1946

565.84
565.92
$91+91^{28}$
C = 0
F = 15#
Exc = 0
Emb = 9.7 c.y.

565.60
565.66
$91+66^{28}$
C = 0
F = 6#
Exc = 0
Emb = 5.6 c.y.

565.34
565.33
$91+41^{28}$
C = 0
F = 6#
Exc = 0
Emb = 5.6 c.y.

564.97
564.94
$91+16^{28}$
C = 0
F = 6#
Exc = 0.9 c.y.
Emb = 6.0 c.y.

564.54
564.50
$90+91^{28}$
C = 2#
F = 7#
Exc = 0.9 c.y.
Emb = 6.0 c.y.

564.05
564.04
$90+66^{28}$
C = 0
F = 6#
Exc = 2.3 c.y.
Emb = 5.6 c.y.

563.49
563.58
$90+41^{28}$
C = 5#
F = 6#
Exc = 2.3 c.y.
Emb = 7.0 c.y.

563.03
563.13
$90+16^{28}$
C = 0
F = 9#
Exc = 2.8 c.y.
Emb = 7.4 c.y.

562.60
562.67
$89+91^{28}$
C = 6#
F = 7#
Exc = 6.0 c.y.
Emb = 6.0 c.y.

562.26
562.21
$89+66^{28}$ C.S.
C = 7#
F = 6#
Exc = 3.9 c.y.
Emb = 2.7 c.y.

560.14
560.04
96+50
C = 3#
F = 4#
Exc = 4.6 c.y.
Emb = 7.4 c.y.

561.79
561.64
96+00
C = 2#
F = 4#
Exc = 7.4 c.y.
Emb = 7.4 c.y.

563.28
563.04
95+50
C = 6#
F = 4#
Exc = 13.9 c.y.
Emb = 5.6 c.y.

564.37
564.19
95+00
C = 9#
F = 2#
Exc = 16.7 c.y.
Emb = 3.7 c.y.

565.38
565.10
94+50
C = 9#
F = 2#
Exc = 18.5 c.y.
Emb = 3.7 c.y.

566.03
565.76
94+00
C = 11#
F = 2#
Exc = 18.5 c.y.
Emb = 3.7 c.y.

566.37
566.19
93+50
C = 9#
F = 2#
Exc = 13.9 c.y.
Emb = 4.6 c.y.

566.43
566.36
93+00
C = 6#
F = 5#
Exc = 10.2 c.y.
Emb = 7.4 c.y.

566.30
566.31
92+50
C = 5#
F = 5#
Exc = 5.0 c.y.
Emb = 5.6 c.y.

566.01
566.12
$92+16^{28}$ S.T.
C = 3#
F = 4#
Exc = 1.4 c.y.
Emb = 8.8 c.y.

526.59
526.57
102+00
C = 8#
F = 8#
Exc = 7.4 cy
Emb = 33.3 cy

530.26
530.86
101+50
C = 0
F = 28#
Exc = 0
Emb = 40.7 c.y.

534.20
534.31
101+00
C = 0
F = 16#
Exc = 0
Emb = 25.9 c.y.

537.99
538.14
100+50
C = 0
F = 12#
Exc = 1.9 c.y.
Emb = 17.6 c.y.

541.65
541.72
100+00
C = 2#
F = 7#
Exc = 3.7 c.y.
Emb = 16.7 c.y.

545.10
545.07
99+50
C = 2#
F = 11#
Exc = 13.0 c.y.
Emb = 16.7 c.y.

548.45
548.16
99+00
C = 12#
F = 7#
Exc = 30.6 c.y.
Emb = 11.1 c.y.

551.46
551.02
98+50
C = 21#
F = 5#
Exc = 31.5 c.y.
Emb = 7.4 c.y.

554.15
553.63
98+00
C = 13#
F = 3#
Exc = 26.9 c.y.
Emb = 4.6 c.y.

556.37
556.00
97+50
C = 16#
F = 2#
Exc = 17.6 c.y.
Emb = 12.0 c.y.

558.22
558.12
97+00
C = 3#
F = 11#
Exc = 5.6 c.y.
Emb = 13.9 c.y.

514.17
514.08
109+50
C = 8#
F = 6#
Exc = 8.3 cy.
Emb = 10.2 cy.

512.22
512.30
109+00
C = 1#
F = 5#
Exc = 2.8 cy.
Emb = 7.4 cy.

510.62
510.90
108+50
C = 2#
F = 3#
Exc = 4.6 cy.
Emb = 6.5 cy.

509.73
509.86
108+00
C = 3#
F = 4#
Exc = 7.4 cy.
Emb = 7.4 cy.

509.15
509.19
107+50
C = 5#
F = 4#
Exc = 13.9 cy.
Emb = 7.4 cy.

509.14
508.89
107+00
C = 10#
F = 4#

End of Bridge, Sta. 106+82

Beg. of Bridge Sta. 104+35

515.05
514.86
104+00
C = 15#
F = 4#
Exc = 32.4 c.y.
Emb = 20.2 c.y.

517.49
517.38
103+50
C = 17#
F = 16#
Exc = 38.0 c.y.
Emb = 21.3 c.y.

520.33
520.07
103+00
C = 24#
F = 7#
Exc = 33.3 c.y.
Emb = 13.9 c.y.

523.36
523.13
102+50
C = 12#
F = 8#
Exc = 18.5 c.y.
Emb = 14.8 c.y.

538.58
538.63
113+50
C = 3#
F = 8#
Exc. = 2.8 c.y.
Emb = 29.6 c.y.

535.17
535.45
113+00
C = 0
F = 24#
Exc. = 0
Emb. = 45.4 c.y.

531.59
532.00
112+50
C = 0
F = 25#
Exc. = 0.9 cy.
Emb. = 33.3 cy.

528.34
528.54
112+00
C = 1#
F = 11#
Exc. = 3.7 cy.
Emb. = 15.7 cy.

524.85
524.88
111+50
C = 3#
F = 6#
Exc. = 2.8 cy.
Emb. = 16.7 cy.

521.73
521.62
111+00
C = 0
F = 12#
Exc. = 1.9 c.y.
Emb. = 16.7 cy.

518.84
518.73
110+50
C = 2#
F = 6#
Exc. = 2.8 c.y.
Emb. = 11.1 c.y.

516.28
516.22
110+00
C = 1#
F = 6#
Exc. = 8.3 cy.
Emb. = 11.1 c.y.

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

K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

$221.19

7

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32 (2)	1946	20	27

564.12
564.11
118+00
C = 1 □
F = 13 □
Exc. = 1.9 C. Y.
Emb. = 17.6 C. Y.

561.90
561.82
117+50
C = 1 □
F = 6 □
Exc. = 3.7 C. Y.
Emb. = 11.1 C. Y.

559.49
559.39
117+00
C = 3 □
F = 6 □
Exc. = 9.3 C. Y.
Emb. = 12.0 C. Y.

557.12
556.84
116+50
C = 7 □
F = 7 □
Exc. = 10.2 C. Y.
Emb. = 12.0 C. Y.

554.28
554.14
116+00
C = 4 □
F = 6 □
Exc. = 9.3 C. Y.
Emb. = 9.3 C. Y.

551.47
551.30
115+50
C = 6 □
F = 4 □
Exc. = 5.6 C. Y.
Emb. = 12.0 C. Y.

548.43
548.34
115+00
C = 0
F = 9 □
Exc. = 0
Emb. = 23.2 C. Y.

545.14
545.24
114+50
C = 0
F = 16 □
Exc. = 0
Emb. = 35.2 C. Y.

541.75
542.10
114+00
C = 0
F = 22 □
Exc. = 2.8 C. Y.
Emb. = 27.8 C. Y.

579.03
578.67
122+50
C = 7 □
F = 8 □
Exc. = 15.7 C. Y.
Emb. = 11.1 C. Y.

577.86
577.60
122+00
C = 10 □
F = 4 □
Exc. = 16.7 C. Y.
Emb. = 9.3 C. Y.

576.65
576.38
121+50
C = 8 □
F = 6 □
Exc. = 15.7 C. Y.
Emb. = 11.1 C. Y.

575.19
575.03
121+00
C = 9 □
F = 6 □
Exc. = 13.0 C. Y.
Emb. = 12.0 C. Y.

573.65
573.55
120+50
C = 5 □
F = 7 □
Exc. = 11.1 C. Y.
Emb = 11.1 C. Y.

572.17
571.93
120+00
C = 7 □
F = 5 □
Exc. = 12.0 C. Y.
Emb. = 10.2 C. Y.

570.44
570.18
119+50
C = 6 □
F = 6 □
Exc. = 10.2 C. Y.
Emb. = 13.9 C. Y.

568.33
568.39
119+00
C = 5 □
F = 9 □
Exc. = 7.4 C. Y.
Emb. = 25.0 C. Y.

566.26
566.76
118+50
C = 3 □
F = 18 □
Exc. = 3.7 C. Y.
Emb = 28.7 C. Y.

586.65
586.36
127+50
C = 8 □
F = 5 □
Exc. = 13.9 C. Y.
Emb. = 12.0 C. Y.

586.02
585.62
127+00
C = 7 □
F = 8 □
Exc. = 13.9 C. Y.
Emb. = 15.7 C. Y.

585.19
584.87
126+50
C = 8 □
F = 9 □
Exc. = 14.8 C. Y.
Emb. = 16.7 C. Y.

584.40
584.13
126+00
C = 8 □
F = 9 □
Exc. = 12.0 C. Y.
Emb. = 16.7 C. Y.

583.61
583.39
125+50
C = 5 □
F = 9 □
Exc. = 14.8 C. Y.
Emb. = 13.0 C. Y.

582.83
582.65
125+00
C = 11 □
F = 5 □
Exc. = 32.4 C. Y.
Emb. = 4.6 C. Y.

582.12
581.90
124+50
C = 24 □
F = 0
Exc. = 25.0 C. Y.
Emb. = 10.2 C. Y.

581.12
581.16
124+00
C = 3 □
F = 11 □
Exc. = 6.5 C. Y.
Emb. = 24.1 C. Y.

580.44
580.42
123+50
C = 4 □
F = 15 □
Exc. = 10.2 C. Y.
Emb = 21.3 C. Y.

579.88
579.62
123+00
C = 7 □
F = 8 □
Exc. = 13.0 C. Y.
Emb. = 14.8 C. Y.

591.69
592.26
131+47^{80}
C = 0
F = 12 □
Exc. = 0
Emb = 9.6 C. Y.

591.40
591.96
131+27^{80}
C = 0
F = 14 □
Exc. = 0
Emb = 9.6 C. Y.

591.17
591.67
131+07^{80}
C = 0
F = 12 □
Exc. = 0.7 C. Y.
Emb. = 6.3 C. Y.

591.02
591.37
130+87^{80} T.S.
C = 2 □
F = 5 □
Exc. = 2.8 C. Y.
Emb. = 5.6 C. Y.

590.66
590.81
130+50
C = 2 □
F = 3 □
Exc. = 3.7 C. Y.
Emb = 7.4 C. Y.

590.01
590.07
130+00
C = 2 □
F = 5 □
Exc. = 6.5 C. Y.
Emb. = 7.4 C. Y.

589.32
589.33
129+50
C = 5 □
F = 3 □
Exc. = 7.4 C. Y.
Emb. = 10.2 C. Y.

588.61
588.59
129+00
C = 3 □
F = 8 □
Exc. = 6.5 C. Y.
Emb. = 12.0 C. Y.

587.96
587.84
128+50
C = 4 □
F = 5 □
Exc. = 6.5 C. Y.
Emb. = 11.1 C. Y.

587.19
587.10
128+00
C = 3 □
F = 7 □
Exc. = 10.2 C. Y.
Emb. = 11.1 C. Y.

595.23
595.26
133+50
C = 1 □
F = 15 □
Exc. = 1.9 C. Y.
Emb. = 27.8 C. Y.

594.45
594.52
133+00
C = 1 □
F = 15 □
Exc. = 0.2 C. Y.
Emb. = 7.0 C. Y.

594.30
594.34
132+87^{80} S.C.
C = 0
F = 16 □
Exc. = 0.4 C. Y.
Emb. = 13.8 C. Y.

593.96
594.04
132+67^{80}
C = 1 □
F = 19 □
Exc. = 1.5 C. Y.
Emb = 14.1 C. Y.

593.59
593.75
132+47^{80}
C = 3 □
F = 19 □
Exc. = 1.1 C. Y.
Emb. = 14.4 C. Y.

593.20
593.45
132+27^{80}
C = 0
F = 20 □
Exc. = 0
Emb. = 14.4 C. Y.

592.83
593.15
132+07^{80}
C = 0
F = 19 □
Exc. = 0.4 C. Y.
Emb. = 10.2 C. Y.

592.53
592.86
131+87^{80}
C = 1 □
F = 14 □
Exc. = 0.4 C. Y.
Emb. = 14.8 C. Y.

592.09
592.56
131+67^{80}
C = 0
F = 26 □
Exc. = 0
Emb. = 14.1 C. Y.

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

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

Aug. 20, 1946

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

K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

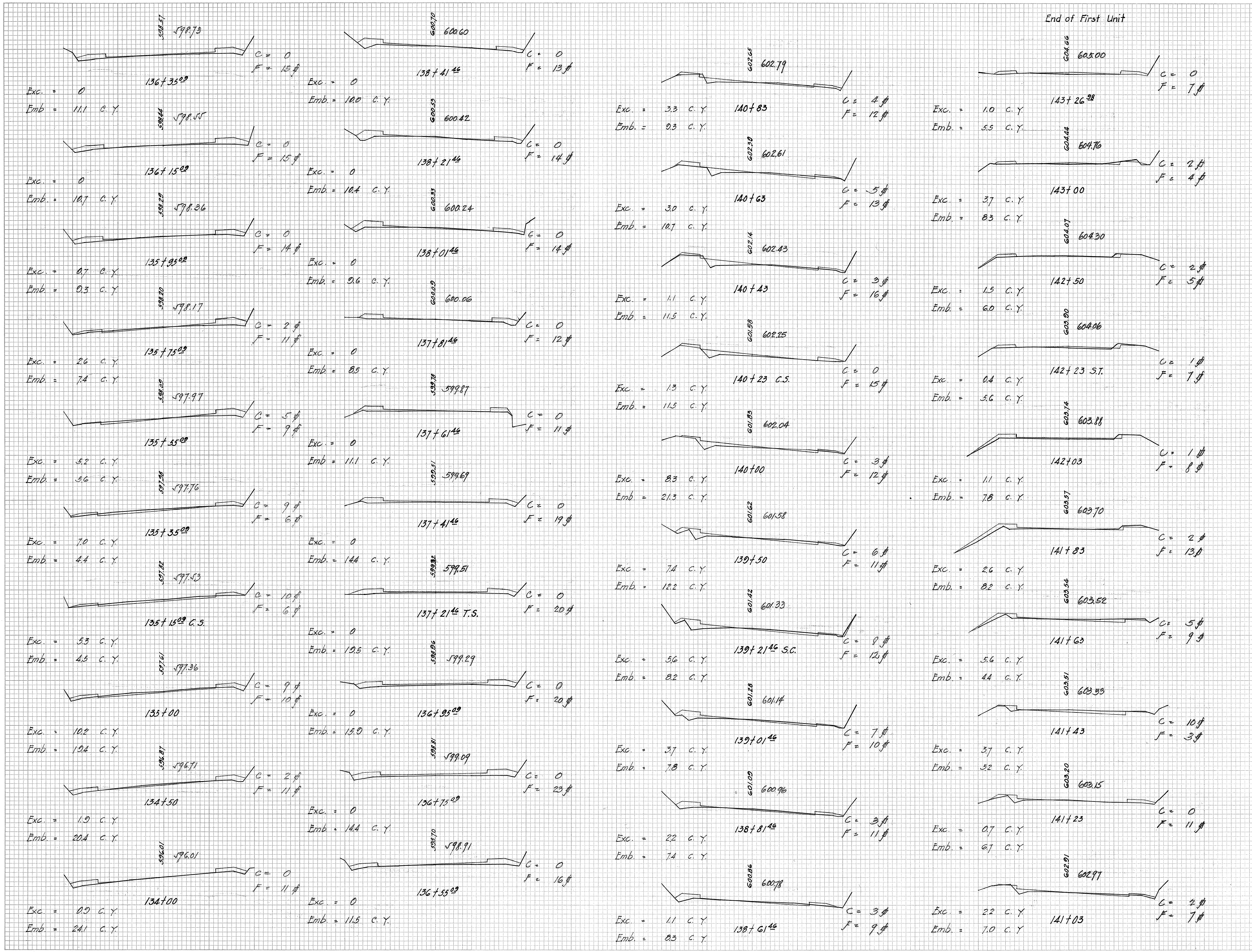
5221.20

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	21	27

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

Aug. 20, 1946



598.57 598.73
C = 0
F = 15 ϕ
$136+35^{09}$
Exc. = 0
Emb = 11.1 C. Y.

598.44 598.55
C = 0
F = 15 ϕ
$136+15^{09}$
Exc. = 0
Emb. = 10.7 C. Y.

598.29 598.36
C = 0
F = 14 ϕ
$135+95^{09}$
Exc. = 0.7 C. Y.
Emb. = 0.3 C. Y.

598.20 598.17
C = 2 ϕ
F = 11 ϕ
$135+75^{09}$
Exc. = 2.6 C. Y.
Emb. = 7.4 C. Y.

598.09 597.97
C = 5 ϕ
F = 9 ϕ
$135+55^{09}$
Exc. = 5.2 C. Y.
Emb. = 5.6 C. Y.

597.98 597.76
C = 9 ϕ
F = 6 ϕ
$135+35^{09}$
Exc. = 7.0 C. Y.
Emb. = 4.4 C. Y.

597.82 597.53
C = 10 ϕ
F = 6 ϕ
$135+15^{09}$ C. S.
Exc. = 5.3 C. Y.
Emb. = 4.5 C. Y.

597.61 597.36
C = 9 ϕ
F = 10 ϕ
135+00
Exc. = 10.2 C. Y.
Emb. = 19.4 C. Y.

596.87 596.71
C = 2 ϕ
F = 11 ϕ
134+50
Exc. = 1.9 C. Y.
Emb. = 20.4 C. Y.

596.01 596.01
C = 0
F = 11 ϕ
134+00
Exc. = 0.9 C. Y.
Emb. = 24.1 C. Y.

600.70 600.60
C = 0
F = 13 ϕ
$138+41^{46}$
Exc. = 0
Emb. = 10.0 C. Y.

600.53 600.42
C = 0
F = 14 ϕ
$138+21^{46}$
Exc. = 0
Emb. = 10.4 C. Y.

600.33 600.24
C = 0
F = 14 ϕ
$138+01^{46}$
Exc. = 0
Emb. = 9.6 C. Y.

600.09 600.06
C = 0
F = 12 ϕ
$137+81^{46}$
Exc. = 0
Emb. = 8.5 C. Y.

599.78 599.87
C = 0
F = 11 ϕ
$137+61^{46}$
Exc. = 0
Emb = 11.1 C. Y.

599.51 599.69
C = 0
F = 19 ϕ
$137+41^{46}$
Exc. = 0
Emb. = 14.4 C. Y.

599.32 599.51
C = 0
F = 20 ϕ
$137+21^{46}$ T.S.
Exc. = 0
Emb. = 19.5 C. Y.

598.96 599.29
C = 0
F = 20 ϕ
$136+95^{09}$
Exc. = 0
Emb. = 15.9 C. Y.

598.81 599.09
C = 0
F = 23 ϕ
$136+75^{09}$
Exc. = 0
Emb = 14.4 C. Y.

598.70 598.91
C = 0
F = 16 ϕ
$136+55^{09}$
Exc. = 0
Emb. = 11.5 C. Y.

602.65 602.79
C = 4 ϕ
F = 12 ϕ
140+83
Exc. = 3.3 C. Y.
Emb. = 9.3 C. Y.

602.39 602.61
C = 5 ϕ
F = 13 ϕ
140+63
Exc. = 3.0 C. Y.
Emb. = 10.7 C. Y.

602.14 602.43
C = 3 ϕ
F = 16 ϕ
140+43
Exc. = 1.1 C. Y.
Emb. = 11.5 C. Y.

601.98 602.25
C = 0
F = 15 ϕ
140+23 C.S.
Exc. = 1.3 C. Y.
Emb. = 11.5 C. Y.

601.83 602.04
C = 3 ϕ
F = 12 ϕ
140+00
Exc. = 8.3 C. Y.
Emb. = 21.3 C. Y.

601.62 601.58
C = 6 ϕ
F = 11 ϕ
139+50
Exc. = 7.4 C. Y.
Emb. = 12.2 C. Y.

601.42 601.33
C = 8 ϕ
F = 12 ϕ
$139+21^{46}$ S.C.
Exc. = 5.6 C. Y.
Emb. = 8.2 C. Y.

601.28 601.14
C = 7 ϕ
F = 10 ϕ
$139+01^{46}$
Exc. = 3.7 C. Y.
Emb. = 7.8 C. Y.

601.09 600.96
C = 3 ϕ
F = 11 ϕ
$138+81^{46}$
Exc. = 2.2 C. Y.
Emb. = 7.4 C. Y.

600.86 600.78
C = 3 ϕ
F = 9 ϕ
$138+61^{46}$
Exc. = 1.1 C. Y.
Emb. = 8.3 C. Y.

End of First Unit

604.66 605.00
C = 0
F = 7 ϕ
$143+26^{98}$
Exc. = 1.0 C. Y.
Emb. = 5.5 C. Y.

604.44 604.76
C = 2 ϕ
F = 4 ϕ
143+00
Exc. = 3.7 C. Y.
Emb. = 8.3 C. Y.

604.07 604.30
C = 2 ϕ
F = 5 ϕ
142+50
Exc. = 1.5 C. Y.
Emb. = 6.0 C. Y.

603.90 604.06
C = 1 ϕ
F = 7 ϕ
142+23 S.T.
Exc. = 0.4 C. Y.
Emb. = 5.6 C. Y.

603.74 603.88
C = 1 ϕ
F = 8 ϕ
142+03
Exc. = 1.1 C. Y.
Emb. = 7.8 C. Y.

603.57 603.70
C = 2 ϕ
F = 13 ϕ
141+83
Exc. = 2.6 C. Y.
Emb. = 8.2 C. Y.

603.54 603.52
C = 5 ϕ
F = 9 ϕ
141+63
Exc. = 5.6 C. Y.
Emb. = 4.4 C. Y.

603.51 603.33
C = 10 ϕ
F = 3 ϕ
141+43
Exc. = 3.7 C. Y.
Emb. = 5.2 C. Y.

603.20 603.15
C = 0
F = 11 ϕ
141+23
Exc. = 0.7 C. Y.
Emb. = 6.7 C. Y.

602.91 602.97
C = 2 ϕ
F = 7 ϕ
141+03
Exc. = 2.2 C. Y.
Emb. = 7.0 C. Y.

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

K & E CO. No. 345-3 MADE IN U. S. A. 42336-3

5221.21

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	22	27

9

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

Aug. 20, 1946

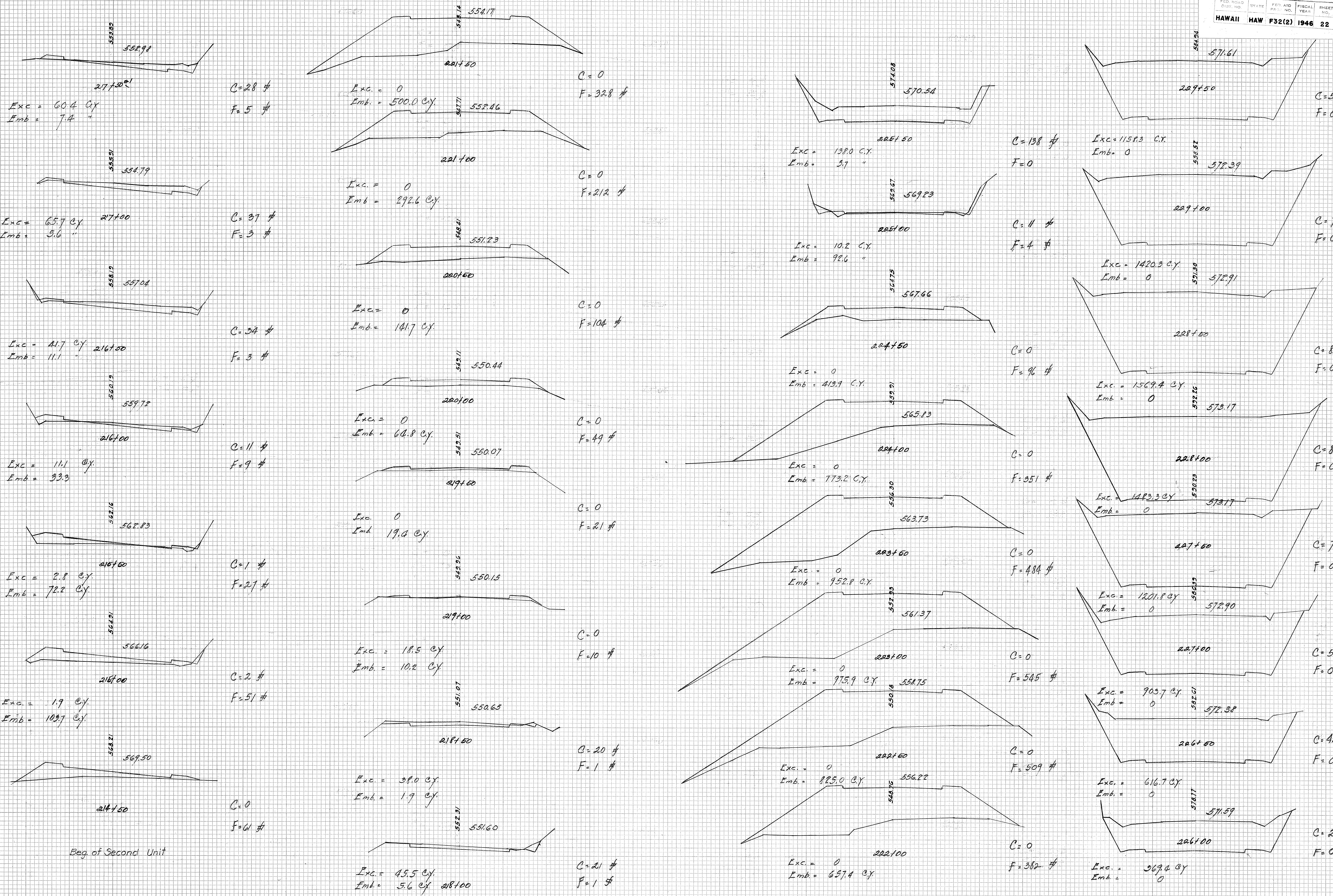

553.89
552.98
217+50
Exc = 60.4 C.Y.
Emb = 7.4 "
C=28 #
F=5 #
555.91
554.79
217+00
Exc = 65.7 C.Y.
Emb = 5.6 "
C= 37 #
F= 3 #
558.12
557.04
216+50
Exc = 41.7 C.Y.
Emb = 11.1 "
C= 34 #
F= 3 #
560.19
559.72
216+00
Exc = 11.1 C.Y.
Emb = 33.3
C= 11 #
F= 9 #
562.16
562.83
215+50
Exc = 2.8 C.Y.
Emb = 72.2 C.Y.
C= 1 #
F= 27 #
564.91
566.16
215+00
Exc. = 1.9 C.Y.
Emb = 103.7 C.Y.
C= 2 #
F= 51 #
568.21
569.50
214+50
C= 0
F= 61 #
Beg. of Second Unit
548.14
554.17
221+50
Exc. = 0
Emb. = 500.0 C.Y.
C= 0
F= 328 #
547.71
552.46
221+00
Exc. = 0
Emb = 292.6 C.Y.
C= 0
F= 212 #
548.41
551.23
220+50
Exc. = 0
Emb. = 141.7 C.Y.
C= 0
F= 104 #
549.11
550.44
220+00
Exc. = 0
Emb. = 64.8 C.Y.
C= 0
F= 49 #
549.51
550.07
219+50
Exc. 0
Emb 19.4 C.Y.
C= 0
F= 21 #
549.96
550.15
219+00
Exc. = 18.5 C.Y.
Emb. = 10.2 C.Y.
C= 0
F= 10 #
551.07
550.65
218+50
Exc. = 38.0 C.Y.
Emb. = 1.9 C.Y.
C= 20 #
F= 1 #
552.31
551.60
218+00
Exc. = 45.5 C.Y.
Emb. = 5.6 C.Y.
C= 21 #
F= 1 #
574.08
570.54
225+50
Exc = 138.0 C.Y.
Emb = 3.7 "
C= 138 #
F= 0
569.67
569.23
225+00
Exc = 10.2 C.Y.
Emb = 92.6 "
C= 11 #
F= 4 #
564.75
567.66
224+50
Exc = 0
Emb = 413.9 C.Y.
C= 0
F= 96 #
559.91
565.83
224+00
Exc = 0
Emb = 773.2 C.Y.
C= 0
F= 351 #
556.30
563.73
223+50
Exc = 0
Emb = 952.8 C.Y.
C= 0
F= 484 #
552.93
561.37
223+00
Exc. = 0
Emb = 975.9 C.Y.
C= 0
F= 545 #
550.18
558.75
222+50
Exc. = 0
Emb. = 825.0 C.Y.
C= 0
F= 509 #
548.76
556.22
222+00
Exc. = 0
Emb. = 657.4 C.Y.
C= 0
F= 382 #
584.94
571.61
229+50
C= 547 #
F= 0
Exc = 1158.3 C.Y.
Emb = 0
558.57
572.39
229+00
C= 704 #
F= 0
Exc = 1420.3 C.Y.
Emb = 0
591.30
572.91
228+50
C= 830 #
F= 0
Exc. = 1569.4 C.Y.
Emb. = 0
592.26
573.17
228+00
C= 865 #
F= 0
Exc. = 1483.3 C.Y.
Emb. = 0
590.23
573.17
227+50
C= 737 #
F= 0
Exc. = 1201.8 C.Y.
Emb. = 0
586.39
572.90
227+00
C= 561 #
F= 0
Exc. = 903.7 C.Y.
Emb = 0
582.61
572.38
226+50
C= 415 #
F= 0
Exc. = 616.7 C.Y.
Emb. = 0
578.77
571.59
226+00
C= 261 #
F= 0
Exc. = 369.4 C.Y.
Emb. = 0

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

K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

5221.22

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32(2)	1946	23	27

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

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

Aug. 20, 1946

233+50
556.03
557.36
Exc = 0
Emb = 99.1 cy
C = 0
F = 65 #

233+00
558.13
559.17
Exc = 0
Emb = 67.0 cy.
C = 0
F = 42 #

232+50
560.66
561.42
Exc = 20.2 cy.
Emb = 78.7 cy
C = 0
F = 31 #

232+00
564.42
563.77
Exc = 114.8 cy.
Emb = 0
C = 22 #
F = 0

231+50
568.89
565.86
Exc = 366.7 cy.
Emb = 0
C = 102 #
F = 0

231+00
573.08
567.69
Exc = 456.5 cy.
Emb = 0
C = 194 #
F = 0

230+50
577.08
569.26
Exc = 663.9 cy.
Emb = 0
C = 299 #
F = 0

230+00
580.93
570.56
Exc = 893.5 c.y.
Emb = 0
C = 418 #
F = 0

238+00
562.02
561.26
Exc = 26.9 cy
Emb = 0.9 cy.
C = 14 #
F = 0

237+50
559.84
559.22
Exc = 38.0 cy
Emb = 0.9 cy.
C = 15 #
F = 1 #

237+00
557.95
557.41
Exc = 28.7 cy.
Emb = 1.9 cy.
C = 26 #
F = 0

236+50
556.21
556.04
Exc = 4.6 cy.
Emb = 23.2 cy.
C = 5 #
F = 2 #

236+00
554.44
555.13
Exc = 0
Emb = 69.4 cy.
C = 0
F = 23 #

235+50
553.18
554.67
Exc = 0
Emb = 109.3 cy
C = 0
F = 52 #

235+00
552.88
554.66
Exc = 0
Emb = 127.8 cy.
C = 0
F = 66 #

234+50
553.10
555.11
Exc = 0
Emb = 116.7 cy.
C = 0
F = 72 #

234+00
554.45
556.01
Exc = 0
Emb = 110.2 cy.
C = 0
F = 54 #

242+50
580.20
579.66
Exc = 38.0 cy
Emb = 0.9 cy
C = 18 #
F = 0

242+00
578.26
577.61
Exc = 31.5 cy
Emb = 2.8 cy
C = 23 #
F = 1 #

241+50
575.90
575.57
Exc = 17.6 cy
Emb = 2.8 cy
C = 11 #
F = 2 #

241+00
573.64
573.53
Exc = 89.6 cy
Emb = 1.9 cy
C = 8 #
F = 1 #

240+50
571.69
571.48
Exc = 24.8 cy
Emb = 6.5
C = 24 #
F = 1 #

240+00
569.76
569.44
Exc = 11.1 cy
Emb = 10.2 cy
C = 3 #
F = 6 #

239+50
567.86
567.40
Exc = 17.6 cy
Emb = 7.2 cy
C = 9 #
F = 5 #

239+00
565.93
565.35
Exc = 20.8 cy.
Emb = 3.7 cy
C = 10 #
F = 3 #

238+50
563.94
563.31
Exc = 24.8 cy
Emb = 0.9
C = 12 #
F = 1 #

247+00
595.20
594.65
Exc = 24.1 cy.
Emb = 2.8 cy.
C = 15 #
F = 1 #

246+50
593.98
593.65
Exc = 18.5 cy.
Emb = 5.6 cy.
C = 11 #
F = 2 #

246+00
592.73
592.46
Exc = 14.8 cy.
Emb = 6.5 cy.
C = 9 #
F = 4 #

245+50
591.28
591.07
Exc = 7.4 cy.
Emb = 6.5 cy.
C = 7 #
F = 3 #

245+00
589.52
589.50
Exc = 10.2 cy.
Emb = 3.7 cy.
C = 1 #
F = 4 #

244+50
587.79
587.74
Exc = 22.2 cy.
Emb = 0
C = 10 #
F = 0

244+00
586.15
585.79
Exc = 25.0 cy.
Emb = 0.9 cy.
C = 14 #
F = 0

243+50
584.08
583.75
Exc = 25.0 cy.
Emb = 0.9 cy.
C = 13 #
F = 1 #

243+00
581.95
581.71
Exc = 29.6 cy.
Emb = 0
C = 14 #
F = 0

PLATE 3 - CROSS SECTION O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK
K & E CO. No. 345-3 MADE IN U.S.A.

5221.23

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F32(2)	1946	24	27

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

Aug. 20, 1946

595.22
594.82
252+00
Exc. = 28.7 c.y.
Emb = 2.8 c.y.
C= 12#
F= 3#

596.18
595.62
251+50
Exc. = 42.6 c.y.
Emb = 0
C= 19#
F= 0

596.87
596.25
251+00
Exc = 48.2 c.y.
Emb = 0
C= 27#
F= 0

597.42
596.66
250+50
Exc. = 50.0 c.y.
Emb = 0
C= 25#
F= 0

597.81
596.89
250+00
Exc = 57.4 c.y.
Emb = 0
C= 29#
F= 0

597.84
596.93
249+50
Exc. = 60.2 c.y.
Emb. = 0
C= 33#
F= 0

597.63
596.79
249+00
Exc. = 58.3 c.y.
Emb. = 0
C= 32#
F= 0

597.54
596.54
248+50
Exc = 51.9 c.y.
Emb = 0
C= 31#
F= 0

596.94
596.10
248+00
Exc = 43.5 c.y.
Emb = 2.8 c.y.
C= 25#
F= 0

596.34
595.47
247+50
Exc. = 34.3 c.y.
Emb = 3.7 c.y.
C= 22#
F= 3#

576.21
575.60
257+00
Exc. = 29.6 c.y.
Emb. = 1.9 c.y.
C= 16#
F= 1#

579.04
578.36
256+50
Exc. = 22.2 c.y.
Emb. = 4.6 c.y.
C= 16#
F= 1#

581.44
580.95
256+00
Exc. = 21.3 c.y.
Emb. = 6.5 c.y.
C= 8#
F= 4#

583.83
583.34
255+50
Exc. = 28.7 c.y.
Emb. = 4.6 c.y.
C= 15#
F= 3#

586.21
585.55
255+00
Exc. = 31.5 c.y.
Emb. = 2.8 c.y.
C= 16#
F= 2#

588.23
587.57
254+50
Exc. = 35.2 c.y.
Emb. = 0.9 c.y.
C= 18#
F= 1#

590.01
589.39
254+00
Exc. = 37.0 c.y.
Emb. = 0
C= 20#
F= 0

591.73
591.04
253+50
Exc. = 28.8 c.y.
Emb 0
C= 20#
F= 0

592.32
590.70
253+27^{77}
Exc. = 31.9 c.y.
Emb. = 1.0 c.y.
C= 50#
F= 0

593.07
592.48
253+00
Exc. = 22.2 c.y.
Emb. 3.7 c.y.
C= 12#
F= 2#

594.09
593.75
252+50
Exc. = 22.2 c.y.
Emb. = 4.6 c.y.
C= 12#
F= 2#

539.43
539.00
262+00
Exc. 34.3 c.y.
Emb. = 9.3 c.y.
C= 9#
F= 7#

543.68
543.00
261+50
Exc. 42.6 c.y.
Emb. = 3.7 c.y.
C= 28#
F= 3#

547.72
547.00
261+00
Exc. = 34.3 c.y.
Emb. = 0.9 c.y.
C= 18#
F= 1#

551.66
551.00
260+50
Exc. = 30.6 c.y.
Emb. = 2.8 c.y.
C= 19#
F= 0#

555.51
555.00
260+00
Exc. = 20.4 c.y.
Emb. = 8.3 c.y.
C= 14#
F= 3#

559.39
558.90
259+50
Exc. = 29.6 c.y.
Emb. = 9.3 c.y.
C= 8#
F= 6#

563.05
562.61
259+00
Exc. = 35.2 c.y.
Emb. = 3.7 c.y.
C= 24#
F= 4#

566.73
566.15
258+50
Exc. = 22.2 c.y.
Emb. = 4.6 c.y.
C= 14#
F= 0#

569.86
569.48
258+00
Exc. = 17.6 c.y.
Emb. = 10.2 c.y.
C= 10#
F= 5#

573.00
572.63
257+50
Exc. = 23.2 c.y.
Emb. = 6.5 c.y.
C= 9#
F= 6#

511.22
511.00
265+50
Exc. = 14.8 c.y.
Emb. = 16.7 c.y.
C= 8#
F= 7#

515.39
515.00
265+00
Exc. = 21.3 c.y.
Emb. = 13.9 c.y.
C= 8#
F= 11#

519.55
519.00
264+50
Exc. = 33.3 c.y.
Emb. = 5.6 c.y.
C= 15#
F= 4#

523.74
523.00
264+00
Exc. = 35.2 c.y.
Emb. = 9.3 c.y.
C= 21#
F= 2#

527.72
527.00
263+50
Exc. = 28.7 c.y.
Emb. = 14.8 c.y.
C= 17#
F= 8#

531.56
531.00
263+00
Exc. = 19.4 c.y.
Emb. = 11.1 c.y.
C= 14#
F= 8#

535.24
535.00
262+50
Exc. = 14.8 c.y.
Emb. = 10.2 c.y.
C= 7#
F= 4#

PLATE 3-CROSS SECTION O.P.R.&R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E CO. No. 345-3 MADE IN U.S.A. 42335-3

5221.24

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32(2)	1946	25	27

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

Aug. 20, 1946

479.40
479.29
269+50
Exc. = 8.3 c.y.
Emb. = 14.8 c.y.
C = 1 ♯
F = 9 ♯
483.06
483.00
269+00
Exc. = 7.4 c.y.
Emb. = 26.9 c.y.
C = 8 ♯
F = 7 ♯
486.81
487.00
268+50
C = 0
F = 22 ♯
Exc. = 0
Emb. = 43.5 c.y.
490.54
491.00
268+00
C = 0
F = 25
Exc. = 0
Emb. = 63.9 c.y.
494.12
495.00
267+50
Exc. = 0
Emb. = 82.4 c.y.
C = 0
F = 44 ♯
498.31
499.00
267+00
C = 0
F = 45 ♯
Exc. = 0.9 c.y.
Emb. = 63.0 c.y.
502.58
503.00
266+50
C = 1 ♯
F = 23 ♯
Exc. = 0.9 c.y.
Emb. = 30.6 c.y.
507.04
507.00
266+00
C = 0
F = 10 ♯
Exc. = 7.4 c.y.
Emb. = 15.7 c.y.
471.35
471.57
274+00
Exc. 0
Emb. 140.7 c.y.
C = 0
F = 41 ♯
469.76
470.14
273+50
Exc. = 0
Emb. = 165.7 c.y.
468.66
469.29
C = 0
F = 111 ♯
273+00
Exc. = 0
Emb. = 179.6 c.y.
C = 0
F = 68 ♯
467.96
469.00
272+50
Exc. = 0
Emb. = 281.5 c.y.
467.79
469.29
C = 0
F = 126 ♯
272+00
Exc. 0
Emb. 280.6 c.y.
468.46
470.14
C = 0
F = 178 ♯
271+50
Exc. = 0
Emb. = 195.4 c.y.
470.18
471.57
C = 0
F = 125 ♯
271+00
Exc. = 0
Emb. = 127.8 c.y.
C = 0
F = 86 ♯
472.50
473.57
270+50
Exc. = 0
Emb. = 71.3 c.y.
C = 0
F = 52 ♯
475.74
476.15
270+00
Exc. = 0.9 c.y.
Emb. = 31.5 c.y.
C = 0
F = 25 ♯
497.25
496.96
278+00
Exc. 13.9 c.y.
Emb. 43.5 c.y.
C = 15 ♯
F = 3 ♯
493.00
493.85
277+50
C = 0
F = 44 ♯
Exc. = 0
Emb. = 62.0 c.y.
489.57
490.49
277+00
C = 0
F = 23 ♯
Exc. 0
Emb. = 30.6 c.y.
486.81
486.87
276+50
C = 0
F = 10 ♯
Exc. = 0
Emb. = 16.7 c.y.
483.17
483.00
276+00
C = 0
F = 8 ♯
Exc. = 0
Emb. = 34.3 c.y.
478.98
479.29
275+50
C = 0
F = 29 ♯
Exc. = 0
Emb. = 49.1 c.y.
475.97
476.14
275+00
C = 0
F = 24 ♯
Exc. 0
Emb. = 39.8 c.y.
473.15
473.57
274+50
C = 0
F = 19 ♯
Exc. = 0
Emb. = 55.6 c.y.
513.20
511.64
281+51.84
Exc. 45.6 c.y.
Emb. 1.1 c.y.
C = 51 ♯
F = 0
512.14
510.88
281+21.84
Exc. 27.2 c.y.
Emb. 2.8 c.y.
C = 31 ♯
F = 2 ♯
511.05
510.03
280+91.84
Exc. 19.4 c.y.
Emb. = 5.6 c.y.
C = 18 ♯
F = 3 ♯
510.04
509.09
280+61.84
Exc. = 23.3 c.y.
Emb. 5.6 c.y.
C = 17 ♯
F = 7 ♯
508.87
507.95
280+31.84
Exc. 29.5 c.y.
Emb. 3.5 c.y.
C = 25 ♯
F = 3 ♯
507.54
506.85
280+00
Exc. 43.5 c.y.
Emb. 4.6 c.y.
C = 25 ♯
F = 3 ♯
505.15
504.76
279+50
Exc. 29.6 c.y.
Emb. 3.7 c.y.
C = 22 ♯
F = 3 ♯
502.84
502.42
279+00
C = 11 ♯
F = 2 ♯
Exc. 24.1 c.y.
Emb. 3.7 c.y.
500.74
499.82
278+50
Exc. = 27.8 c.y.
Emb. 4.6 c.y.
C = 15 ♯
F = 2 ♯
℄
℄
℄
℄

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

K & E CO. No. 345-3 MADE IN U.S.A. 42336-3

5221.25

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32(2)	1946	26	27

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

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

Aug. 20, 1946

514.14
513.07
285+50
Exc = 86.1 C.Y
Emb = 1.9 C.Y
C = 36 #
F = 2 #
515.63
513.65
285+00
Exc = 135.2 C.Y
Emb = 0
C = 57 #
F = 0
516.78
514.21
284+50
Exc = 175.0 C.Y
Emb = 0
C = 89 #
F = 0
517.30
514.41
284+00
Exc = 194.4 C.Y
Emb = 0
C = 100 #
F = 0
517.58
514.35
283+50
Exc = 222.1 C.Y
Emb = 0
C = 110 #
F = 0
517.49
514.06
283+01 84
Exc = 139.4 C.Y
Emb = 0
C = 139 #
F = 0
516.94
513.76
282+71 84
Exc = 116.7 C.Y
Emb = 0
C = 112 #
F = 0
516.17
513.37
282+41 84
Exc = 98.9 C.Y
Emb = 0
C = 98 #
F = 0
515.12
512.89
282+11 84
Exc = 86.7 C.Y
Emb = 0
C = 80 #
F = 0
514.21
512.31
281+81 84
Exc = 70.6 C.Y
Emb = 0
C = 76 #
F = 0
502.36
502.38
288+94 34
Exc. 10.0 cy.
Emb. 6.7 cy.
C = 17 #
F = 1 #
503.27
503.13
288+64 34
Exc. 0.6 cy.
Emb. 17.2 cy.
C = 1 #
F = 11 #
503.76
504.16
288+34 34
Exc. 1.0 cy.
Emb. 35.0 cy.
C = 0
F = 20 #
504.41
505.38
288+04 34
Exc. 0
Emb. 78.9 cy.
C = 0
F = 43 #
505.24
506.63
287+74 34
Exc. 0
Emb. 94.4 cy.
C = 0
F = 99 #
506.29
507.84
287+44 34
Exc. 0
Emb. 79.4 cy.
C = 0
F = 71 #
507.50
508.91
287+14 34
Exc. 0 cy.
Emb. 77.8 cy.
C = 0
F = 72 #
508.91
509.87
286+84 34
Exc. 0
Emb. 60.0 cy.
C = 0
F = 68 #
510.04
510.74
286+54 34
Exc. 2.2 cy.
Emb. 26.1 cy.
C = 0
F = 40 #
511.79
511.51
286+24 34
Exc. 2.2 cy.
Emb. 20.0 cy.
C = 4 #
F = 7 #
512.73
513.40
285+94 34
Exc. 28.7 cy.
Emb. 25.5 cy.
C = 0
F = 29 #
512.45
519.14
294+56 84
Exc. 17.8 cy.
Emb. 5.6 cy.
C = 14 #
F = 3 #
517.17
516.90
294+26 84
Exc. 15.6 cy.
Emb. 8.9 cy.
C = 18 #
F = 7 #
515.37
514.90
294+00
Exc. 35.0 cy.
Emb. 8.3 cy.
C = 16 #
F = 6 #
511.56
511.47
293+50
Exc. 23.2 cy.
Emb. 7.4 cy.
C = 11 #
F = 3 #
509.07
508.41
293+00
Exc. 35.2 cy.
Emb. 7.4 cy.
C = 14 #
F = 5 #
506.39
505.90
292+50
Exc. 46.4 cy.
Emb. 8.3 cy.
C = 24 #
F = 3 #
504.17
503.87
292+00
Exc. 2.7 cy.
Emb. 12.4 cy.
End of Br. Sta. 291+75.33
Beg. of Br. Sta. 289+67.67
Exc. 11.4 cy.
Emb. 2.7 cy.
C = 25 #
F = 6 #
501.71
501.15
289+54 34
Exc. 23.9 cy.
Emb. 36.1 cy.
C = 14 #
F = 65 #
502.69
501.60
289+24 34
Exc. 25.6 cy.
Emb. 0.6 cy.
C = 29 #
F = 0
537.11
537.67
297+26 84
Exc. 5.0 cy.
Emb. 20.0 cy.
C = 6 #
F = 14 #
535.22
535.84
296+96 84
Exc. 3.9 cy.
Emb. 26.1 cy.
C = 3 #
F = 22 #
533.32
533.94
296+66 84
Exc. 3.9 cy.
Emb. 20.0 cy.
C = 4 #
F = 25 #
531.60
531.99
296+36 84
Exc. 2.2 cy.
Emb. 11.7 cy.
C = 3 #
F = 11 #
529.68
529.99
296+06 84
Exc. 0.6 cy.
Emb. 11.1 cy.
C = 1 #
F = 10 #
527.95
527.92
295+76 84
Exc. 5.0 cy.
Emb. 10.0 cy.
C = 1 #
F = 10 #
526.12
525.60
295+46 84
Exc. 7.8 cy.
Emb. 10.0 cy.
C = 8 #
F = 8 #
523.88
523.62
295+16 84
Exc. 5.6 cy.
Emb. 11.7 cy.
C = 6 #
F = 10 #
521.72
521.38
294+86 84
Exc. 15.6 cy.
Emb. 7.8 cy.
C = 4 #
F = 11 #
℄
℄
℄
℄

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

K & E CO. No. 345-3 MADE IN U.S.A.

5221.26

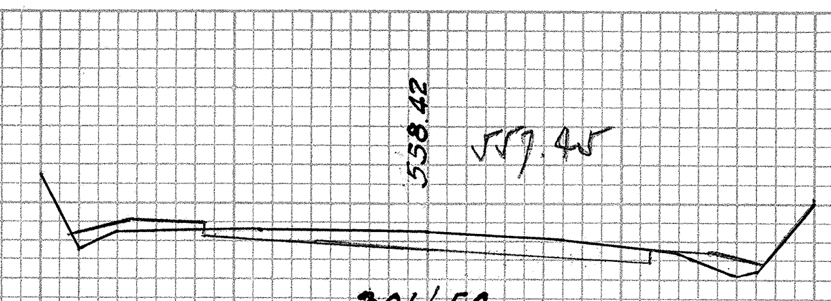
12

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32(2)	1946	27	27

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

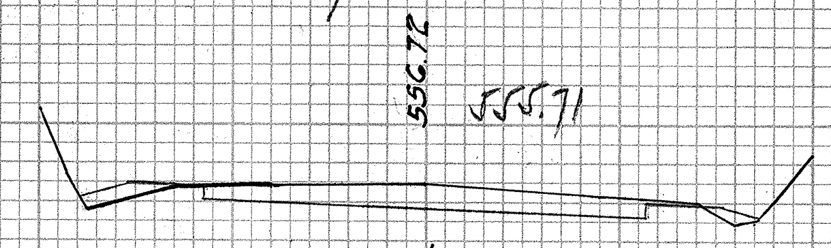
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Aug. 20, 1946


558.42
557.45

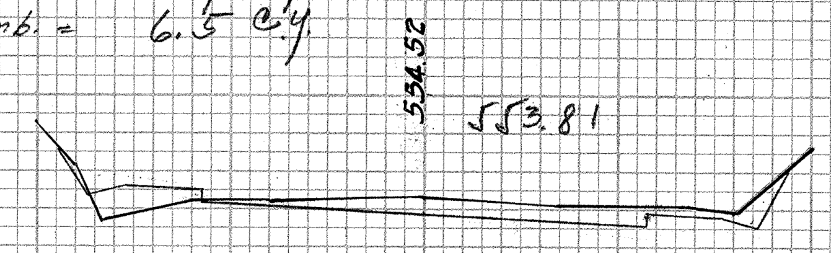
301+50

Exc. = 38.9 C.Y.
Emb. = 6.5 C.Y.
C= 17#
F= 6#


556.72
555.71

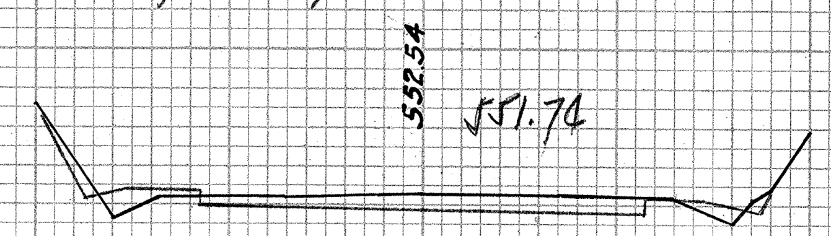
301+00

C= 25#
F= 1#
Exc. = 41.7 C.Y.
Emb. = 6.5 C.Y.


554.52
553.81

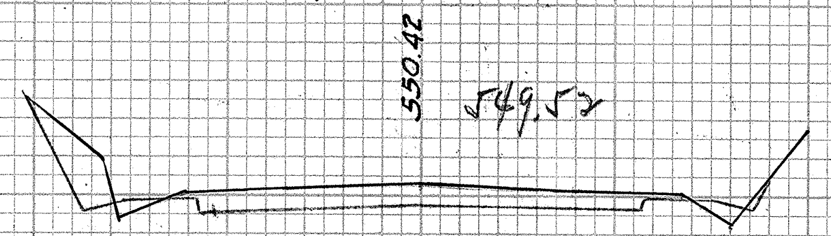
300+50

Exc. = 33.3 C.Y.
Emb. = 9.3 C.Y.
C= 20#
F= 6#


552.54
551.74

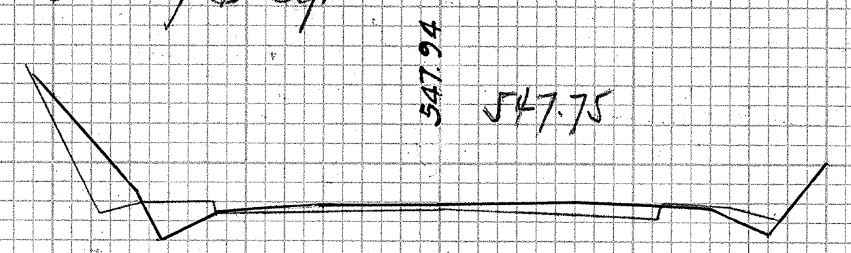
300+00

Exc. = 40.7 C.Y.
Emb. = 6.5 C.Y.
C= 16#
F= 4#


550.42
549.52

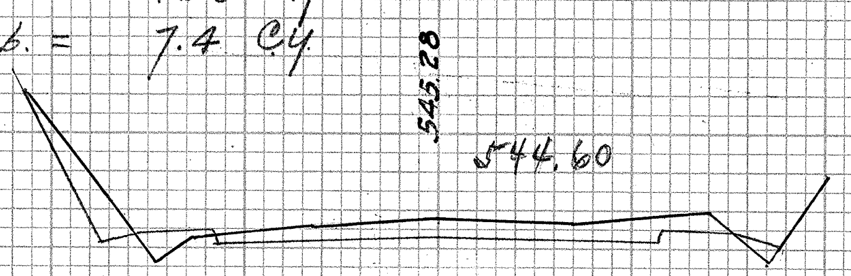
299+50

C= 28#
F= 3#
Exc. = 40.7 C.Y.
Emb. = 7.4 C.Y.


547.94
547.75

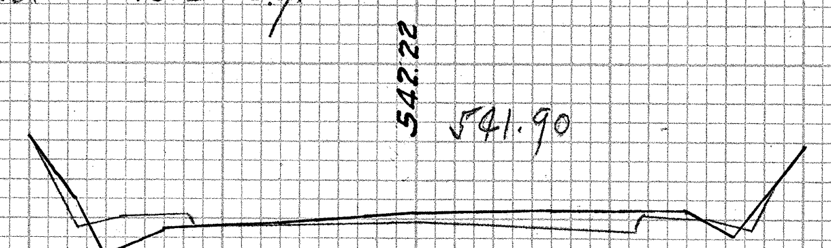
299+00

C= 16#
F= 5#
Exc. = 42.6 C.Y.
Emb. = 7.4 C.Y.


545.28
544.60

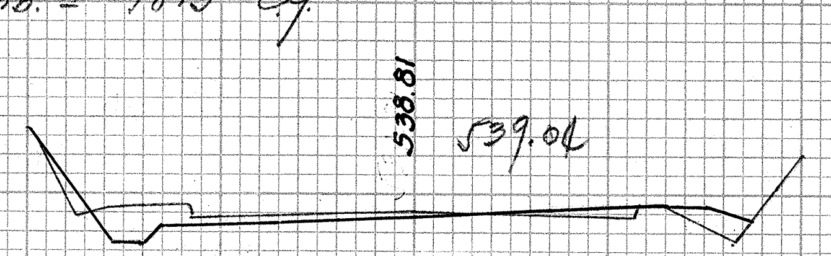
298+50

Exc. = 38.9 C.Y.
Emb. = 10.2 C.Y.
C= 30#
F= 3#


542.22
541.90

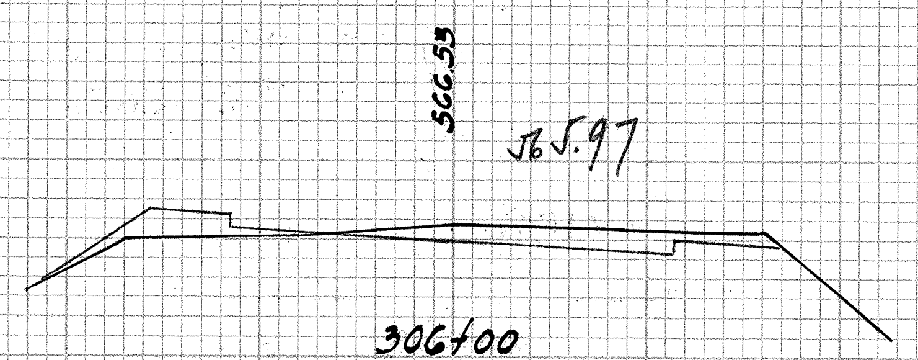
298+00

C= 12#
F= 8#
Exc. = 15.7 C.Y.
Emb. = 18.5 C.Y.


538.81
539.04

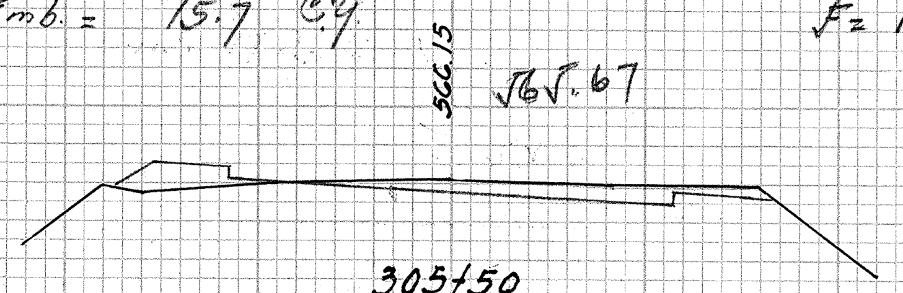
297+50

C= 5#
F= 12#
Exc. = 4.7 C.Y.
Emb. = 15.4 C.Y.


566.53
565.97

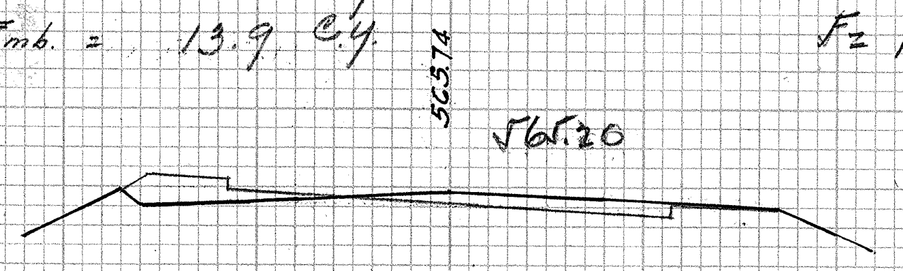
306+00

Exc. = 26.9 C.Y.
Emb. = 15.7 C.Y.
C= 16#
F= 10#


566.15
565.67

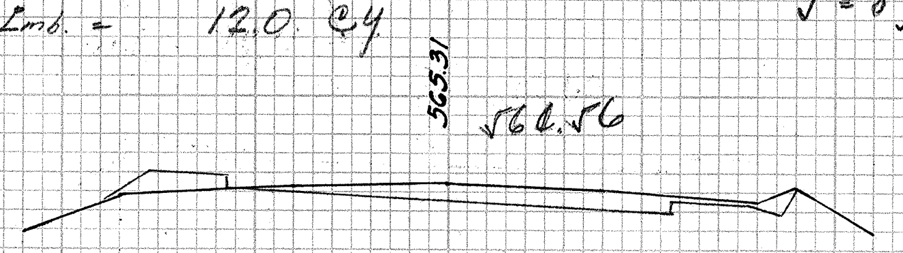
305+50

Exc. = 20.4 C.Y.
Emb. = 13.9 C.Y.
C= 13#
F= 7#


565.74
565.20

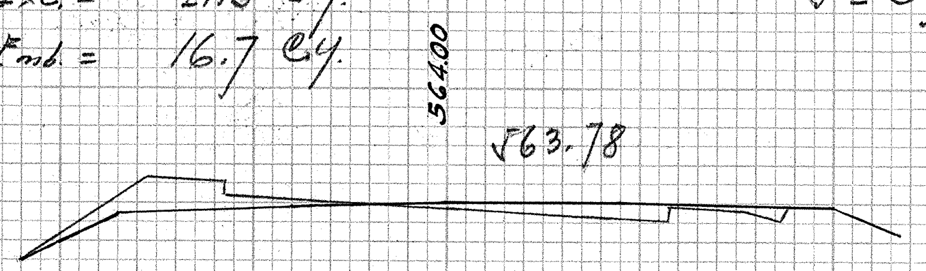
305+00

C= 9#
Exc. = 222.2 C.Y.
Emb. = 12.0 C.Y.
F= 8#


565.31
564.56

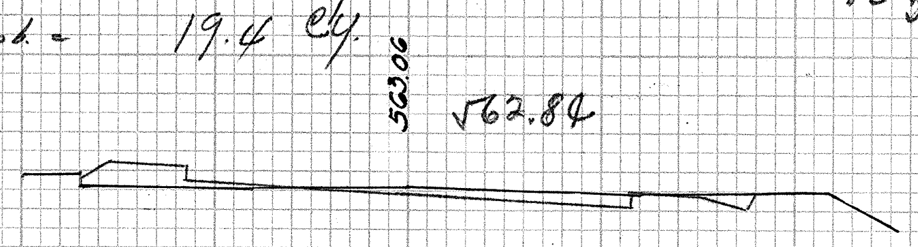
304+50

C= 15#
F= 5#
Exc. = 21.3 C.Y.
Emb. = 16.7 C.Y.


564.00
563.78

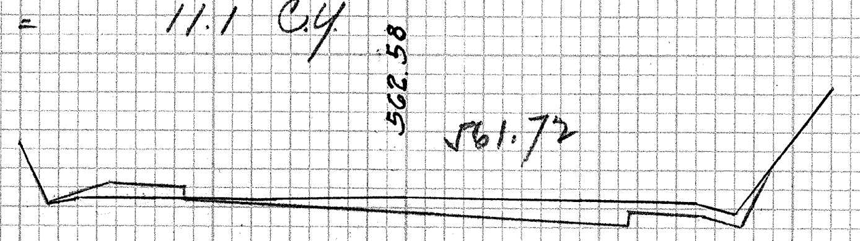
304+00

C= 8#
Exc. = 14.8 C.Y.
Emb. = 19.4 C.Y.
F= 13#


563.06
562.84

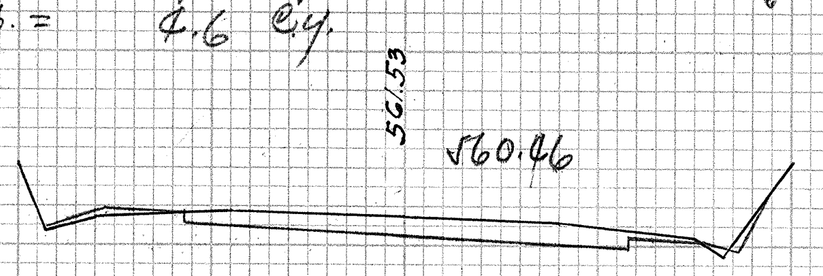
303+50

C= 8#
Exc. = 24.1 C.Y.
Emb. = 11.1 C.Y.
F= 8#


562.58
561.72

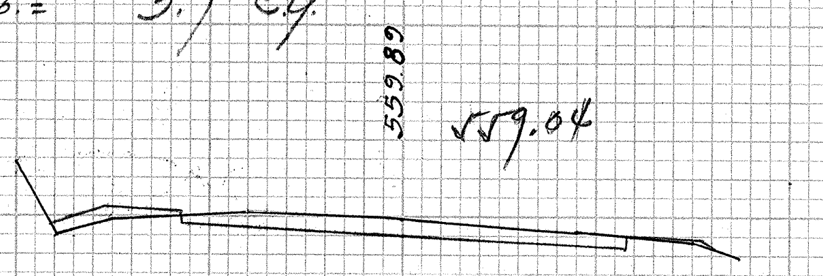
303+00

C= 18#
Exc. = 37.0 C.Y.
Emb. = 4.6 C.Y.
F= 4#


561.53
560.46

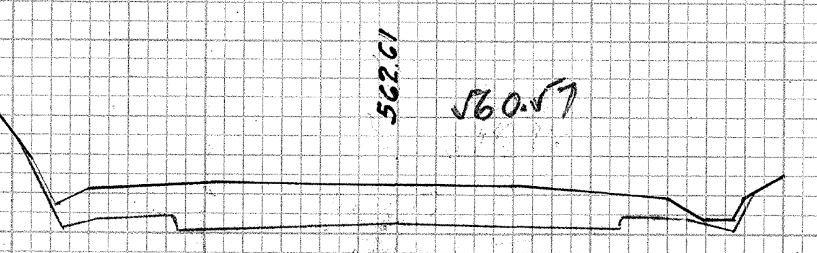
302+50

Exc. = 32.4 C.Y.
Emb. = 3.7 C.Y.
C= 22#
F= 1#

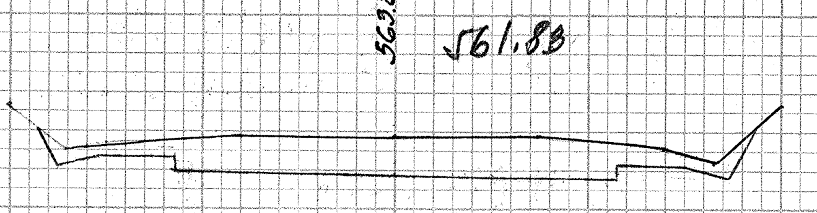

559.89
559.04

302+00

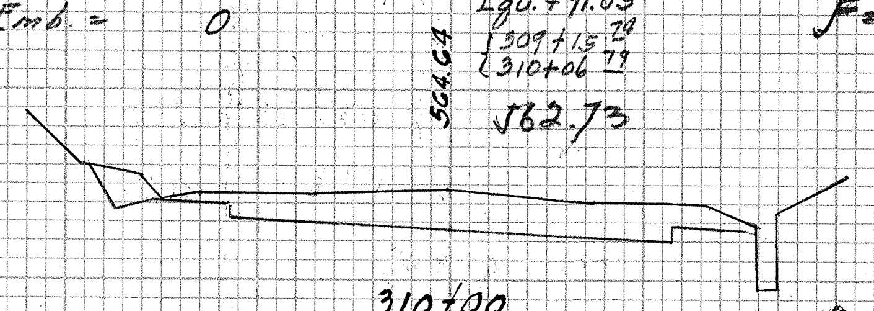
C= 17#
Exc. = 31.5 C.Y.
Emb. = 8.3 C.Y.
F= 3#


562.61
560.57

C= 62#
Exc. = 110.2 C.Y.
310+00
F= 0#
Emb. = 0

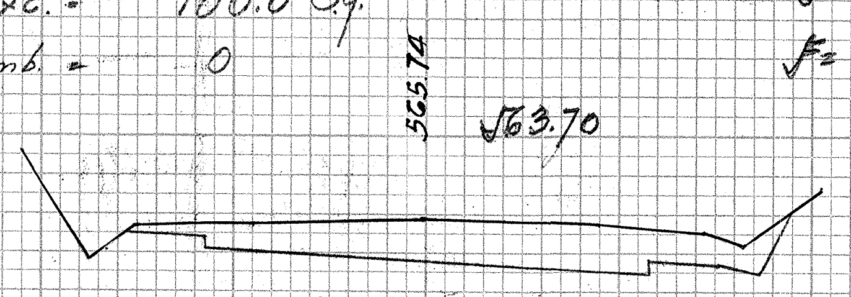

563.81
561.83

Exc. = 81.4 C.Y.
309+50
C= 57#
Note:
Equ. +91.05
{309+15^{74}
{310+06^{79}
Emb. = 0
F= 0#


564.64
562.73

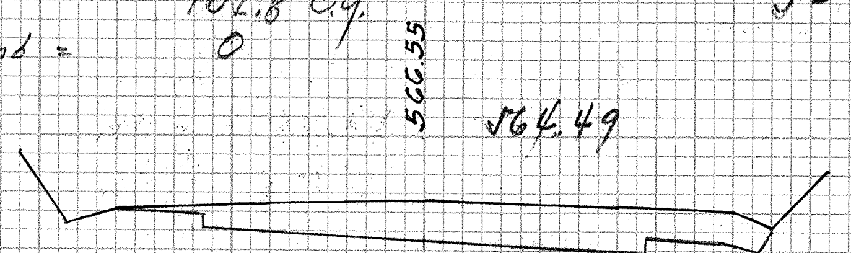
310+00

C= 50#
Exc. = 100.0 C.Y.
Emb. = 0
F= 0#


565.74
563.70

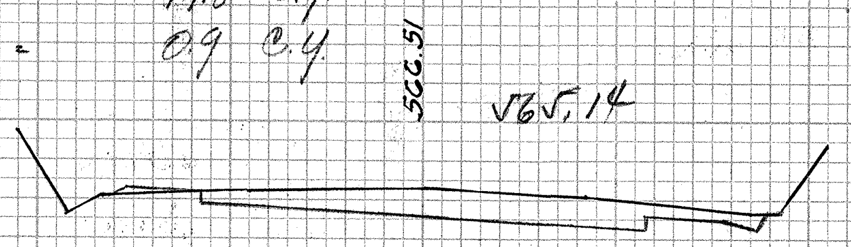
309+50

C= 58#
Exc. = 102.8 C.Y.
Emb. = 0
F= 0#

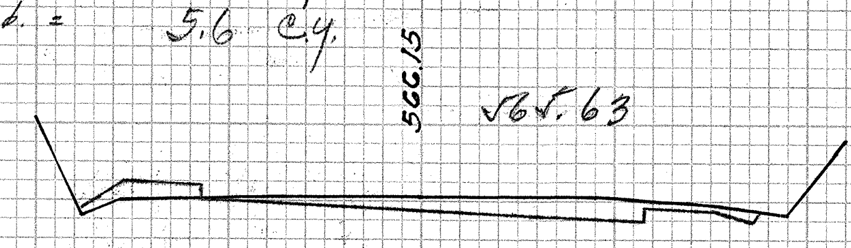

566.55
564.49

309+00

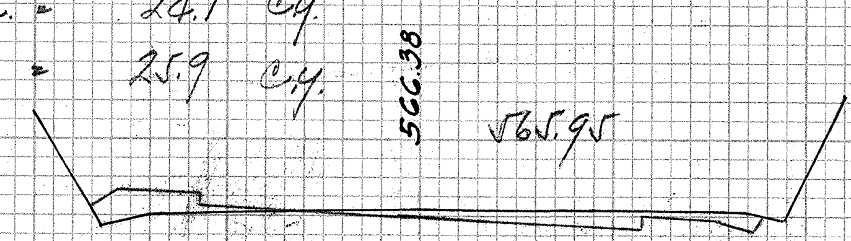
C= 53#
Exc. = 77.8 C.Y.
F= 0#
Emb. = 0.9 C.Y.


566.51
565.14

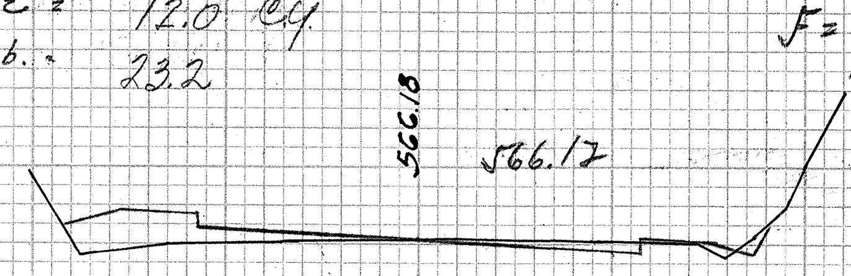
C= 31#
308+50
Exc. = 44.4 C.Y.
F= 1#
Emb. = 5.6 C.Y.


566.15
565.63

C= 17#
308+00
F= 5#
Exc. = 24.1 C.Y.
Emb. = 25.9 C.Y.

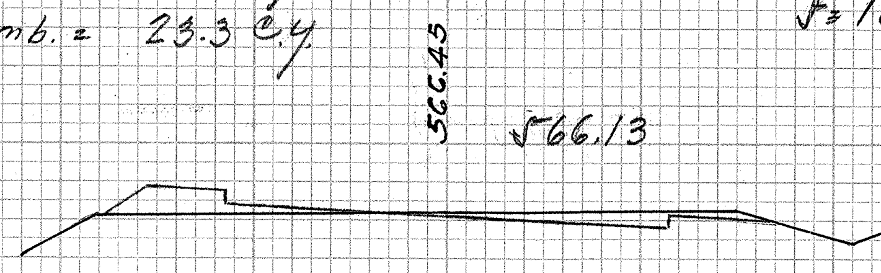

566.38
565.95

C= 9#
307+50
Exc. = 12.0 C.Y.
F= 9#
Emb. = 23.2


566.18
566.17

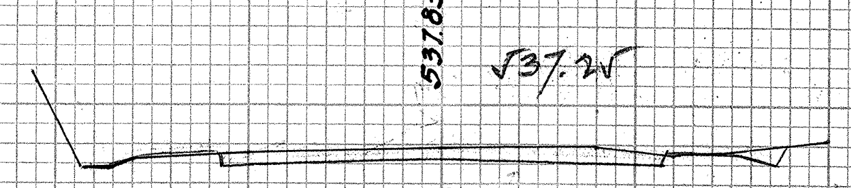
307+00

C= 4#
Exc. = 8.3 C.Y.
F= 16#
Emb. = 23.3 C.Y.

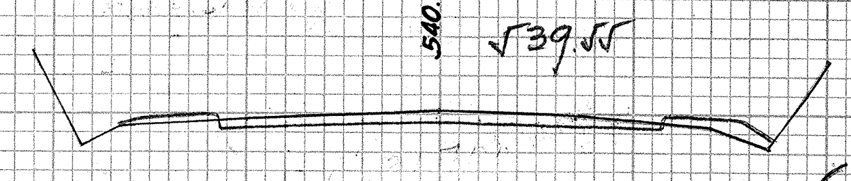

566.45
566.13

306+50

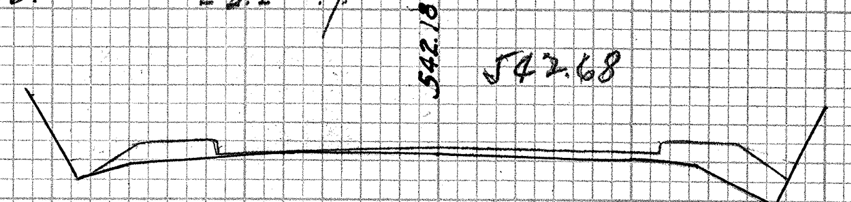
C= 5#
Exc. = 19.4 C.Y.
F= 9#
Emb. = 17.6 C.Y.


537.85
537.25

C= 14#
Exc. = 23.2 C.Y.
315+50
F= 0
Emb. = 4.6 C.Y.

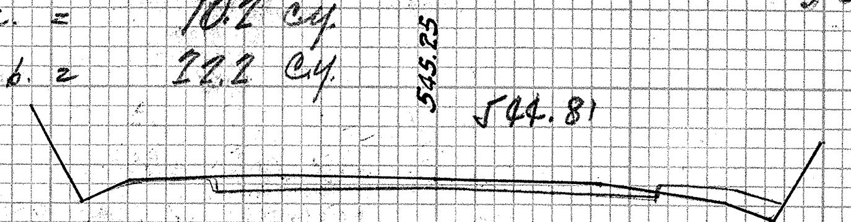

540.01
539.55

C= 11#
Exc. = 10.2 C.Y.
315+00
F= 5#
Emb. = 22.2 C.Y.


542.18
542.68

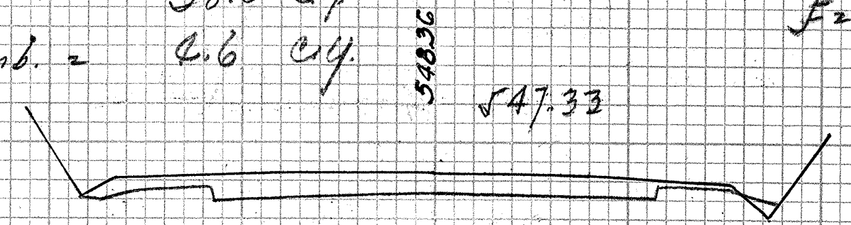
314+50

C= 0
F= 20#
Exc. = 10.2 C.Y.
Emb. = 22.2 C.Y.


545.25
544.81

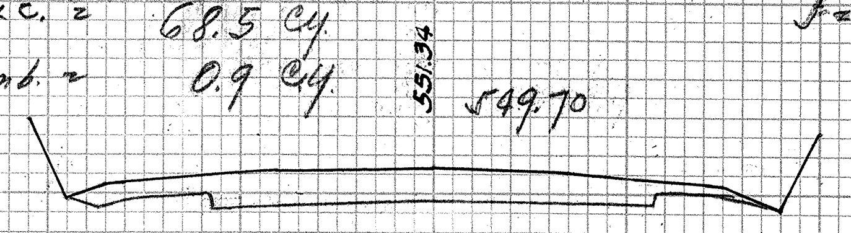
314+00

C= 11#
Exc. = 38.0 C.Y.
F= 4#
Emb. = 4.6 C.Y.


548.36
547.33

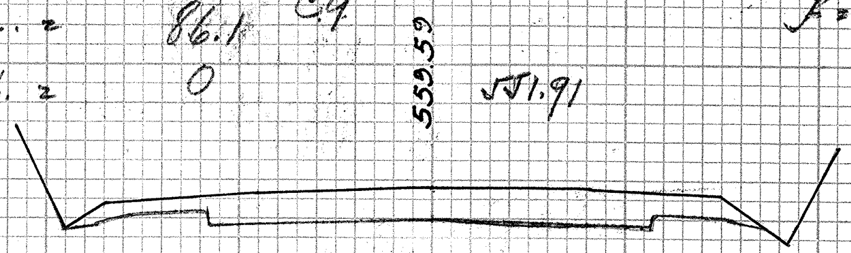
313+50

C= 30#
F= 1#
Exc. = 68.5 C.Y.
Emb. = 0.9 C.Y.


551.34
549.70

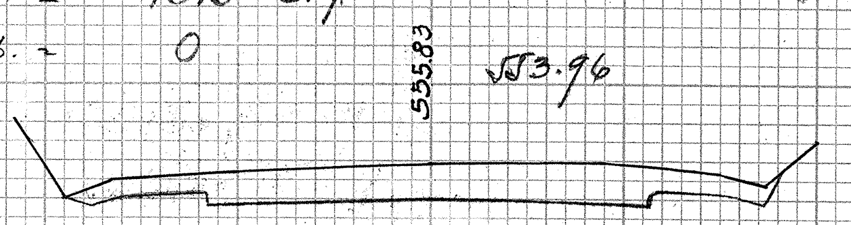
313+00

C= 44#
Exc. = 86.1 C.Y.
F= 0
Emb. = 0


553.59
551.91

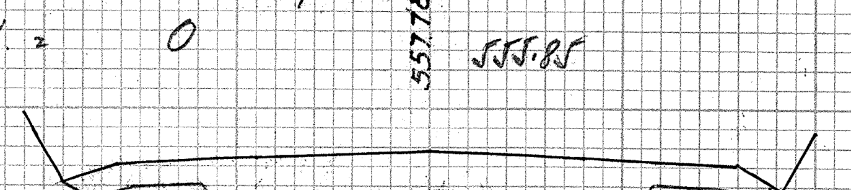
312+50

C= 49#
F= 0
Exc. = 93.5 C.Y.
Emb. = 0


555.83
553.96

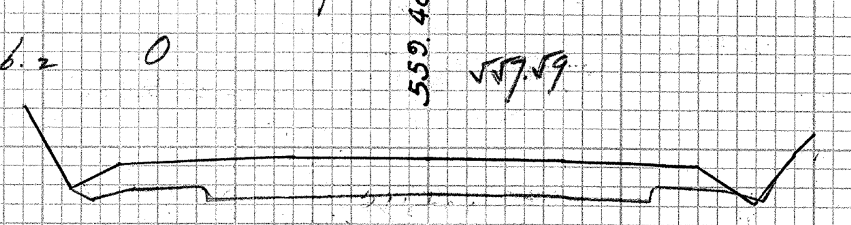
312+00

C= 52#
F= 0
Exc. = 99.1 C.Y.
Emb. = 0


557.78
555.85

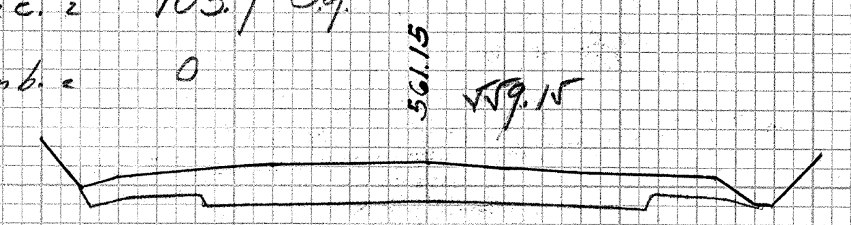
311+50

C= 55#
F= 0
Exc. = 113.0 C.Y.
Emb. = 0


559.48
557.59

311+00

C= 57#
F= 0
Exc. = 103.7 C.Y.
Emb. = 0


561.15
559.15

310+50

C= 56#
Exc. = 109.3 C.Y.
F= 0#
Emb. = 0

5221.27

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	F 32(2)	1946	27A	27

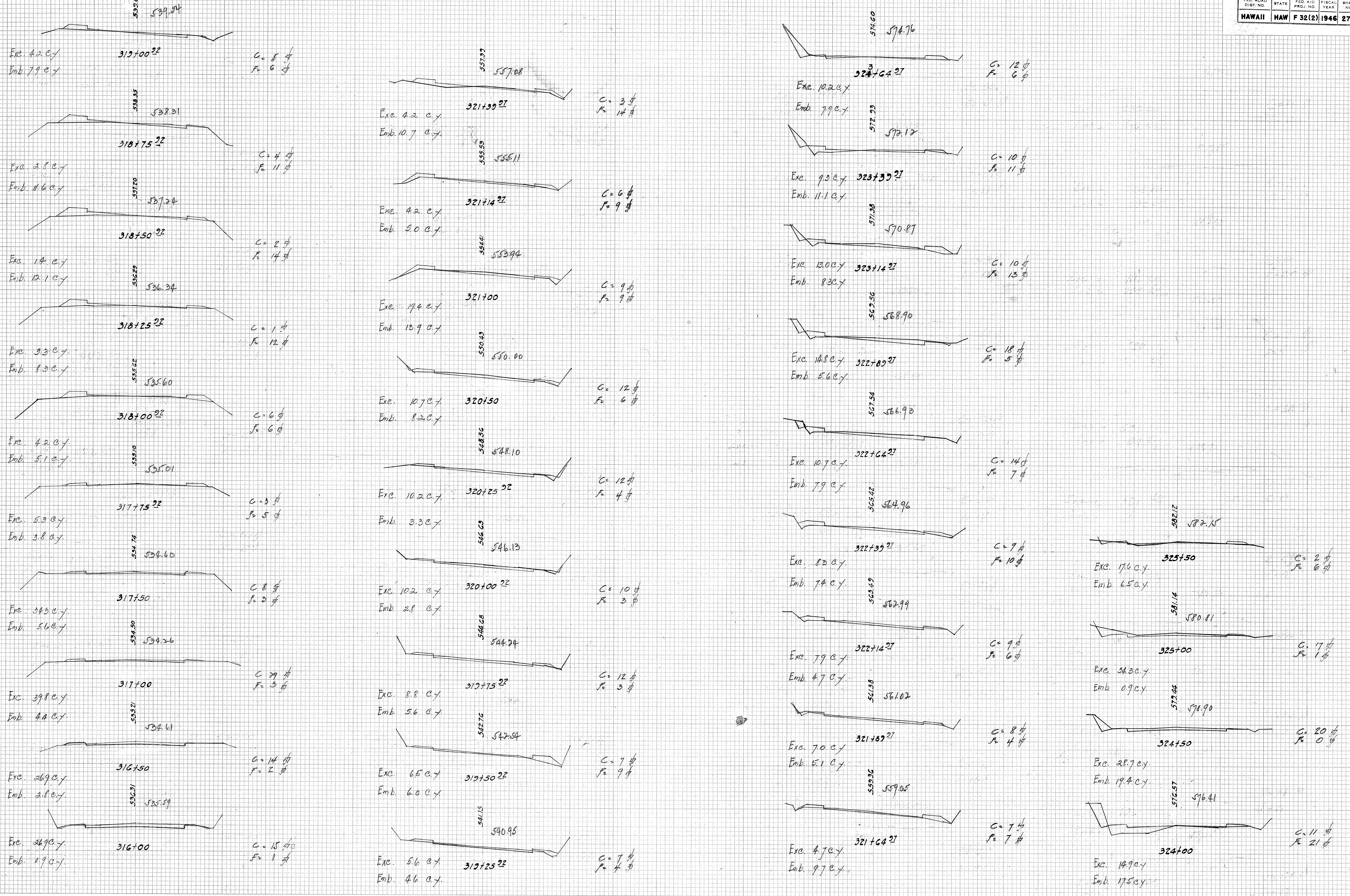
FINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

Aug. 20, 1946



$319+00^{22}$	539.65	539.54	Exc. 4.2 c.y.	Emb. 7.9 c.y.	C= 5 ft	F= 6 ft
$318+75^{22}$	538.35	538.31	Exc. 2.8 c.y.	Emb. 11.6 c.y.	C= 4 ft	F= 11 ft
$318+50^{22}$	537.20	537.24	Exc. 1.4 c.y.	Emb. 12.1 c.y.	C= 2 ft	F= 14 ft
$318+25^{22}$	536.29	536.34	Exc. 3.3 c.y.	Emb. 8.3 c.y.	C= 1 ft	F= 12 ft
$318+00^{22}$	535.62	535.60	Exc. 4.2 c.y.	Emb. 5.1 c.y.	C= 6 ft	F= 6 ft
$317+75^{22}$	535.10	535.01	Exc. 5.3 c.y.	Emb. 3.8 c.y.	C= 3 ft	F= 5 ft
317+50	534.74	534.60	Exc. 34.3 c.y.	Emb. 5.6 c.y.	C 8 ft	F= 3 ft
317+00	534.50	534.26	Exc. 39.8 c.y.	Emb. 4.4 c.y.	C 39 ft	F= 3 ft
316+50	535.21	534.61	Exc. 26.9 c.y.	Emb. 2.8 c.y.	C= 14 ft	F= 2 ft
316+00	536.31	535.59	Exc. 26.9 c.y.	Emb. 0.9 c.y.	C= 15 ft	F= 1 ft
$321+39^{27}$	557.39	557.08	Exc. 4.2 c.y.	Emb. 10.7 c.y.	C= 3 ft	F= 14 ft
$321+14^{27}$	555.53	555.11	Exc. 4.2 c.y.	Emb. 5.0 c.y.	C= 6 ft	F= 9 ft
321+00	554.41	553.94	Exc. 19.4 c.y.	Emb. 13.9 c.y.	C= 9 ft	F= 9 ft
320+50	550.43	550.00	Exc. 10.7 c.y.	Emb. 8.2 c.y.	C= 12 ft	F= 6 ft
$320+25^{92}$	548.56	548.10	Exc. 10.2 c.y.	Emb. 3.3 c.y.	C= 12 ft	F= 4 ft
$320+00^{22}$	546.63	546.13	Exc. 10.2 c.y.	Emb. 2.8 c.y.	C= 10 ft	F= 3 ft
$319+75^{22}$	544.68	544.24	Exc. 8.8 c.y.	Emb. 5.6 c.y.	C= 12 ft	F= 3 ft
$319+50^{22}$	542.76	542.54	Exc. 6.5 c.y.	Emb. 6.0 c.y.	C= 7 ft	F= 9 ft
$319+25^{22}$	541.15	540.95	Exc. 5.6 c.y.	Emb. 4.6 c.y.	C= 7 ft	F= 4 ft
$32\overset{3}{4}+64^{27}$	574.60	574.76	Exc. 10.2 c.y.	Emb. 7.9 c.y.	C= 12 ft	F= 6 ft
$323+39^{27}$	572.93	572.12	Exc. 9.3 c.y.	Emb. 11.1 c.y.	C= 10 ft	F= 11 ft
$323+14^{27}$	571.38	570.87	Exc. 13.0 c.y.	Emb. 8.3 c.y.	C= 10 ft	F= 13 ft
$322+89^{27}$	569.56	568.90	Exc. 14.8 c.y.	Emb. 5.6 c.y.	C= 18 ft	F= 5 ft
$322+64^{27}$	567.54	566.93	Exc. 10.7 c.y.	Emb. 7.9 c.y.	C= 14 ft	F= 7 ft
$322+39^{27}$	565.42	564.96	Exc. 8.3 c.y.	Emb. 7.4 c.y.	C= 9 ft	F= 10 ft
$322+14^{27}$	563.49	562.99	Exc. 7.9 c.y.	Emb. 4.7 c.y.	C= 9 ft	F= 6 ft
$321+89^{27}$	561.38	561.02	Exc. 7.0 c.y.	Emb. 5.1 c.y.	C= 8 ft	F= 4 ft
$321+64^{27}$	559.36	559.05	Exc. 4.7 c.y.	Emb. 9.7 c.y.	C= 7 ft	F= 7 ft
325+50	582.12	582.15	Exc. 17.6 c.y.	Emb. 6.5 c.y.	C= 2 ft	F= 6 ft
325+00	581.14	580.81	Exc. 34.3 c.y.	Emb. 0.9 c.y.	C. 17 ft	F= 1 ft
324+50	579.44	578.90	Exc. 28.7 c.y.	Emb. 19.4 c.y.	C= 20 ft	F= 0 ft
324+00	576.57	576.41	Exc. 14.9 c.y.	Emb. 17.5 c.y.	C= 11 ft	F= 21 ft

5221.27A