12D

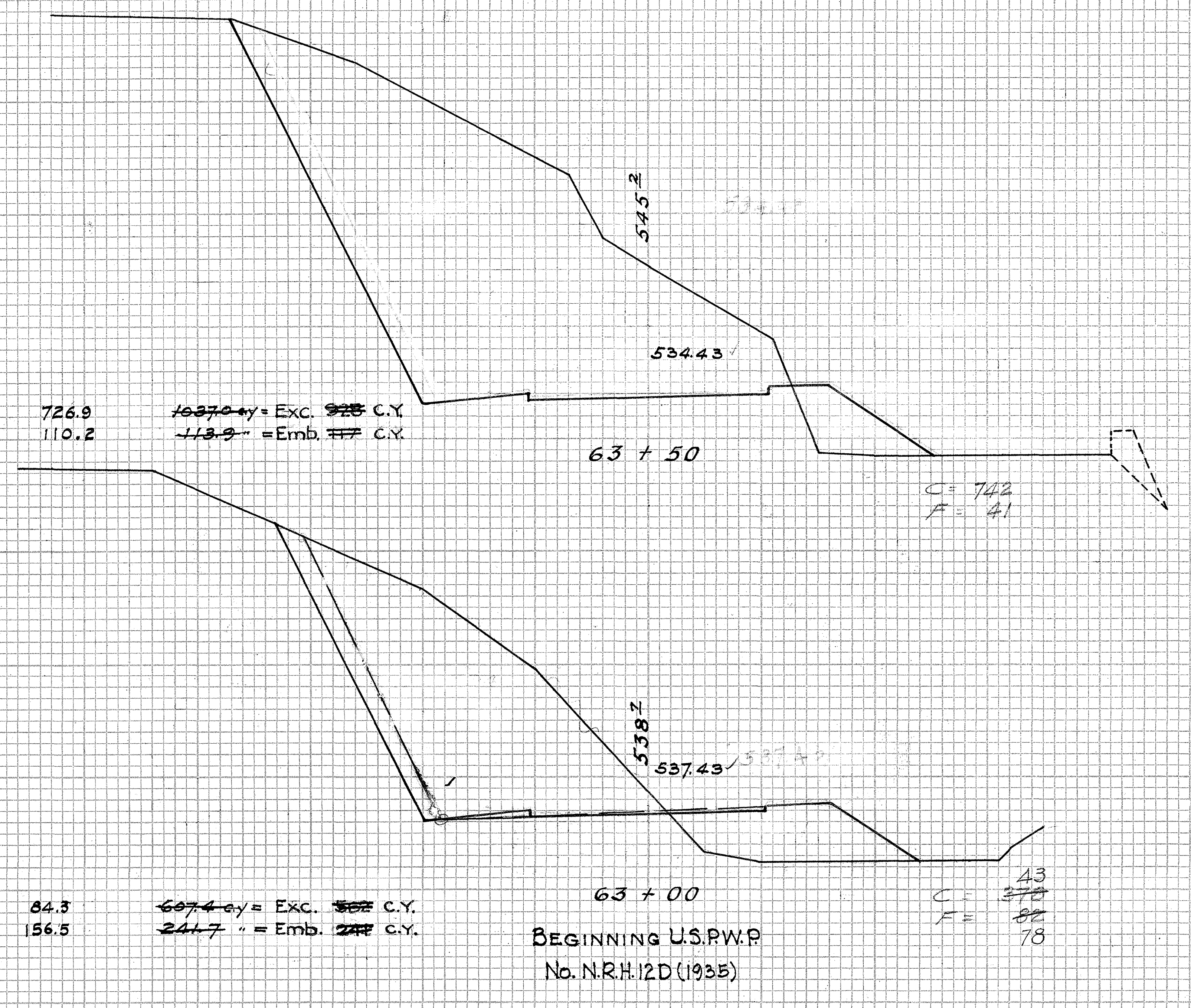
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H. 12C	1934	14	14

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	26	35

This sheet is common to both N.R.H. 12-D & N.R.H. 12-C.

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE	K.I. J.C.M.	July 35
	AREAS	K.I.	"
	AREAS CHECKED	K.I.	"

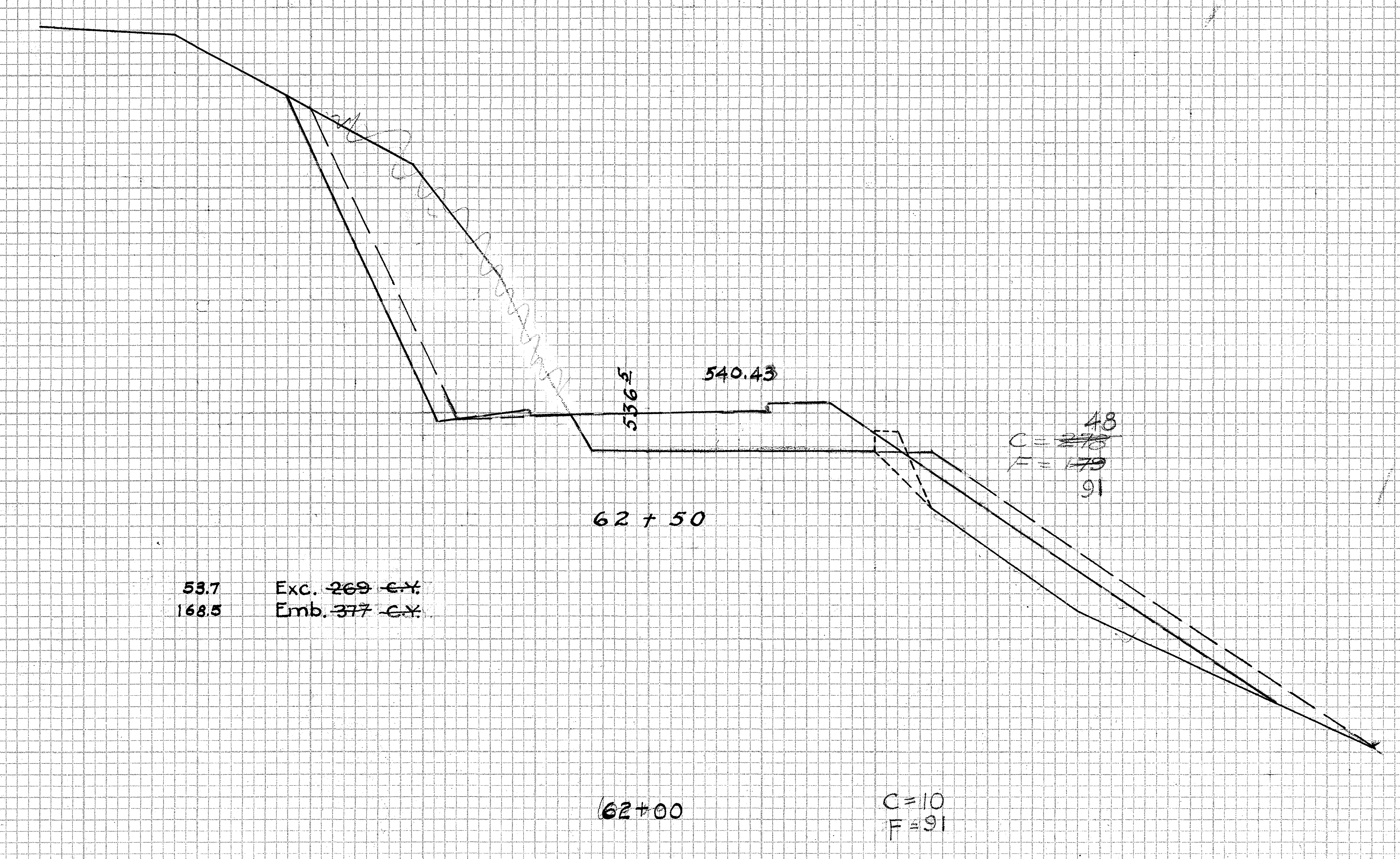
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED	R.L.G.	
	TEMPLATE	"	
	AREAS	"	
	AREAS CHECKED	R.E.S.	4-34



726.9 ~~1037.0 c.y~~ = Exc. ~~928~~ C.Y.
110.2 ~~113.9~~ " =Emb. ~~117~~ C.Y.

84.3 ~~697.4~~ c.y = Exc. ~~567~~ C.Y.
156.5 ~~241.7~~ " = Emb. ~~244~~ C.Y.

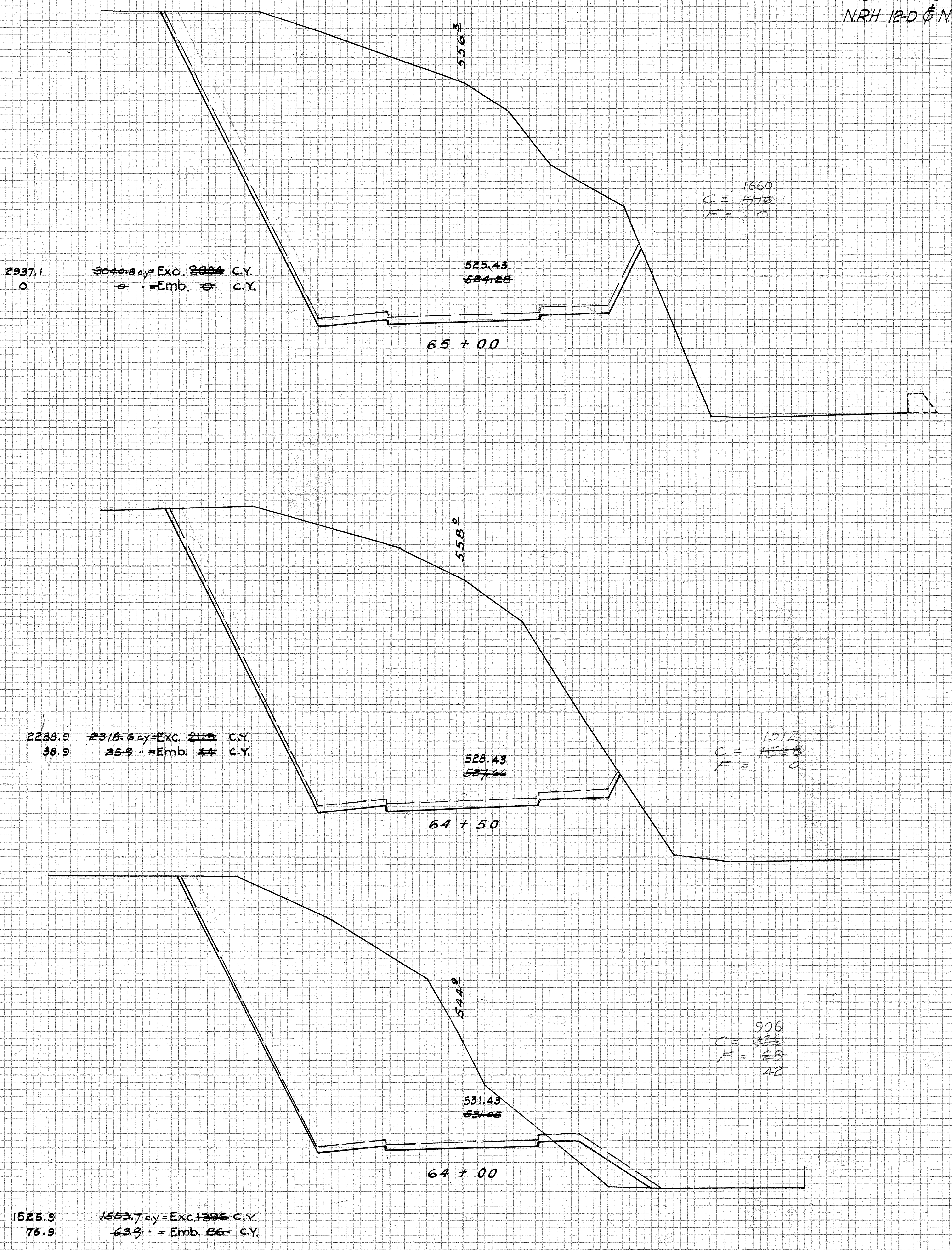
BEGINNING U.S.P.W.P.
No. N.R.H. 12D (1935)



53.7 Exc. ~~269 C.Y.~~
168.5 Emb. ~~377 C.Y.~~

NOTE!

In All cross sections showing two sections the dotted section is the correct section. Where two ground lines are shown the dotted ground line is correct.



2937.1 ~~3040.8~~ c.y = Exc. ~~2894~~ C.Y.
0 ~~0~~ " = Emb. ~~0~~ C.Y.

2238.9 ~~2318.6~~ c.y =Exc. ~~2113~~ C.Y.
38.9 ~~25.9~~ " =Emb. ~~44~~ C.Y.

1525.9 ~~1553.7~~ c.y = Exc. ~~1395~~ C.Y.
76.9 ~~63.9~~ " = Emb. ~~86~~ C.Y.

4333.26
4314.14

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

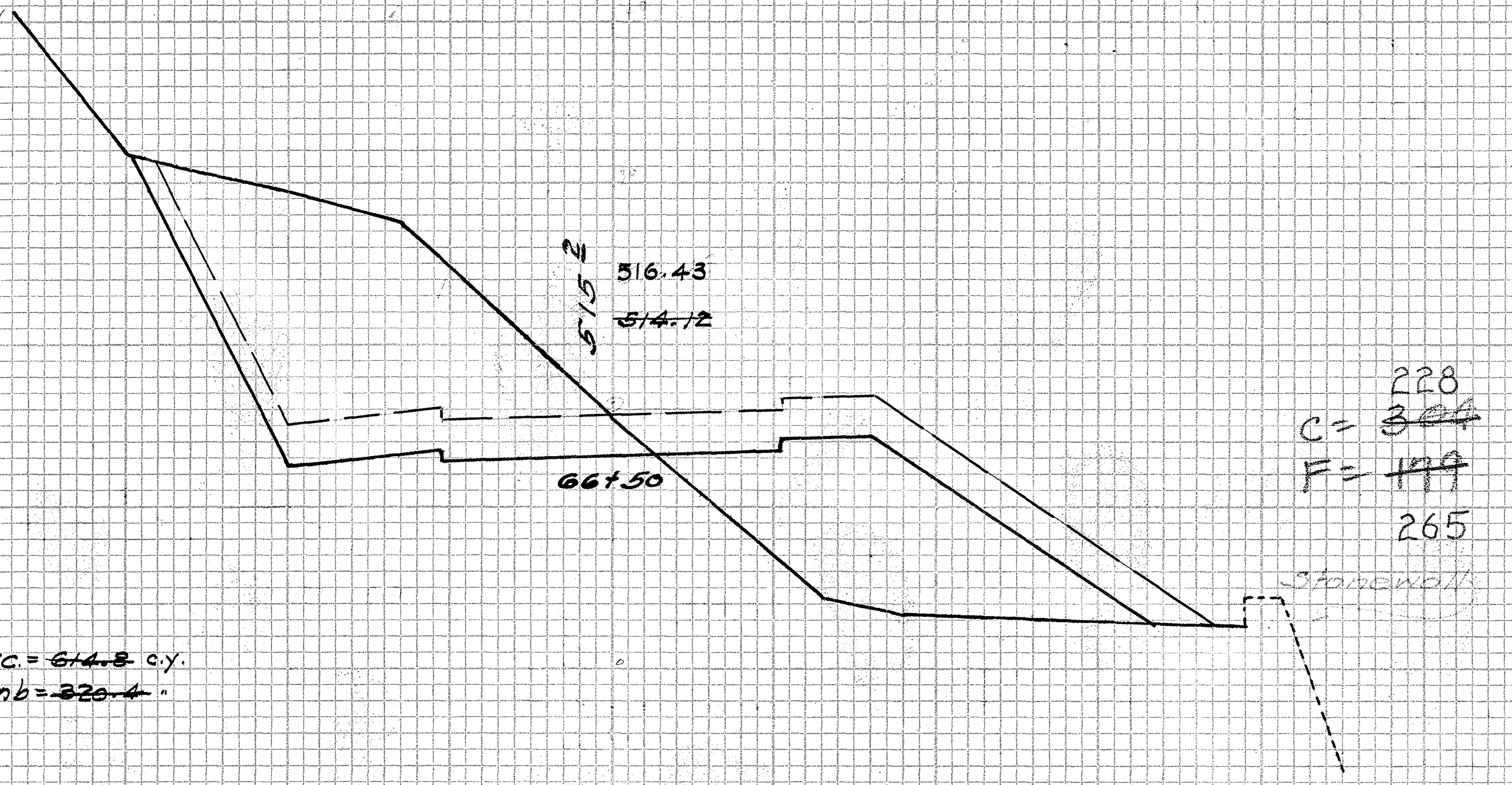
64+50 - 65+00

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	27	35

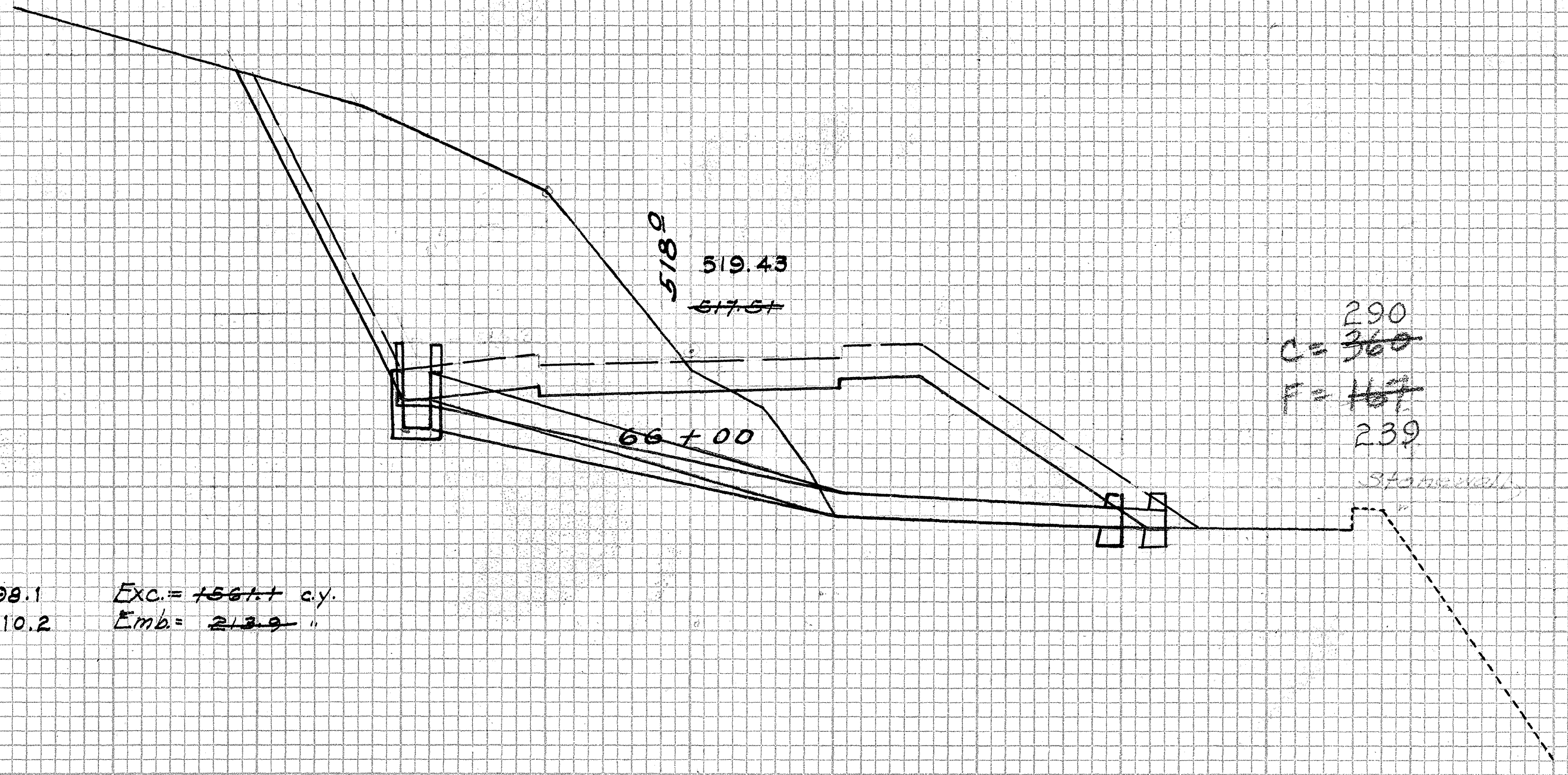
FINAL SURVEY		BY	DATE
NOTE BOOK NO.	SURVEYED		
	PLOTTED	J.C.M.	July '35
	TEMPLATE	K.I.	
	AREAS	K.I.	
	AREAS CHECKED	K.I.	

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



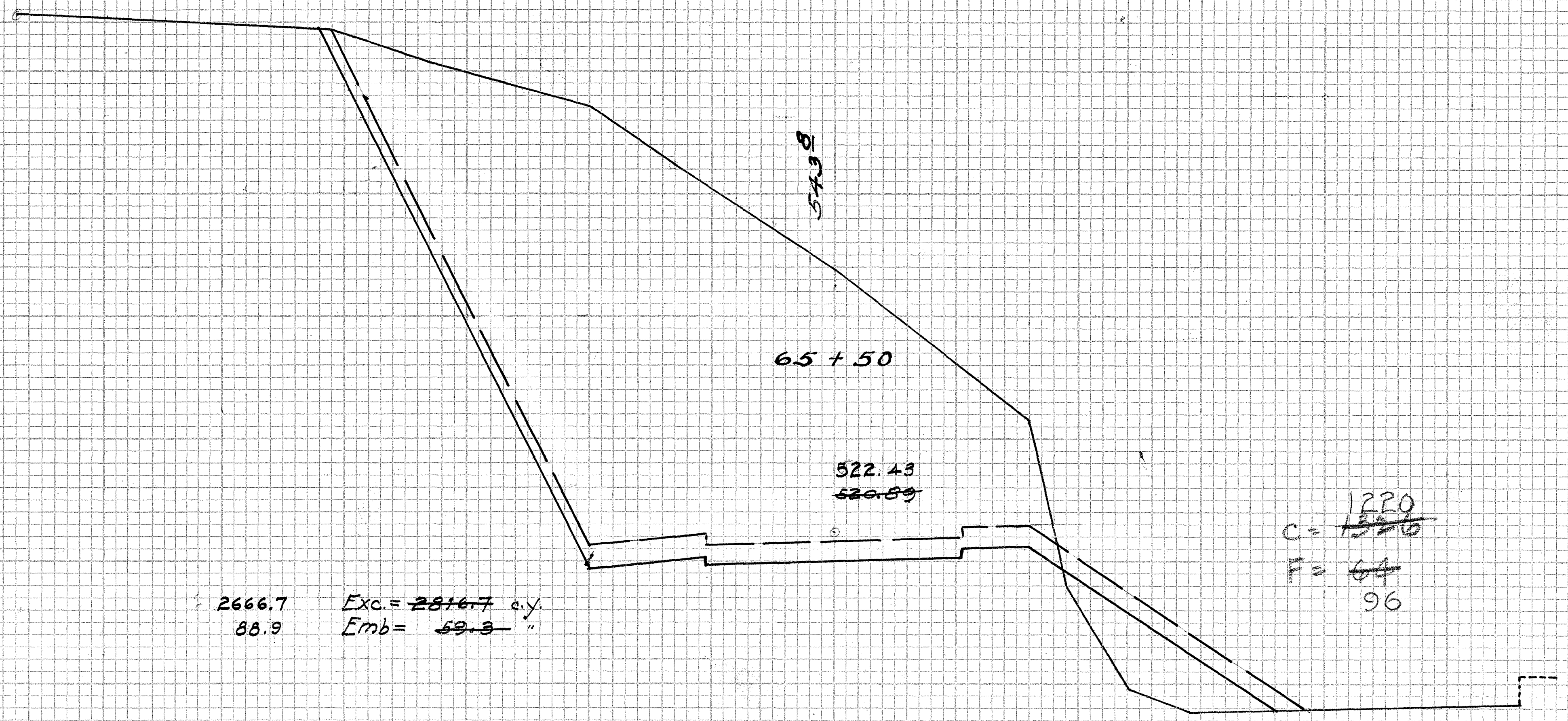
C = ~~304~~ 228
F = ~~179~~ 265

479.6 Exc. = ~~614.8~~ c.y.
466.7 Emb = ~~320.4~~ "



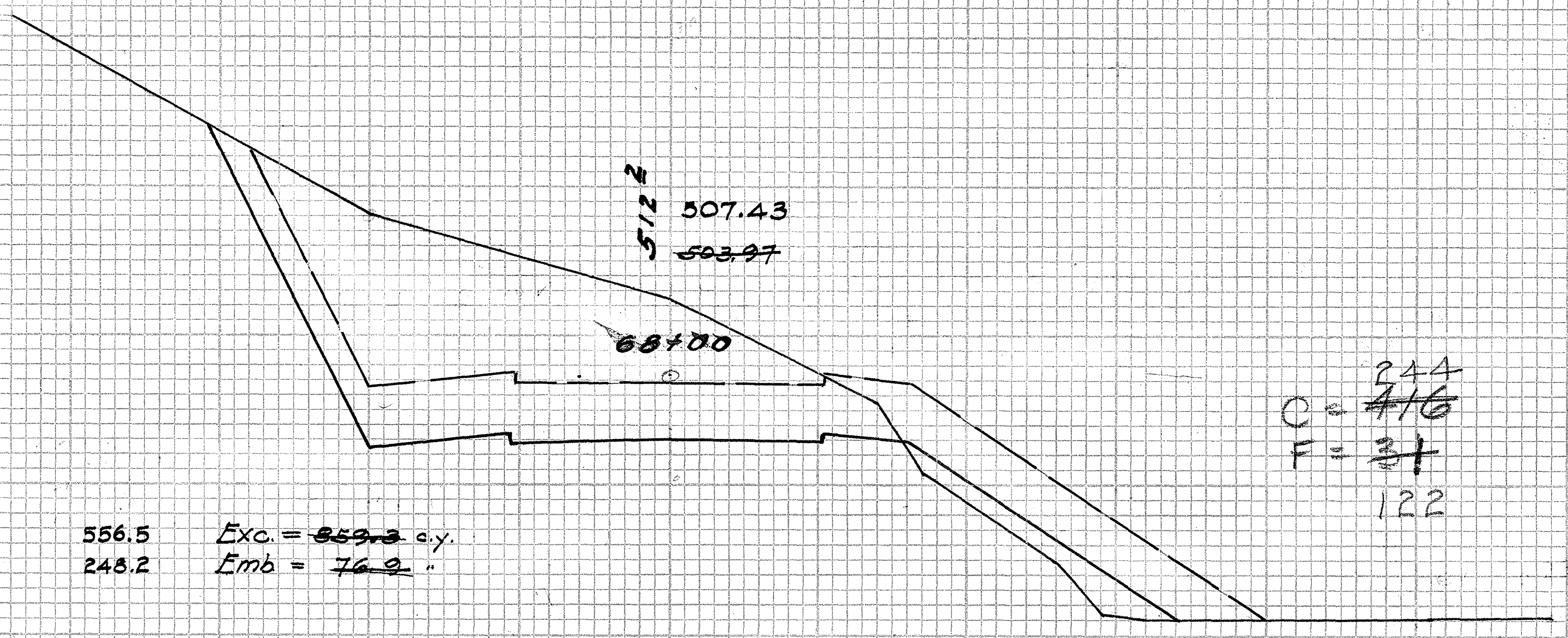
C = ~~360~~ 290
F = ~~167~~ 239

1398.1 Exc. = ~~1561.1~~ c.y.
310.2 Emb. = ~~213.9~~ "



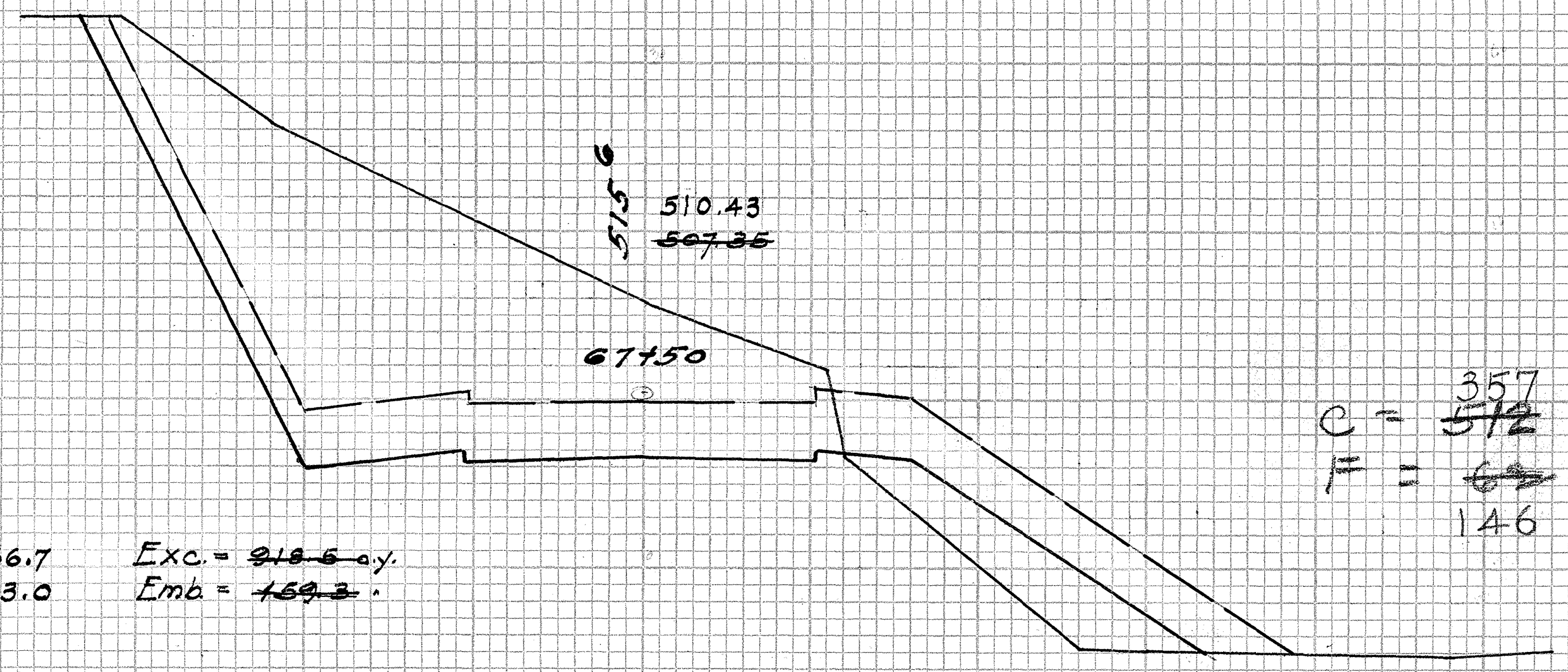
C = ~~1326~~ 1220
F = ~~64~~ 96

2666.7 Exc. = ~~2816.7~~ c.y.
88.9 Emb = ~~59.3~~ "



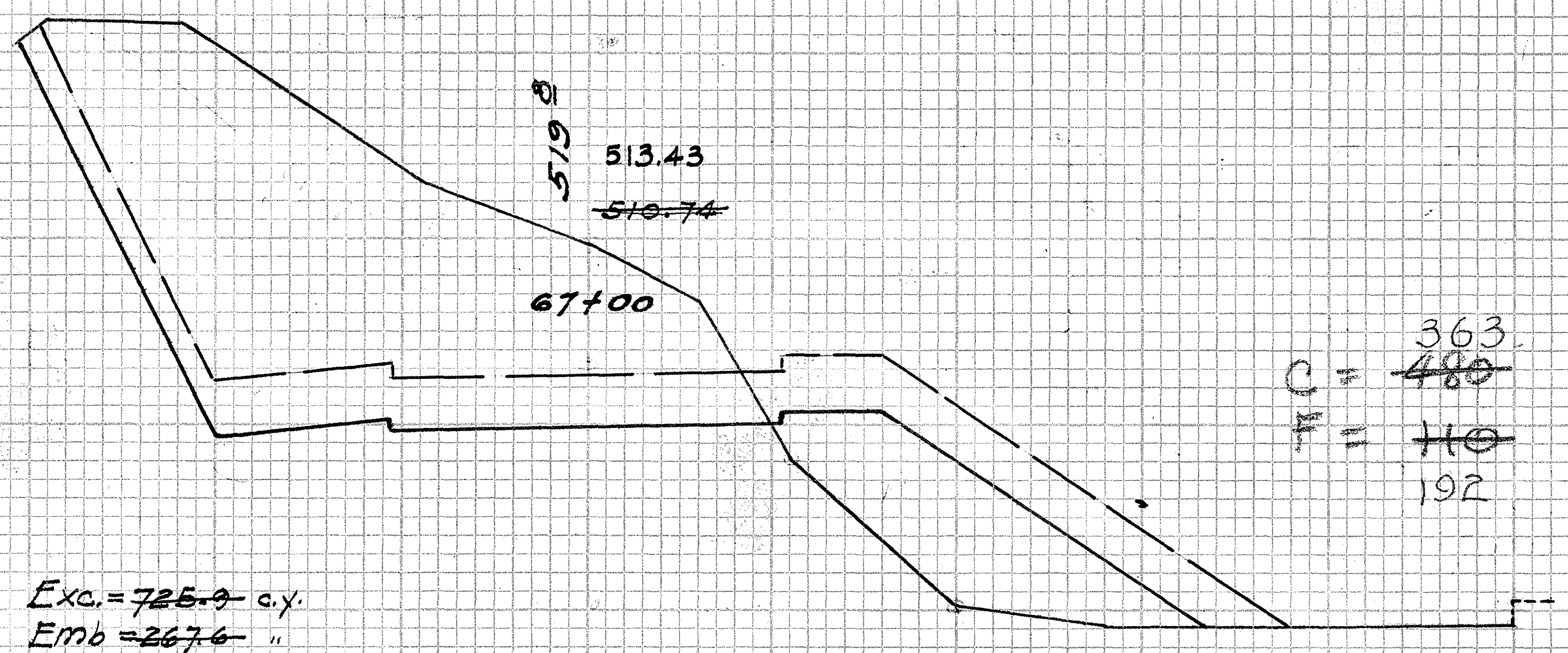
C = ~~416~~ 244
F = ~~31~~ 122

556.5 Exc. = ~~859.2~~ c.y.
248.2 Emb = ~~76.9~~ "



C = ~~512~~ 357
F = ~~69~~ 146

666.7 Exc. = ~~918.5~~ c.y.
313.0 Emb. = ~~159.3~~ "



C = ~~480~~ 363
F = ~~110~~ 192

547.2 Exc. = ~~725.9~~ c.y.
423.2 Emb = ~~267.6~~ "

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

65+50 – 68+00

4333.27

4333.27

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	28	35

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE	K.I. J.C.M.	July '35
AREAS	K.I.	
AREAS CHECKED	K.I.	
NOTE BOOK NO.		

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

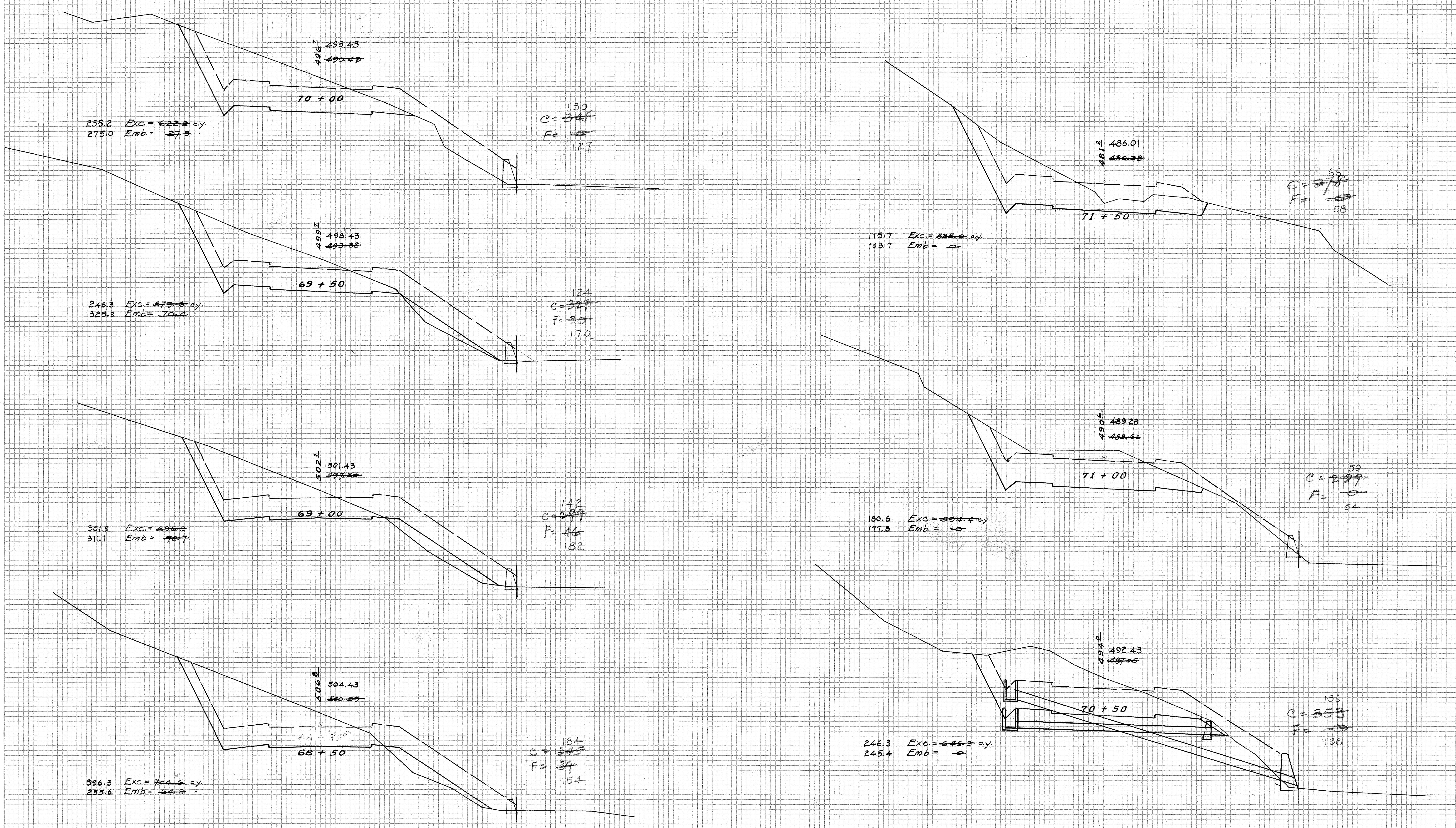


PLATE 3 – CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

68 + 50 – 71+50

4333.28

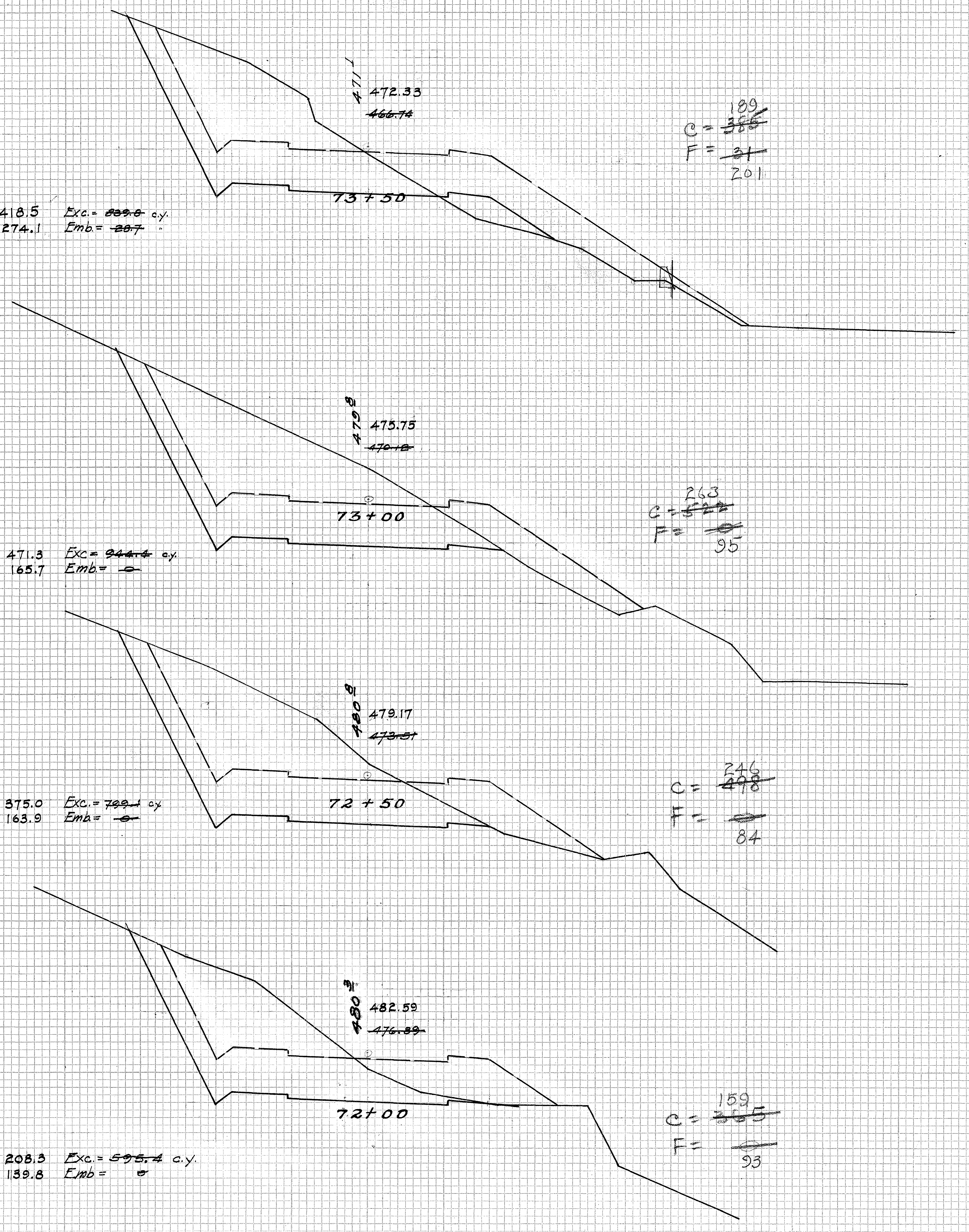
4333.28

12 D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	29	35

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE	K.I. J.C.D.	July 35
	AREAS	K.I.	
	AREAS CHECKED	K.I.	

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



73+50:

418.5 Exc. = ~~839.8~~ c.y.
274.1 Emb. = ~~28.7~~ "

C = 189 ~~385~~
F = ~~31~~ 201

73+00:

471.3 Exc = ~~944.4~~ c.y.
165.7 Emb. = ~~0~~

C = 263 ~~522~~
F = ~~0~~ 95

72+50:

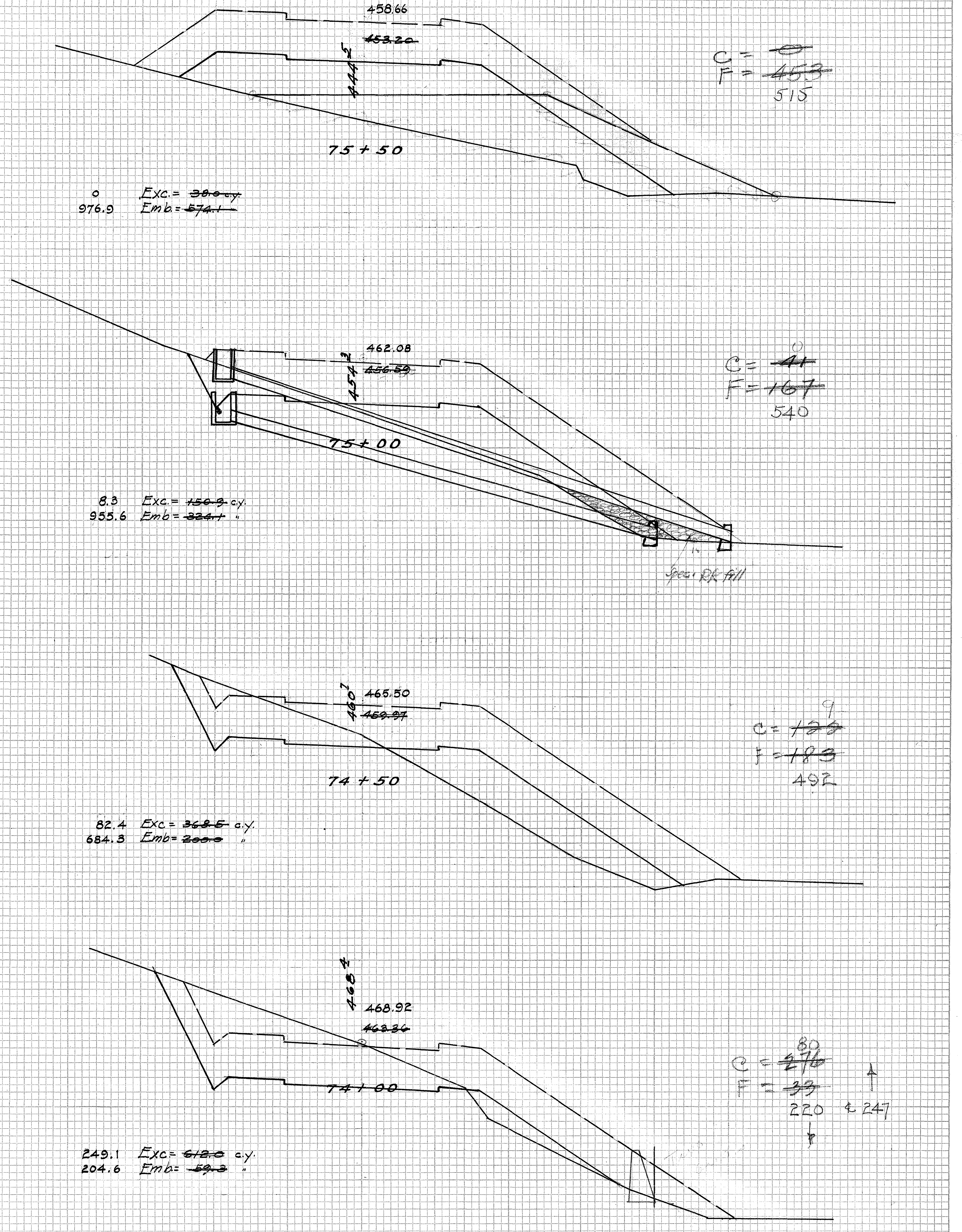
375.0 Exc. = ~~799.1~~ c.y.
163.9 Emb. = ~~0~~

C = 246 ~~498~~
F = ~~0~~ 84

72+00:

208.3 Exc. = ~~595.4~~ c.y.
139.8 Emb. = ~~0~~

C = 159 ~~365~~
F = ~~0~~ 93



75+50:

0 Exc. = ~~38.0 c.y.~~
976.9 Emb. = ~~574.1~~

C = ~~0~~
F = ~~453~~ 515

75+00:

8.3 Exc. = ~~150.9~~ c.y.
955.6 Emb = ~~324.1~~ "

C = 0 ~~41~~
F = ~~167~~ 540

74+50:

82.4 Exc = ~~368.5~~ c.y.
684.3 Emb = ~~200.0~~ "

C = 9 ~~129~~
F = ~~183~~ 492

74+00:

249.1 Exc = ~~612.0~~ c.y.
204.6 Emb = ~~59.3~~ "

C = 80 ~~276~~
F = ~~39~~
220 ℄ 247

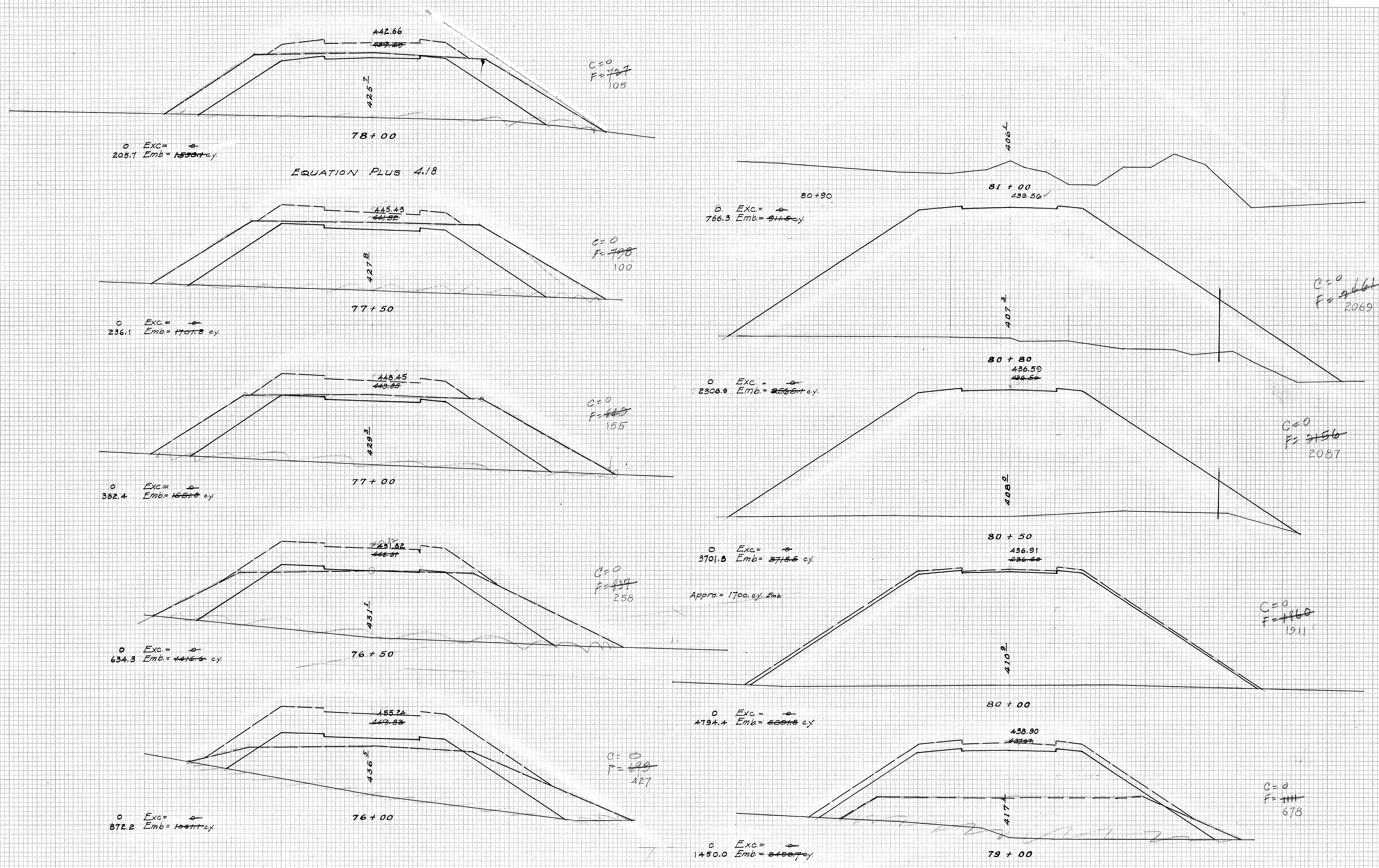
PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

72+00 - 75+50

4333.29

12D

FED. ROAD. DIST. NO.	STATE	PROJ. NO.	YEAR	NO.	
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	30	35



FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED	J.C.M.	July '35
	TEMPLATE	K.I.	
	AREAS	K.I.	
	AREAS CHECKED	K.I.	

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

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

76+00 - 81+00

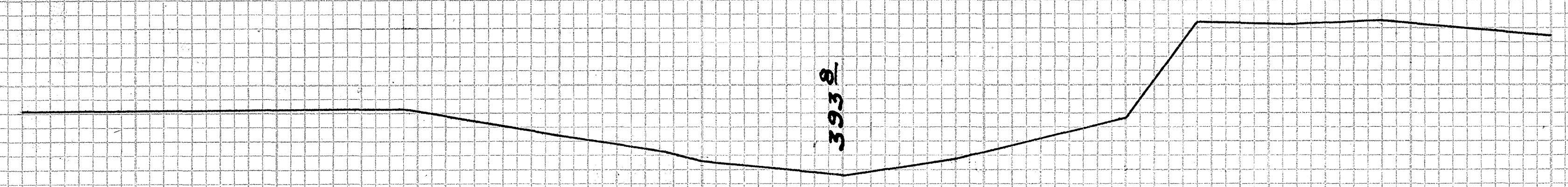
4333.30

12 D

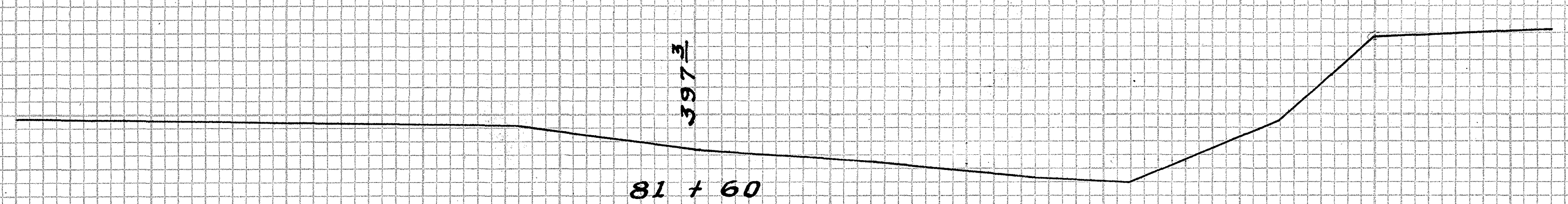
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	31	35

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED	J.C.M.	July '35
NOTE BOOK	TEMPLATE	K.I.	
NO.	AREAS	K.I.	
	AREAS CHECKED	K.I.	

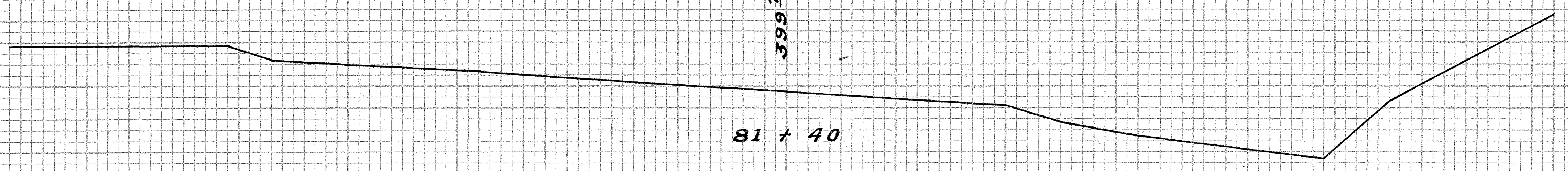
ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



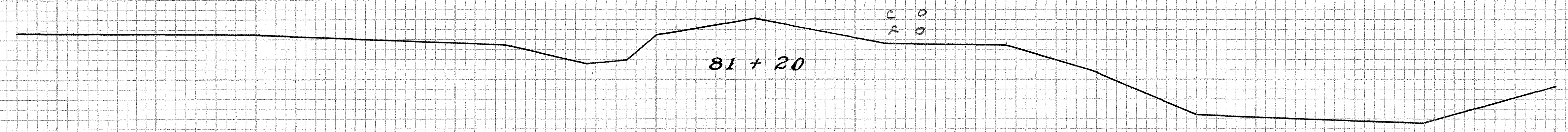
81 + 80



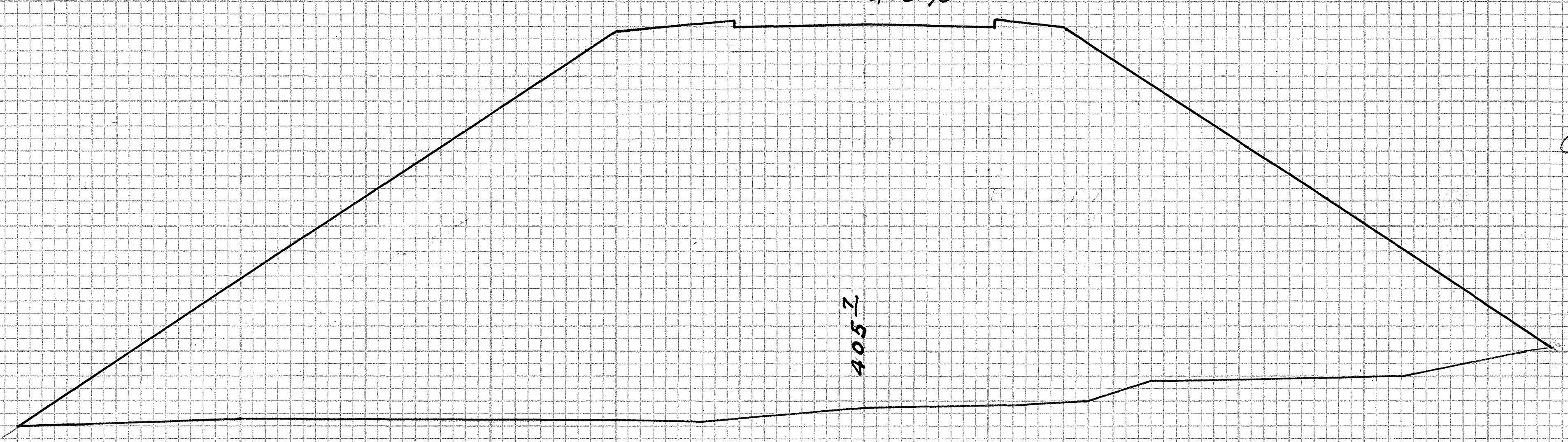
81 + 60



81 + 40



81 + 20

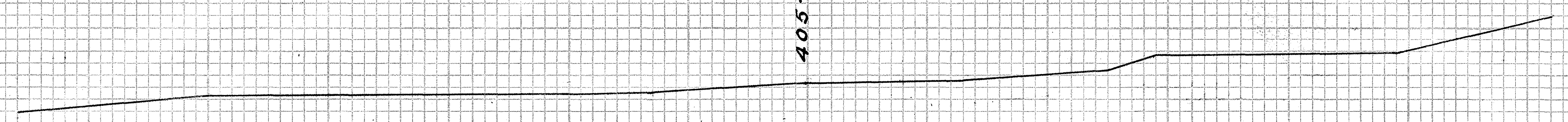


82 + 50

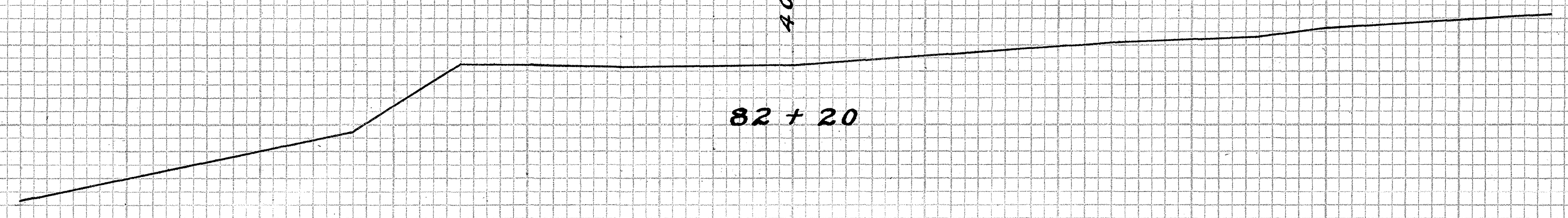
C=0
F= ~~2454~~
2478

0 Exc= ~~0~~
917.8 Emb= ~~908.9~~ c.y.

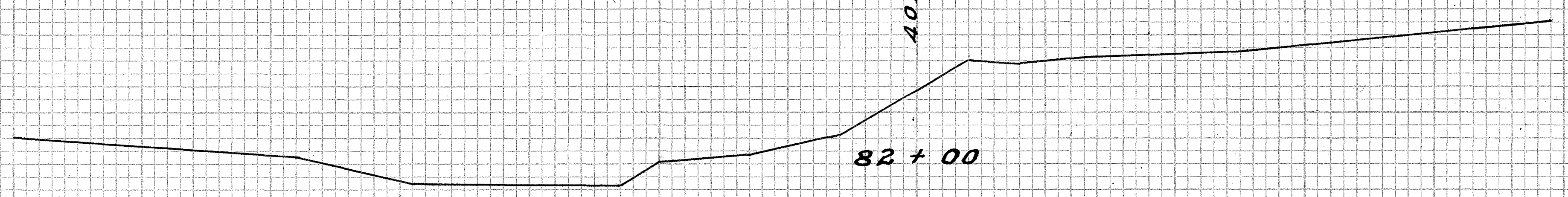
82+ 40



82 + 40



82 + 20



82 + 00

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

4333.31

81+70 - 82+50

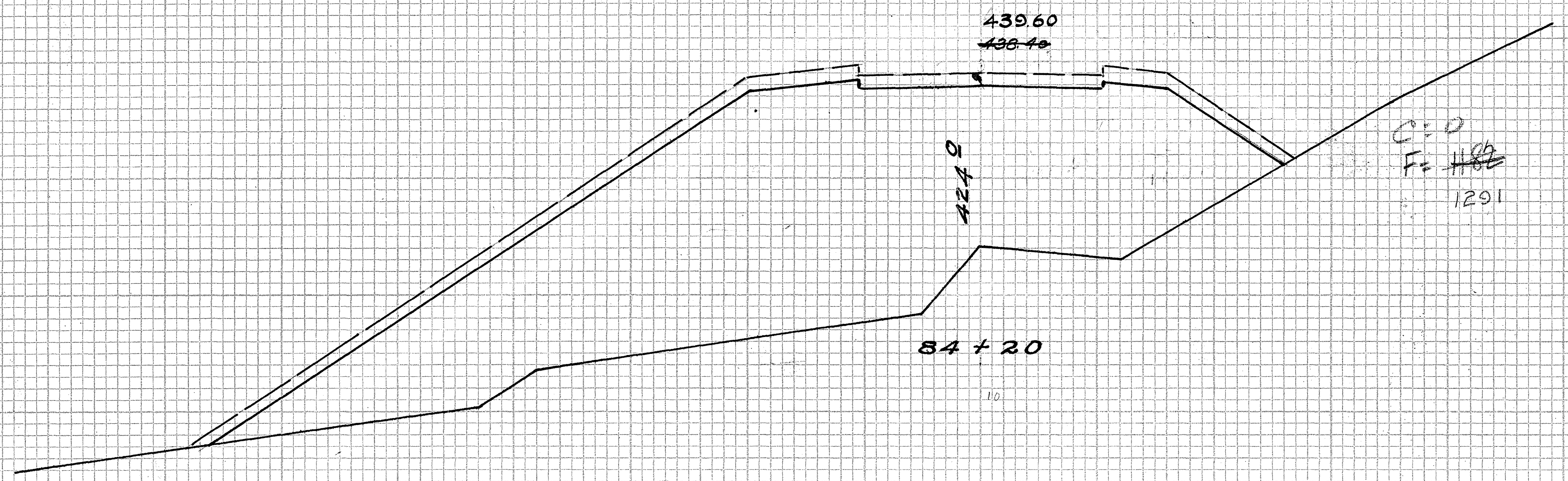
12C 31

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	32	35

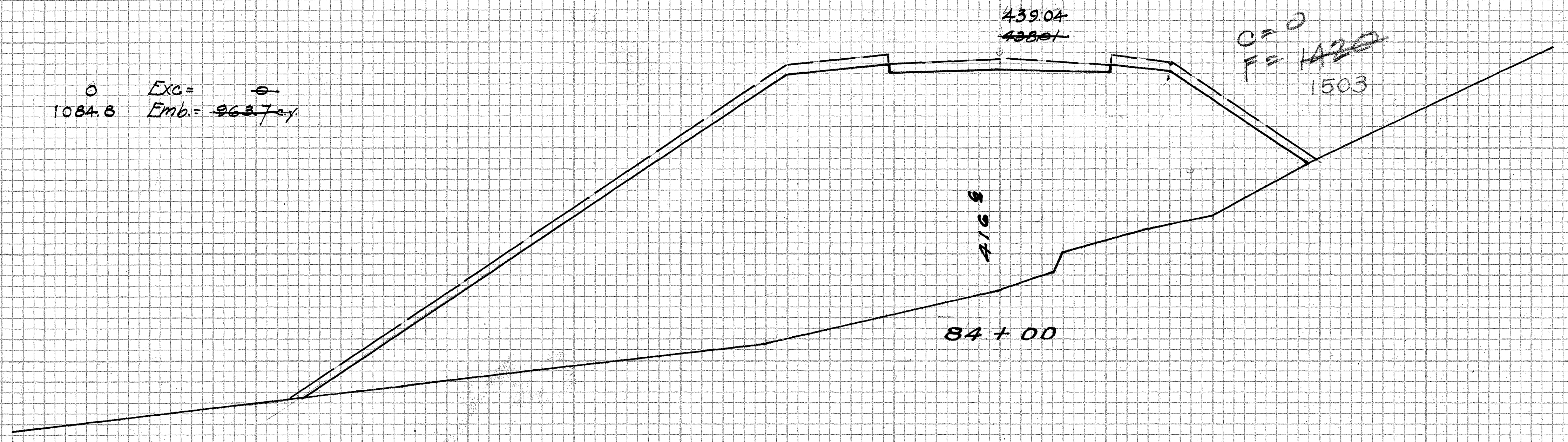
FINAL SURVEY		BY		DATE
NOTE BOOK	SURVEYED			
NO.	PLOTTED			
	TEMPLATE	K.I.	J.C.M.	July 1935
	AREAS	K.I.		
	AREAS CHECKED	K.I.		

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



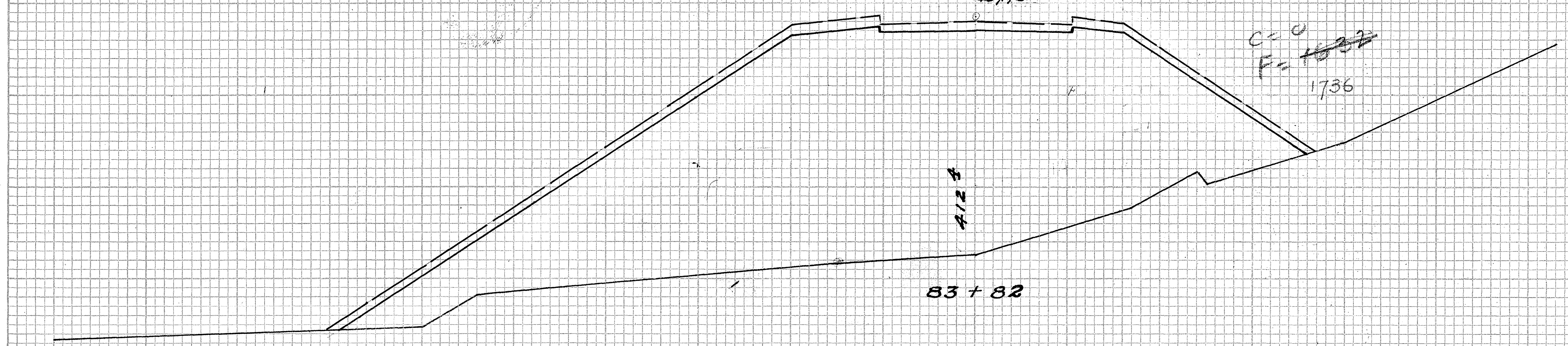
C=0
F= ~~1182~~ 1291

0 Exc.= ~~0~~
1084.8 Emb.= ~~963.7~~ c.y.



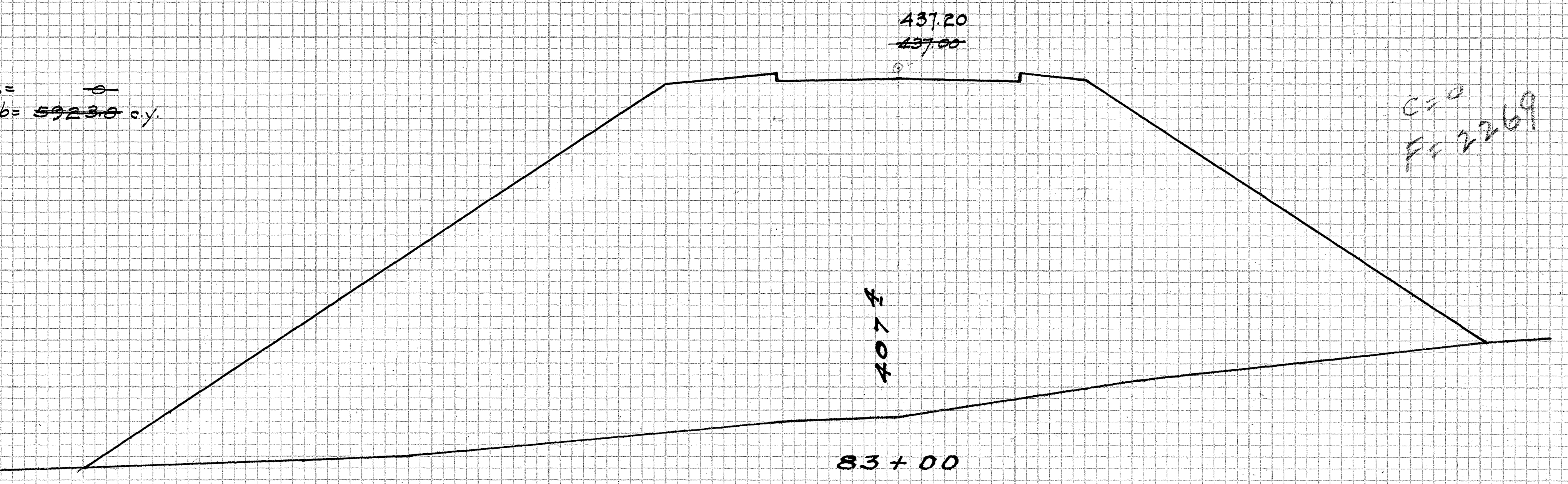
C=0
F= ~~1420~~ 1503

0 Exc.= ~~0~~
1079.6 Emb.= ~~1017.3~~ c.y.



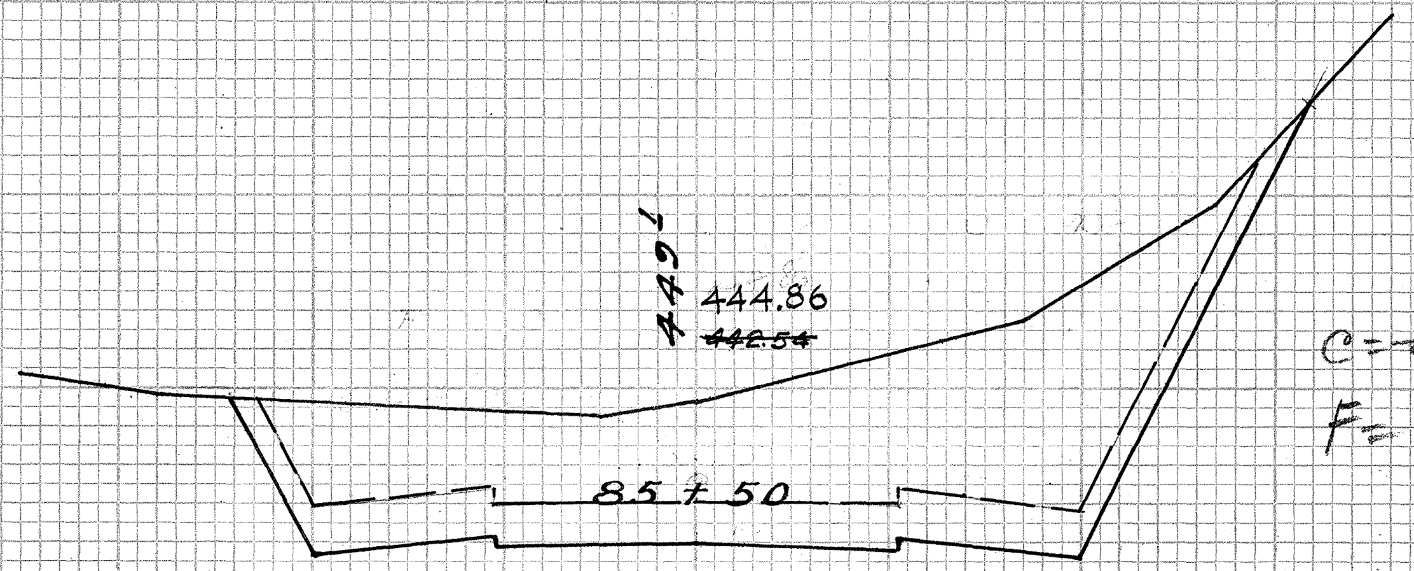
C=0
F= ~~1632~~ 1736

0 Exc.= ~~0~~
6081.7 Emb.= ~~5923.8~~ c.y.



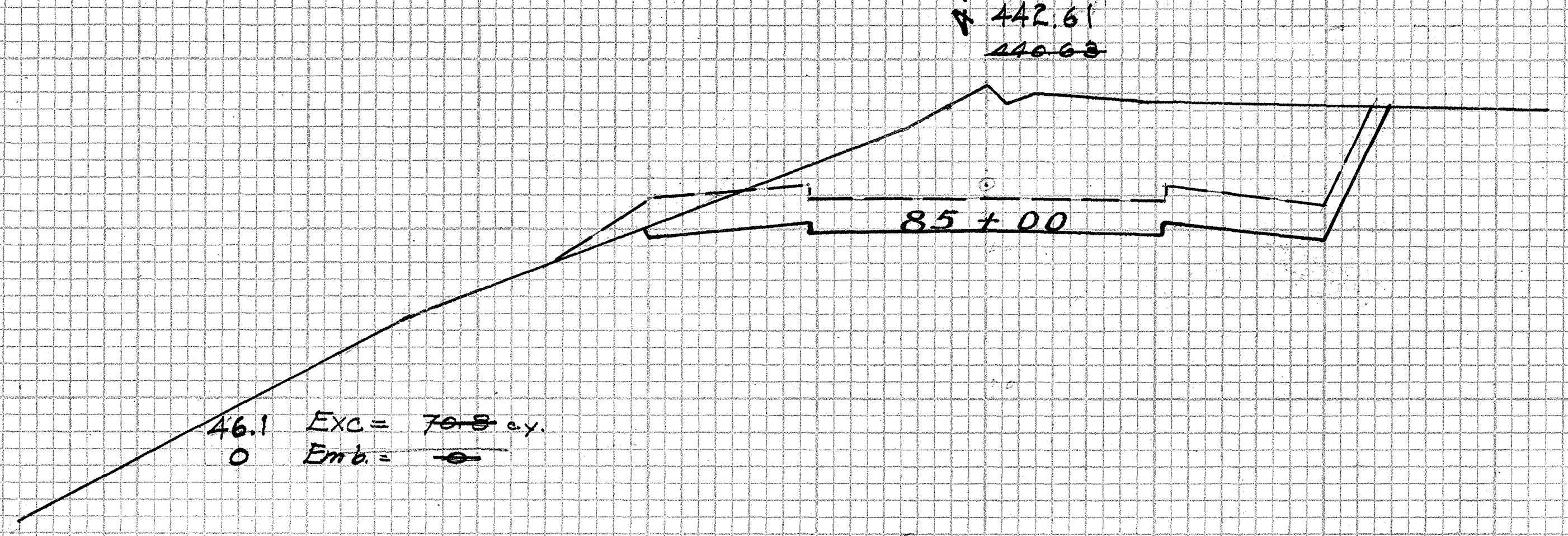
C=0
F= 2269

0 Exc. ~~0~~
4395.4 Emb. ~~4373.1~~ c.y.



C= ~~439~~ 305
F= 0

436.1 Exc.= ~~642.6~~ c.y.
8.3 Emb = ~~0~~



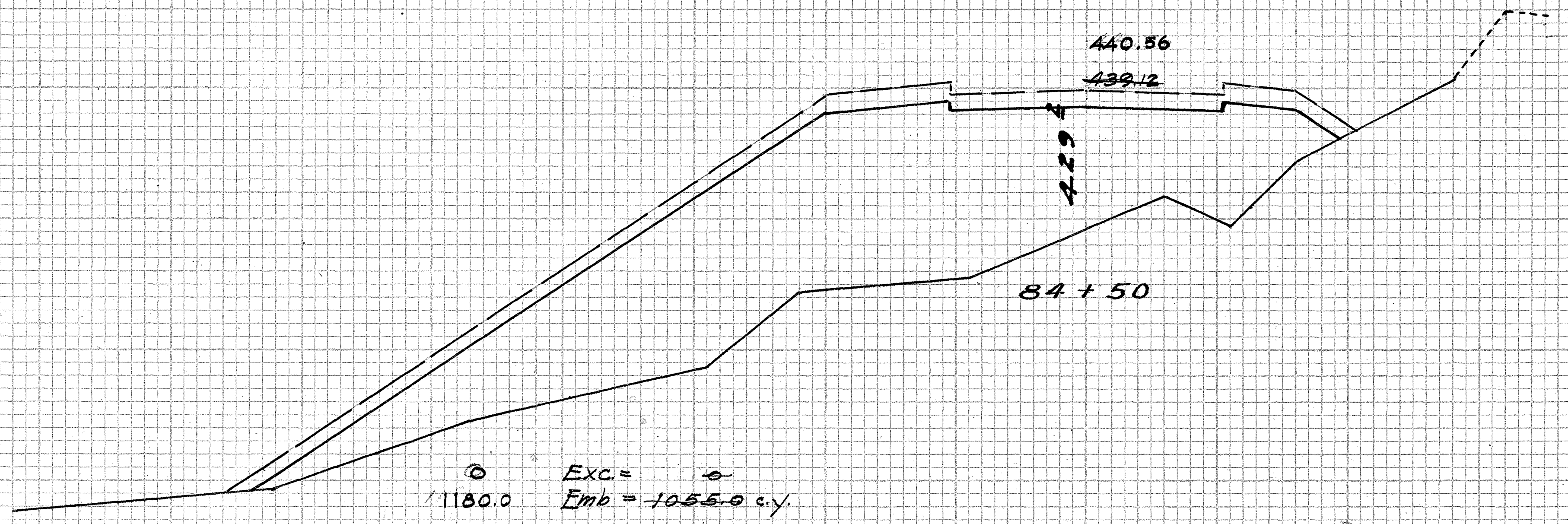
C= ~~355~~ 166
F= ~~0~~ 9

46.1 Exc.= ~~70.8~~ c.y.
0 Emb.= ~~0~~

84+85

C=0
F= ~~0~~

0 Exc.= ~~0~~
779.6 Emb.= ~~464.7~~ c.y.



C=0
F= ~~717~~ 833

0 Exc.= ~~0~~
1180.0 Emb = ~~1055.0~~ c.y.

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

4333.32

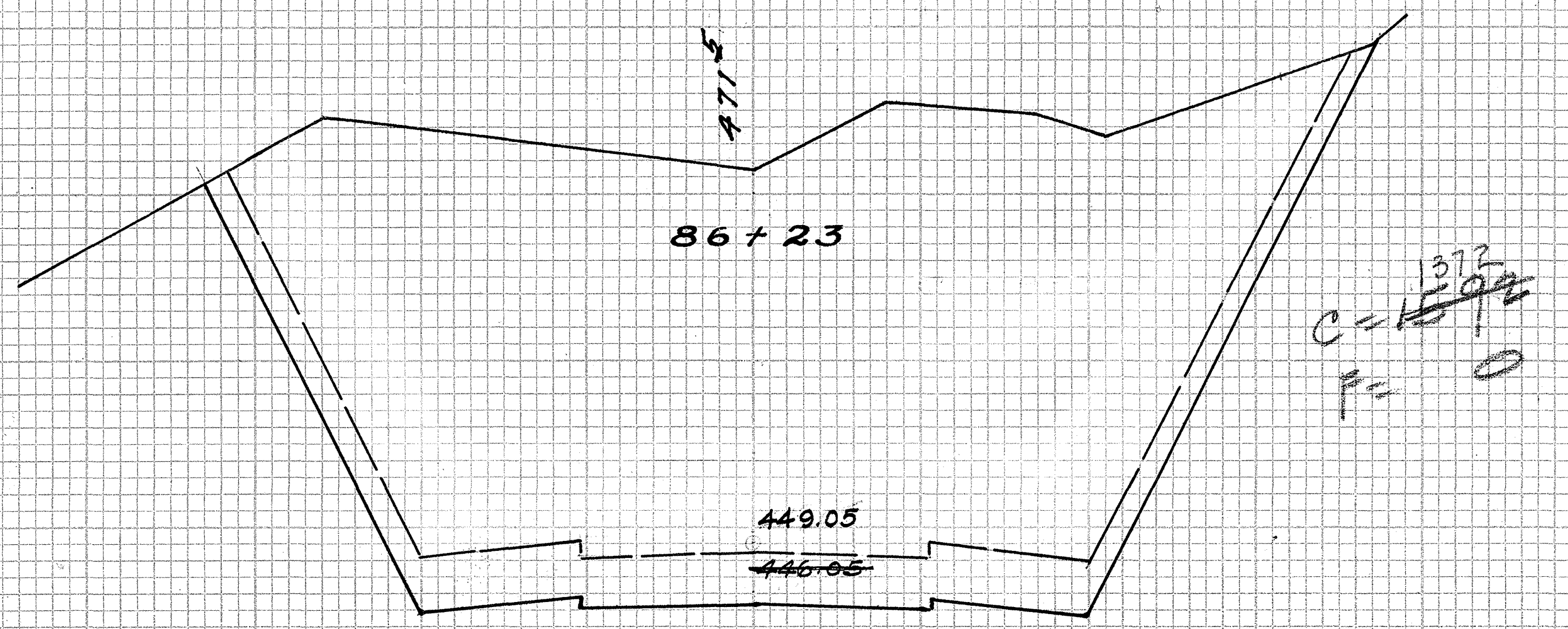
83+00 – 85+50

12D

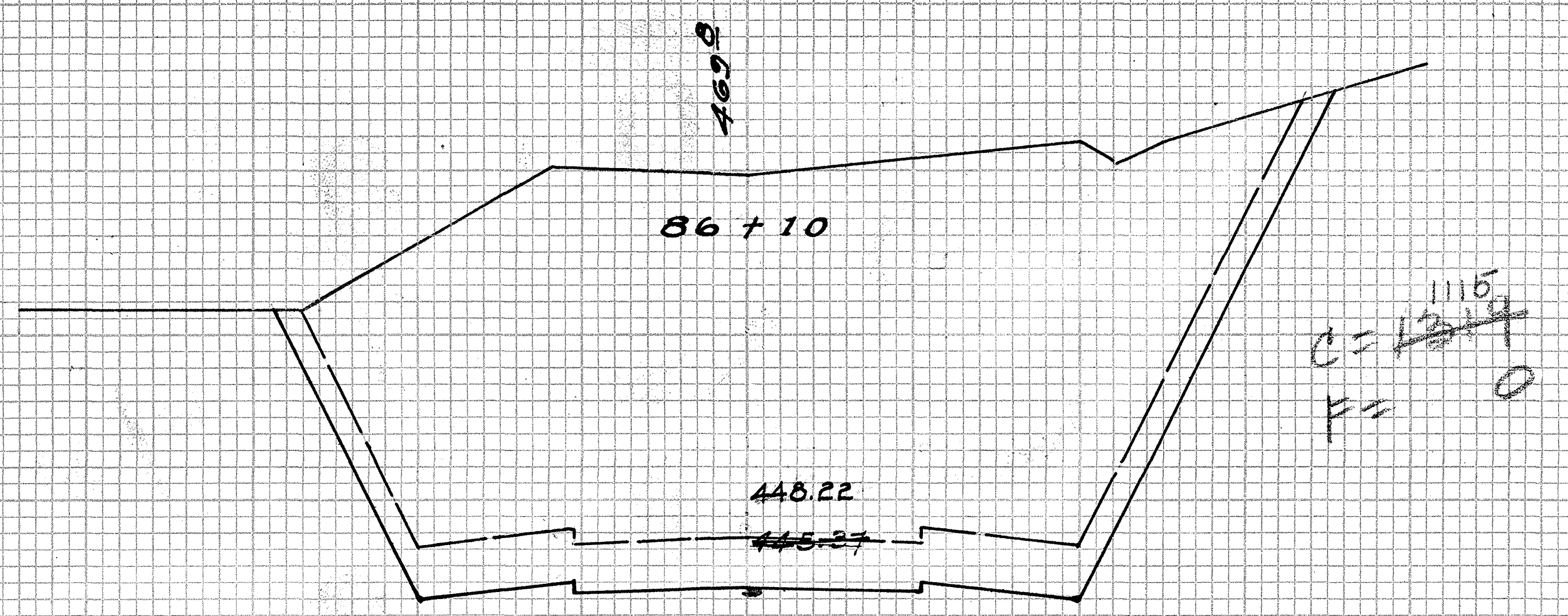
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D (1935)	1935	33	35

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE	K.I. J.C.M.	July '35
	AREAS	K.I.	
	AREAS CHECKED	K.I.	

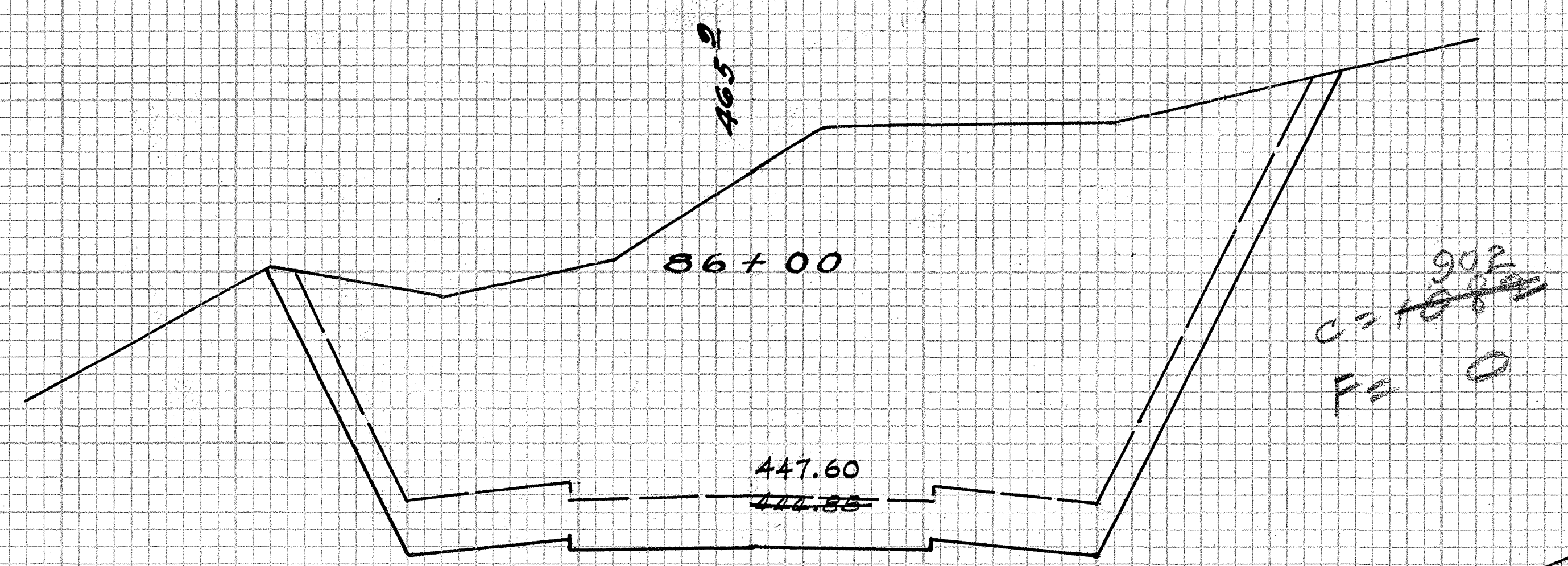
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



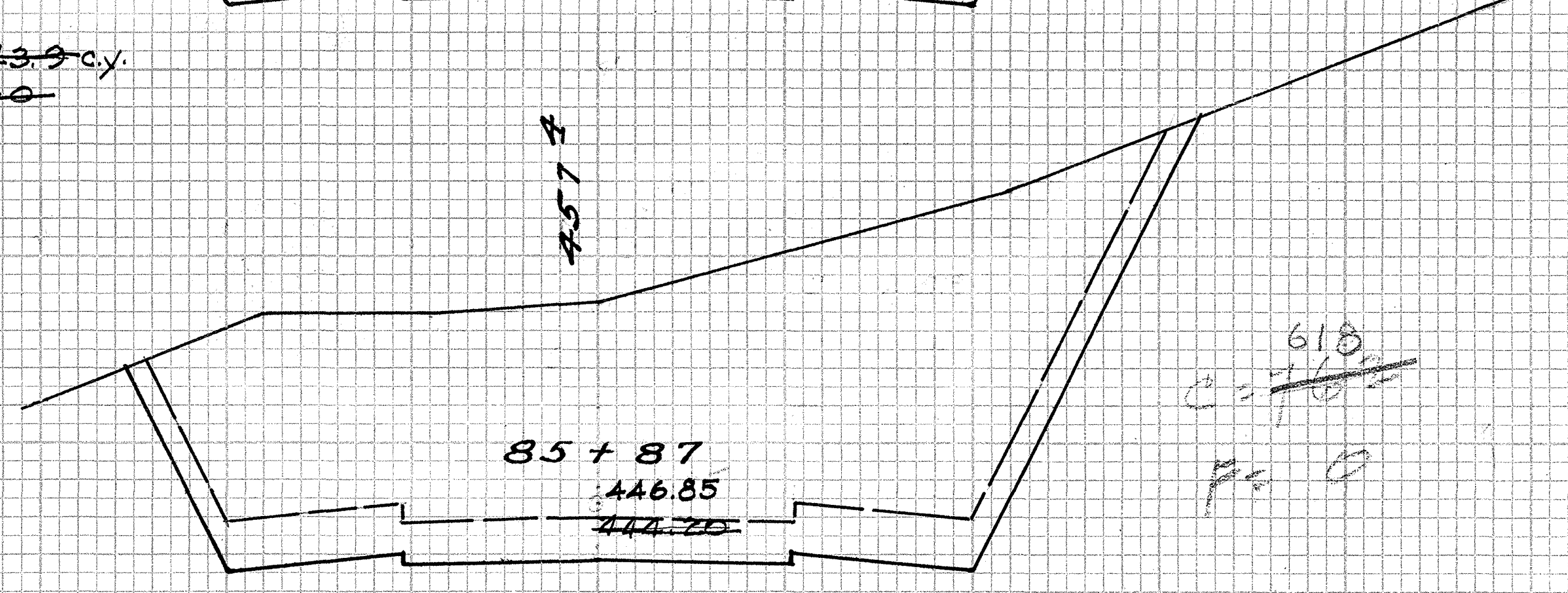
598.7 Exc. = ~~700.8~~
0 Emb. = ~~0~~



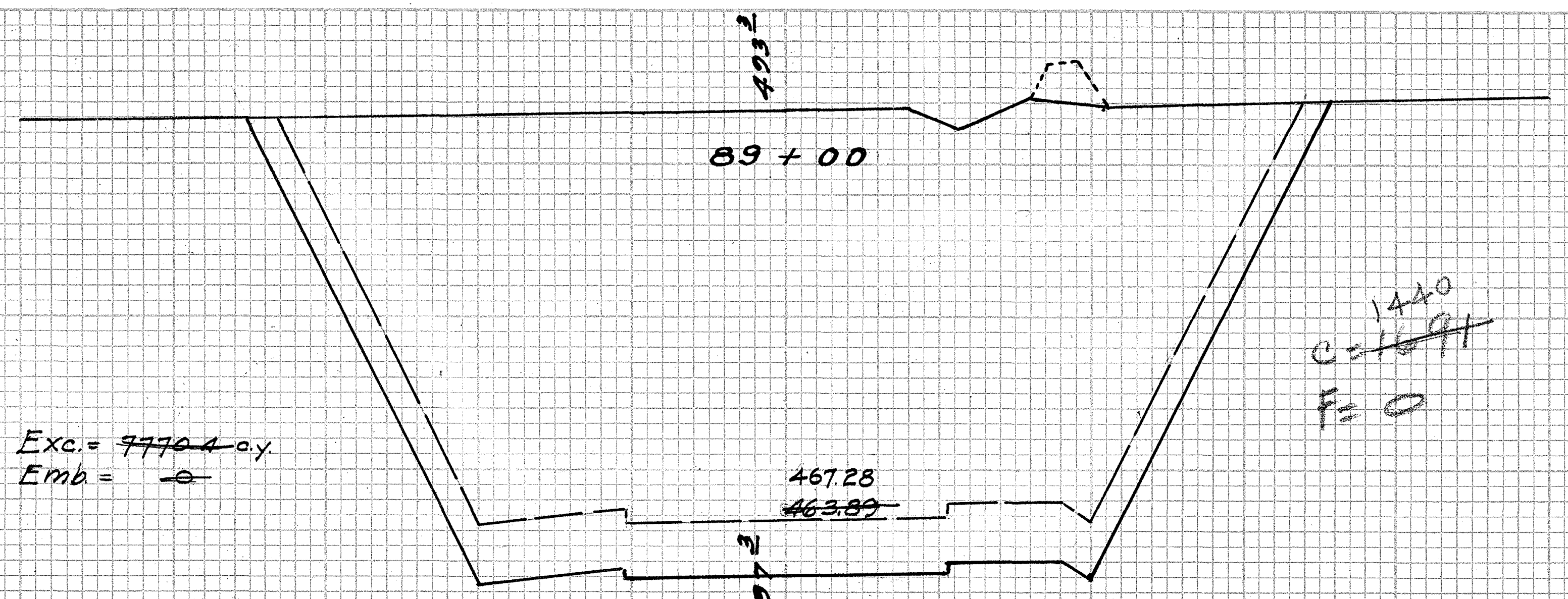
373.5 Exc. = ~~444.6~~ c.y.
0 Emb. = ~~0~~



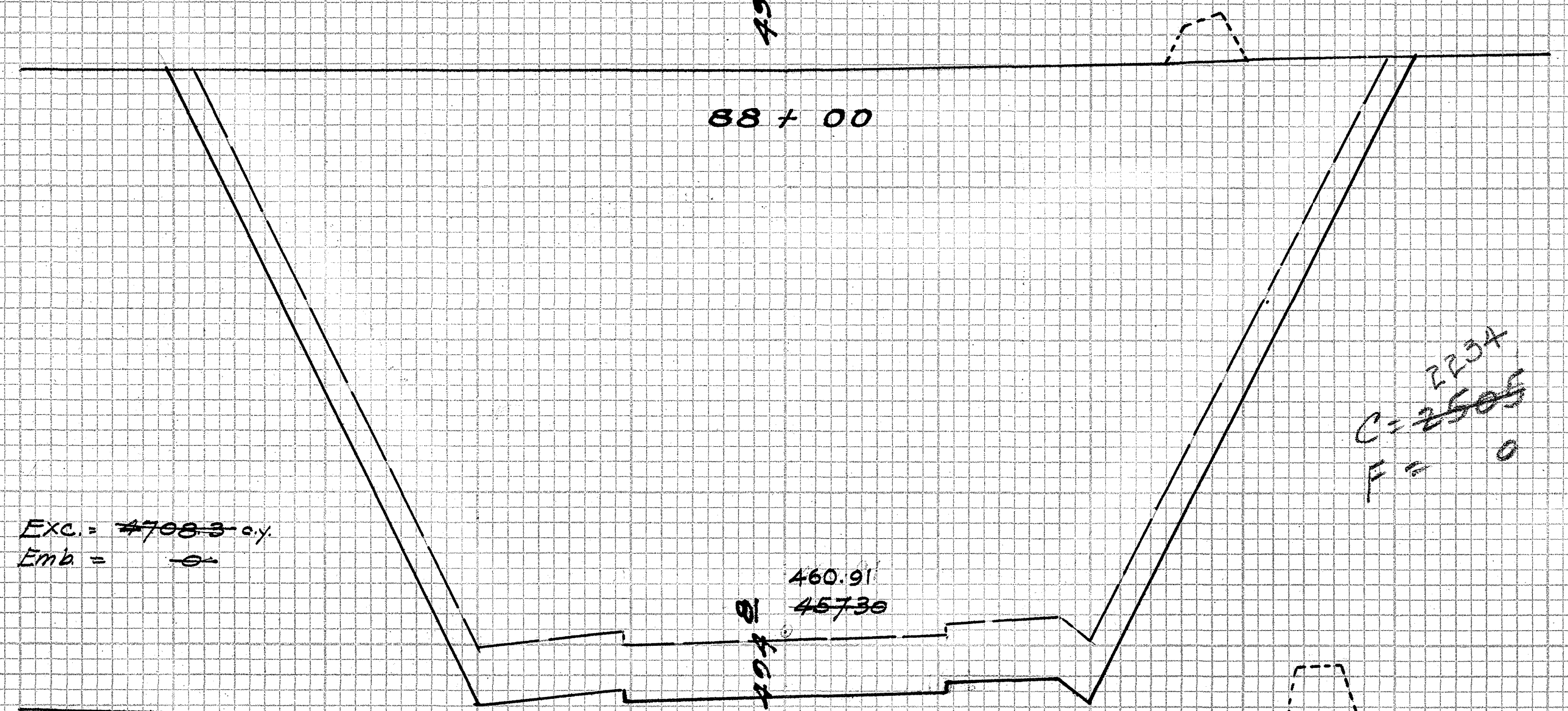
365.9 Exc. = ~~443.9~~ c.y.
0 Emb. = ~~0~~



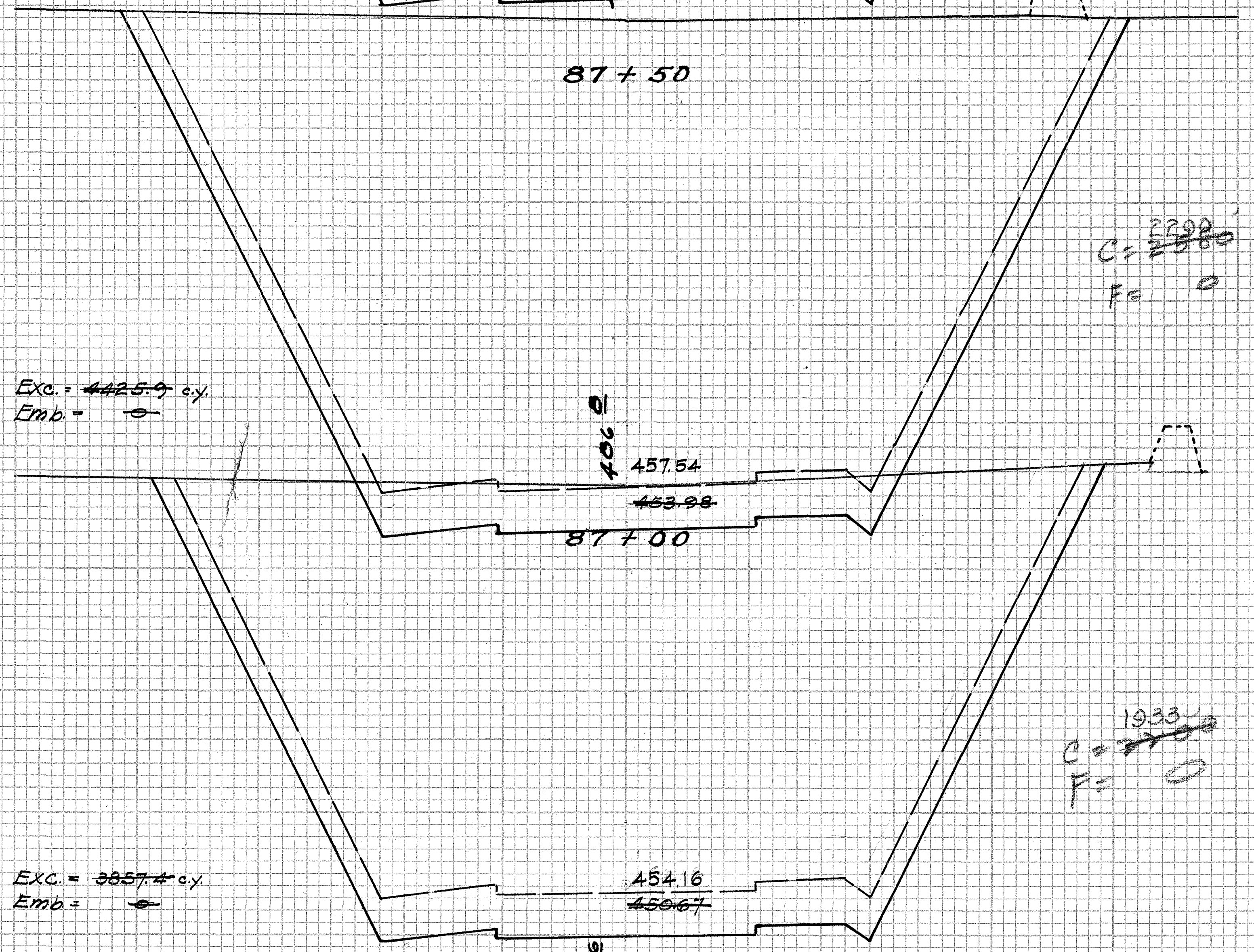
632.4 Exc. = ~~600.5~~ c.y.
0 Emb. = ~~0~~



6803.7 Exc. = ~~7770.4~~ c.y.
0 Emb. = ~~0~~

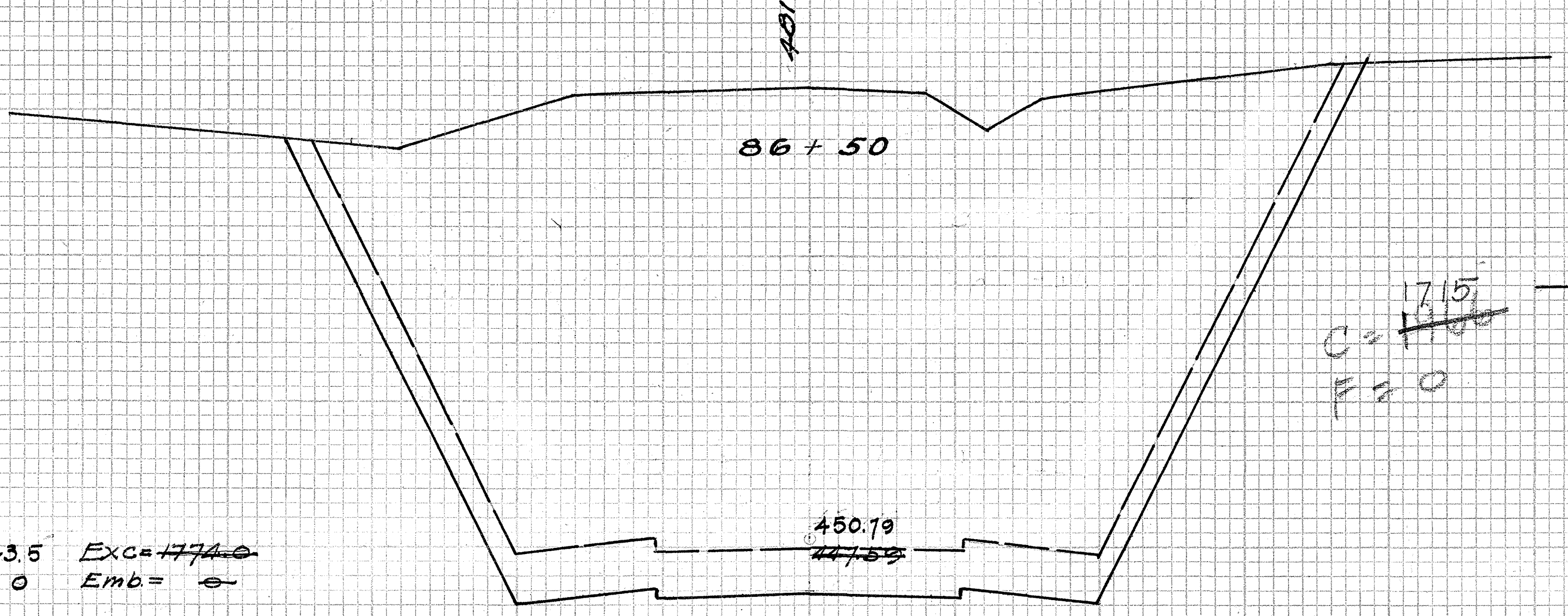


4188.9 Exc. = ~~4708.3~~ c.y.
0 Emb. = ~~0~~

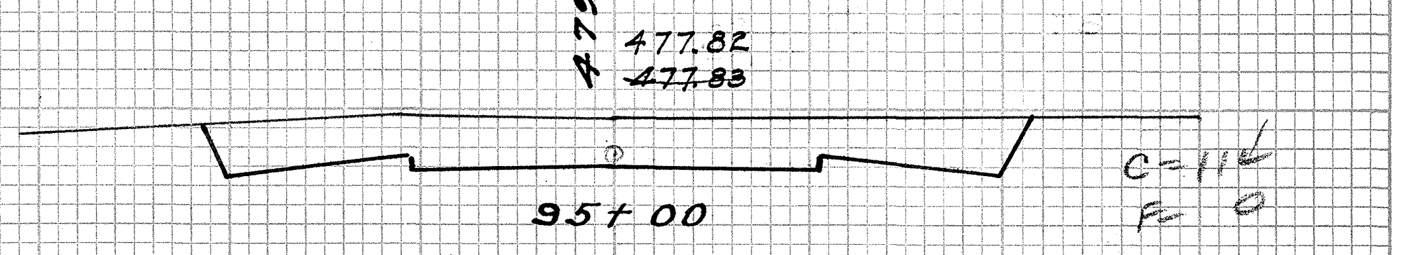


3910.2 Exc. = ~~4425.9~~ c.y.
0 Emb. = ~~0~~

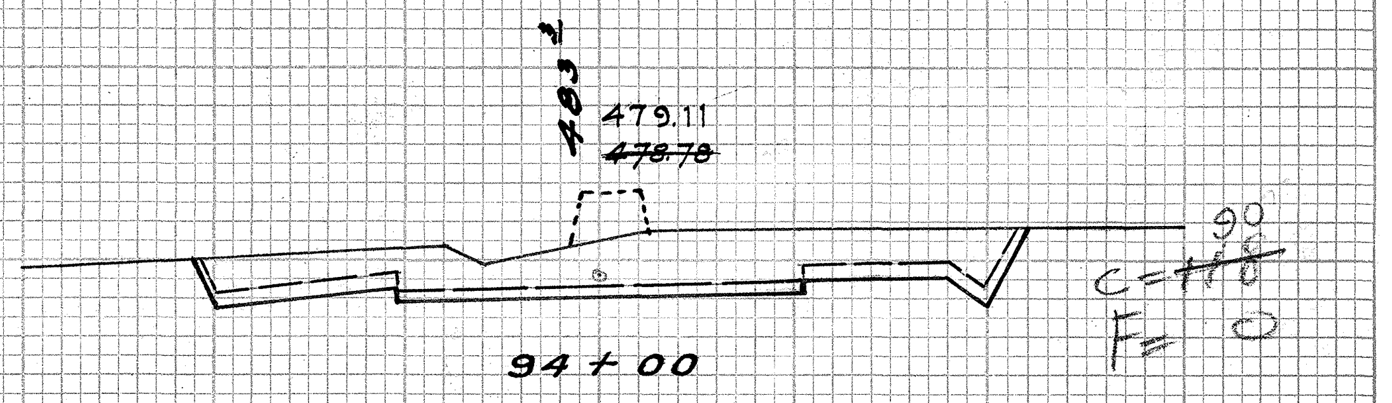
3377.8 Exc. = ~~3857.4~~ c.y.
0 Emb. = ~~0~~



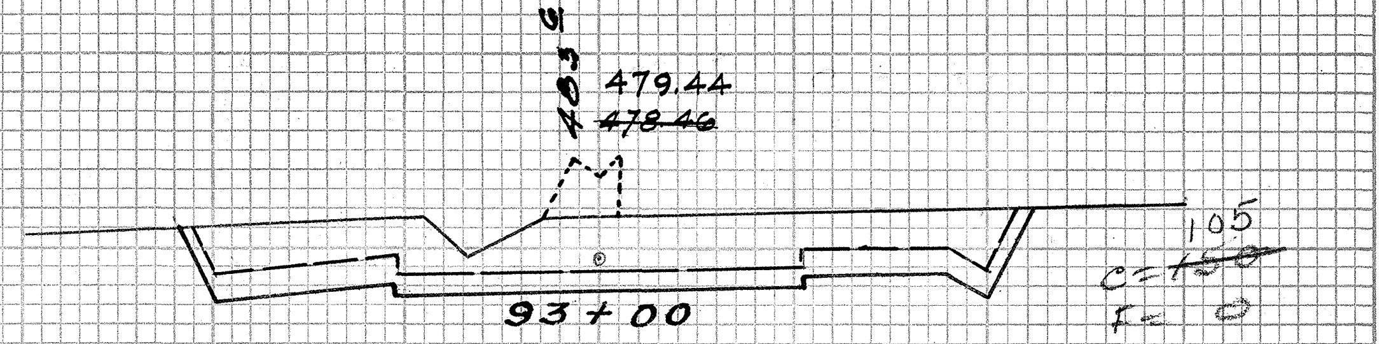
1543.5 Exc. = ~~1774.0~~
0 Emb. = ~~0~~



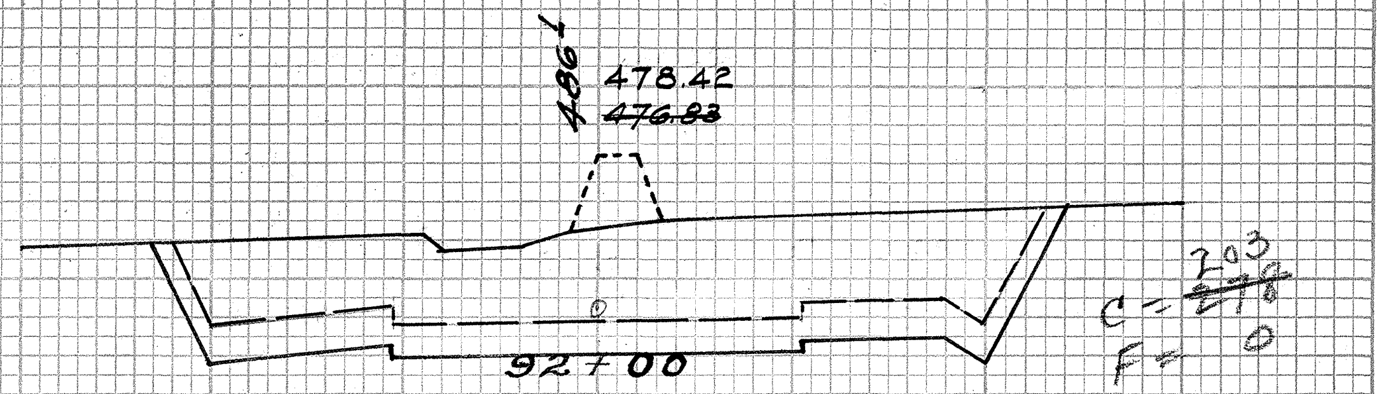
377.8 Exc. = ~~429.6~~ c.y.
0 Emb. = ~~0~~



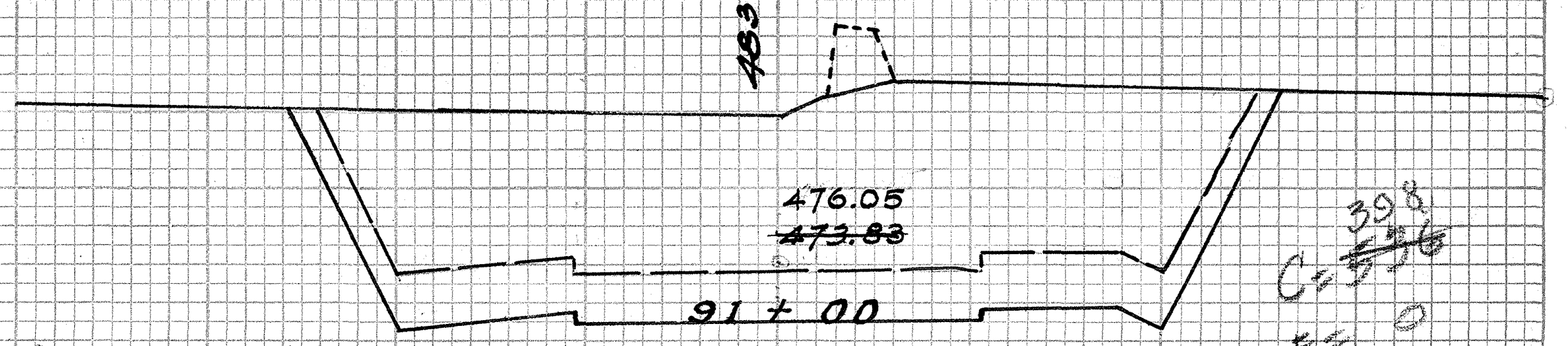
361.1 Exc. = ~~498.3~~ c.y.
Emb. = ~~0~~



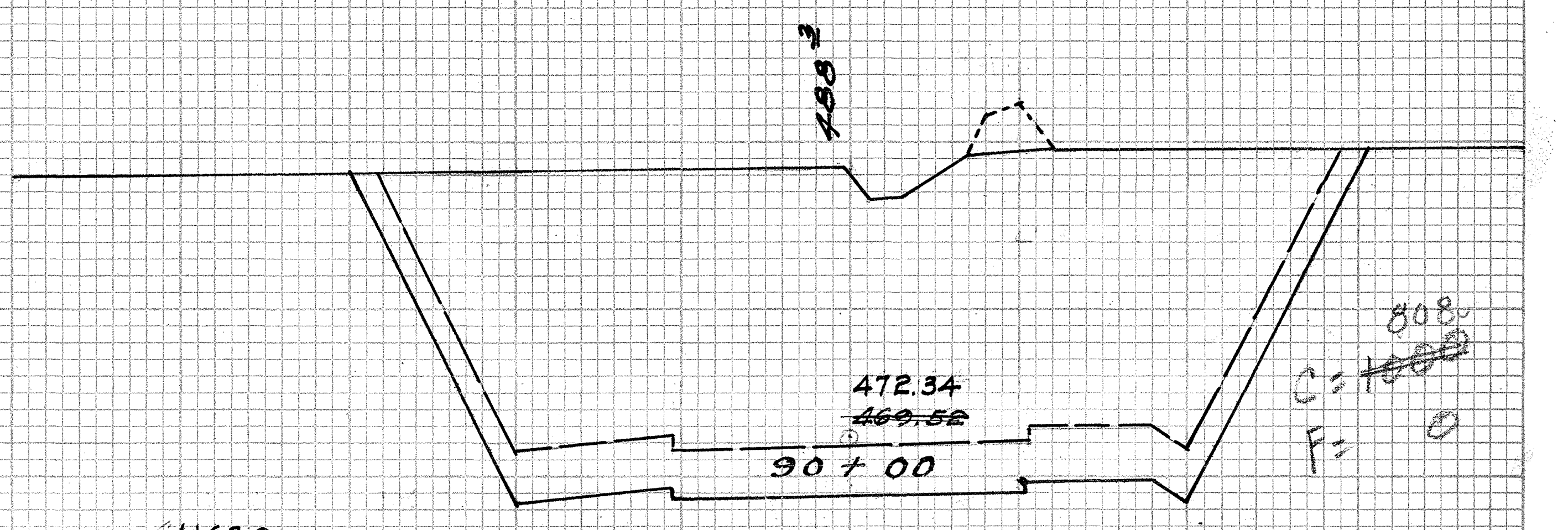
570.4 Exc. = ~~792.6~~ c.y.
0 Emb. = ~~0~~



1113.0 Exc. = ~~1507.4~~ c.y.
0 Emb. = ~~0~~



2233.4 Exc. = ~~2844.5~~ c.y.
0 Emb. = ~~0~~



4163.0 Exc. = ~~4983.3~~ c.y.
0 Emb. = ~~0~~

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
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85+87 - 95+00

4333.33

33

12 D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H. 12-D(1935)	1935	34	35

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE	J.C.M.	4/1/35
AREAS	K.I.	
AREAS CHECKED	K.I.	
NOTE BOOK NO.		

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

PLATE 3—CROSS SECTION D. P. R. & R. S. STANDARD
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96+00 — 115+00

4333.34

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H. 12-D (1935)	1935	35	35

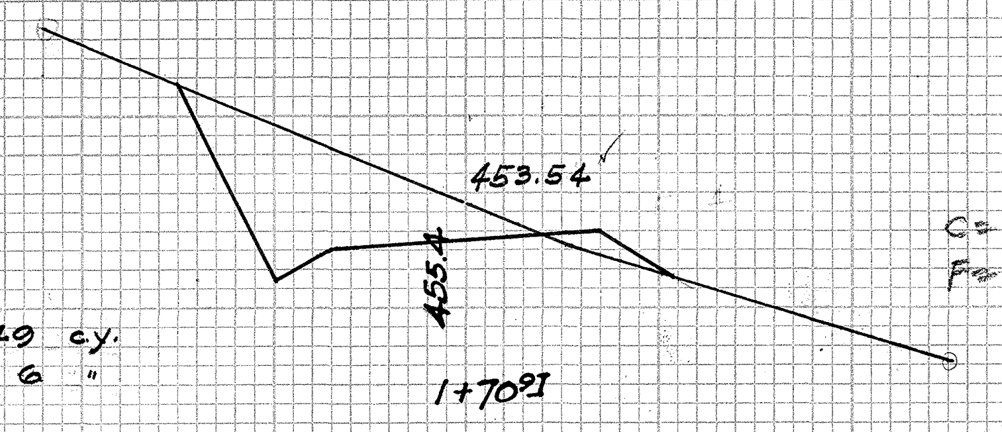
FINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE	K. I. J. C. M.	July '35
AREAS	K. I.	
AREAS CHECKED	K. I.	

ORIGINAL SURVEY
NOTE BOOK
NO.

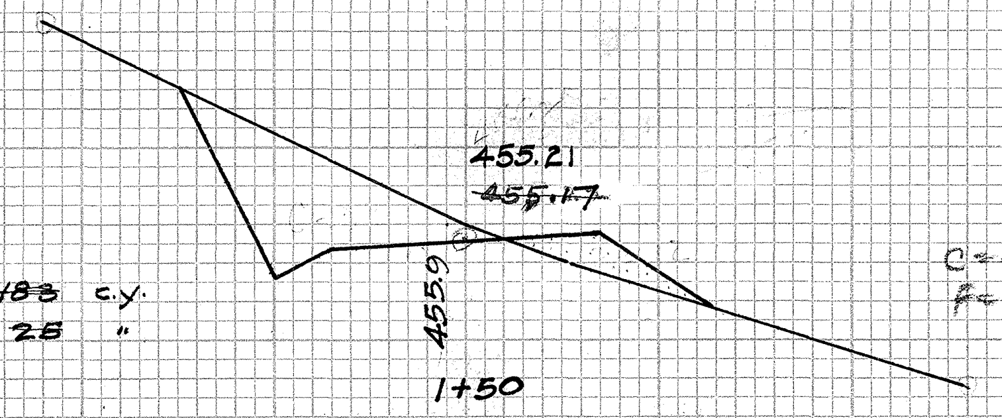
	BY	DATE
SURVEYED	R. L. G.	
PLOTTED	R. L. G.	
TEMPLATE	R. L. G.	
AREAS		
AREAS CHECKED		

℄



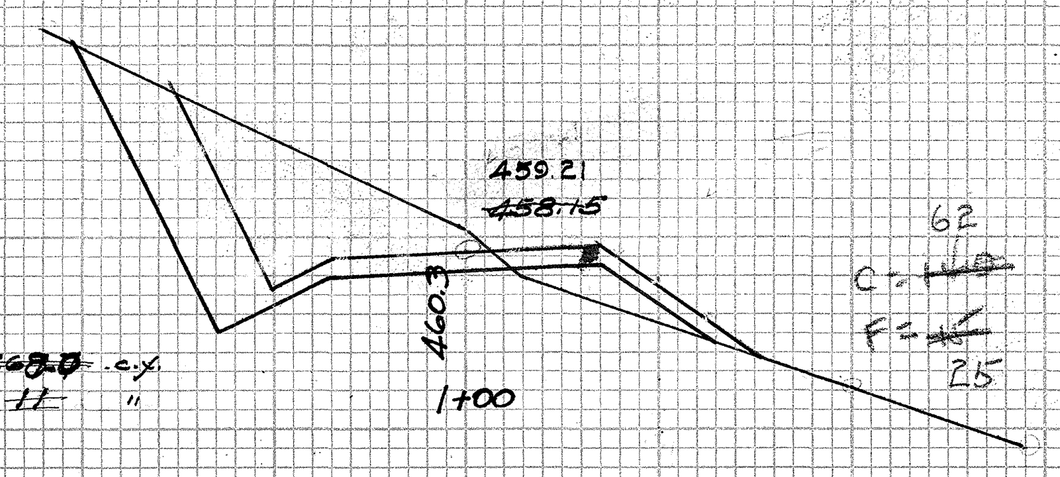
Exc= 49 c.y.
Emb= 6 "

C= 69
F= 4



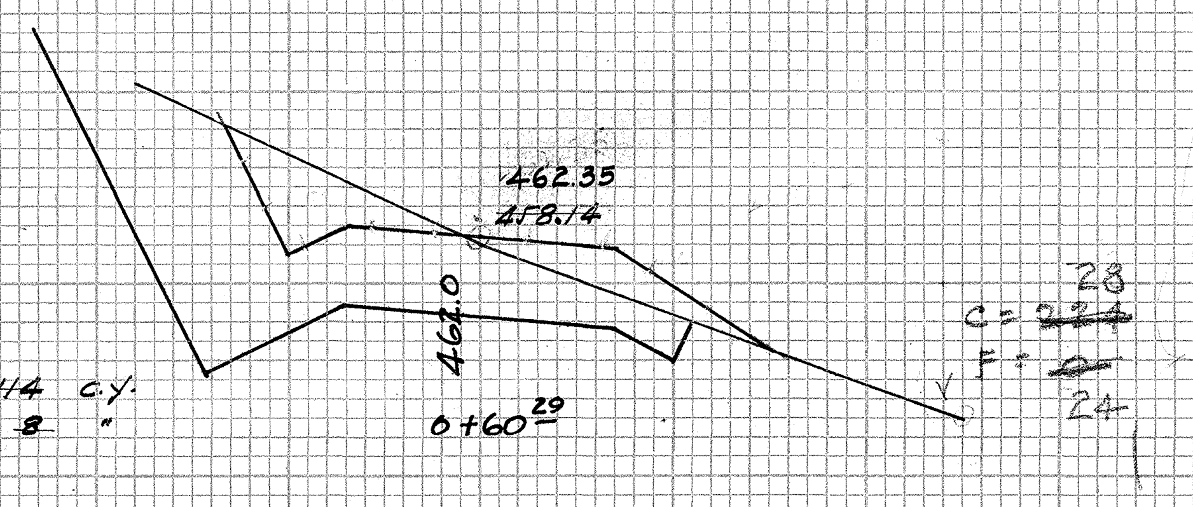
111 Exc= ~~183~~ c.y.
34 Emb= 25 "

C= 58
F= 12



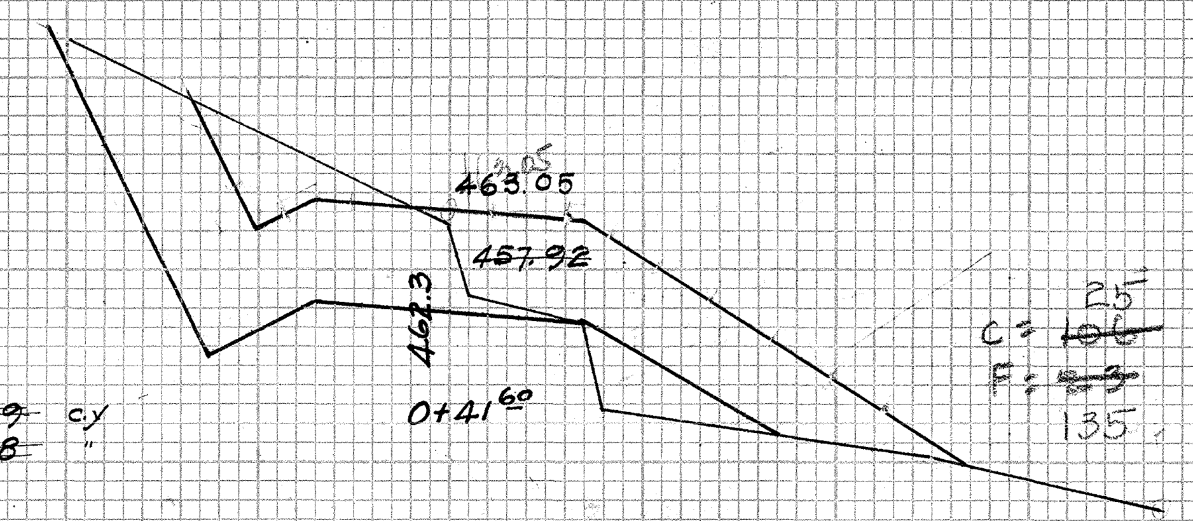
66 Exc= ~~268.0~~ c.y.
36 Emb= ~~11~~ "

C= ~~110~~ 62
F= ~~16~~ 25



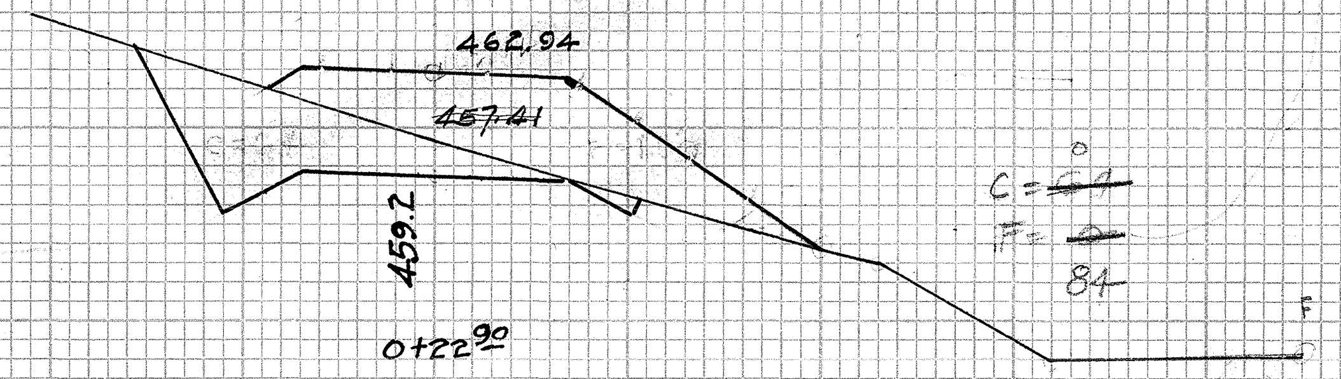
18 Exc= 114 c.y.
55 Emb= ~~8~~ "

C= ~~224~~ 28
F= ~~0~~ 24

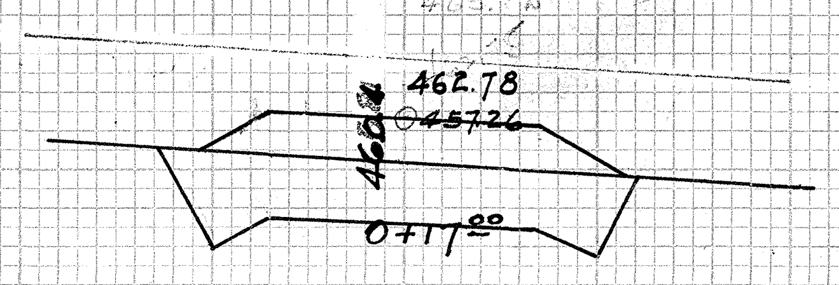


9 Exc= ~~59~~ c.y
76 Emb= ~~8~~ "

C= ~~106~~ 25
F= ~~83~~ 135



C= ~~61~~ 0
F= ~~0~~ 84



Wahiawa Gulch Side Road Sta 0+00 on Side Rd = Sta 75+00 on Highway

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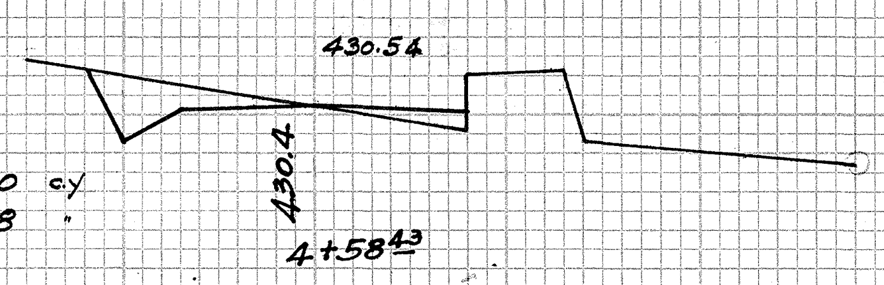
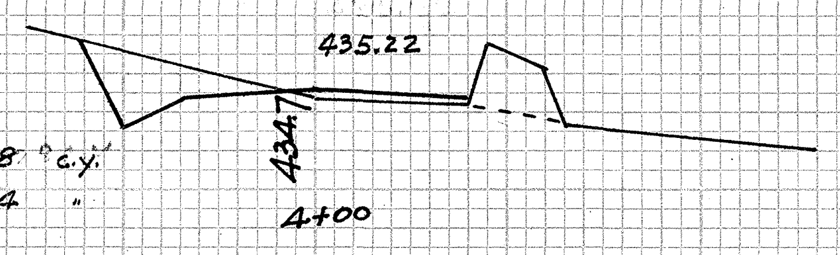


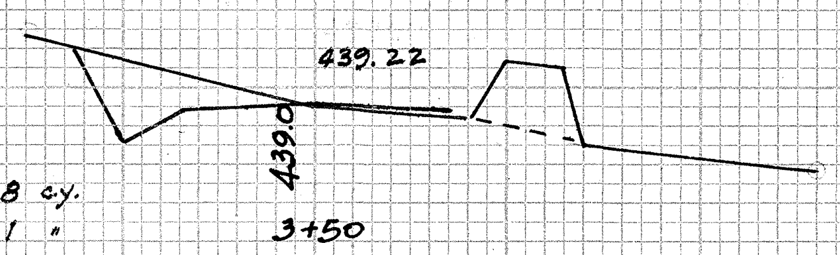
Exc= 40 c.y.
Emb= 8 "

C= 17
F= 4



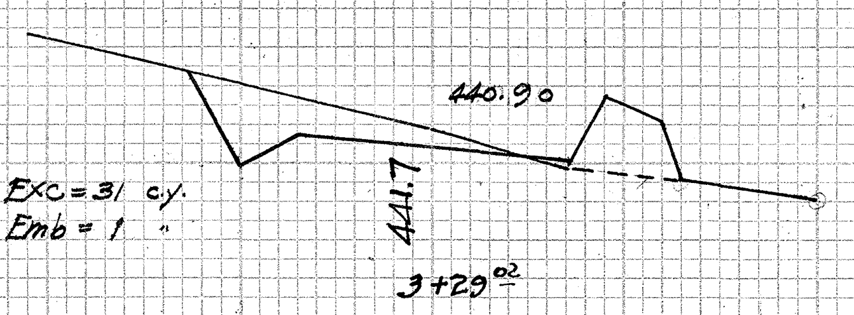
Exc= 28 c.y.
Emb= 4 "

C= 20
F= 3



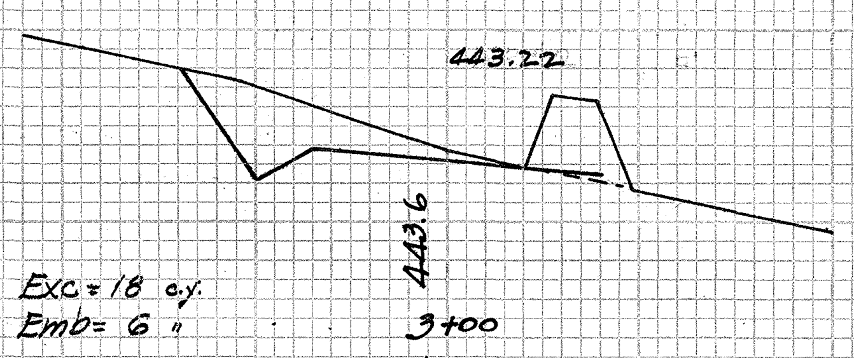
Exc= 18 c.y.
Emb= 1 "

C= 21
F= 1



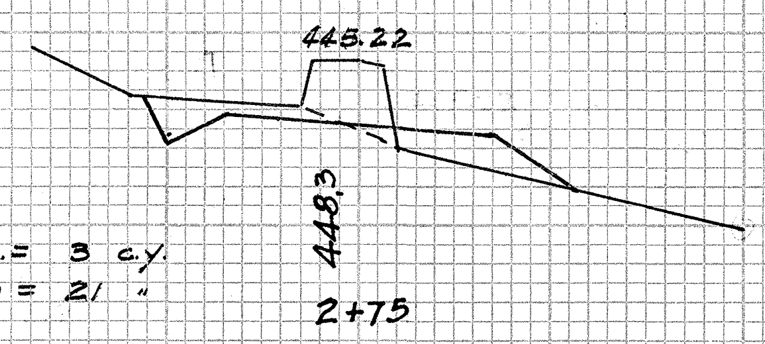
Exc= 31 c.y.
Emb= 1 "

C= 26
F= 0



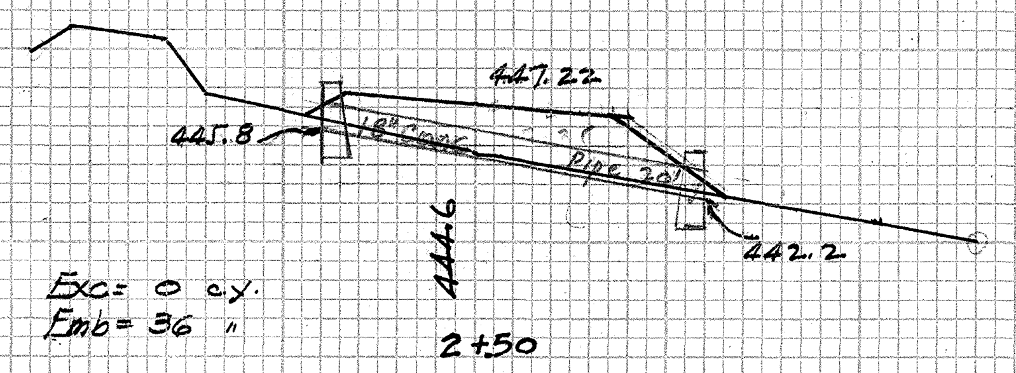
Exc= 18 c.y.
Emb= 6 "

C= 31
F= 1



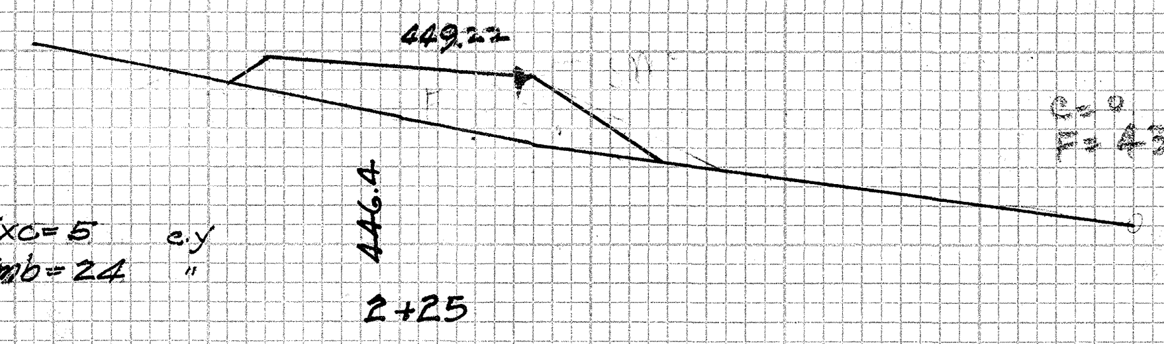
Exc.= 3 c.y.
Emb = 21 "

C= 7
F= 10



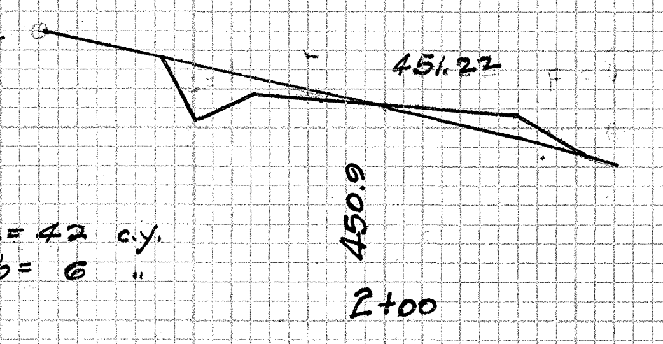
Exc= 0 c.y.
Emb= 36 "

C= 0
F= 35



Exc= 5 c.y
Emb= 24 "

C= 0
F= 43



Exc= 42 c.y.
Emb= 6 "

C= 10
F= 8

Total Exc= 858
Total Emb= 165

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c35