

STATE OF OHIO

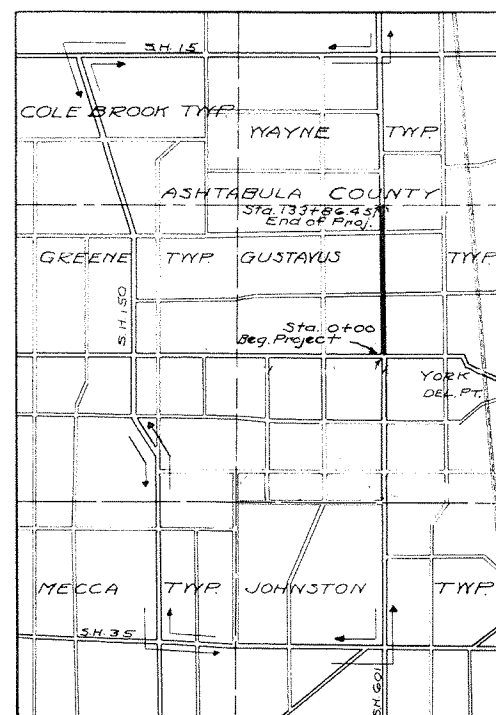
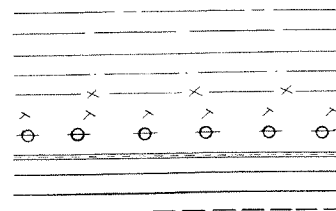
DEPARTMENT OF HIGHWAYS

YOUNGSTOWN ~ KINGSVILLE RD.

S.H. 601 SEC. C PET. NO.
TRUMBULL COUNTY
GUSTAVUS TWP.

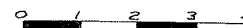
CONVENTIONAL SIGNS

County Line
Township Line
Fence Line
Center Line
Telephone Line
Power Line
Stream Railroad
Guard Rail
Drain Pipe - New
Drain Pipe - Old



LOCATION PLAN

SCALE OF MILES



PORTION TO BE IMPROVED
DETOURS SHOWN THUS
IMPROVED ROADS



SCALES
PLAN 1" = 100'
PROFILE V 1" = 10'
PROFILE H 1" = 100'
CROSS-SECTIONS 1" = 5'

INDEX
Title Page 1
Typical Section 2-3
Plan & Profile 4-8
Cross-Sections 9-16
Structures 17
Special Summary 17

Supplemental Drgs AS-31, 95, 98, 100, & 123.

The Standard Specifications of the State of Ohio, Division of Highways in force on date of contract will govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as shown on this plan and estimates.

Approved: _____
Date: 2-15-22 Resident District Deputy Director

Approved: _____
Date: 2-22-22 Resident Division Deputy Director

Approved: _____
Date: _____ Chief Engineer
Bureau of Construction

Approved: _____
Date: _____ Chief Engineer
Bureau of Maintenance

Approved: _____
Date: _____ Chief Engineer
Bureau of Bridges

Approved: _____
Date: 2-21-25 State Highway Engineer

Approved: _____
Date: 4-14-22 Director of Highways

Recommended for Approval: _____
Date: _____ District Engineer
Bureau of Public Roads

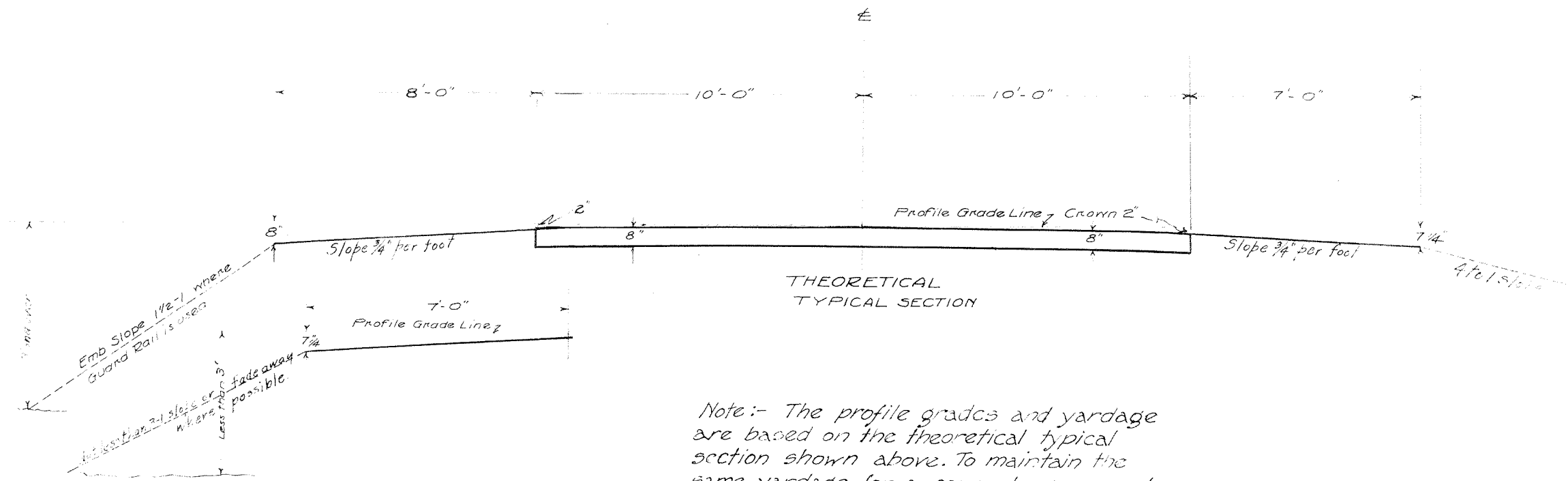
Recommended for Approval: _____
Date: _____ Chief Engineer
Bureau of Public Roads

Approved: _____
Date: _____ Chief of Bureau

FED. RD. DIST. NO.	STATE	FED. AID PROJ. YEAR	FISCAL YEAR
10	OHIO		1932

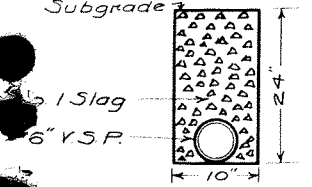
2
17

SH. 601 SEC. C
TRUMBULL CO.



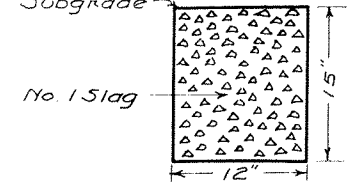
Note:- The profile grades and yardage are based on the theoretical typical section shown above. To maintain the same yardage for a concrete pavement section see note on Sheet 3.

DETAIL 6" V.S.P. FRENCH DRAIN
Subgrade



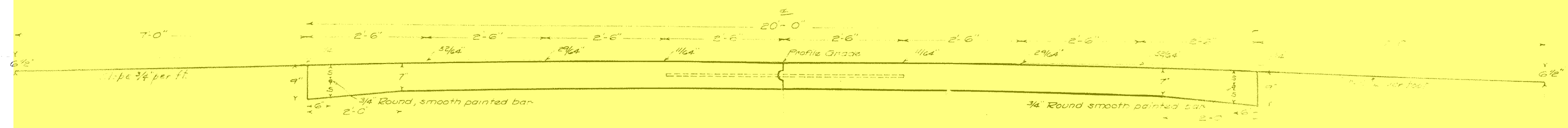
6" V.S.P. French Drain to be placed at direction of Engr. Lin. Ft. 1000

DETAIL OF FRENCH DRAIN
Subgrade



French Drain to be placed at direction of the Engr. Lin. Ft. 3000

Note:- Borrow Pits to be furnished by Contractor and staked out by the Engr.

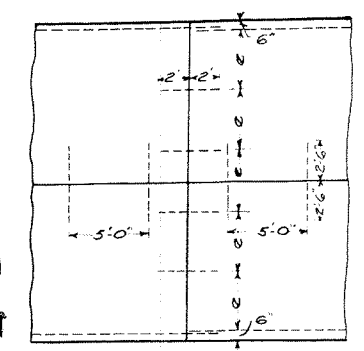


TYPICAL CROSS-SECTION
FOR
CONCRETE PAVEMENT
This Section to be used
from Sta 0+00 to 133+86.45

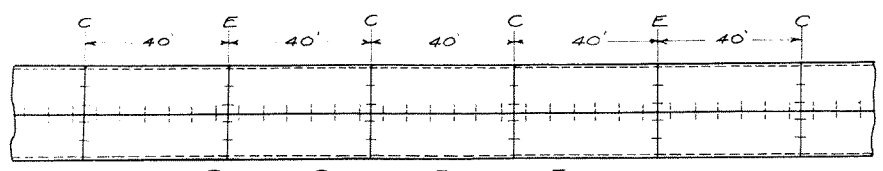
Including :- Center Joint, Dowels and Edge bars as per Std Drgs No 98 or No 100, and including transverse expansion & contraction joints as per Std Drgs No 95 & No 123 as per specifications.

Cost of Filler for all joints is provided for in price per sq. yd of concrete pavement

Note :-
To substitute a 9'-7'-9" concrete pavement section for an 8' theoretical section, 7' shoulders, upon which the yardage quantities are based, in order not to change yardage quantities, the edge of pavement grade shall be lowered 0.174' and the grade shall be lowered 0.174' plus the difference in crown heights between the theoretical crown (2") and the concrete crown (1 1/4") or $(.0174 + .0625) = .08'$



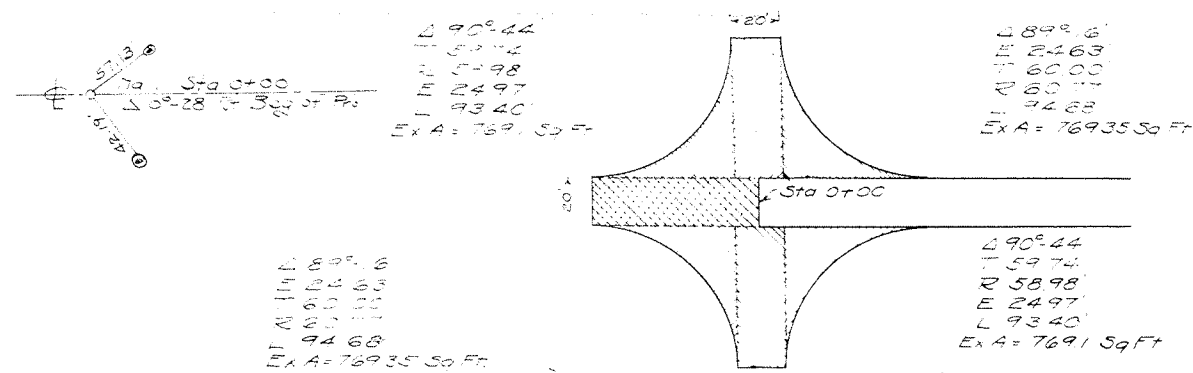
DETAIL OF TRANSVERSE JOINT



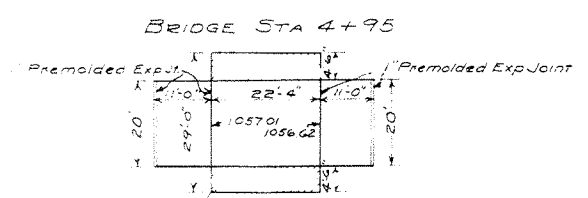
DETAIL SHOWING CENTER JOINT AND
FREQUENCY OF TRANSVERSE JOINTS

FED. RD.	STATE	FED. AID	FISCAL
DIST.	CHIO	PROJECT	YEAR
10	OHIO		1932

St. C. TRUMBULL Co. C. COUNTY



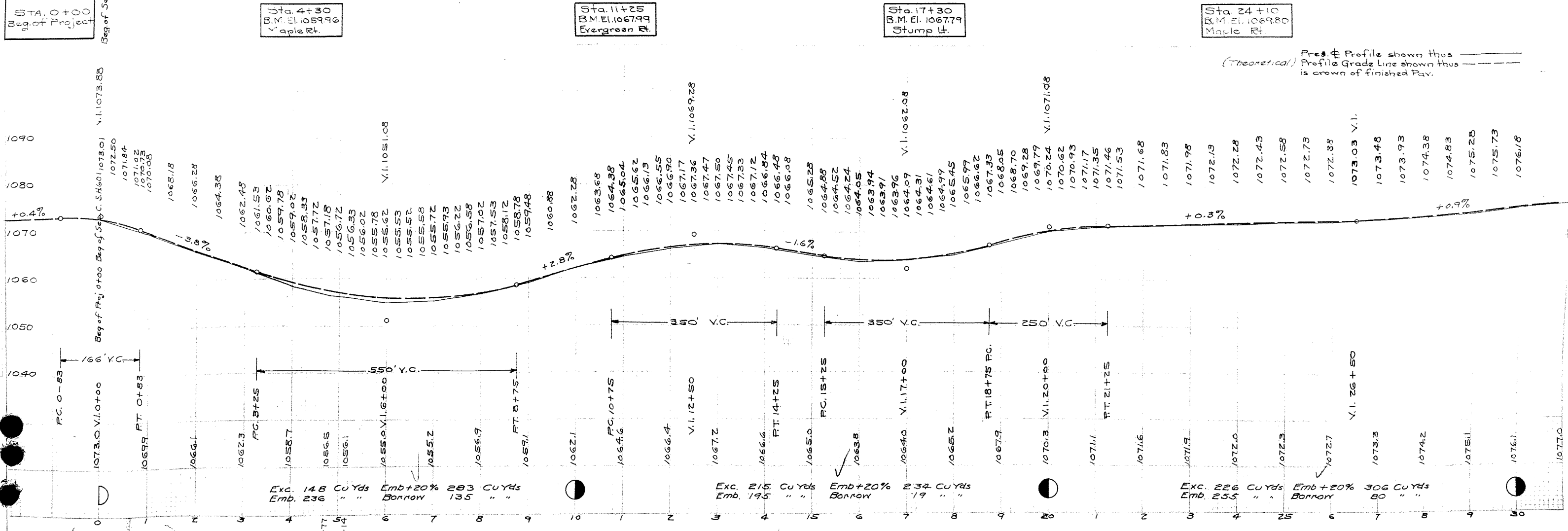
Sta. 0+00
PLAN OF EXTRA PAV = 763 Sq Yds



Present Structure Standard 20' span, 13 H, 30 Rdwy Conc Slab
The approach slab length shall be 11' thickness 8 1/2" Use Std Dr AS-31

ESTIMATED QUANTITIES
Conc. Approach Slabs Complete (1-5 1/2 mix) 48.8 Sq Yds
4" Wearing Surface 71.9 Sq Yds

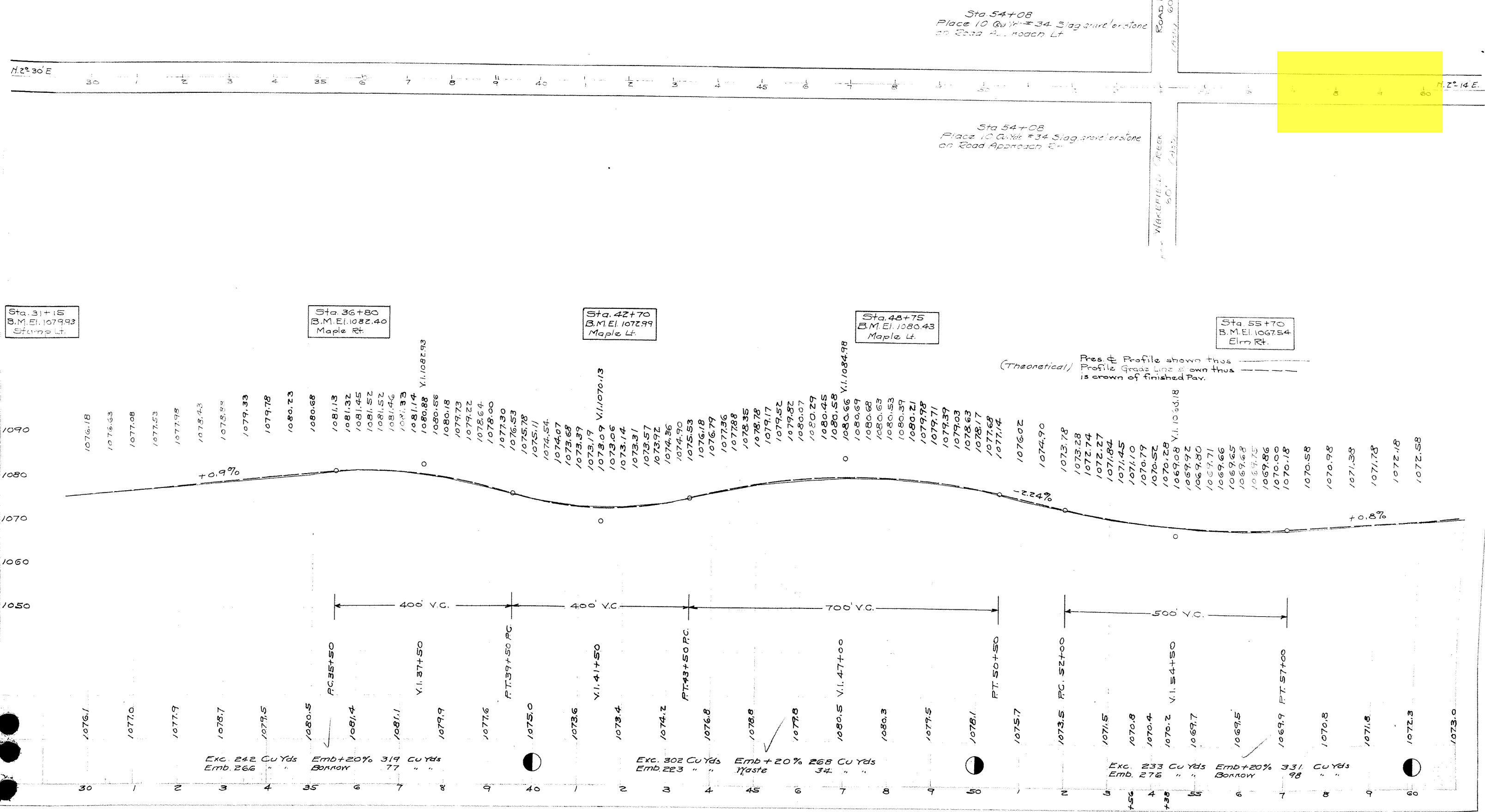
Deduct 44.33 Lin Ft. of Pav.



FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
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TRUMBULL CO.

Spike Sta. 36+07.80
 Δ 0° 16' Lt.
 33.0' 36.0' a



Sta. 54+08
 Place 10 Cu Yds #34 Slag gravel on stone on Road Approach E

Sta. 54+08
 Place 10 Cu Yds #34 Slag gravel on stone on Road Approach E

WAKEFIELD CREEK
 60' 60'

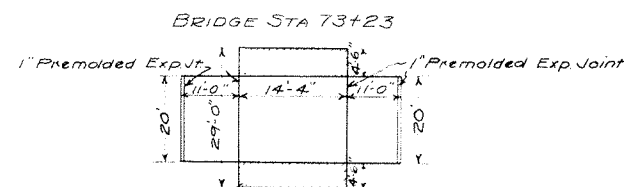
(Theoretical) Pres. & Profile shown thus
 Profile Grade shown thus
 is crown of finished Pav.

Exc. 242 Cu Yds Emb. 266
 Emb. +20% 319 Cu Yds Borrow

Exc. 302 Cu Yds Emb. 223
 Emb. +20% 268 Cu Yds Waste

Exc. 233 Cu Yds Emb. 276
 Emb. +20% 331 Cu Yds Borrow

N. 2° 14' E. 60 1 2 3 4 65 6 7 8 9 10 1 2 3 4 15 6 7 8 9 80 1 2 3 4 85 6 7 8 9 90 N. 2° 14' E.



Present Structure Standard 14' span, 12'-H, 30' Roadway.
The approach slab length shall be 11', thickness 8" use Std. Dr. AS-31

Estimated Quantities

Concrete (1-5 1/2) mix Approach Slabs Complete 48.8 SqYds
Wearing Surface 46.2 SqYds

Sta. 60+50
B.M. El. 1073.42
Evergreen Rt.

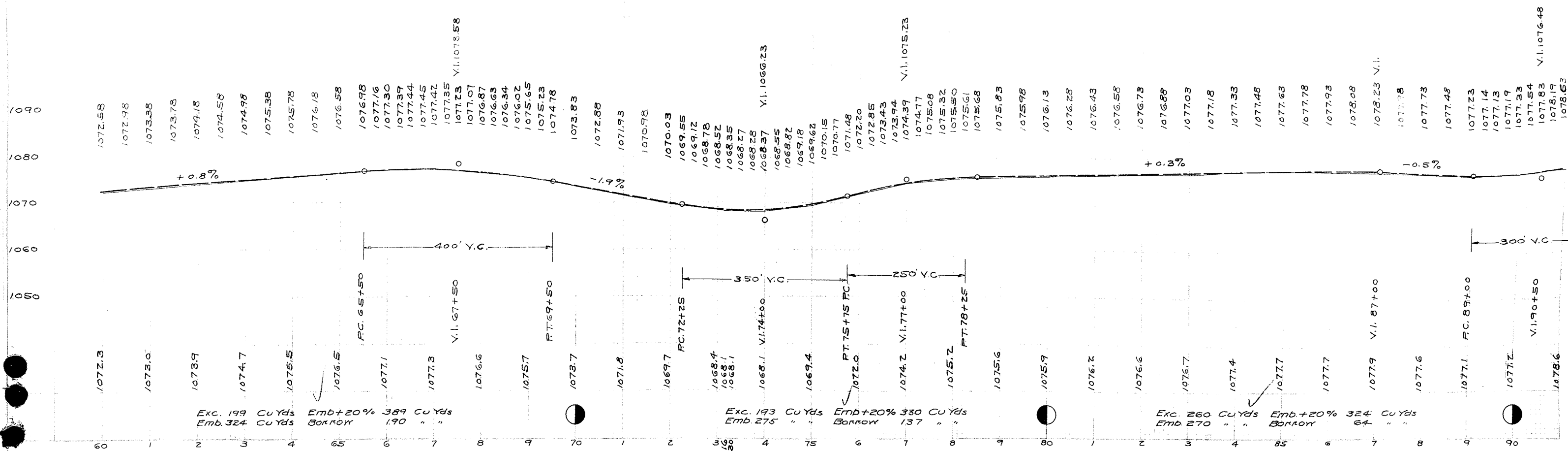
Sta. 74+55
B.M. El. 1065.68
Maple Rt.

Sta. 78+60
B.M. El. 1078.31
Stump Rt.

Sta. 89+70
B.M. El. 1078.13
Stump Rt.

Deduct 36.33 Lin. Ft. of Pav.

Pres. & Profile shown thus ———
(Theoretical) Profile Grade Line shown thus ———
is crown of finished Pav.



FED. RD.	STATE	FED. AID	FISCAL
DIST. NO.	OHIO	PROJ.	YEAR
10			1932

S.H. 601
TRUMBULL

Sec. C
Co.

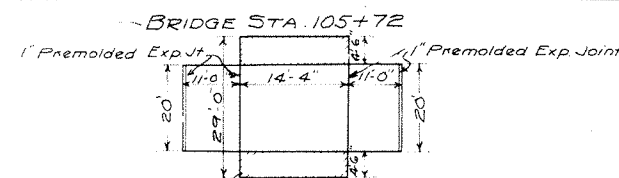
7
17

Spike Sta. 94+43.45
Δ 0°-24' E

Hub Sta. 107+77.28
Δ 0°-41' R

Sta. 107+77.28
Place 10 Cu Yds #34 Slag gravel or stone
on Road Approach Lt.

Sta. 107+77.28
Place 10 Cu Yds #34 Slag gravel or stone
on Road Approach Rt.



Present Structure Standard 14' span, 12' H, 30' Roadway.
The approach slab length shall be 11', thickness 8" Use Std. Dn. AS-31

Estimated Quantities

Conc. (1-5 1/2) mix Approach Slabs Complete
4' Wearing Surface

48.8 Sq Yds
46.2 Sq Yds

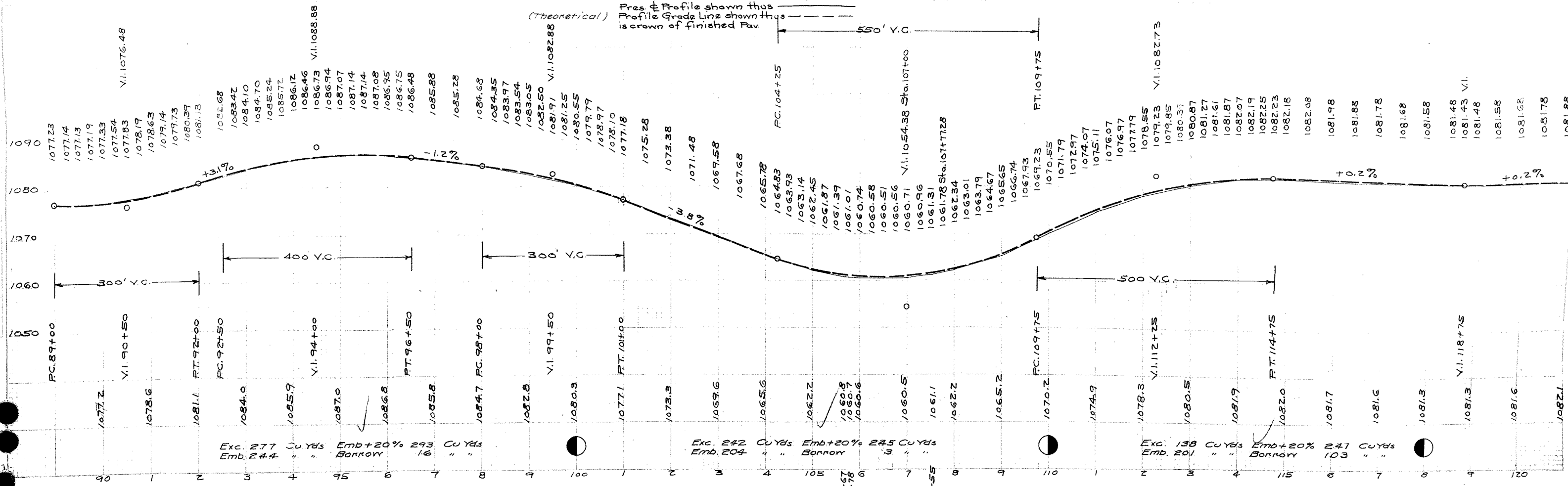
Sta. 98+40
B.M. El. 1085.97
Maple Rt.

Deduct 36.33 Lin. Ft. of Pav.

Sta. 107+45
B.M. El. 1058.99
Elm Rt.

Sta. 113+12
B.M. El. 1081.84
Maple Rt.

(Theoretical)
Pres. & Profile shown thus
Profile Grade Line shown thus
is crown of finished Pav.



PROJECT	STATE	SECTION	PLAN
123+86.45	58	123+86.45	123+86.45

S.H. 601
TRUMBULL

SEC
Co.

Pipe in Man. Box Sta. 133+86.45
2' dia. (on County Line)

123+86.45
Δ 58.12.13
R 2864.79
T 130.09
L 260.00

H. 2.241 W.

Present paving 16 concrete
Sta. 133+86.45 End of Sec. C. S.H. 601 End of Proj.

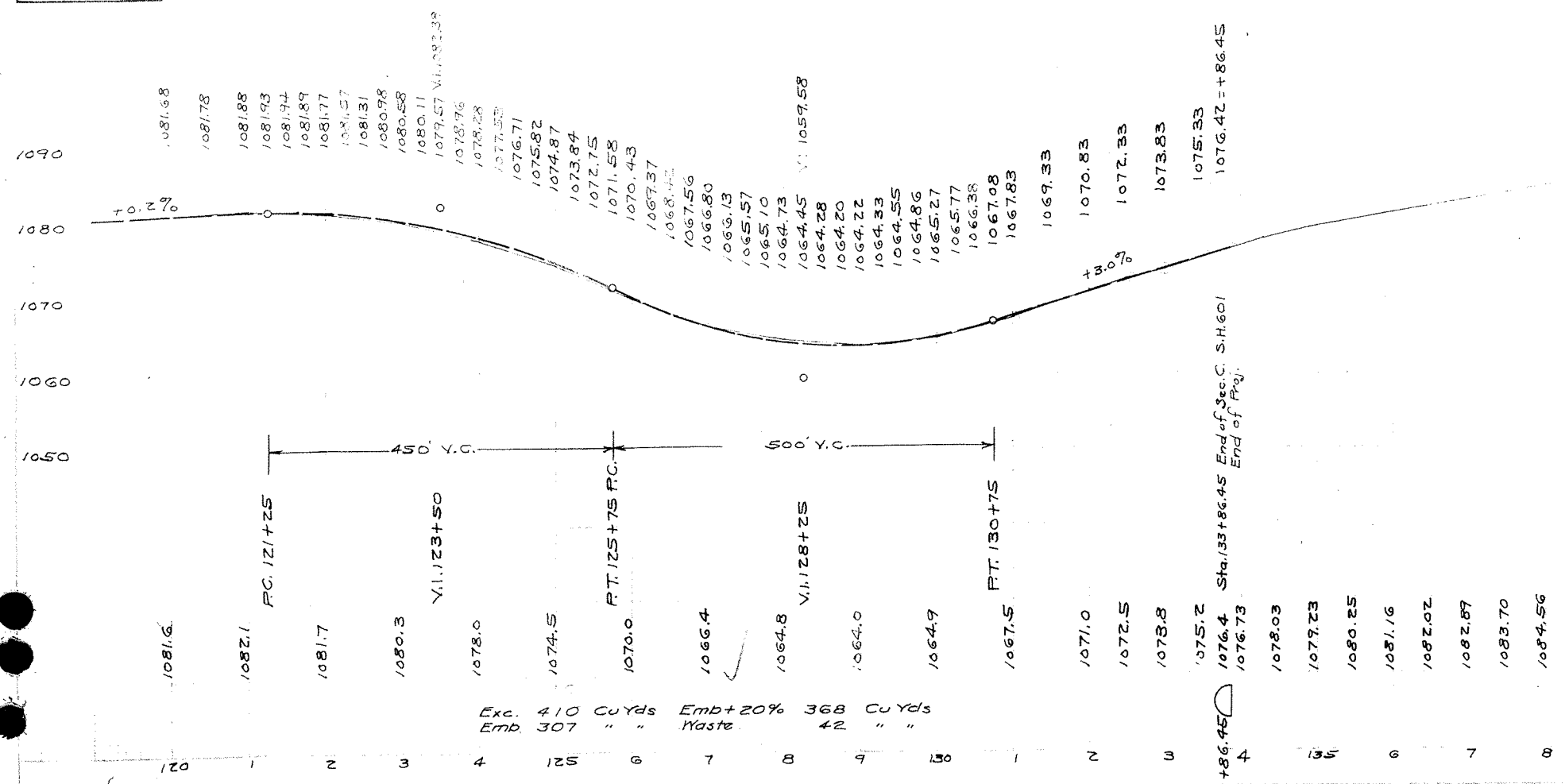
486.45 TRUMBULL Co.
486.45 TRUMBULL Co.

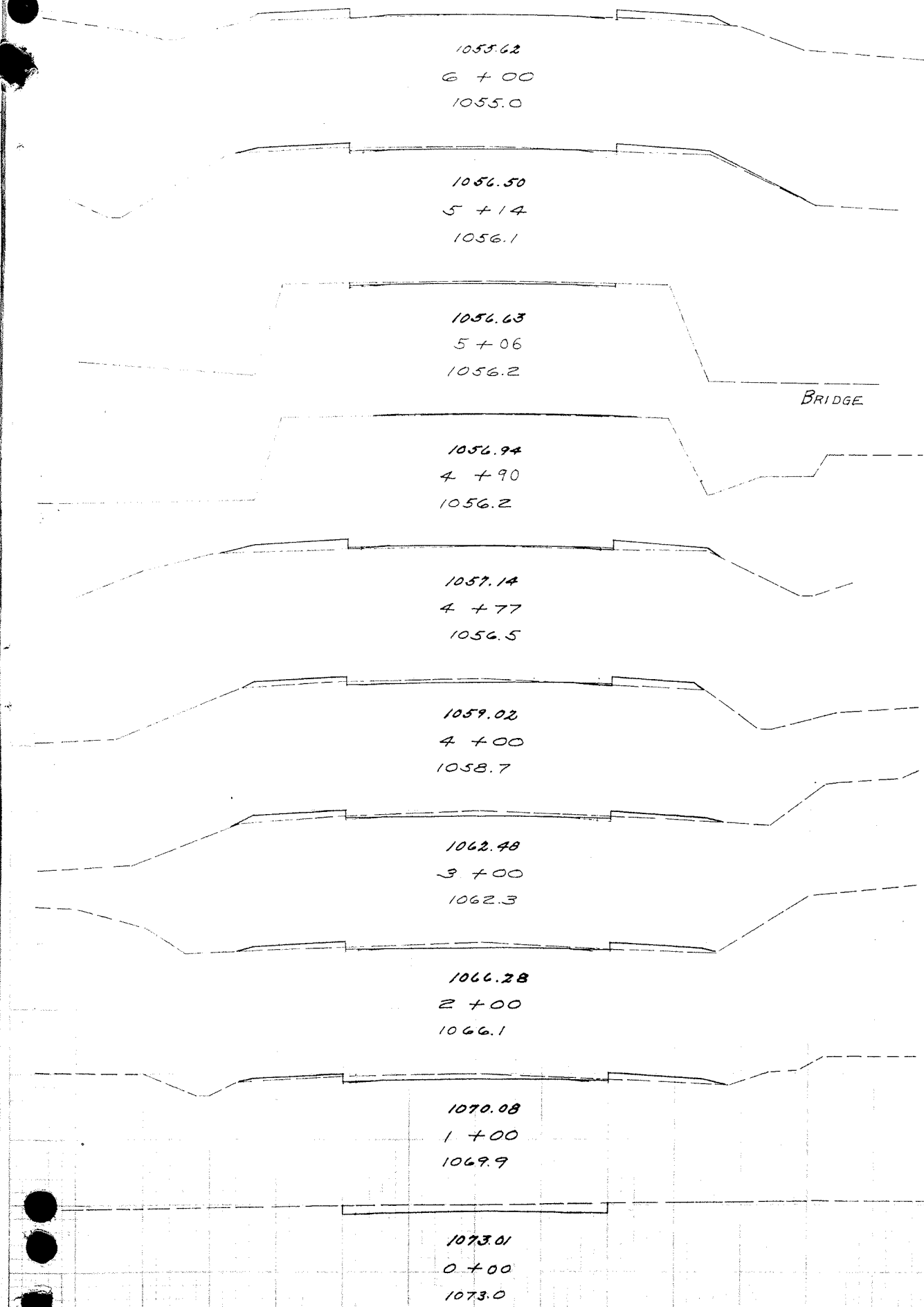
Sta. 127+90
B.M. E. 1067.05
Maple Lt.

Sta. 127+90
B.M. E. 1067.05
Maple Lt.

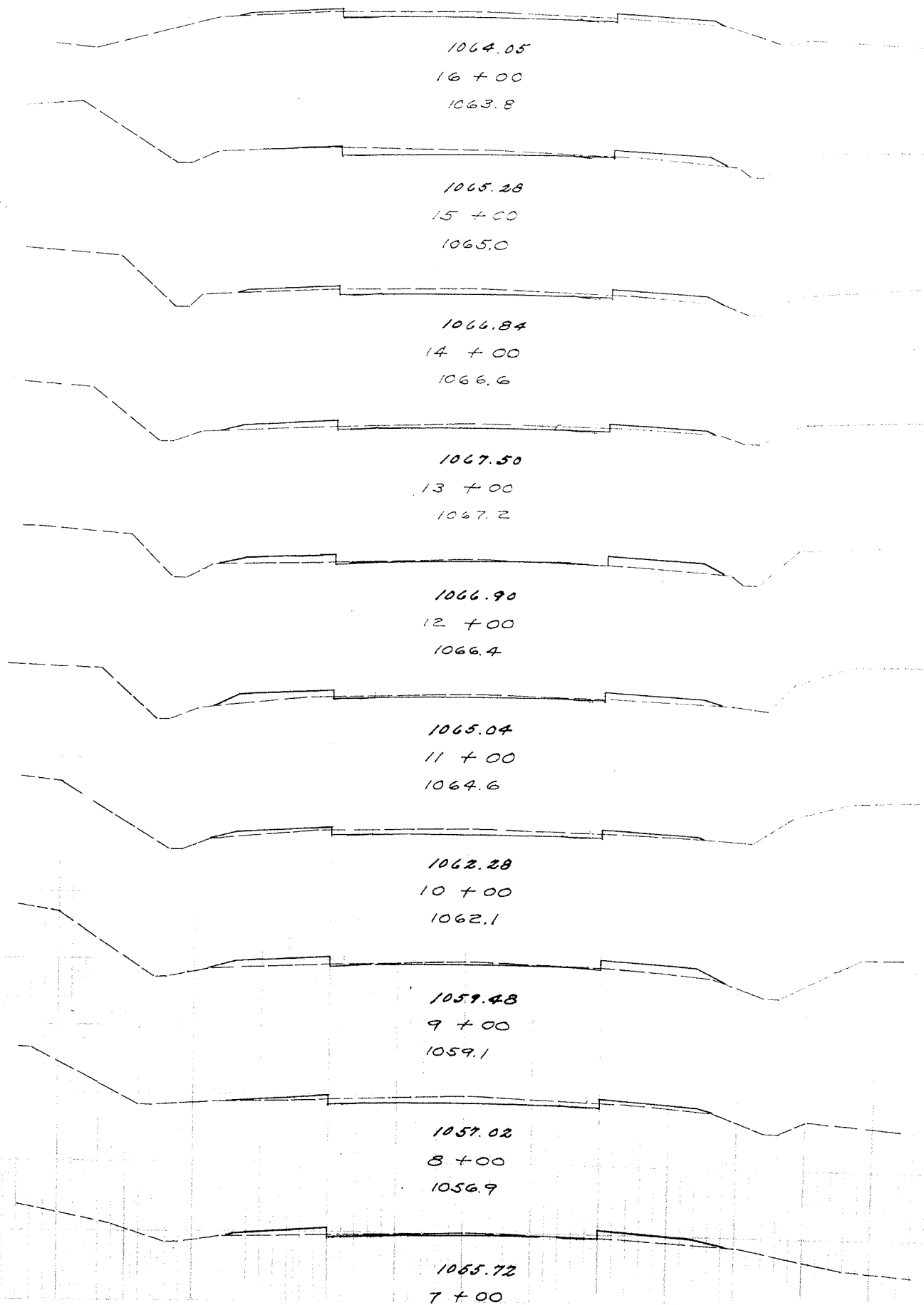
Sta. 132+65
B.M. E. 11076.61
Stump Lt.

(Theoretical) Profile Grade Line shown thus
Profile Grade Line shown thus
is crown of finished Pav.





	End Area		Cu Yds	
	Exc	Emb	Exc	Emb
	0	9		
			3	25
	2	7		
			1	1
	3	0		
	0	1		
			0	3
	0	11		
			4	24
	3	6		
			17	24
	6	7		
			20	26
	5	8		
			20	22
	6	5		
			32	9
	11	0		



Emb	Area	Cl	Yax
Emb	Exc	Exc	Emb
7	5		
		24	17
6	4		
		22	19
6	6		
		20	20
5	5		
		9	26
0	9		
		2	33
1	9		
		15	24
7	4		
		15	24
1	9		
		17	24
8	4		
		17	22
1	8		
		2	32

1072.88
26 + 00
1072.7

1072.58
25 + 00
1072.3

1072.28
24 + 00
1072.0

1071.98
23 + 00
1071.9

1071.68
22 + 00
1071.6

1071.35
21 + 00
1071.1

1070.24
20 + 00
1070.3

1068.05
19 + 00
1067.9

1065.45
18 + 00
1065.2

1064.09
17 + 00
1064.0

Sta	End Area		Cu Yds	
	Exc	Emb	Exc	Emb
5	7			
			17	32
4	10			
			20	24
7	3			
			28	15
8	5			
			24	28
5	10			
			19	35
5	9			
			30	26
11	5			
			37	15
9	3			
			30	13
7	4			
			28	13
8	3			
			28	15

Exc. 215 Cu. Yds. Emb + 20% 234 Cu. Yds.
Emb 195 Cu. Yds. Borrow 19 Cu. Yds.

1081.45
36 + 00
1081.4

1080.68
35 + 00
1080.5

1079.78
34 + 00
1079.5

1078.88
33 + 00
1078.7

1077.98
32 + 00
1077.9

1077.08
31 + 00
1077.0

1076.18
30 + 00
1076.1

1075.28
29 + 00
1075.1

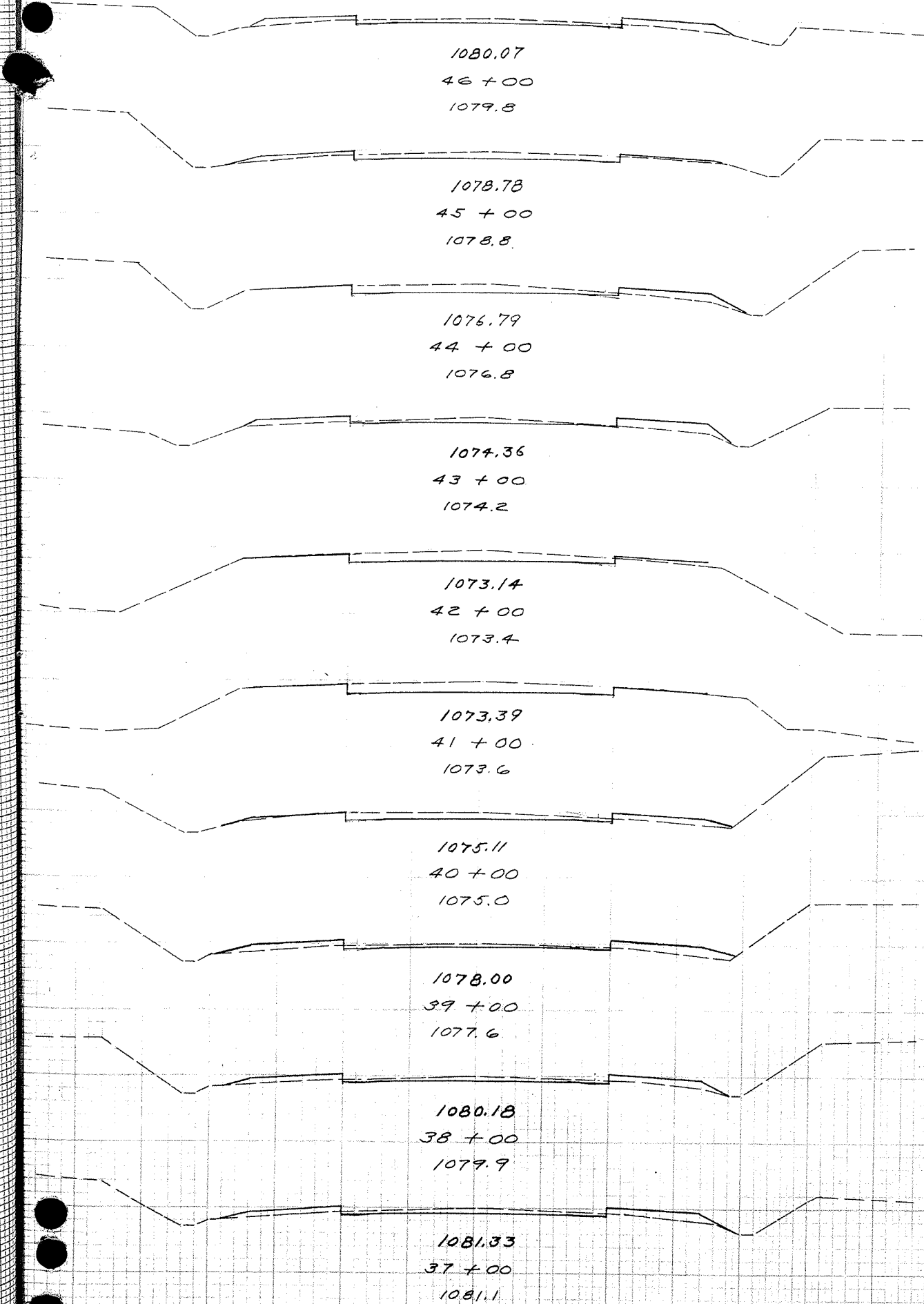
1074.38
28 + 00
1074.2

1073.48
27 + 00

FED RD STATE FED AID FISCAL
Dist No PROJ YEAR
10 OHIO 1938
SH 601 SEC. C
TRUMBULL CO.

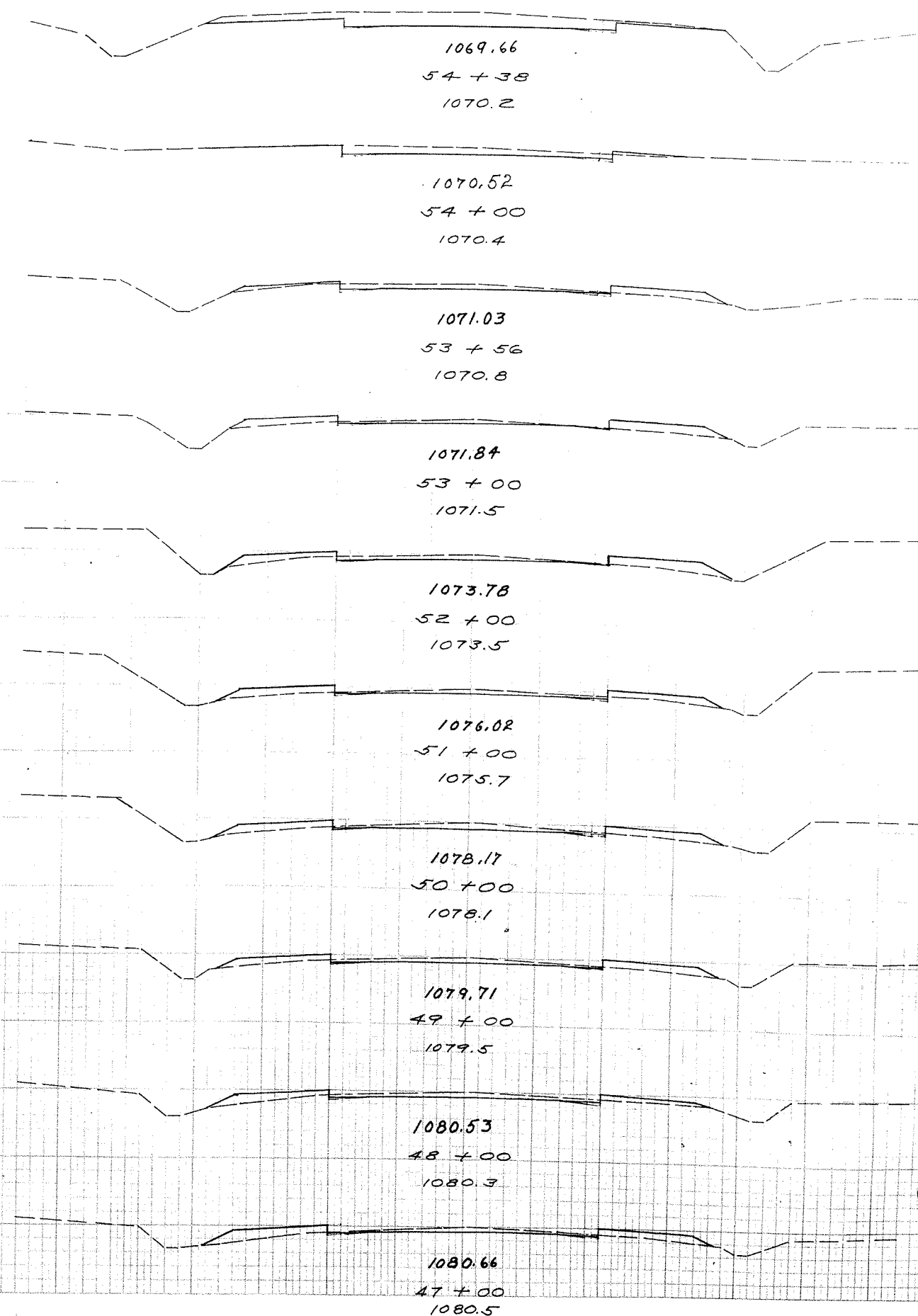
Sta	End Area		Cu Yds	
	Exc	Emb	Exc	Emb
9	5			
			26	24
5	8			
			20	30
6	8			
			22	28
6	7			
			24	22
7	5			
			24	24
6	8			
			24	30
7	8			
			22	30
5	8			
			22	24
7	5			
			24	19
6	5			
			20	22

Exc. 226 Cu. Yds. Emb + 20% 306 Cu. Yds.
Emb 255 Cu. Yds. Borrow 80 Cu. Yds.



End Area		Cu Yds	
Exc	Emb	Exc	Emb
6	7		
		28	20
9	4		
		35	17
10	5		
		28	26
5	9		
		33	20
13	2		
		52	4
15	0		
		46	9
10	5		
		28	26
5	9		
		20	30
6	7		
		24	28
7	8		
		30	24

Exc. 242 Cu Yds. Emb. +20% 319 Cu Yds.
Emb. 266 Cu Yds. Borrow 77 Cu Yds.



End Area		Cu Yds	
Exc	Emb	Exc	Emb
25	0		
		25	1
11	1		
		15	6
7	6		
		10	16
3	9		
		13	35
4	10		
		17	33
5	8		
		20	32
6	9		
		20	32
5	8		
		20	30
6	8		
		20	35
5	10		
		20	32

Exc. 302 Cu Yds Emb +20% 268 Cu Yds.
Emb. 223 Cu Yds Waste 34 Cu Yds.

SEC C
 TRUMBULL CO
 54601

BRIDGE

Exc	Emb	Exc	Emb
6	0		

1075.78
 64 + 00
 1075.5

Exc	Emb	Exc	Emb
5	9	17	32

1074.98
 63 + 00
 1074.7

Exc	Emb	Exc	Emb
4	8	17	32

1074.18
 62 + 00
 1073.9

Exc	Emb	Exc	Emb
5	9	11	43

1073.38
 61 + 00
 1073.0

Exc	Emb	Exc	Emb
1	14	6	44

1072.58
 60 + 00
 1072.3

Exc	Emb	Exc	Emb
2	10	19	28

1071.78
 59 + 00
 1071.8

Exc	Emb	Exc	Emb
8	5	26	22

1070.98
 58 + 00
 1070.8

Exc	Emb	Exc	Emb
6	7	17	30

1070.18
 57 + 00
 1069.9

Exc	Emb	Exc	Emb
3	10	15	35

1069.68
 56 + 00
 1069.5

Exc	Emb	Exc	Emb
5	9	20	30

1069.80
 55 + 00
 1069.7

Exc	Emb	Exc	Emb
6	7	36	8

1068.41
 73 + 16
 1068.1

1068.53
 73 + 12
 1068.4

1070.23
 72 + 00
 1069.7

1071.93
 71 + 00
 1071.8

1073.83
 70 + 00
 1073.7

1075.65
 69 + 00
 1075.7

1076.87
 68 + 00
 1076.6

1077.42
 67 + 00
 1077.3

1077.30
 66 + 00
 1077.1

1076.58
 65 + 00

Exc. 199 Cu Yds. Emb + 20% 389 Cu Yds.
 Emb. 324 Cu Yds. Borrow

Exc	Emb	Exc	Emb
9	4	37	13
11	3	30	20
5	8	22	32
7	9	20	39
4	12	19	37
6	8	20	32

Exc. 233 Cu Yds. Emb + 20% 331 Cu Yds.
 Emb. 276 Cu Yds. Borrow

1076.43
81 + 00
1076.2

1076.13
80 + 00
1075.9

1075.83
79 + 00
1075.6

1075.50
78 + 00
1075.2

1074.39
77 + 00
1074.2

1072.20
76 + 00
1072.0

1069.62
75 + 00
1069.4

1068.37
74 + 00
1068.1

1068.31
73 + 39
1068.1

1068.33
73 + 30
1068.1

End Area Cu Yds		Exc Emb		Cu Yds	Cu Yds
Exc	Emb	Exc	Emb		
4	10			19	30
6	6			20	24
5	7			15	24
4	6			15	26
4	8			15	39
4	13			17	39
6	8			17	32
3	9			10	17
6	6			2	1
8	0				

Exc. 193 Cu Yds. Emb + 20% 330
Emb 275 Cu Yds. Borrow 137

1078.63
91 + 00
1078.6

1077.33
90 + 00
1077.2

1077.23
89 + 00
1077.1

1077.73
88 + 00
1077.6

1078.23
87 + 00
1077.9

1077.93
86 + 00
1077.7

1077.63
85 + 00
1077.7

1077.33
84 + 00
1077.4

1077.03
83 + 00
1076.7

1076.73
82 + 00
1076.6

End Area Cu Yds		Exc Emb		Cu Yds	Cu Yds
Exc	Emb	Exc	Emb		
10	7			35	20
9	4			32	15
8	4			28	24
7	9			19	46
3	16			15	46
5	9			32	20
12	2			41	13
10	5			30	22
6	7			24	24
7	6			20	30

Exc. 260 Cu Yds. Emb + 20% 324
Emb 270 Cu Yds. Borrow 64

1077.18
101 + 00
1077.1

1080.55
100 + 00
1080.3

1083.05
99 + 00
1082.8

1084.68
98 + 00
1084.7

1085.88
97 + 00
1085.8

1086.95
96 + 00
1086.8

1087.07
95 + 00
1087.0

1086.12
94 + 00
1085.9

1084.10
93 + 00
1084.0

1081.13
92 + 00
1081.1

End Area Cu Yds
Exc Emb Exc Emb

8 6

22 32

4 11

19 33

6 7

30 19

10 3

32 17

7 6

24 28

6 9

26 26

8 5

28 19

7 5

26 22

7 7

24 32

8 8

33 28

Exc. 277 Emb. 244
Embl 20% 293 Cu Yds.
Barrow 15 "

1060.71
107 + 00
1060.5

1060.74
106 + 00
1060.6

1060.89
105 + 87
1060.8

1061.05
105 + 79
1060.7

1061.15
105 + 65
1060.8

1061.28
105 + 57
1061.2

1062.45
105 + 00
1062.2

1065.78
104 + 00
1065.6

1069.58
103 + 00
1069.6

1073.38
102 + 00

BRIDGE

End Area Cu Yds
Exc Emb Exc Emb

8 6

32 17

9 3

4 2

8 7

2 1

6 0

6 0

2 1

8 5

16 11

7 5

26 17

7 4

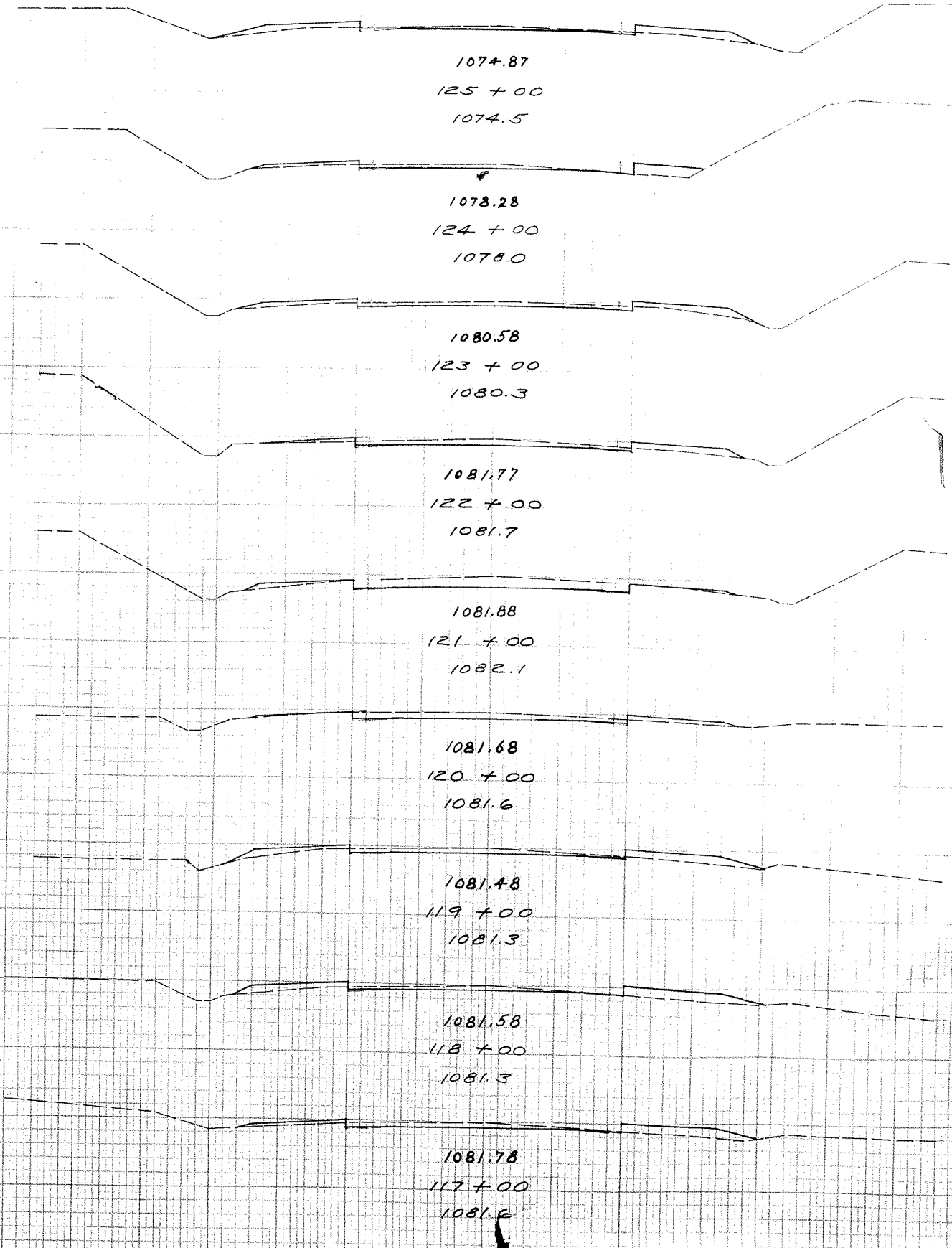
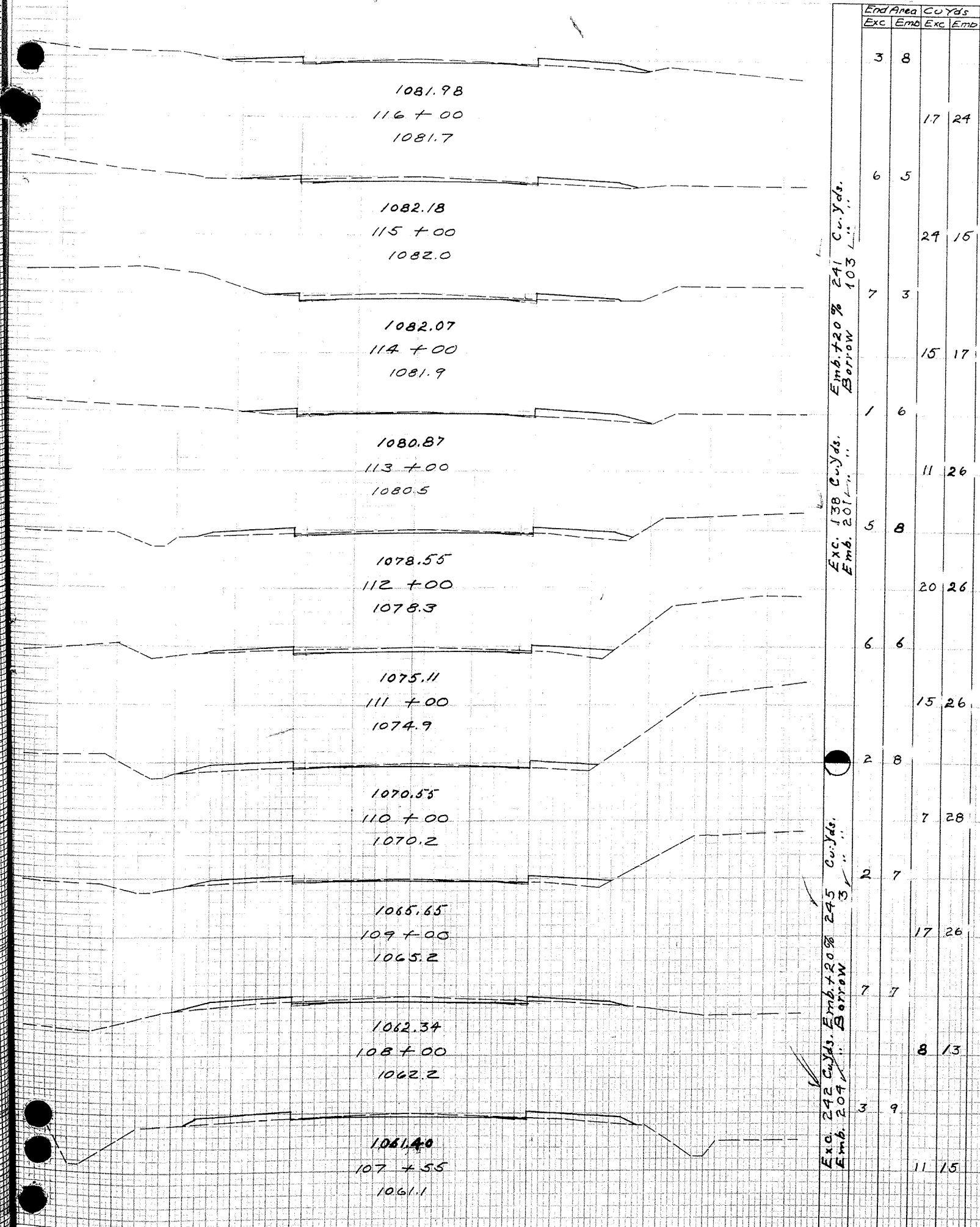
30 15

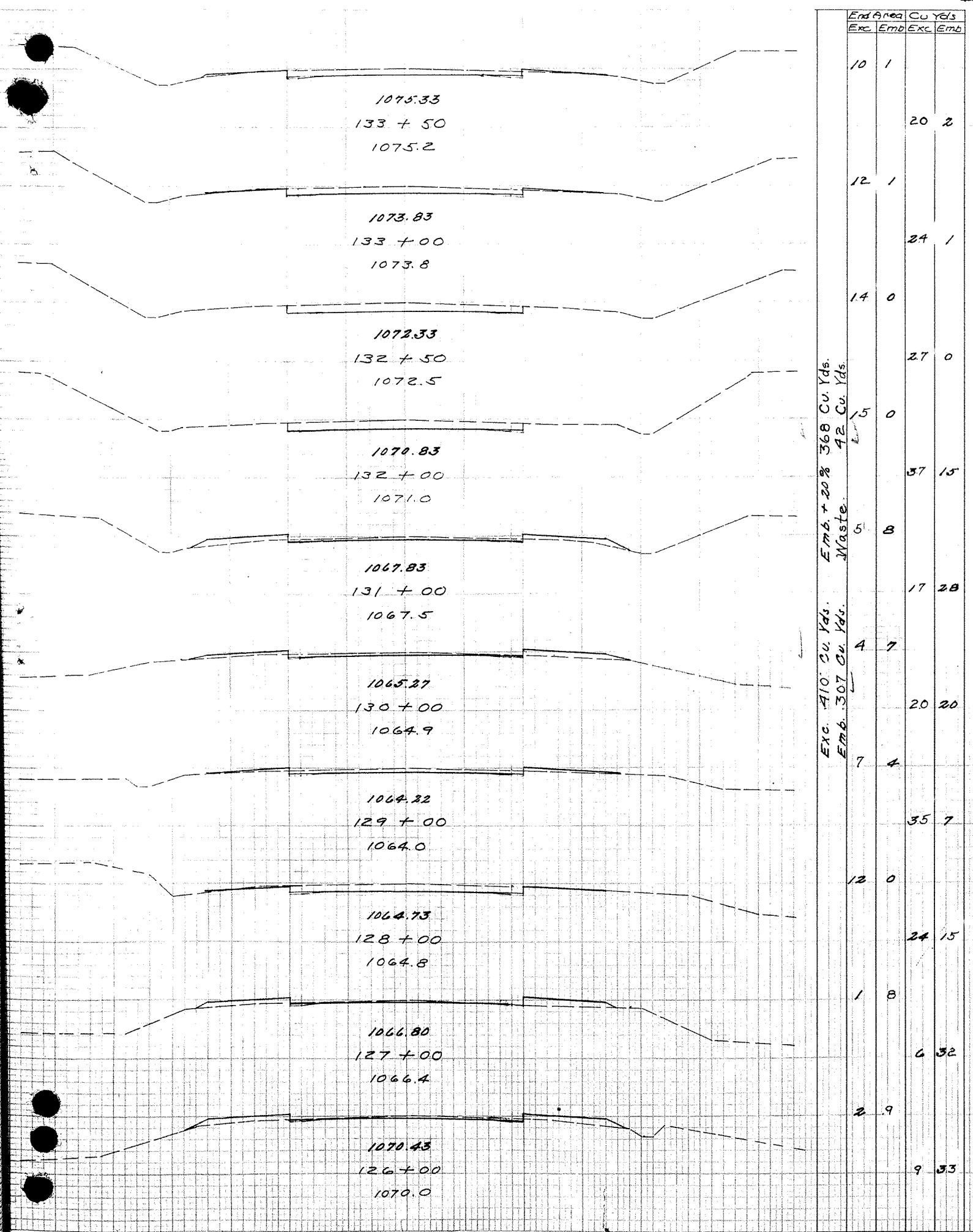
9 4

33 11

9 2

32 15





1076.42
 133 + 86
 1076.4