DIETZGEN

TRADE MARK

ENGINEERS'

LEVEL BOOK

No. 410

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning

Roadway 16 feet wide. Side Slopes 1 on 1

For Subgrade Notch Embankment

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

Please Return to
F. R. Zethmayr
Chardon, O
phone #327
County Engineer
Chardon, O

21+42.80
26.35 15°
47+22.95
11 34.90
59 59.85
14 46.40
57+14.55
6280
21 64.15

22A

BM on E+W Road 70 Hamsden centre
BM. Spike in E Root 16" Walnut
82.5 Left of Sta 42+90 El 1061.68

Robinson #76

~~Cutts~~ Road Notes

N. Estly Chardon Twp.

pgs 3 to 69

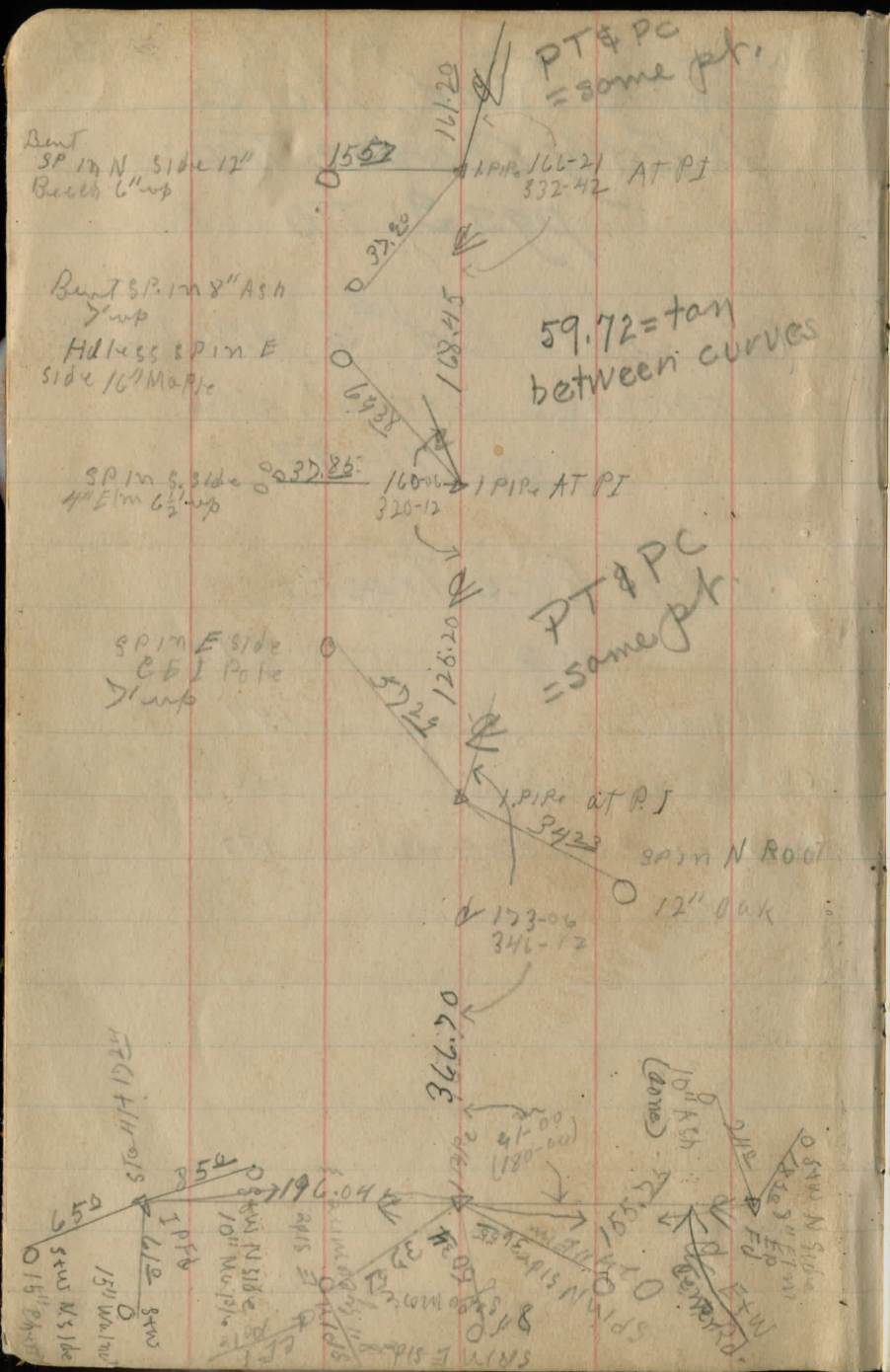
Old State Rd #6 - ABCDEFG

Drainage struct. etc

pgs 71-97

Burton Race Track

pgs ——— 99-



5 /1929

℄ Points Cutts Road June 2 1922

Sta 4+60.35 Δ 13-34 RT

E = 3.5 } T = 3.5 × 23.756 = 83.146

R = 83.15 × 8.3553 = 694.743

$\sin \frac{D}{2}$ = .071969 = 4-07

D = 8-14 L = 165.78

Sta ~~5~~+91.90 4+91.90 Δ = 19-54 LT

T = 25.58 E = T × tan Δ/4 = 25.58 × .08705 = 2.227

R = 25.58 × 5.7004 = 145.816

$\sin \frac{D}{2}$ = .34290 = 20-03-13

D = 40-06-26 L 49.61

Sta 3+66.20 Δ = 6°-54' RT E = 3.0

T = E × cot Δ/4 = 3.0 × 33.205 = 99.62

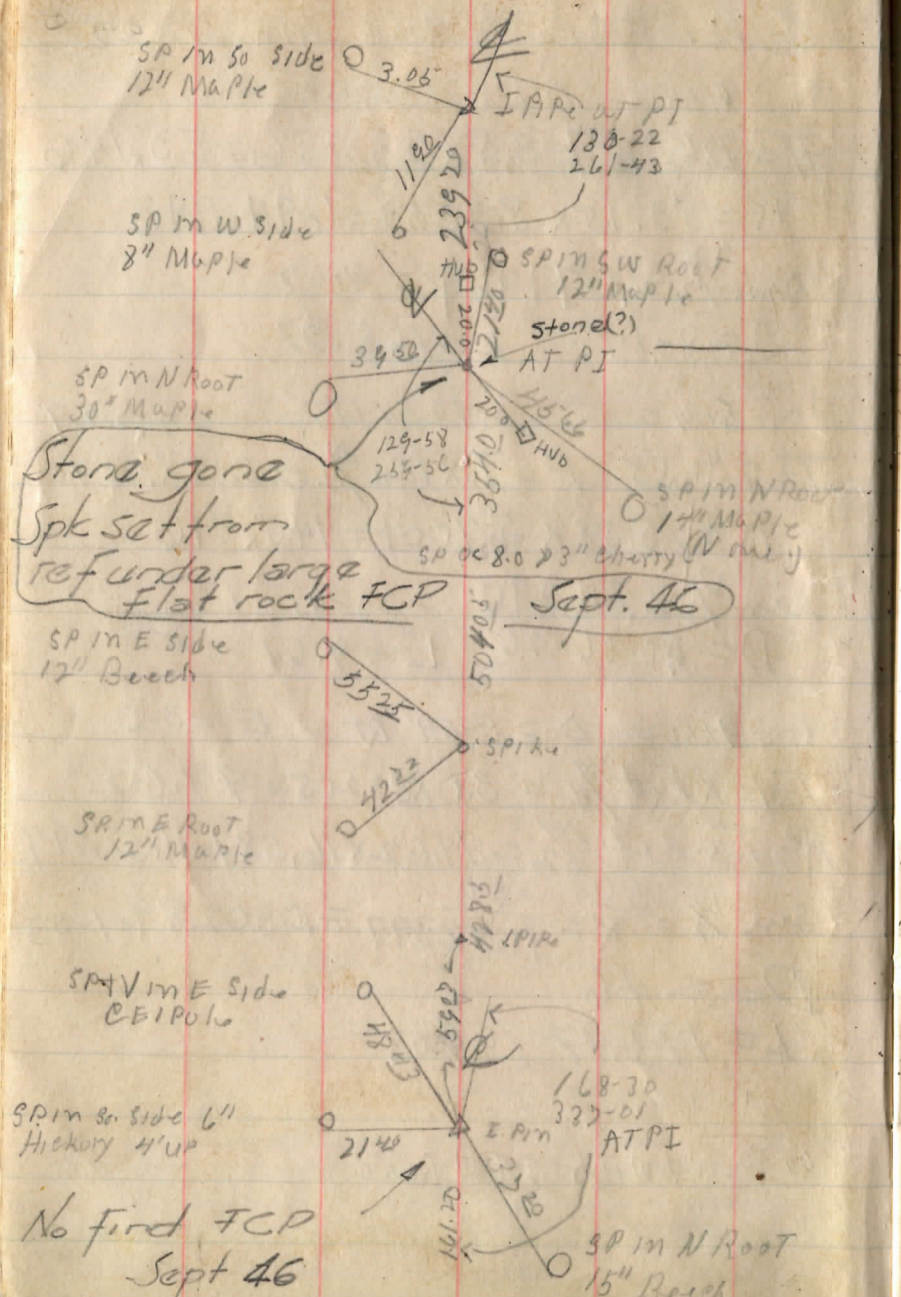
R = T × cot Δ/2 = 99.62 × 16.587 = 1652.397

$\sin \frac{D}{2} = \frac{50}{R} = \frac{50}{1652.397}$ = .030289 = 1-53

D = 3-46

L = ~~183.18~~ 199.03

0+00 PI with E & W Road



7

23+47.70 $\Delta = 11°-30$ RT $L = 222.97$

$T = 119.7$ $E = 119.7 \times .21940 = 26.262$

$R = 119.7 \times 2.1692 = 259.653$

$\sin D/2 = .19256 = 11-06-02$ $D = 22-12-04$

$\Delta = 50'-02'$ LT

21+08.00 Stone on Tract Line

$T = 120.0$ $E = 120 \times .22174 = 26.609$

$R = 120.0 \times 2.1429 = 257.148$ $L = 223.13$

$\sin D/2 = .19444 = 11-12-42$ $D = 22-25-22$

18+54.87 PT on Tangent (Deflection)

12+60.25 Point on Tangent (Set in Line

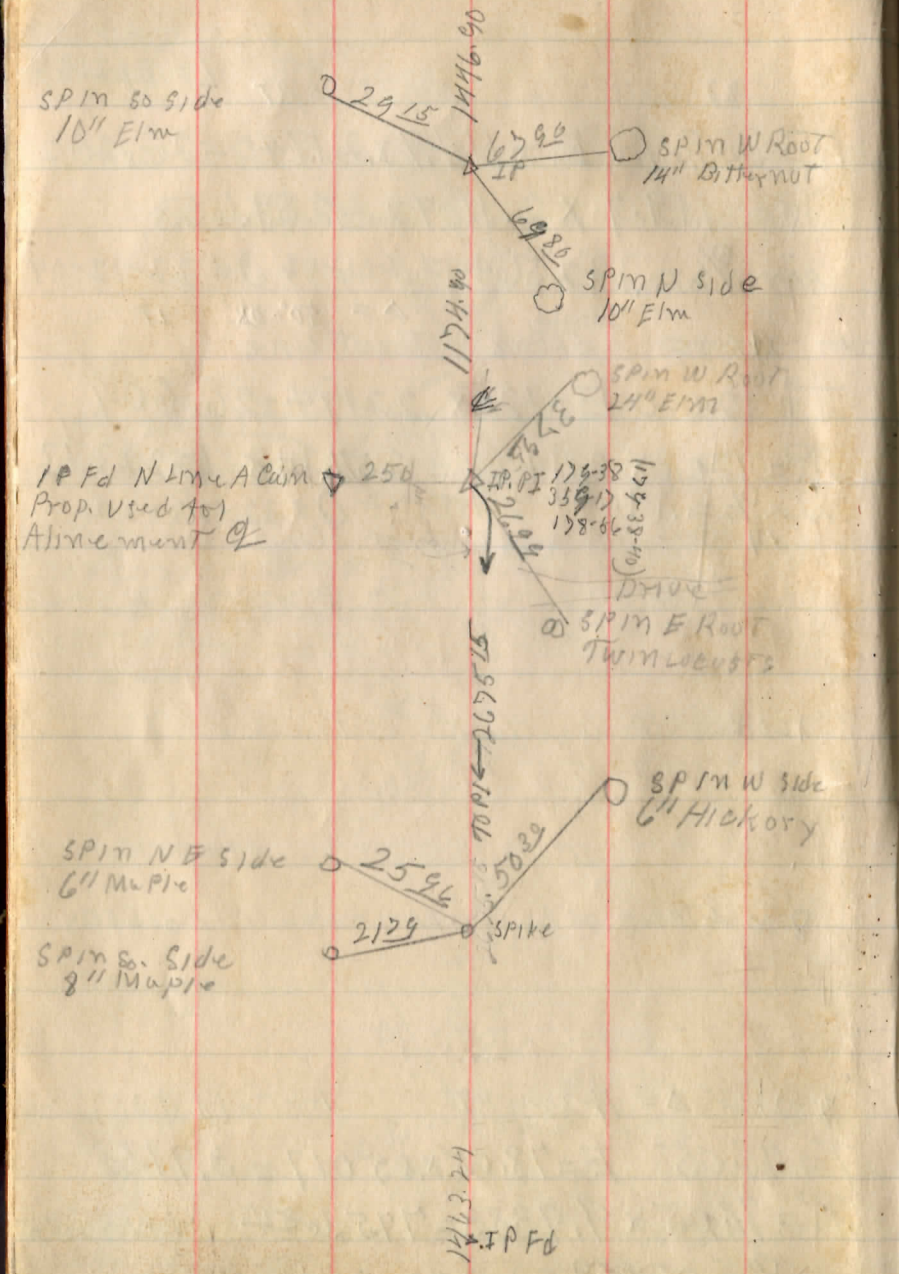
8+80.62 IP Set at P.L. (By EAE) could not Find old IPin

8+21.53 $\Delta = 11-24-30$ RT Iron Pin Fd (EAE)

$T = 78.05$ $E = 78.05 \times .05017 = 3.916$

$R = 78.05 \times 9.9383 = 775.684$ $L = 155.15$

$\sin D/2 = .06459 = 3-42-12$ $D = 7°24-24$



6+49.25
Point on Tangent 15' E of W Ditch.

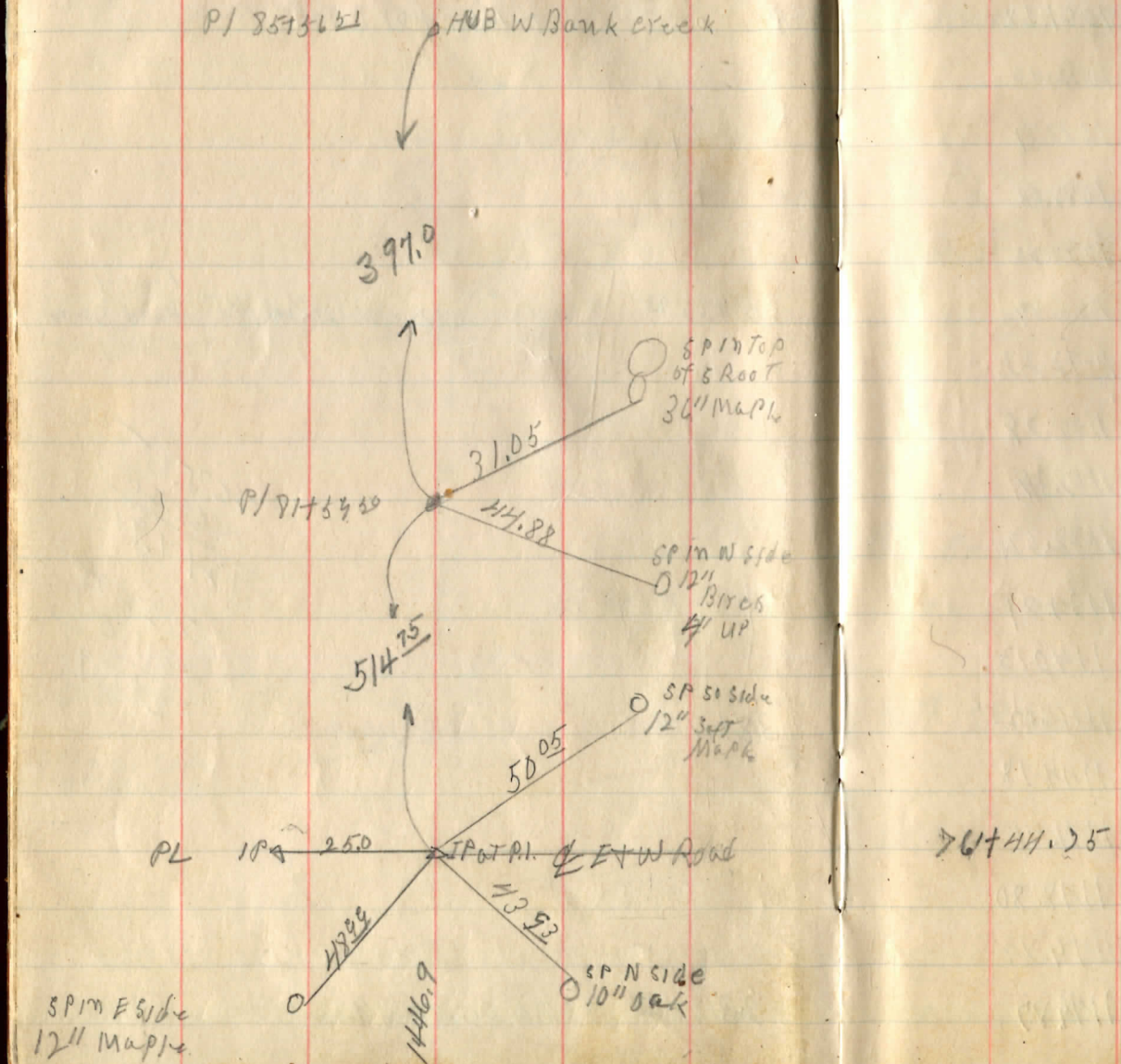
50+22.25 Δ = 0°-21'-20" Rt Front of Reed Drive

9675.15
1463.24
121 1.91

5027.95
3811.04
211.91

38+11.04 PI in Tangent

23+61.21 IP Fd used for Line


P/ 85+56.21
HUB W Bank creek
397.0
SP in Top of 8 Root 30" Maple
31.05
P/ 91+55.50
44.88
SP in W side 12" Birch 4" up
514.75
SP S side 12" Soft Maple
50.05
PL
18
25.0
IP of P.I. ℄ E+W Road
13.93
SP N side 10" Oak
SP in E side 12" Maple
1446.9

761+44.35

Check Levels cuts Road

June 24 1929

Sta.	BS	HI	FS	EL	
BM#1	11.06	1072.54		1061.48	Spike in E Root 16" Walnut
TP	10.86	1083.35	0.25	1072.49	
TP	7.60	1090.91	0.04	1083.31	
TP	2.14	1090.22	2.83	1088.08	
BM#2	3.36	1086.12	11.46	1078.76	BM. Spike on SE. Root 18" Wild cherry 20' W Sta 10+00
TP	8.04	1093.93	0.23	1085.89	
TP	12.77	1105.00	1.70	1092.23	
TP	13.04	1117.88	0.21	1104.78	
TP	12.42	1129.81	0.49	1117.39	
BM#3	9.25	1137.82	1.14	1128.62	30' W of 17+65 BM Spike on SE Root 9" Maple 10' SW 14" Wild Cherry
TB	8.64	1143.45	3.06	1134.81	Top of Stone Mon
TB	6.23	1146.36	3.32	1140.13	
BM#4	4.51	1144.53	1.34	1145.02	BM SP in W Root 16" Maple 25' E 24+25
TP	0.19	1144.37	5.35	1144.18	
#5 BM	8.73	1150.17	2.92	1141.45	BM on So. Nut in Brace on W side. W of CL #3031 Town
TP	6.02	1154.82	1.38	1148.80	
TP	4.18	1154.07	4.43	1149.89	
BM#6	1.25	1151.12	4.20	1149.87	SP in W side of Sassafras Tree 30' Eq

	BS	HI (1151.12)	FS	EL	
TP	2.37	1144.20	9.29	1141.83	
BM #9	0.35	1132.49	12.06	1132.14	Spike in W Root 24" Elm 25' E 42+50
TP	0.02	1125.80	11.71	1125.78	
TP	5.64	1123.05	8.39	1117.41	
BM #8	0.29	1120.75	2.59	1120.46	SP on W Root Bittersnut 60' E of Sta 60+45
TP	1.27	1108.93	13.05	1107.70	
TP	1.93	1100.86	10.04	1098.93	
TP	2.44	1094.33	11.57	1084.29	
BM #9	1.21	1084.00	8.94	1082.79	Spike on SW Root 10" Maple 30' E of ℄
TP	0.51	1076.21	8.30	1075.70	
BM #10			5.34	1070.87	SP. on E Root 10" Maple 25' W Sta. 74+00

See Next Page for Back check
BM #11 to BM #10

BM #11	7.15	1012.12	7.15	1004.97	
TP	13.08	1024.58	0.62	1011.50	
TP	12.39	1036.53	0.44	1024.14	
TP	11.65	1048.00	0.18	1036.35	
TP	12.31	1059.96	0.35	1047.65	
TP	10.61	1070.30	0.23	1059.69	
TP	5.84	1071.85	4.29	1066.01	
BM #10			0.99	1070.86	1070.87

Cutts Road Side Stakes 25+1

to Right unless otherwise Noted

PT	10+00	
PT	8+96.37	5-45
	8+00	2-13
PT+PC	7+41.22	6-49
	7+00	5-09
	6+00	1-02
PC	5+75.44	
PC 5+55 PT	5+15.22	
PC+PT	4+66.11	3-20-35
PT+PC	4+00	2-26-05
	3+30	1-31-35
	3+00	0-32-05
PC	2+62.08 = PC	
	2+00	
	1+00	
	0+00	

June 26+27

Δ= 11-28-30 RT
T= 28.05 D 7-24-24
E= 3.916 L= 155.13
R= 795.684

Δ= 13-39 RT E= 3.5
T= 83.176 D= 8-14
R= 694.743 L 165.78

Δ= 19-34 LT. E= 2.227
T= 25.58 L 49.61
R= 145.816
D= 40-06-26

Δ= 6-54 RT
E= 3.0
T= 99.63
R= 1652.39
D= ~~3-28-46~~ [3-28]
L= 199.03

PC 22+06.28 10-14-23

22+00 25-01-24

PT 21+81.32 24-14+24 25-01

21+60 18-[illegible]-03 20-18

21+00 13-0[illegible]-42 12-48

20+50 D-15-21 5-18

PC 20+14.62 1-19 1-1

20+00

19+00

18+00

17+00

16+00

15+00

14+00

13+50

13+00

12+00

11+00

Culvert at 21+45 { Looks like Cobble Stone / Ends Covered

Δ = 50-02 Δ = 58-02

D = 22-25-22 D = 30°-00'

E = 26.609

T = 120.0 T = 89.13 PC = 20+14.62

R = 255.148 E = 19.94 PI = 21+03.75

L = 223.13 R = 191. PT = 21+81.32

L = 166.70

HXH Stone Box Culvert 11.0 2.0

12" Galv. Iron Culvert at 10+67 6 / 6.5 11.5

30+34

30+00 Stake 23' Left

29+00

28+00

27+00 Stake 25' Left

26+46

26+00

25+00

24+31 M

PT 24+29.58 e

24+00

23+00

24-45-25

21-25-25

10-14-23

Topography starts Sta 24+64

12"X20' Corrug. ℄ 12° OTP +37 Gal. Iron culvert

Replace with 18±" & hdwls 24 ft

24" Map O 18.0 +50 +40 23 O 8" Map O 12" Elm

10" Map O 12.0 +11

+40 20.0 O 10" Map

℄

O

+00 12.0 +40 13 OT

+66 O 17.0 26.0 +66 Map CUTS HOUSE

12" M

CUTS Drive

16" M O 16.0 12.0 10"X24' Corrug Gal Iron

+50 O 20.0

14" Elm 7.0 #2 O 14" Hickory +66

10"X20' Corrug Gal Iron culvert

+30 24" Elm 5.0 O

Replace 22 ft +20 & hdwls.

℄ 16 OTP +22

+90 +60 +45

21+64 14" M O 12.0 93.0 OTP

Δ = 44°30' RT O 16.0

D = 22-12-04

E = 26.262

T = 114.7

R = 256.63

L = 222.57

—℄— ☐ Stone + 66

38+00 Stake 25 Lt

38+15 ℄ on Tangents 33+34.5 Spike

35+00

36+00

35+00

Stakes 25' Left

+ 68

34+00

88

—℄— ℄ Pc + 88

33+00 Stake 25' Lt

33+00

32+00 Stake 25' Lt

31+60 Stake 25' Lt

38+10 Woods

+20 20.0 0 8" Hickory

+20 18.0 0 15" Stump

6" Map 0 21.0 +90

6" Map 0 21.0 +20

+60 14.5' OTP

℄

+84 14.0 OTP

10"X18' Corrug Galiron Culvert

3.0 + 48

H.

12" Ash 0 20 +33 22.0 0 16" Locust

0 +80 24.0 0 12" Maple

16.0 Map 20.0 +08

6" Map 0 +66

14" Elm 0 +23 16.0 OTP

10"X21.5 Sewer Pipe

& Replace with 18" Corr. & bdwl

24 ft

Map +17 8 Trees

48+00

47+00

46+00

46+00

45+00

44+00

STA = 5 36+00 — 11+00 25'0 Left

43+00

42+00

41+00

40+15 — PL

46+00

+ 38

39+00

10" Apple 0 130 +43

+88 11.0 OTP

6" Maps 0 14.0 +60

+35 12.0 OTP

8" Map 0 20 +50

+40 | 18.0 8" Maple

6" Map 0 22 +5 21.0 8" Boss Cross

+25 12.0 TP

Maps 0

8" Map 0 20.0

8" Map 0 21.0

6" Map 0 20.0 +30

+15 12.0 OTP

8" Map 0 22.0 +46 15.0 0 14" Map

Open outlet

10" x 165 corrug Galvanized

9.0

Replace 24 ft 12" & handrails

+32 14.0 18" A SR

6" Map 0 12. +10

57+00

56+00

55+00

54+00

53+00

52+00 Stake 25' Left

Open outlet channel 125 lin ft
3ft wide 1 ft deep = 25 cu yds.

Brush 8" Locust 120 +30

51+00

50+00

~~PI~~ Δ 25.0 48+81.4

49+00 Stake 25' RT

+ 42 15-13" O Locust 10" Maple PI
8" Map O 20.0 + 33 O O 3 10" Ash

Brush
1" To 3"

+ 50

+ 20 10' O 4" Cherry
O 2" -

+ 20 Cherry Brush
1" To 4"

Ash Brush 16 +15

Brush
1" To 2" Locust

Locust Brush 1" To 2"

16" Cherry O 11.0 + 20
+ 78 20.0 10" Ash
+ 68 19.0 O 18" Cherry
+ 15 17.0 O 8" Ash

Locust Brush
8 4" Diam

Locust Brush

New Culvert

3' X 3½' Stone Box Culvert

Extend on West if OK. 72 ft

+ 23 18" O 12" Basswood
+ 88. 20 O 6" Locust
+ 58 20 O 30" Elm
+ 15 23 O 24" Elm

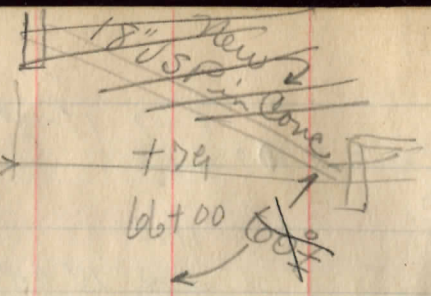
about 40 3" To 4" Locusts

Road Ditch

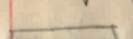
15" X 22 Sewer Pipe Entrance Driveway

+ 46 14' O Twin Locust
15" + 14" Diam

Locust Brush
10 Locust
3" To 4" Diam



Eliminate
Replace

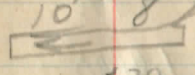


Brush of 8 4" Trees
Wood at ℄

Brush 2 4" Trees 00 +50
15" Map 0 15.0 +20
Brush 4" Elm in ℄ 65+00
Brush 15" Maple 0 10.0 +50
6" OAK 0 +20
8" OAK 0 18.0

Brush ℄
Brush
Brush

Brush + 60 8 ℄
3" Trees



Brush
+20
+10 22.0 0 8" Elms
Brush 3" Torn Elms 8 0 +40
25" Cherry 8 0 20.0 +55
10" Map 21.0 +10
+30 12.0 0 6" Oak

continued on Pages 66+46

on Tangents 76+44.73 76+08.33
IP

76+00 Stake 25' LT
PC 75+09.83.

74+00

73+00

+40

72+00

71+00

70+00

+46

69+00

+46

68+00

67+00

18" New 16" USP in Conc. end wall 60° headwall 4 side fills future, each end 24' overall

Δ ℄ E+W Road

Brush

+85 15.0 6" Maple

10" X 18' Cast Iron 50 culvert

Twin Elm 10" + 6" Diam 8 2.0 ℄

3 6" Elms 90 10.0 +16

Brush

90 6 Trees 3" to 6"
14.0 00
+10 15.0 00 24" Elm
0 1 3" Elm
+25 18.0 0 1 5" Elm
+65 0 1 6" Elm

Brush +10
2 10-11" Trees

12" X 18' corrug (68+46)
Gal Iron culvert

Eliminate

Brush +4
4" To 6" Trees
℄

Cross Sections

Sta	BS	HI	FS	EL
BM	5.76	1062.44		1061.68
0+00			3.8	63.6
0+30			5.7	61.7
1+00			5.5	61.9
2+00			5.4	62.0
TP	10.50	1072.44	0.70	1066.74
3+00			12.0	65.4
TP	12.63	1083.06	2.01	1070.43
4+00			10.2	72.8
TP	8.28	1086.42	4.42	1078.14
4+66 11/00			10.0	76.4
5+15 72			8.0	78.4
5+76 44			3.5	82.9
6+00			2.4	84.0
7+00			0.2	86.2
TP	10.10	1094.85	1.93	1084.42
5+15 22			16.4 c	78.4
5+76 44			11.9 c	82.9

Continued on Page 3

Cutts Road July 21 1924

W ℄ E

on E Root 16" Walnut 25' W 0+85

℄ Co Rd 22A 38

8.6/25 6.9/18 5.7 5.6/18 4.9/25

6.6/25 6.3/16 7.6/13 6.7/11 6.0/5 5.5 6.0/4 3.3/9 6.3/10 6.3/25

6.4/30 6.0/22 5.9/15 5.4 5.7/5 5.3/15 4.4/20 2.2/25 0.0/30

1.0/30

18.2/30 12.6/25 12.3/20 18.2/12 12.0 12.4/5 3.6/11 1.0/30

13.2/25 15.1/20 12.7/12 4.9/6 10.2 10.1/10 11.0/12 4.8/15 6.0/30

16.3/25 13.0/19 10.8/10 10.0 10.2/5 1.2/25

Joints Down 12.6/20 15.0/20 8.9/10 8.0 8.3/6

12.3/30 11.3/25 9.1/17 8.6/5 3.6 3.3/9

11.4/30 10.7/25 8.6/15 2.3/5 2.4 2.6/10

10.6/27 2.9/20 1.1/9 0.2 0.3/1.

Stump W side Road 8.1/25 6.2/30

7.3/17 4.5/25 3.2/30

44+45

Topography stations 0+00 TO 23+00

11+00
+72
10+00
9+00
8+00
7+18 Culv
7+06
6+00
5+00
4+00
3+00
2+63
2+00
1+00
0+00

June 27 1929 Replace
12"x20' corrug Cal Iron Culvert
<6E> 20ft 18" corr Iron with headwalls
+41 110 OTP
+43 12 O 10" oak
Triple 6" Map O 23.0 +23
TP O 17.0 +70
20 E-4" Trees
Brush 8" Basswood O 16.5 +21
+90 16.0 8" Beech
5" OAK O 17.0 +50
8' Extend 4' ft with headwall
headwall & encase
U.S Pin cone.
4'x12' 16' Corr 10"
U.S.F.
TP. O 8 +40
Brush
CE Triple O 15.0 +32
16" Map O 13.0 +60
+64 15.0 OTP
1" to 3"
Brush
+62 17.0 O 6" Basswood
+5 15.3 OTP
CE Triple 25
9± 8± 18"x18' Corr. Iron
1+11
Brush & 10 3" Trees
C.E. O 23.0 +18
TP O 18.0 +71
12" Walnut O 20.0 +60
Add 2 ft 18" Vit in cone. & headwalls to each end.
46' tile below
Save 6" tile

10 X 26

16" Maple ○ 16.0 ℄

+51 10.0 T Pole

○ Brush

○ ○ 3-5" Trees

+58 ○

6 Brush

12" Beech ○ 26.0 + 80 2" to 4" Trees

+11 13.0 ○ 16" Apple

Brush

+93 8.0 ○ T Pole

10" X 26' Corrugated Culvert Kirby's Bridge 10.0 +48 13.0 ○ 8" Elm

+52 14.0 ○ 10" Elm

+23 14.0 ○ 12" Elm

6 1-12" Elm

Make 3 pr openings or outlets +64 8.0 ○○ 14", 2 3" Elms

4'X4' X 14' Stone Culvert 12.0 3.0 Extend E. end 8 ft headwall " W " 3 " & " "

12" Apple 13.5 +13

+07 22 → ○ CEI pole

3" Elms do 20.0 + 12

3 6" Oaks ○○ 150 +22

+50 +50 TP

12" Maple 14.0 + 90

12" Maple ○ 17.0 +45

12" Map ○ 17.0 + 28

6 Elms ○○ ○ 24" 16.5 + 12

3" To 6"

48" wide X 42" high

5/20/55

= 14 sq ft

54" ϕ = 15.9 sq ft

60" ϕ = 19.6 " "

+57

15+00

15+00

16+00

15+00

+50

14+00

13+00

12+00

See P 27

23+00

22+60
+95

21+00

20+00

19+00

+65 13.0 ○ 10" Maple

+36 16.0 82 12" Elms

2 16" Elms ○ 13.0 +25

15" Elm ○ 13.0 +12

Build 15" Conc x 30' → ▭ Culvert ○ 16" Elm
& headwalls. Ends Buried 20'

24" Map ○ < 15.0 8.0 →
12" Beech

16" Map ○ 22.0
+58 Hp ▭ 6'x 18' Corrug. Iron Culvert Drive
+64 9.0 10 T Pol.

Cross Sections Continued From Pages 34+35 July 21 1928

	BS	HI	FS		
		1094.85			
6+00		1094.25	10.8	84.0	
TP	11.82	1096.27	10.40	1084.45	
TP	8.30	1103.20	1.37	1094.90	
7+00			17.0	86.2	
7+41.22			16.9	86.3	
8+06			16.2	87.0	
TP	1.06	1043.24	11.02	1042.18	
7+41.22			6.9	86.3	
8+00			6.2	87.0	
TP	11.48	1094.56	5.16	1088.08	
8+60			10.40	89.2	
9+96.40			12.50	87.1	
TP	1.10	1088.38	12.25	1087.28	
9+50			15.10	83.3	
10+08			6.6	81.8	
BM #2	8.51	1082.22	9.62	1078.76	1078.76
11+00			5.40	81.9	
TP	2.63	1098.04	1.86	1085.41	

Same Stump

54/17 8.0/25 1.7/30

44/25 14/30 Going up

12.4/15 6.5/26 2.8/30

10.7/15 4.1/25 2.3/24

13.8/30 12.7/21 11.5/15 9.3/9 6.8 7.1/6

12.2/30 10.3/23 7.6/13 6.5/11 6.2 6.1/6 3.6/4

Going Down

18.0/30 15.0/21 10.3/11 10.40 10.3/8 6.1/13 2.1/21 0.7/30

15.0/30 17.0/23 13.7/13 12.5 11.8/6 2.6/12 8.1/25 2.1/30

7.1/30 5.6/16 6.1/14 3.10 6.3/20 2.8/12 1.7/26

10.1/30 2.7/17 7.4/16 6.6 6.8/5 7.5/8 5.7/12 3.5/25 3.1/30

Spk. S.E. Root + 18" W. Cherry 70ft. W. Sta 10+00

4.1/30 5.9/15 5.6/9 5.1 5.5/3 7.2/7 4.8/10 1.7/25 0.9/30

	BS	HI	FS	EL
11+50		1093.04	14.0	84.0
TP	11.0	1108.40	0.64	1097.40
12+00			18.0	90.4
TP	6.36	1114.40	0.36	1107.68
+35			20.2	94.2
BM#2	8.74	1083.55		1074.81
TP	8.76	1095.40	0.91	1086.64
12+00			5.0	90.4
+35			1.2	94.2
TP	7.31	1102.37	0.34	1095.06
+60			10.6	91.8
TP	1.31	1091.13	12.55	1089.82
12+80			4.1	87.0
+40			5.0	86.1
13+00			5.1	85.5
+57			5.7	85.4
TP	4.32	1091.08	9.77	1086.36
14+00			5.1	86.0

W Q E

19.0/30 12.6/24 13.4/12 14+00 14/2 10.7/6 6.5/12 4.0/30 14/40

11.3/10 6.9/26 2.7/40

30 44 21
15 26 40

30/15 44/26 21/40

Spk. S.E. root 18" W. Cherry 70ft. W. Sta 10+00

14.0/40 8.6/25 5.0/18 6.1/15 6.0/3 5.0 add 13.0

2.0/35 6.4/27 1.1/21 4.3/18 2.7/3 1.2 add 19.0

3.3/40 .7/30 12.0/16 .10.6 11.2/2 3.1/8

.20. 4.1 6.1/9 8.2/25 8.7/30

10.9/35 6.7/22 4.0/19 5.1/15 5.0

10.6/20 6.8/25 5.3/16 5.6/14 5.6 8.4/8 8.2/25 8.4/110

Top Hdwall 6.3 Bottom 13.3 5.7 Bottom Culvert 13.1

8.3/30 8.1/25 6.7/9 5.4/6 5.1 6.0/9 6.9/25 7.0/30

TP	7.51	1097.42	1.17	1089.91
15+00			6.3	90.7
TP	12.45	1108.44	0.98	1096.54
TP	11.80	1120.43	0.36	~~1109.63~~ 08.63
16+00			15.4	05.0
TP	11.44	1131.04	1.33	~~1119.60~~ 19.10
17+00			11.40	19.6
BM #3			2.42	1128.62

BM #3	9.43	1138.05		1128.62
18+00			8.9	29.2
14+00			5.0	33.1
TP	7.10	1141.46	3.52	1134.35
20			5.7	35.8
20+50			5.8	35.7
21+00			8.8	32.7
TP	2.17	1132.76	10.86	1130.59
21+50			4.0	28.8
22+00			4.7	28.1

W

6

E

Spk. S.E. root 9" Maple 30'W Sta 17+65 (10'S.W. of 14" W. Cherry)

July 3 19 29

Q

		HI		
22+50		1132.76	3.9	28.9
TP	12.92	1145.54	0.14	1132.62
23+00			12.8	32.7
BM #4	5.76	1150.78	0.52	1145.02
24+00	11		8.8	42.0
25+00			6.8	45.0
26+00			8.6	42.3
TP	6.24	1148.64	8.38	1142.40
27+00			6.0	42.6
+65			4.7	43.9
28+00			5.2	43.4
29+00			7.8	40.8
TP	4.44	1144.25	8.33	1140.31
30+00			6.5	39.3
+34			6.6	38.2
31+00			5.5	39.3
32+00			6.4	38.4
32+17			6.3	38.5
BM #5	2.22	1148.70	3.23	1141.48

W C E

8.1/22 2.4/9 4.1/12 3.4 4.6/8 6.0/16 5.2/30

6.8/3.5 2.0/25 13.1/15 12.6/13 12.8 13.6/4 8.1/11 2.4/20 2.20/30

Spk. W. root 16" Maple 25ft E Sta 24+25

8.1/30 2.2/20 2.2/11 4.8/8 8.8 9.8/7 2.6/11 6.3/30

5.8/30 5.3/20 5.1/12 6.8/10 6.3/8 6.8 6.1/5 6.2/8 4.6/10 11/25 4.0/30

6.8/25 8.2/8 6.4/6 8.5 8.8/9 6.4/12 7.8/15 2.2/25

6.8/30 5.6/15 6.2/7 2.0/5 6.0 TOP 6.0/11 BOTTOM 5.4/11 ENG DRIVE 5.6/30

5.3/25 11.5/2 5.6/5 5.1/4 4.2 4.6/9 5.3/10 3.2/12 3.2/25 3.1/30

6.0/30 4.8/9 6.0/6 5.6/11 5.2 5.4/7 5.4/9 4.2/12 3.4/30

7.4/30 6.3/10 8.4/11 8.1/3 7.8 8.0/2 8.4/10 6.8/12 6.1/30

6/30 5.4/15 5.5/6 6.6/11 5.6 5.5/10 6.3/13 5.2/16 4.6/32

Culvert Bottom Ditch 8.1/8 TOP 6.6 13. Bottom Ditch

5.6/30 5.1/15 5.6/8 6.5/5 6.5 5.4/10 6.3/13 5.5/16 6.0/30

7.4/30 8.0/25 2.9/15 7.0/8 7.1 6.4 6.3/10 7.1/13 6.6/16 5.8/30

Bottom Ditch 9.5/4 TOP 6.3 8.2/15 Bottom Ditch

On S. nut in brace on W. side of W C.E.I. tower 1Y° 7071

		HI			
33+00		1148.30	8.7	40.0	
+40			9.8	40.9	
34+00			5.4	43.3	
TP	2.25	1155.47	0.48	1148.22	
35+00			8.0	47.5	
36+00			5.9	49.6	
37+00			4.4	51.1	
38+00			5.0	50.5	
TP	3.59	1153.56	6.50	1149.97	
39+00			4.6	49.0	
40+00			4.3	49.3	
TP	4.82	1154.32	4.06	1149.50	
41+00			4.5	49.8	
42+00			5.0	49.3	
BM #6	2.63	1152.53	4.42	1148.90	1149.83
43+00			4.1	48.4	
44+00			4.9	47.6	
45+00			7.1	45.4	
46+00			9.4	43.1	

W — ℄ — E

6.0/30	6.3/17	7.0/8	9.4/4	8.7	8.8/10		4.3/13	4.2/15	10.0/30
3.7/30	4.6/16	4.9/10	8.6/5	7.8	7.7/10	8.2/12	7.2/15	7.0/20	8.6/30
1.2/30	2.8/8	6.4/4		5.4		5.5/12	3.1/13	3.0/23	3.4/30
				—					
5.4/30	5.3/12	7.0/6	8.4/3	8.0			8.4/11	6.2/16	6.4/30
6.2/30	6.3/16		6.3/6	5.9		6.0/10	6.3/12	5.2/15	5.0/30
4.1/30	4.3/7		5.1/4	4.4	4.5/10	5.0/12	4.0/14		3.9/30
4.3/30	4.6/7		5.3/6	5.0	5.2/9		5.5/11	3.6/15	3.2/30
5.6/30	5.2/10	5.3/8	4.7/5	4.6	4.4/8		5.4/10	4.6/13	4.2/30
3.7/30	4.1/10		5.2/8	4.3		4.8/8	6.5/10	4.3/12	4.2/30
4.8/30	4.8/14	5.4/12	4.9/9	4.5		4.5/11	5.4/7	4.4/10	4.0/30
5.4/30	5.4/14	6.0/12	6.5/10	5.0	5.0/3		5.9/7	4.4/9	3.9/30

Spk. W. side 7" Sassafras tree 30' E of Sta

4.3/30	4.1/13	5.0/11	4.4/9	4.1	4.3/5	5.1/7		4.2/9	3.2/25
6.2/30	4.9/10	5.9/8	6.3/6	4.9	5.1/5	6.3/9		4.5/11	4.1/30
6.4/30	5.4/8		7.2/6	7.5/3	7.1	7.6/5	8.5/5	5.5/12	5.0/30
8.3/30	7.9/9		9.8/6	9.4		9.7/11	10.5/8	8.0/13	7.9/30

		HI		
TP	3.12	1145.58	10.07	1142.46
47+00			3.8	41.8
48+00			5.2	40.4
49+00			6.5	39.1
TP	2.86	1141.21	2.22	1138.36
50+00			6.3	34.9
51+00			13.2	28.0
BM #3			4.06	1132.15
TP	6.56	1135.26	12.52	1128.64
51+25			8.6	1126.64
TP	3.69	1129.58	8.86	1126.39
51+40			3.8	26.2
51+80	CULVERT		4.9	25.1
52+00			5.3	24.7
TP	8.30	1133.06	6.22	1124.76
53+00			2.3	25.8
TP	6.96	1132.92	2.30	1130.26
54+00			4.6	28.1
55+00			2.3	30.4

1132.14

W — E

3.0/30 3.0/10 1.0/8 — 3.8 — 4.3/5 5.0/8 3.8/10 3.3/30

3.9/30 5.0/10 6.7/5 5.7/5 — 5.2 — 5.4/7 6.0/9 5.7/11 5.9/30

5.9/30 5.3/13 7.1/8 — 6.5 — 6.8/5 8.3/5 6.7/10 4.3/19 6.0/30

2.4/30 2.7/13 6.2/7 6.0/6 — 6.3 — 6.3/11 2.0/10 4.3/14 2.8/18 2.2/25 3.0/32

6.4/30 7.0/19 13.6/6 — 13.2 — 12.3/8 14.0/Rocky 2.0/21 6.6/23 6.0/30

Spk. W. root 24" Elm 25 ft E Sta 42+50

1.6/30 3.6/17 8.6/7 — 8.6 — 8.7/8 9.5/10 8.2/12 8.7/14 10.1/7

1.3/24 4.1/16 3.9/8 — 3.8

Bottom of A — 4.1/5 — 4.4 — 9.11/16

8.2/30 2.5/16 7.9/13 5.4/2 — 5.3 — 5.5/11 7.1/22 7.8/28

2.0/30 6.3/21 5.4/13 8.0/7 — 7.3 — 7.3/7 8.2/9 3.1/14 2.1/30

11.2/25 11.2/10 5.2/4 — 4.6 — 5.1/5 4.1/10 2.3/30

6.8/30 6.9/11 8.0/10 — 7.3 — 8.1/6 5.6/10 5.2/30

		HI		
TP	2.54	1128.29	12.02	1125.75
56+00			3.2	25.1
57+00			7.0	21.3
TP	3.04	1122.88	8.45	1119.84
58+00			4.6	18.3
TP	4.75	1121.86	5.78	1117.10
59+00			4.9	17.0
TP	7.08	1125.36	3.67	1118.28
60+00			7.1	18.3
BM#8			4.86	1120.50

1120.43 OR

BM#8	2.46	1122.94		1120.48
61+00			4.7	18.2
62+00			5.8	17.1
63+00			4.7	13.2
TP	4.40	1116.36	10.98	1111.96
64+00			5.4	11.0
TP	3.32	1106.83	12.85	1103.51
65+00			5.0	01.8

W Q E

1.8/30 2.2/11 4.1/9 3.2 4.0/6 1.5/11 4.1/30

5.7/30 5.2/15 8.3/10 7.0 7.3/6 8.7/8 5.7/12 5.3/36

4.8/30 4.7/12 5.4/11 4.6 4.4/6 6.0/9 3.8/11 3.3/30

5.7/30 5.6/12 4.2 5.3/6 6.3/9 5.4/11 4.1/26

5.2/30 5.7/18 7.4/11 7.3/9 7.1 7.4/6 6.1/5 7.0/24

Spk. W. root Bitternut 60ft E Sta 60+15
July 6 1928

TP	3.64	1104.34	6.18	1100.66
66+00			5.1	99.2
TP	4.44	1102.40	6.43	1097.41
+74			4.1	98.3 Culvert
67			4.7	97.7
TP	4.25	1094.80	6.35	1090.55
68			6.6	93.2
TP	3.83	1093.18	10.45	1089.35
+70			4.6	88.7
69+00			5.3	87.9
TP	9.44	1096.42	6.20	6.98
+46			9.5	86.9
+70			9.4	87.0
70+00			10.2	86.2
TP	3.14	1092.14	2.45	1089.97
+20			10.1	87.1
TP	1.32	1087.74	10.79	1086.30
BM #4			4.29	1082.95 1092.09
71+00			4.3	78.4

W ℄ E

Spk S.W. root 10" Maple 30' E of Sta

71+20		1082.74	10.0	77.7
TP	3.83	1078.18	10.39	1070.35
72+00			4.6	76.6
+40			4.2	76.5
73+00			5.3	75.9
TP	2.70	1077.66	6.22	1074.96
74+00			4.3	73.4
75+00			6.8	70.6
BM # 10	2.32	1073.35	6.63	1071.03
+83			7.3	66.1
+44			7.6	65.8
76+83			8.0	65.4
BM # 10			2.32	1071.03
BM # 10				
BM # 10	0.37	1021.24		1070.87
76+25			7.6	63.6
TP 00	3.25	1063.18	11.31	1059.93
77+00			3.8	59.4
+83			6.3	56.9

W C E

9.9/26 10.6/27 10.1/6 10.5/3 10.0

6.9/30 6.6/23 5.0/10 5.5/8 4.6 4.9/8 5.7/12 5.0/13 5.6/30

Bottom Ditch 2.6 Top 4.3 6.2 Bottom Ditch

7.0/28 6.2/8 6.2/5 5.3 6.0/11 2.0/12 2.5/16 2.1/25

6.6/30 5.2/23 4.1/10 5.1/8 4.3 4.8/10 5.9/13 2.0/18 1.8/30

7.2/30 7.0/24 6.6/22 7.7/11 6.9 7.1/6 8.6/11 5.0/18 5.3/30

Spk E. root 10" Maple 25ft W. Sta 74+00

4.6/30 4.0/19 6.3/12 7.5/11 7.3 8.0/8 4.8/11 4.3/20

8.6/9 11.0/13 11.3/18 12.0/30

6.2/30 5.2/25 7.0/15 8.9/12 8.0 7.6/9 10.0/19 11.6/30

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5.3/30 5.5/23 5.8/11 8.2/6 7.8/8 7.6 8.2/11 7.6/24 5.2/25

3.9/30 3.2/15 3.8 4.9/2 4.3/8 4.2/16 3.6/19 3.3/30

6.1/30 6.2/17 6.3 6.7/9 9.5/13 8.2/14 8.8/25 9.1/27 9.0/30

D8+00		1063.18	9.0	54.2
TP	3.14	1054.46	11.91	1052.27
+ 30			3.2	51.3
D9+00			5.5	49.0
+40			7.2	47.3
TP	0.84	1044.21	11.14	1043.32
80+00			2.5	41.7
81+00			5.5	38.7
TP 60	3.84	1042.54	5.31	1038.40
D1+60			4.4	38.3
82+00			8.1	34.3
TP	0.70	1033.71	9.73	1033.01
82+60 8			8.3	25.4
83+00			12.0	21.7
TP	0.49	1021.49	12.71	1021.00
+45			16.0	11.5
TP	2.66	1012.10	12.05	1009.44
84+00			4.80	07.3
+ 65			8.7	03.4

8

8.5/30 8.5/14 9.0 5.6/12 11.5/16 10.3/24 11.5/31 10.1/33

2.2/30 2.6/21 3.2 3.3/16 4.4/18 3.5/30

5.5/32 5.7/14 5.5 5.0/14 7.7/24 6.0/32 TOP OF

7.8/33 7.5/20 7.2 8.2/15 8.7/20 9.4/24

2.5/30 2.5/15 2.5 2.6/12 2.7/30 3.8/35

6.0/33 6.7/22 6.6 5.4/18 7.2/32 6.5/36

5.3/30 5.1/21 4.5/9 5.0/7 4.4 4.8/6 6.3/8 4.7/10 6.0/28 7.2/33

6.5/35 5.5/30 4.8/14 6.0/13 8.1/4 8.4 8.3/3 6.4/6 6.1/10 11.2/22 11.3/31

4.6/28 6.8/19 4.4/5 5.4/6 8.3 8.7/10 8.7/17 8.0/21 7.4/27

11.6/30 11.1/23 9.6/14 9.0/4 12.0 15.1/2 14.7/7 14.6/16 11.4/26 13.3/32

10.4/30 10.4/16 10.0 9.7/7 9.9/20 8.8/30

5.8/30 5.7/22 11.4/6 4.8 5.0/16 4.6/23 8.4/36

7.2/36 6.5/21 6.6/17 8.7/12 8.7 9.3/7 9.3/15 14.5/23

BM #11	1012.10	7.15	✓ checked ok 1004.95	
85100		11.8	1000.3	

W — Q — E

+ on S.E. Corner Lowest Stone Step N.E. Corner Harper House

7.4/20 — 2.5/7.9 — 9.2/12 — 12.5/6 — 11.7 — 13.0/10 — 15.5/15 — 13.00/26

Continued From

9+00 0-12"

80+84.96 PC

80+00

70+00 Stake 20' RT

70+00 Stake 35 FT RT

70+63.30 PT

70+00

70

Δ = 7°-52' LT T = 98.50
D = 11°00' L = 196.67
E = 3.375

PI = 70+07.50
PC = 70+07.83
PT = 71+04.50

76+08.33

(77-07 / 344-16) ~~I P~~ ~~C E T~~ (1) Rwd

Pages 32+33

Overout Cut 2 ft
Re coat
Make New
12" V5 Pin conc. and
Side hill headwalls each end

Note Water diverted at present at
81+60 from both sides of road

DI P on PL 3.5' LT

PI = 85+66.51
Δ = 83-30 LT
D = 43-00
E = 40.625
T = 106.55
L = 178.96
PC = 84+50.24
PT = 86+29

85+00 Stake 25' LT

84+50.24 Stake 25' LT PC

84+00

83+00

82+28.42 2-4 6-4½ PT

82+00 2-12

+80 1-12 PI 174-26-30
Δ 348-53-30

Δ = 5-33-30 RT
D = 4-00
E = 1.687.5
T = 69.54
L = 138.96
PI = 91+54.5
PC = 84+84.96
PT = 82+28.42

85+54.51 = PI

96-30 69

+20 20 → 8 6" Beech
12" Beech

+90 16 → 7 14" Poplar
20 → 6" Maple

high bank on W

- 5+50 to 7+50 place Fr. dr. on W ditch line

1-4' length washed out Fix

15" Conc. Pipe

4+47 ±

19° → 14± →

3+95

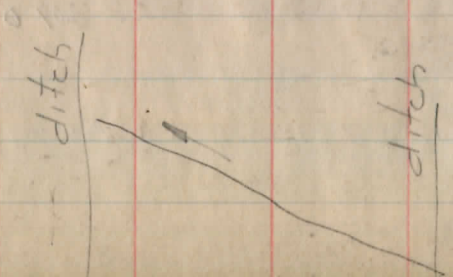
Sal. 20' of 12" Corr I.P. (drive not used)

1+15

ditching

road

0+80



0+40

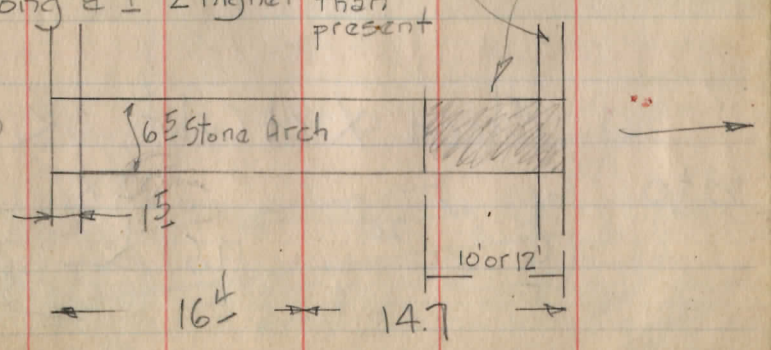
OLD STATE ROAD
MAR '46

Stone hdwl on timber cribing Should have new conc. hdwl 25' long & ± 2' higher than present

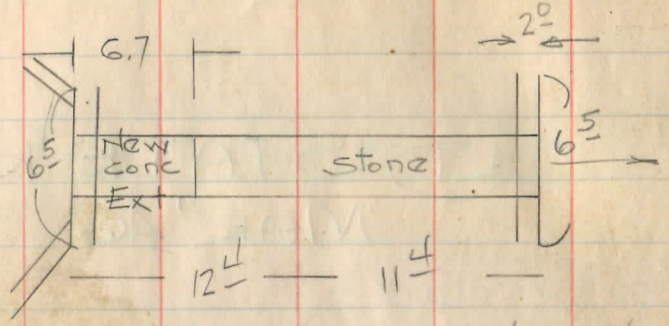
IS NG

6' D round Multi-plate

9+30



28+09.2

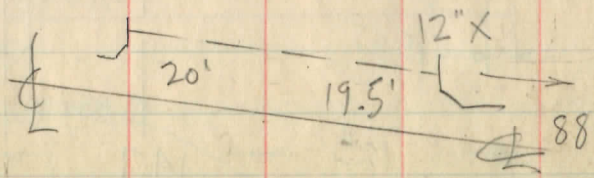


4.2 x ±3.8 x 23.8 Stone &
Conc. Culv OK

open up ditch on W from drive
Sta 23+75 SE to X rd culv

Stand. X rd Culv OK

23+0



47+12 12'x12" Corr Field dr
OK

42+65 to 43+30
Fr Dr on ℄
carry to W

34+80 to 37+0 ditch eroded
on W should have 15' file
in next few yrs

36+30 to 36+80 = 50' of Fr. Dr on ℄
carry to W ditch

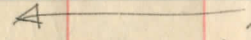
36+10 ± 20'x12' Corr I.P
drive (House)
upper end plugged

20'x12" Corr
Field drive pipe
OK

33+88

Ditch eroded bad / not much danger to Rd at present

33+0



±3

32+0

loads field rocks would help

15" Conc. pipe
OK

56+06 ± 30'

43 ±

50+0 18'×12" Corr. past. Dr
OK

2-12"× Corr. I.P. OK

49+36

17.5 — 18.5

48+70 20'×12" Corr House dr.
Straighten inlet end

Lot 8 H₂O comes down dr onto Rd

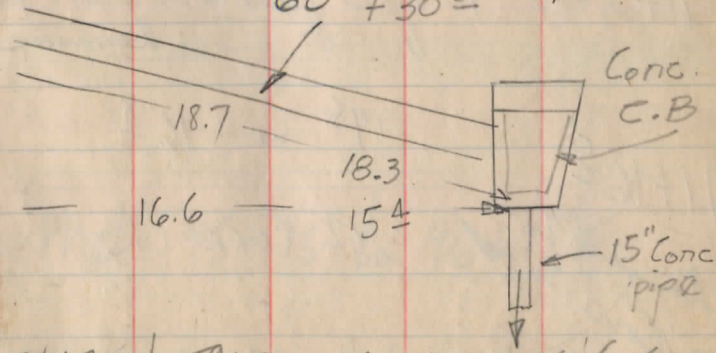
67+18 East 20'×12' Corr. barn drive
OK

drive pipe OK
16'×10" Corr 66+79 West

64+05 West 9' of 12"
Corr. field drive (not used) pipe OK
62+30 — 64+0 West

Ditch erosion Place 12" pipe & earth cover

15" Conc. pipe
60 +30 ±



58+70 to 59+30 deepen ditch
on W 6"

ditching 150' both sides on S
" 250' " " " H
W 18" Conc. OK reset end pipe

83+03

19.2 → 18.2

19.2 — 17.7

76+61±

15" Conc. pipe OK

70+70 to 73+90 add extra mat
see levels (maybe lower F.L. of culv)

71+22 10' of 12" fills Corr drive pipe
Remove

19.6 → 16.8

71+16.5

12" Corr. OK

changed to 18" Corr. x36
18" S.M.

70+0 to 71+12 shallow
ditching reqd on W

Eft mat. 100' ea side of culvt

106+81 12" Corr OK

on both ends

18.5 17.6

150' outlet clearing

106+50 Ft dr's

106+25

Road some soft but not bad

gen slope →

Maybe tile to find an outlet

± 120'

95+55

swale

100' →

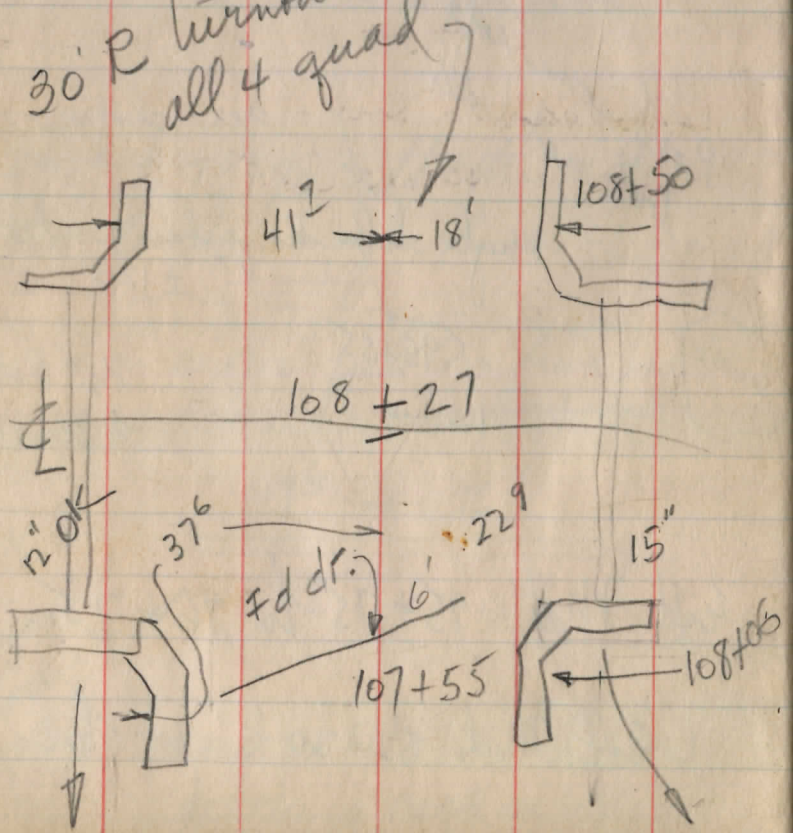
H2O rising & flows NE

Eft Mat. 95+75 to 96+75

Eft. Mat. 82+20 to 84+60

150' ℄ ditching both sides
N ℄ Bandy Lang Rd

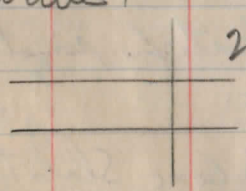
30' R turnouts
all 4 quad



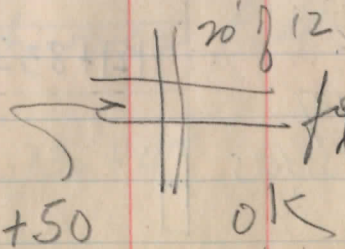
120+50 to add extra Mat

120+50 ditching on west north
to 121+75

From
to keep H_2O running into rd
drive should have 2 lds gravel



111+50 to 112+50 ℄ ditching

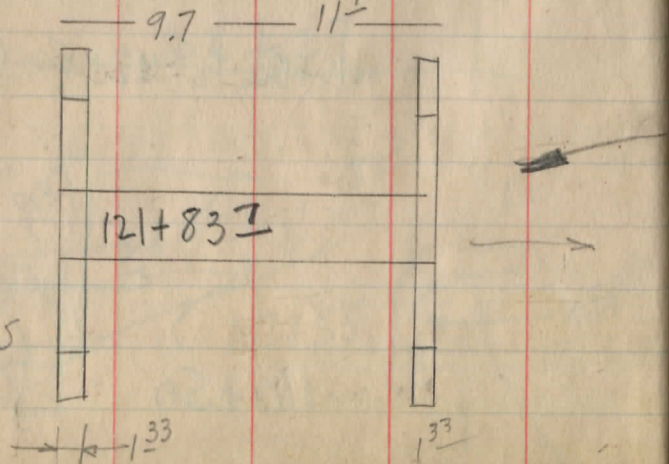


to culvert

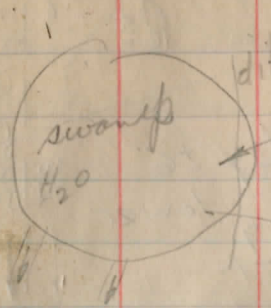
200' N of culvert deepen ditches and place Fr Dr 5 add extra mat

← to many floaters
conc. going to fell at waterline
Maybe Ston compatch sometime

6° × 4.3 × 20° Conc Slab top



Steel pipe railing both sides



135+70 – 139+50 add cft Mat

131+80 salvage & drive pipe on W

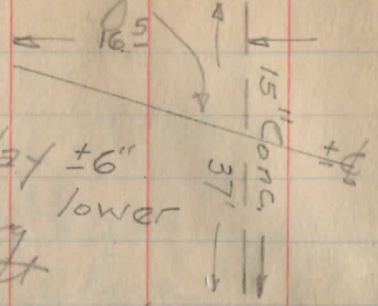
2-48" × 32' R.C.P. placed 1946 S.M.

130+50 to 131+30 add extra material

131+0 see levels to see if H_2O can be carried South over hill

10" × 20' Log 130+47 drive (pasture) to high

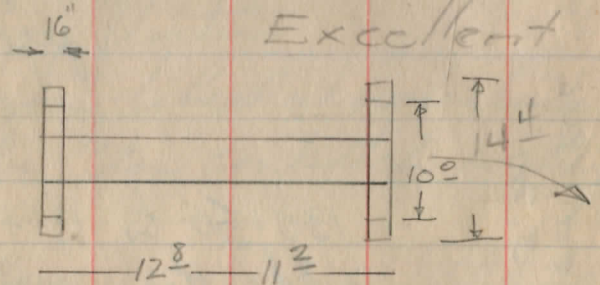
place 2 loads gravel or slag



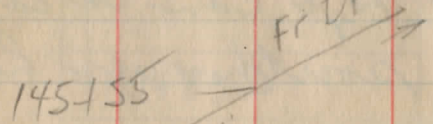
take up & relay ±6" lower
± 200' ditching
reqd for outlet

146+85 – 149+0 add Est Mat

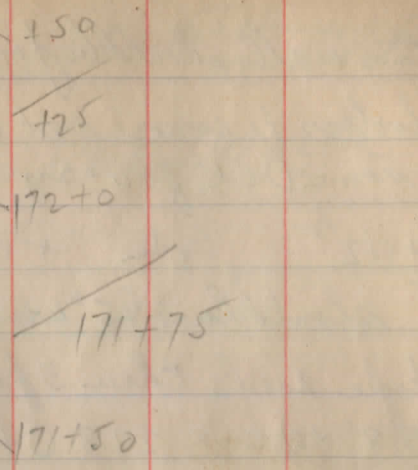
4' x 21" x 24' Con Culvert
Excellent

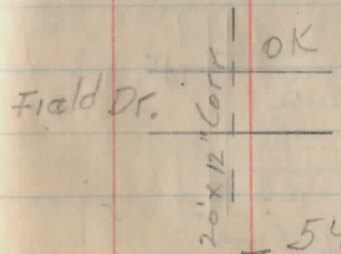


145+0 to 146+10 Est Mat



145+0 to culvert north
ditching on west

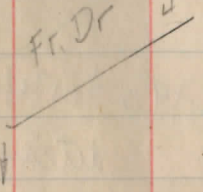




55+90

54+50 to 58+50
ditching on west

some soft on west & drains wouldn't run



ditching both sides road from
146+60 to 150+0

Stone walls should be pointed this summer

footers & conc. ext undermined some OK for ± 2 yrs

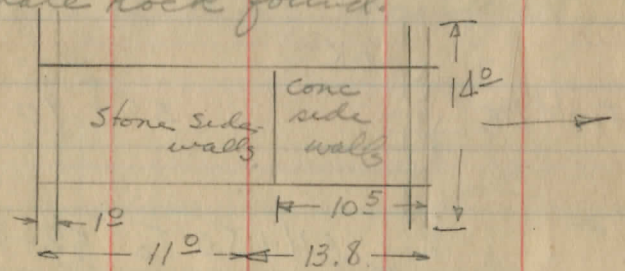
176+42 Spk Pot

should have 45° wings ± 10' long all ±s

2 pipe rails thru 3 post ea. side

5.8' x ±5° x 24.8 Stone & Conc Culvt

Good Shale rock found.



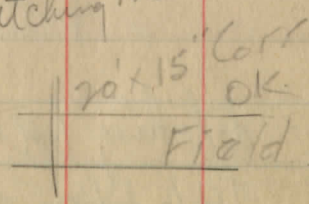
174+38 3

12" x 18' Conc. pasture Dr.

173+60

172+90 to 174+15 ditching in E

172+80



gen slope = SE & lots of H_2O

to 190+50 ditching on west

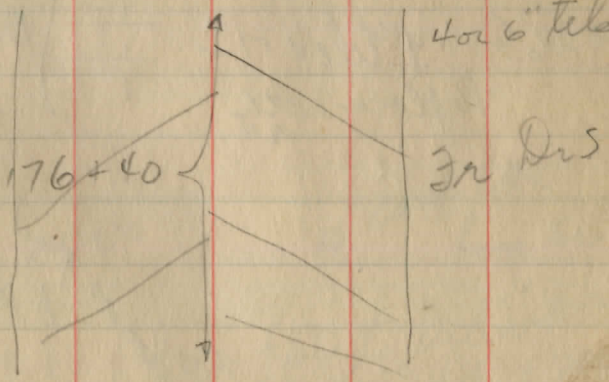
182+50

178+0 to 180+35 ditching W side

177+80 to 179+60 3 Dr Drs.

H_2O comes down dr into road no pipe exist or reqd

176 ± 55



175+0 to 176+40

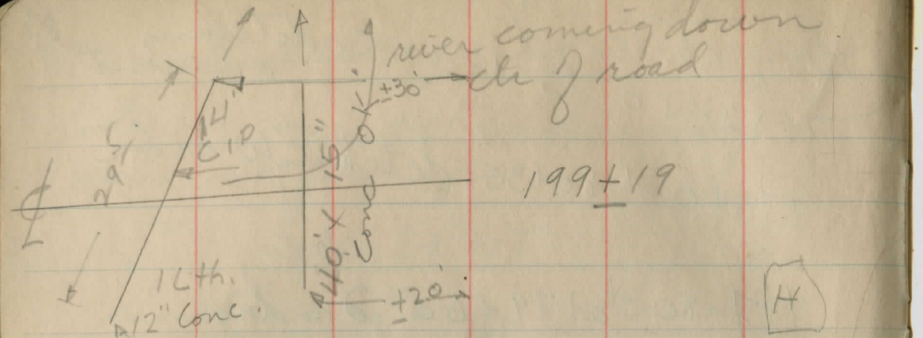
19.5

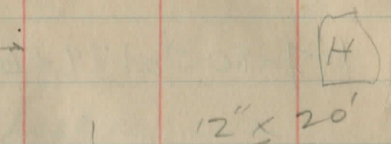
19.4

177+54 4

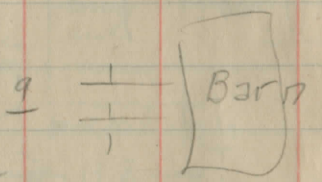
needs rough stone headers

15" x 39' Conc pipe reset both ends pcss

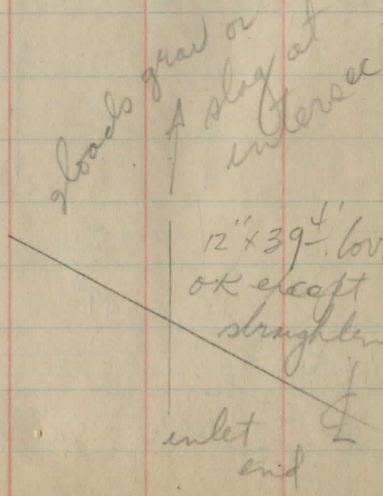




196+50



195+65 9'4 tile x 17 9/4
Replace with 12"



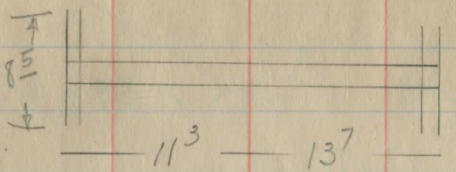
193+94

191+81 — to BOT

205+70 12" x 20' Corr OK
dr.

add ext Mat 60' rt & rt.

22" x ±21" x 25° Conc Culvt
OK



203+70

203+10 15" Corr. OK
house Dr

202+80 to culvert
Ent Mat
Ent Drs &

24" Corr House
drive new

201+82

213+0

+75

212+50

211+75

211+25

211+0

210+04 20 = 210+09 9 OT

208+55 to 209+30 Fr dr.

207+0 to 210+30
ditching both sides

207+50

2 wood bot on Head
16' 9 10' Cov. OK

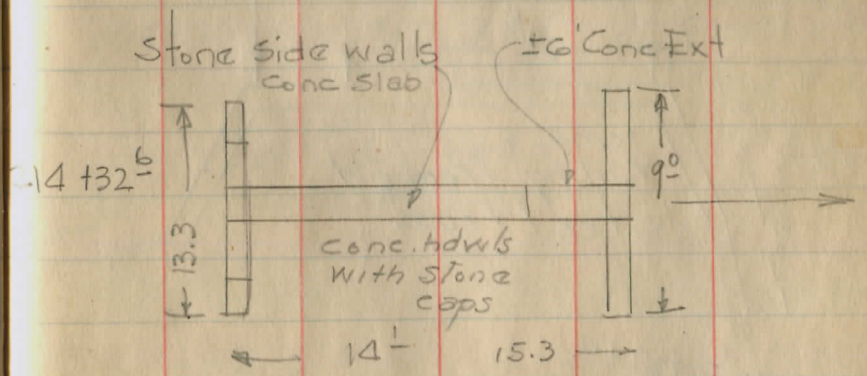
gar. dr.

222+90 — Fr. dr. and add ext. Mat

222+25 — 4'

H&B 18' x 12" Cov OK 215+51
dr.

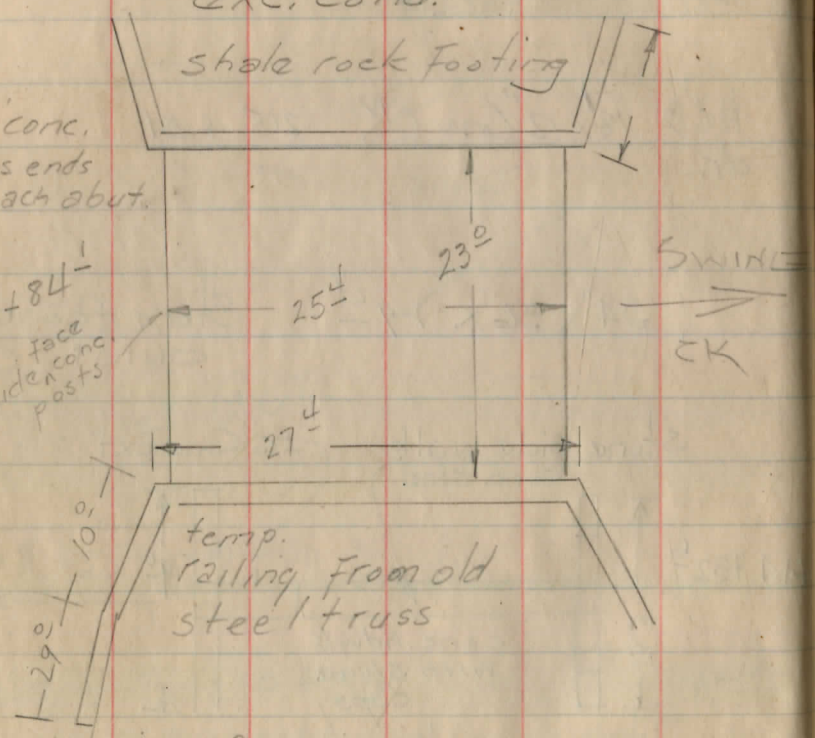
34" x 36" x 29 4 — Stone & conc culvt OK



add ext. Mat. 100' S & 150' N of culvt

213+0 to culvt north
ditching both sides

Conc. Abuts & wings, 10" I beams on 2' Ctrs 2"x4" on edge Floor



225+0 to 227+0

2 Dr Drs every 25' from ℄ ea way

20'x15" Cov OK

H & B dr

224+92

1 ld gravel to keep Dr's out 2nd

240+0 Ely touch up ditch N side in spots

240+0 end ditching S side

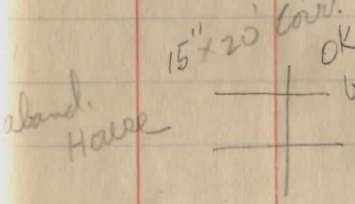
235+50 Cond Dr drns

233+35 Begin Dr Drs

232+0 end Dr drs.

229+50 begin Dr. drains & ditching on S

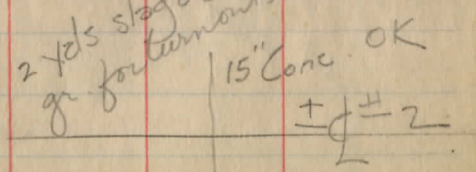
228+20 to 229+0 ditching on S



229+12

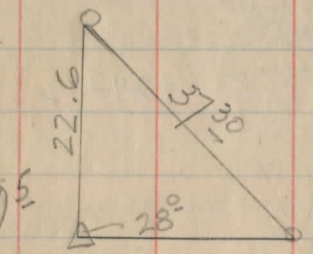
227+0 to 228+65 add 1ft (course) mat.

228 ±54



243+60 — 12" x 20' Corr OK
½ to 1 load gr at dr.

Spk E side
CEI #

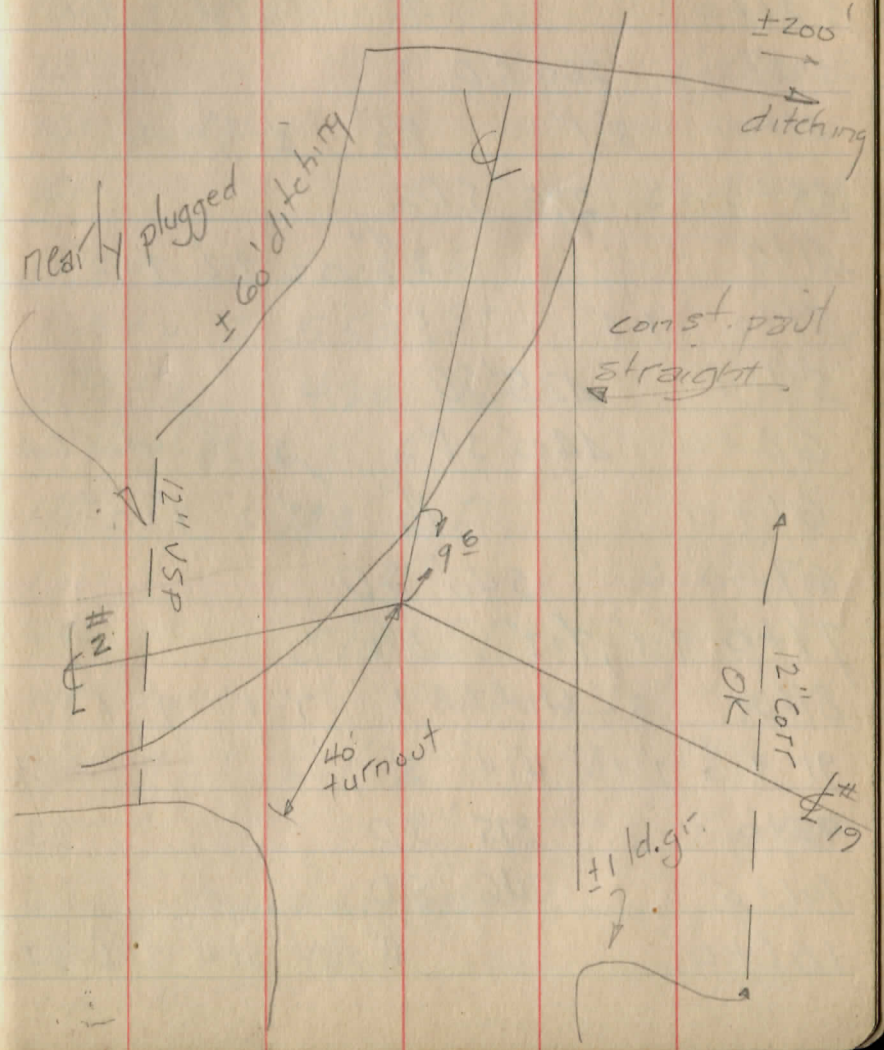


233+29.5

I.P.
Sat in pole line

(CEI)

Spk sat
P.O.T



	W	± ℄	E
1+0		4"	9' 3"
±6+0	200' S.D.		
± 12+0	325' S.D.		
± 11+0	1" 9' 1½"		
± 21+0		7"	7'=3" 9'=1"
± 25+0	260' S.D.		
31+0	8'=1"	3½"	3'=3½" (wheel tk.
33+0	275' S.D.		
41+0		2½"	7'=2" 9'=2"
51+0	9'=3"	3"	
54+0	425' SD		
60+0	440' SD		2'=2½" = wheel tk
61+0		1½"	7'=2" 9'=2"
67+0	540' SD		
71+0	9'=1", 7'=2"	5½"	
81+0	3" in W wh tk	1"	7'=1" 9'=1"
91	9'=½" 7'=1½"	4'=4"	3"
95+0	375' SD		
101+0	460' SD		
101+0		4"	5'=4" 7'=1" 9'=1"

111+0	9'=1" 7'=1½"	5"	
116+0	460' SD		
121+0		6"	9'=5"
126+0	420' SD		
131+0	9'=½" 5'=1"	1½"	
141		3"	6'=1" 9'=½"
151	9'=1" 6'=3"	3"	
161		2"	6'=1" 9'=½"
161+0	± 500' SD		
163+0	± 550' SD		
170+0	420' SD		
171	9'=3" 6'=3"	6"	
176	290' SD		
181		4"	6'=1½" 9'=1"
191	510' SD		
191		3"	6'=2" 9'=½"
201	9'=1" 6'=1"	2"	
211		3"	6'=1" 9'=0"
211	more than 500' SD		
217	± 450		

219 ±500 SD

221 9'=½" 6'=1" 3"

224 350' SD

231 2" 5'=4" 9'=1"

233 340' SD

24 370' SD

241 9'=½" 5'=½" ½" 4'=1"

10/21/49

PROPOSED NEW RACE

	+	HI	−	E	
B.M.	2.45	1281.69 ✓		1279.22	
T.P.	3.49	1278.66 ✓	6.50	1275.17 ✓	
T.P.	8.42	1279.54 ✓	7.54	1271.12 ✓	
		79.56 use			use
BM set			7.11	1272.43 ✓	72.46

		77.5	77.1	
Ac	1.82	2.1	2.5	
	on pin	0	2	
	76.7	73.7	71.8	
Ad	2.8	5.8	7.8	
	33	100	140	
		76.2	73.2	71.9
Ae		3.4	6.3	7.7
		158	100	135
	75.1	73.1	71.8	74.0
Af	4.5	6.5	7.8	5.6
	50	100	125	186

TRACK BURTON

Spk NW ✓ Cattle Barn

Spk NE root 24" W.Ch. ± 80' E of NE pump house ± 5's of fence

74.0	71.7	72.2	71.8	71.5	
5.6	7.9	7.4	7.8	8.1	
100	155	232.65	279	320	
73.4	73.5	71.4			
6.2	6.1	8.2			
200	224	290	± level		
73.9	72.7		71.4		
5.6	6.8		8.2	± level	
200	232.6		300		
73.9	73.5		72.5		
5.7	6.1		7.1	± level	
200	232.6		300		

			1279.56 use		75.1	72.7	71.1	72.8	72.8	72.6	70.9	
Ag					4.5	6.9	8.5	6.8	6.8	7.0	8.7	± level
					50	100	140	182	200	232.6	300	
					74.9	72.7	70.6	72.4	72.8	72.7	70.1	72.1
Ah					4.7	6.9	9.0	7.2	6.8	6.9	9.5	7.5
					50	100	135	186	200	233	284 dry wash	305
				74.9	72.7	70.0	72.2	72.7	72.3	71.1	72.6	
Ai=ctr				4.7	6.9	9.6	7.4	6.9	7.3	8.5	7.0	up
				50	100	155	200	232.6	245	275	300	
				75.0	72.6	69.6	70.1	71.1	70.6	70.4		
Aj				4.6	7.0	10.0	9.5	8.5	9.0	9.2		
				50	100	160	200	233	275	300	± level	
					75.0	71.9	69.3	68.3	68.3	66.8		
Ak					4.6	7.7	10.3	11.3	11.3	12.8	easy down	
					50	100	160	200	233	300	same slope	

Quit 10/21/49

Begin 10/26/49 Tom Maynard Hayes Randles

BM	9.14	1281.57 HI #1		1272.43	
TP	0.60	1269.95 HI #2	12.22	1269.35	
			74.9	69.7	69.4
AL			6.7	11.9	12.2
			50	115	148

67.7	66.6	65.3 ± 2	63.6	62.7	
13.9	3.3	4.6	6.3	7.7	
160	200	233	300	320	

			HI #1 12 81.57							
		74.9	HI #2 1269.95		69.3	(#2 67.7	65.4	64.1	63.4 ↔ 62.5	62. (#2 60.8
AM		6.7	69.5 12.1		12.3	2.7	4.5	5.8	6.5 7.4	7.9 9.1)
		50	108		137	155	200	233	250 300	340 350
	71.9	70.2	69.4		69.0	(#2 67.1	64.8	64.0	↔ 63.3	62.7 (63.1 #2)
AN	6.7	11.4	12.2		12.6	2.8	5.1	5.9	6.6	7.2 6.8)
										(DITCH CUT)
	50	100	106		133	150	200	233	300	350 400
		75.0	70.6		69.5	68.6	(#2 67.0	65.1	64.4 ↔ 63.9	63.6 (#2)
AO		6.6	11.0		12.1	13.0	2.9)	4.8	5.5 6.0	6.3)
		50	100		109	140	150	200	233 300	350
		75.4	71.0		69.7	68.8	67.6		(#2 65.8 ↔ 65.0	65.3 64.5 (#2
AP		6.2	10.6		11.9	12.8	14.0		4.1 4.9	4.6 5.4)
		50	110		120	155	165		200 233	300 350
	East 78.9	76.8	72.7		70.9	69.6	68.9	67.1	(#2 66.1 65.9 ↔	66.0 66.1 (#2)
AA	2.7	4.8	8.9		10.7	12.0	12.7	14.5	3.8 4.0	3.9 3.8)
	0+0	50	100		130	140	165	200	233 270	300 350
77.4										
4.2A	East 77.7	77.0	74.3		70.5	69.4	69.0	68.9	68.0 (#2 67.4	66.8 ↔ 66.6 68.0 #2
	3.9	4.6	7.3		11.1	12.2	12.6	2.6	13.6 2.5	3.1 3.3 1.9)
										CHANGE
0+0	25	50	100		160	166	200	12.7	212 235	300 320 350
		All HI #1 below here								
A West		76.8	75.0		72.6	70.2	70.4	70.6	70.6	70.7
		4.8	6.6		9.0	11.4	11.2	11.0	11.0	10.9
		50	100		150	197	235	300	350	400

1281.57

				77.4	75.4	
A_A West				4.2	6.2	
				50	100	
	76.8	72.5	72.1	71.6	71.6	
A_B	4.8	7.1	9.5	10.0	10.0	
	50	100	150	170	200	
	75.2 75.2	73.5	71.6	70.1	70.3	
B West	6.4 6.4	8.1	10.0	11.5	11.3	
	0+0 50	100	133	167	200	
	75.1	75.0	72.6	69.9	69.3	
B. East	6.5	6.6	9.0	11.7	12.3	
	50	100	150	200	235	
		41		E		
	+		−			
T.P.	5.02	1278.14 ✓ 78.16 use	8.45	1273.12 ✓	73.14	
	73.9 73.0	72.0	73.2	71.0	69.6	
C. East	4.3 5.2	4.2 3.8	5.0	7.2	8.6	
	0+0 50	85 125	157	200	235	
	74.1	73.0	70.4	70.1	69.9	
C. West	4.1	5.2	7.8	8.1	8.3	
	50	90	141	200	235	

72.8	71.2	71.6	71.1	71.0	70.9
8.8	10.4	10.0	10.5	10.6	10.7
150	200	235	300	350	400
72.1	71.7	71.6			
9.5	9.9	10.0			
233	300	350			
			71.5	73.3	71.0
69.8	70.1	70.4	old track		
11.8	11.5	11.2	10.1	8.3	10.6
235	300	350	453	409	400
		66.9			
67.4	67.8	DITCH	68.1	70.3	
14.2	13.8	14.7	13.5	11.3	
300	327	331	334	400	
Hub on ℄ Line D					
69.2	68.2	68.6	67.6	68.8	70.6
9.0	10.0	9.6	10.6	9.4	7.6
260	300	345	350	355	400
69.8	69.9	70.3	73.4	71.2	
8.4	8.3	7.9	4.8	7.0	
300	350	367	380	424	

1278.14 ✓ 78.16 use

II WEST	72.8	72.6	71.4	70.6	70.4	70.1	70.0
	5.4	5.6	6.8	7.6	7.8	8.1	8.2
	0+0	50	80	110	150	200	235
II EAST	73.4	74.9	73.6		71.7	70.4	69.0
	4.8	3.3	4.6		6.5	7.8	9.2
	50	115	150		200	235	300
E. EAST		73.0			74.7	75.7	74.7
		5.2			3.5	2.5	3.5
		0+0			50	85	140
E. WEST	71.9	71.1	71.4	70.4	70.4	70.4	70.1
	6.3	7.1	6.8	7.8	7.8	7.8	8.1
	50	83	100	150	200	235	300
F. WEST	73.6		72.7		71.8	71.0	70.7
	4.6		5.5		6.4	7.2	7.5
	0+0		50		100	150	200
F. EAST	75.0	75.5	75.0	74.2	74.0	74.1	71.9
	3.2	2.7	3.2	4.0	4.2	4.1	6.3
	50	100	145	200	235	250	300

69.8	69.9	70.3	67.2	73.3	71.1	
8.4	8.3	7.9	11.0	4.9	4.9	7.0
300	330	336 (GROUND)	336 (F.L)	350	395	395
69.3	69.7	68.7	70.0			
8.9	8.5	9.5	8.2			
350	386	388	394			
73.2	72.5	70.5	69.1	70.2	71.2	
5.0	5.7	7.7	8.8	8.0	7.0	
200	235	300	320	350	400	
70.5	73.9	71.4 (TRACE)	71.3	70.7		
7.7	4.3	6.8	6.9	7.5		
306	322	364		400		
70.4	70.6	75.0	71.8	71.8	70.9	
7.8	7.6	3.2	6.4	6.4	7.3	
235	280	300	348	350	400	
71.4	71.0	71.6				
6.8	7.2	6.6				
350	325 ✓	400				

1278.14 ✓ 78.16 use

	73.0	74.6	75.6	75.7	75.4	75.2	74.9	73.1	72.2	72.3	73.2	73.3
G. EAST	5.2	3.6	2.6	2.5	2.8	3.0	3.3	5.1	6.0	5.9	5.0	4.9
	0+0	50	100	150	200	235	265	285	290	311	350	400
	72.4	72.9	72.4	71.5	71.5	71.1	70.9	71.5	76.4	71.5	71.7	70.7
G. WEST	5.8	5.3	5.8	6.7	6.7	7.1	7.3	6.7	1.8	6.7	6.5	7.5
	27	50	100	150	200	235	260	270	285	325	340	400

T P. 1	+ 8.33	H.I. 1285.06 ✓	− 1.41	E 1276.73 ✓			H.I. E.S.					
			74.1	74.2	73.2		72.5	73.1	72.2	76.9	71.7	71.0
H. WEST			11.0	10.9	11.9		12.6	12.0	12.9	8.2	13.4	14.1
			0+0	50	100		150	200	260	284	323	400.
	74.5	75.3	76.6	77.5	75.3		75.5	76.7	76.9	74.5	74.1	74.4
H. EAST	10.6	9.8	8.5	7.6	9.8		9.6	8.4	8.2	10.6	11.0	10.7
	50	100	150	195	197		220	227	235	300	350	400

P.S.			76.6	75.6	75.5	76.3	77.2	77.4	77.6	76.8	76.5	76.6
I. EAST			8.5	9.5	9.6	8.8	7.9	7.7	7.5	8.3	8.6	8.5
			0+0	50	100	150	170	200	250	300	350	400
			75.5									
	76.5	76.3	75.6	75.1	74.0		73.0	77.6	72.3	71.8		
I WEST	8.6	8.8	9.6	10.0	11.1		12.1	7.5	12.8	13.3		
	50	100	150	200	233		276	300	343	360		

+ #1 − 1285.06

	77.3	77.4	77.6	78.9	78.7	77.6	76.8
I_A W.	7.8	7.7	7.5	6.2	6.4	7.5	8.3
	0+0	15	19	32	50	100	150
	77.1	76.9	78.2	77.4	76.8	77.2	78.1
I_A East	8.0	8.2	6.9	7.7	8.3	7.9	7.0
	6'	12	35	50	100	150	200

Begin 10/27/49 Pom 116/17 Randles ✓

T.P.	11.90		1288.63			1276.73	
	79.6	80.0	78.4	77.8	77.2	77.6	77.8
Ib	9.0	8.6	10.2	10.8	11.4	11.0	10.8
	0+0	23	44	59	88	97	112

					79.1	77.9	
Ic					9.2	10.7	
					50	100	
	78.7	77.7	77.1	76.5	76.1	76.4	77.3
Id	9.9	10.9	11.5	12.1	12.5	12.2	11.3
	50	100	150	200	250	300	350

					78.7	77.8	
I_E					9.9	10.9	
					50	100	

	75.6	74.8	73.9	77.4	72.5	72.3	
	9.5	10.3	11.2	7.7	12.6	12.8	
	200	233	300	327	378	400	
	79.1	80.0	79.6	78.6	78.5		
	6.0	5.1	5.5	4.5	6.6		
	233	260	300	350	400		

	77.3	76.6	75.8	75.0	73.9	73.5	77.6
	11.3	12.0	12.8	13.6	14.7	15.1	11.0
	127	170	200	233	300	364	386

	76.0	75.9	75.5	74.6	74.3	75.6	
	12.6	12.7	13.1	14.0	14.3	13.0	
	150	200	233	300	350	400	
	77.8						
	10.8						
	400						

	77.6	77.2	77.2	78.3	79.5	80.3	
	11.0	11.4	11.4	10.3	9.1	8.3	
	150	200	250	300	350	400	

1288.63

	78.6	78.1	78.0	77.9	78.3	79.3	79.9	80.0	82.4			
I F	10.0	10.5	10.6	10.7	10.3	9.3	8.7	8.6	6.2			
	50	100	150	200	250	300	310	350	400			
				78.9	78.9	78.3	78.6	79.9	79.9	80.9	82.1	
I G				9.7	9.7	10.3	10.0	8.7	8.7	7.7	6.5	
				50	100	150	200	250	300	350	400	
	79.3	79.2	79.0	79.3	80.6	81.8	82.1	83.0				
I H	9.3	9.4	9.6	9.3	8.0	6.8	6.5	5.6				
	50	100	150	200	250	300	350	400				
				79.4	79.4	80.5	80.3	81.5	82.8	83.0	84.3	
I I				9.2	9.2	8.1	8.3	7.1	5.8	5.6	4.3	
				50	100	150	200	250	300	350	400	

Quit dinner

T P.	11.88	1288.61 ✓		1276.73								
	80.0	79.7	81.4	82.0	83.2	84.7	85.3	85.1				
I J.	8.6	8.9	7.2	6.6	5.4	3.9	3.3	3.5				
	50	100	150	200	250	300	350	400				
				80.5	80.2	81.7	83.7	84.7	86.1	86.6	85.1	
I K				8.1	8.4	6.7	4.9	3.9	2.2	2.0	3.2	
				50	100	150	200	250	300	350	400	

1288.6 ✓

	80.8	80.7	82.1	84.3	85.2	86.2	86.3	85.6			
I_L	7.8	7.9	6.5	4.3	3.4	2.4	2.3	3.0			
	50	100	150	200	250	300	350	400			
				81.0	81.2	82.4	84.6	85.6	86.2	85.2	86.2
I_M				7.6	7.4	6.2	4.0	3.0	2.4	3.4	2.4
				50	100	150	200	250	300	350	400
	80.9	81.3	82.3	84.6	85.8	86.8	87.8	87.2			
I_N	7.7	7.3	6.3	4.0	2.8	1.8	0.8	1.4			
	50	100	150	200	250	300	350	400			
				80.5	80.6	80.7	83.2	85.0	86.6	87.1	87.1
I_O				8.1	8.0	7.9	5.4	3.6	2.0	1.5	1.5
				50	100	150	200	250	300	350	400
	79.6	79.2	78.9	80.4	82.3	83.2	82.6	81.8			
I_P	9.0	9.4	9.7	8.2	6.3	5.4	6.0	6.8			
	50	100	150	200	250	300	350	400			
O: 79.6											
I_Q		N G		9.8	10.9	10.9	10.0	8.9	9.6	10.8	10.7
				50	100	150	200	250	300	350	400

H.I.

B.M set 1.92 1286.69 ✓

T.P. 2.77 1279.50 11.88 1276.73 ✓

SPK NW Root 28" Elm 150 to 200 South of N.P.L. near NE ~~end~~ new track

		+	−	EL
		1279.50		
			6.34	1273.16
Long shot			7.00	1272.50 (1272.63)
T.P.	7.57	1280.98	6.09	1273.41
			1.72	1279.26 (1279.22)

HUB ON Q MIDFIELD Line D

B.M. TREE S of TRACK

grade

Sewer West of Fair GDS

BM	1.04		100.00
		5.58	
10/27/49		10.26	
		8.79	
		11.89	
		13.6	

0+0	10.26
0+50	10.67 5.17 C 5.5
1+0	11.08 7.58 3.50
1+50	11.49 6.99 C 4.50
2+0	11.9 10.4 C 1.5

0.82% Grade

SW & Conc C.B ± 25' W℄ of rd

FL outlet exist tile ± 70' W of rd

Bottom tile SSewer from SE: ± 200'

WJ rd

ground 100' WJ (10.26)

" 200' " " "

" 250 " " "

11/19

BM	5.16	1277.62	1272.46	
				71.5
A west				6.1
				429
B "				
C "				
D "				
E "				
F "				
G "				
H "				

24" W.Ch. ± 5' S. of fence ± 80' E of NE pump house

74.2	73.5	72.6	71.9	71.8
3.4	4.1	5.0	5.7	5.8
L35	A37	L50	485	500
				71.6
				6.0
				500
			71.1	71.3	71.5
			6.5	6.3	6.1
			450	500	550
			70.8	71.0	
			6.8	6.6	
			450	500	
			70.9	71.0	
			6.7	6.6	
			450	500	
			70.8	71.0	
			6.8	6.6	
			450	500	
			70.7	70.8	71.7
			6.9	6.8	6.4
			450	500	550
		70.8			
		6.8			
		450		5	

New B.M. 11/29/49

B.M.	3.29	1275.75 ✓		1272.46
New BM			2.62	1273.13 ✓
			2.62	1273.13 ✓

Spk NE root 18" Elm 16' SE of SE ✱ of NE well house

Nail N face N ✱ board NE ✱ of NE well house

+ Grades 11/30/49

B.M.	3.40	1290.09 ✓		1286.69 ✓

	outside slopes graded for berm	inside fence grade	90.09 12.03 78.06 OK for turn
Id	10.86 90.09 ✓ 10.36 79.23 ✓ G C 0.5 ✓ 10.86 ✓	90.09 ✓ 75.07 G 15.02 ✓	15.02 12.03 C 3.0
Ie	10.94 90.09 8.94 79.15 G C 2.0 ✓ 10.94 ✓	90.09 ✓ 75.23 G 14.86 ✓	14.86 10.36 C 4.5
IF	11.07 90.09 ✓ 8.57 79.02 ✓ G C 2.5 ✓ 11.07 ✓	90.09 ✓ 75.39 G 14.70 ✓	14.70 9.70 C 5.0 ✓
Ig	11.13 90.09 7.63 78.96 ✓ G C 3.5 ✓ 11.13 ✓	90.09 75.49 ✓ G 14.60 ✓	14.60 8.60 C 6.0 ✓
Ih	11.22 90.09 5.72 78.87 ✓ G C 5.50 ✓ 11.22 ✓	90.09 75.54 ✓ G 14.55 ✓	14.55 7.55 C 7.00 ✓

1290.09 ✓

	Slope		Inside	
I i	11.22	90.09 ✓	90.09	14.55
	4.72	78.87 G	75.54 G	6.55
	C 6.50 ✓	11.22 ✓	14.55 ✓	C 8.00 ✓
I j	11.22	90.09 ✓	90.09 ✓	14.55
	2.72	78.87 G	75.54 G	5.55
	C 8.50 ✓	11.22 ✓	14.55 ✓	9.00 ✓
I k	11.27	90.09 ✓	90.09 ✓	14.60
	0.77	78.82 G	75.49 G	3.60
	C 10.50 ✓	11.27 ✓	14.60 ✓	C 11.00 ✓
I l	11.39	90.09 ✓	90.09 ✓	14.70
	1.89	78.72 G	75.39 G	3.2
	C 9.50 ✓	11.37 ✓	14.70 ✓	C 11.50 ✓
I m	11.52	90.09 ✓	90.09 ✓	14.85
	2.02	78.57 G	75.24 G	2.85
	C 9.50 ✓	11.52 ✓	14.86 ✓	C 12.00 ✓
I n	11.72	90.09 ✓	90.09 ✓	15.05
	0.22	78.37 G	75.04 G	3.05
	C 11.50 ✓	11.72 ✓	15.05 ✓	C 12.00 ✓
I o	11.97	90.09 ✓	90.09 ✓	15.30
	0.47	78.12 G	74.79 G	3.80
	C 11.50 ✓	11.97 ✓	15.30 ✓	C 11.50 ✓

Knocked out to be reset

1290.09 ✓

I p

I 2 east

12/1/49

T.P. 8.72 1285.45 ✓ 1276.73 ✓

I P

I M

I I

I E

I d made ck 7.38 78.07 78.86

Slope

13.46 ✓ 90.09 ✓
4.96 76.63 G
C 8.50 ✓ 13.46 ✓

3.96
4.81
.45

✓
14.96 90.09 ✓
7.96 75.13 G
C 7.00 ✓ 14.96 ✓

Ehub on P.S. Point "I"
100' off CENTERLINE (From (R) ctr)

10.36 85.45 ✓
3.85 75.10 G
C 6.50 ✓ 10.36 ✓

10.05 85.45 ✓
2.05 75.40 G
C 8.00 ✓ 10.05 ✓

9.85 85.45 ✓
3.85 75.60 G
C 6.00 ✓ 9.85 ✓

10.05 85.45 ✓
5.55 75.40 G
C 4.50 ✓ 10.05 ✓

inside

90.09 ✓
74.55 G
15.54 ✓

15.54
6.04
C 9.50 ✓

90.09 ✓
74.30 G
15.79 ✓ C

✓
15.79
8.29
7.50 ✓

Grades 12/1/49

BM	4.61	1277.74 ✓		1273.13 ✓							
Ab					3.49 / 1.99 / F 1.50 ✓	77.74 / 75.75 ✓ / 1.99 ✓	6.5 / (71.2)		77.74 / 72.59 ✓ / 5.15 ✓	5.16 / 3.65 / C 1.50 ✓	
Aa					4.59 / 3.59 / F 1.00 ✓	77.74 / 74.15 ✓ / 3.59 ✓	6.8 / (70.9)		77.74 / 72.77 ✓ / 4.97 ✓	4.97 / 3.97 / C 1.00 ✓	
A West					4.69 / 3.69 / F 1.00 ✓	77.74 / 74.05 ✓ / 3.69 ✓	7.1 / (70.6)	C 70.72	77.74 ✓ / 72.94 ✓ / 4.80 ✓	4.80 / 4.80 ✓ / 0.0	
B "					5.52 / 3.52 / F 2.00 ✓	77.74 / 74.22 ✓ / 3.52 ✓	7.3 / (70.4)	C 70.55	77.74 / 73.11 ✓ / 4.63 ✓	4.63 / 4.63 / F 1.50 ✓	
C "					5.86 / 3.36 / F 2.50 ✓	77.74 ✓ / 74.38 ✓ / 3.36 ✓	8.0 / (69.7)	C 70.22	77.74 ✓ / 73.28 ✓ / 4.46 ✓	5.96 / 4.46 / F 1.50 ✓	
D "					3.68 / 3.18 / F .50 ✓	77.74 / 74.56 ✓ / 3.18 ✓	7.7 / (70.7)	C 70.23	77.74 / 73.45 ✓ / 4.29 ✓	5.79 / 4.29 / F 1.50 ✓	

Slopes ground 10' in

NE & W wall bse.

inside fence

4.80 + 1277.74 ✓ —

℄ West

F " F 10' IN. 9.50

G - GROUND AT STAKE 10.00

G " INSIDE 4.28 for team

G
T.P. inside 4.28 73.46

T.P. 4.80 1281.53 1276.73

T.P. "G" west inside 8.06 73.47 (73.46)

H "

F ground 10' in 1271.48 10.05 71.47 E

G at slope 10.00 71.53

I "

F slope 8.12 / 6.62 / F 1.50 — 81.53 / 74.91 / 6.62

Ia "

12/3/49

Slopes ground 10' in — inside fence — 131

77.74 — 77.74 — 5.61

3.00 / 2.50 / G .50 ✓ — 74.74 ✓G / 3.00 ✓ — 4.2 / 73.5 — 73.24 C — 73.63 ✓G / 4.11 ✓ — 4.11 / F 1.50 ✓

3.83 see below Left — 77.74 — 5.44

2.83 / F 1.00 ✓ — 74.91 ✓G / 2.83 ✓ — CK 5.8 / 71.9 — 73.80 C — 73.80 ✓G / 3.94 ✓ — 3.94 / F 1.50 ✓

4.16 — 77.74 — 4.27

2.66 ✓ / F 1.50 — 75.08 ✓G / 2.66 ✓ — Read at stk 6.0 / 71.7 — 71.96 C — 73.97 ✓G / 3.77 ✓ — 3.77 / F .50 ✓

℄ Hub on line "I"

7.80 — 81.53 — at stk

6.30 / F 1.50 — 75.23 G / 6.30 — 9.67 / 71.86 — 71.75 C — 81.53 — 74.14 G / 7.39 — 7.39 / 6.39 / C 1.00

6.84 / 6.04 / 0.0 — 81.53 — 10' IN 7.47 — No 3:1 Slope — 81.53 — 74.38 G / 7.15 — 7.15 / 5.65 / C 1.50

81.53 — 10' IN

5.60 / 5.60 / 0.0 — 75.93 G / 5.60 — 6.94 — 81.53 — 74.55 G / 6.98 — 6.98 / 5.48 / C 1.50

					Slopes	Ground 10'in		Inside fence	
		1281.53							
I b					6.05 / 3.55 / F 2.50	81.53 / 77.986 / 3.55	8.10 (73.43)	C 73.65	81.53 / 74.736 / 6.80	6.80 / 4.30 / C 2.50
I c					5.13 / 2.13 / F 3.00	81.53 / 79.406 / 2.13	7.05 / 74.48	C 74.4	81.53 / 74.906 / 6.63	6.63 / 4.63 / C 2.00
T.P. Id inside			3.46	1278.07			(78.06)			
T.P.	3.92	1280.65 ✓	~~3.92~~	1276.73 ✓						
I east										
If read higher cuts on level grd: move out										
4 "					6.40 / 4.90 / C 1.50	1280.65 / 74.256 / 1206.40 ✓	6.00 / 74.65	C 74.75	1280.65 / 73.706 / 1206.95 ✓	6.95 / 1.95 / C 5.00 ✓
6 "					6.65 / 6.15 / C .50	1280.65 / 74.006 / 1206.65 ✓	7.10 / 73.5	C 73.5	1280.65 / 73.45 / 1207.20 ✓	7.20 / 3.70 / C 3.50 ✓
F "					7.40 / 6.90 ✓ / F .50	1280.65 / 73.75 / 6.90 ✓	8.00 / 72.6	C 72.75	1280.65 / 73.20 / 7.45 ✓	7.45 / 4.45 / C 3.00 ✓

℄ Hub on line "I"

	+	1280.65	−	E
E EAST				
D "				
C "				
T.P.	1.77	1273.26	T 9.16	1271.49
B "				
A "				
A2 "				
AP				
T.P AP inside fence			6.30	1266.96

	SLOPES	GRD 10' IN	ck	INSIDE FENCE	135
8.15 7.15 F 1.00 ✓	1280.65 73.50 7.15 ✓	9.90 70.75	72.3 C	1280.65 72.95 7.90 ✓	7.70 5.70 C 2.00 ✓
		5 ft set back 45' by J.K.T.			
9.90 7.40 F 2.50 ✓	1280.65 73.25 7.40 ✓	11.40 69.25	69.12 C	1280.65 72.70 7.95 ✓	8.45 7.95 F .50 ✓
10.65 7.65 F 3.00 ✓	1280.65 73.00 7.65 ✓	12.40 68.25	68.5 C	1280.65 72.45 8.20 ✓	9.20 8.20 F 1.00 ✓
3.51 .51 F 3.00 ✓	1273.26 72.75 0.51 ✓	5.86 67.40	67.55 C	1273.26 ✓ 72.20 1.06 ✓	2.06 1.06 F 1.00 ✓
4.26 .76 F 3.50 ✓	1273.26 72.50 .76 ✓	6.30 66.96	67.0 C	1273.26 71.95 1.31 ✓	3.81 1.31 F 2.50 ✓
5.23 0.73 F 4.50 ✓	73.26 72.53 G 0.73 ✓	7.06 66.21	66.33 C	73.26 71.70 G 1.56 ✓	5.06 1.56 F 3.50 ✓
5.24 + 0.26 F 5.5 ✓	73.52 G 73.26 0.26 + ✓	7.5 65.76	65.2 C	73.26 71.45 G 1.81 ✓	6.31 1.81 F 4.50 ✓

	slope stks	ground 10' in	Comp'd ground Elev. at toe	inside fence
T.P.				
Ao	74.53 G		63.7 C	71.20 G
An	74.28 G		63.3 C	70.95 G
Am	74.18 G		61.9 C	70.85 G
Al	74.23 G		61.9 C	70.90 G
Ak	74.10 G		66.1 C	71.07 G
Aj	74.57 G		69.8 C	71.24 G

	Slope Stks	Ground 10' in	Comp'd Ground elev at toe	Inside Fence Stks
Ai	74.73 G		71.2 C	71.40 G
Ah	47.89 G		70.2 C	71.56 G
Ag	75.20 G		70.7 C	71.74 G
Af	75.52 G		72.3 C	71.91 G
Ae	75.91 G		71.2 C	72.08 G
Ad	76.38 G		71.4 C	72.25 G

over

					Slope stks	ground 10' in	Comp'd ground elev. 10' in	inside fence stks			
Ac					76.82 G		C 71.15	72.42 G			
BM	6.54	79.67		1273.13 E							
A3		3.65 ground	5.95 0.95	73.72 G	79.67 73.72 5.95		6.45 2.45 4.0 ↓	100' West 79.67 73.22 G 6.45		100' East 79.67 72.76 G 6.91	6.91 3.41 3.50 ↓
232.65 R℄		4.3 ground	C 5.00 ↓	79.67 73.54 G 6.13	6.13 1.63 4.50 ↓					ground = 6.9	
A				79.67 73.89 G 5.78	5.78 1.28 4.50 ↓		6.28 1.28 5.00 ↓	79.67 73.39 G 6.28 ground 5.1		79.67 72.96 G 6.71	6.71 2.71 4.00 ↓
				4.0 ground						ground = 6.5	
B				79.67 71.06 G G 5.61	5.61 1.61 4.00 ↓		6.11 4.61 1.50 ↓	79.67 73.56 G 6.11		79.67 73.16 G 6.51	6.51 3.01 3.50 ↓
				ground = 4.5			ground = 5.9			ground = 5.8	
C								73.75 G		73.38 G	
D								73.90 G		73.57	
E								74.08		73.79	

	100' West	100' East
F	74.25 G	73.99 G
G	74.42 G	74.19 G
H	74.59 G	74.40 G
I	74.83 G	74.69 G
Ia	75.00 G	74.91 G

80' out — 5th ST inside fence

72.21 — 72.21

7.70 / 4.70 — 64.51 G ✓ 7.5 ground — 66.56 G ✓

3.00 — 1.70 — 5.70 / 1.7 — 4.0

stks set 3' offset

Grades for ? Pipe Set ?

T.P. 5.25 72.21 66.96 AP inside

12/9/49 Note: Line = (+) A west inside to AK inside

3/21/50 Grandstd Elev.

BM	1.98	1275.11 ✓	1273.13

Loc. Chgd See next pg

SE ✠
SW ✠
NW ✠
NE ✠
top CB.

ground ± 75' S of NE ✠ grdstd in line with front edge

Check 3/25/50 G.S. elev. & grades top

B.M.	4.83	1277.96	1273.13
SE ✠		6.65	71.31 ✓
SW		5.56	72.40
NW		6.56	71.40
NE		5.60	72.36

over

Nail N face N ✠ bd NE ✠ of NE pump hse

ground		hub	
3.92	71.2	3.79	71.32 ✓
3.04	72.1		72.41 ✓
4.07	71.0	3.70	71.41 ✓
3.09	72.0	2.75	72.36 ✓
1.68	73.43 ✓	2.70	
2.25	72.8		

of So. knob.

Elev. Grd. Std.

		H.I.	
BM	3.43	1276.56	1273.13

SE ℄

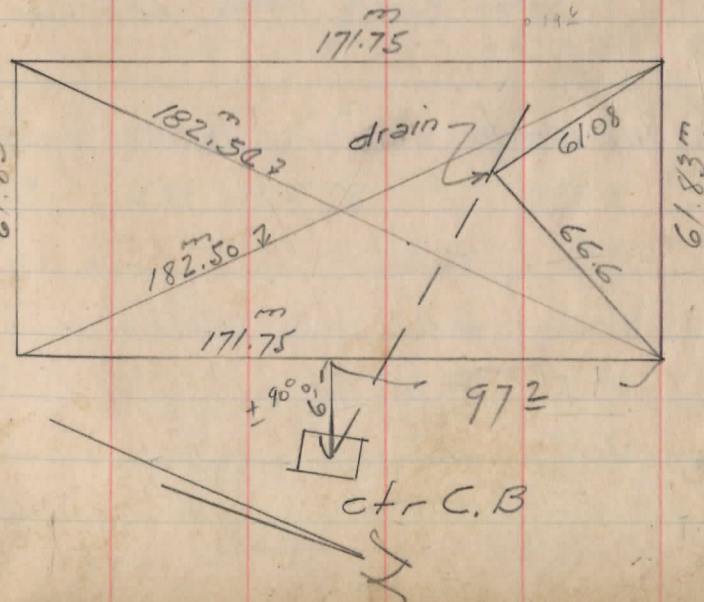
SW ℄

NW ℄

NE ℄

Top C.B. Grill

F.L. C.B.



FINAL

GRD.		HUB		
5.18	71.38	4.55	72.01	3.16
4.32	72.24	4.12	72.44	6.25
5.79	70.77	5.32	71.24	9.41
4.94	71.62	5.18	71.38	
			MUDLINE DITCH	
	1273.40	3.16		
		9.41	67.15	

0.90	75.47		74.57
	10.96		
	6.9		75.47
	4.0		8.45
			67.00

	+	H.I.	−	
BM	6.54	1279.67		1273.13

AC

AF

Ai

AA

100'E 232.65 R=inside fence 149

79.67
72.98
6.69
2.74

6.69
3.19
C 3.50
ground = C 1.0

79.67
72.42
7.25

7.25
5.25
C 2.0

79.67
72.74
6.93

6.93
4.43
C 2.50
Ground = G

79.67
71.91
7.76
7.60

7.76
4.26
C 3.50
ground = C 1-3

79.67
72.52
7.15

7.15
5.65
C 1.50
ground = F 0.7

79.67
71.40
8.27

8.27
6.27
C 2.00
ground = C 0.4

79.67
73.22
6.45

TRACK GRADES

5.62

5.62 5/8/50 1273.13

1278.75

	℄ track		inside fence	10' back of slopes	
Ac	78.75 73.546 5.21 0.21 R 5.0 ↓ ✓		72.426	76.826	
A6		3.16 R	78.75 72.596 6.16 3.16 R C 3.0 ✓	78.75 75.75 3.00	6.50 R 3.00 F 3.50 ✓
A2	78.75 73.72 5.03	5.98 4.98 R C 1.0	78.75 72.776 5.98	78.75 76.15 2.60	5.10 R 2.60 F 2.50
A	78.75 73.896 3.86	6.31 R 5.81 F 0.50	78.75 72.946 5.81	78.75 74.056 4.70	6.20 R 4.70 F 1.50
B	78.75 74.066 4.69 2.19 R ✓ 2.50 ↓ ✓	6.64 R 5.64 F 1.00	78.75 73.116 5.64	78.75 74.226 4.53	6.03 R 4.53 F 1.50
C	78.75 74.236 4.52 1.82 R	6.47 R 5.47 F 1.0	78.75 73.286 5.47	78.75 74.386 4.37	7.37 R 4.37 F 3.0

ckon c ℄

5.60 78.73 1273.13

78.73
74.23
4.50
2.00 R
C-2.6

D					
E					
TP	4.06	1280.04	3.17	1275.58	
F					
G					
H					
I					
HUB & PS			3.50	76.54	76.73

℄

78.75
76.406
4.94
2.85R
C 1.50

5.30
3.80R
C 1.50

78.75
76.586
4.17
3.17R
C 1.0

5.12
3.62R
C 1.50

80.04
74.756
5.29
4.79
C 0.50

80.04
74.926
5.12
4.12
C 1.0

80.04
75.096
4.95
3.95
C 1.0

80.04
75.336
4.71
1.71
C 3.0

inside fence

78.75
73.456
5.30

78.75
73.636
5.12

inside East
80.04
74.05
5.99
2.00
C 3.99

5.15 ground

slope 10' out

78.75
76.566
4.19

5.19R
4.19
F 1.0

78.75
76.74 G
4.01

4.01
4.01R
G

inside West
74.38

6/16/50 FRZ-AT-JF

Grades for Catch Basin #1. {AK line at Inside Track

BM	+2.80	1275.93	1273.13	C.B. Top. ←
	-5.43		70.50	Grade Gutter @ A

6/17/50 Note: Set C.B. Top 70.25 as low pt. (inside Track) = 100 ft Nth. of C.B.

F.R.Z.-A.Temple-J.Ford 6/12/50

Drainage of small pond near N. end Track

		H.I. 1293.14		5pk. NW root 28" Elm Pg 115
		+6.45	1286.69	
0.3 H₂O in NW ¼ pond		-7.45	85.7	
0.7 H₂O in SE ¼ pond		7.82	85.32	Est. Flow Line pond.
Est 1.5 ft water at depest			1284.5	G= 84.25 C= 3.0
50 ft E of ℄ pond		5.95	87.2	G= 84.00
100 " "	℄	5.62	87.5	C= 3.5 G= 83.75
150 " "	℄	6.10	87.0	C= 3.25 G= 83.50
200 " "	℄	6.62	86.5	C= 3.00 G= 83.25
250 " "	℄	7.2	85.9	C= 2.65 G= 83.00
300 " "	℄	9.1	84.0	C= 1.00 G= 82.75
350 " "	℄	11.1	82.0	C= 0.0

ditch edge pav. Edge Pavt dedcl

± 44 = 10.1

10.2 20' 25'

6" grav 7" gr 6" grav

7' 7'

10.7 take ± 2' off knob (±250' SD)

± 7' bank N no bank south

10.7 19' 23'

11.05 take off ± 2', ± 270 SD

± 5' bank N ± none south

11.7 18' 23'

5" 2"

6' 8'

11.75 ± 350' SD 1' off could be nice

12.2 ± 325' SD 1½ off " " "

12.25 ± ℄

12.3 21' 27'

13.5 Munn Rd

13.7 21' 26'

14.85 = So Russell

.4054
360) 145.95
1440
1950
1800
1500
1440
600

11.90
.41
11.49
.41
11.08
.41
10.67

1461.786 6
.4054 4
5847144 24=6
7308930
58471440 =6
592.6080444

296.30
8
1.63
2

8.51
1.75
10.25

73.52 6
73.26 HI
6
82
4
16

10.26
1.64
11.90

Cotts Road 159
Check Levels BM's to Sta 5+00 6-6-28

BM #7	1.22	1138.91			1137.69
TP	2.82	1131.27	10+46		1128.45
5+25			4.5		26.77
5+50			5.1		26.17
5+80			6.1		25.17
6+00			6.3		24.97
6+3			5.5		25.77
TP	10.13	1136.91	4.54		1126.78
5+1			3.70		1133.10

1461.78648

.95
60) 57.0
540
300

232.65
465.30

3.1416 6
4653 0
94248
157080
188496
125664
1461.78648

72.21
7.5
64.7

Cutts Road

	Check Levels	BM#7 TO	BM#8 6-6-25
BM#7	0.37 1132.51		1132.14
34		41.4	83.11
35		7.2	30.31
TP	0.84 1126.05	12.30	1125.21
36		0.90	25.15
37		4.9	21.15
38		7.8	18.25
39		9.2	16.35
40		7.4	18.15
TP	4.24 1123.01	7.28	1118.17
BM#8		2.56	1120.45

28 £35

58
62
120

158
154

71.9

171.7
97.2
74.5

5.50
2.50
3.00

72.21
4.70
67.51
5.50
73.01
2.50
70.51
70.4
50

159 ± 4

182-√39

Beg ~~in~~ at a point in the ℄ of Rd running along the E. Line of Said lot Said Point being about 148-ft N-Ly along Said ℄ from the NE. Corner of Lands in said lot Conveyed by Peter Lindie et - to W.C. Sowers — Vol 178-275

Thence N-83-37-W and ~~thence~~ an Iron Pipe 30.15 ft ~~therefrom~~ a total distance of 586.15 ft to an Iron Pipe —

Thence N-12-32-30-E ~~208.20~~ ft to an I.P

Thence N-60-30-E a distance 687.40 ft to the ℄ of Said Rd and then an I.P. 99.9 ft ~~therefrom~~

Then S-5-43-W along ℄ 609.95 to Place of Beg

Cont 3.3 ✓

H3 in 9.28
10,996.01
H 11,772.21

4471.51
7.27
4313.24
196.02
4471.27

3553.80
20,174.14
23,727.94
Acres

194.04
157.76
351.80
First

196.02
150.
346.02

393.80
346.02
7.78

Table IX.—Calculation of Earthwork.

Width	HEIGHT.														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1 67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if w =16.2 and h =5.3, cu. yds. =1.48+.028+.089 =1.597 cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) =h, and ½ the roadbed =w, add the triangles formed by taking the distance out to each break in turn (=w's) by the difference between the cuts (or fills) on each side of it (=h's) always subtracting the outer from the inner.

Distances from Center of Roadway for Cross-Sectioning.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.4	8.5	8.6	8.7	8.8	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21 7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29 2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33 8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41 9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.

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