

K & F
LEVEL BOOK
373

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE SIDE SLOPES 1 TO 1
FOR SINGLE TRACK EXCAVATION

PLEASE RETURN TO
GEAUGA COUNTY ENGINEER

COURT HOUSE

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

Hautala #64 A
Cham Road Montville Twp

Page 14

Scarsbrook Mill and Chagrin River
(MITCHELLS MILL ROAD)
clear out T.H. #88

Page 12 & 27

Montville Hartsgrave Twp Line Road
MURPHY RD T.H. #173

Page 4

Chardon Kirtland Road CH. #17

Page 50

Wesley River Rd #84 Sec. B & C

N.W. Chardon Twp

Page 32-36

Wesley River Road (#84) Sec. A

Page 60

Re-location Chagrin River
(Nth. of Chardon-Kirtland Rd)

Page 65

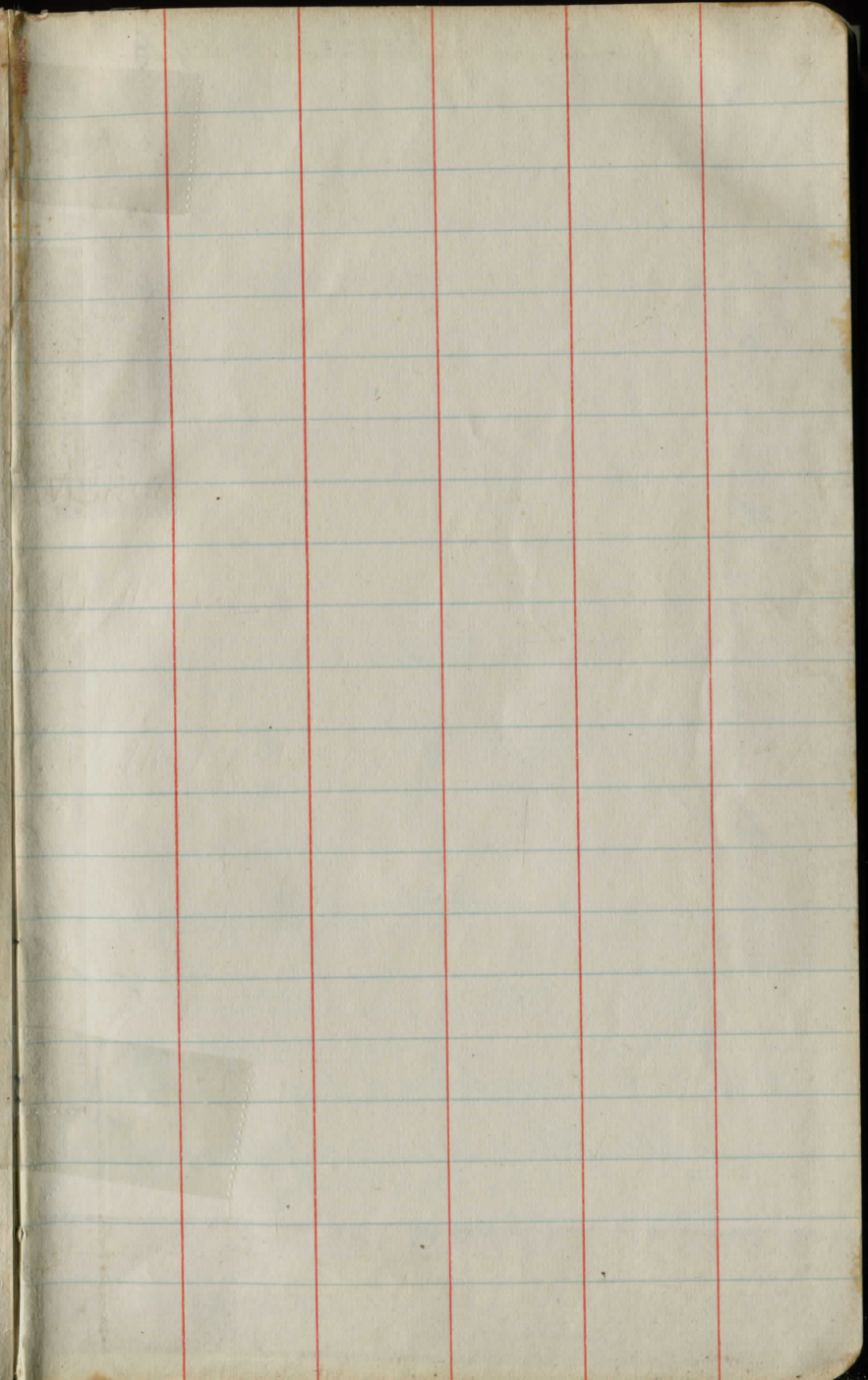
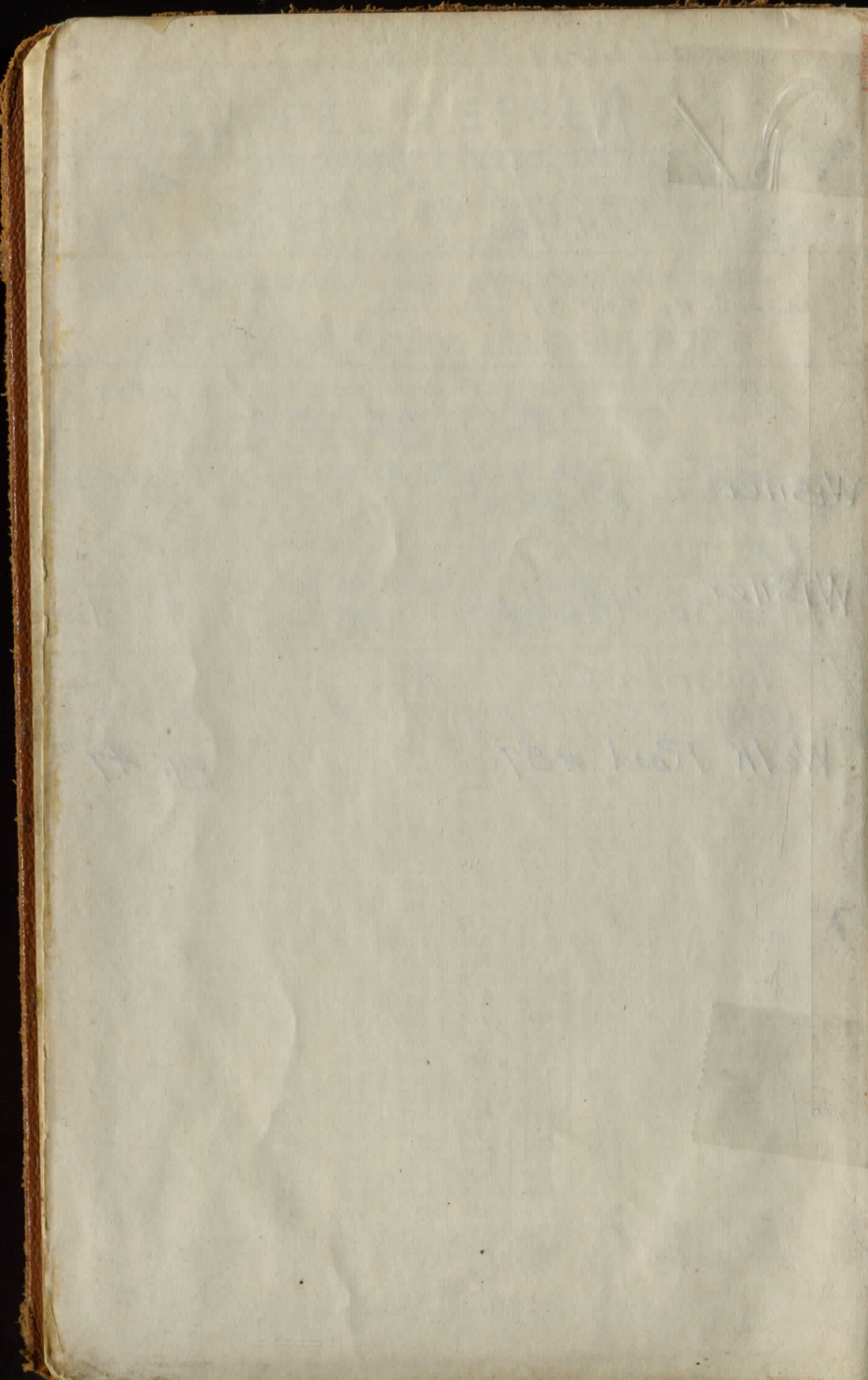
Welk Road #87

Page 47

136

Please return to the

County Surveyors Office
Chardon, O.



20

18

16

14

12

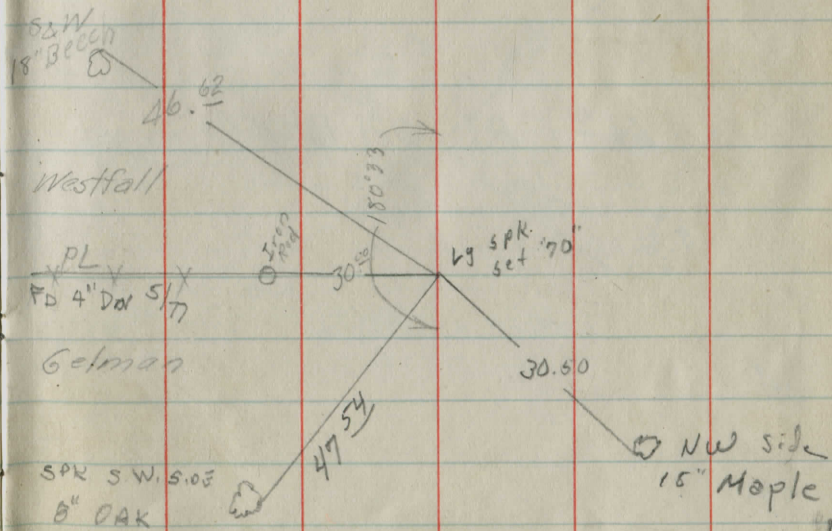
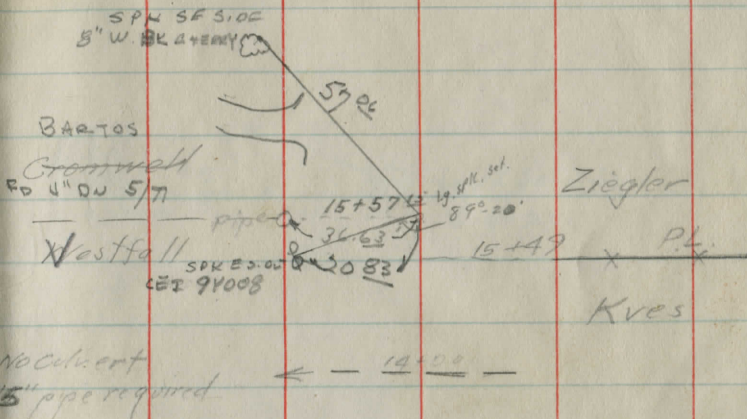
10

Sta 8+49¹⁰ PI Def. Rt. 0°33'

8

138882

1



34

8" Cor IP In good condition 16' long
← 34+49
~~Fence~~ ← 34+48

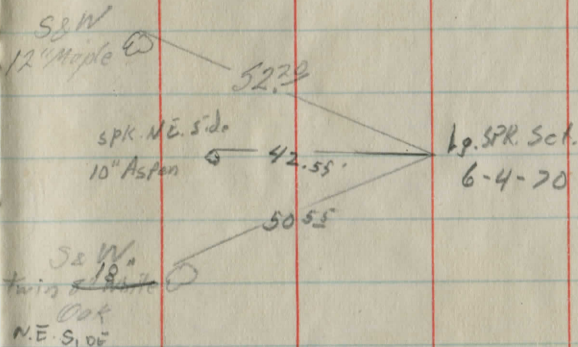
32

12" pipe required
or more 34+49 to 33+00
33+00

Sta 30+00

POT

Hub Set

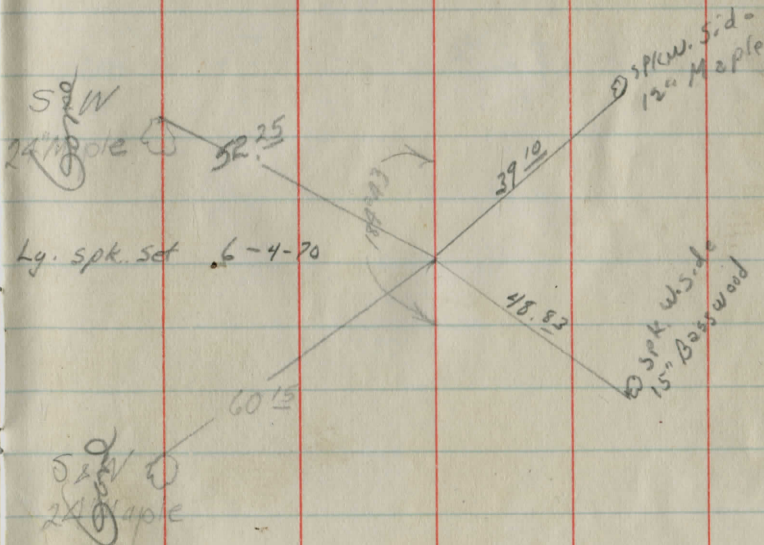


28

Sta 26+66¹⁵

PI Def Rt 443'

Pin Set



26

24

22

50

48

46

44

Sta 42 + 8246

P.O.T.

Hub Set

42

40

38

36

Spk. E. side
15" Maple

Lg. Spk. Set 6-4-70



31

60

42.45

15.00

SE W
18" Maple

B. Spk W.
Side 15"
Maple

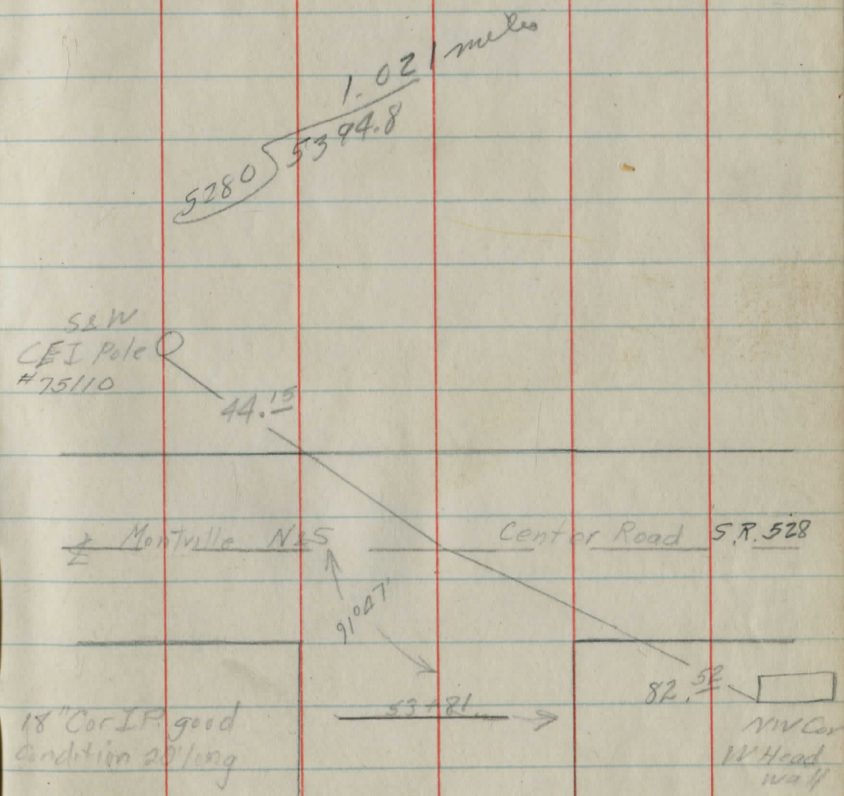
S. 86° 45' E.

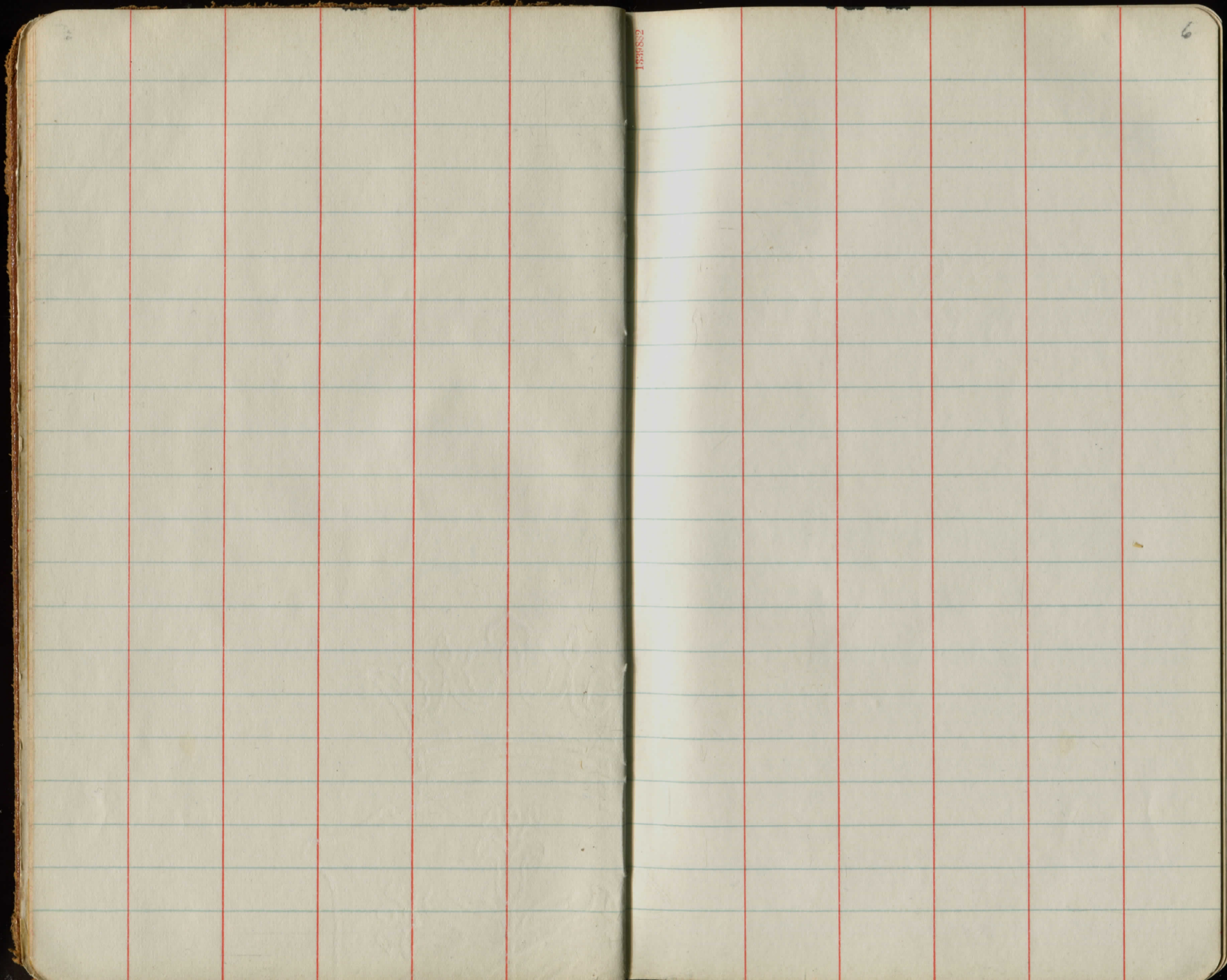
189982

Note: Sta 53+94.80 = Sta 25+985.0 f
NLS Center Road Survey

Sta 53+94.80 End of Imp. Pin set

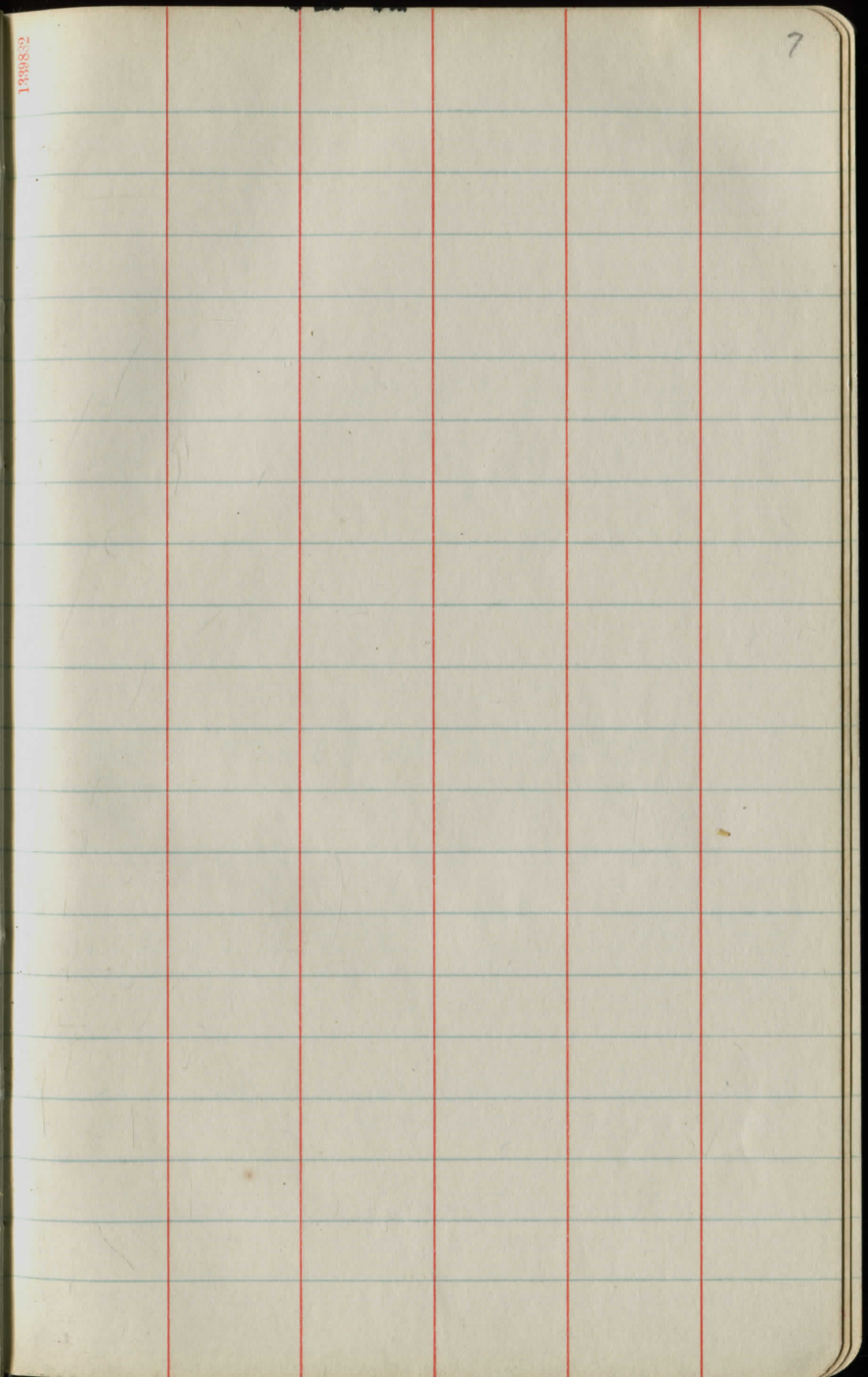
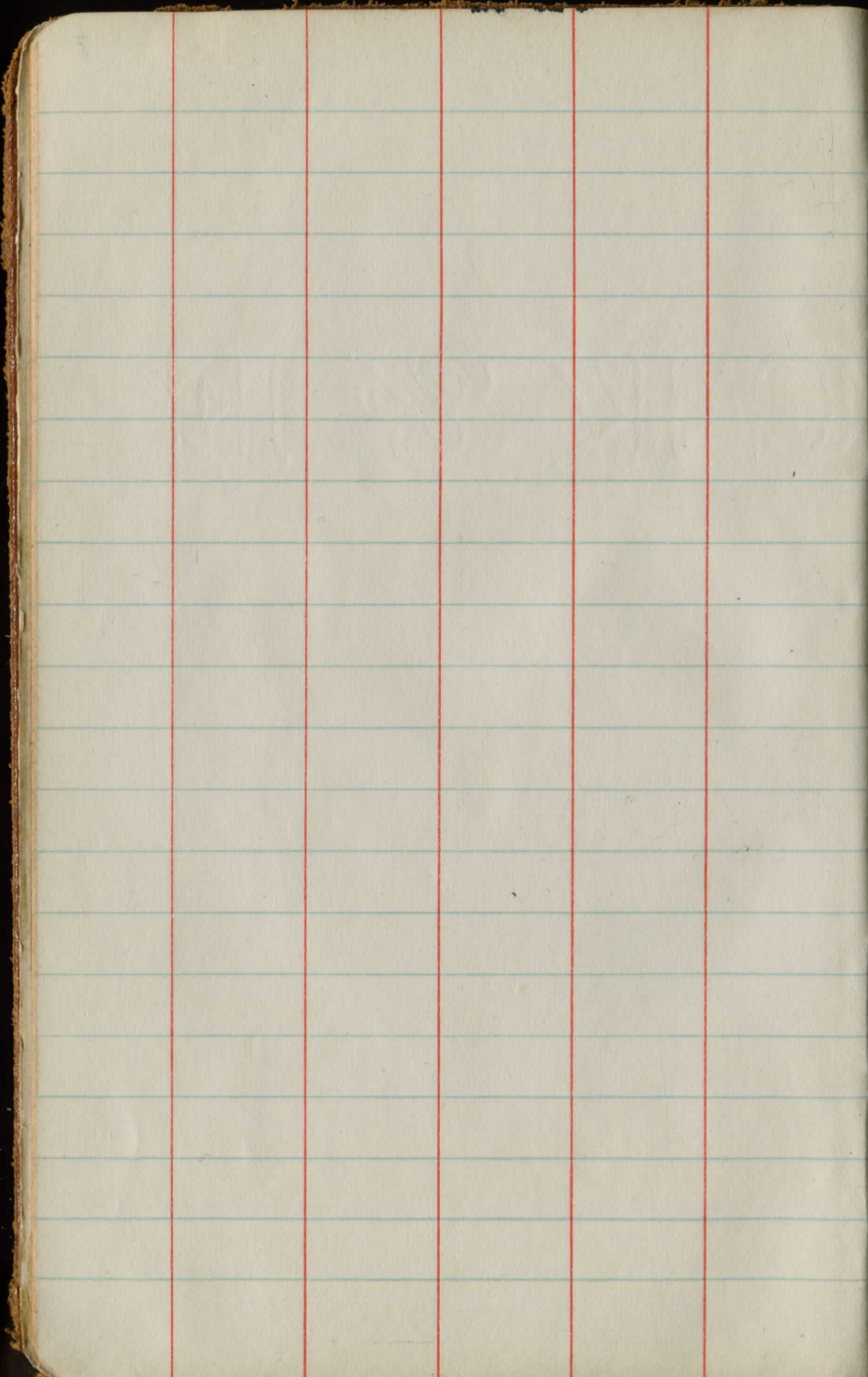
52





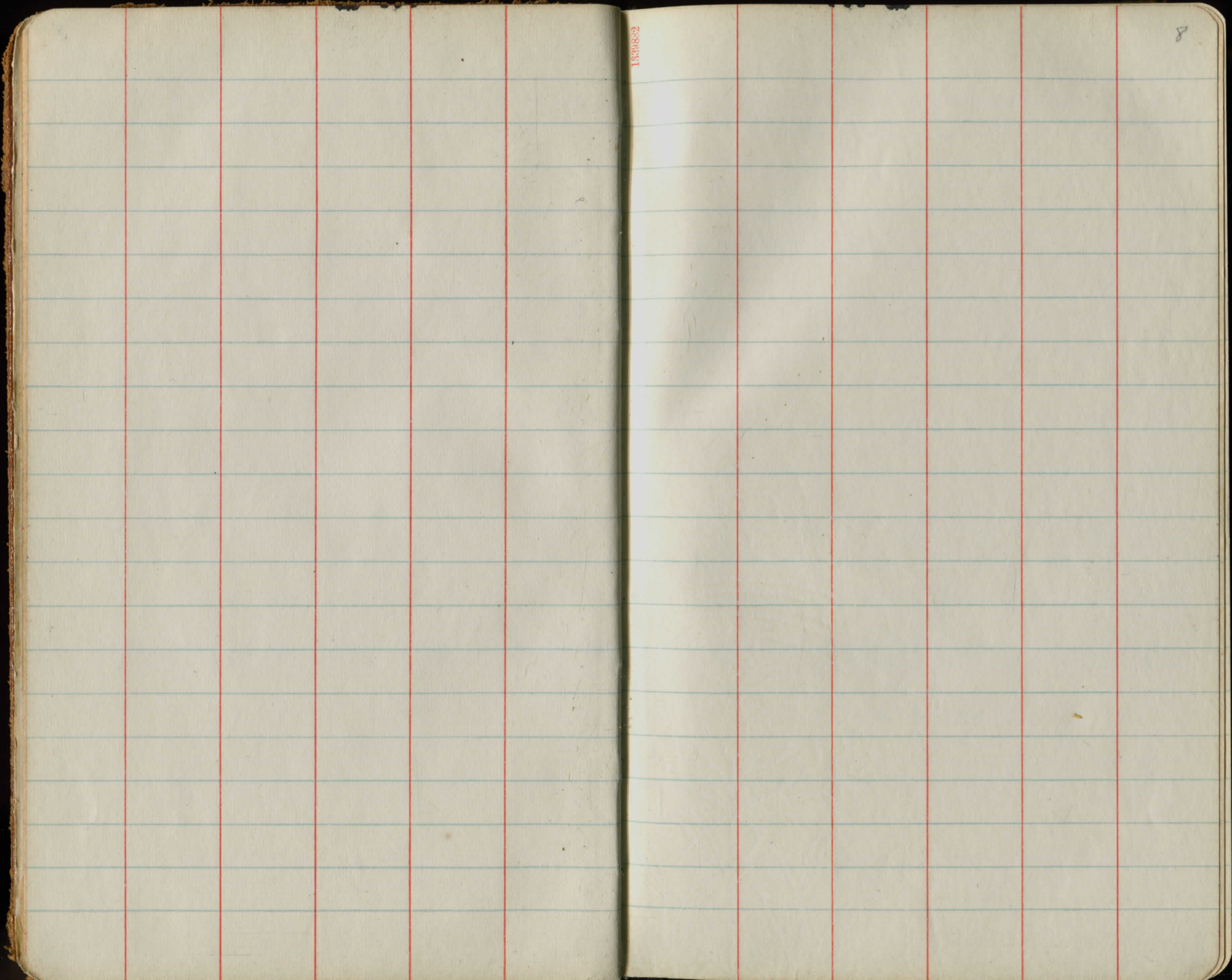
15546882

6



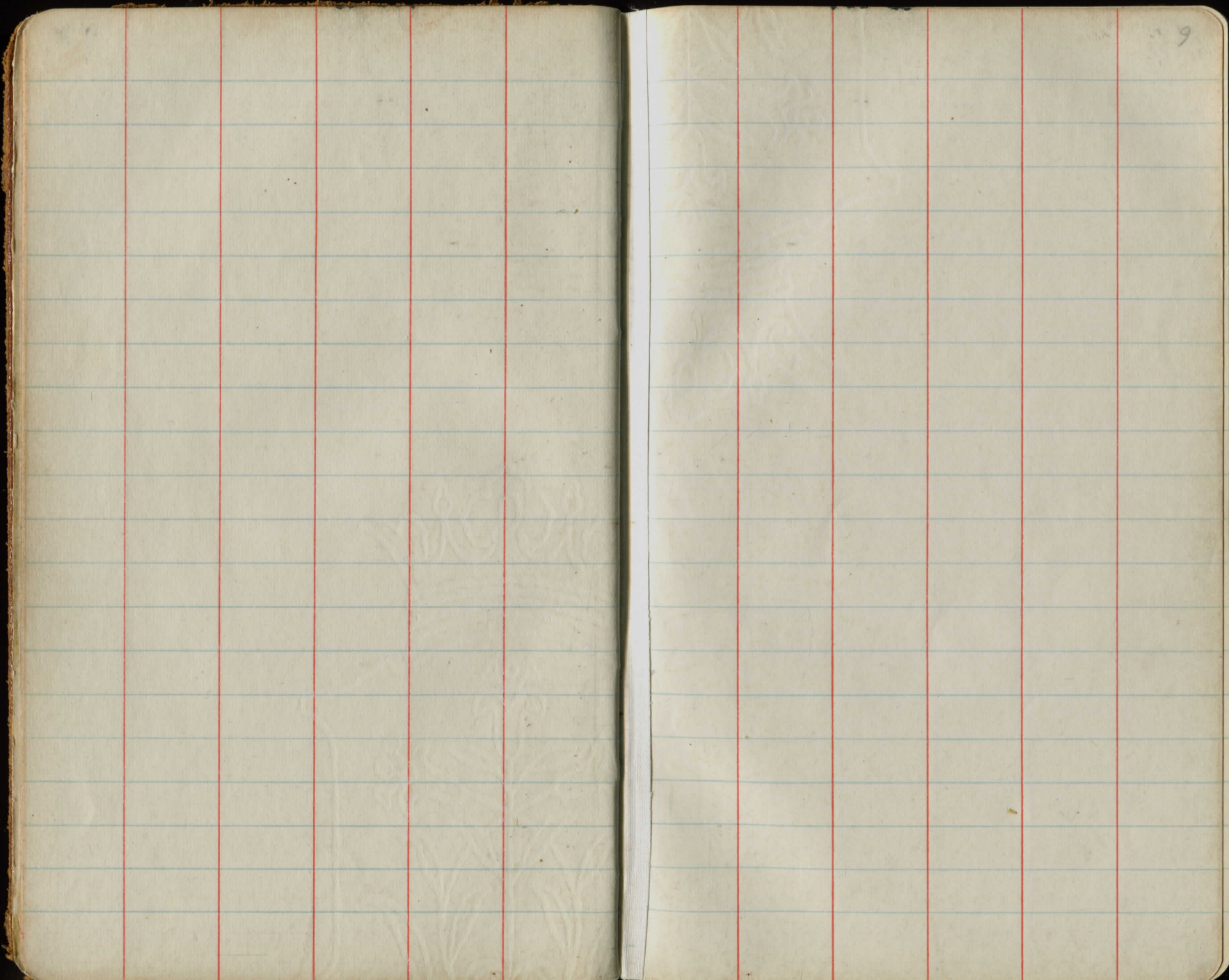
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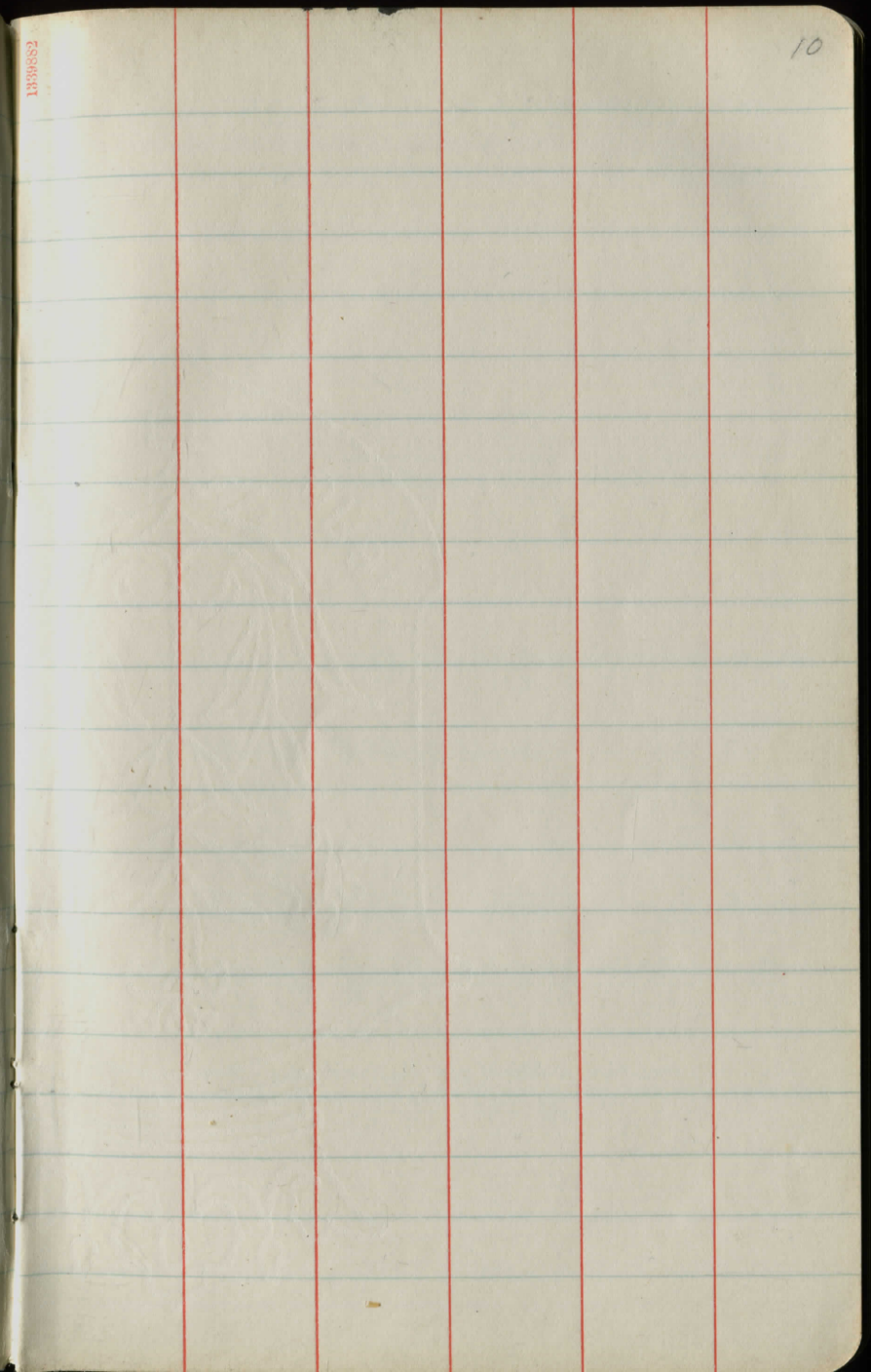
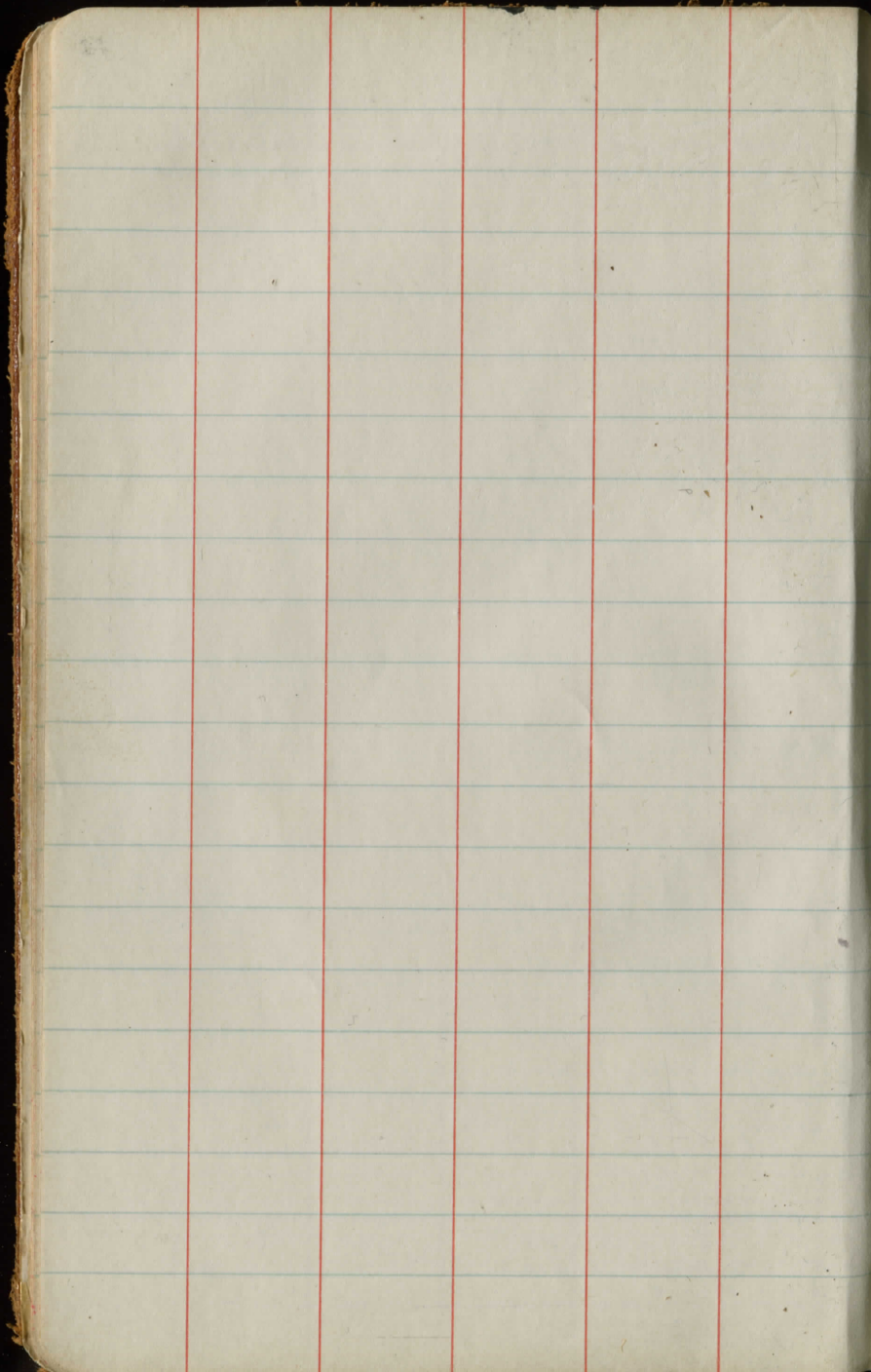
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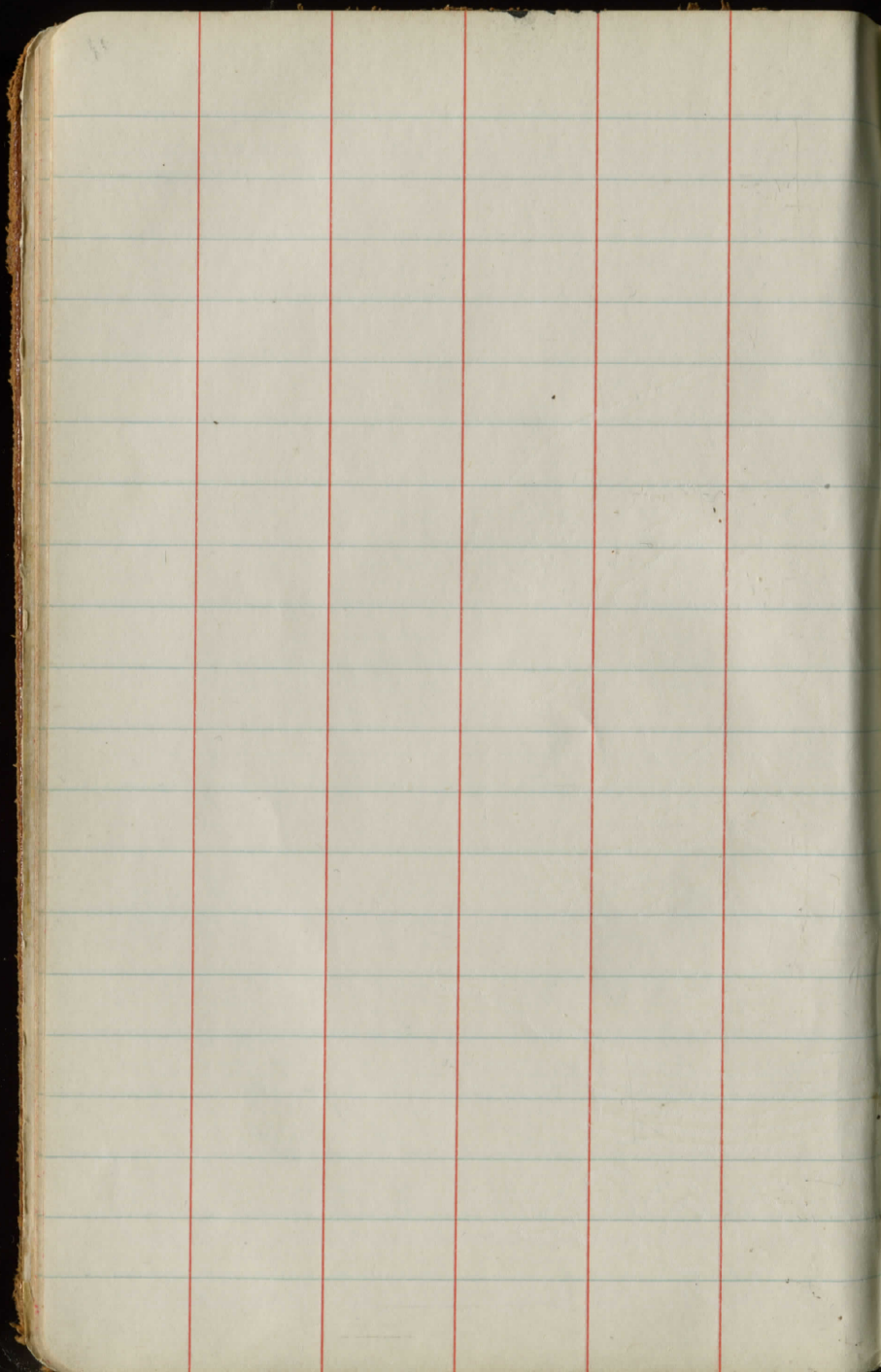


1339082

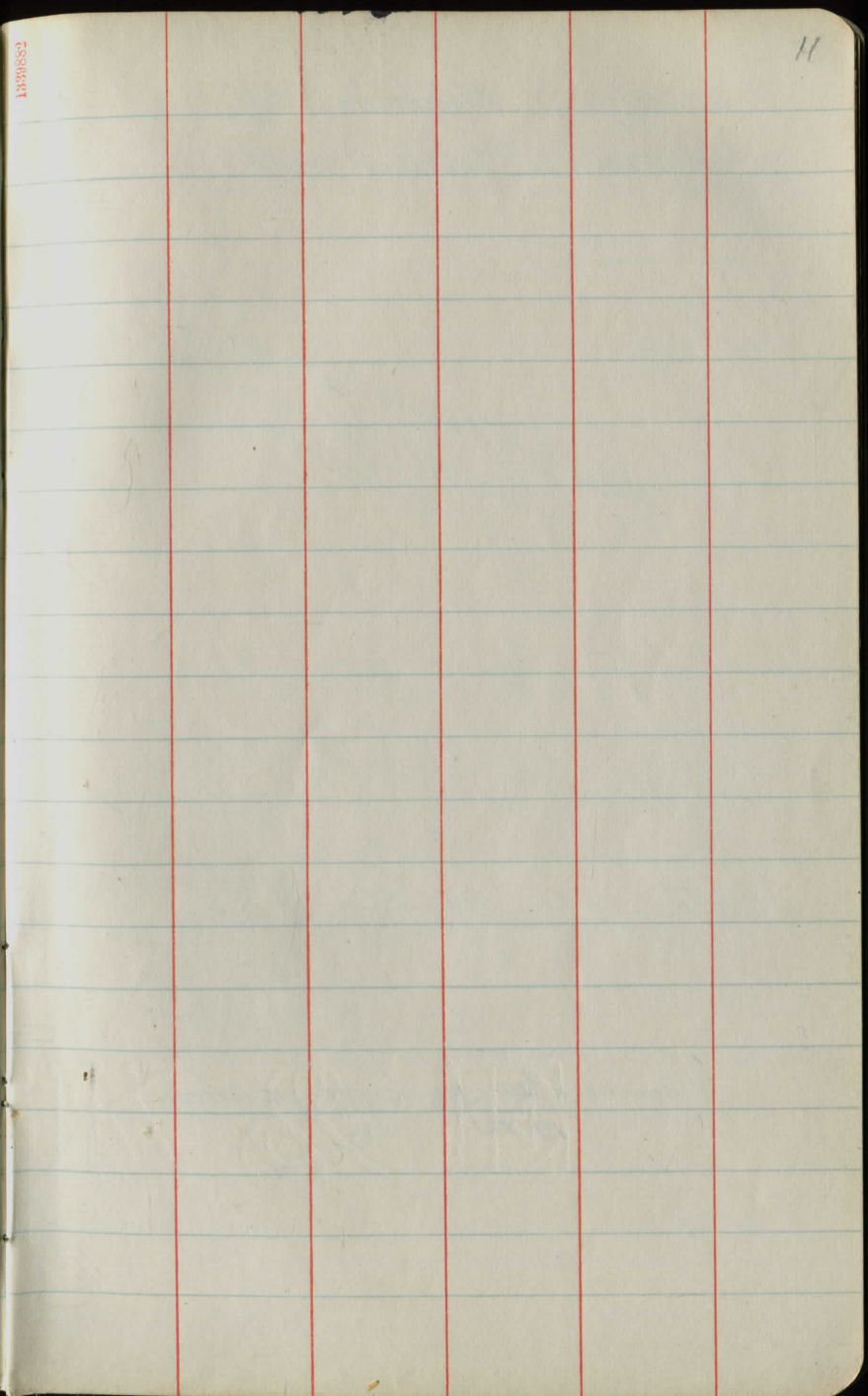
8







1330652



11

± Location Mitchells Mill Road

also known as Searsbrook Road

Notes from Sta 0 to Sta 19+48 copied
from survey for Common Pleas Court
by EAFidler

Sta 0+00. Beginning of Imp.

See book III FOR COUNTY LINE SURVEY,
Pg XLI

3/12/35

Richey
Merritt
Rand

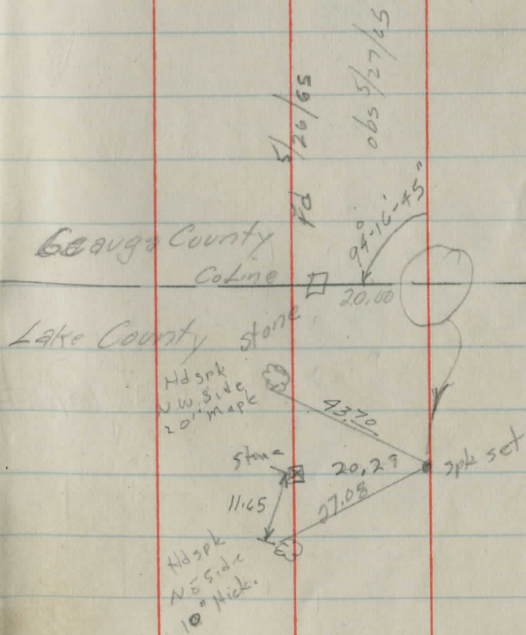
12

Cleveland
Trust Co

pipe PL

30.00

Cleveland
Trust Co



712.69

Sta 12+33.86 Def Rt. 8°00'
IP set 5/27/65

561.86

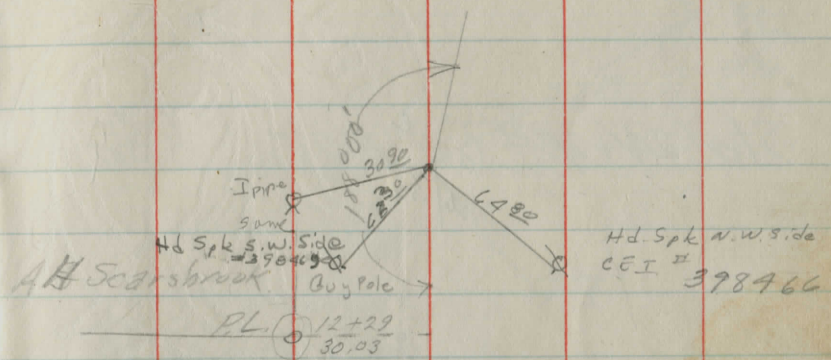
Sta 6+72.00 Def Rt 2°28' (?)
71.82 IP set 5/27/65

1389883

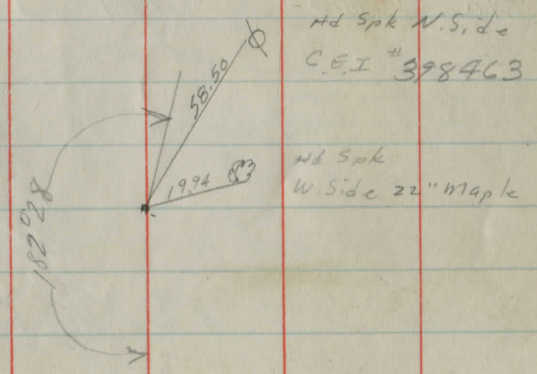
Mather

32.50 9100 17+44

Cleveland Trust Co



AS Scarbrook



2" dn.

(911.93 obs 5/27/65) 9/0.11

Sta 24+20²⁵ 60' POT Pipe Set
5/20/65

9/0.11

Sta. 23+85⁶⁷ POT I.P. Set. 5/27/65

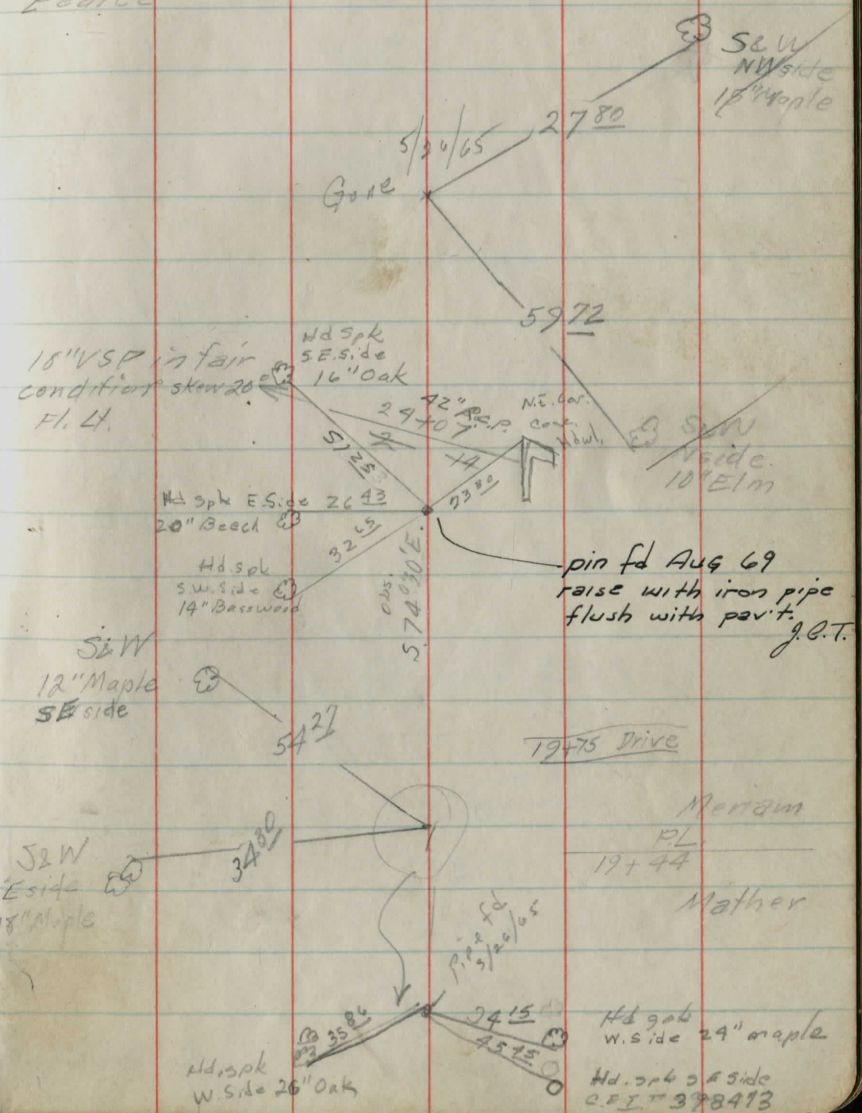
end of gravel 19+90

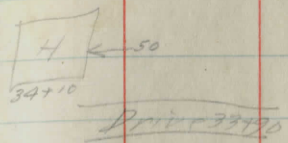
Sta 19+48⁵⁵ PI Def Lt 0'38' Pipe Set
in place of spike found.

Cunningham

PL Pipe found 3044
25+64.40

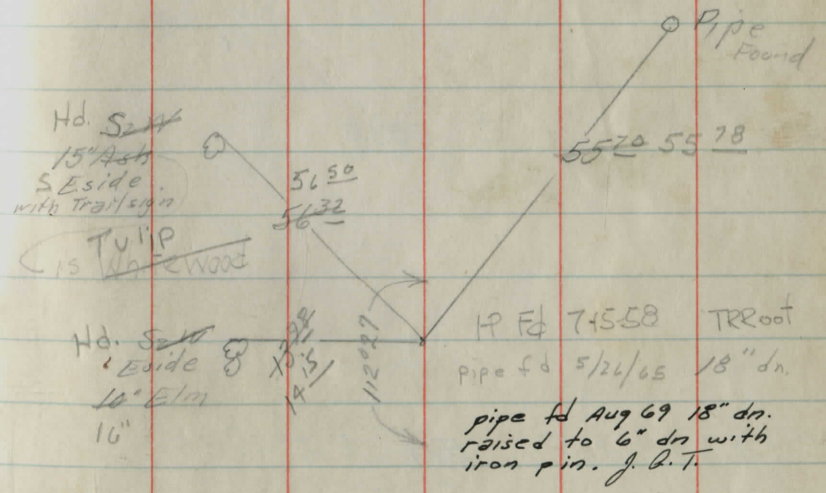
Pearce





737.86

10° skew
 3x45 line Box
 culv. fair condition
 Fl RT. →
 32+46
 24' long
 →
 can be extended
 13' before turn
 better to replace at 30° skew



Sta 28+58.66 PI Del Lt 67°33'

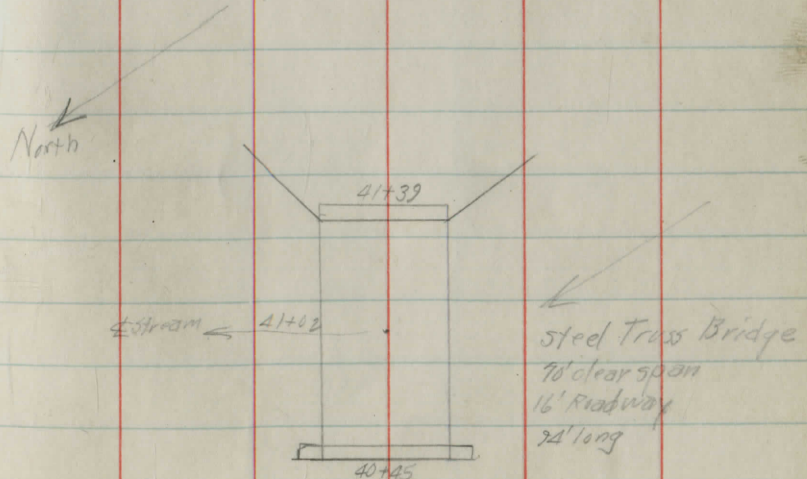
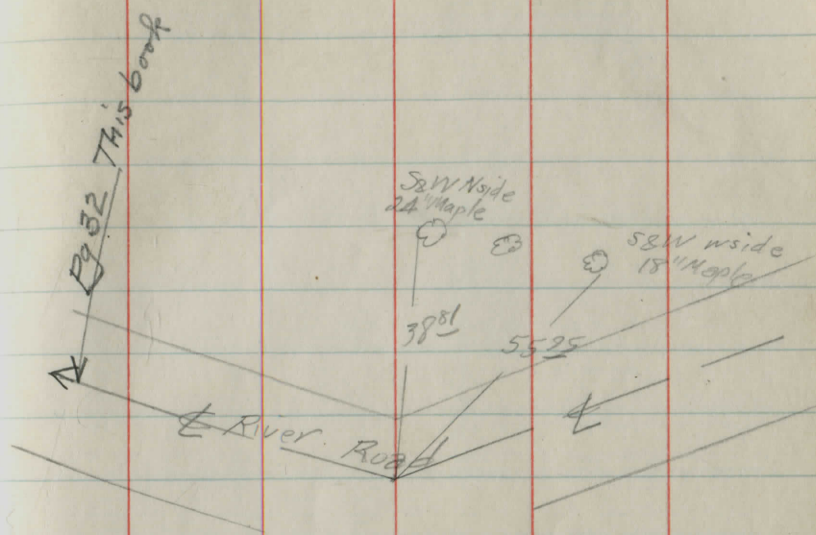
curve data	{	$\Delta = 67^{\circ}33' Lt.$	30+21 = 0°00'
		$D = 18^{\circ}$	30 = 10°53
		$T = 212.89$	29 = 10°53
		$E = 64.6$	28 = 19°53
		$L = 375.28$	27 = 28°53
		$PC = 26+45.77$	26+45.77 = 3°46
		$PT = 30+21.05$	

910.11

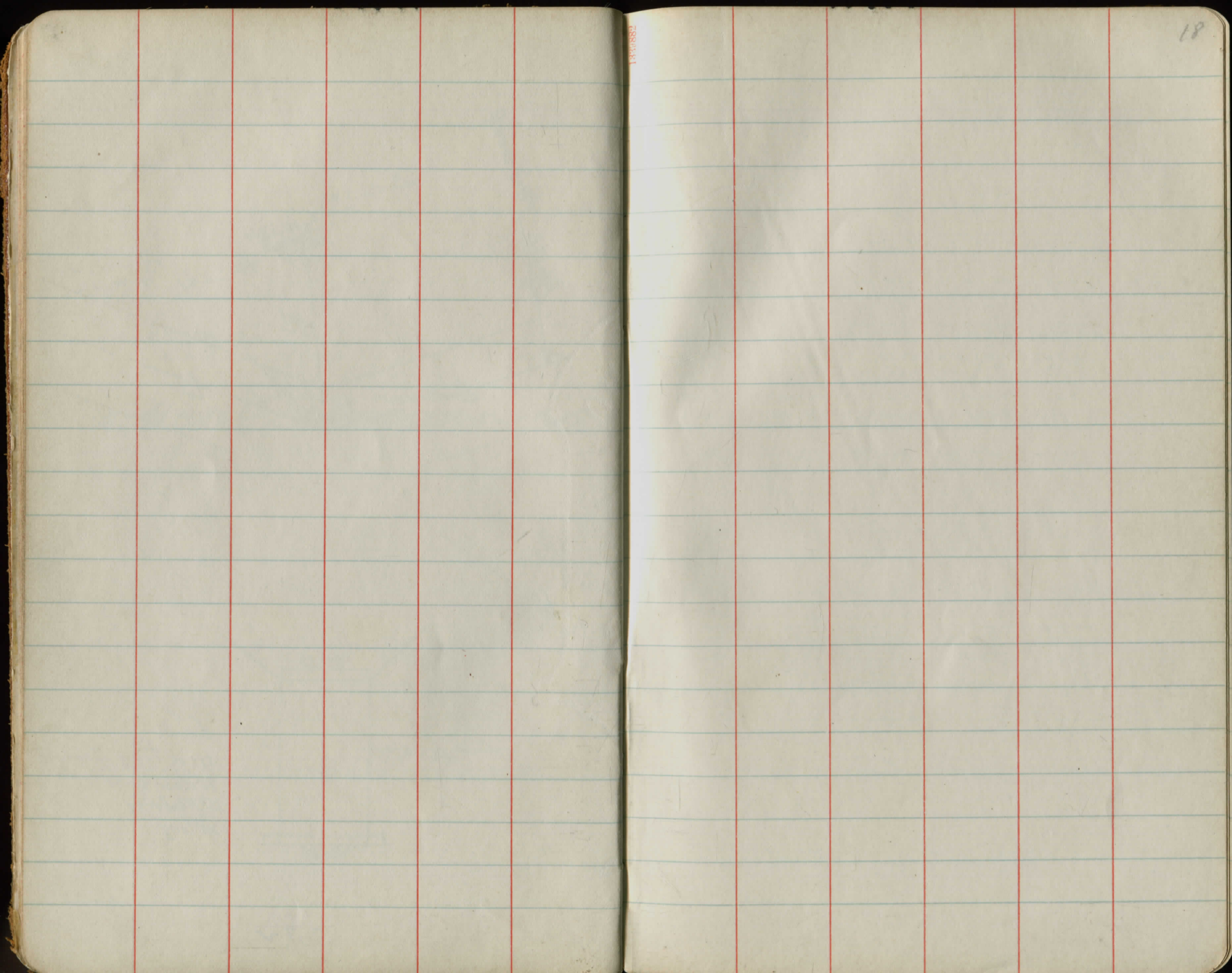
HP E 7+55.8 TR root
 Pipe fd 5/26/65 18" dn.
 pipe fd Aug 69 18" dn.
 raised to 6" dn with
 iron pin. J. B. T.

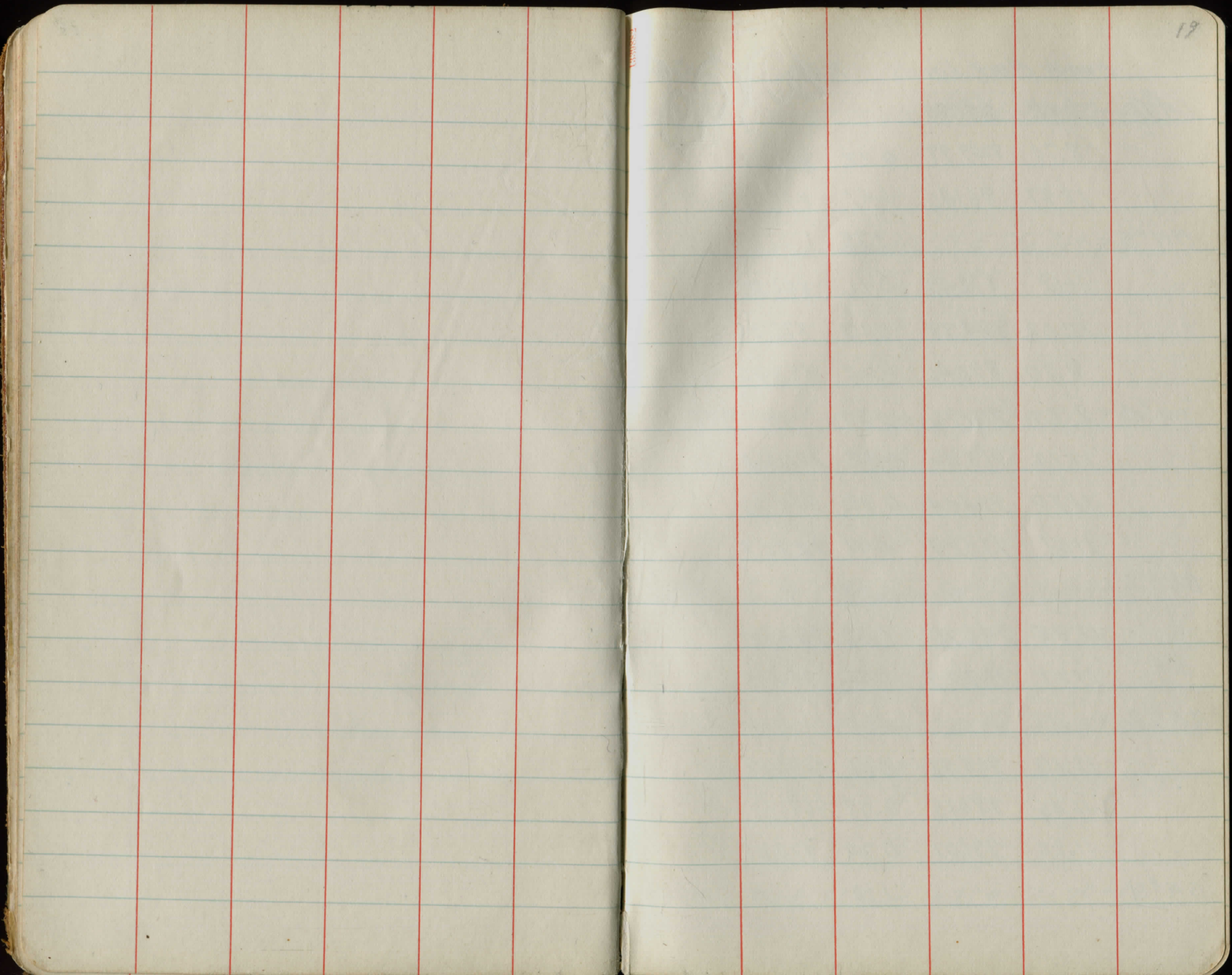
5280 $\frac{.792 \text{ miles}}{41869}$

Sta 41+86²⁰ = Sta 4+52.56 River Road



307. ✓





3/13/35

20

Bench Mark Levels Mitchell's Mill Road

BM #6	9.12	841.50		832.38	Spike E side 18" Maple 25' Rt ± Sta 40+40
	8.70	847.98	0.22	841.28	
	12.97	861.46	1.49	848.49	
BM #5			2.75	858.71	Spike E root 12" Locust 50' Lt ± Sta 31+75
	11.19	872.49	0.16	861.30	
	12.02	884.38	0.13	872.36	
	8.70	892.46	0.62	883.76	
BM #4	9.75	901.96	0.25	892.21	Spike N root 15" Maple 28' Rt ± Sta 28+00
	13.12	913.66	0.42	901.54	
	11.30	924.04	0.92	912.74	
	11.61	935.24	0.41	923.63	
BM #3			6.28	928.96	Spike S root 12" Basswood 35' Lt ± Sta 25+40
	11.98	946.90	0.32	934.92	
	11.21	957.29	0.82	946.08	
BM #2			4.60	952.69	Spike S W root 18" Beech 27' Lt ± Sta 23+80
	12.10	968.78	0.61	956.68	
	11.45	980.15	0.08	968.70	
	11.20	991.01	0.34	979.81	
BM #1			1.19	989.82	Spike S W root 18" Maple 30' Lt ± Sta 20+20

Cross Sections Mitchells Mill Road

Lt. ± Rt.

BM#1 1.19 991.01 989.82

19 -0.3 91.3

20 7.0 84.0

21 12.8 78.2

0.59 978.42 13.18 977.83

22 9.0 62.4

22+45 12.0 66.4

0.87 966.90 12.39 966.03

23 4.1 62.8

23+50 9.5 57.4

2.70 956.89 12.71 954.19

BM#2 4.19 952.70 952.69

24 4.0 52.9

2 24+07

+10:11 $\frac{27}{23}$ $\frac{21}{26}$ $\frac{19}{32}$ $\frac{14}{71}$ $\frac{12}{67}$ $\frac{6.5}{7.5}$ $\frac{9-10}{8.5}$ $\frac{12}{43}$ $\frac{14}{40}$ $\frac{23}{51}$

+10:11 $\frac{25}{92}$ $\frac{18}{113}$ $\frac{14}{138}$ $\frac{11}{131}$ $\frac{5.5}{13.6}$ $\frac{8-9}{15.4}$ $\frac{12}{11.8}$ $\frac{16}{12.6}$ $\frac{22}{14.6}$

+10:11 $\frac{30}{31}$ $\frac{18}{67}$ $\frac{13}{97}$ $\frac{11}{92}$ $\frac{6}{9.5}$ $\frac{9-10}{10.8}$ $\frac{13-15}{60}$ $\frac{21}{7.5}$ $\frac{25}{8.9}$

$\frac{30}{74}$ $\frac{23}{30}$ $\frac{14}{10.5}$ $\frac{11}{12.5}$ $\frac{9}{12.2}$ $\frac{7}{12.2}$ $\frac{9-10}{12.7}$ $\frac{14}{11.0}$ $\frac{23}{12.6}$

$\frac{30}{25}$ $\frac{15}{23}$ $\frac{11}{47}$ $\frac{10}{43}$ $\frac{7}{4.1}$ $\frac{10}{44}$ $\frac{12-14}{26}$ $\frac{20}{34}$ $\frac{30}{67}$

$\frac{-16}{5.9}$ $\frac{11}{7.5}$ $\frac{8}{10.0}$ $\frac{6}{9.8}$ $\frac{7}{9.5}$ $\frac{11}{9.0}$ $\frac{13-16}{6.1}$ $\frac{22}{7.6}$ $\frac{30}{10.9}$

$\frac{37}{20.0}$ $\frac{22}{15.8}$ $\frac{5}{4.5}$ $\frac{2}{4.2}$ $\frac{12}{4.0}$ $\frac{18}{6.2}$ $\frac{30}{4.1}$ -

$\frac{3.7}{20.0}$ $\frac{F1}{8.0}$ $\frac{F1}{6.5}$ -

95689

24+20

5.2 51.7

1.31

945.30 12.90 943.99

25

7.1 38.2

1.18

933.86 12.62 932.68

BM 3

4.87 933.83 4.87 928.99 928.96

25+50

3.9 29.9

26

11.9 21.9

0.75

922.91 12.17 921.66

26+45

8.2 14.2

27

15.7 06.7

0.40

910.54 12.27 910.14

27+45

13.4 97.1

0.31

898.64 12.21 898.33

28

9.4 89.2

BM 4

6.42 892.22 892.21

1.20

887.18 12.66 885.98

29

3.5 83.7

22

$$\begin{array}{r} \frac{24}{87} \frac{5}{35} \frac{11}{52} \frac{13}{59} \frac{23}{67} - \\ +10.2 \end{array}$$

$$\frac{25}{44} \frac{19}{27} + \frac{12}{24} \frac{4}{73} \frac{7}{68} \frac{14}{70} \frac{18}{04} \frac{30}{-06}$$

$$\frac{27}{74} \frac{16}{32} \frac{10}{26} \frac{7}{42} \frac{6}{40} \frac{5}{47} \frac{16}{-25} \frac{23}{-55} - +10.3$$

$$\frac{30}{200} \frac{12-12}{112} \frac{9}{123} \frac{8}{118} \frac{3}{125} \frac{9}{62} \frac{17}{21} \frac{23}{1.1} +10.2$$

$$\frac{26}{114} \frac{14}{70} \frac{11}{89} \frac{9}{82} \frac{15}{82} \frac{3-4}{93} \frac{12}{13} \frac{25}{-20} +10.3$$

$$-10.5 \quad \frac{25}{133} \frac{14}{118} \frac{9}{160} \frac{4}{157} \frac{7}{160} \frac{12}{114} \frac{30}{10.7}$$

$$- \frac{30}{109} \frac{23}{92} \frac{12}{140} \frac{4}{130} \frac{12-16}{110} \frac{21}{10.1} \frac{26}{10.6}$$

$$- \frac{30-15}{97} \frac{14}{102} \frac{13}{96} \frac{1}{94} \frac{3}{100} \frac{6}{8.8} \frac{30}{73}$$

$$- \frac{25}{42} \frac{4}{33} \frac{5-6}{37} \frac{8}{31} \frac{27}{25}$$

887.18

30 10.5 76.7

30+45 13.0 74.2

1.65 876.19 12.64 874.54

31 11.0 65.2

1.36 864.99 12.56 863.63

31+50 6.3 58.7

B4⁵ 6.30 865.01 6.30 858.69 858.71

32 9.8 55.2

32+46 11.7 53.3

7.29 861.62 10.68 854.33

33 5.5 56.1

34 4.0 57.6

35 6.0 55.6

35+45 8.1 53.5

23

$$\frac{25}{7.6} \quad \frac{20-2}{70} \quad \frac{5}{75} \quad \frac{2-20}{10.0} \quad \frac{26-29}{75} \quad -10.10$$

$$- \frac{30}{8.9} \quad \frac{11}{90} \quad \frac{2}{13.6} \quad \frac{14}{130} \quad \frac{20-22}{97} \quad -10.15$$

$$- \frac{25}{8.0} \quad \frac{22}{15} \quad \frac{13}{4.6} \quad \frac{6}{12.6} \quad \frac{4}{11.9} \quad \frac{7}{11.0} \quad \frac{11}{12.0} \quad \frac{12}{102} \quad \frac{19}{12.5} \quad -10.11$$

133

125

127

56

152

129

$$\frac{25}{53} \quad \frac{12}{59} \quad \frac{10}{75} \quad \frac{7}{6.6} \quad \frac{5}{63} \quad \frac{6-7}{70} \quad \frac{8}{65} \quad \frac{16}{70} \quad \frac{27}{82}$$

$$\frac{25}{98} \quad \frac{17}{101} \quad \frac{15}{106} \quad \frac{12}{100} \quad \frac{6}{105} \quad \frac{7}{102} \quad \frac{17}{107} \quad \frac{25}{100}$$

$$\frac{35}{15.0} \quad \frac{24}{10.7} \quad \frac{21}{18.0} \quad \frac{70}{138} \quad \frac{74}{11.5} \quad \frac{74}{11.9} \quad \frac{70}{15.3} \quad \frac{21}{12.7} \quad \frac{13}{23.9} \quad \frac{40}{26.8}$$

$$\frac{25}{4.4} \quad \frac{17}{4.8} \quad \frac{15}{5.8} \quad \frac{3}{4.2} \quad \frac{1}{5.5} \quad \frac{6}{5.2} \quad \frac{10}{6.4} \quad \frac{14}{8.8} \quad \frac{17}{10.6} \quad \frac{37}{29.7}$$

out of heavy fall work at 33+25

$$\frac{25}{3.0} \quad \frac{15}{4.1} \quad \frac{6}{3.5} \quad \frac{16-18}{4.8} \quad \frac{21}{4.8} \quad \frac{25}{6.7}$$

$$\frac{25}{4.3} \quad \frac{5}{5.3} \quad \frac{3}{6.0} \quad \frac{7}{5.8} \quad \frac{9}{5.2} \quad \frac{12}{6.3} \quad \frac{15}{8.0} \quad \frac{20}{10.9}$$

$$\frac{24}{11.8} \quad \frac{17}{8.4} \quad \frac{8}{7.5} \quad \frac{2}{7.7} \quad \frac{10}{8.1} \quad \frac{15}{7.0} \quad \frac{20}{8.5} \quad \frac{23}{10.8}$$

861.62

T.P. 0.00 850.10 11.52 850.10

34 3.7 46.4

$\frac{25}{6.4}$ $\frac{6}{2.8}$ $\frac{18}{2.4}$ $\frac{22-23}{1.4}$

37 6.2 43.9

$\frac{25}{6.2}$ $\frac{4}{6.4}$ $\frac{19}{4.5}$ $\frac{25}{9.3}$

38 7.8 42.3

$\frac{25-15}{6.3}$ $\frac{7}{6.9}$ $\frac{5}{8.5}$ $\frac{7}{8.4}$ $\frac{13-14}{7.0}$ $\frac{18}{10.0}$

T.P. 1.20 839.51 11.79 838.31

38+45 2.0 37.5

$\frac{25}{2.1}$ $\frac{14}{3.0}$ $\frac{6}{2.0}$ $\frac{13}{3.0}$ $\frac{30}{8.5}$

38+80 3.2 36.3

$\frac{35}{1.0}$ N. on E of road to mill

39 4.1 35.4

$\frac{25}{0.4}$ $\frac{3}{4.1}$ $\frac{17}{4.0}$ $\frac{22}{7.3}$

39+25 4.9 34.6

$\frac{25}{8.9}$ $\frac{13}{8.1}$ $\frac{4}{4.9}$ $\frac{4}{4.9}$ $\frac{15-25}{7.4}$

old mill race

39+50 4.8 34.7

$\frac{20}{4.4}$ $\frac{15}{4.9}$ $\frac{4}{4.8}$ $\frac{7}{5.2}$ $\frac{10}{4.5}$ $\frac{25}{4.1}$

40 6.1 33.4

$\frac{25}{4.4}$ $\frac{9}{4.9}$ $\frac{5}{4.1}$ $\frac{13}{4.7}$ $\frac{25}{2.3}$

839.51

40+45	7.1	32.4	
Flow 40+70	17.8	21.7	
41+39	7.4	31.9	
B.M. 6	7.12	832.39	832.38
Flow 41+37	17.3	22.2	

N.W. end of
bridge

S.E. end of
bridge

Spike SE root 18" Maple 20" Rt. & Sta 40+30

Location River Road

Part of Mitchell's Mill Road & River Imp.

Sta 10+91.93 Def. Lt. $29^{\circ}32'$

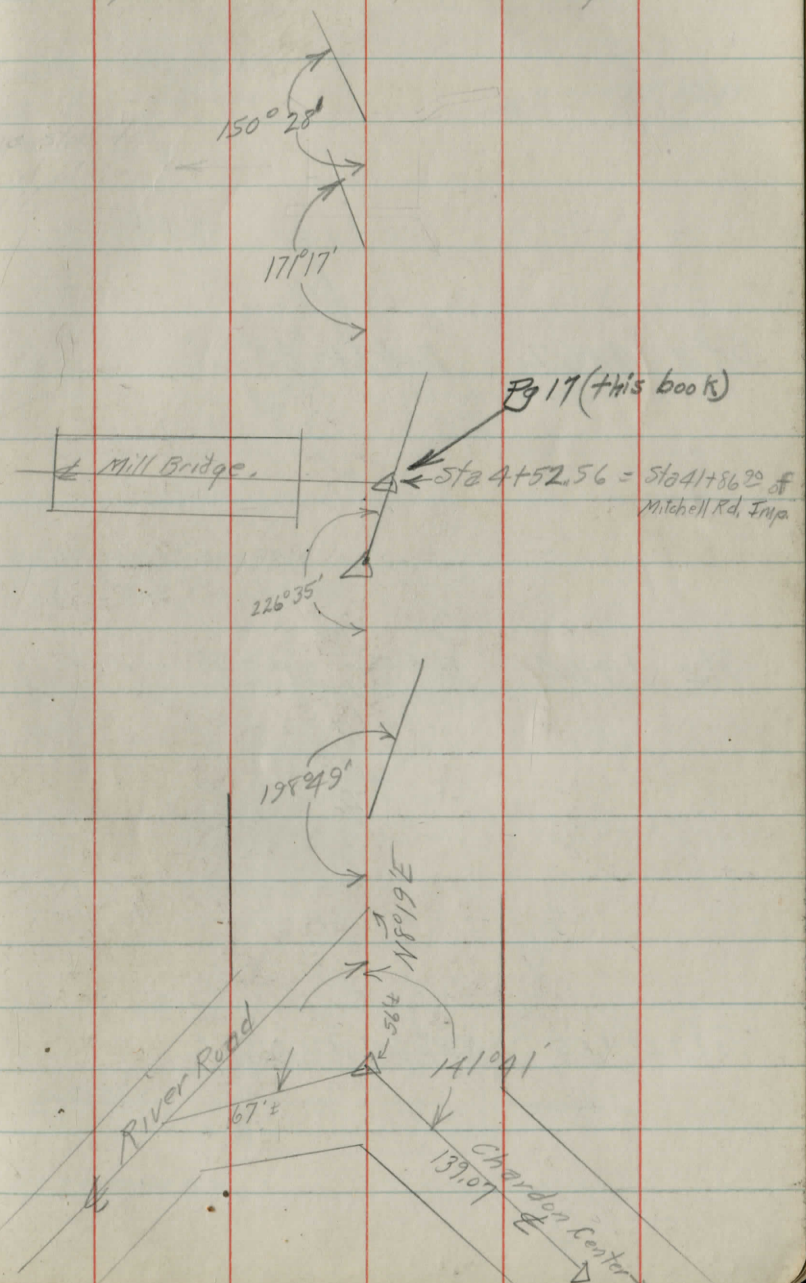
Sta 7+94.16 Def Lt. $8^{\circ}43'$

Sta 4+28.53 Def Rt $46^{\circ}35'$

Sta 2+28.83 Def Rt $18^{\circ}49'$

Sta 0+00 Location Chardon Center - Mill Road

Notes copied from Hadden's plan for bridge



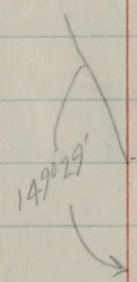
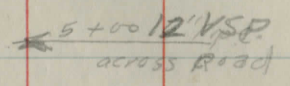
Location Chayin River Clean out

Sta A+62 Deflt 30°31'

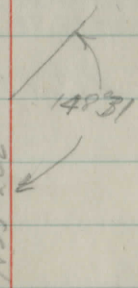
Sta 1+64 Deflt 31°29'

Sta 0+00 NE curb of Bridge

Possibly make an offset
6+51# compute same
to be 15 to 25' to RT

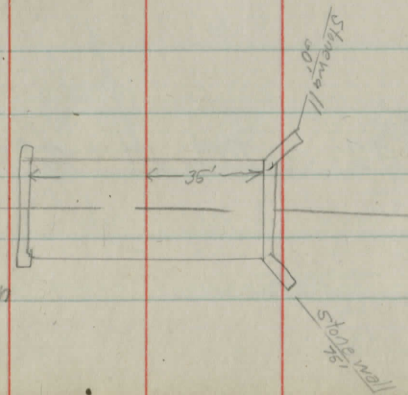


Sta 3 is 100' from Pipe
on Sprague-Crowle line
and in same line produced



Road

Bridge = 70' clear span



Station sidestakes at 60' L_T±

Sta 9+83 Def. Lt. 49°37'

curve to be run to replace this line. from

$\Delta = 156^{\circ}21'$ 7+42 to

$T = 560.00$ 9+83

$R = 117.33$

$D =$

$L = 320.14$

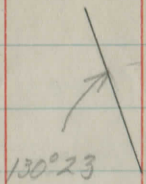
correction plus 18.21 ft.

PC = 6+95.64

PT = 10+15.78

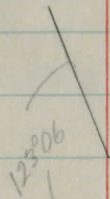
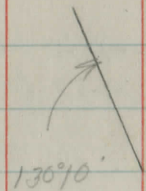
Sta 8+42 Def Lt. 49°50'

Sta 7+42 Def Lt. 56°54'



Wash out in
cut Tom. produced from
9+83

Lateral from E
10+60

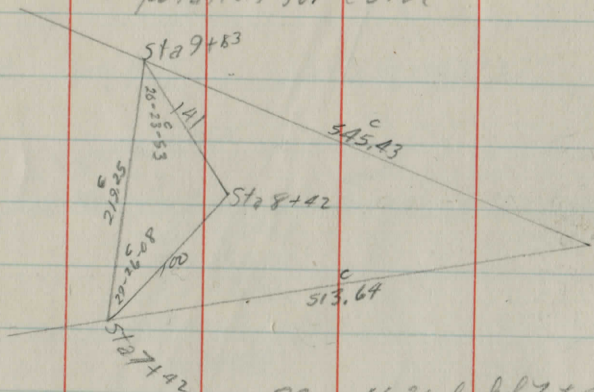


H₂O
→ 2 and 30

pipe found,
dico east 35'±
of 7+42

pipe on site here -
Sprague line is 50'±
from lat. sta 6+00±

Computation for Curve



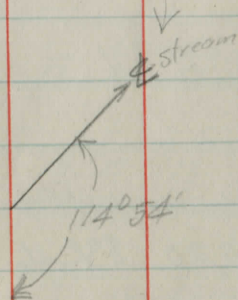
$PC = 46.36$ back of $7+42$
 $PT = 14.57$ back of $9+83$

Sta 14+20 $\frac{1}{2}$ mi E of Stream or 20' Lt of transit Line

Sta 14+00

Def Pt $65^{\circ}06'$

290' by stadia to next ∇



Sta 1+64 is 233' to South of Sta 14 sidestake

Cross Sections Chagrin River Cleanout

B.M. #				
B.M. #1				
B4-6	0.63	833.01		832.38
0-200		10.2		22.8
0-100		10.4		22.6
0		10.5		22.5
1		10.3		22.7
2		11.4		21.6
3		11.0		22.0
	6.51	829.95	9.57	823.44
4		6.6		23.3
5		7.2		22.7
6		5.4		24.5
	10.20	832.66	7.99	822.46
7		10.0		22.7
B.M. #2		5.04	827.62	827.62

3/14/35

30

Lt. & Rt.

Spike SE root 18" Maple NW of Bridge.
 ↳ same as No. 6

— $\frac{35}{10.6}$ $\frac{35}{10.0}$ —

$\frac{60}{-10}$ $\frac{42}{10.7}$ $\frac{32}{11.6}$ $\frac{23}{9.5}$ $\frac{34}{8.3}$ $\frac{48}{6.8}$

— $\frac{40}{60}$ $\frac{34}{9.3}$ $\frac{22}{10.5}$ $\frac{16}{12.0}$ $\frac{16}{10.8}$ $\frac{25}{6.6}$ $\frac{37}{8.3}$

— $\frac{-38}{6.2}$ $\frac{25}{7.2}$ $\frac{6}{9.0}$ $\frac{5}{11.6}$ $\frac{15}{13.0}$ $\frac{33}{11.1}$ $\frac{37}{10.2}$ $\frac{95}{6.7}$

— $\frac{45}{3.7}$ $\frac{35}{5.1}$ $\frac{2}{6.0}$ $\frac{8}{6.6}$ $\frac{4.0}{8.4}$ $\frac{14}{8.4}$ $\frac{22}{10.9}$ $\frac{55}{11.0}$ $\frac{60}{4.5}$ $\frac{±}{rod}$

— $\frac{-42}{4.6}$ $\frac{24}{5.0}$ $\frac{8}{6.0}$ $\frac{5}{7.2}$ $\frac{12}{9.0}$ $\frac{30}{10.0}$ $\frac{48}{10.0}$ —

— — $\frac{-32}{3.5}$ $\frac{18}{4.4}$ $\frac{5}{5.7}$ $\frac{10}{8.2}$ $\frac{15}{2.6}$ $\frac{58}{9.4}$ $\frac{62}{6.9}$ $\frac{76}{-}$

— $\frac{-44}{8.0}$ $\frac{33}{9.0}$ $\frac{16}{10.0}$ $\frac{13}{10.0}$ $\frac{18}{12.2}$ $\frac{28-41}{13.0}$ $\frac{45}{11.0}$ $\frac{50}{Bank}$

Top NE of Watering Trough 80' Rt Sta 6+20
 ↳ northwly

83266

8 11.4 21.3

9 9.0 23.7

6.52 82780 11.38 82128

10 8.4 19.4

11 8.8 22.0

12 6.0 21.8

12.88 83158 9.10 818.70

13 14.0 17.6

B4B 8.56 823.02

14 14.5 17.1

15 15.8 15.8

16 15.5 16.1

7.30 83809 0.79 830.79

B4#1 5.73 83236 832.38

31

L	E	R
$\frac{-41}{90}$	$\frac{38-33}{75}$	$\frac{20}{10.0}$
	$\frac{15}{11.5}$	$\frac{8}{105}$
		$\frac{28}{124}$
		$\frac{40}{125}$
		$\frac{47}{100}$
		$\frac{52}{38}$

129

$\frac{28}{125}$	$\frac{45}{102}$	$\frac{35}{85}$	$\frac{13}{85}$	$\frac{25}{119}$	$\frac{30}{134}$	$\frac{40-55}{146}$	to bank-60
------------------	------------------	-----------------	-----------------	------------------	------------------	---------------------	------------

$\frac{63}{72}$	$\frac{10}{64}$	$\frac{6}{72}$	$\frac{30}{90}$	$\frac{45}{110}$	$\frac{60}{100}$	Bank
-----------------	-----------------	----------------	-----------------	------------------	------------------	------

All distances from side stakes at 65' Lt.

$\frac{0}{43}$	$\frac{44}{53}$	$\frac{60}{58}$	$\frac{72}{88}$	$\frac{100}{86}$	$\frac{130}{130}$
----------------	-----------------	-----------------	-----------------	------------------	-------------------

$\frac{0}{53}$	$\frac{75}{82}$	$\frac{80}{99}$	$\frac{100}{105}$	$\frac{115}{94}$	$\frac{120}{58}$
----------------	-----------------	-----------------	-------------------	------------------	------------------

$\frac{0}{78}$	$\frac{30}{74}$	$\frac{50}{134}$	$\frac{56}{142}$	$\frac{74}{140}$	$\frac{80}{134}$	$\frac{88}{121}$	$\frac{100}{100}$
----------------	-----------------	------------------	------------------	------------------	------------------	------------------	-------------------

Spike Next 18' Sycamore 150' Lt. 12 + 50

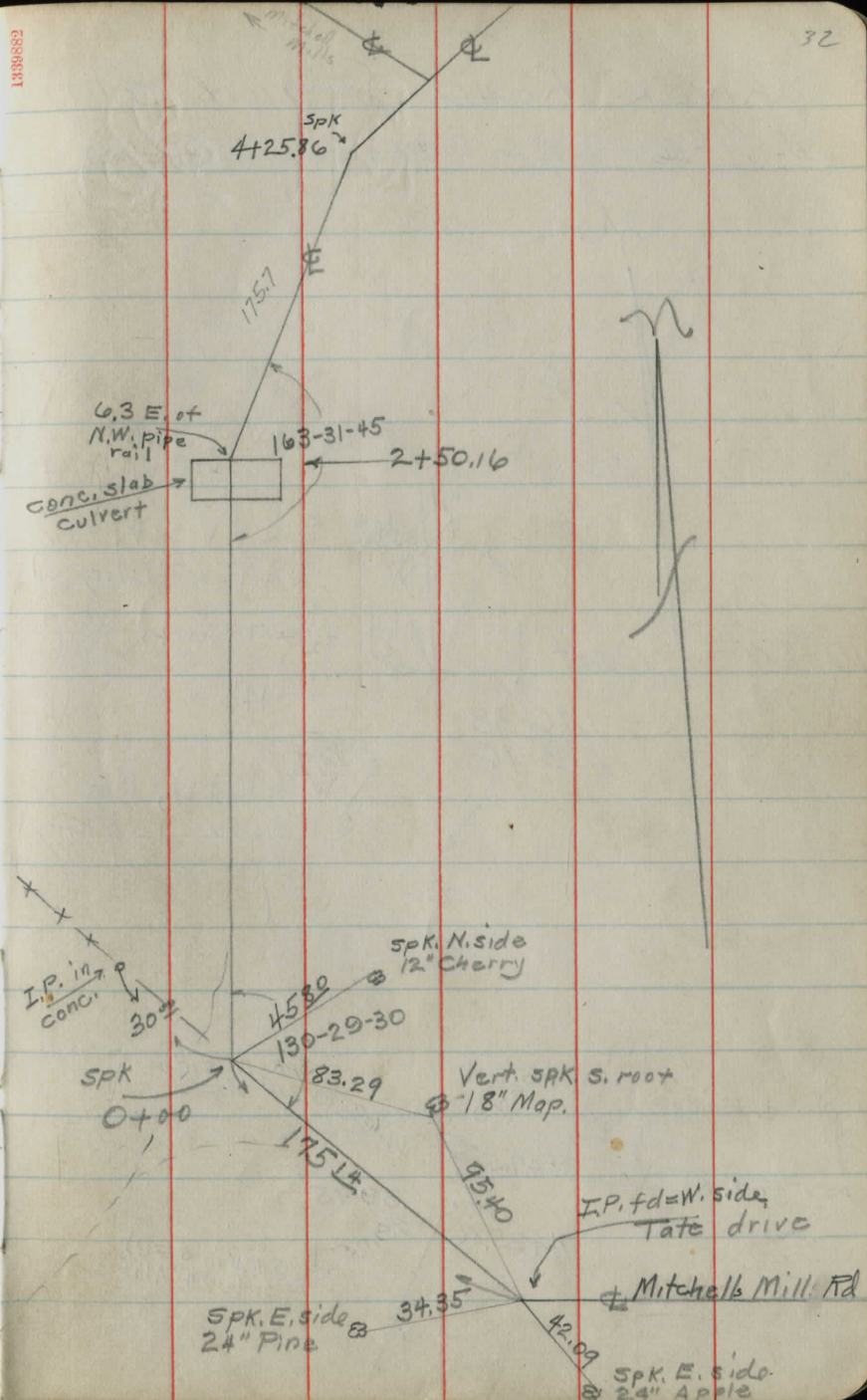
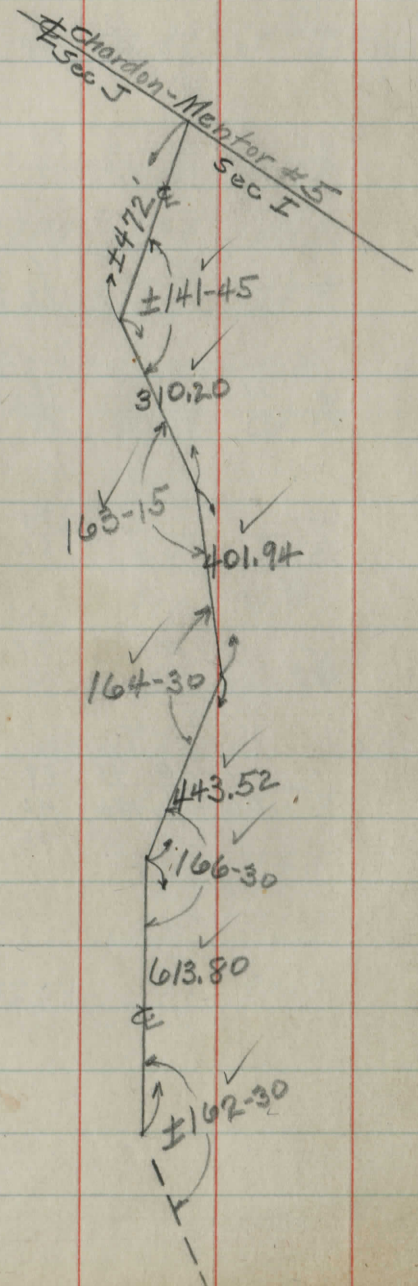
$\frac{0}{93}$	$\frac{17}{11.6}$	$\frac{40}{146}$	$\frac{45}{146}$	$\frac{58}{142}$	$\frac{93}{118}$	$\frac{105}{105}$	$\frac{120}{100}$
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126

River Road #84, Sec. B (N.W. Chardon Twp.)

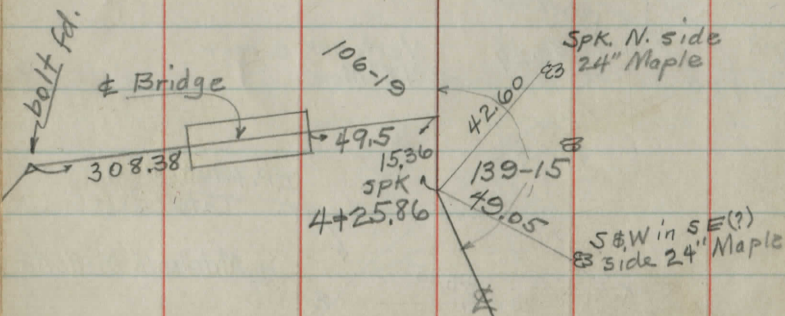
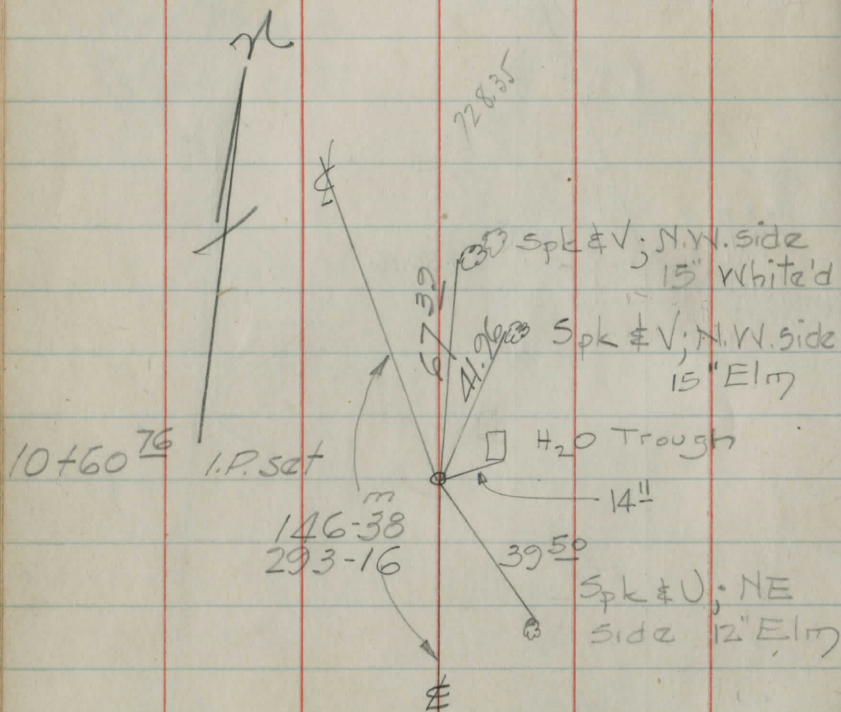
60 ft. wide

Book D₁ #468
Road Records
Sept 1871



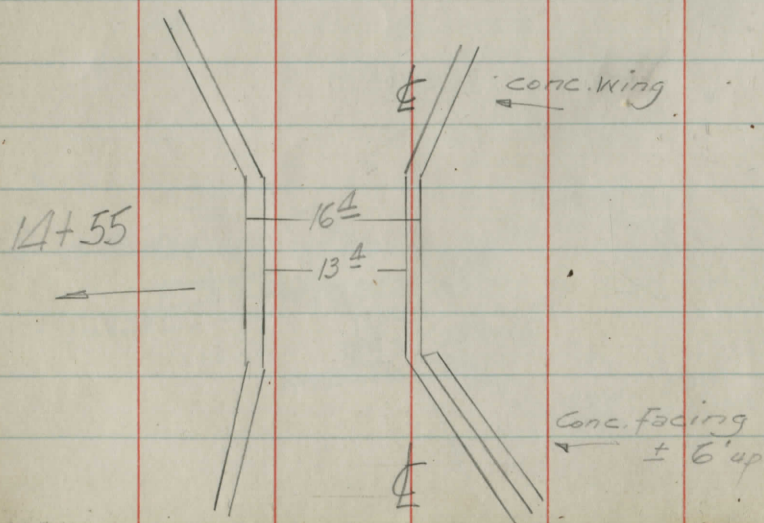
RIVER ROAD SECTION C(PT)

4-12-16 Pom - Thrasher - Randles



Lt(W) E Rt(E) 33

	Ledge 10'	14+0	1' Rledge	30' □
□ 30'	Ledge 9'	13+0	1' Rledge	40' □
	Sparking Grounds	12+85	Canfield Dr.	
		12+35		
□ 30'	Ledge 8'	12+0	Rledge	30' □
stk 17'	top ck. bk. 15'	Ltr. rd. 11+0		stk 30'
10+73			13' □	H ₂ O Trough



1339888

±

34

□ 25' top ^{3.5 bank} 25' Lt edge 17' 17 to 7' Rt edge 2' bank up 36' □

12" VSP.

16+40 11^s Crowe

← 16+35

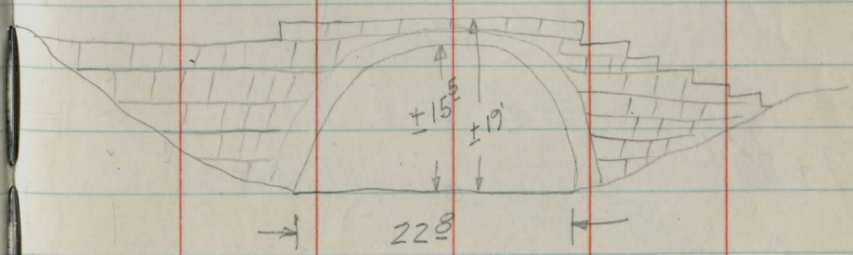
□ 16' 16 to

timber Ret Wall ± 8' drop ← 17^s 16 to 4' Rt edge; 4' bk up 36' □

30' ± tr rd 10' 15+50 2' toe of 12' bank up →

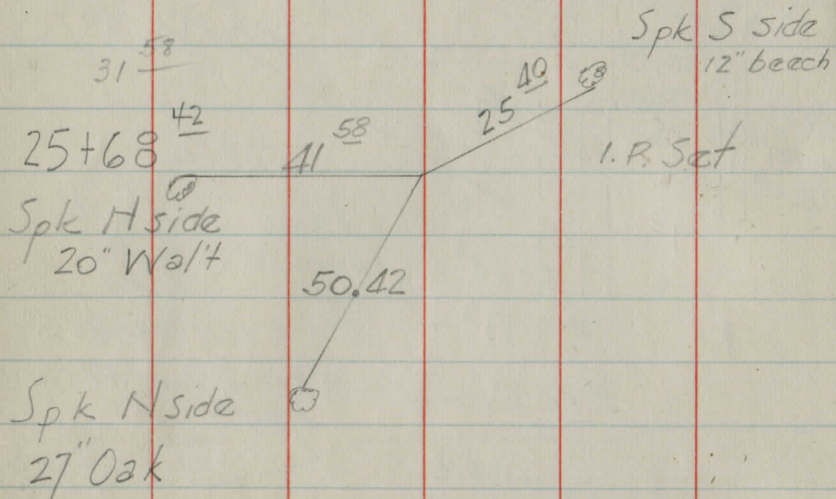
□ 30' 15 to 20' □

15+15
Rt edge ← on steep drop
→ down
14+75 2' ±



West EL.

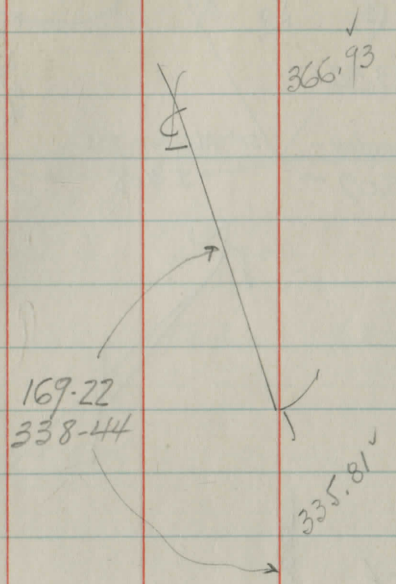
Stone Arch
Excl. Conc.



□ 30'

⊕ ⊕ tr rd
26+6

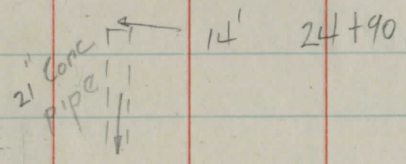
37
30' □



□ 30'

l' lower 15' l' edge 9' 25 to 17' r' edge 15' drop 19' 22' □

□ 31'

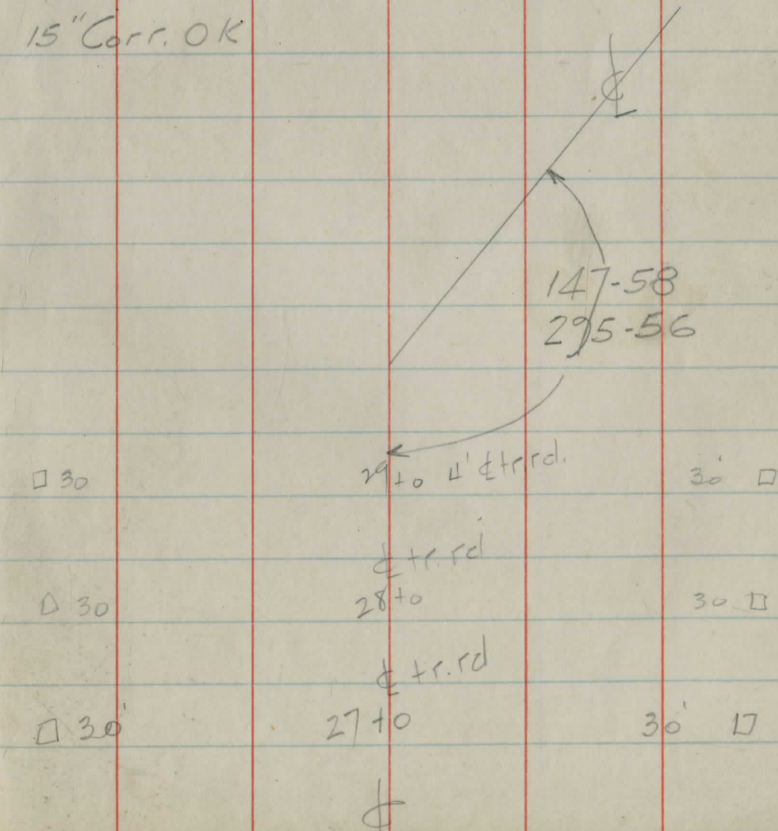
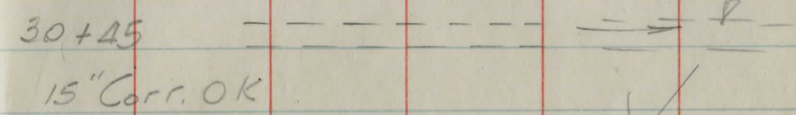
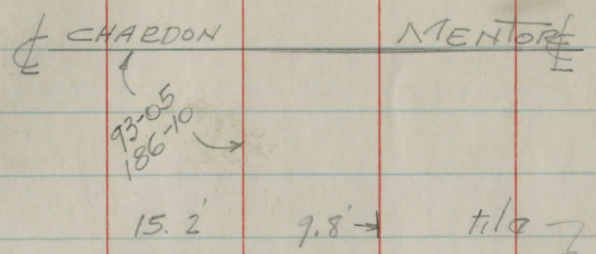
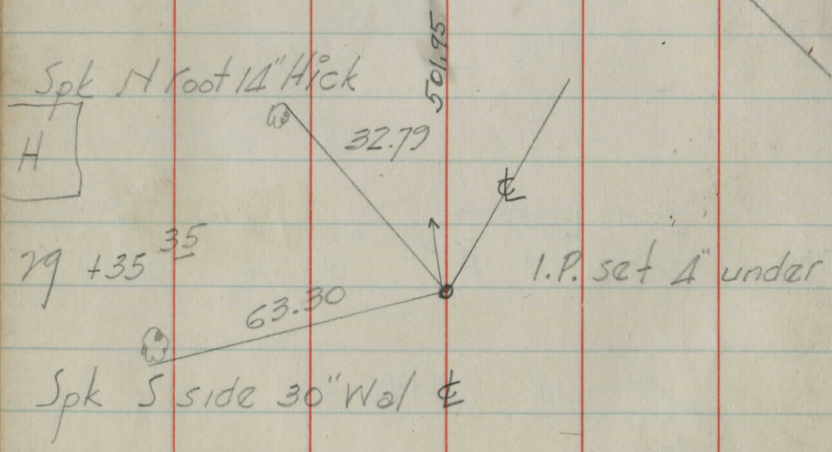
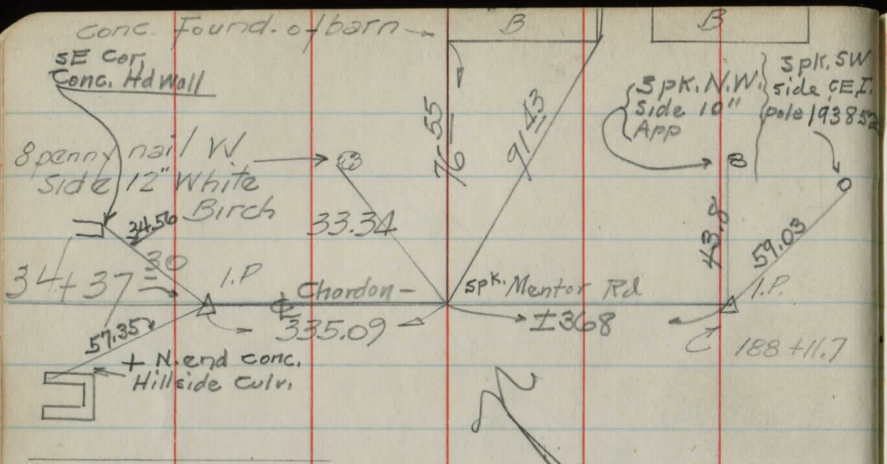


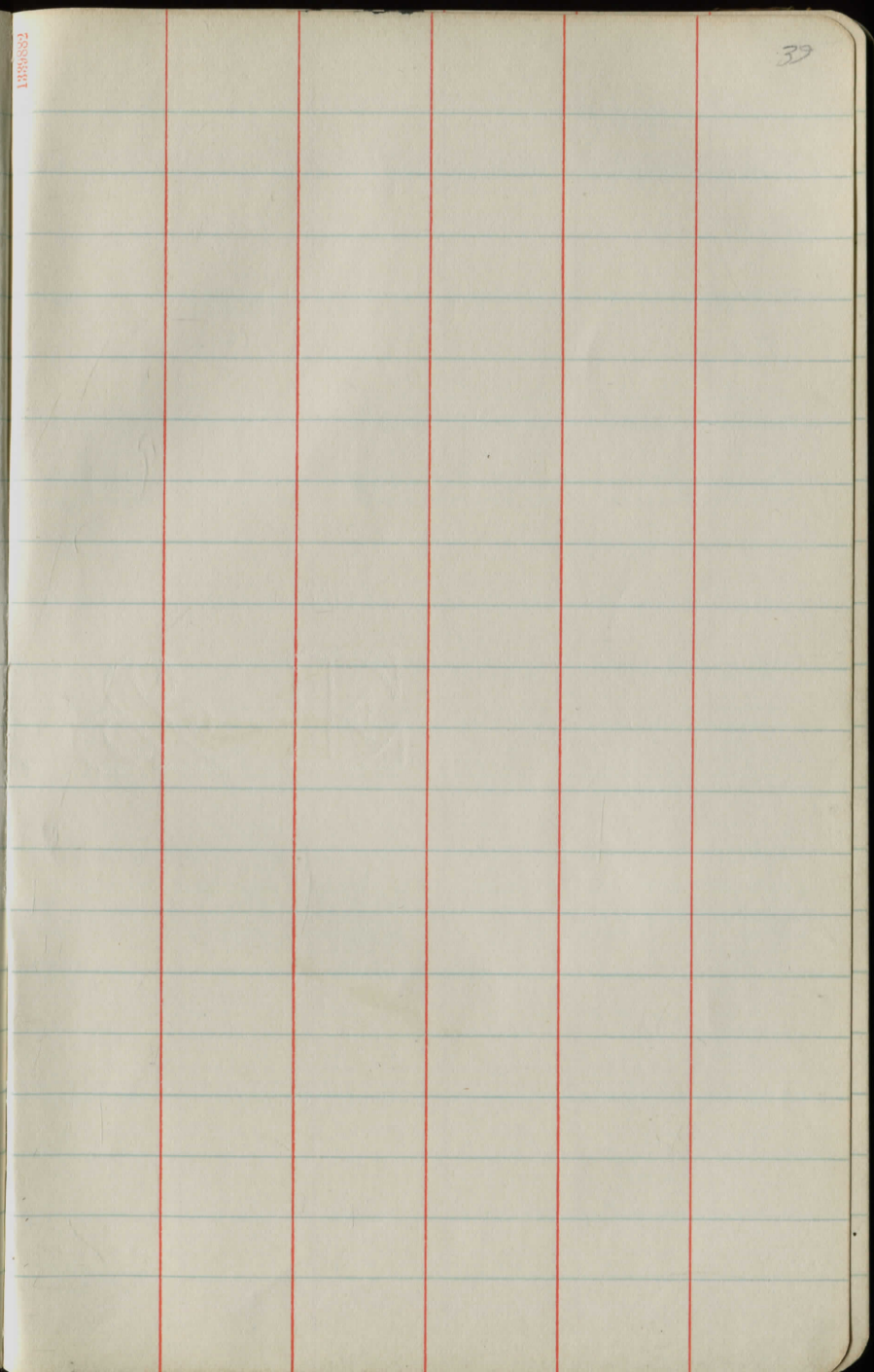
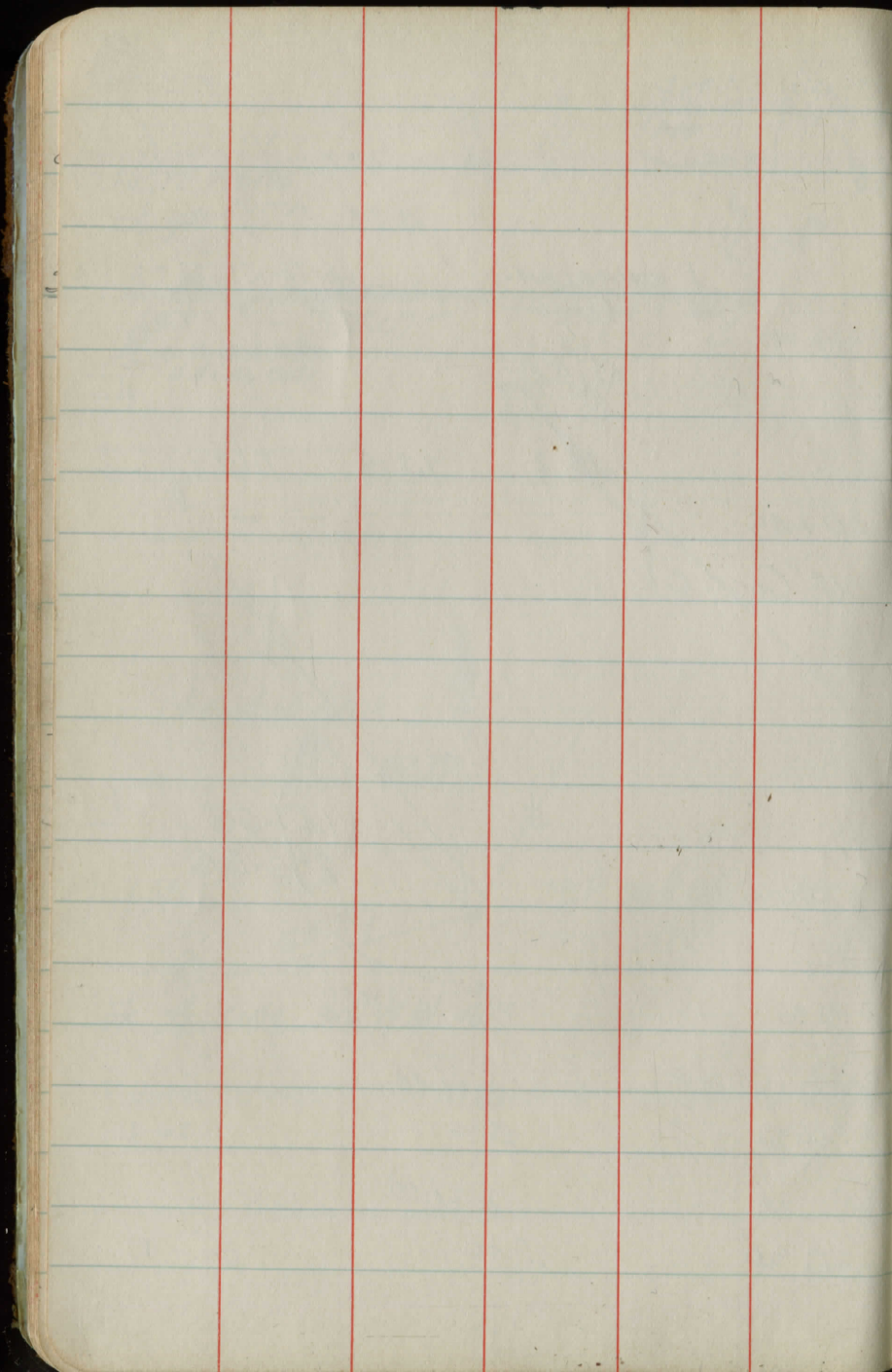
up 12
70'

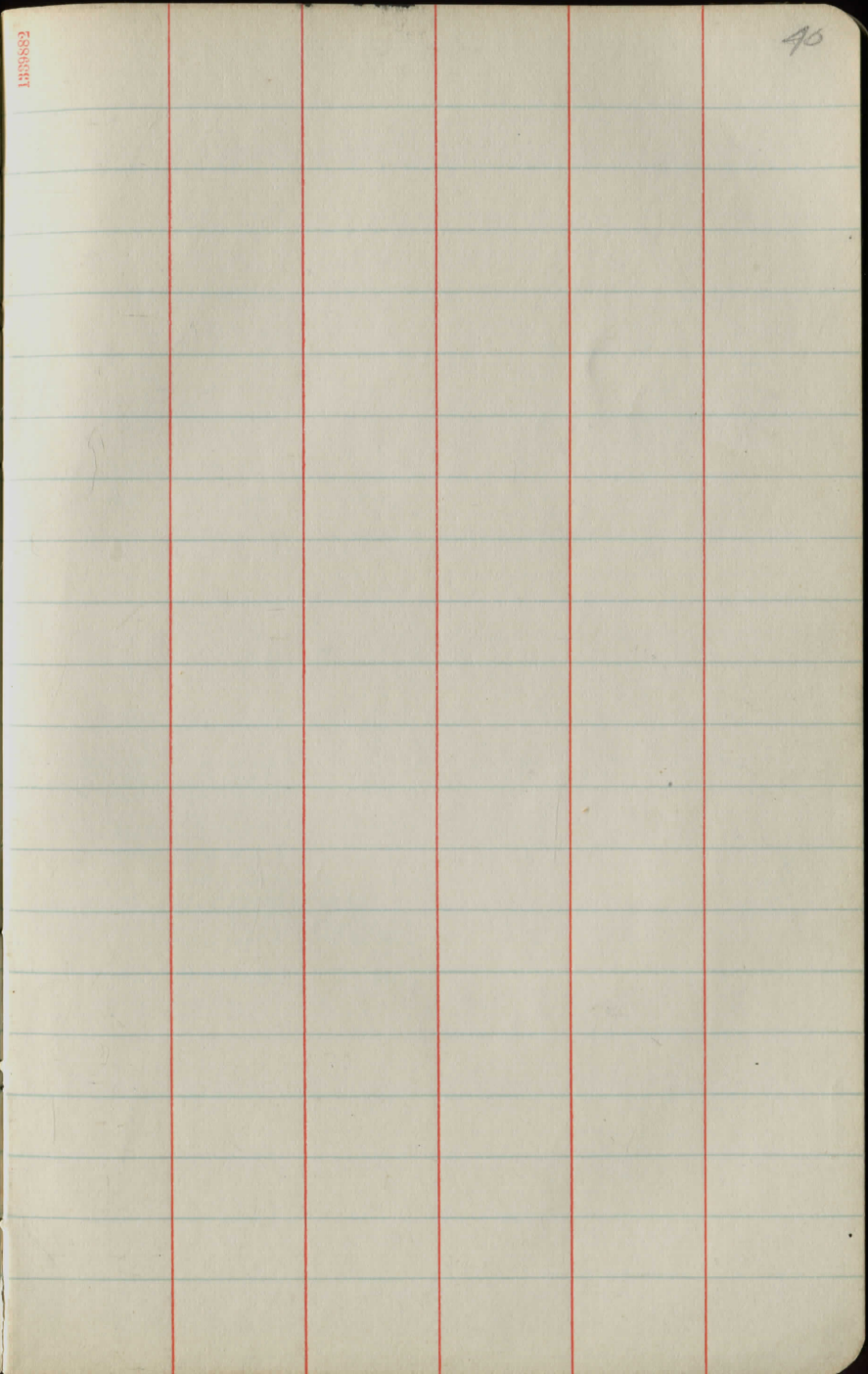
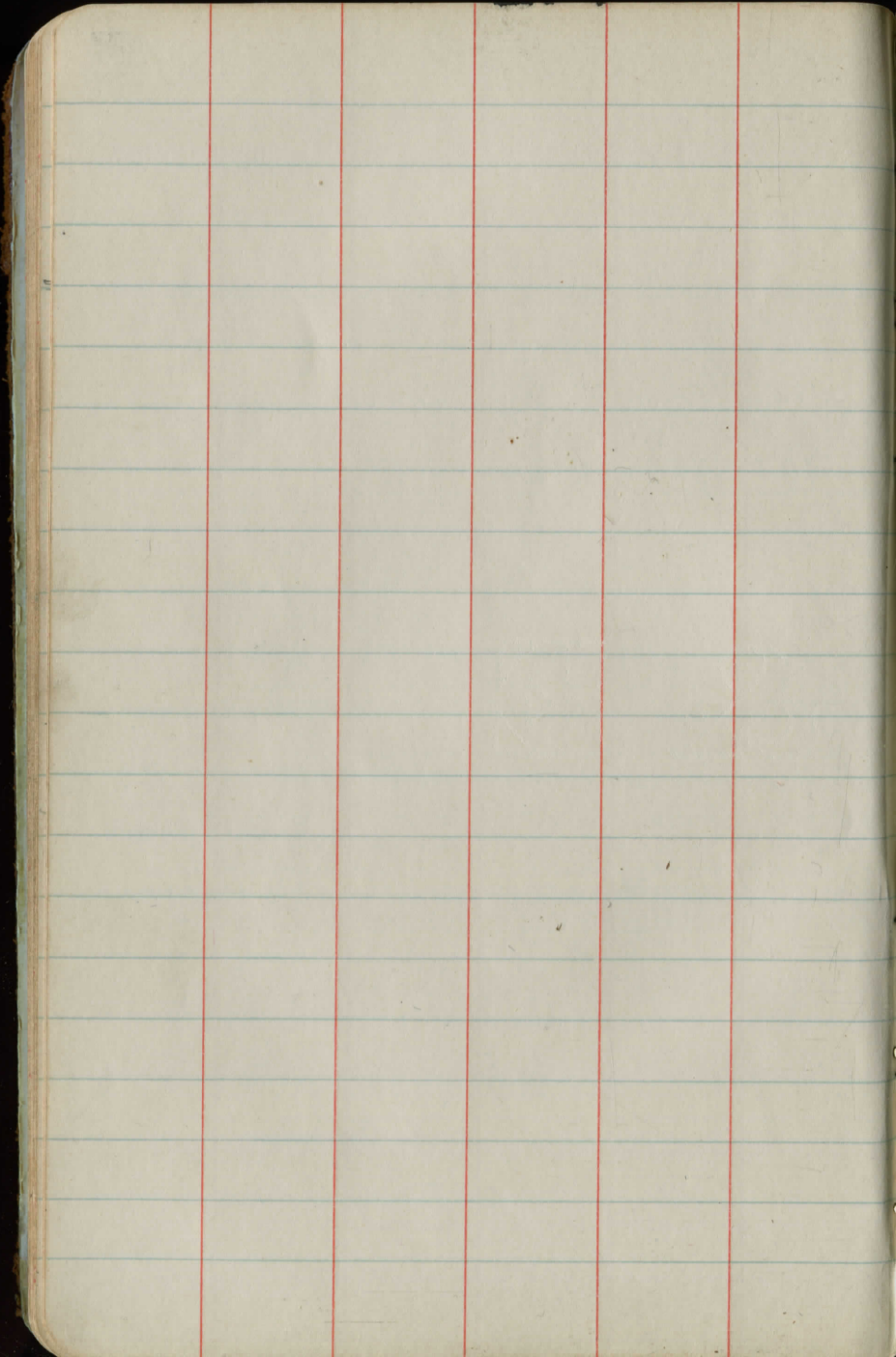
15' l' edge 12' 24 to 12' r' edge 15' down 15' 60° 18' □

□ 23.5'

l' edge 10' 23 to 10' r' edge 15' up 50° 22' high







40

Location Montville Hartgrove Twp.
Sidestakes are set 20' Lt. or West

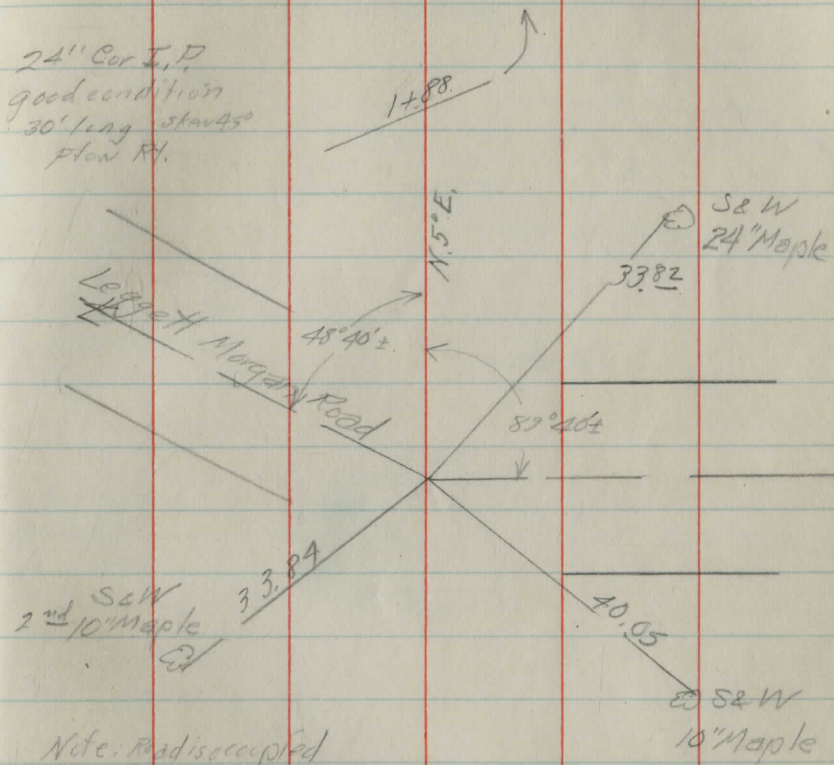
Sta 0+00 Beginning of Imp. Pin Found

Note: Sta 0+00 = Sta 31+23³ of Leggett
Morgan Road

5252
47.18

Line Road

24" Cor I.P.
good condition
30' long stak 45°
plow Rt.

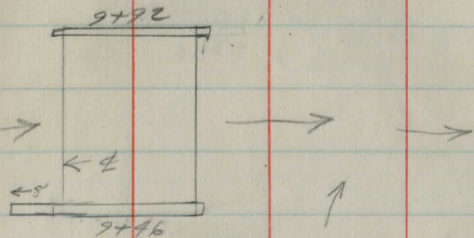


Note: Road is occupied
for 628' south of Sta 0+00

Steel Truss Bridge

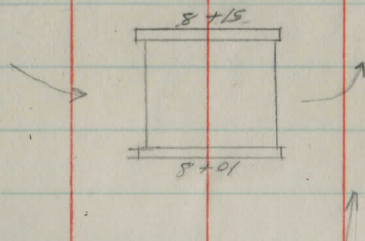
39' overall
 35' span
 6' high
 16' Roadway
 Stone Walls

Note & Road is on
 1/2 of E. Truss
 Good Condition

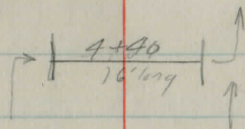


Plank Bridge

16' wide
 14' overall
 11' span
 3 1/2' high
 Timber stringers
 Poor condition



3x3 stone box
 culvert fair condition



.606 miles

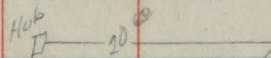
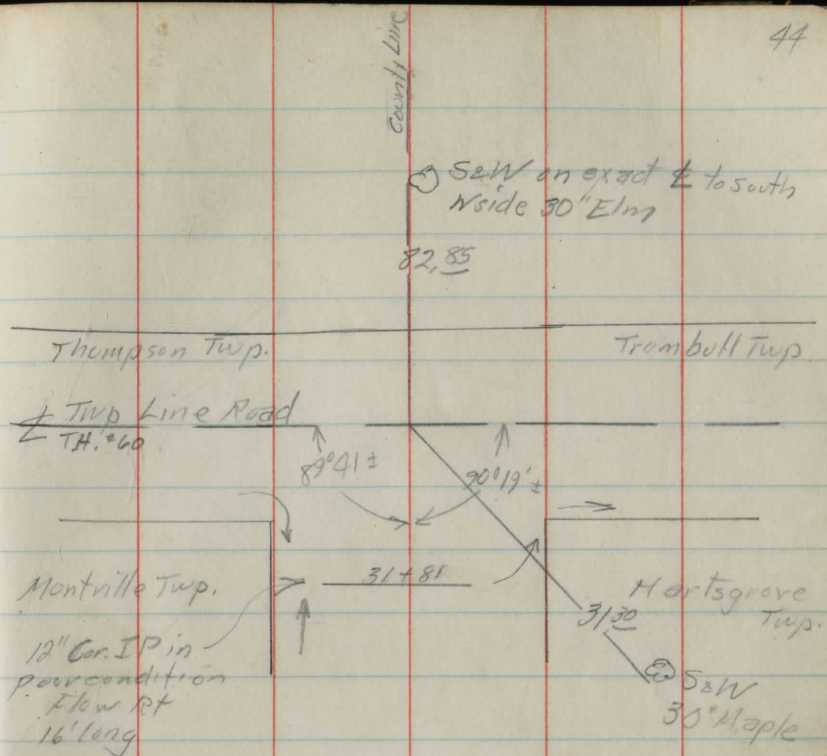
$$\begin{array}{r} 5280 \overline{) 3202.82} \\ \underline{3168} \\ 3482 \end{array}$$

Sta 32+02.⁸² End of Imp

Pipe Set

Sta 19+52.⁸² POT

Pipe Set



S&W
 36' Elm

Survey of County Property

Lot 103 Chardon Village

46

EE Moyer

MVM McGregor et al.

Erland Kangas

EE Moyer

PF Nolan

MBM Laughlin

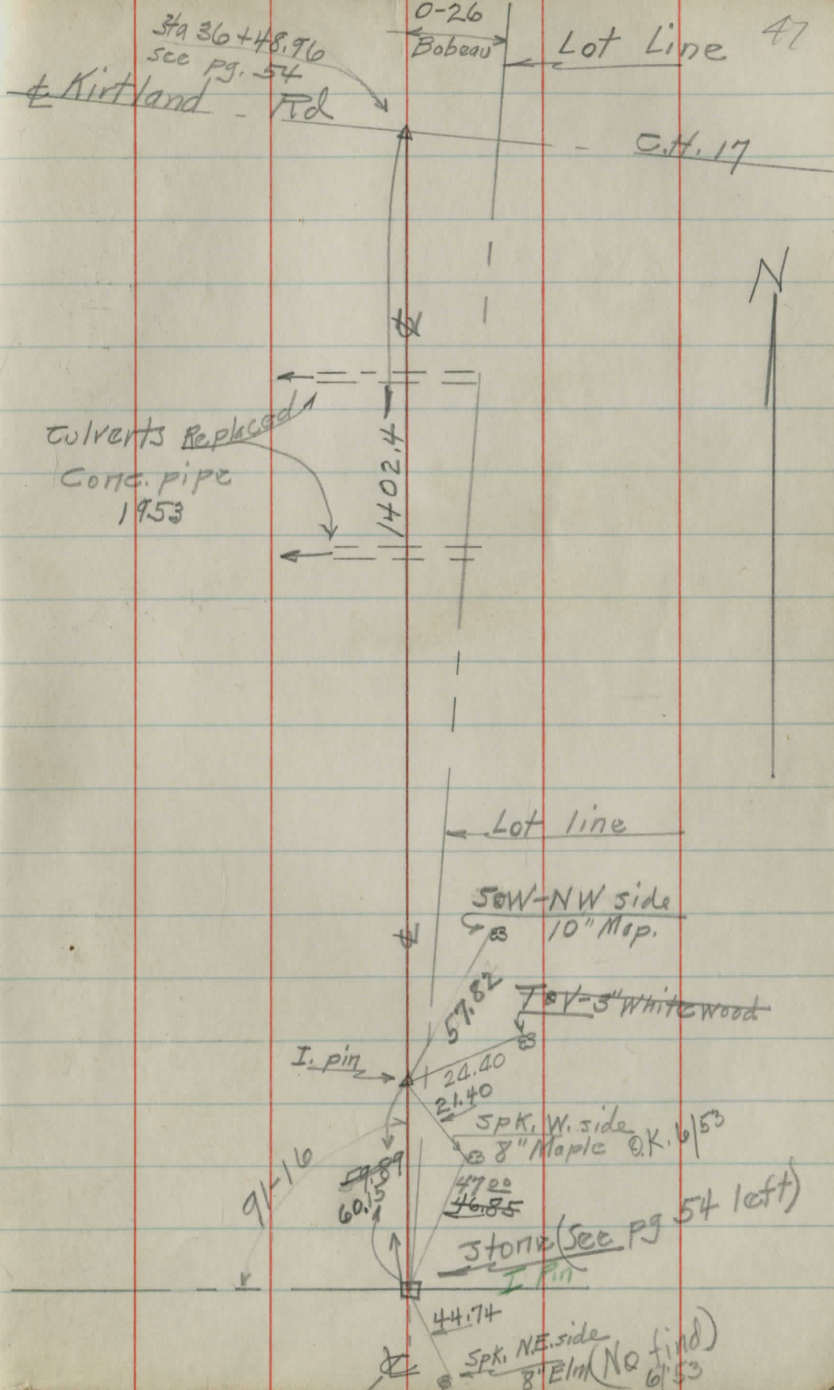
Cherry Ave

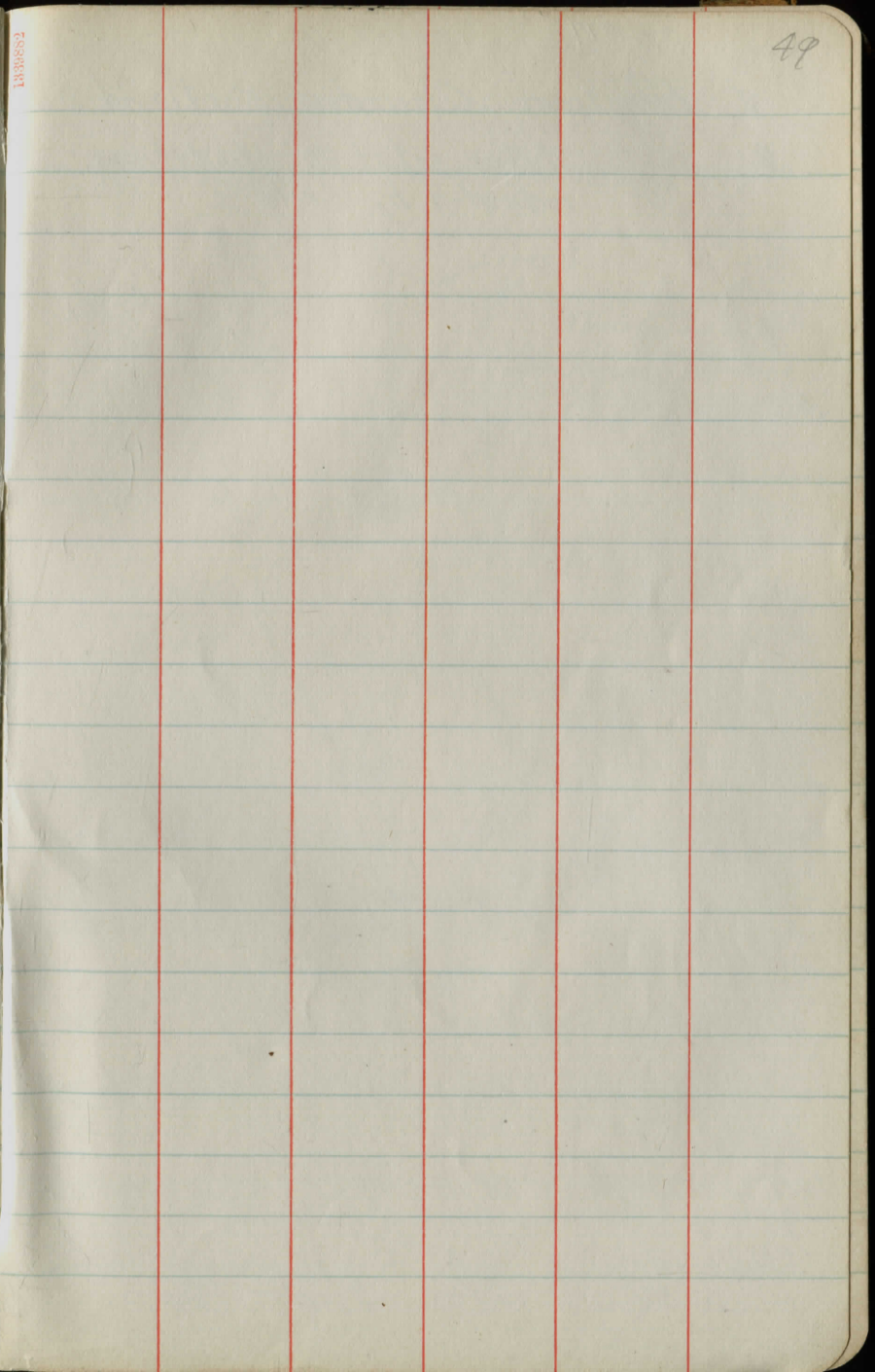
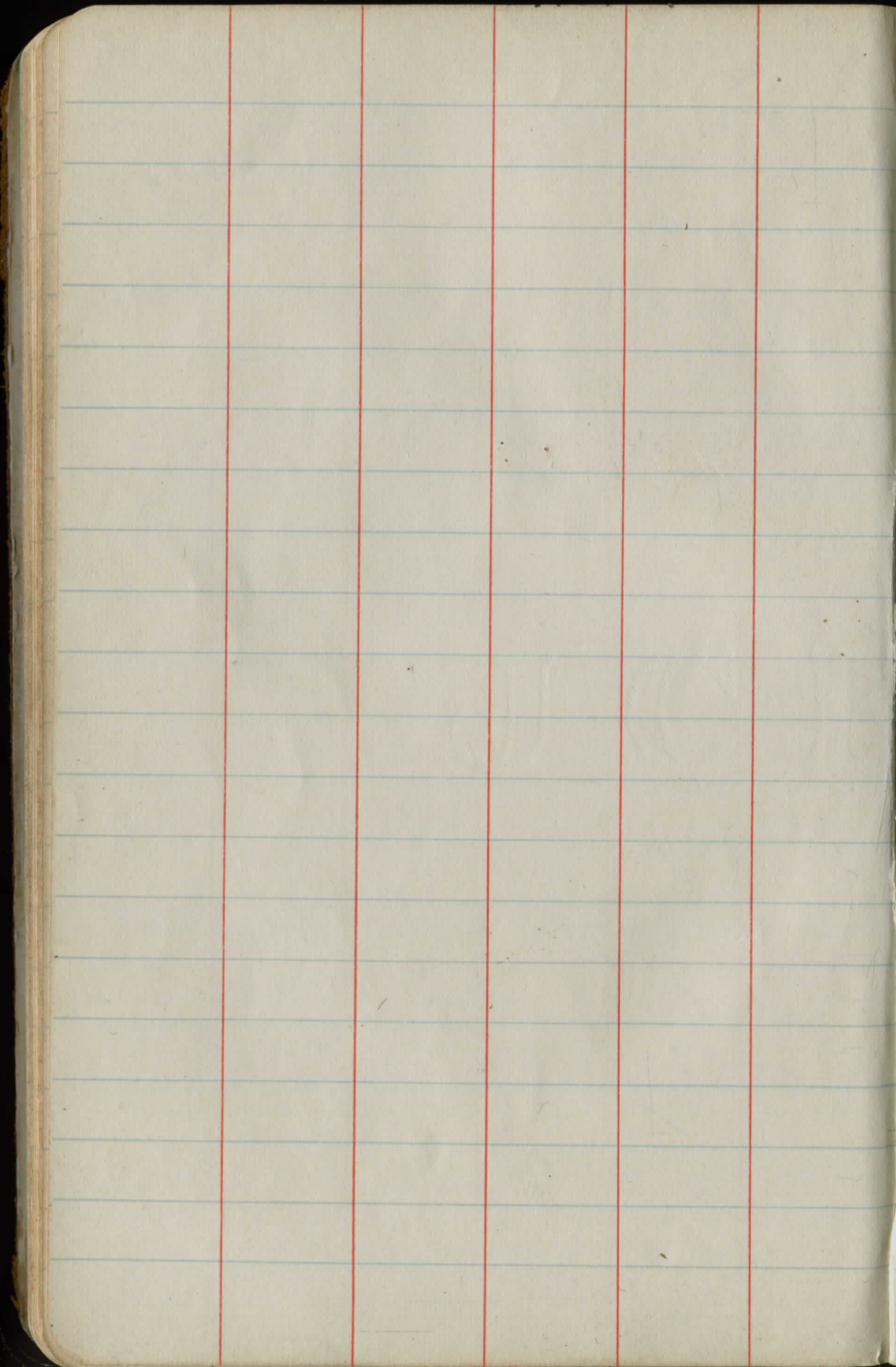
Water Street 60' wide

36102

Welk Road #87 Chardon Twp

1331882





Location Chardon Kirtland Rd

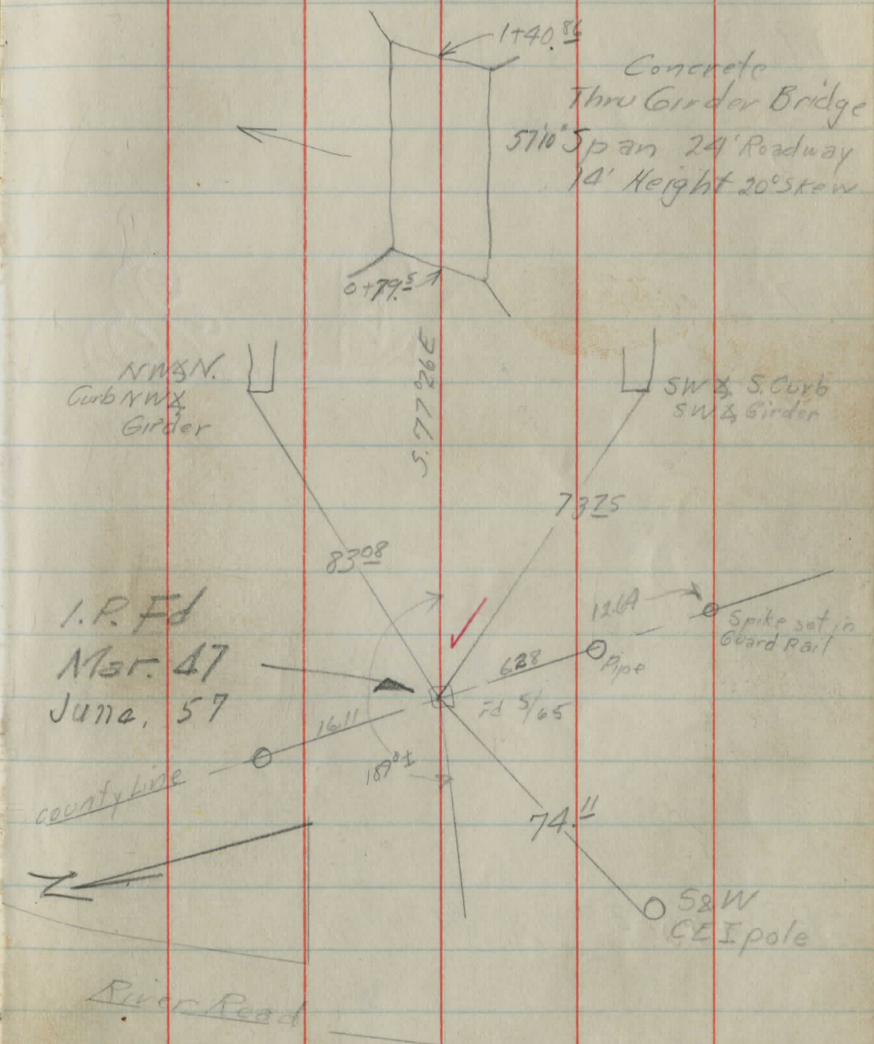
2 stakes set at 30' at Stations indicated by circle

1

Sta 0+00 Beginning of Project

spike
fd

ESSSST



10

(11')

9+06

9

1109.00
255.32
853.72

8

(11')

7

6

(11')

5

4

(11')

3

GUARD RAIL
12'

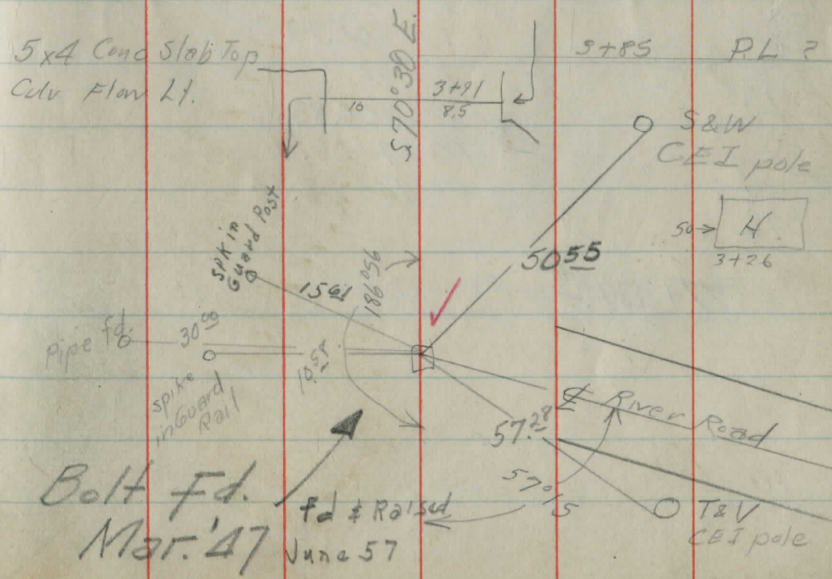
Sta 2+55³²

Def. Rt 6°56'

spike found

2

EBMCGRAW



19

(12')

18

17

(11')

16

Sta 15+33.16 POT

pin found

15

(11')

14

Δ - 8°01'
D - 2°
T - 200.95
E - 7.1
L = 400.83
PC = 9+08.09
PT = 13+08.22

(11')

13+08

13

(11')

12

Sta 11+09.04 PI Def RT 8°01'

(11')

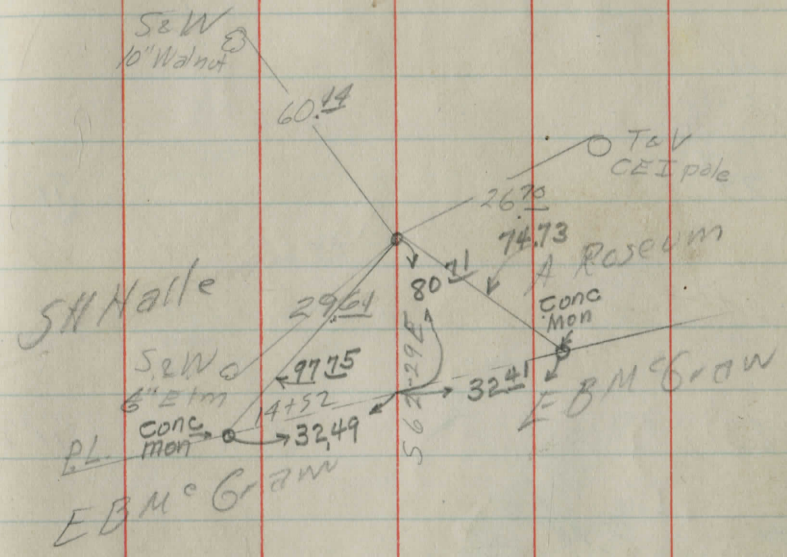
Spike set

11

(11')

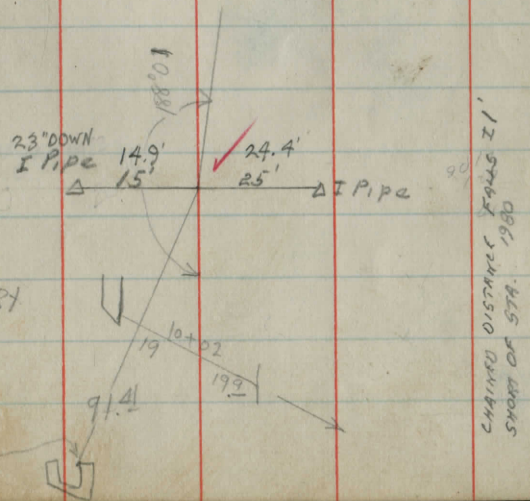
10

138982



FO. 5 June 1980
REH GLK WEN

12 VSP C/W
Conc. ducts. F.I.R.T

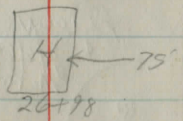


1389682

28

27

(11')



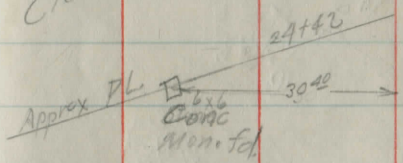
26

25

(11')

Cleveland Trust Co.

24



23

(11')

JH Halle

22

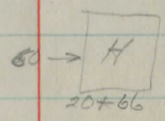
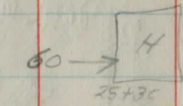
21

(12')

RPSmith
 RL.
 A J Roseum

20

19



46

45

(10')

44

43

(8')

42

41

(10')

40

39

Sta 38+51.48

38

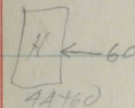
POT

3/4" Pin flush
Sta 38+60
fd 0.15 s. & 8/6/64

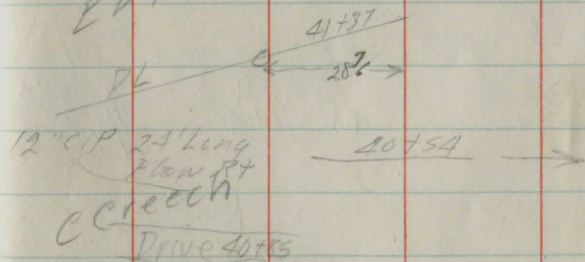
(10')
1" Pipe Set
fd 7/1/48

37

DRIVE 49+30

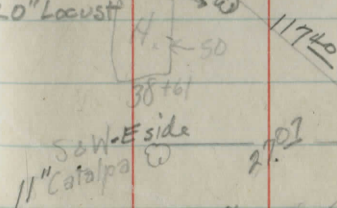


ED Trace



DRIVE 40+63

SPK & W. side
20" Locust



SW side
20" Locust
fd 7/1/48

fd 7/1/48

Note:
211.93 to I. pin
7/1/48

55

12'

54

53

(12')
53⁶³

52

51

(10')
3/4 pipe
fd
6" down
7/1/48

Sta 50+90⁸⁶ PI Def Lt 0°22'

50

49

1725

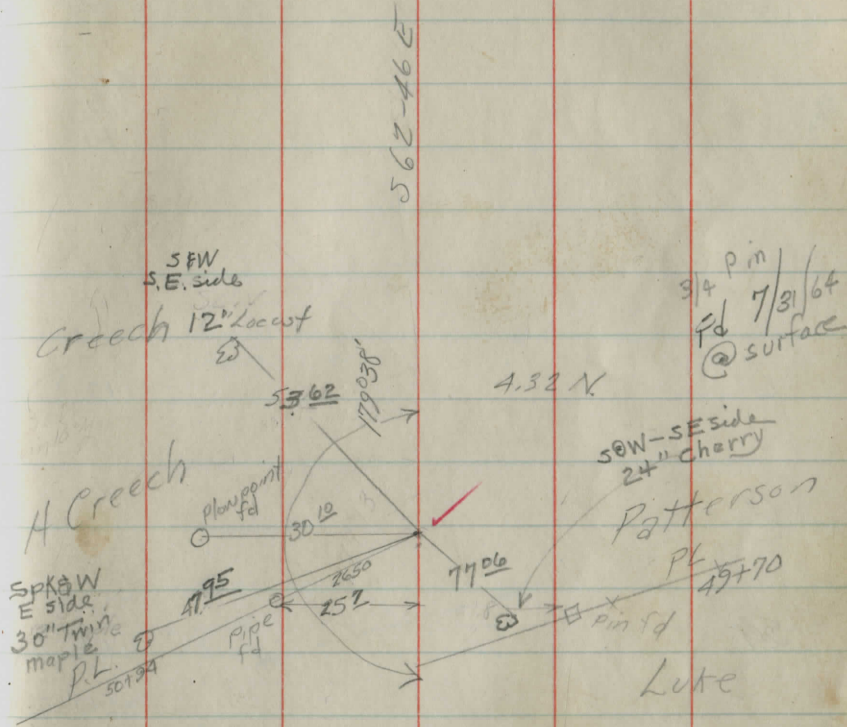
(10')

48

47

(10')

46



64

63

10'

62

61

(12')

60

59

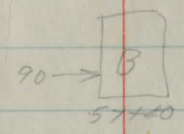
(12')

58

18" CMP
24' long Fl. Lt.

36" @ 24"
Replaced 7/6/48

58+61



57+30 Drive

57

(12')

12" VSP & Cong. pipe
35' long 10' skew
Fl. Lt.

56+21

56

55

73

(14')

72

Sta 71+86.30

POT

(14')

Pipe Set

71

3/4 Pipe flush
Fd 0:14 N. &
8/6/64

(+10 = 14')

f 7/1/48

70

501.90

69

12

68

(67)

Sta 66+84.30

PI Def RT 0°06'

(9')

Pipe Set

66

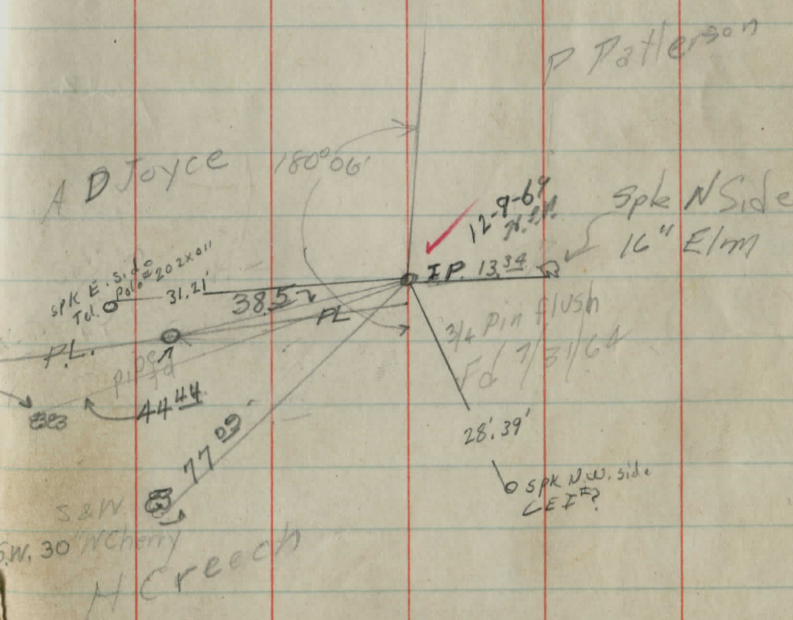
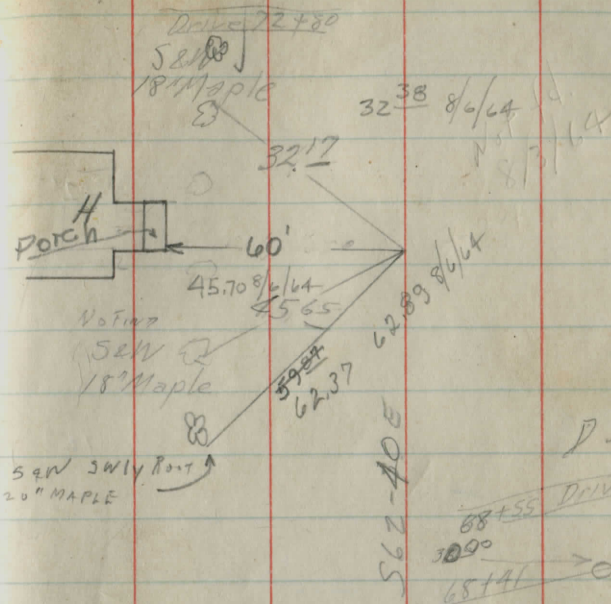
Reset
7/1/48

S&W - E side
N. twin 12" & 16"
Elms

(10')

65

(64)




E

Fe Post
Joyce Realty Co

79+38

DJ Maxon
Approx PL.
A P Joyce

2 1/2 x 3 Stone Box
Civ. Core. ←  76+68
Extending Rt 30' long
Flon Lt.

8' @ 36" round
added 7/1/48

272

82

81

(12')

80

(79)

(12')

78

77

(12')

76

(75)

(14')

74

73

1593 miles

528	2411.96
	<u>528</u>
	3130
	<u>2640</u>
	4909
	<u>4752</u>
	1576

Sta 84+10 96 End of Project

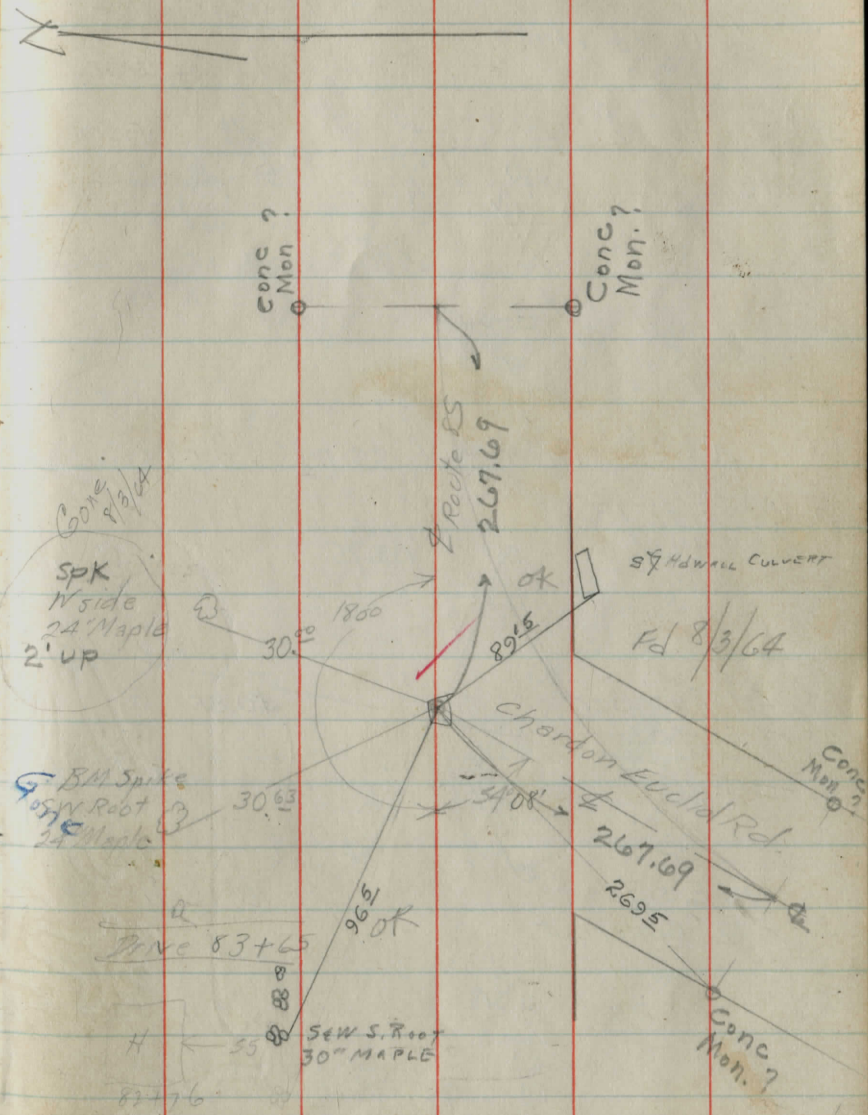
1" ppe
fd
7/1/48

84

83

(12)

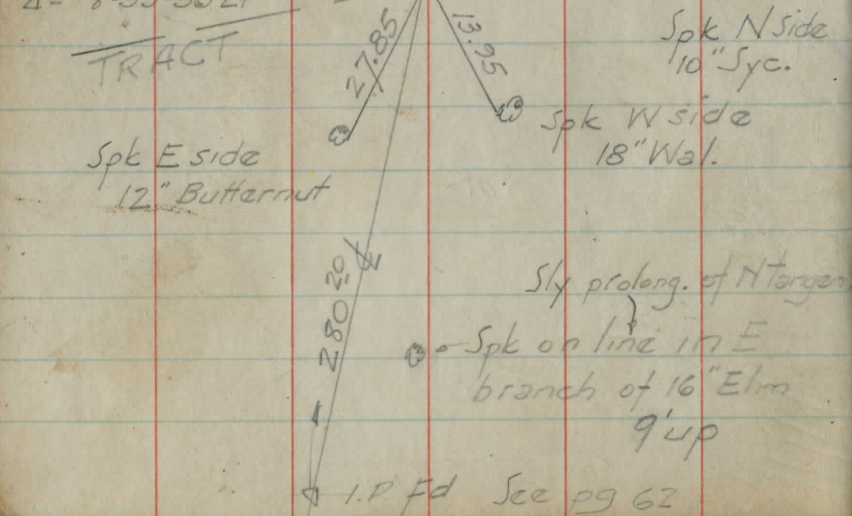
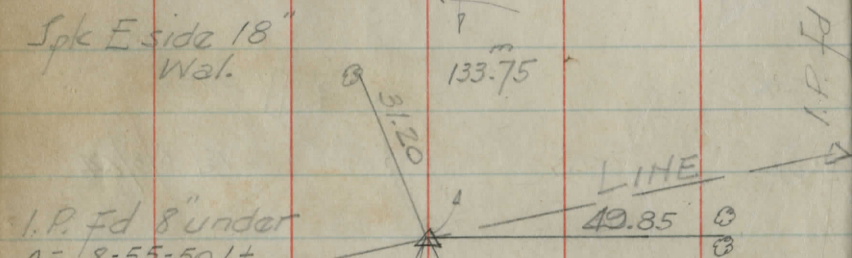
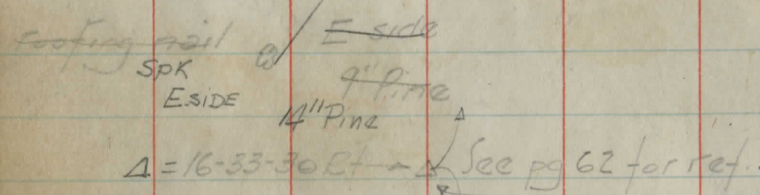
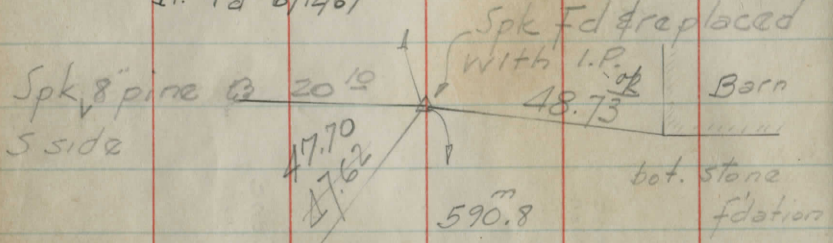
82



1586682

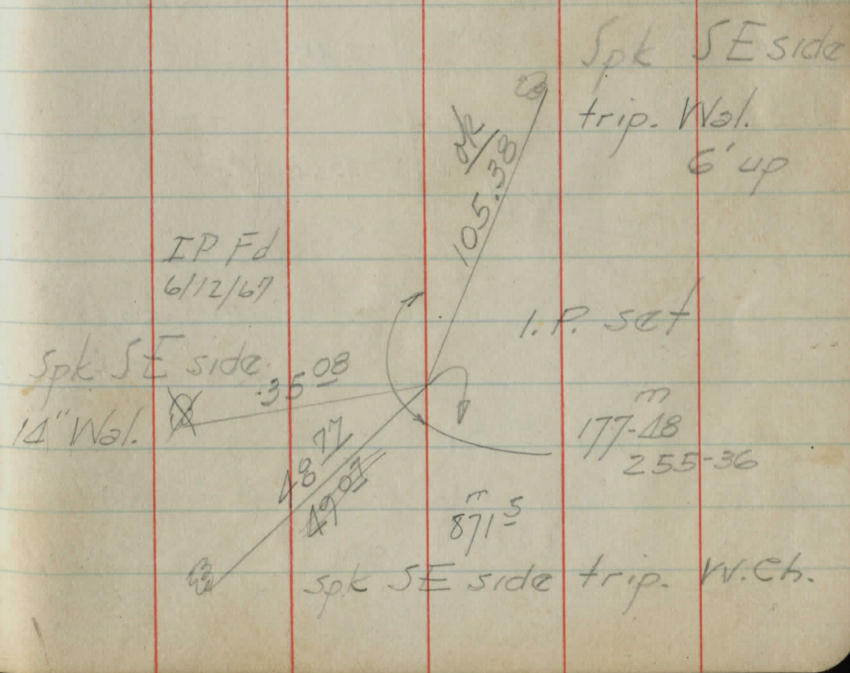
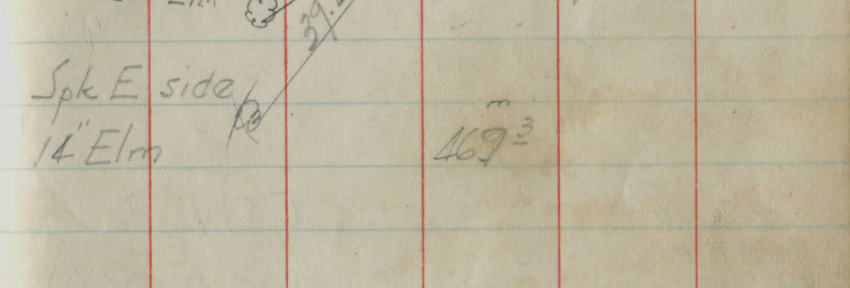
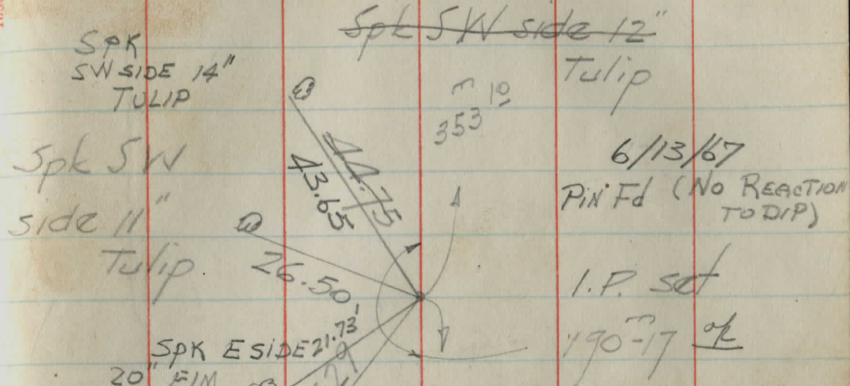
60

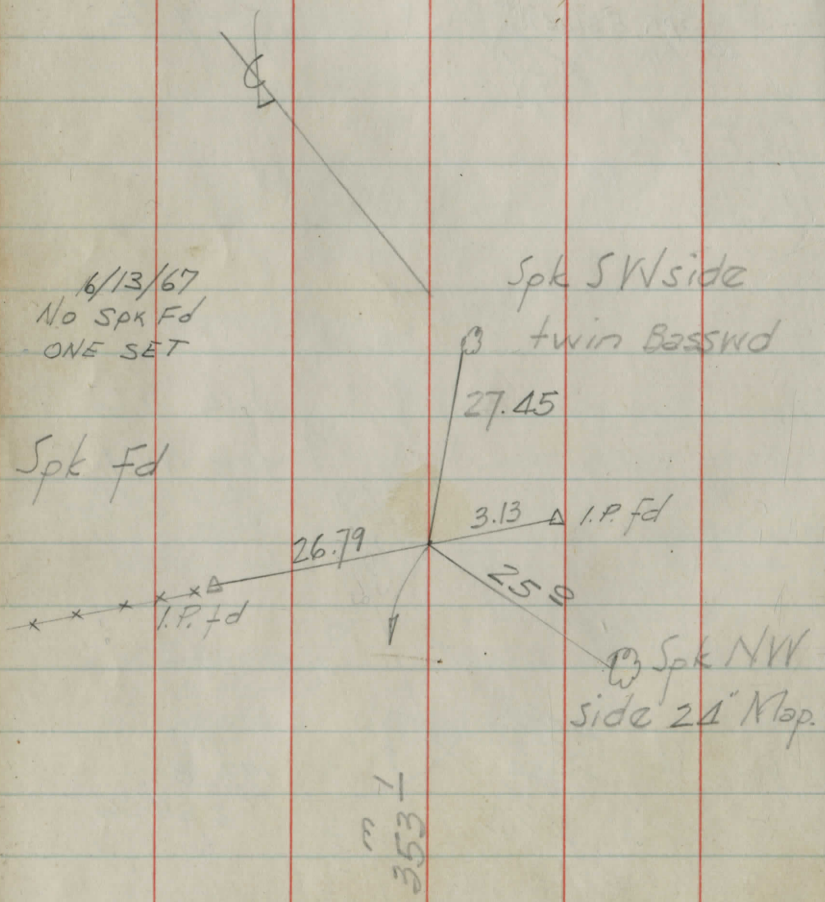
RIVER RD SEC "A" ^{m 5}
 June 46 Wisner 871-
 Pom (W. Chardon Twp)
 Thasher
 Bell IP Fd 6/12/67



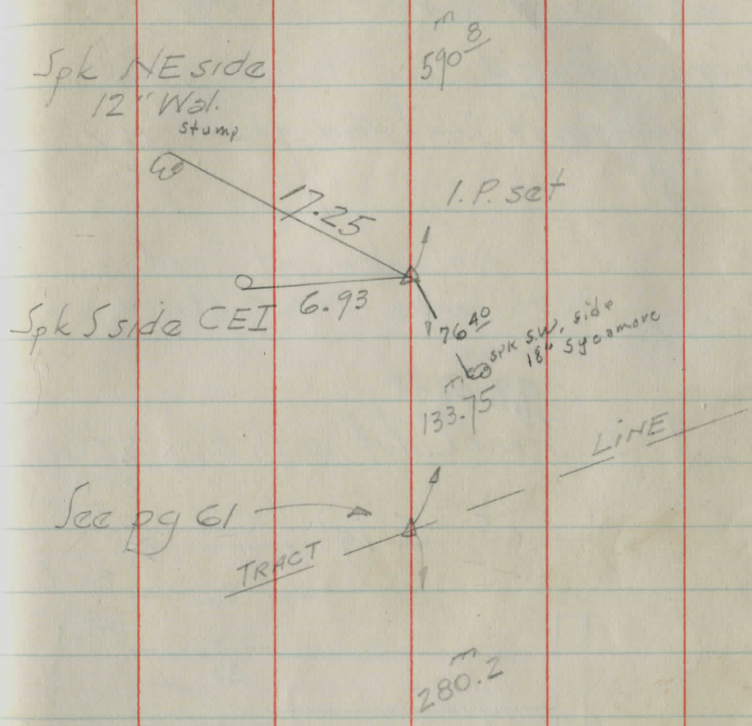
1895631

61





1388882



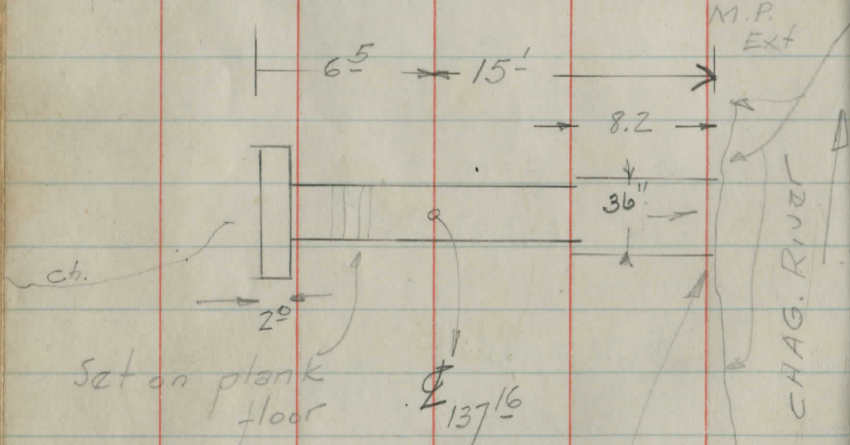
See last fly leaf (this book) for
intersection Co. Line @ Chardon-
Kirtland Rd.

If culvert ext'd to W $\pm 20'$ reloc. of channel req'd.

If new culvert installed skew W and $\pm 5'$

embankment lined
with loose river stone

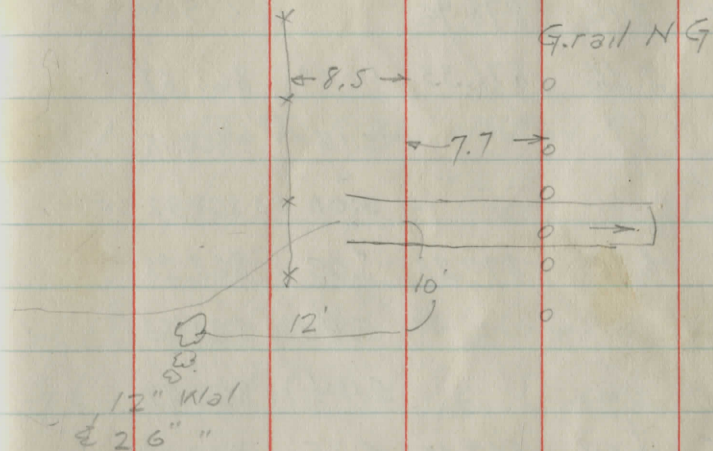
$2 \frac{1}{2} \times 3 = 7.2 \text{ sq ft}$
Stone Culvert with 3' D x 8.2' Corr



N side wall NG
end of pipe $\pm 4'$
above average
H_o Chag. river

$\phi 137/16$
 $\phi 10-33-30 \text{ Rt}$
end pipe
sets on 2 sq.
stones on 2
timber cribs

CULVERT SOUTH OF GRILLEY'S
House on River Rd. Sec.



Needs Retaining wall on E side of Road

150 lin ft 3th of culvert	70
125 " " " "	140
275 lin ft (total) x	84
	115

See Fd BK 304 pg 54
for new culvert.
inst'd Oct. 47

B.M.s on Chardon - Kirt. Rd.

18+20 Spk in S root 36" Map. 26' Lt
 9+21 X on SE & S Hdwall
 3+11 X on NE & N Hdwall

BM 3+11	3.16	878.96		875.80
T.P.	2.46	871.33	10.09	868.87
BM A			5.15	866.18
BM B			3.01	868.32
T.P.	6.95	870.23	8.05	863.28
BM B ₂			5.40	864.83
BM C _a			5.44	864.79
BM C	4.08	867.46	6.85	863.38
BM D			4.55	862.91

1102.51

926.68

875.80

Spk N root 20" Wal. 40' NW of A

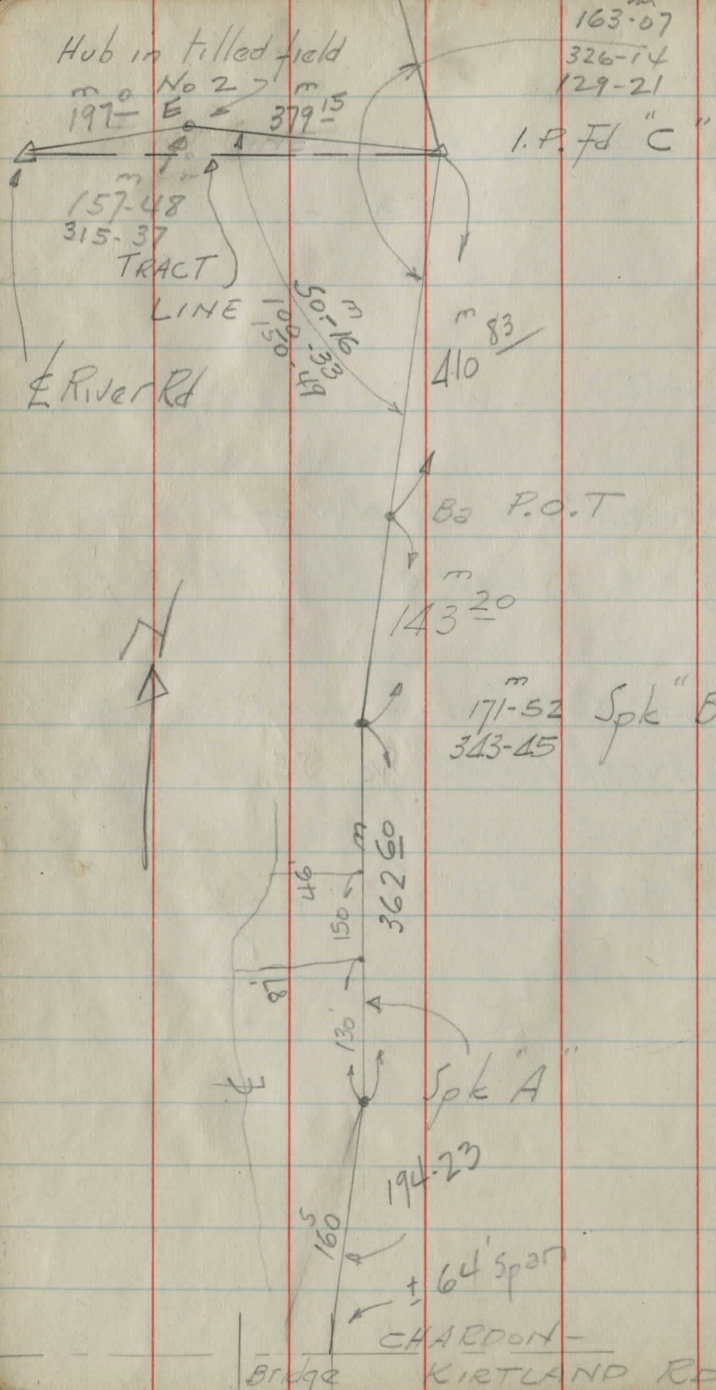
Horiz spk W side 6" Elm 25' SE of B

Spk E side 6" Wal. in Wal clump ± 75' Wly of A & B

Spk in vert part 12" Syc. SE side ditch

I.P. "C"

Spk SW root 30" Syc. 12' E of D

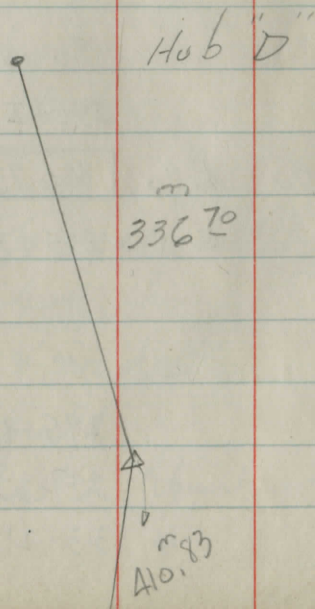


65

Topo for prop. CHAGRIN RIVER
relocation N of CHARDON-KIRT.
RD.

12-23, 24-46

Tom - M. Byrard



Set on	B.S. on	Horiz Ang R ₂₄	Stadia	Rod		
BM A	5.40	871.58		866.18	857.6	
A	B	291-10	90	13.5 + .5 = 14.0	FL	
BM B	4.17	<u>872.49</u>		868.32		
B	1	C	126-30	30	5.87	866.6
	2		187-37	29	4.5	868.0
	3		202-30	40	15.2 + .5 = 15.7	FL
	4		309-40	37	0.9	871.6
	5		311-40	126	1.4	871.1
	6		330-38	89	2.7	869.8
	7		339-40	58	2.66	869.8
	8				5.1 at point B	
	9		80-00	7'	6.1	866.4
	10		35-42	68	11.0	861.5
BM B ₂	1.90	<u>866.73</u>		864.83		
B ₂	C	"	255-27	117	3.0	863.7
		"	"	122	7.4	859.2
		"	"	161	8.75 + 1.0 = FL	
		"	295-10	150	3.4	863.3
		"	297-22	175	5.1	861.6
		"	313-21	110	2.15	864.6

E edge river 25' wide

foot steep slope up ridge NEly
top E bank creek

856.8 east edge river 25' wide

E bank

E bank creek on high point, down W, NE

W bank of draw down to E & N

" " " " down to E

67.4

draw 7'E up steep

" " 7'E & W up steep

E bank creek top wedge tilled field

bottom creek bank

857.0 E edge creek 18' wide

W side tilled field

SW end high H₂O ditch & brush row

tilled field

Set on	B5 on	Hour angle at	Shades	Road	
			HI = 866.73		
Ba	C 17	331-30	218	2.85	863.9
	18	"	241	6.0	60.7
	19	"	253	3.00	63.7
	20	345-13	230	0.4	66.3
	21	1-47	98	2.15	64.6
	22	354-42	42	4.6	62.1
	23	13-30	120	6.7	60.0
	24	"	230	7.2	59.5
	25	16-32	230	5.45	61.3 E bank
	26	22-08	235	4.7	62.0
	27	54-28	102	5.7	61.0
	28	166-34	33	4.5	62.2
	29	218-27	60	4.0	62.7
BM C	5.80	869.18			863.38
C	B 30	0-0	134	6.1	63.1
	31	0-0	123	9.0	60.2
	32	27-43	153	5.4	63.8
	33	"	113	8.3	60.9
	34	"	80	8.65	60.2
	35	"	60	6.1	63.1
	36	0-0	48	7.0	62.2

N side tilled field #5 edge high H₂O ditch
 & " " "

N side high H₂O ditch SE side tilled field #2
 highest point tilled field #1
 top W side bank & brush row
 SW by end bank ± level E & S & W
 bottom bank

{ & SWly-NEly channel .7' NW = toe slope 15' NW =
 top slope = up ± 4' = E side tilled field #1
 toe steep bank up to E
 steep up to E
 N E side draw up steep SE
 NW " " " " SW

N edge tilled field #1. S edge woods
 Nly & tilled field #1

± level to "C"
 " " " "

set	B.S.	angle	Slotha	Roof	
C	B 37	49-44	119	8.7	862.5
869.18	38	"	160	5.2	64.0
HI	39	"	84	6.25	63.0
	40	105-44	150	5.8	63.4
	41	128-37	290	6.8	62.4
	42	"	369	10.7	58.5
	43	"	98	5.4	63.8
	44	163-10	192	5.5	63.7
	45	"	122	7.25	62.0
	46	"	59	8.2	61.0
Stop 12-24-46					
Begin 12-26-46	47	"	24	5.4	63.8
BM C	5.09	868.47	HI	863.38	
C	D 48	16-33	182	7.9	60.6
	49	"	100	8.1	60.4
	50	46-26	165	7.1	61.4
	51	"	154	6.0	62.5
	52	"	105	8.3	60.2
	53	74-51	104	6.4	62.1
	54	"	162	7.0	61.5

and ditch SWly. channels NW & E
 E by extremity tilled field No 2
 ± level to "C"

toe of SE end ± 10' ridge running NWly
 ± level to "C". down grad. SWly

20' Nly = S edge open field

level 30' SWly & up + 8', 80' SWly

E creek bank 7' to H₂O edge down ± 3'
 ± level to C ± 30' Nly of S side ^{field} open

open field

" "

" "

level to C 15' Sly of S edge open field

N edge open field. nearly level ^{50'} N to spring ^{creek}
 ± straight to C

± level N 40' to spring creek

N edge open field

straight grade to C

SE X open field. straight to C

set	BS	angle	Stadia	Red	
C	D 55	74-51	210	6.5	862.0
H=868.47	56	108-20	191	7.9	60.6
	57	"	120	8.5	60.0
	58	"	111	6.7	61.8
	59	157-25	148	4.2	64.3
	60	"	126	9.3	59.2
BM D	3.94	<u>866.85</u>		862.91	
D	C 61	0-0	97	4.6	62.2
	62	"	83	8.5	58.3
	63	"	55	"	58.3
	64	"	48	5.4	61.4
	65	7-20	80	4.6	62.2
	66	42-16	32	5.8	61.0
	67	35-07	246	3.7	63.1
	68	"	270	+5.1	71.9
	69	59-00	300	+2.5	69.3
	70	"	230	5.2	61.6
	71	71-31	279	2.0	64.8
	72	"	220	9.4	57.4
	73	"	175	7.9	59.0
	74	"	33	10.0	56.8

1580832
 foot steep slope up to E ± 60' high
 " " " " " " " "

straight to C

± 100 E to steep slope up 60' high
 level 20'S Wly to entrance draw
 running S wly to B3

ridge open field & top spring ck bk

ridge open field bottom " " "

" " " "

top " " "

top m wly - S Ely ridge down steep S E
 S W N E ± level N W

top m wly & S Ely ridge down steep S
 toe ridge ± straight grade to D

18' West = steep down 50' W = 4 rivels

866.85

D 75	C	71-31	10	6.3	860.5
76		104-20	137	14.0	+0.3 FL
77		"	106	7.7	59.1
78		"	81	7.5	59.3
79		170-10	127	+16.2	50.6
80		"?	124	9.7	57.1
81		181-47	158	+13.9	53.0
82		194-00	270	9.1	57.7
83		"	280	+14.5	52.3
84		"	"	"	"
85		"	150	8.4	58.4
86		"	"	13.7	53.1
87		"	130	10.8	56.0
88		"	102	9.0	57.8
89		"	82	"	57.8
90		"	57	12.1	54.7
91		"	25	10.8	56.0
92		"	0	4.8	62.0
93		167-37	32	8.9	57.9
94		218-43	24	8.4	58.4
95		"	44	7.2	59.6
		"	73	9.6	57.2

52.5
E edge river 24' wide

river bank

grad. down to 15' from D

E edge river 35' wide

bank

entrance of spring creek into river

the River bank + level 200'E

E edge river
FL 40' wide river bends wly

for + 300' & wly again

N bank spring creek

creek

S bank creek

S length 40 wash

" " "

866.85

D	C 96	218-43	112	10.2	56.6
	97	"	128	11.9	55.0
	98	"	132	7.7	59.1
	99	"	145	7.0	59.8
	100	255-00	168	4.0	62.8
	1	"	158	8.5	58.3
	2	"	141	10.0	56.8
	3	"	137	8.7	58.1
	4	"	95	9.0	57.8
	5	"	73	11.2	55.6
	6	"	34	7.5	59.3
	7	288-39	11	4.8	62.0
	8	"	23	9.7	57.1
	9	"	50	9.9	57.0
	10	"	60	8.2	58.6
	11	"	179	6.4	60.4
	12	325-30	212	5.9	61.0
	13	"	155	6.7	60.1
	14	"	192	7.5	59.3
	15	"	39	9.4	57.4
	16	"	25	5.3	61.5

± spring creek
 ± level out ± 250'

drops off ± 5' in 40' n wly ± level out

dry wash

± spring creek

to more up steep
 spring creek No banks
 " " " "
 " " 15' north east

BM Co	9.79	874.58		864.79	
E	C 17	0-0	121	9.6	865.0
	18	22-26	170	11.5	863.1
	19	61-34	133	11.1	63.5
	20	87-00	126	10.7	63.9
	21	103-39	43	5.0	69.6
	22	"	100	18.5	+1°-FL
	23	226-32	120	19.4	+1°-FL
	24	"	85	10.3	64.3
	25	"	41	8.2	66.4
	26	HI to ground		5.2	69.4
	27	258-30	178	20.6	-FL
	28	"	170	15.6	59.0
	29	"	134	12.4	62.2
	30	"	125	10.3	64.3
	31	276-00	250	19.6	+0.4-FL
	32	291-25	309	20.6	54.0

1839882

tilled field No. 2 straight grade to E
 SE side tilled field 10' E = high water ditch
 straight grade to E
 → SW by 4 tilled field No. 2

River bank E edge = ± 30' W
 E bank river, W side tilled field No. 2
 856.1 E edge river ± 25' wide
 55.2 " " " " " "

E bank

54.0 E edge River ± 35' SW by to E end
 "bank " road culvert

54.6 slight bend E

3' into river. top of bank = 7' E
 river ± 40' wide and NW by & SE by ridge
 = ± 30' NE by

	HI	874.58			
E	C 33	295-05	318	14.1	860.5
	34	"	325	+19.0	855.6
	35	"	197	11.1	63.5
	36	333-14	230	14.9	59.7
	37	"	205	12.7	61.9
	38	"	190	10.7	63.9
	139	"	130	9.6	65.0

1338682

5'E of river bank

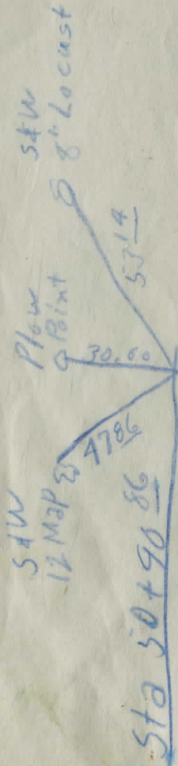
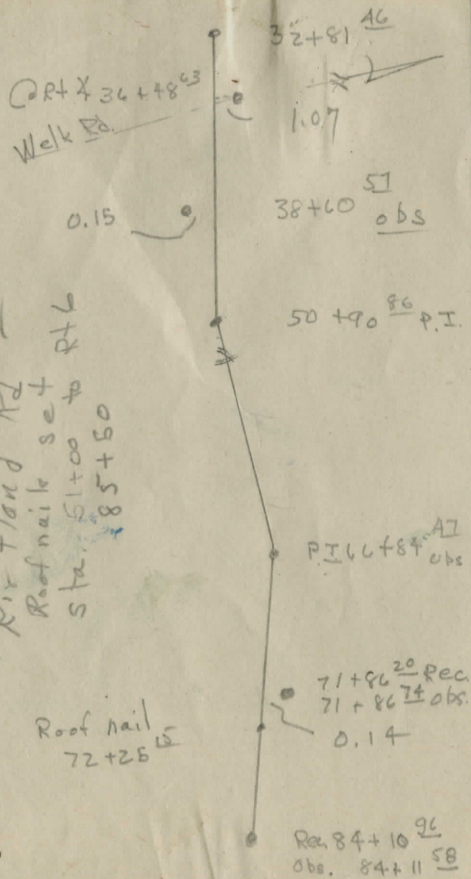
River bank & dry wash

dry wash ± 60' N & E

N Edge tilled field # 2

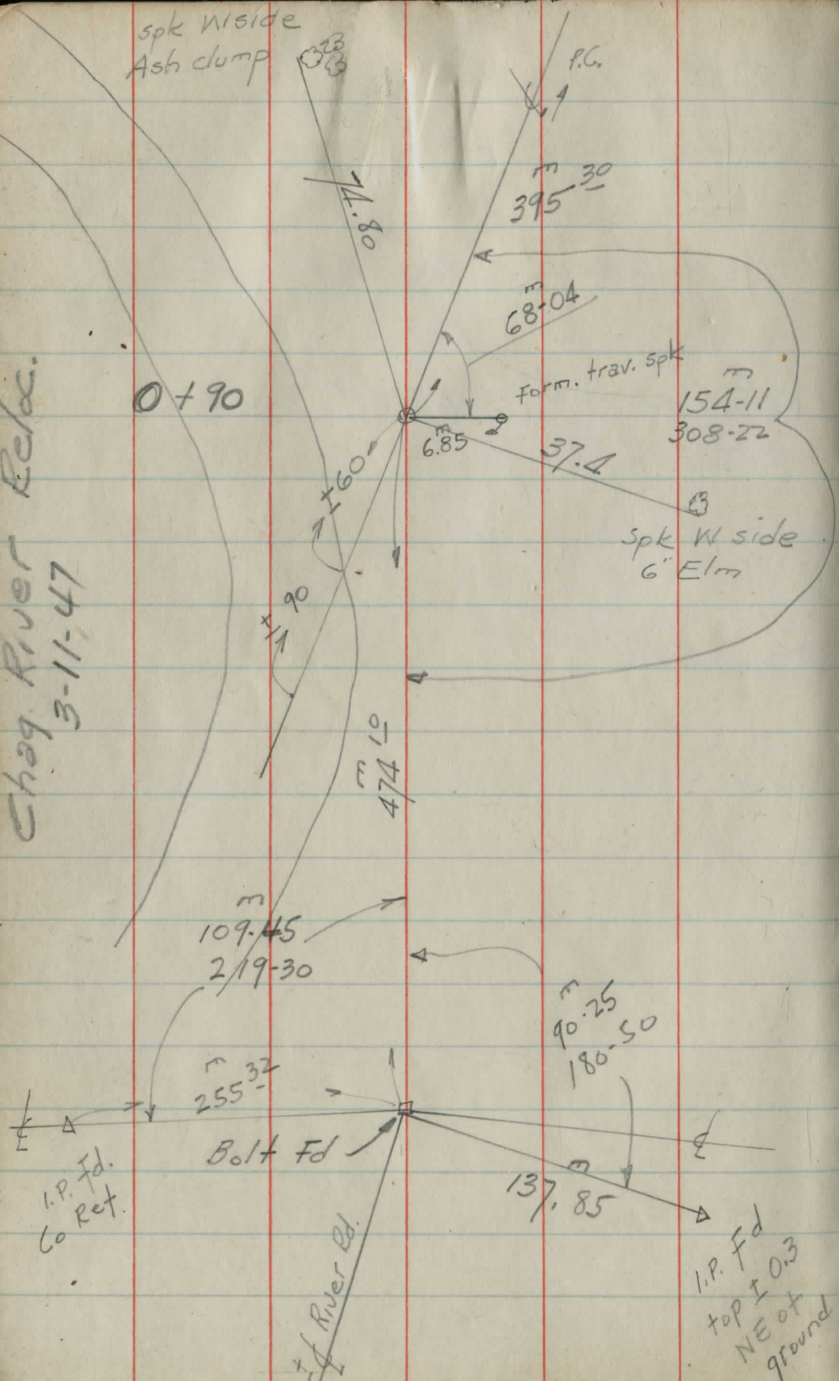
Nixland Rd
Roof nail set
Rt 6
Sta. 51+00 P
85+50

Roof Nail
72+25



Chag River Rele.
3-11-47

Spk W side
Ash clump



13:4882

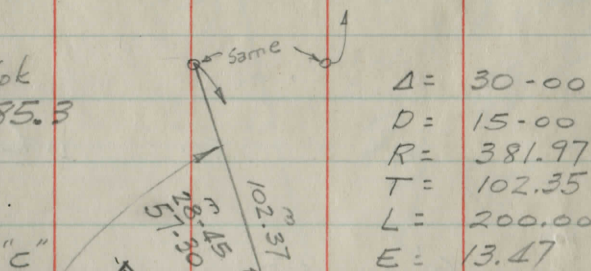
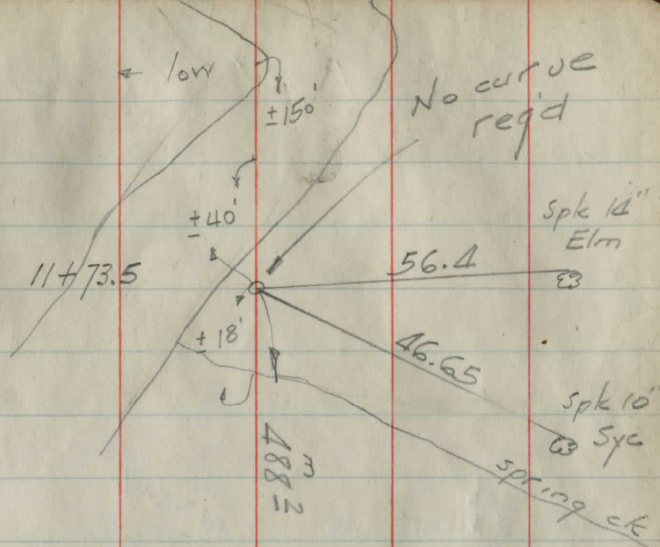
T. Hub
6'E of
bank

P.T. Spk
6+85.3

I.P. "C"

150-00 T. Hub
300-00

P.C. spk
4+85.3



Δ :	30-00
D:	15-00
R:	381.97
T:	102.35
L:	200.00
E:	13.47

Spk E side E
quad
(Butternut?)

Final Chag. River Reloc.

11+73.5

T. stk spk & mker
50 □ 50 ○

11+0 □ 50

PT □ 50 ○ 50 □

PC ^{spk} & Mker 50 ○ ^{spk} _{fd 7-2-47} 50 □

2+50 spk ○ 50' □ hub

2+0 ^{Hub} □ 50' ○ spk

Spk 1+0 spk ○ 50' □ Hub

Hub 0+90
Set 3-11-47.

± Curve

P.C. = 4+85.3

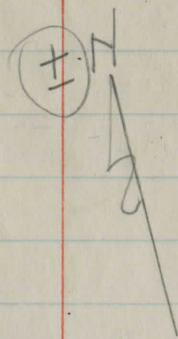
5+0 = 14.7' = 1-06

+50 = 4-51

6+0 = 8-36

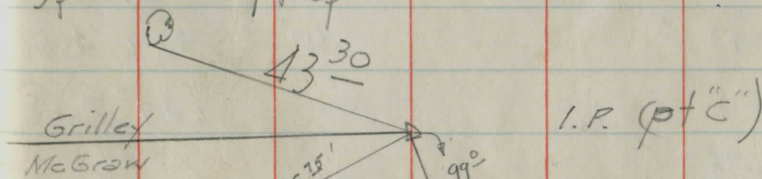
+50 = 12-21

P.T. = 35.3 = 15-00

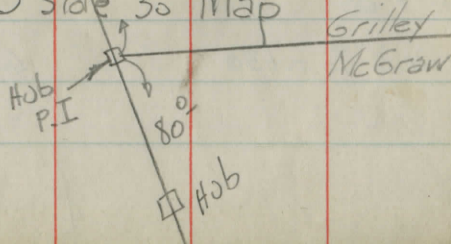


NOTE #167
See Fd. BK.
Pg. 43 For
Sections

Spk SW side 7" Map



Spk S side 30" Map



E

+82	10" Wal	38'		
+80	9" "	10'		
+78	9" Wal	36'		
+71	6" Wal	6'		
+67	8" Wal	38'		
+60	12" Ash	28'		
+60	12" Wal	26'		
+63			3'	9" Ash
+59			6'	15" Ash
+56	24" Ash	35'		
+45	12" E	20'		
+94			30'	12" Map
+85			38'	5-4, 8" Ash
0+77			41'	3-6" Ash
0+75			40'	6+9" Ash
0+75			37'	6" Elm
0+65			51'	4-6" Elm
0+0 to 0+30			6	willows 12" to 18"

E

			10'	6" Bass	+03
			11'	6" W	5+02
			10'	6" Ash	+95
	30' Elm	10'			+90
			8'	8" E	+85
			39'	15" Wal	+80
	30" Elm	9'			+55
			5'	3-6" Elm cl.	+25
			43'	12" E	4+0
			39'	6" E	4+0
	Elm clump	^{use 2-12"} 11"			+90
			8'	2-6" E	+73
			9'	3-7" E	+70
			6" Elm	18'	+46
			^{call 12"} Bass clump	25'	+42
			3-10" Ch	25'	+33
			2-6" Elm	25'	+30
					3+0
					2+0
			30" Will clump	20'	+92
			12" Whitewood	3'	+92
			12" Wal	2'	1+85

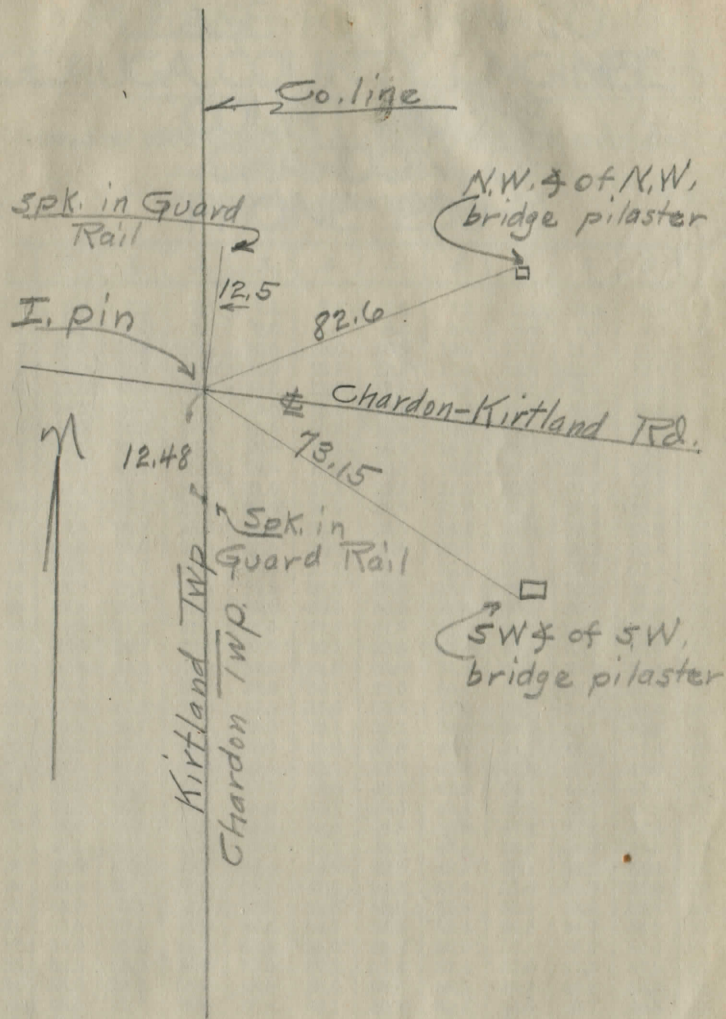
+96	18" Will	23'	20'	18" pop
+94			3'	2- 18" pop
+90			12'	6" Syc
+89			12'	" "
+82	6" 8" Syc	9'		
+71			35'	20" pop
+70			19'	20" pop
			33'	2- 8" Wal/cl
+48	15" pop	22'	29'	12" Bass
+44	12" pop	24'		
+40			11'	12" E
+30			10'	3-7" E/m
+28	12" Will	27'		
+25	2- 6" Bass cl	10'		
+24			8'	8" E
+22			9'	10" E
+13			13	2- 6" P.g Hick
+15	10" E	8'		
5+04	6" Bass	17'		

29	8" Syc	+85
23	9" Syc	+84
		8+0
		7+0
19'	7" E	+93
20'	6" E	+90
29'	9" Map	+87
12" Bass	5'	+76
24'	6" Map	+69
13" Map	11"	+67
31'	13" Map	+66
12'	12" E	+65
6'	6" Hick	+55
6" Syc	12'	+48
6" Ironid	14'	+45
6" Map	30'	+37
	21'	12" Bass +31
		+25
	26'	7" E +23
	1'	9" E +22
	4'	6" E +13
		6+0

+30			30'	2-9" pop
+21			27'	7" pop
+20	6" pig Hic	19'	16'	6" pop
+11	8" Wal	22'		
+01	15" Syc	10'		
10+0			8'	2-8" Will
+94			23'	7-10" Will
+88	6" Wal	23'		
+78	6" Wal	6'		
+72			8'	6-12" Will
+46			6'	10" pop
+44			22'	10" Syc
+23	14" pop	19'		
+20			12'	6" Syc
+16			1'	6" Syc
+11			7'	11" Syc
+07			21'	8" Syc
9+0				
+99	12" pop	2'	5'	7" Syc
+97			17'	11" Syc
8+91			8'	12" pop

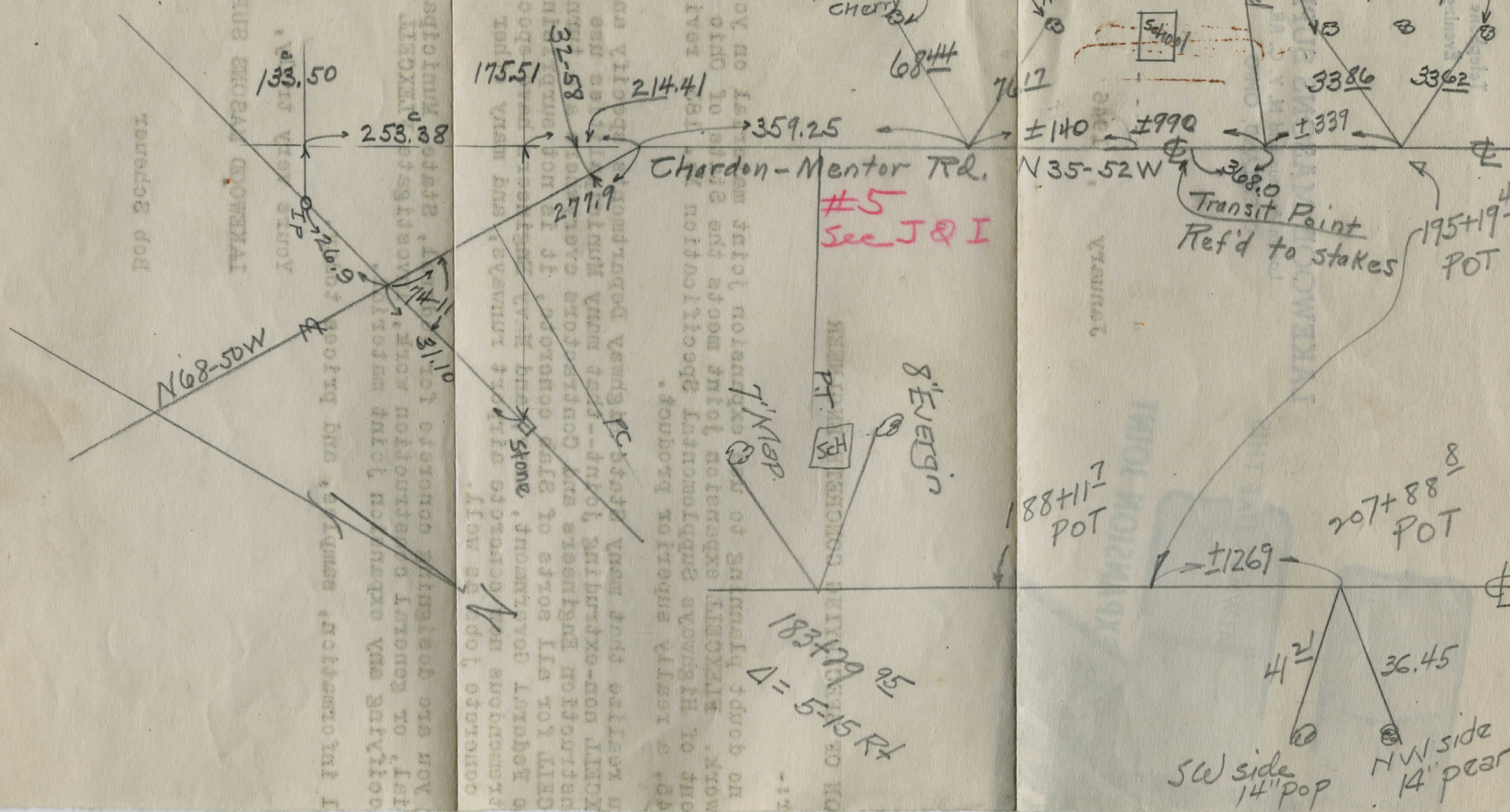
			± 13'	6" Wal	+94
			± 14'	6" Wal	+85
			7'	6" Wal	+69
	6" Will	6'			+65
	6" Will	7'	25'	6" Syc	+38
	7" Will	12'			+34
	6" Will	9'	31'	2-7" Will	+28
	8" pop	1'			+12
			1' 12" pop		+11
	10" pop	17			11+0
			← 13'	10" Map	+97
			← 15'	15" pop	+95
			← 18'	6" Bass	+79
			← 5'	11" E	+75
			← 3'	6" Map	+70
			8'	Bass ^{10"}	+69
			11'	12" E	+60
			32'	9" Syc	+50
			6'	15" pop	+47
			30'	9" pop	10+40

this side



5194
 19180
 3394

20788.8
 19519.4
 1269.4



PLEASE RETURN TO
GEAUGA COUNTY ENGINEER

COURT HOUSE

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14' SIDEWAYS AND SLOPES 1 1/2 TO 1.

PHONE 250-X

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.

R.

437.24
Stone
528
S of Hart
Frank
Shannon
398460
398464
188.33
94-46-95
16.30
35
190.17
500

