

PINE RIVER-JENKINS
STATE TRUNK
HIGHWAY
No. 19

Job No. 2005.

FINAL ALIGNMENT NOTES.

1921.

C. J. White.
Construction Engineer

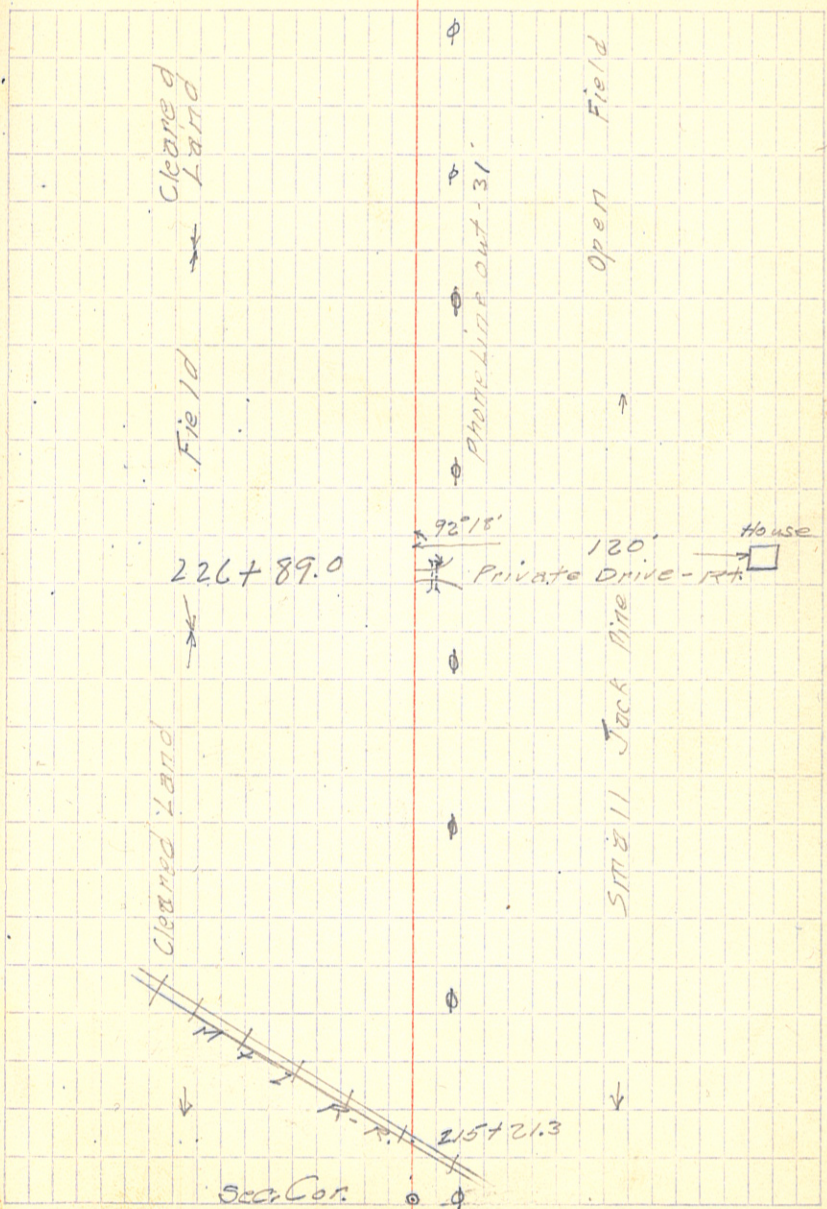
C. J. Bark.
Instrumentman.

137

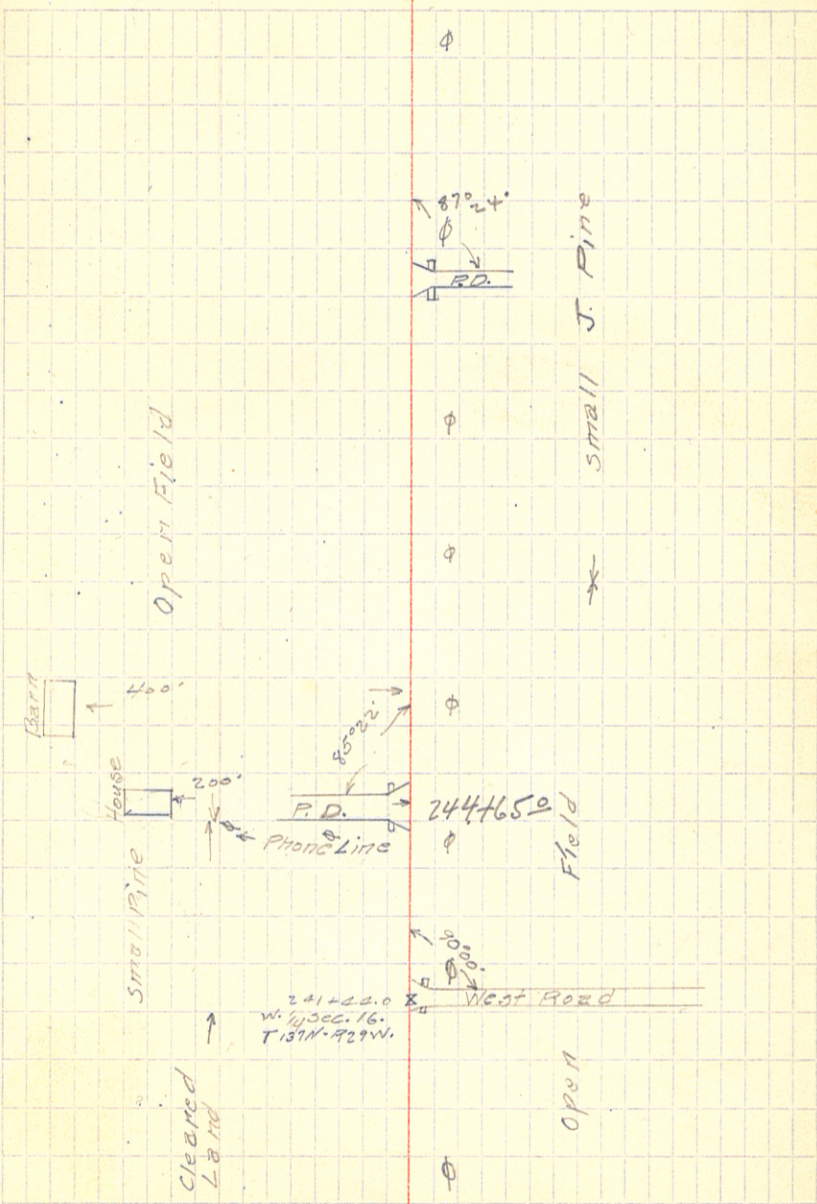
7
 6
 5
 4
 3
 2
 1
 230
 9
 8
 7
 +89.0
 6
 5
 4
 3
 2
 1
 220.
 219
 218
 217
 216
 215
 214+95.4

Sat May-21-1921
 Clear & Warm

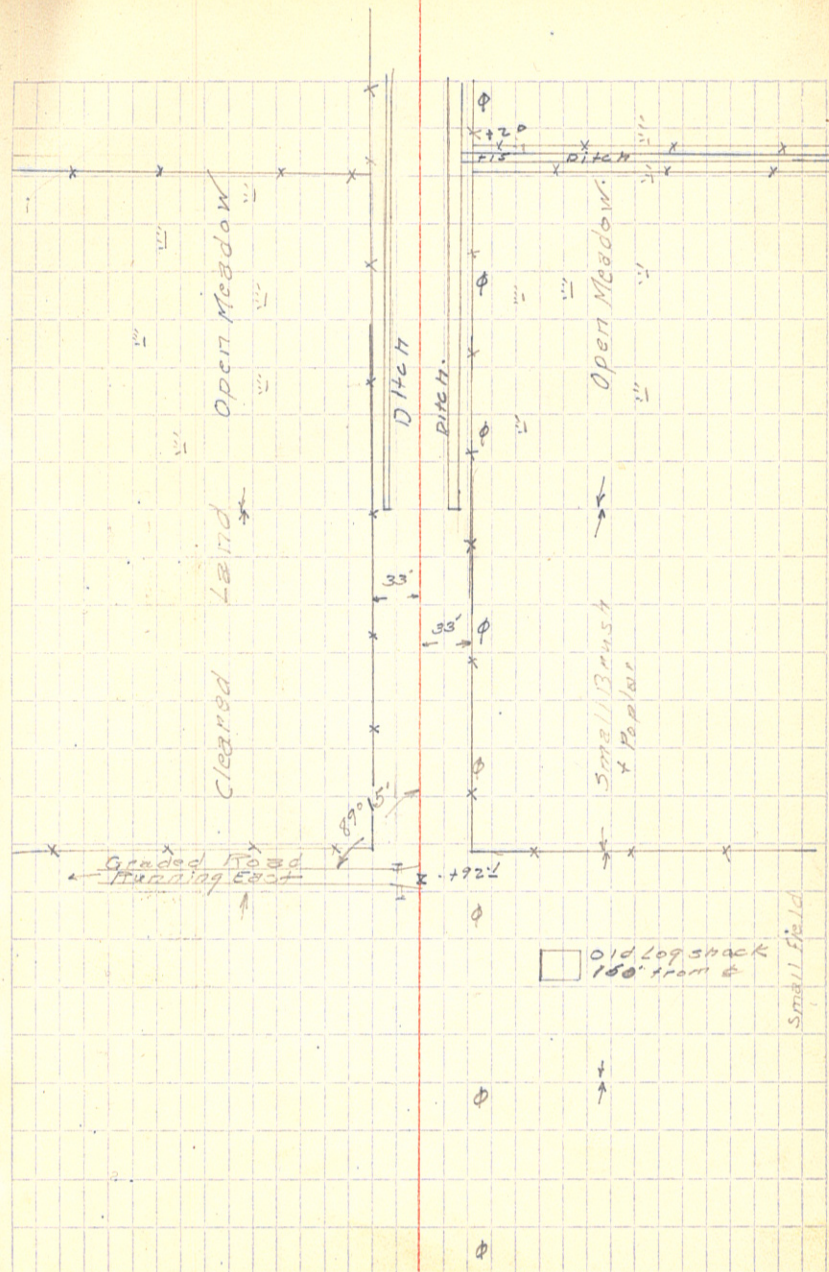
C.J.B. - Inst.
 M.W. - Rodman
 J.C. - Chairman ②



9
 8
 7
 6
 5
 +495
 4
 3
 2
 1
 250
 9
 8
 7
 6
 5
 +65.0
 4
 3
 242
 +440 O.P.O.T.
 1
 240
 9
 238



2
 1
 280
 9
 9
 7
 6
 5
 4
 3
 2
 1
 270
 9
 268.
 +92!
 267+90.5
 7
 6
 5
 4
 3
 2
 1
 260



306+39.0

6

5

4

3

2

1

300

9

8

7

6

5

4

3

2

1

290

9

8

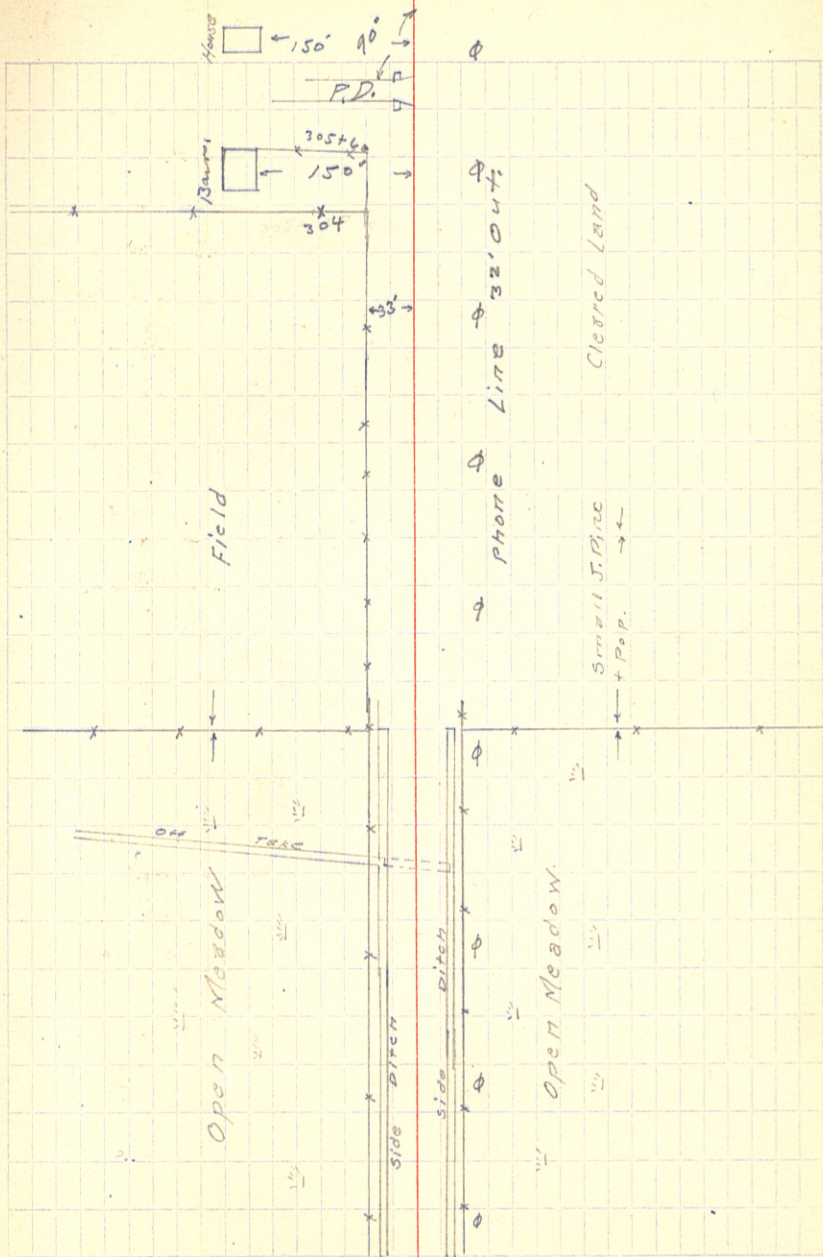
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6

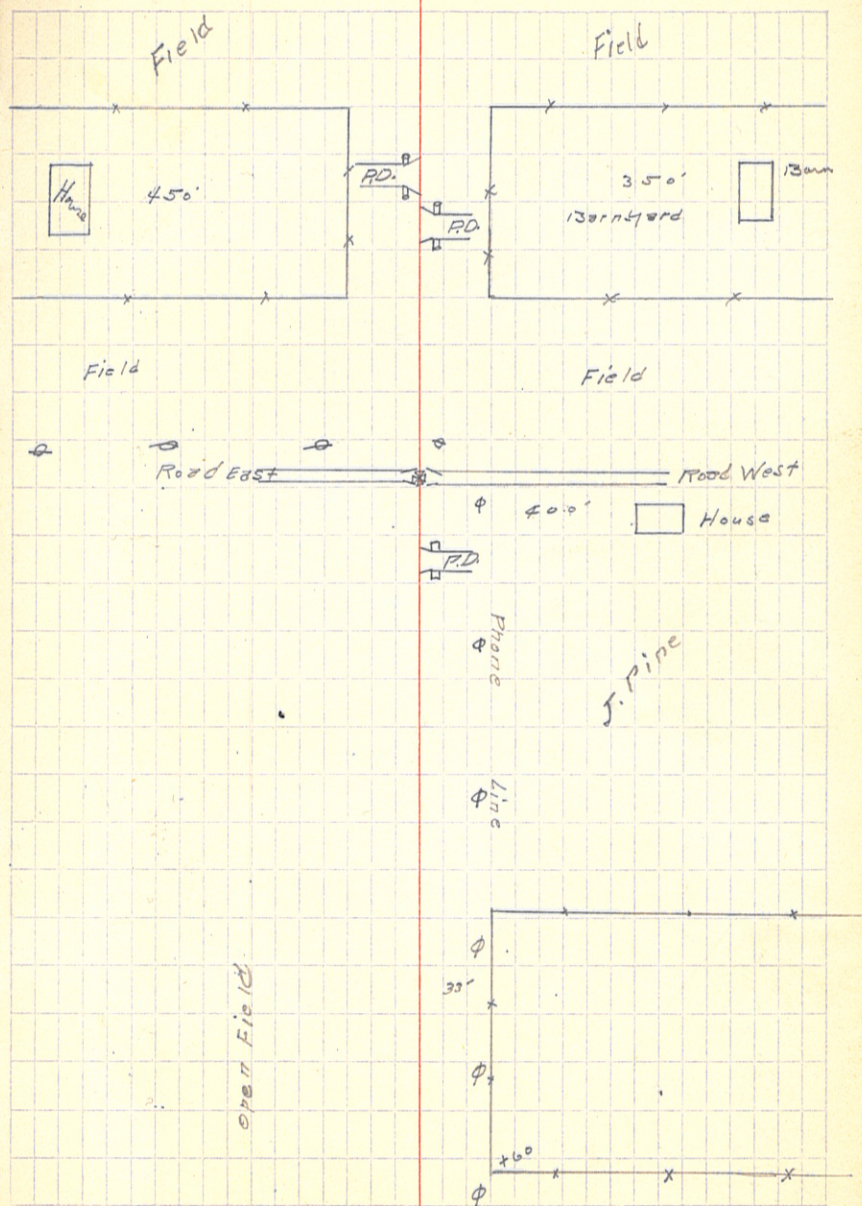
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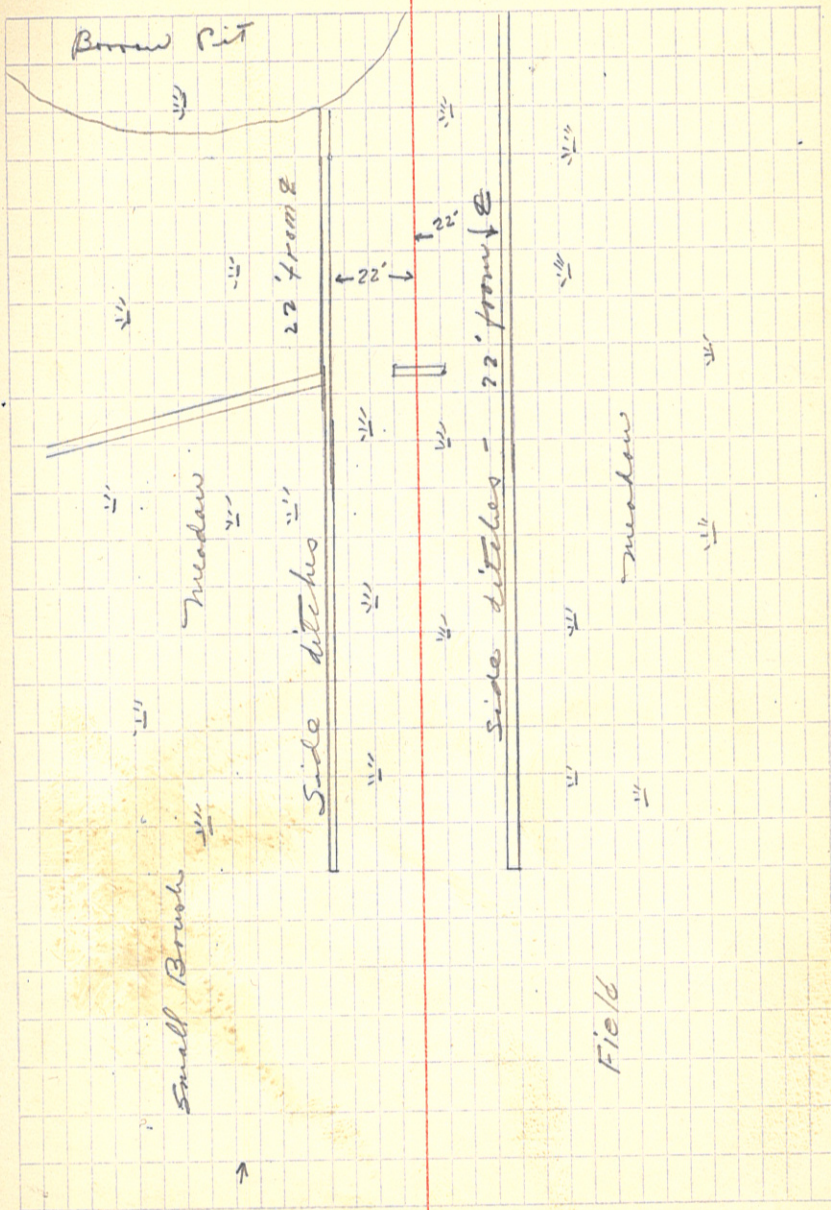
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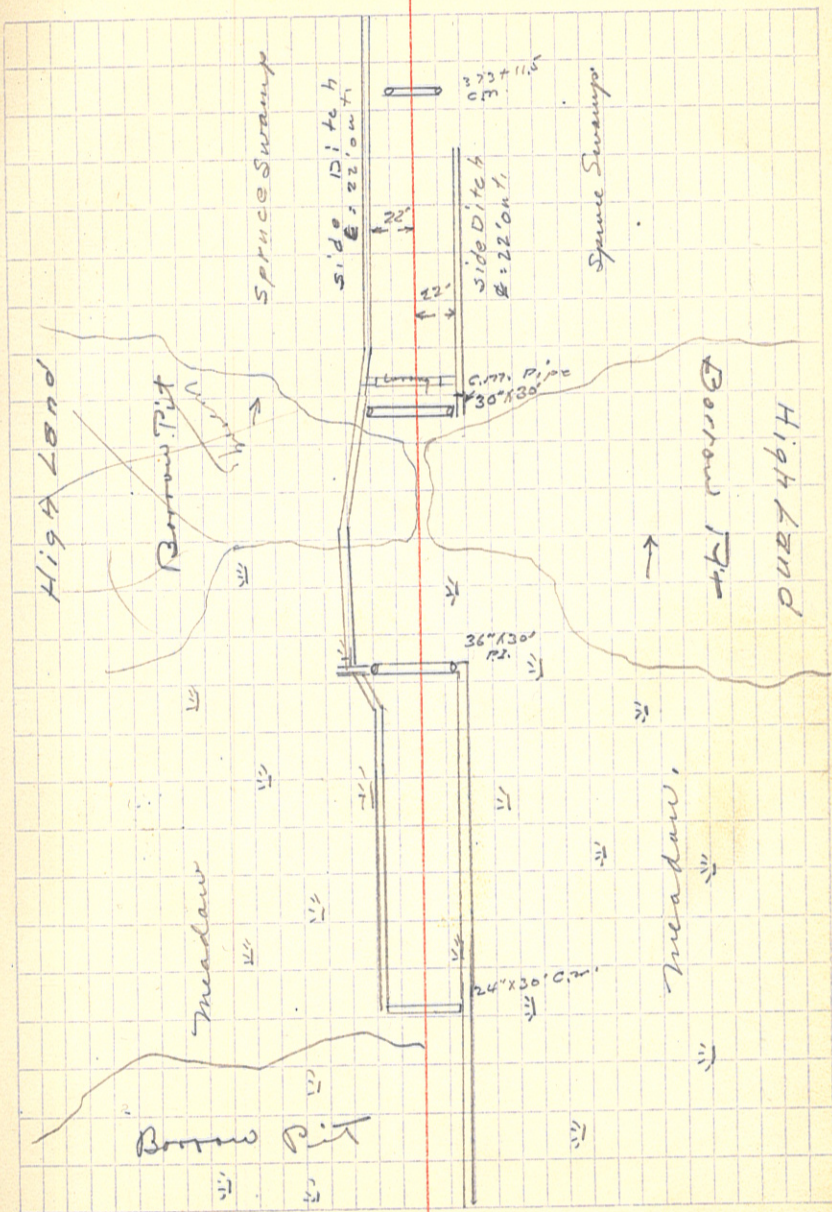
7
 6
 325
 +88
 +84
 4
 3
 2
 1
 320 + 898
 320
 +970
 319
 8
 7
 6
 5
 4
 3
 2
 1
 310
 9
 8
 307



1
 250
 9
 8
 7
 6
 5
 344 + 75°
 4
 3
 2
 1
 340
 9
 8
 7
 6
 5
 4
 3
 2
 1
 330
 9
 328



4
 3
 2
 371
 379
 9
 8
 367
 6
 5
 4
 3
 2
 361 + 990
 1
 360
 9
 8
 7
 6
 355 + 50
 5
 4
 3
 2

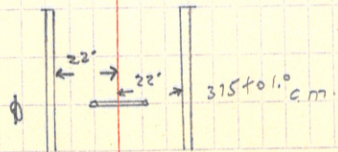


9
8
7
6
5
4
3
2
1
390
9
8
7
6
5
4
3
2
1
380
9
8
7
6
375

Small Bush

Phone Line 30' out from

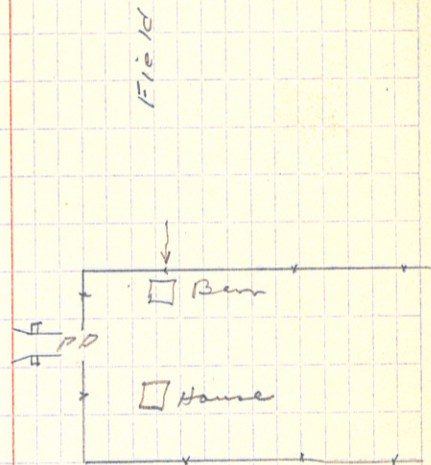
Small Bush



4
 3
 2
 421
 20
 19
 18
 17
 16
 15
 14
 412+320
 12
 11
 10
 9
 8
 7
 6
 5
 4
 3
 2
 1
 #00

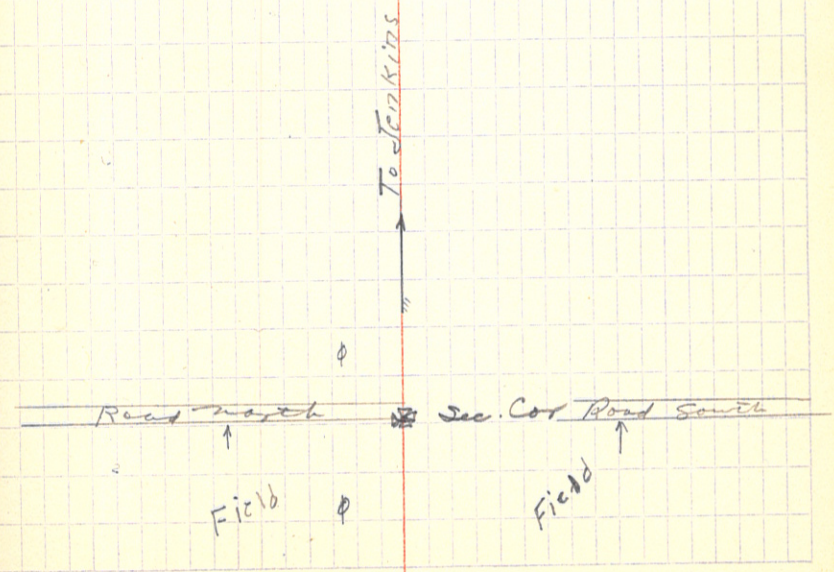
Small Oak and Bunick → Field

Phone Line 33' out



Small Bunick

427+01.5
7
6
425



4
3
2
1

180

9

8

7

6

5

4

3

2

1

170

9

8

7

6

5

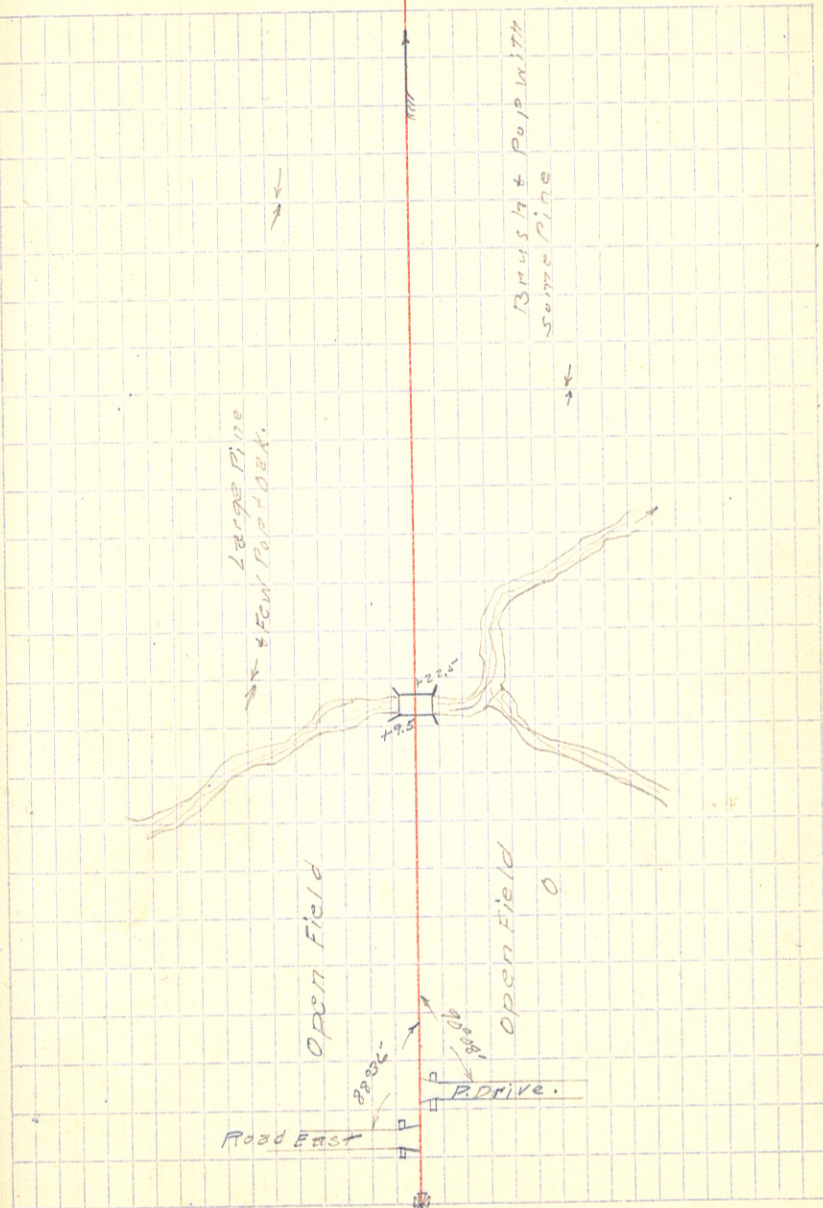
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163

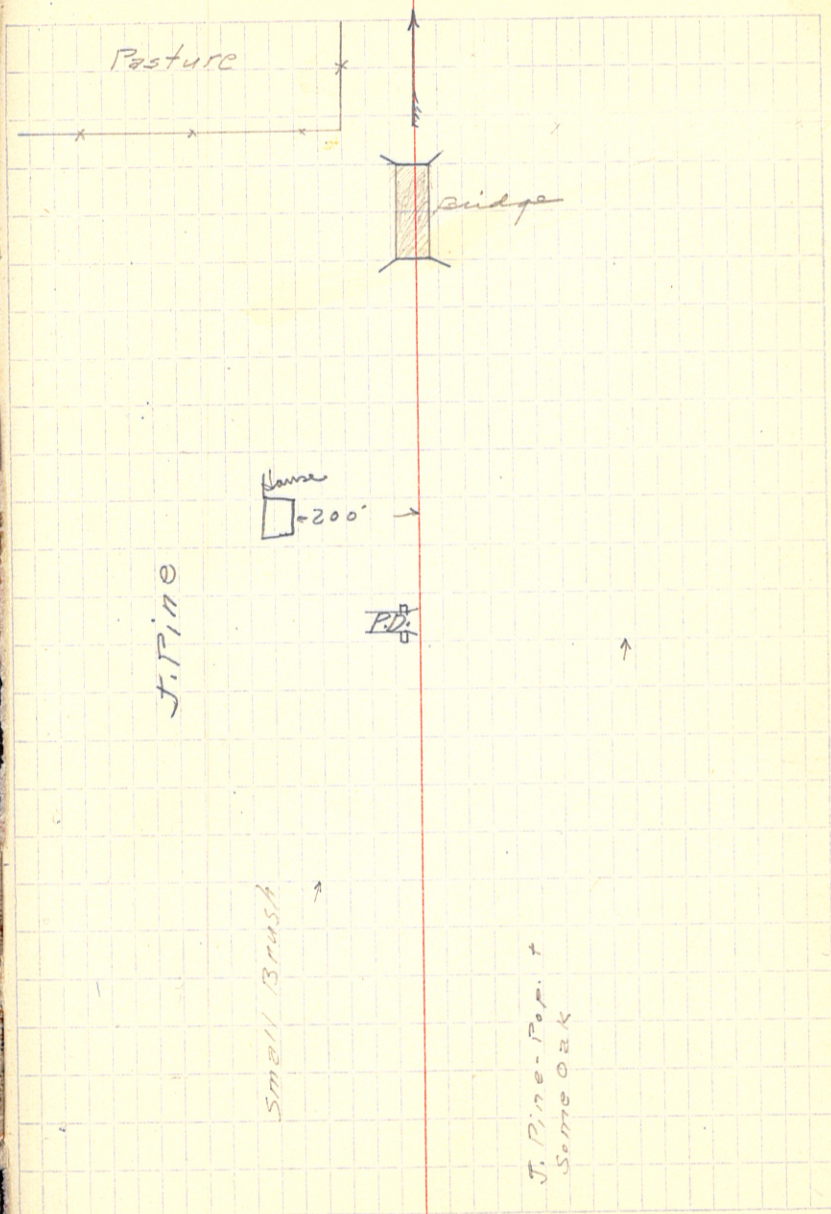
162+980

162

161+92.5



6
 5
 204+69.8
 4
 203+19.8
 3
 2
 1
 200
 9
 8
 7
 196+120
 6
 5
 4
 3
 2
 1
 190
 9
 8
 7
 6
 185



214+954

4

3

2

1

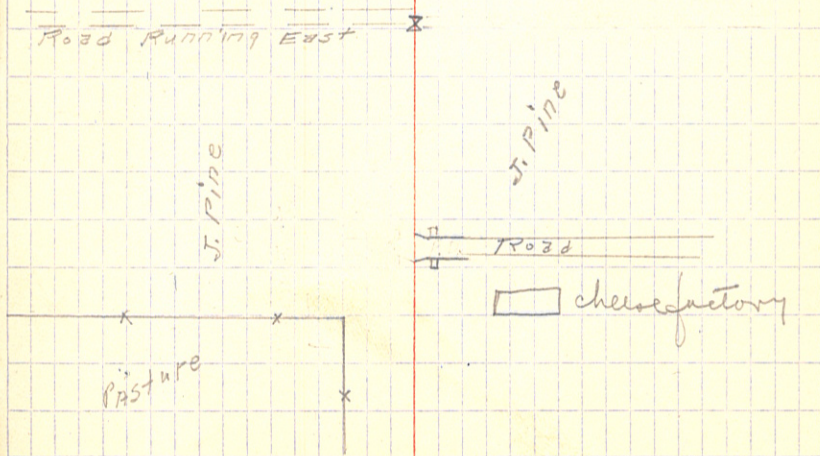
210+440

210

9

8

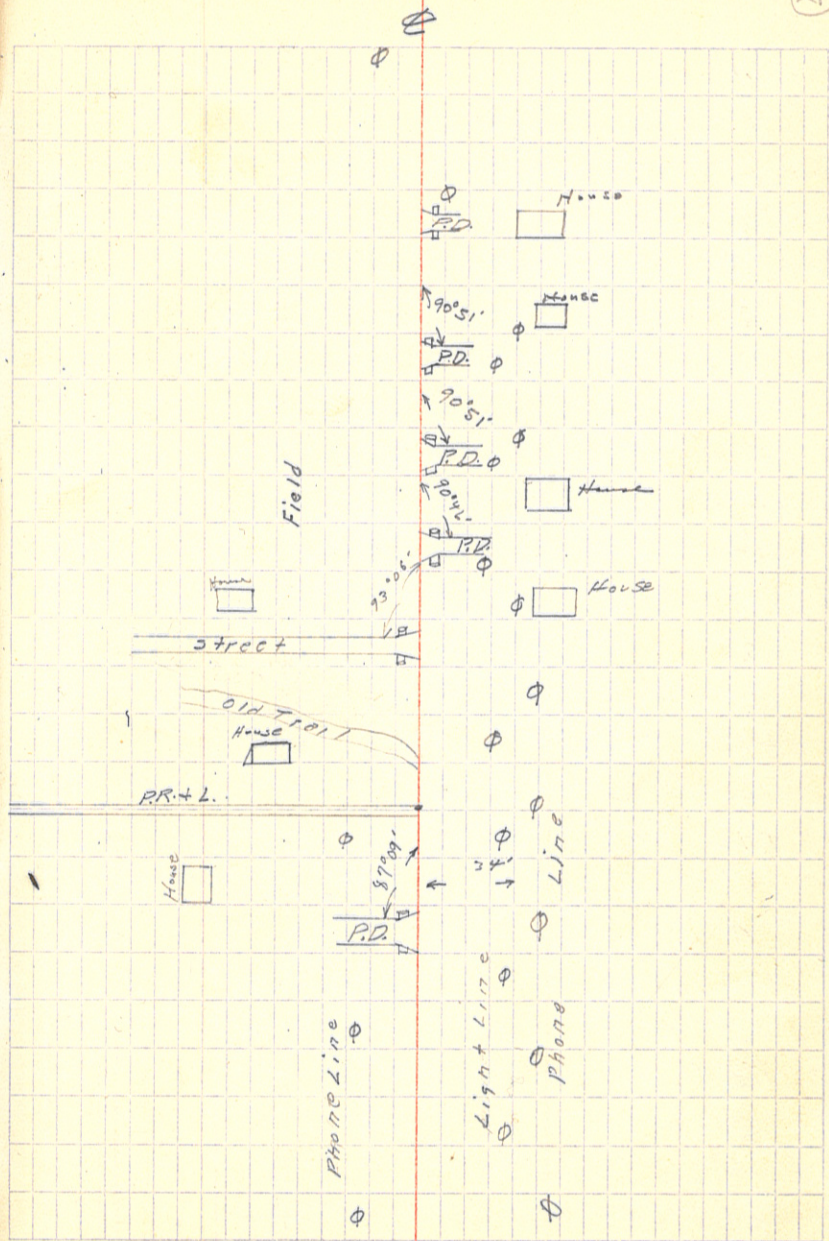
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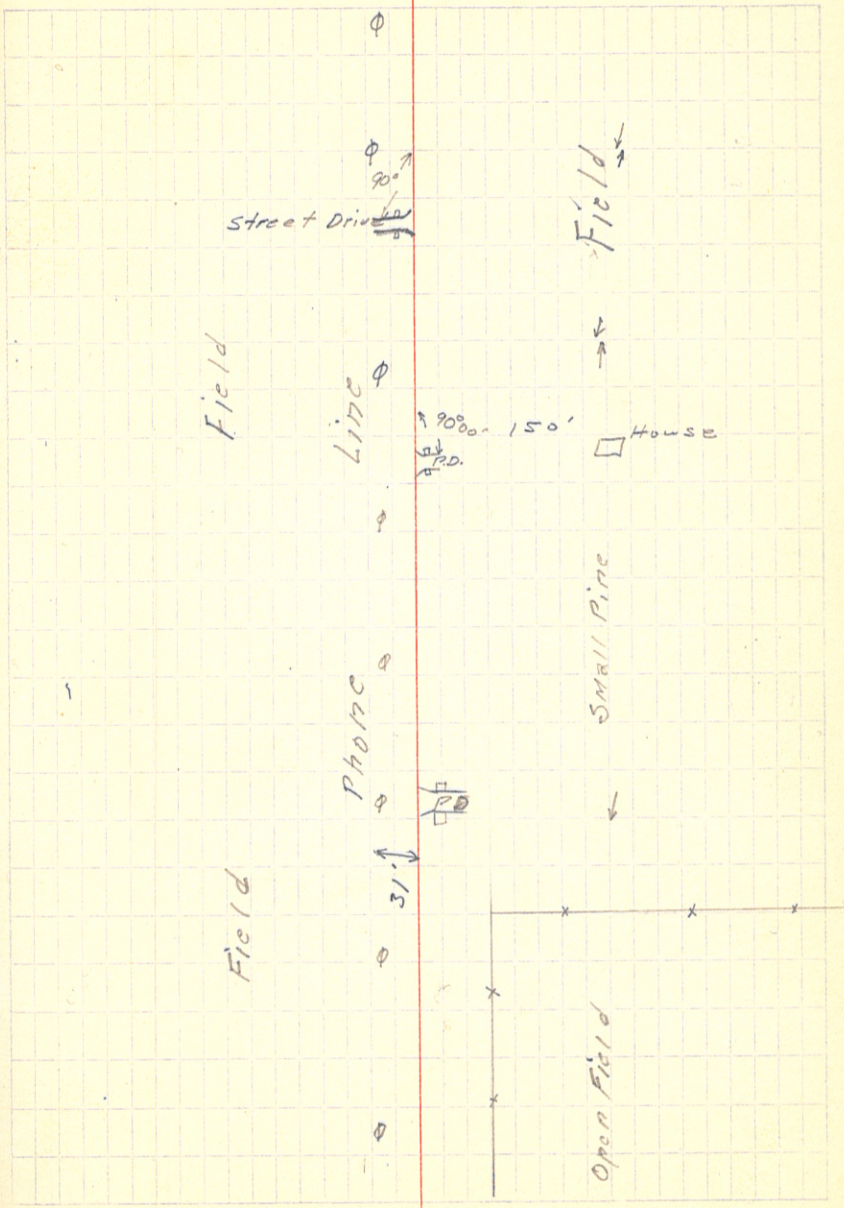
P.R.T.J.

210

30
 9
 8
 27
 26
 25
 24 + 79°
 + 79°
 + 47°
 24
 + 22°
 23
 + 0.50
 22
 21
 20 + 0.6
 20
 19
 + 31
 18
 17
 16
 15
 + 0.10
 14



2
 1
 50
 9
 48+75^o
 8
 7
 6
 5
 44+74^o
 4
 3
 2
 1
 40
 9
 38+76
 8
 7
 6
 5
 4
 3
 2
 31



5

94+930

4

3

2

1

90

9

8

7

6

5

4

3

2

1

80

79+340

9

78+240

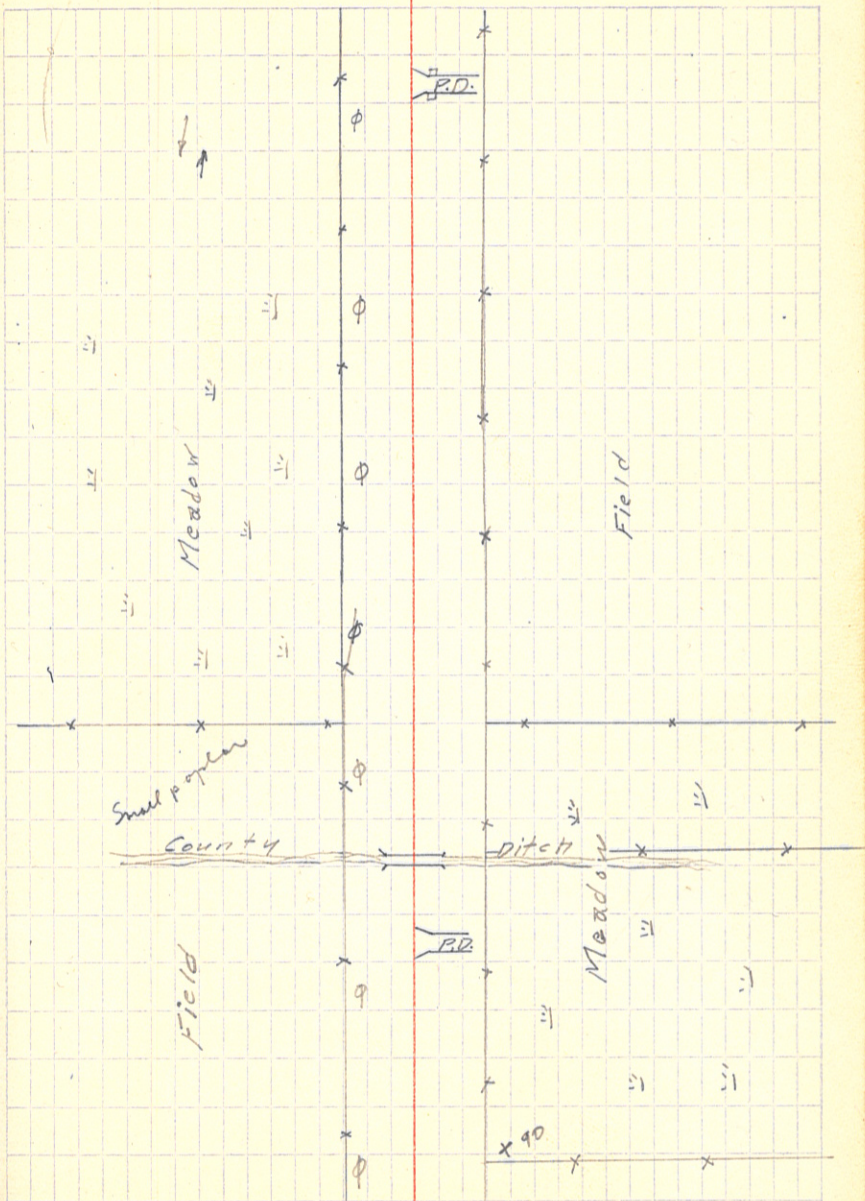
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7

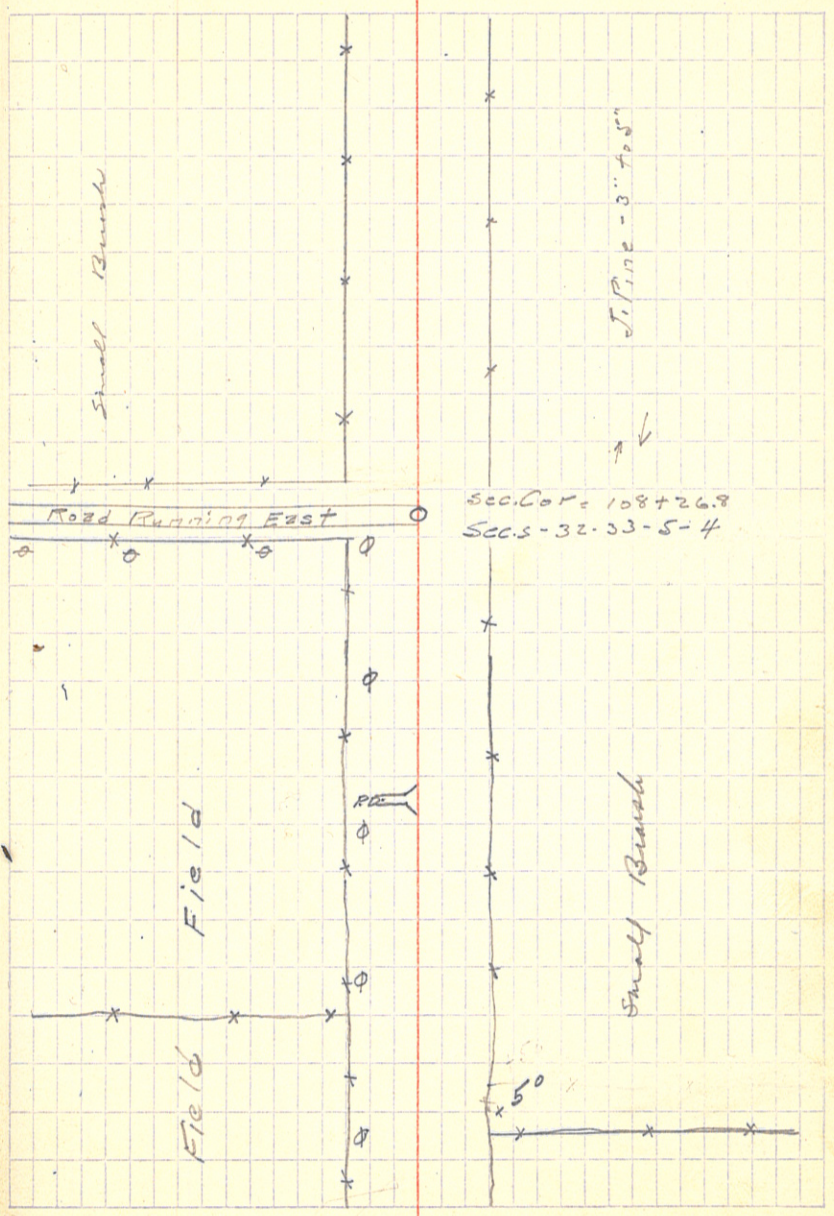
6

5

74



- 18
- 17
- 16
- 15
- 14
- 13
- 12
- 11
- 10
- 9
- 108 + 26.8
- 8
- 7
- 6
- 5
- 4
- 103 + 15
- 3
- 2
- 1
- 100
- 9
- 8
- 7
- 96



2

1

140

9

8

7

6

5

4

133+240

3

2

1

130

9

8

7

6

5

4

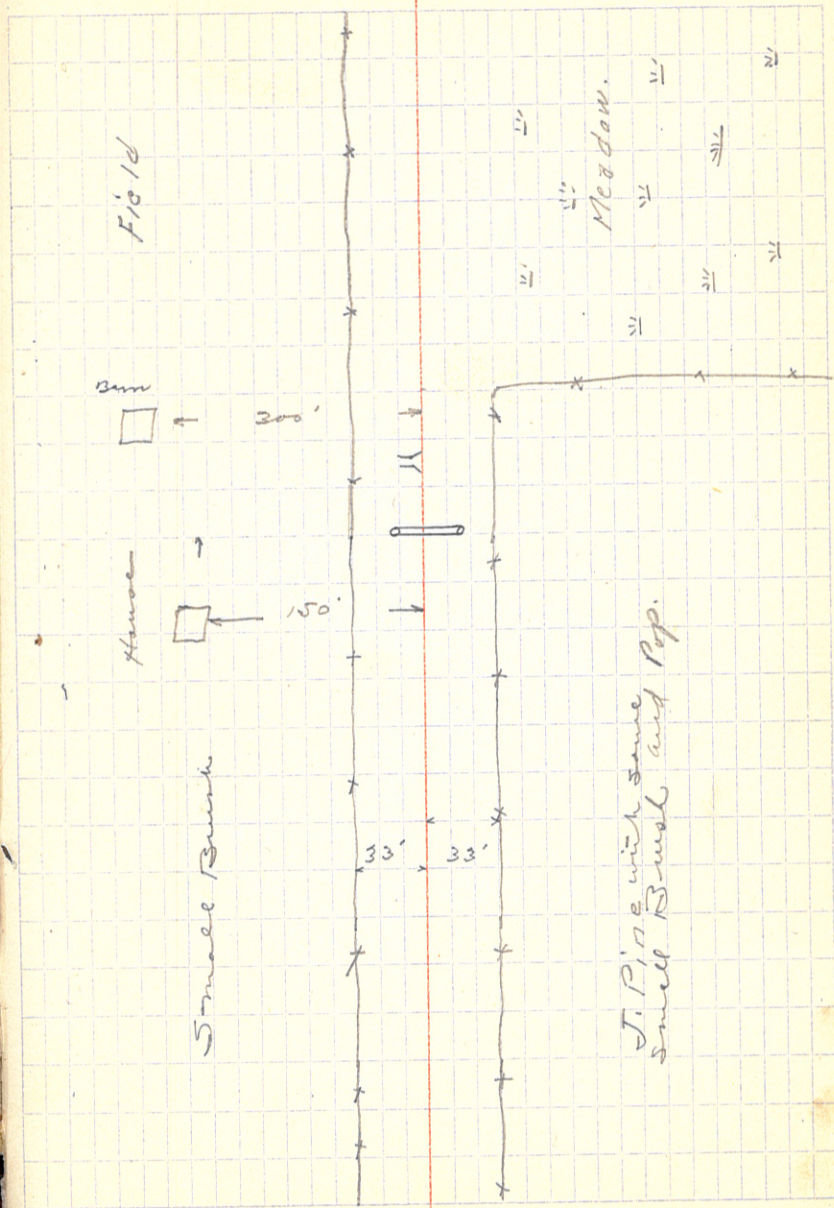
3

2

1

20

19



160

9

8

7

6

5

4

3

2

1

150

9

8

7

6

5

4

140

Field

Meadow



Borrow Pit #1.

0	+5	T	-5	Rod.	Elev.
B.M.	5.78	128927			1274.49
350+50				4.7	
350+75				4.9	
351				4.7	
352				4.6	
352+20				4.7	
353				4.6	
354				4.4	
355				4.3	
+35				4.5	
+50				4.4	
+85				4.4	

Above Reduced to Elevations.

350+50
350+75
351
352
+20
353
354
355
+35
+50
+85

See X-Sections
on X-S. Paper
Platted

76.4	74.5	74.1	75.4
89	85.3	77.2	73

Taken by C.J.B.

LT.	T	RT
00+48		
Sp. in Root 5" Pop. 18' Lt.	349	60
5.6 6.5 8.1 6.4	5.0	
31.5 28 24.2 17.5	12	4.7 ✓
5.1 6.5 8.0 8.0 7.1 5.1	12.5	4.9 ✓
96.3 88 74 25.1 17.4 12.5	12	4.7 ✓
4.7 6.1 6.4 7.4 6.9 4.8	12	4.6 ✓
95.4 92.5 87 82.2 16.4	12	4.4 ✓
5.5 6.5 7.8 7.1 4.8	12	4.7 ✓
95.3 91.5 87 16.9	12	4.7 ✓
6.3 7.1 7.1 4.8	12.2	4.7 ✓
74.2 72 17.5	12.2	4.7 ✓
5.5 7.0 6.2 7.0 6.6 4.8	12.1	4.6 ✓
75 72 6.5 4.0 16.5	12.2	4.4 ✓
4.3 6.7 7.0 6.6 4.6	12.2	4.3 ✓
81.5 76.8 42.5 14.5	12.2	4.3 ✓
2.7 6.4 6.9 4.8 4.5	12	4.3 ✓
94 7.0 5.0 18.8	12	4.5 ✓
2.5 5.7 6.8 6.5 5.3 5.8 4.3	14.5	4.5 ✓
98 94 5.9 30.5 28.5	12	4.4 ✓
2.4 5.7 6.8 6.7 5.2 5.7 4.3	15	4.4 ✓
98.8 94 6.5 37.2 33.2	15	4.4 ✓
3.9 5.9 6.2 4.9 6.1 8.0 8.0 6.0 5.8 4.5	15	4.4 ✓
89.0 85.2 77.2 73 26 24 20.2 18.5 15 12	12	4.4 ✓

by C.J.W. 9/30/21

Area.	C.Y.
00	1
10	74
150	144
160	509
115	78
95	230
60	356
132	643
215	240
155	81
135	101
20	4
+95	00

2461 C.Y.

Borrow Pit #2

0	+5	T	-5	Rod	Elev.
B.M.	5.05	1281.62			1276.57
T.P.	7.00	1284.21	441		1277.21
364+35				7.0	
+60				7.0	
365				7.2	
+82				7.1	
366				7.1	
+15				7.2	

Dist.	Area	Cyds.
364+31	1.00	
364+35		167
+60	29	310
365	40	533
+82	82	950
366	18	117
+15	15	135
+25	25	63
	12	
		00

1830 Cyds.

Taken by C.J.B.

Lt.	T	R+
on Tam. Snag.	174	362
on Rock @ Sta	365	
7.0	7.4 10.2 10.1 7.4 6.3 7.7 8.0 5.3 ✓	
	12.2 17.6 21.7 26 48.8 53 84.5 90.7	
7.0	7.2 9.5 9.3 10.2 9.9 3.7 ✓	
	12.2 16 48.5 61.5 83.5 75.0	
7.2	7.2 9.0 10.1 10.7 9.9 9.2 8.3 8.5 5.9 ✓	
	12.2 16.7 21.5 40 50.5 67.0 72.3 82 71.5 99	
7.1	7.1 9.1 9.4 7.7 8.4 8.8 6.0 5.0 0.6 ✓	
	12.2 16 23.5 36.5 56 70 78 90 95.5	
7.1	7.1 9.1 7.8 6.5 7.2 5.6 1.3 ✓	
	12.2 17.3 24.7 57.5 71.0 88 92	
7.2	7.0 8.5 4.8 3.9 2.0 ✓	
	11.7 15.6 73.5 87.5 96.0	

77.2	76.8	73.9	74.1	76.8	77.9	76.5	76.2	78.9
0	12.2	17.6	21.7	26	48.8	53	84.5	90.7
77.2	77.0	74.7	74.9	74.0	74.3	80.5		
0	12.2	16	48.5	61.5	83.5	95.0		
77.0	77.0	75.2	74.1	73.5	74.3	74.3	75.9	75.7
0	12	16.7	21.5	40	50.5	69	72.3	82
77.1	77.1	75.1	74.8	76.5	75.8	75.4	78.2	79.2
0	12.2	16	23.5	36.5	56	70	78	90
77.1	77.1	75.1	76.4	77.7	77.0	78.6	82.9	83.6
0	12.2	17.3	24.7	57.5	71	88	94	95.5
77.0	77.2	75.7	79.4	80.3	82.2			
0	11.7	15.6	73.5	89.5	96			

Above reduced to Elevations - by C.M.

H.I. = 1280.42

Sta.

0+12

0+17.6

0+20

0+22

0+31

L+

$\frac{4.5}{12.6}$ 3.9

$\frac{7.7}{13.3}$ $\frac{4.7}{9}$ 4.4

$\frac{7.2}{11.5}$ $\frac{5.2}{9.0}$ 4.8

$\frac{6.5}{9.8}$ $\frac{5.5}{8.2}$ 5.0

$\frac{6.0}{7.0}$ 5.8

R+

$\frac{3.2}{12}$

$\frac{4.2}{9.0}$ $\frac{6.3}{11.4}$

$\frac{4.7}{8.5}$ $\frac{5.8}{10}$

$\frac{4.9}{8.4}$ $\frac{5.9}{10}$

$\frac{5.6}{8.0}$

Rt. end Culvert

Rod 592 Elev = 1275.00

Lt. " "

Rod 594 Elev = 1274.48

Rise or Fall +

or - 19 in 19' = 10.0%

Size = 12"

Length = 20'

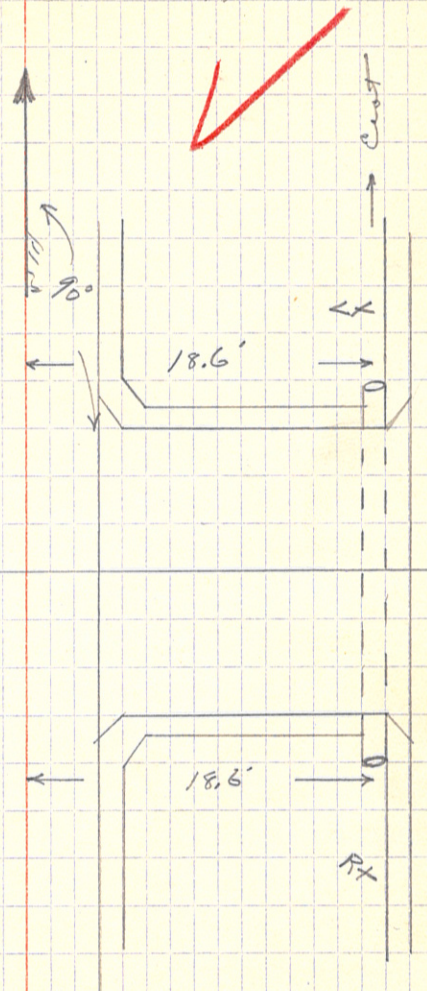
Type = C.M.

Drain =

L+

R+

Rt.



H.I. = $\frac{1322.30}{}$

Sample Notes Form for

X-ing surveys.

On this page make sketch.

Sta.	Lt. Rod.	Exing. Rod.	Rt.
0+12	6.2 18.0	6.2 0	6.2 18.0
0+15			
0+22			
0+25			
0+28			

Lt. end Culv. Rod. 5.3 Elev. 17.0

Rt. end Culv. Rod. 5.0 Elev. 17.3

Rise or fall = + or - 2.0 in 28' = 11.1%.

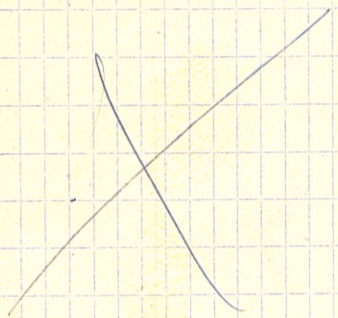
Size of pipe if any _____.

Length of pipe if any _____.

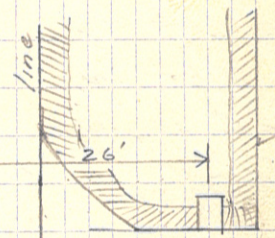
Type. C.M. or P.I.

Does it seem to drain or not? _____

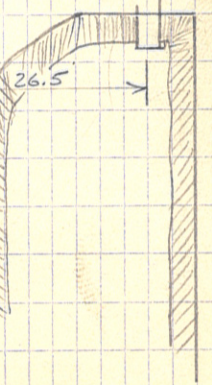
Which way. North, south E or West.



Center Xing. 172+65



Shoulder



HI. = 1282.68

Sta	Lt.	±	Rt.
0+12	$\frac{4.8}{2.0}$	4.6	$\frac{4.8}{1.8}$
0+16	$\frac{6.4}{18.3}$ $\frac{4.7}{7.4}$	4.7	$\frac{4.9}{12.1}$ $\frac{4.6}{16.3}$
0+29	$\frac{6.0}{14.8}$ $\frac{5.0}{9.8}$	5.0	$\frac{5.1}{10.7}$ $\frac{6.3}{7.2}$
0+31	$\frac{5.1}{9.5}$	5.1	$\frac{5.3}{7.0}$

Rt. end of Culvert Rod 5.35 Elev. 1277.33

Lt. end of Culvert Rod 4.99 Elev. 1277.69

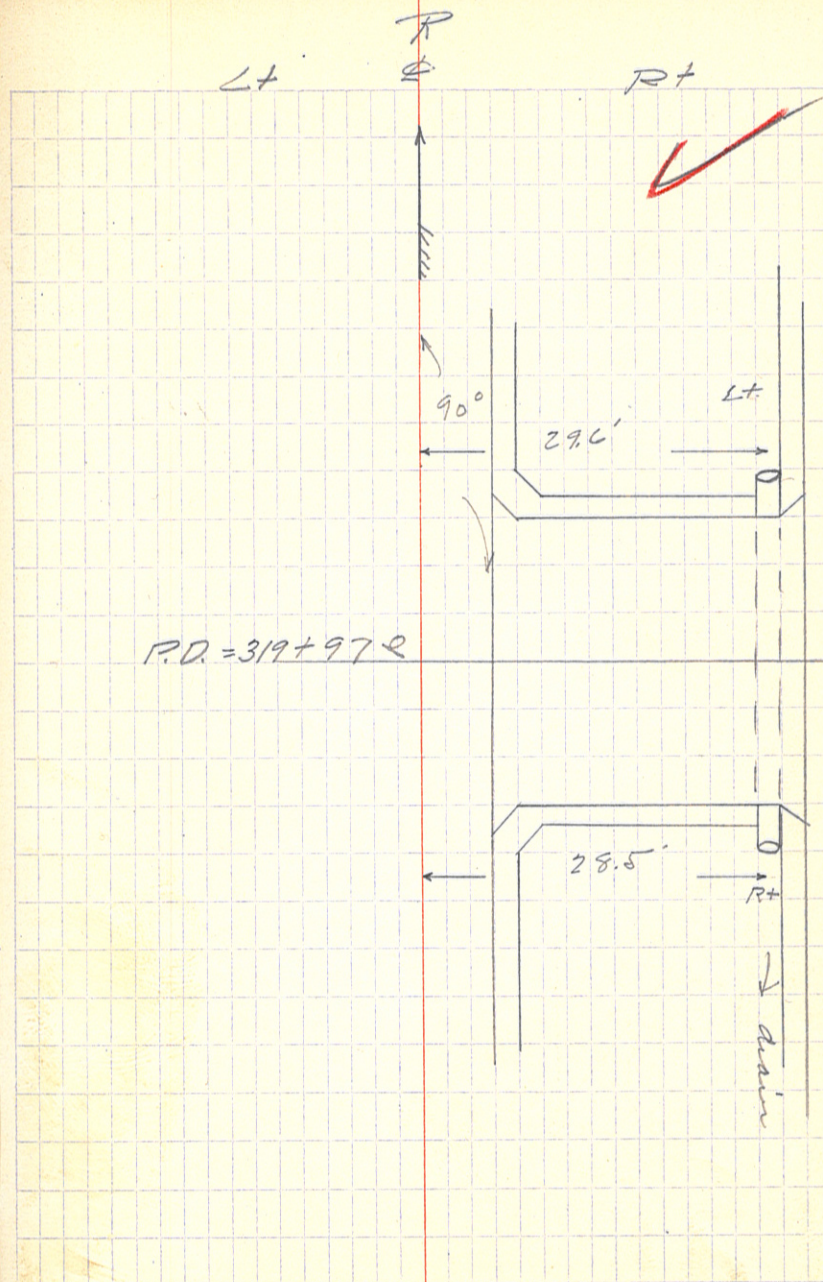
Rise or Fall + or - 0.5 in 19 = 2.63%

Size = 12"

Length = 20'

Type = C.M.

Drain = north



HI. = 1282.53

sta.

0+12

0+20

0+29

0+31

Lt.	±	Rt.	
4.7		4.8	
16.0	4.8	15.6	
24	5.0	5.0	7.3
14.8	7.3	27.2	17.4
23	5.1	5.2	7.3
10.9	8.5	8.8	11.0
	5.1	5.0	
	8.0	7.8	

Rt. end of Culvert Rod 5.92 Elev. 1276.61

Lt. " " " Rod 5.92 Elev. = 1276.61

Rise or Fall + or - $0.2 \text{ in} / 9' = 105 \text{ } ^\circ\text{ } _70$

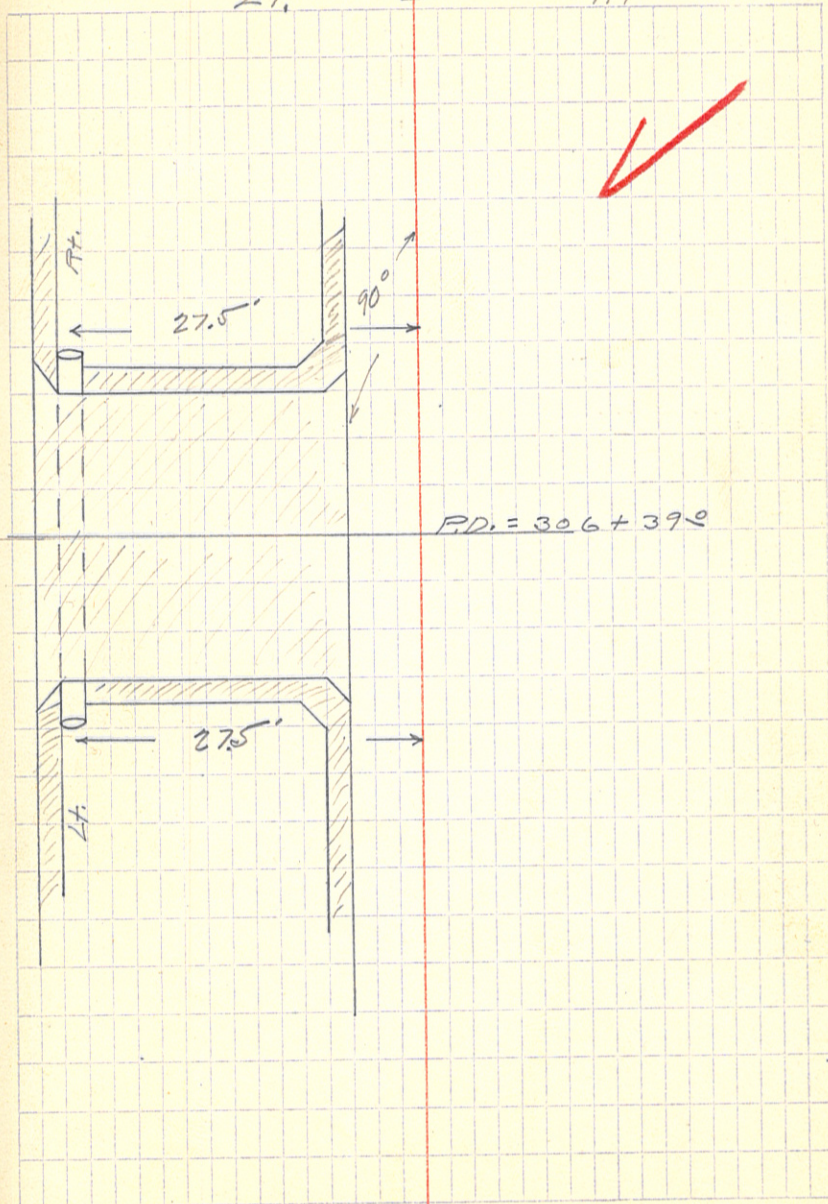
Size: 15"

Length: 21'

Type: P.I.

Drain: North.

Lt. Rt.
± ±



H.I. = 1282.20

P.D. on Right

Sta	Lt	E	Rt
0+12	$\frac{4.1}{15.8}$	4.0	$\frac{4.9}{18.7}$
0+15	$\frac{5.6}{13.6}$ $\frac{4.4}{12}$	4.0	$\frac{4.1}{14.7}$ $\frac{5.1}{16.8}$
0+25	$\frac{6.2}{10.2}$ $\frac{4.7}{8.7}$	4.2	$\frac{4.2}{10}$ $\frac{5.5}{11.5}$
0+27	$\frac{4.5}{10.0}$	4.2	$\frac{4.2}{10.3}$

Rt end Culvert Rod 5.45 Elev. = 1276.75
 Lt " " Rod 5.19 Elev. = 1277.01
 Rise or Fall + or - 0.2 in 15' = 1.33%

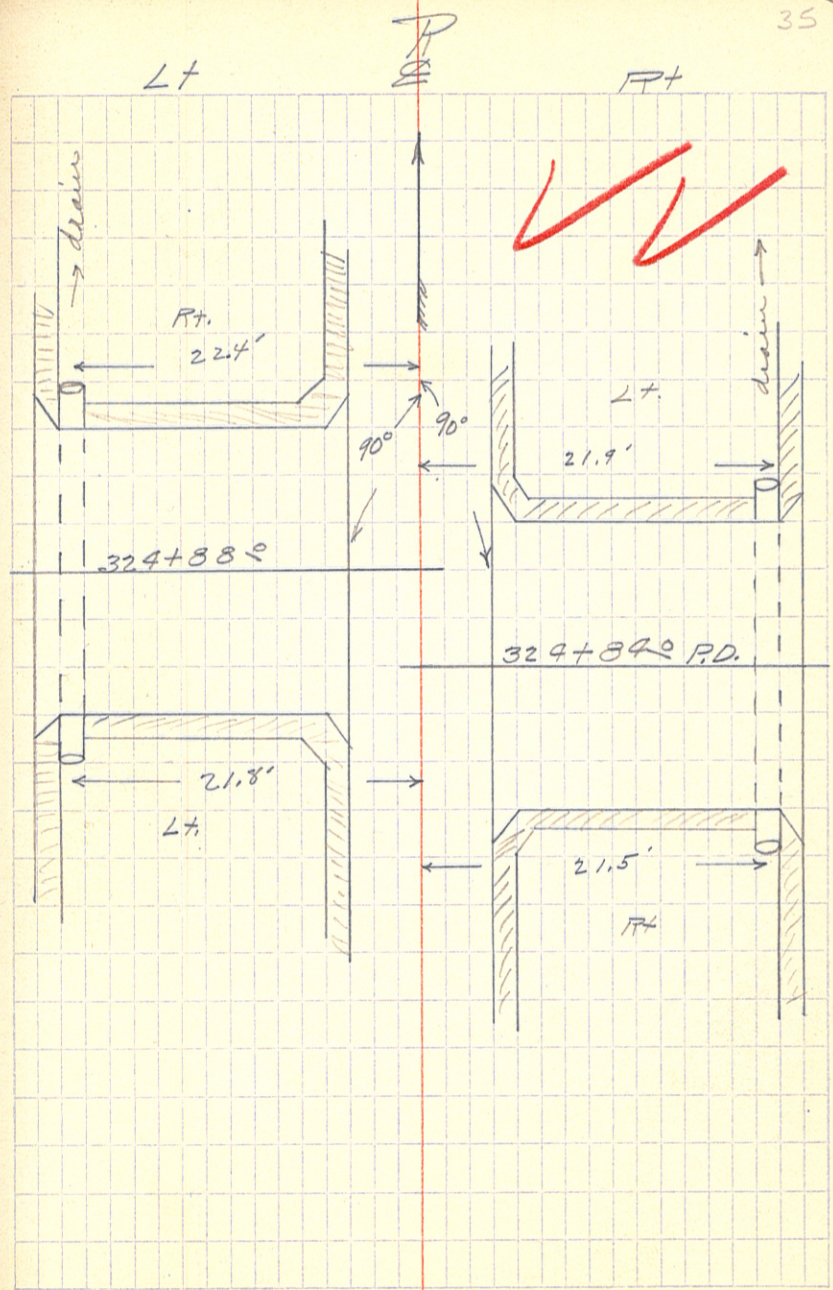
Size = 12"
 Length = 20'
 Type = C.M.
 Drain = South

P.D. on Left

Sta	Lt	E	Rt
0+12	$\frac{4.3}{14}$	4.2	$\frac{4.2}{13.7}$
0+15	$\frac{5.3}{13.7}$ $\frac{4.5}{11.8}$	4.3	$\frac{4.3}{11.2}$ $\frac{5.3}{14}$
0+25	$\frac{5.9}{9.2}$ $\frac{4.6}{7.0}$	4.6	$\frac{4.6}{7.0}$ $\frac{6.3}{9.6}$
0+27	$\frac{4.7}{7.0}$	4.6	$\frac{4.7}{7.6}$

Rt end Culvert Rod 5.46 Elev. = 1276.74
 Lt " " Rod 5.28 Elev. = 1276.92
 Rise or Fall + or - 0.1 in 15' = 2.66%

Size = 12"
 Length = 18'
 Type = P.I.
 Drain = South



H.I. 1282.46

Sta
 0+12
 0+15
 0+21
 0+37

Driver on Right

Lt	Σ	Rt
$\frac{4.4}{28.0}$	4.2	$\frac{4.2}{25.3}$
$\frac{4.9}{29.3}$ $\frac{0.5}{27.4}$	4.0	$\frac{4.1}{24}$ $\frac{4.8}{25.6}$
$\frac{4.6}{20.9}$ $\frac{4.0}{19.2}$	3.8	$\frac{4.0}{19.6}$ $\frac{4.8}{21.6}$
$\frac{3.2}{10}$	3.3	$\frac{3.9}{13}$

Driver on Left

H.I. = 1282.46

Sta.
 0+12
 0+16
 0+23
 0+48

Lt	Σ	Rt
$\frac{4.3}{40}$	4.6	$\frac{4.7}{33.5}$
$\frac{6.0}{36.8}$ $\frac{4.8}{32.2}$	4.6	$\frac{4.8}{27.2}$ $\frac{5.5}{31.3}$
$\frac{6.4}{27.8}$ $\frac{4.8}{23}$	4.8	$\frac{5.0}{24.8}$ $\frac{5.5}{28.4}$
$\frac{6.3}{10}$	5.8	$\frac{5.4}{14}$

Sec. Cor. = 320 + 89.9

