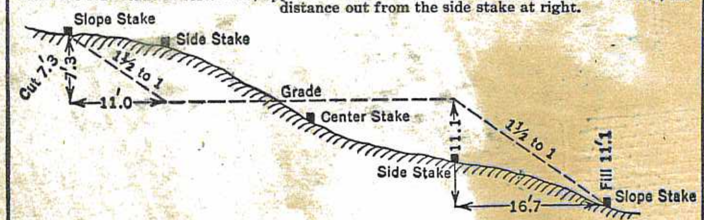
K&E
FIELD BOOK
W 360

1948-7C

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19·8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

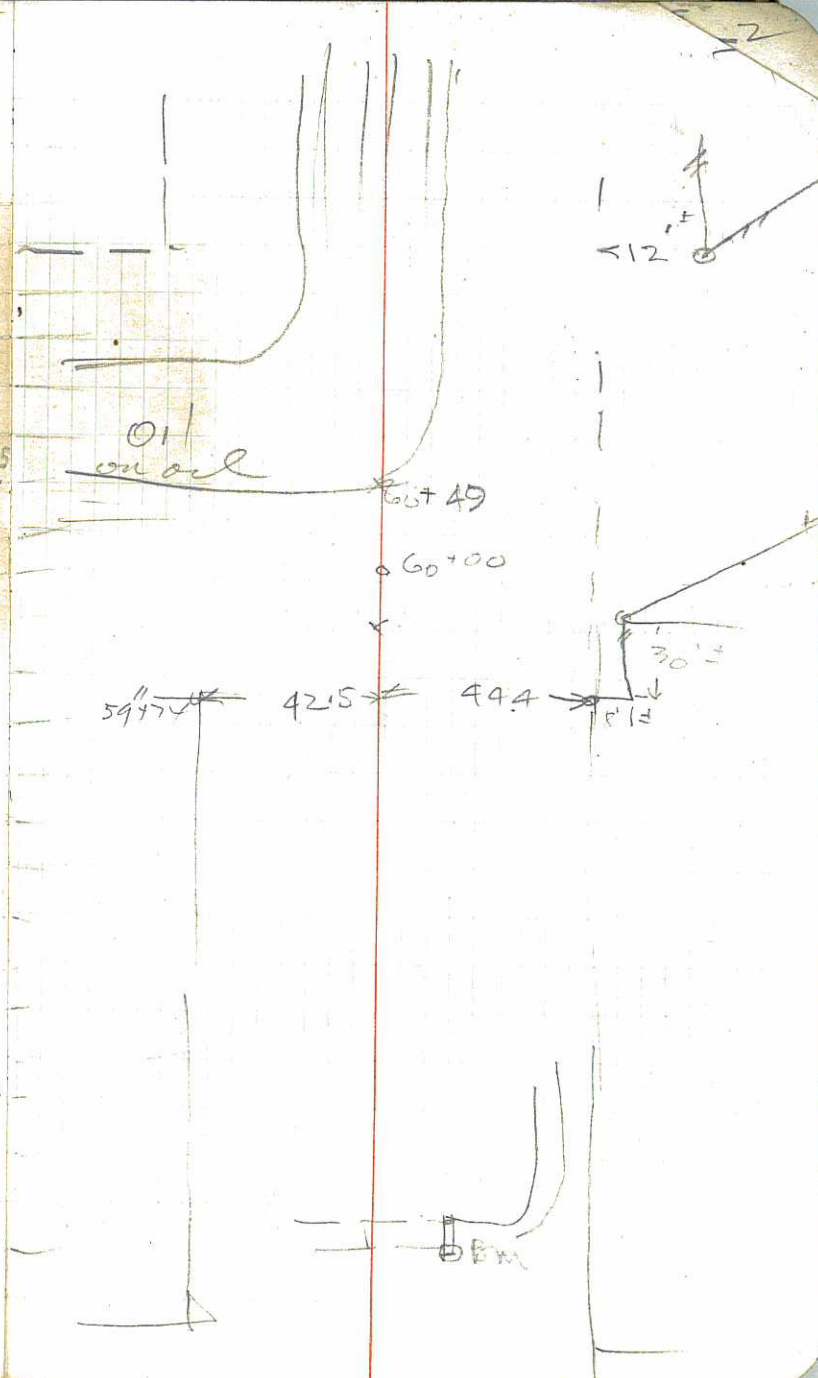
For Curve Tables see end of book

1948 - 7C

Cache Co
Engr. Dept.
Eugene Schaaf
Logan, Utah

-2

Sta	BS	FS			
60+49		-4.37	¢ & oil	4655.05	
~~60+00~~		~~4.8~~ ¢	4.8 ¢	4654.62	
~~60+00~~		~~4.8~~			
59+00		~~4.8~~ ¢	4.8 ¢	4654.62	
58+00		~~3.2~~ ¢	3.2 ¢	4656.22	
57+00		2.2 ¢	2.2 ¢	4657.22	
56+00	1.95 ¢	-2.90 ¢	2.9 ¢	4657.47	4659.42
55+00			2.4 ¢	4657.97	
BM 4			1.62	4658.75	60.37



Sta	BS	FS	Un	L	Station C	Elev
8 6+15	1.00	6.40				
8 6+15				4.00		10.15
74+30			6.40			
4 +00			6.5 G			
4+00			7.2 RBP			
6 4+00			7.2 CR			
5 4+00			5.72	4		8
2+00			6.70 C			
2+00			8 RBP			
2+00			6.72			
4 2+00 CR			5.82	5		6.98
0+30			6.2			
0+30			5.97			
-10			6.10			
-10			6.10			18.02
-30			4.15			4500.03
St BM	4.12					4500.00
K 0						

mp.

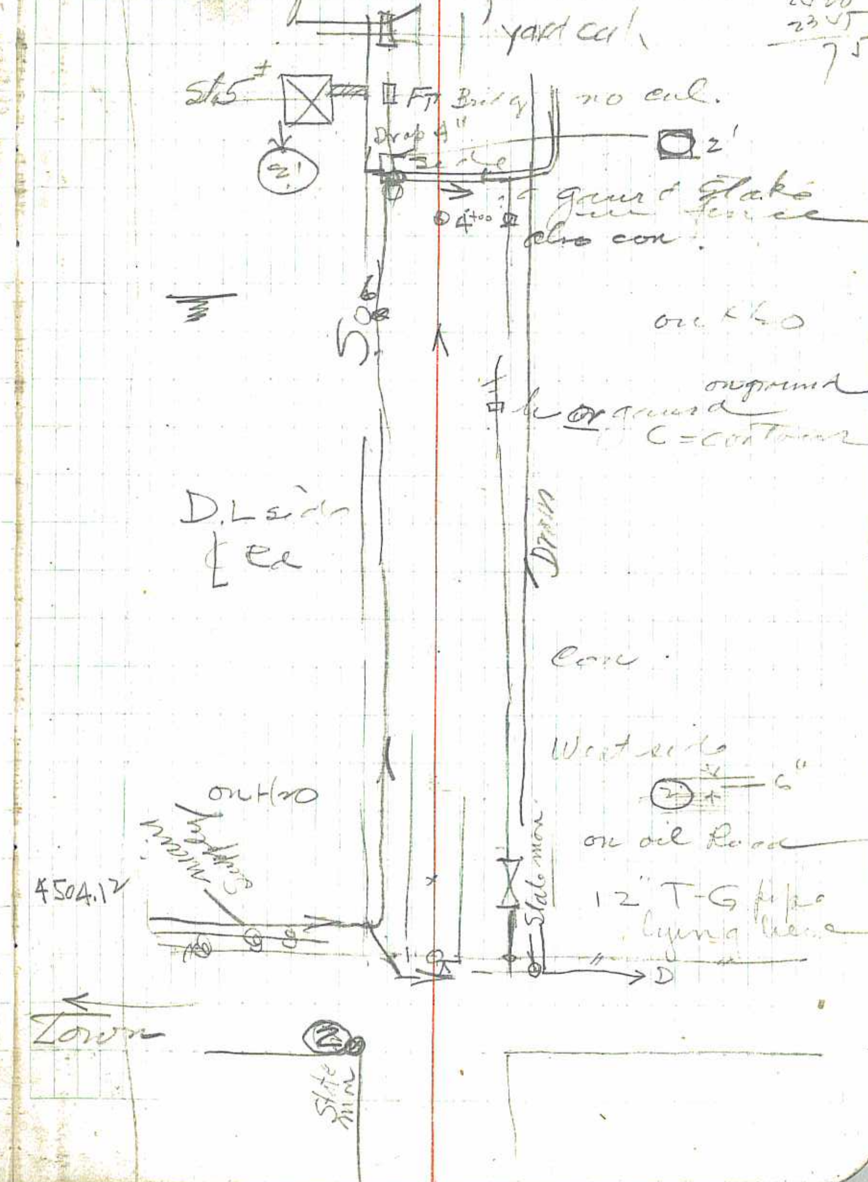
8-26-48 Spec 2345 / 2420 / 75 / 2

Survey & Study

County Road in Lewiston

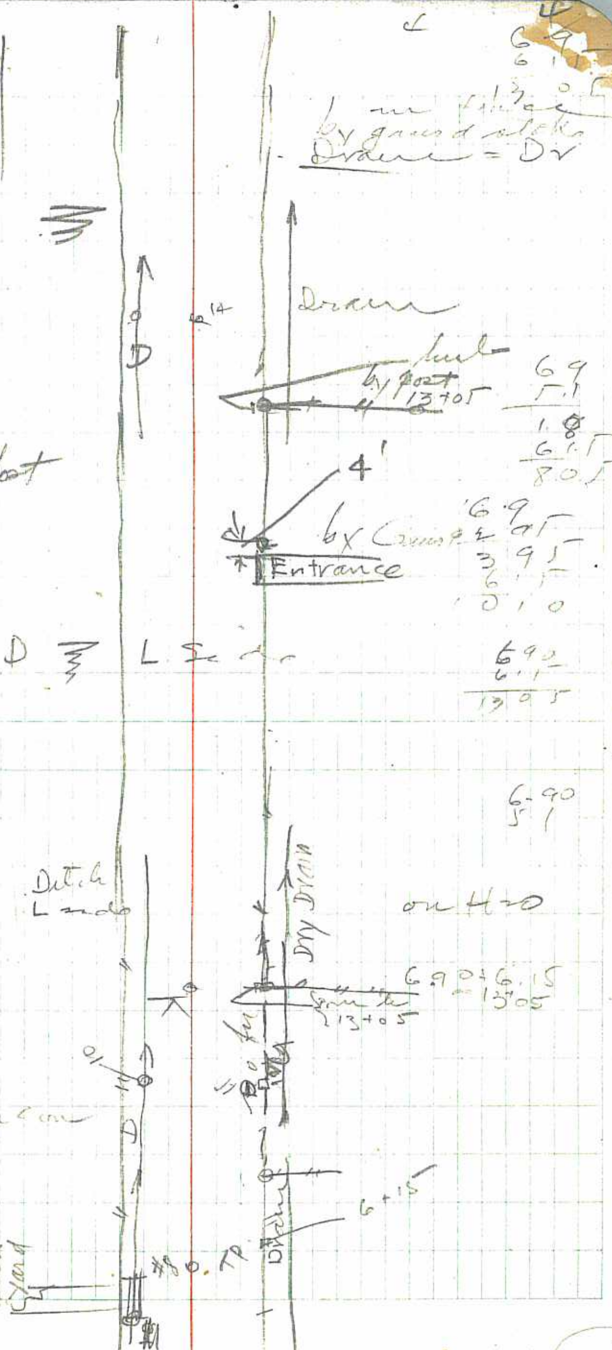
3 miles W of Center

2420 / 2345 / 75



#	Sta	BS	FS		L	⊄	R	
	14 ⊄						5x2 G 10.80 Bp Dr. .8	
	14							
	14							
	14				5.80	4.60		
	14							
	13+05	5.00						
	13+05	5.55				Slate		
	13+05							
	10+10			4.50 G				
	10.+10			5.60 RBp.				
	10+10			5.60				
	10+10			3.50	Z			4.9T
1✓				X				
11	7+95			4x RBp				
10	7+95			4x3 Z				
9x	13+05							
	7+95			1.85 ⊄R	0			5.1
	6+15			3x3 RBp				
	6+15			1.4 G				
8.TP		1.00			4			10.9

HT | Direc

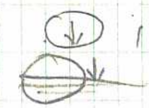


Sta	B S	F S	L	C	R
				Rod. Reada	
22					6.6 G
22					9.1 Bp
22			7.65 Z		
22				5.9 Ro	
21			9.05 Z		
21			7.45 Z		
20					6.4 G
"					8.4 Bp
"			7.25 Z		
20				5.1 Ro	
18					6.4 G
"					9.3 Bp
"			6.9 Z		
18				5.1 Ro	
16					5.6 G
16				~~8.1~~	8.5 Bp
16			6.3 Z		
16				5.2 Ro	

Elev H.I.

Ro = Road
Dr = Drain
D = Ditch
Z = H2O

for Grade



18" steel

for cul

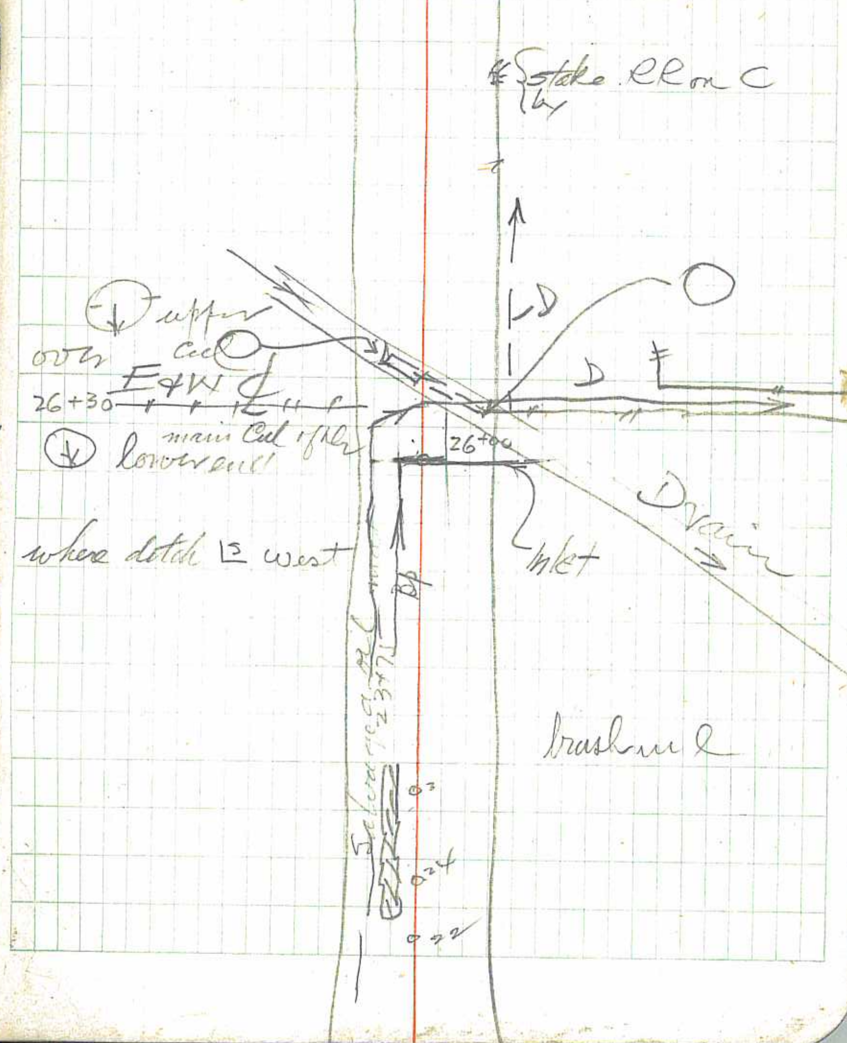
hub for cul Grade

LANE

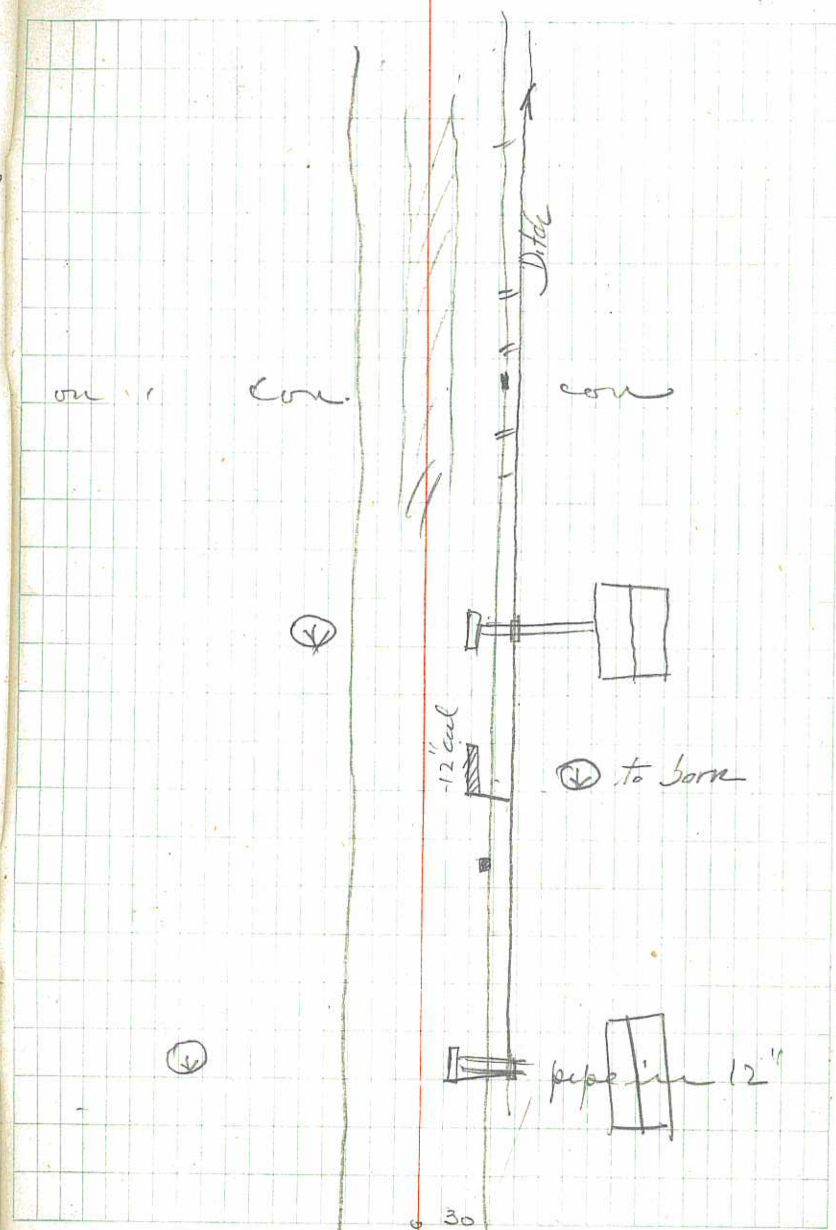
19+95

Sta	BS	FS	L	C	R
30					5.00 G
30					7.3 Bp
30			7.00 Bp		
30				3.80 Ro	
28					4.06 G
–					5.80 Bp
–			6.00 Bp		
28				2.90	
			7.45		
				1.8	
26+30 Sec. C					
26+				~~7.3~~	7.3
–					
26			3.80 E		
26				1.60 Ro	
~~26~~	1.80	9.45 Ro			
–					×
–					9.9 Bp
–			× E		
24				6.6 Ro	

Elev

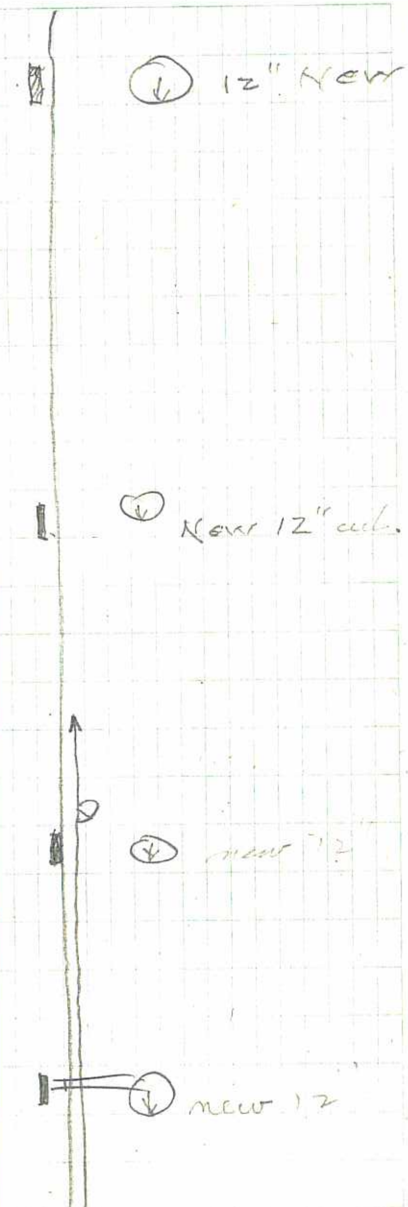


Sta	BS	FS	L	C (RR)	R (RR)
	4.00	5.96			6.36
38					8.8 Bp
38			9.0 Bp	5.75 Ro	
–					5.2 G
					8.7 Bp
–			8.C Bp		
36				5.2 Ro	
–					5.0 G
–					8.2 Bp
–			7.50 Bp		
34+00				4.7 Ro	
33+14					7.75
33+00					
32+51					7.63
–					5.3 G
–					8.30 Bp
32			Bp 7.30	4.25 Ro	
31+36					7.12

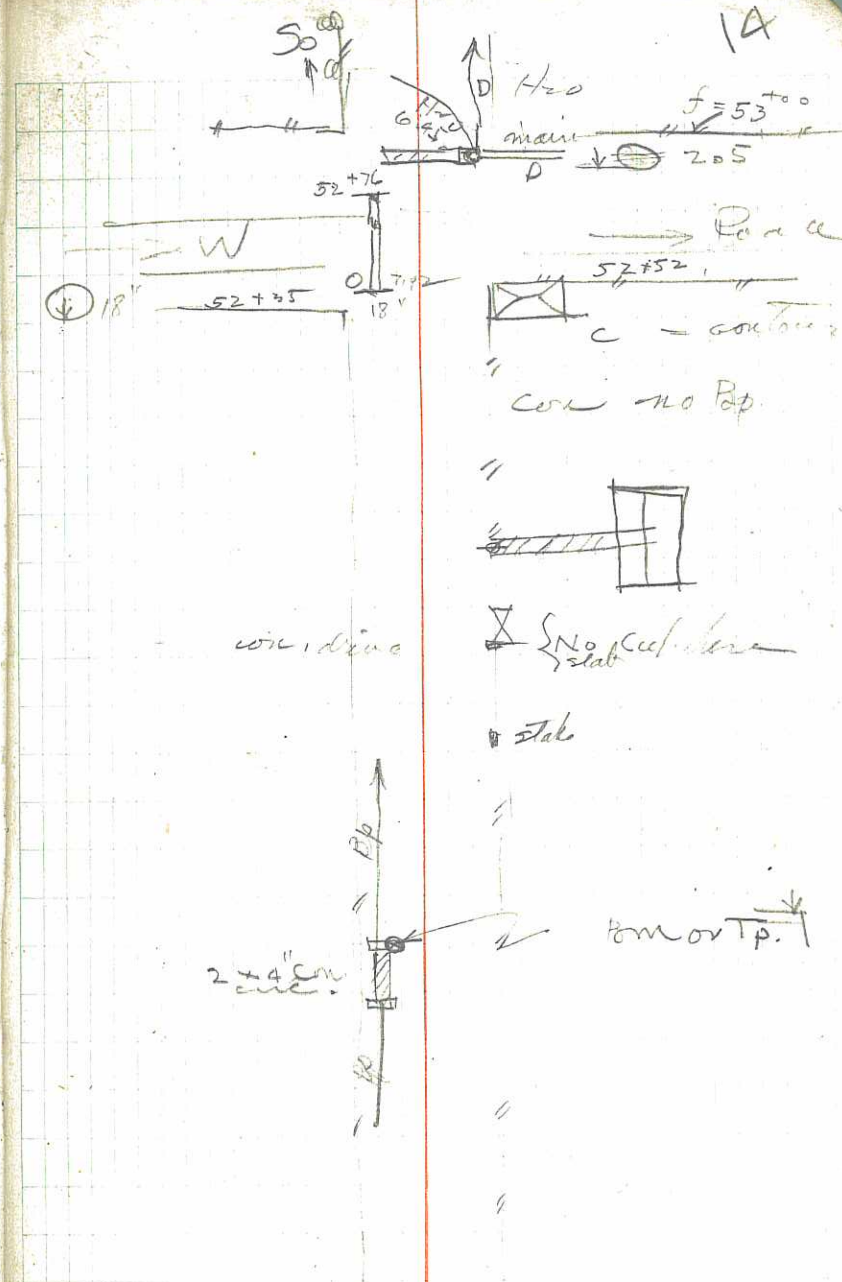


Sta	BS	FS	L	C	R
47+59				8.2 cul	
—					5.7 G
—					8.3 BP
—			8.7 BP		
46				5.3 Ro	
—					5.9 G
—					7.7 BP
—			8.2 BP		
44+00				5.00 Ro	
42+55					7.55
—					5.1 G
—					8.3 BP
42—			7.7 BP		
42 —				4.6 Ro	
40+05					7.20
40					4.15 G
40					7.00 BP
40			7.2 BP		
40				4.00 BP	
39+24	cul				6.6

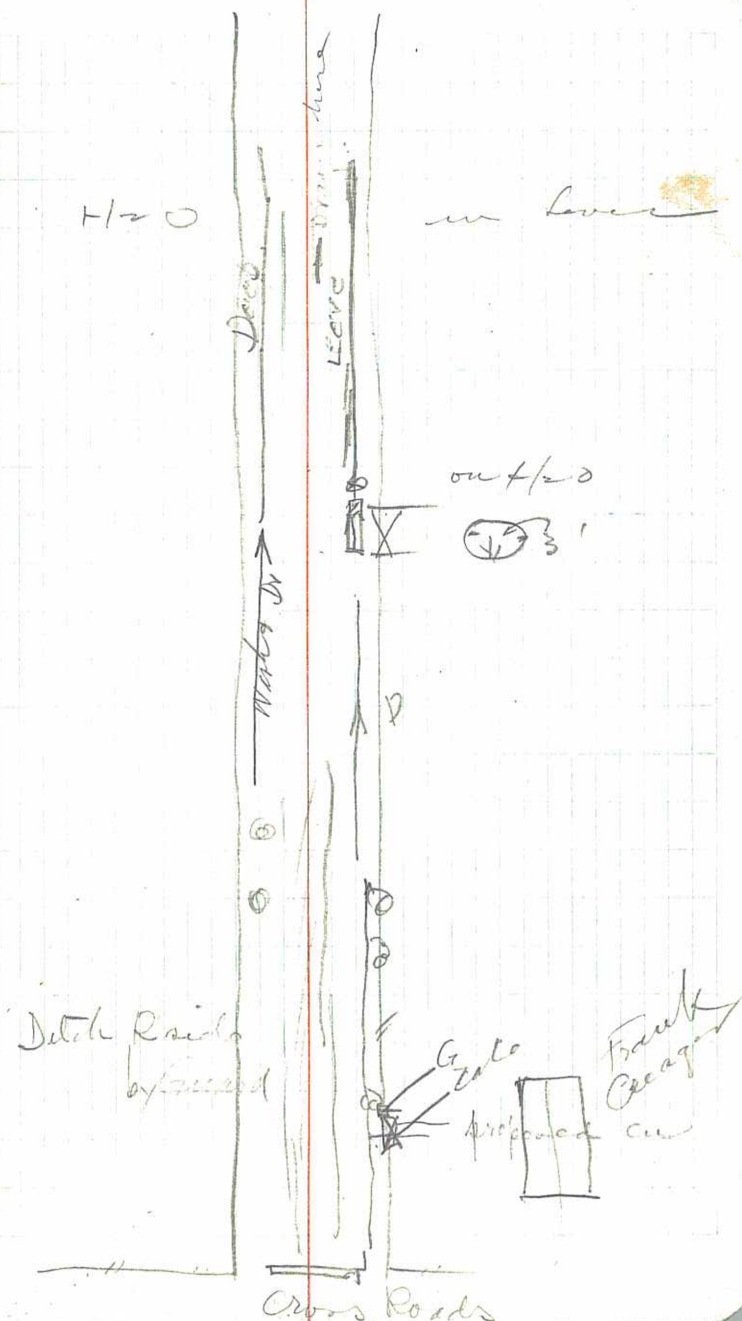
Elev HT



Sta	BS	FS	L	C	R
53				H2O 6.45	
53				7.72 Gd	
			7.92		
–					5.00 C
–					5.6 C
–			7.8 BP		
52+00				4.95 Ro	
51+69				4.81 Pav	
51+22				4.05 G	
51+22				4.60	
–					3.9 G
–					6.00 BP
–			7.3 BP		
50+00				3.9 Ro	
49+65	3.83	5.162			
–					5.9 G
–					8.00 BP
–			8.7 BP		
48				5.3 Ro	

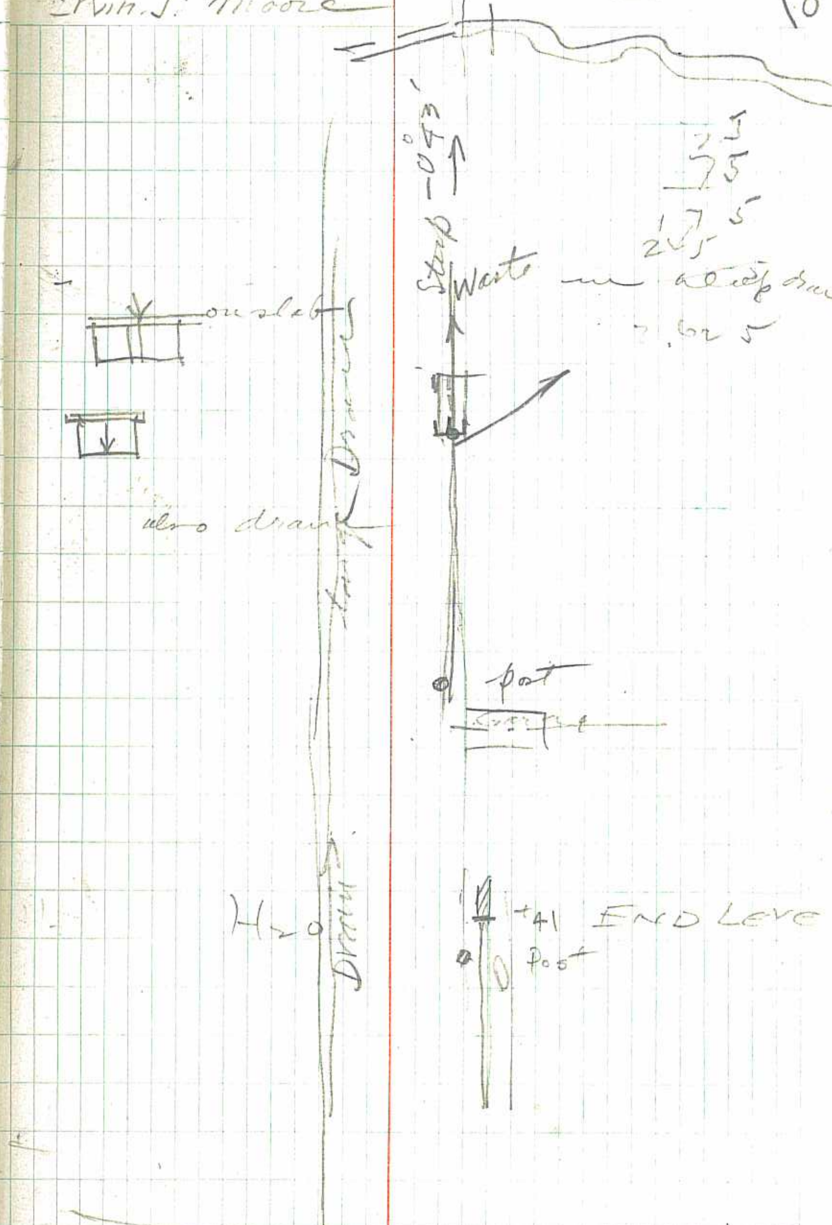


Sta	BS	FS	L	RR C	R
			x		9.8 Bp
68+00			x	7.8 Ro	
					7.50
					9.0 Bp
			11.7 Bp		
66				7.4 Ro	
64				6.60 Ro	
+86				6.60 H2O	
+86					8.00
62				3.9	
60+00				1.9 Ro	
59+00	1.09	10.80 Ro			
58+00				9.80 Ro	
56+00				6.50 Ro	
54+00					7.7 H2O
54+00					5.72
54+00				6.00 Ro	



Sta	BS	FS	L	C	R
75^{+78}			11.7		
75^{+78}		5.30			5.300
75^{+78}				5.0 Ro	7.45
—			11.00 H2O Bp.		
74				5.40 Ro	
73^{+66}					5.9 Con G
73^{+53}					
73^{+16}					6.6 Hr
+41					6.1 +70
+36					5.00
72^{+00}				6.00 Ro	
70^{+00}	6.02	8.20 Ro			

Medlin Rogers
Irvin S. Moore



Travel 75 miles fr Aug 2?

#1 — — — → 42.79
42.525 ℄ lane go N
42.36
W 42.26

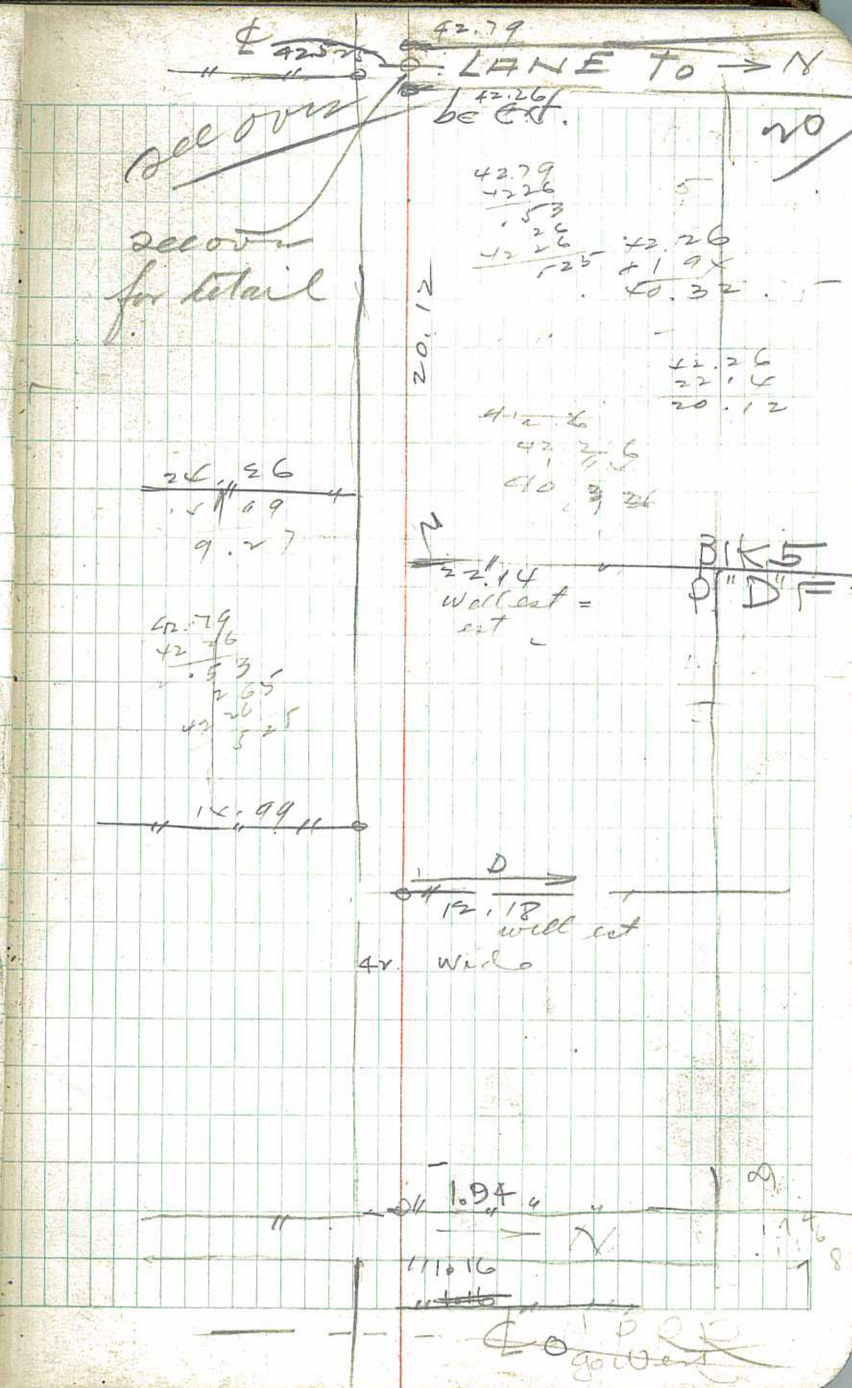
W± 24.26

22.14

W 14.99

W± 12.18

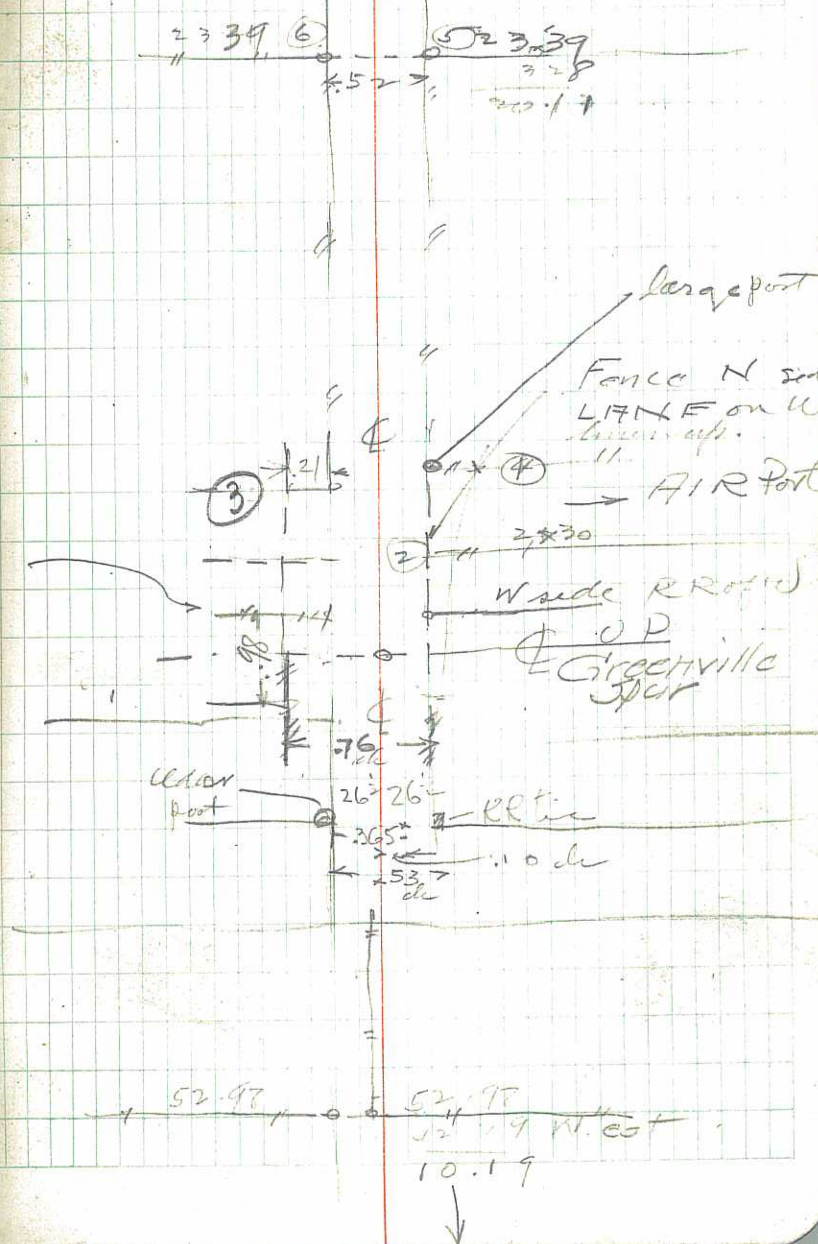
W± 1.94
W± 1.16



6	W±	23x39
5	W±	23x39
4		3.28
3		3.10
2		2.30
1	W±	0.50
0		
	W	52.98

10 - 9 - 48

West of Greenville Spur & W of Logman

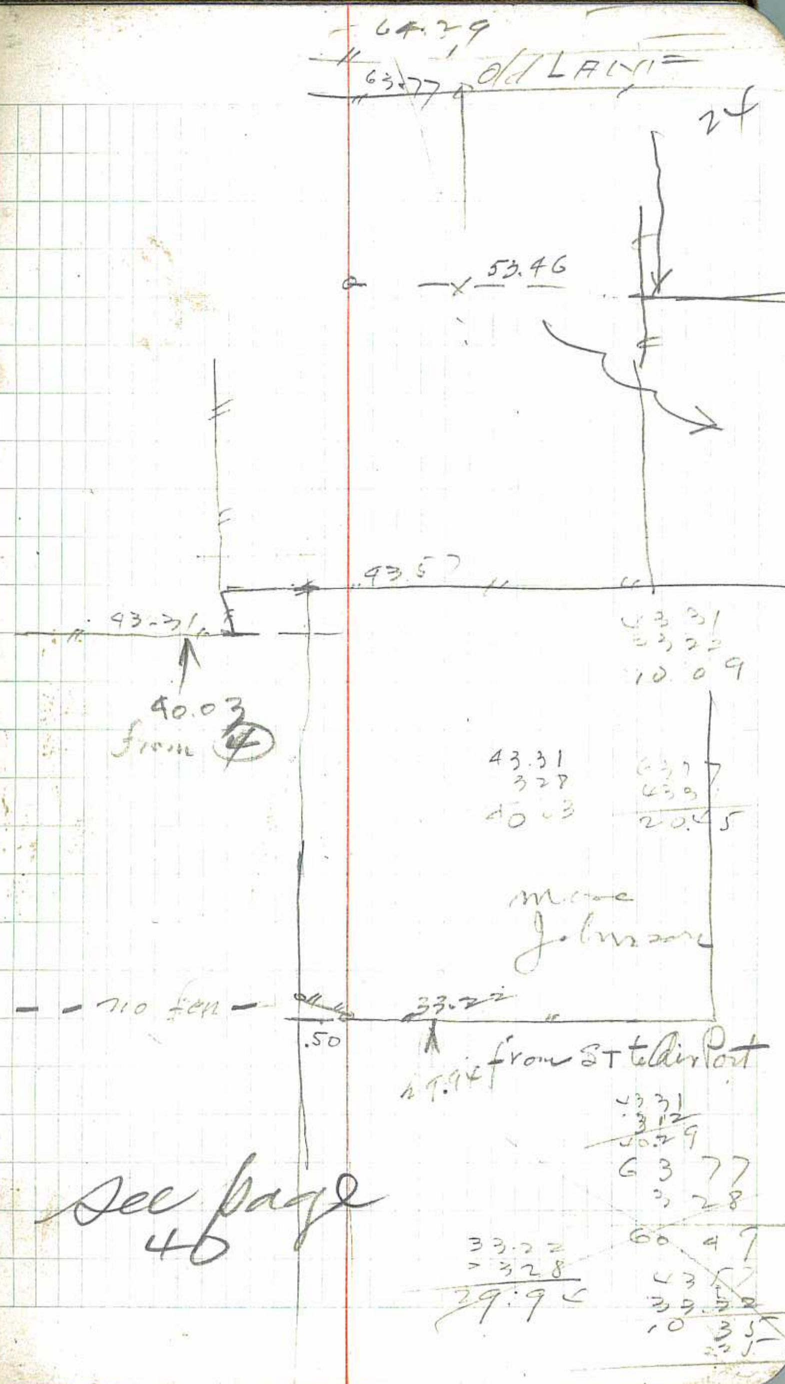


64.29
63.77

53 46

43.57
43.31

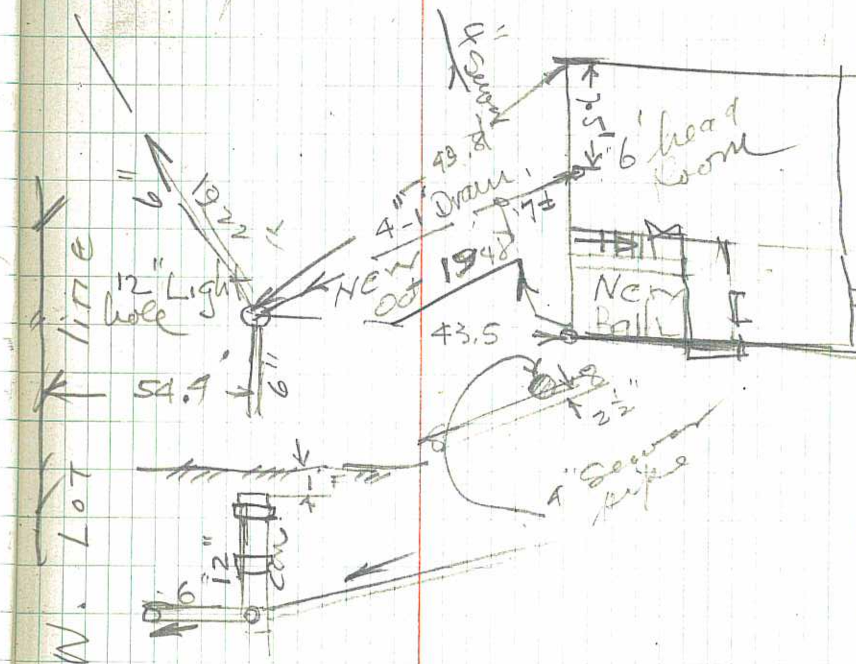
33.22

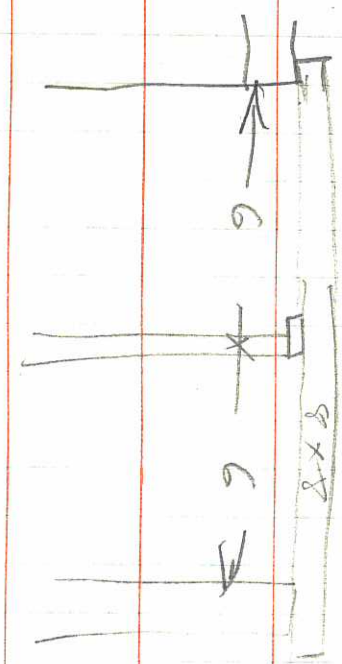


See page 46

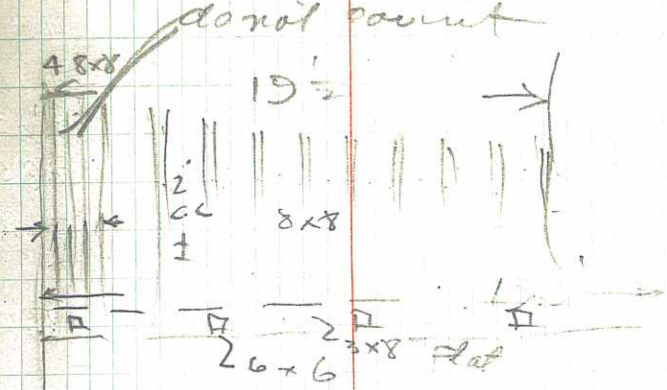
Geo. Aleman
Drain into
basement —
Reference notes 10-14-48

M 26





5-14-49



OVER

Hegi Pass about 5 miles North of Clarkston

Comp. 5-18-49 see Comp book 1949-1 page 20

recommended 5 T concentrat load

Survey of Road Prov Super 10-19-48

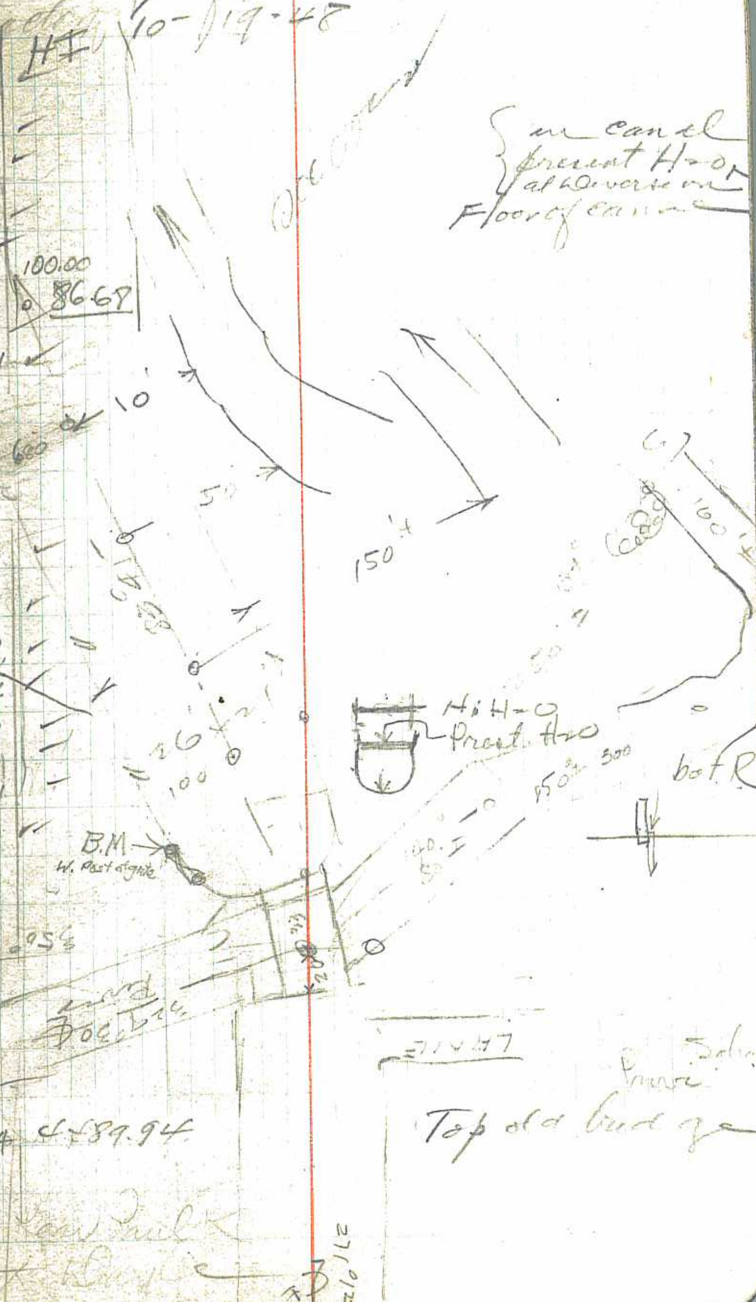
			BS	FS	IM	Elevation
9+00					4.95	81.73
8+00					4.71	81.97
H2O Level of Headgate	gate open				8.23	78.45
Floor of Headgate					9.85	76.83
Collage 100#					3.69	82.99
BM			4.79	8.05		81.89
7	83°45	700.00			8.80	81.14
	83°45	680				
	83°45	600			8.00	81.94
		500			7.45	82.49
1+00		100			4.45	85.49
4+00	83°45	400	Hi H2O		7.30	82.64
				HI H2O	7.35	82.59
water level					9.72	80.22
R. Bottom					11.90	78.04
BM					4.54	85.40
	83°45					
	329°30	200 ¢				
	91°13	33				
	271°13	20				
	254°00					

Prov. Super

2.90

4487.04 4489.94

Moles up

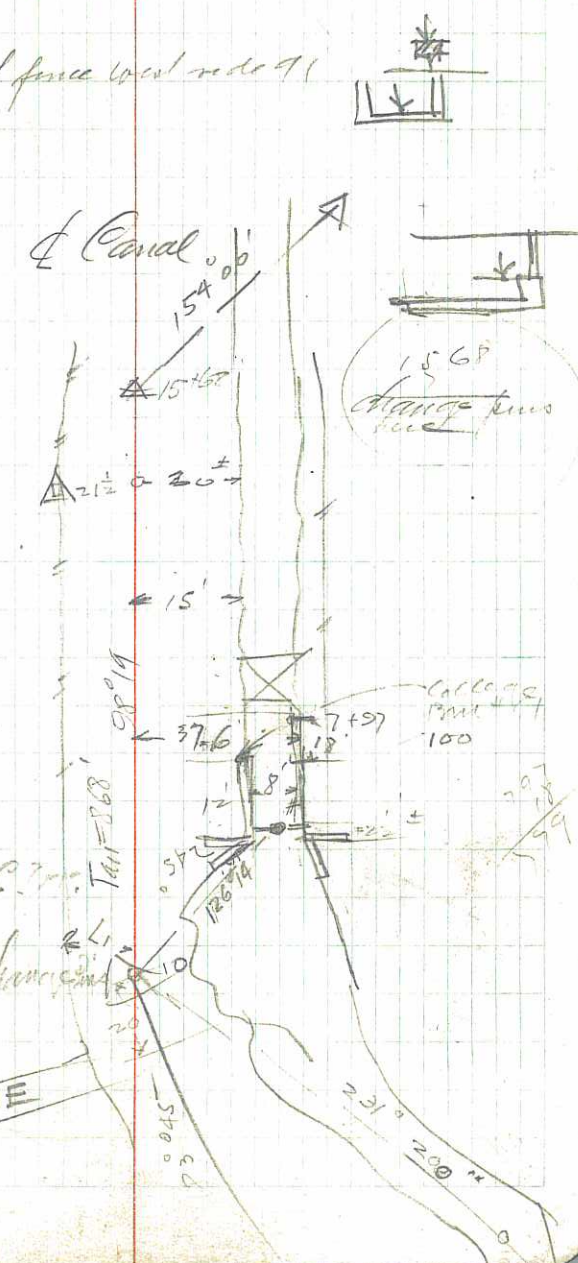


			B.S	F.S		Elev.	H.I.
18+00							
17+00 E. OSL on Rail	91°13				6.20	77.65	
Bot. of Spill way N. side 16+28					3.18	80.67	and picked fence local rate 71
on Bridge					12.02	71.83	
16+28	154°	60'			5.27	78.58	
H2O Level AT Headgate	154°	30'			8.37	75.48	
Bot. of Head gate S. side spillway	213°34'				10.32	73.53	℄ spore
15+68							
	98°19'	15+68	4.82				83.85
on Bridge 15+68				on bridge 7.65		79.03	
15+00		15+00			7.10	79.58	
14+00					5.82	80.86	
13+00		11			5.20	81.48	
12+00		10 pins	cms		5.10	81.58	
	98°19	8+20				bridge	
11+00					4.85	81.83	
	98°19'						
10+00					4.75	81.93	
	126°14	73.5	℄ canal				

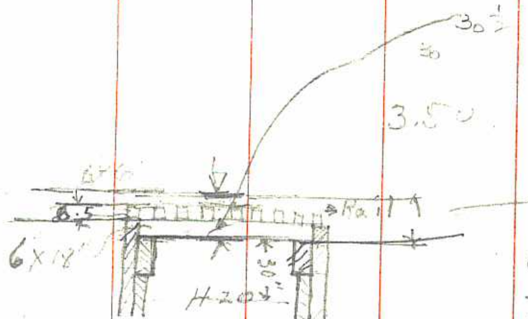
7r 7 d20 sta 7

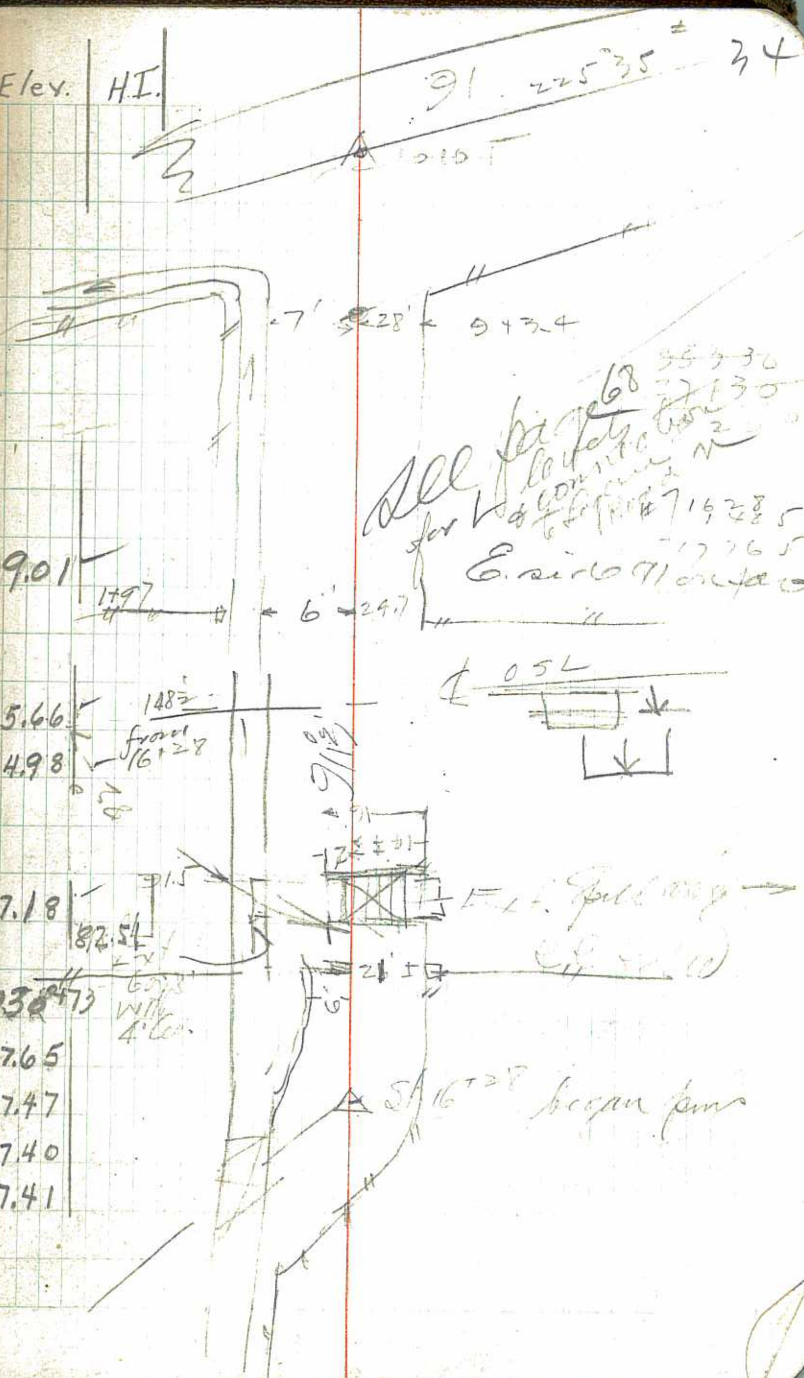
Diver. gate for C...

did not change ...



		B.S	F.S.		Elev.	H.I.
91°13	1010.5					
26+38.			3.50		79.01	
H.I.				~~4.95~~		
H2o level under 91				6.85	75.66	
Bot. of pipe under 91				7.53	74.98	
~~E side of 91~~				~~2.50~~		
24+00				5.33	77.18	82.51
23		5.21				
23+00			6.55		77.30	
22+00				6.20	77.65	
16+28 21+00				6.38	77.47	
20+00				6.45	77.40	
19+00				6.44	77.41	
⊼ 15+68						





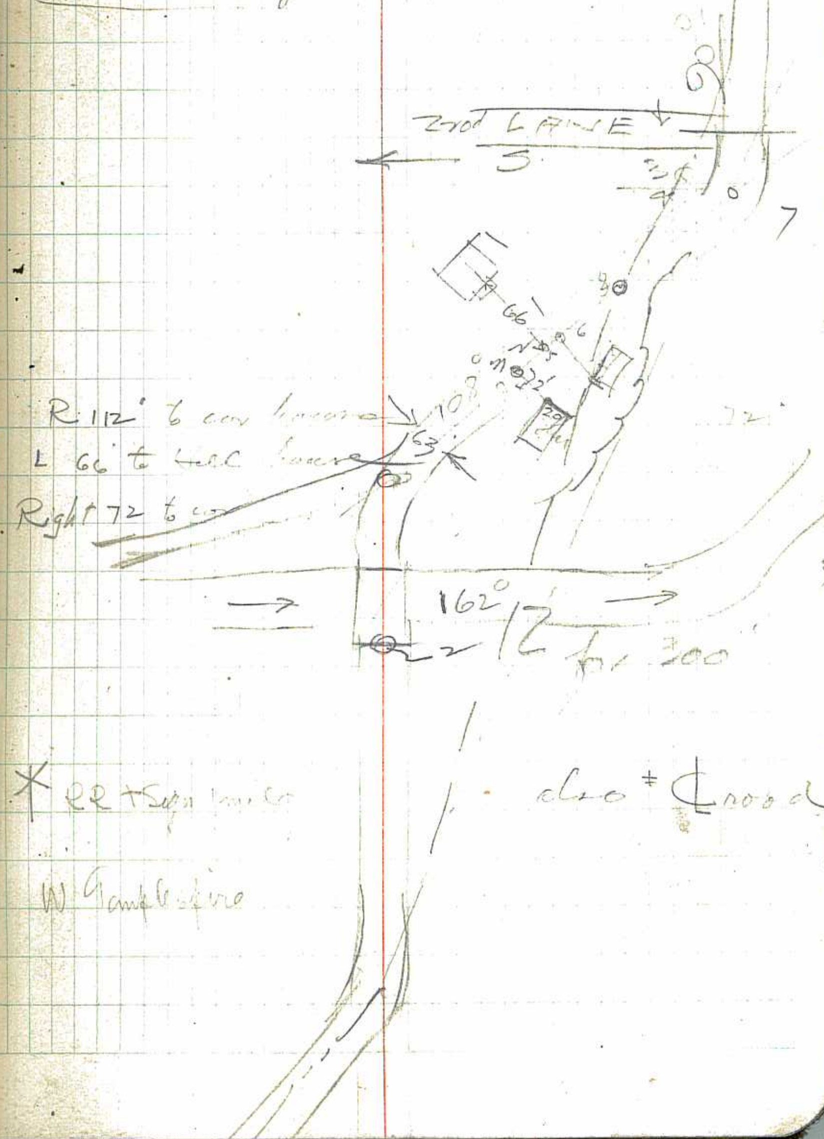
Oct 19 – 1948
A 36 95
70 mils
1947 Coupe Ford
5:30 PM

From Sheriff
Eunice Richardson
2310 Monroe Av
Ogden Utah

3	288°72		3	0°	10.5
8					
	90	W along [illegible]			
7					
7	108°72	1200	0°	4	10
6		560	5.0	+0°30'	10.6
5	108°75	530	3.00	+0°15'	13
4	[illegible]°12	371	3.00	0°	[illegible]
3					
3	76°18	580	2	+0°12½	10.5
2	76°29	731	3	+0°23	10.3
	271°24				
	114	30'±	pole		
	253°01				
1					

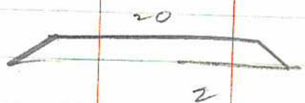
Oct 20 – 1948

Study of Road & bridge location – Mendon – [illegible] over [illegible] Road

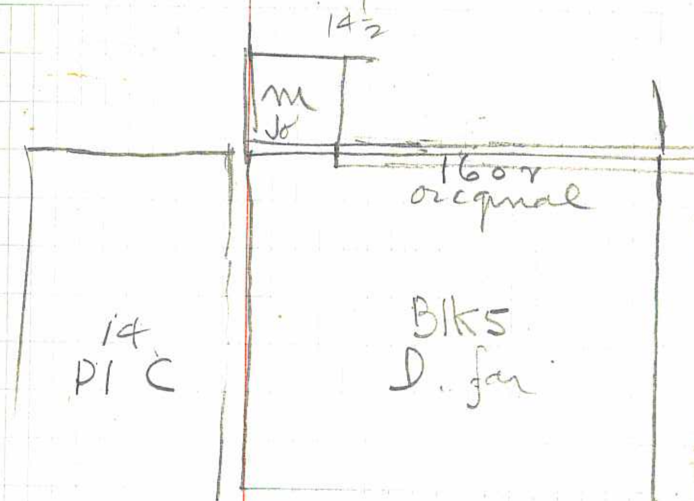


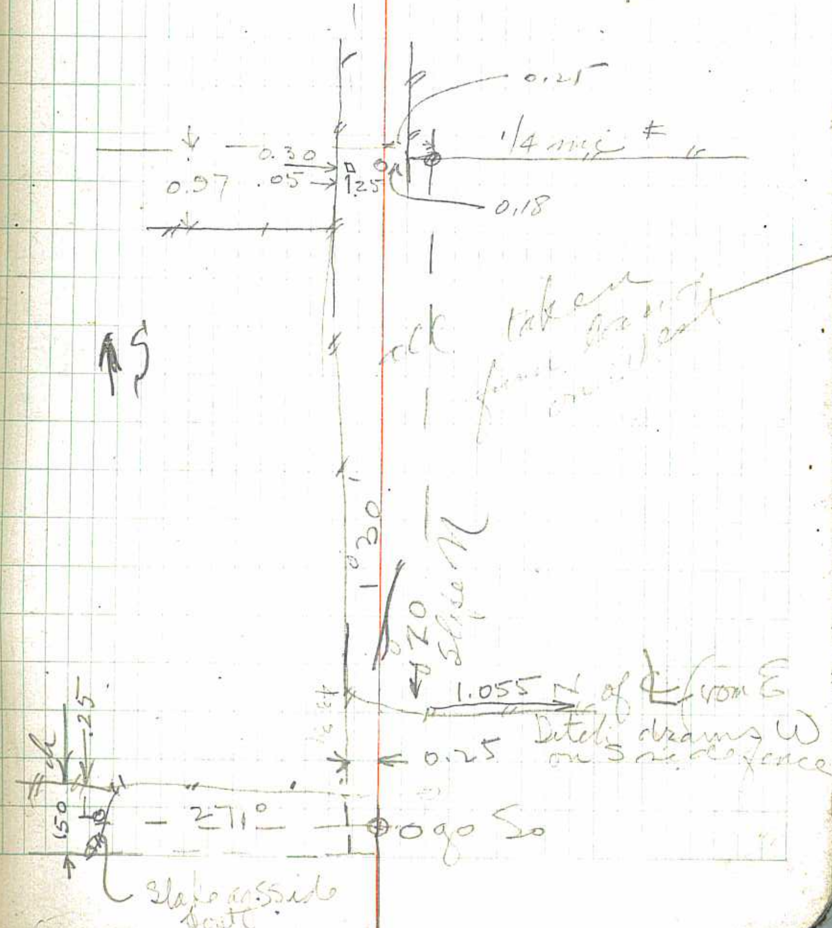
W [illegible]

Spr. Creek
Swales



2000 cy




0.25
1/4 mi
0.30
0.37
.05
.25
0.18
0.30
1.055 N of ℄ from E
Detail drawn W on S side fence
0.25
271°
090 So
.150
.25
Stake on S side

41

225

2671 / 67 / 70 — 20 / 133 / 135

2491 / 9 / 80 — 20 / 124

348 / 44 — 15 / 23

N 9.63

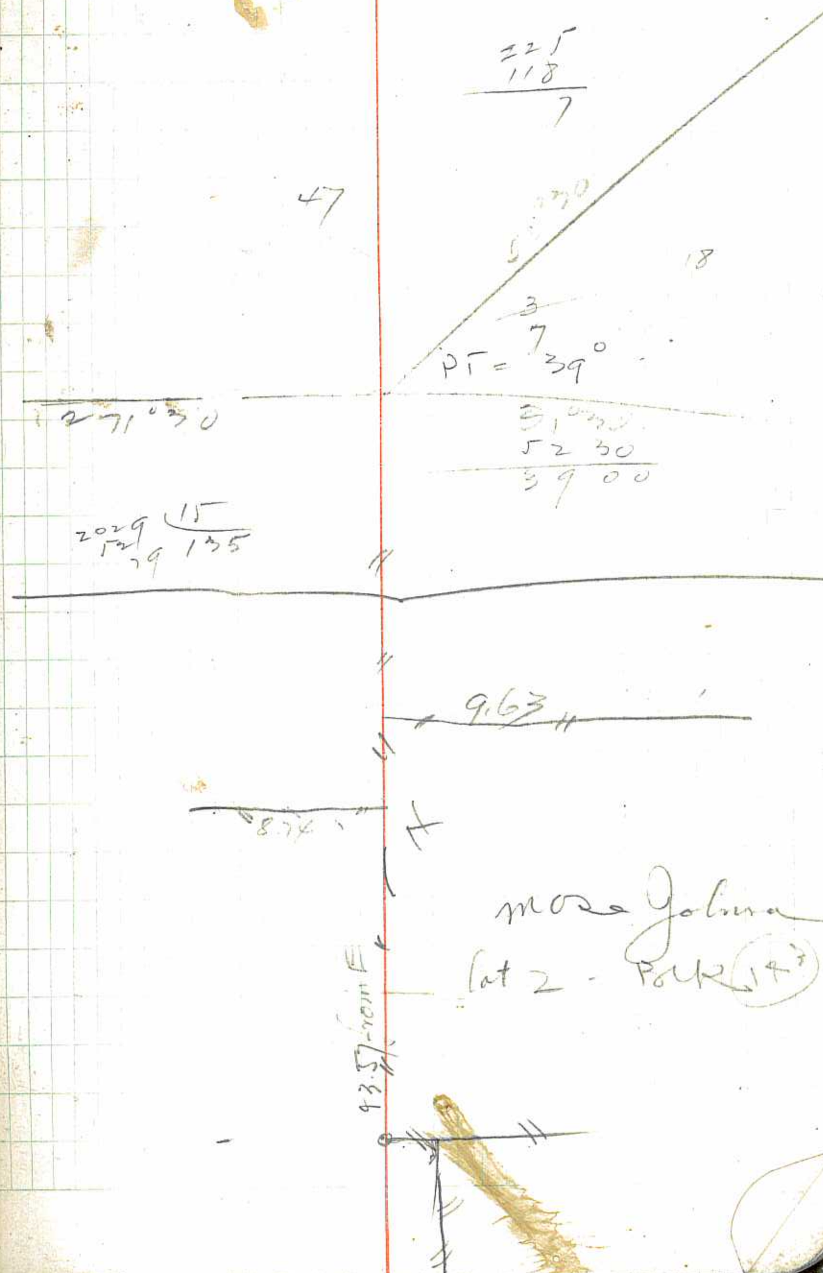
N 8.74

N

0

44

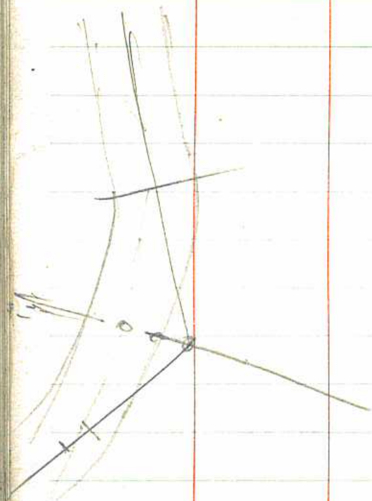
225
118
7



51°30
52 30
39 00

mose Jolina

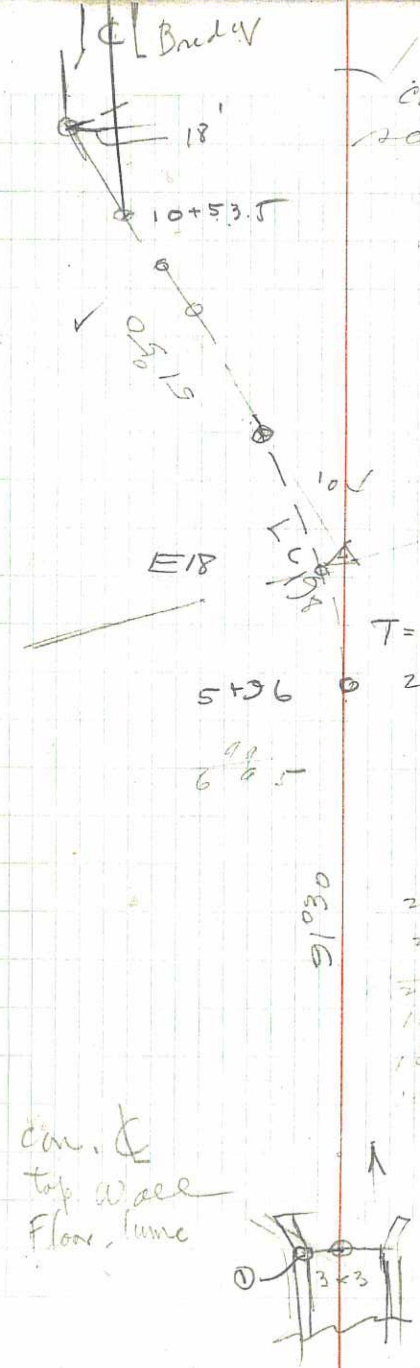
lot 2 - Polk (14?)



20.0 x 4.00

20 0 0 0.5

Sta	BS	FS			
10+53.5			5.9	100.33	
10+00			5.10	101.13	
9+00			5.9	100.33	
7+94 PT			7.2	99.03	
6+95 on ℄ 7+45			6.6	99.63	
6					
5+96 PC		20° L	5.8	100.43	
5			5.90	100.33	
4			4.9	101.33	
3			4.7	101.53	
2			4.4	101.83	
1			4.35	101.88	
①			2.95	103.28	
0	7.40			98.83	106.23

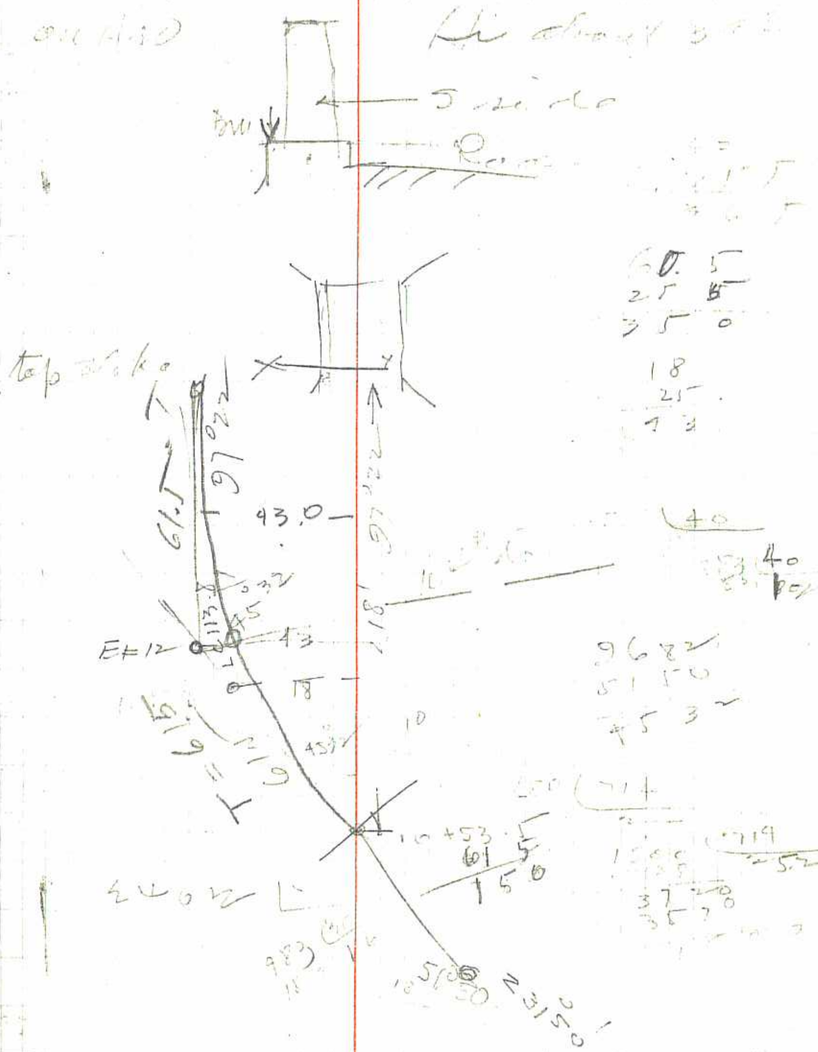


BM Nail
Candle
see over

11-6-48

	BS	FS	[illegible]	[illegible]	[illegible]
			~~95.69~~	95.69	
			11.97	93.97	
BM			0.85	105.11	105.96
	6.33				103.96
11+67.3		6.60		99.63	
PT 11+67.3			7.2	99.03	
℄ 11+10.4 PC 11+15			6.75	99.48	
16+53.5 PC 4°R			5.9	100.3	
16+00					

5-2-48

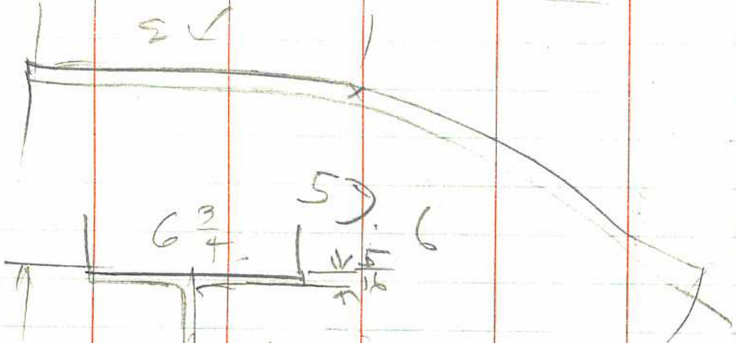


Truck

4735 – 11-6-48

1200 2

2



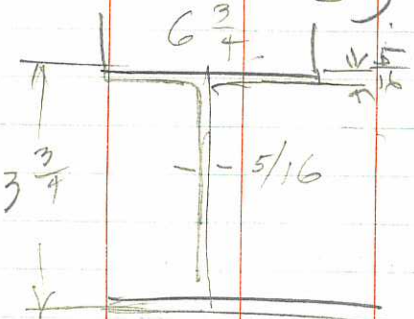
$6\frac{3}{4}$

57.6

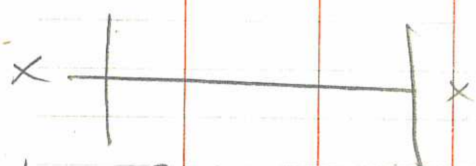
$\frac{5}{16}$

$13\frac{3}{4}$

5/16



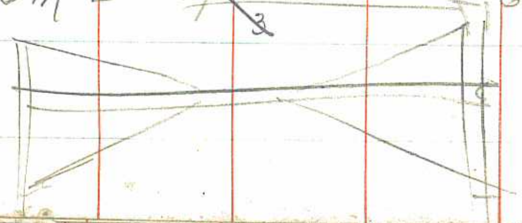
$27\frac{1}{2}$ #



1 = 9

9

$Rm = \frac{9 \times 20000}{3} = 60000$



2402) 40
60
61
45

45.50) 40 (1138

55
128
300

1052.1
1138
1.67

482) 40
8 12

231.50
2
97
342.8

2) 1138
56.9

67
97
164

569
1053
1110

8292 200
245.76 400

8292 200
165.8 400

56

3006

1650.0 x 7.20

27.5
60

90

1650
90
148.50 8 " #s

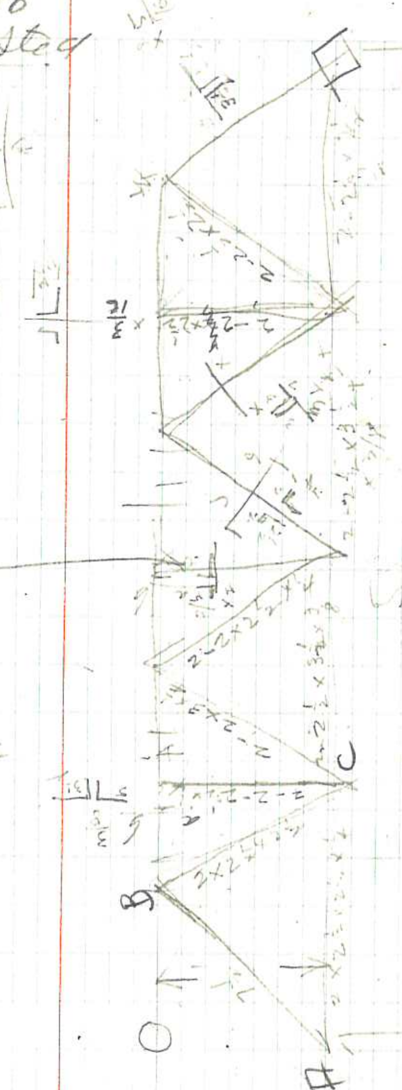
wt. 150 000" #s

$\frac{200 \times 20000}{3}$

1400

Oct 31-1948

Disassembled



Amer Bridge
Co 1902

Mendon

Failed!

~~Logan~~ Mendon Bridge

Logan River

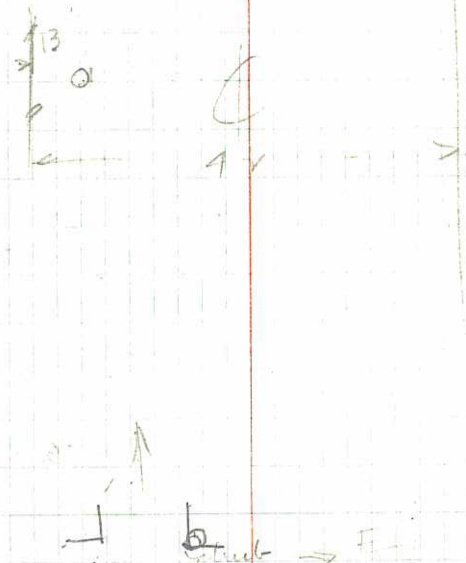
	BS	FS			
			6.9 L	4730.8	
			8. R	4729.7	
5+00			6.9	4730.8	
4+50			9.8 C	4727.9	
~~4+00~~	11.16	0.86		4726.55	4737.71
			5.1	4722.3	
			6. R	4721.4	
4			4.8 C	4722.6	
	11.12	0.91		4716.29	4727.41
			3.3 L	4713.90	
			4.4 R	4712.8	
3			3.00 C	4714.20	
			11.6 L	4705.6	
			11.7 R	4705.5	
2+00			10.7 C	4706.5	
	11.82	0.89		4705.38	4717.20
			7.5 L	4698.77	
			7.9 SPR	4698.37	
1+			6.5 ℄	4699.77	
			9.69	4696.55	
0	11.27			4695.0	4706.27

11-16-48

Profile Grade ℄ Road

Beg. at Center sec 23-12N 1 E (on N fagan) and E 1/2 mile to E 1/4 cor

Lawn H L Side



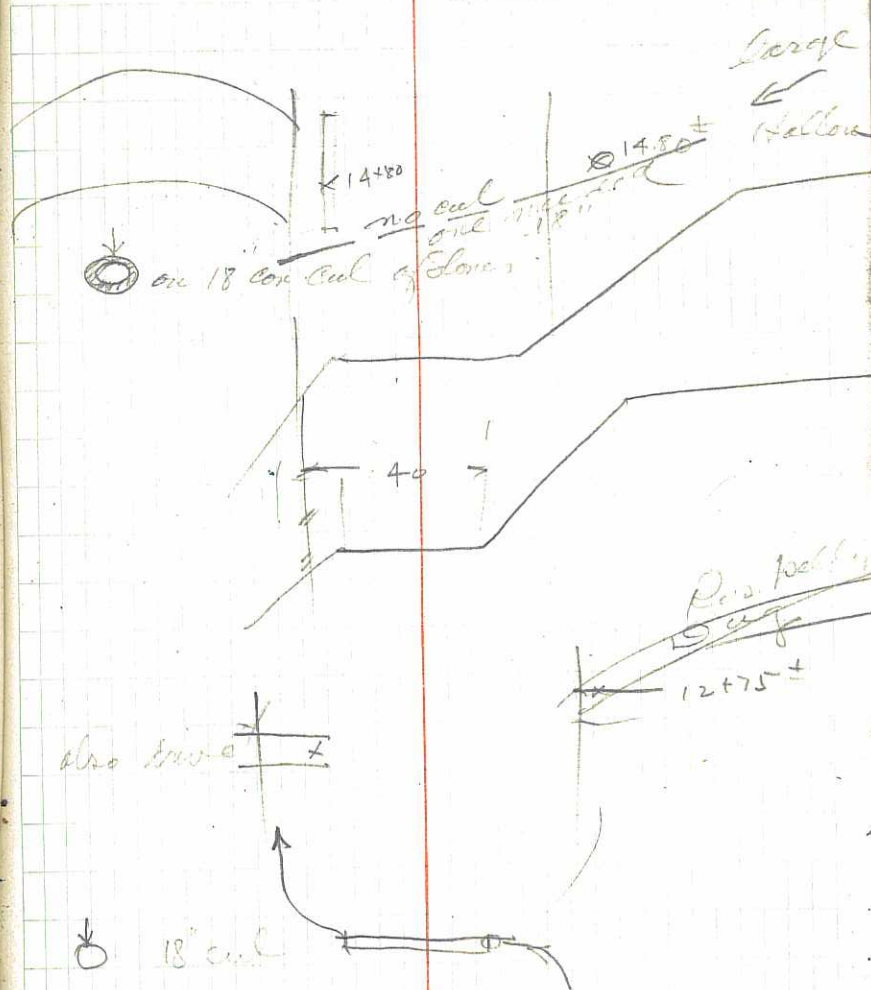
on oil

Sta	BS	FS	HI		
11+00					
10+07			10.4	50.01	
			11.3 L	49.11	
			11.6 R	48.8	
10+00 T			11.1 ℄	49.31	
	11.86				4760.41
		0.03	4748.55		
9+00			3.7 L	44.89	
			4.3 R	44.28	
9+00			3.2 ℄	4745.38	
8+00			6.7 L	41.88	
			6.5 R	42.08	
8+00			6.1 ℄	42.48	
7+00			9.50 L	39.08	
			9.50 R	39.08	
7+00			9.00 ℄	4739.58	
6+50			10.4 ℄	4738.18	
	11.75				4748.58
		0.88		4736.83	
6+00			2.3 L	35.4	
			2.6 R	35.1	
6+00			1.9 ℄	4735.8	
					4737.71

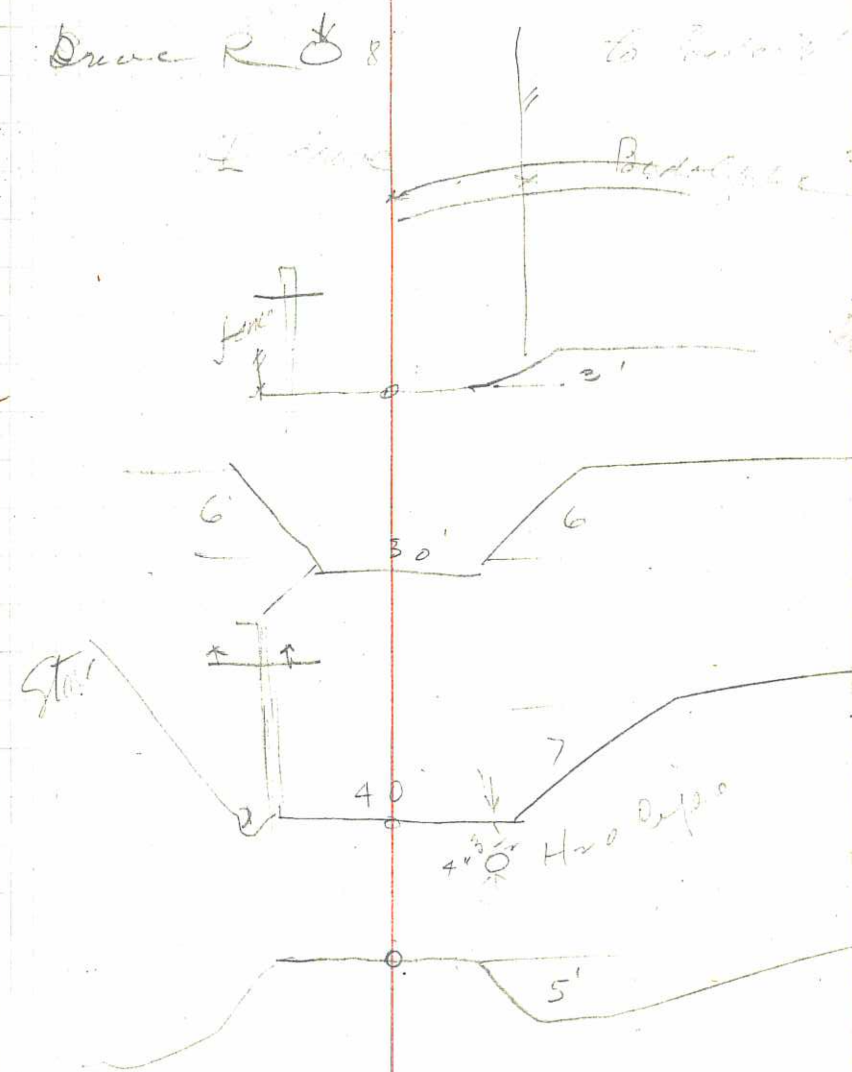
Banks ℄ |[illegible]

Off. N drive. of

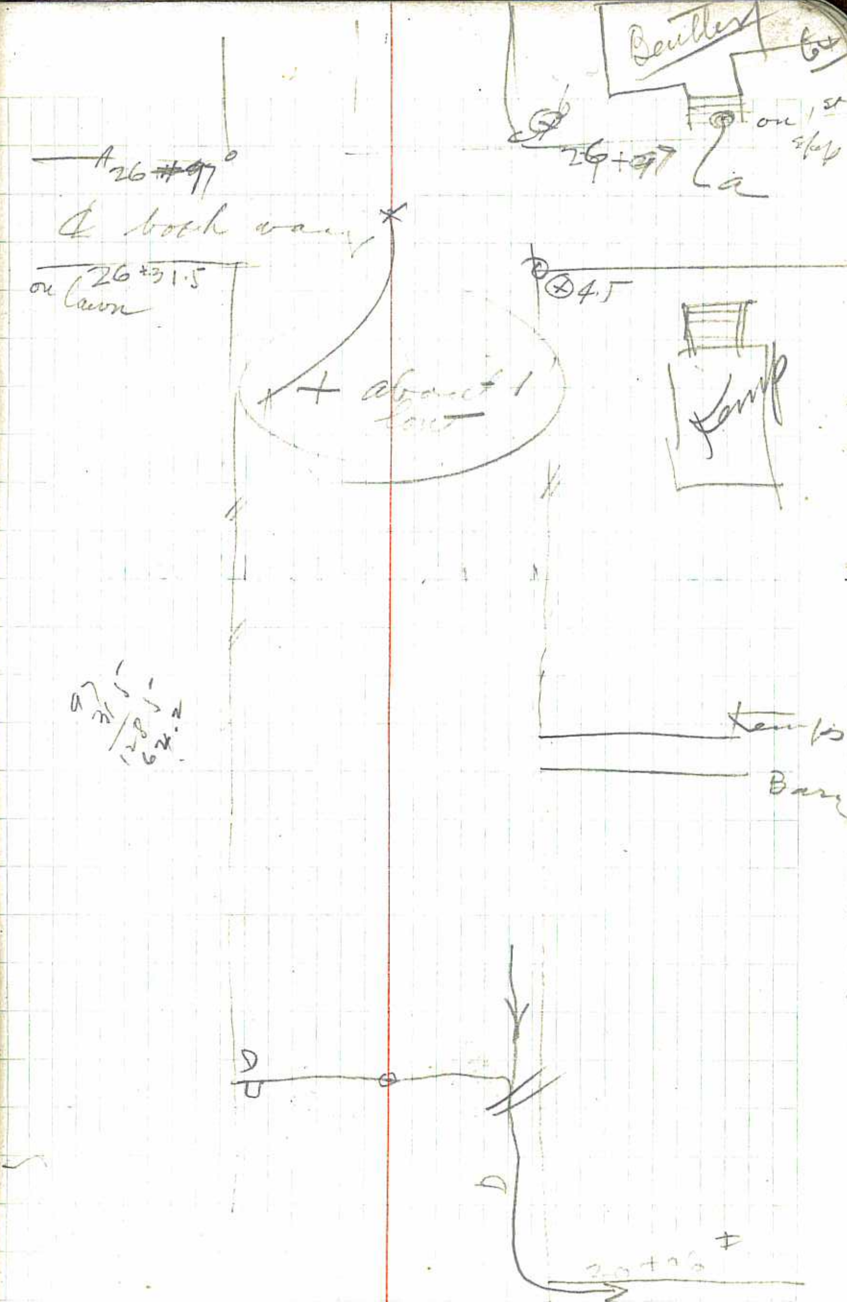
	BS	FS	un		
	11.20	0.56		4783.07	4794.27
15			3.6 ¢	80.60	
+80		[illegible]	10.8	72.8	
+80			4.6 ¢	4778.99	
14+00		[illegible]	10.6 ¢	73.63	
	11.89	0.13		4771.74	4783.63
13+00			4.4 ¢	4767.47	
12+75±	11.61	0.15		4760.26	4771.87
			2.7 L	57.71	
			3.5 ¢	56.91	
12+00			2.30	58.11	
11+12			6.40	54.00	
			6.7 L	53.71	
			7.5 R	52.91	
11+00			7+00 ¢	53.41	
					4760.41



20+00			6.5 ℄	4819.35	
19+00			9.6 ℄	16.25	
+60			10.00	15.85	
	11.32	1.19		4714.53	4825.85
+60			0.0 R	15.72	
+60			1.5 ℄	14.22	
18			5.8 ℄	09.92	
	11.29	1.03		4804.43	4815.72
17			3.6 ℄	4801.86	
	11.49	0.30		4793.97	4805.46
16+00			3.1 ℄	91.2	4794.27
15+00					



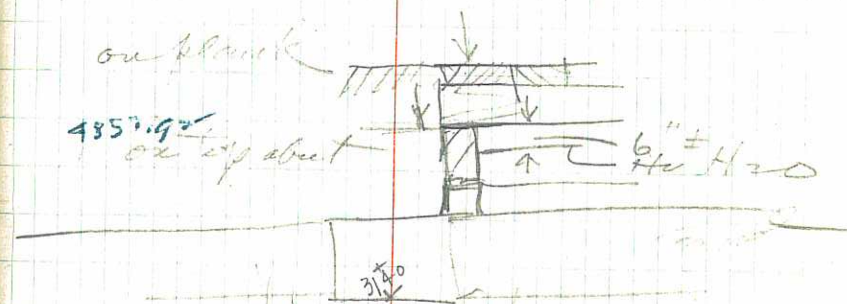
Sta	BS	FS	um		
27			4.27 ℄	38.55	
26+97					
			4.6 ℄	38.22	
26+31.5			4.5 R	38.32	
a			0.06	4842.76	
b			2.00	40.82	
26			6.00 ℄	36.82	
	7.29	0.59		4835.53	4842.82
25+00			1.5 ℄	34.62	
24			5.5 ℄	30.62	
+60			6.9 ℄	29.22	
23			8.6 ℄	27.52	
	11.23	0.96		4824.89	4836.12
22			1.8 ℄	24.05	
21			4.4 ℄	21.45	
					4825.85
20				4819.35	



Sta	BS	FS			
			3.35	4858.91	
			4.34	4857.92 4857.92	
+40					
31			7.40¢	54.86	
	8.57	0.37		4853.69	4862.26
30			4.00¢	50.06	
29			8.1 ¢	4845.96	
	11.25	0.01		4842.81	4854.06
28			1.00¢	4841.8	
					4842.32

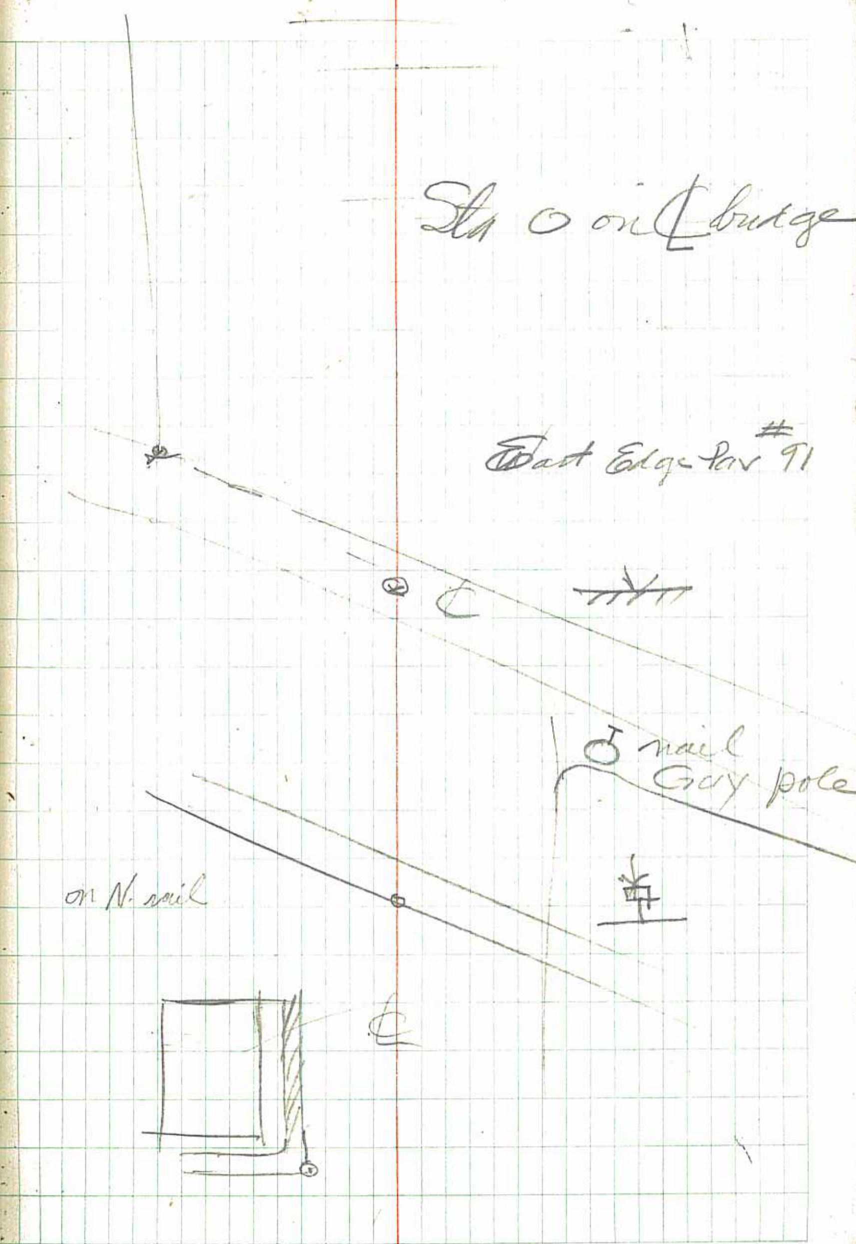
4842.81
11.25
4854.06
.37
4853.69
8.57
4862.26
4.34
4857.92

62.26
7.4
54.86



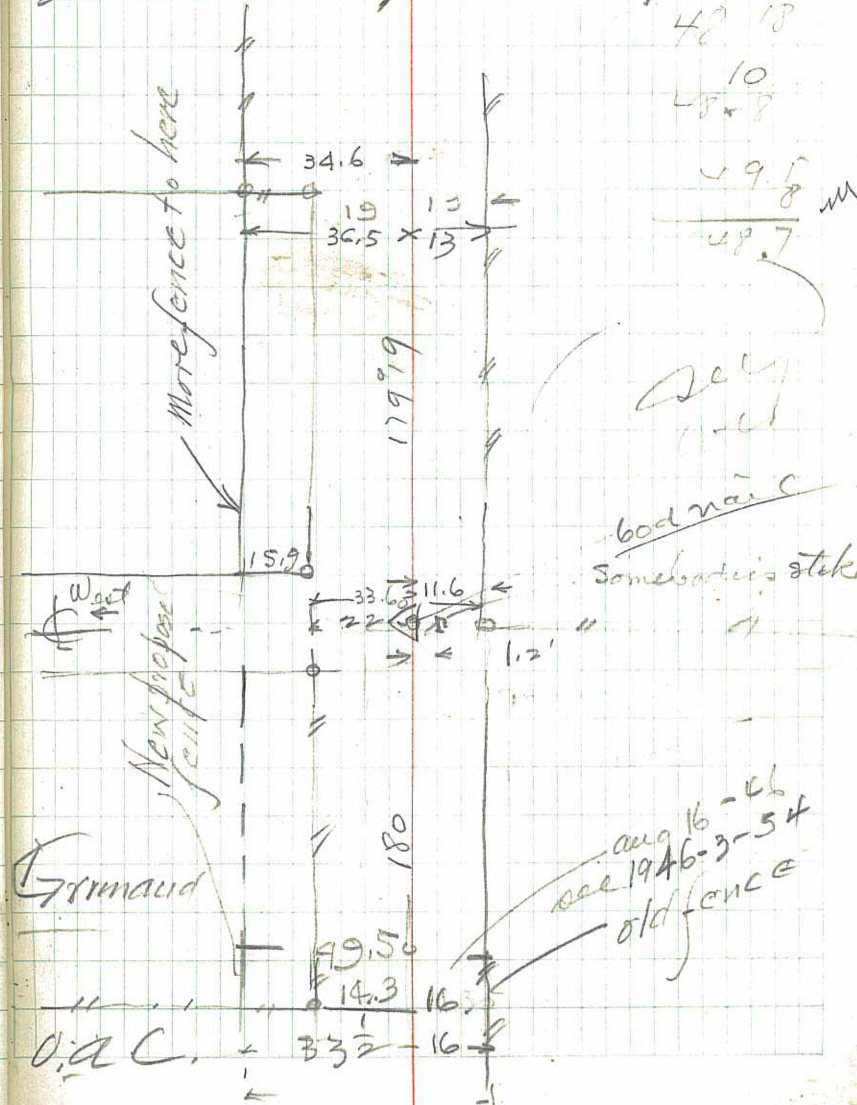
4858.91
4695.
Total fall → 163.91

B S	F S	I M	Elev.	H I
	0.40		4487.30	
6.05				
	2.56			
6.80				
	6.33			
		-4.73	79.01	
		-4.04	79.70	
		-5.16	78.58	
7.32			4476.42	83.74

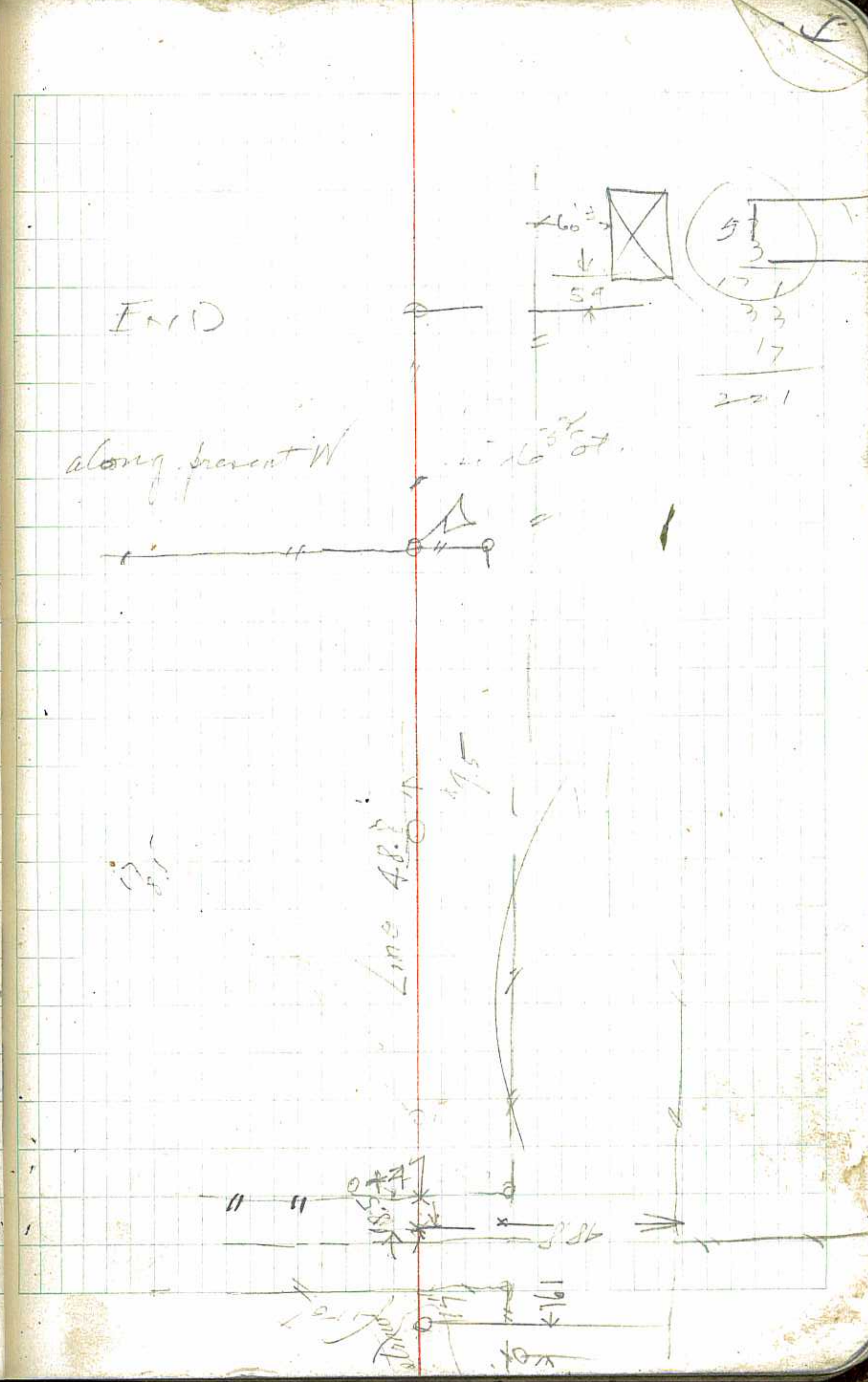


12-31-48

Survey & Study –
for road widening along
E side of Grenland
in S E ¼ sec 26 – T 12 N R E



Pole					
7		9+00			
		8+00			
6		7+50			
		7+00			
		+97.8			
5		6+00			
4		4+50			
3		3+00			
		2+00			
2		1+50			
	179°20'				
		0+47			
1		17 0			



27.5
60
16500
720
33000
11550
11880

1650
720
33000
11550
11880 Bending Mom

R Mom = 20000 × 3 = 60000

60
720
720
14400
5040
51840
720
1036800
36288
373248 00 ×17.00

48 × 3 × 9

37 3 ×17.00
48 × 9
27
376
96
1786

6800 ⌊48 / 100
6800 ⌊1300 / 5

above

				100.53	
Bm 4	4.67			104.13	108.80
			8.30	100.50	10
			12.80	96.00	
			12.00	96.80	
			8.9	99.9	
			9.25	99.55	
				95.50	

(snow storm) 76

March 22

Trip to Little Bear

66 9 6

108.80
12.8
96.

107.99
3.86
104.13

#4 #1 is first one

Send Eric

N and Exc

out 7 2"

104.13
4.67
108.80
8.3
100.10
1
100.53
6
94.53

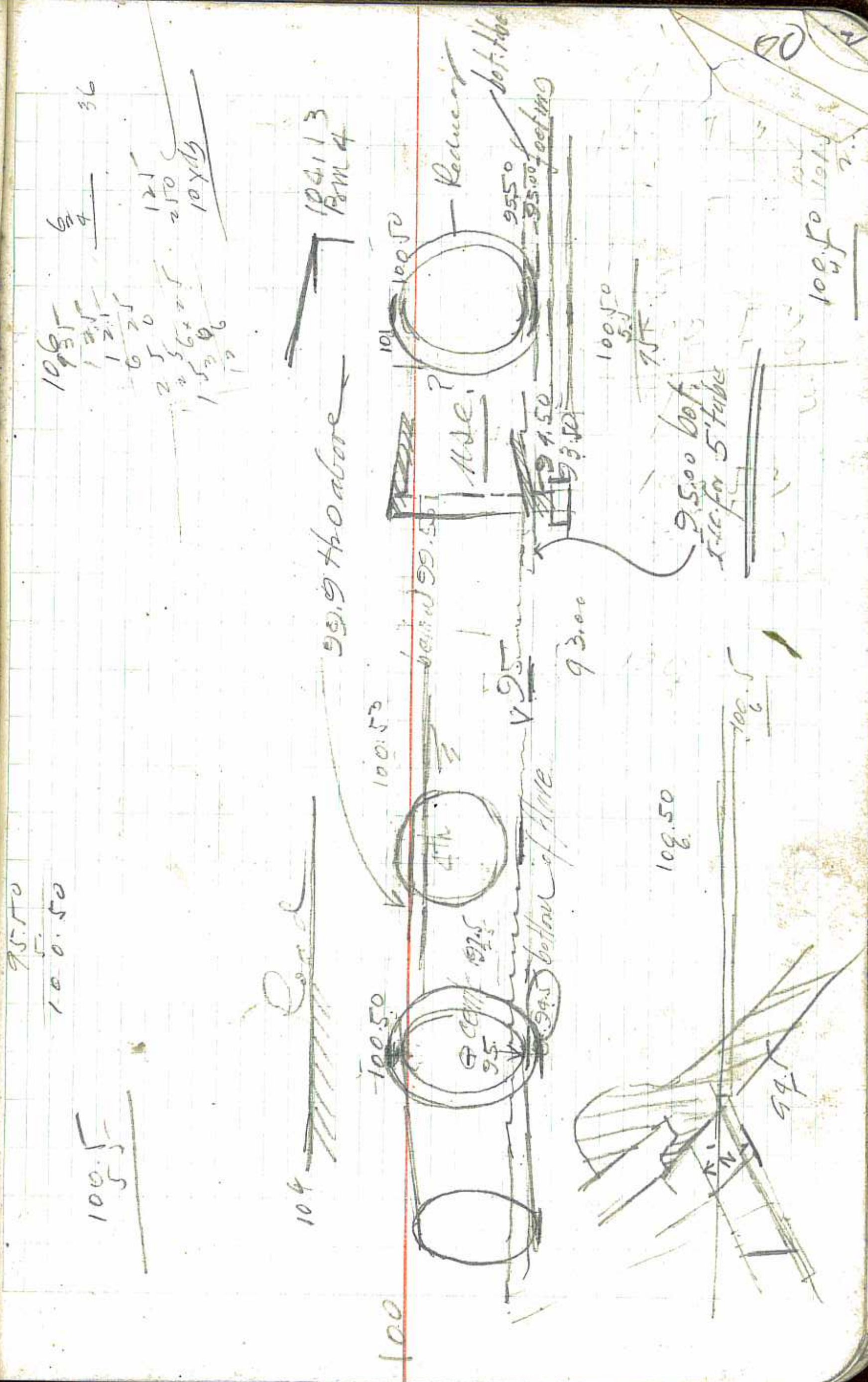
on H_2O
on H_2O

H_2O below bridg 4' deep
River bed below

96
94.13
1.67

Culvert in Little
Bear Logan - Mendon
Road Mar 22 - 49

95.5
72
99.55
3.5
75.75
100.5 3
5



drain Elev

	3.79			104.13	106.92
			11.92	95.00	
0			12.3		
	5.02	L	U	104.13	109.15
0			8.15	101.00	
	1				
	~~4.97~~				
	5.00				
		8.27 8.21			
		8.34			

109.53
14.16

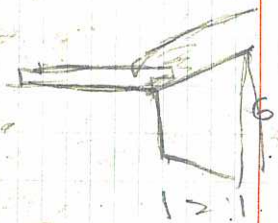
104.17
3.31

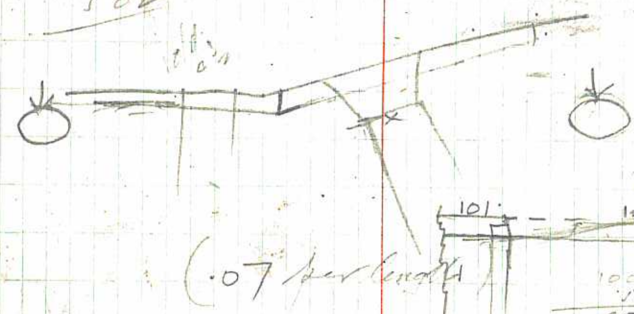
95
17.35

100.50
5.5
95.00

104.13
2.79
106.92
95
11.92

bot elev





100.5
5.1
95.00
6

104.13
5.02

100.50
5.5
95.00
6

109.15
101

(.07 per length

101
101
100.5
5.5
95.0
6
101.0

101
94
95
94.

14.34

25

Pipe	BS	Top Upper	Lower	Upp	E
#1 / 2	9.72			5.98 / 6.05	104.13

3-24-1949 5.8 / 6

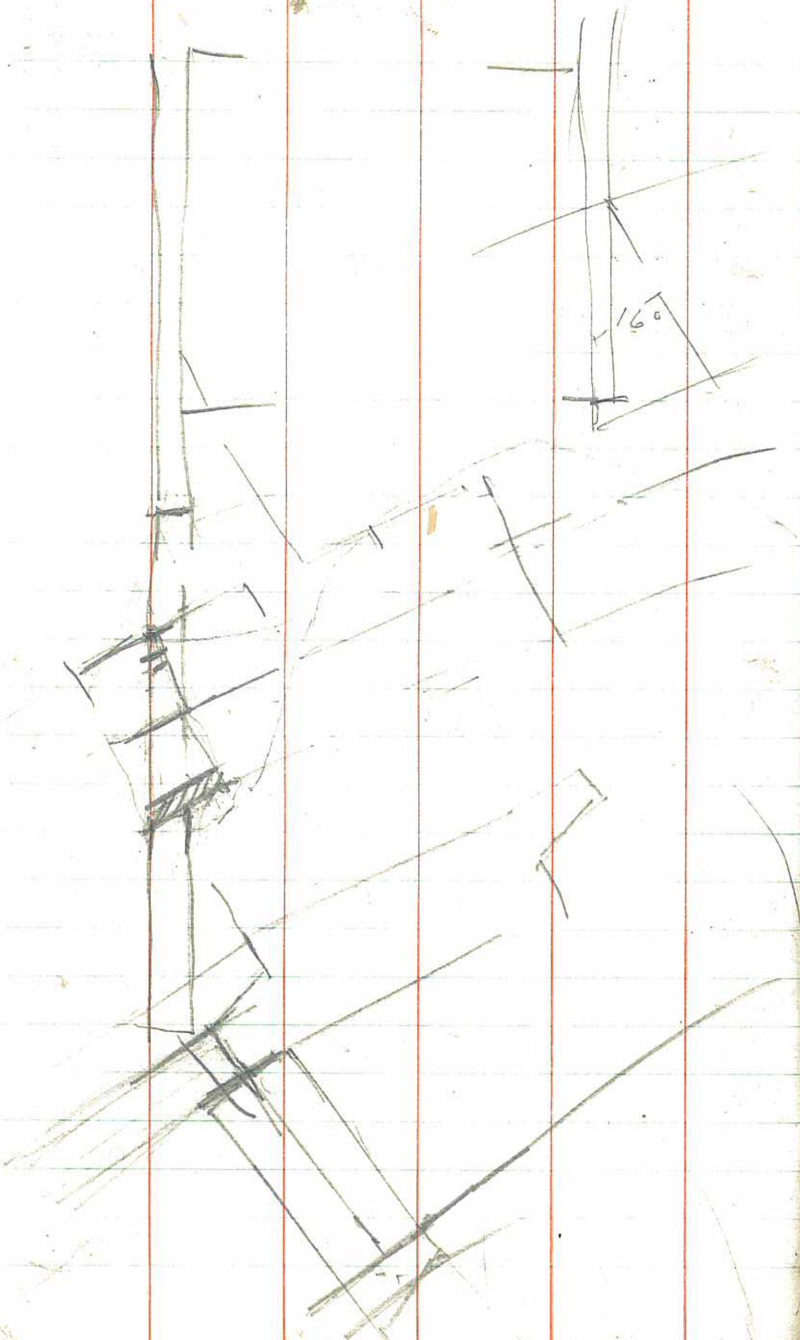
5.98 82 / 5.6 / 11.48

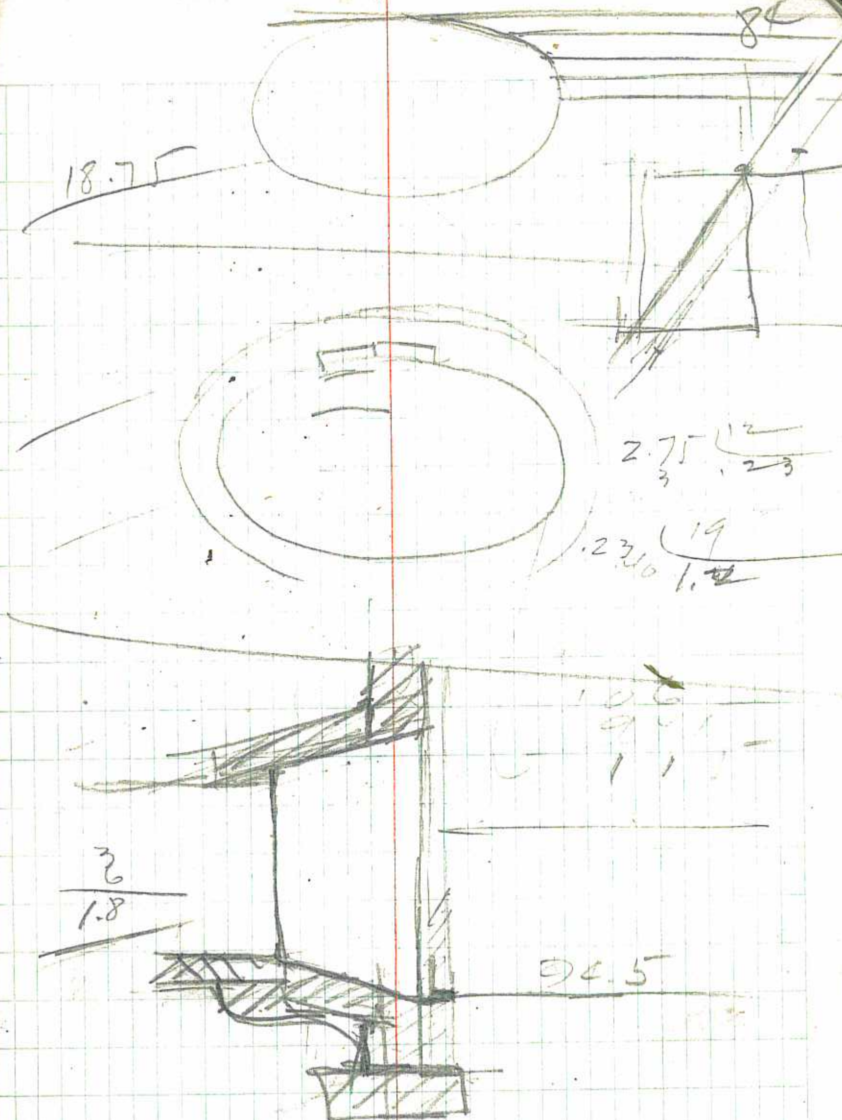
11.98 / 12.05

lower #1

L. Bear on Logan-Mendon Road

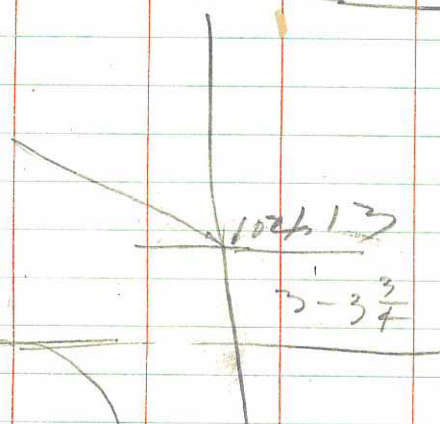
5.8 / 3 / 9.5


160

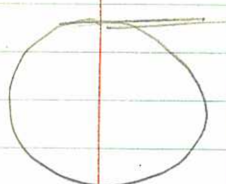

18.75
2.75
1.8
94.5

120 | 1.3
117 9.2
30

5.2
4 - 14
4 - 9



102 | 13
3 - 3 3/4



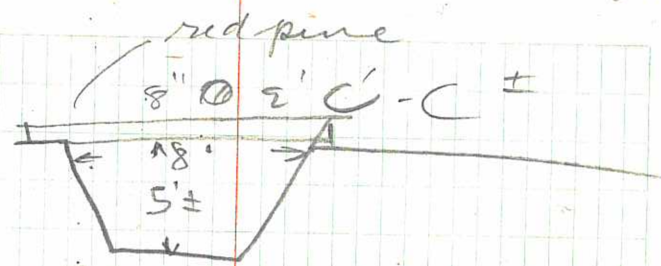
5-23-49

18

14
14
16

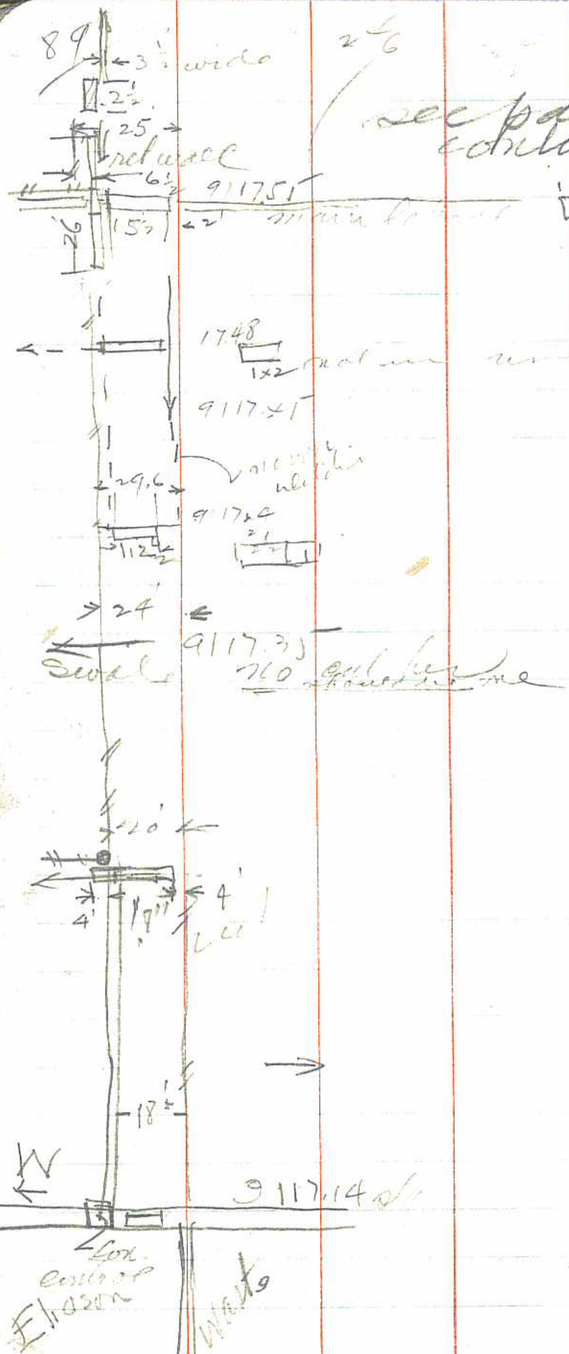
18 2 × 4 - 12
20 2 × 4 × 14

Outside 400 1" 14
Inside 400 1" 14



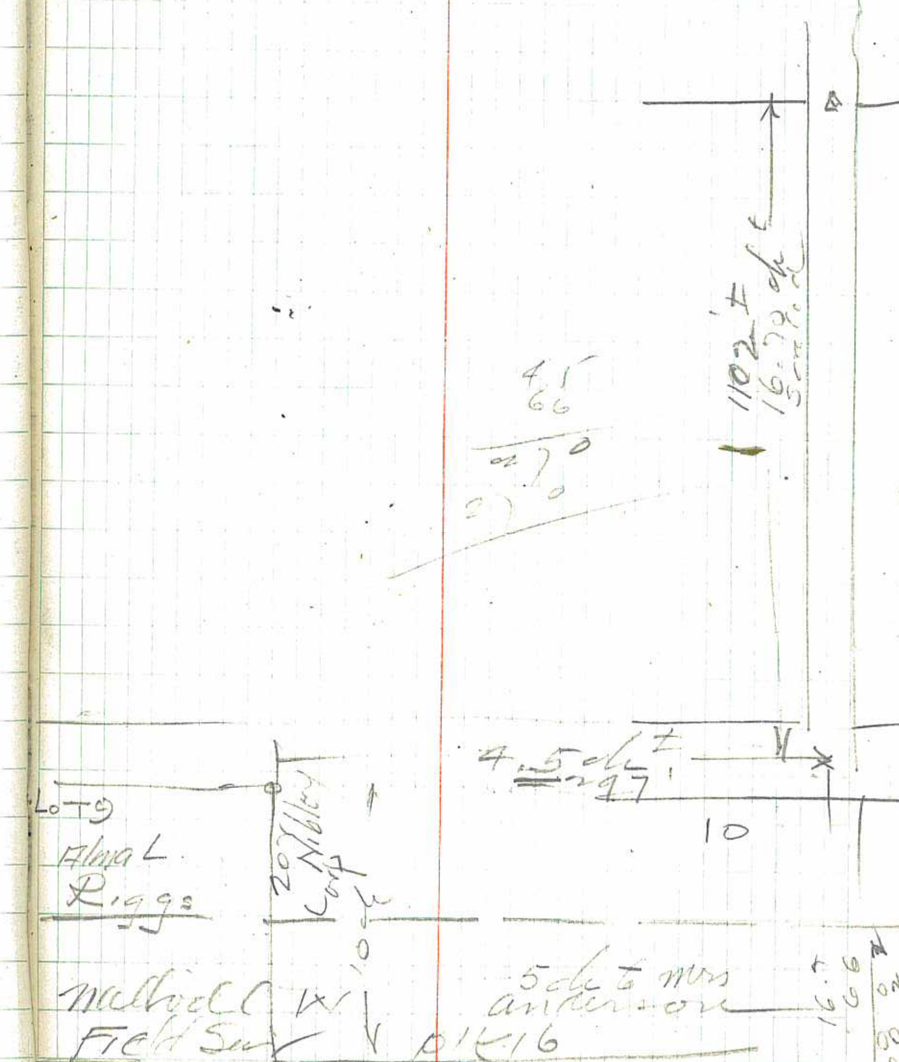
Should be
considered for
more than 4 tons

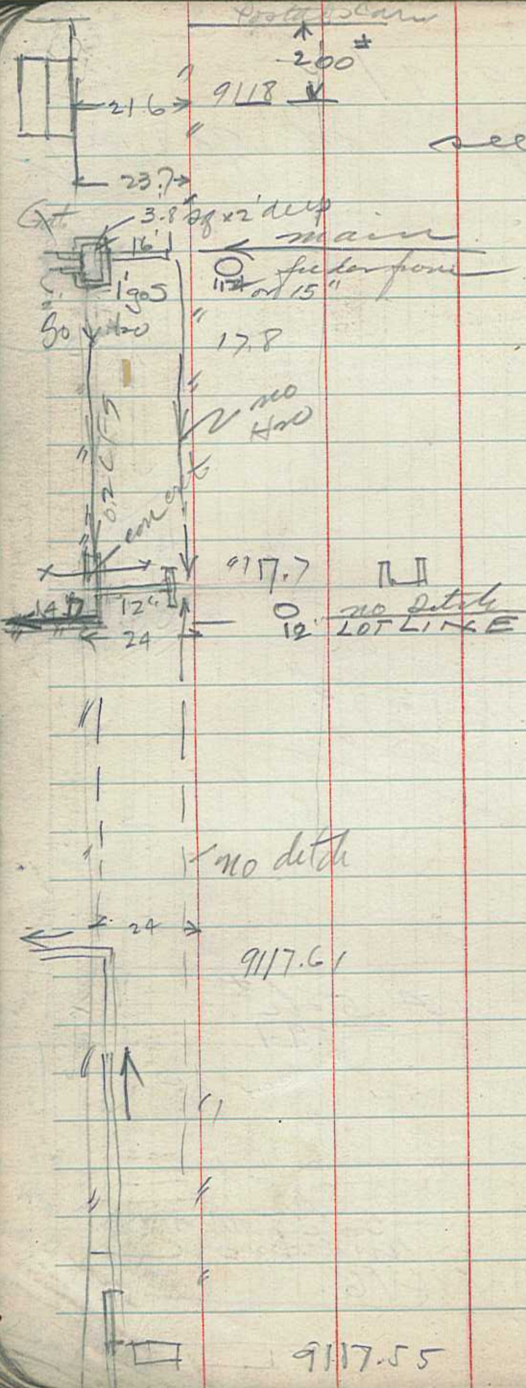
(see page 91 continued)



6-14-1959

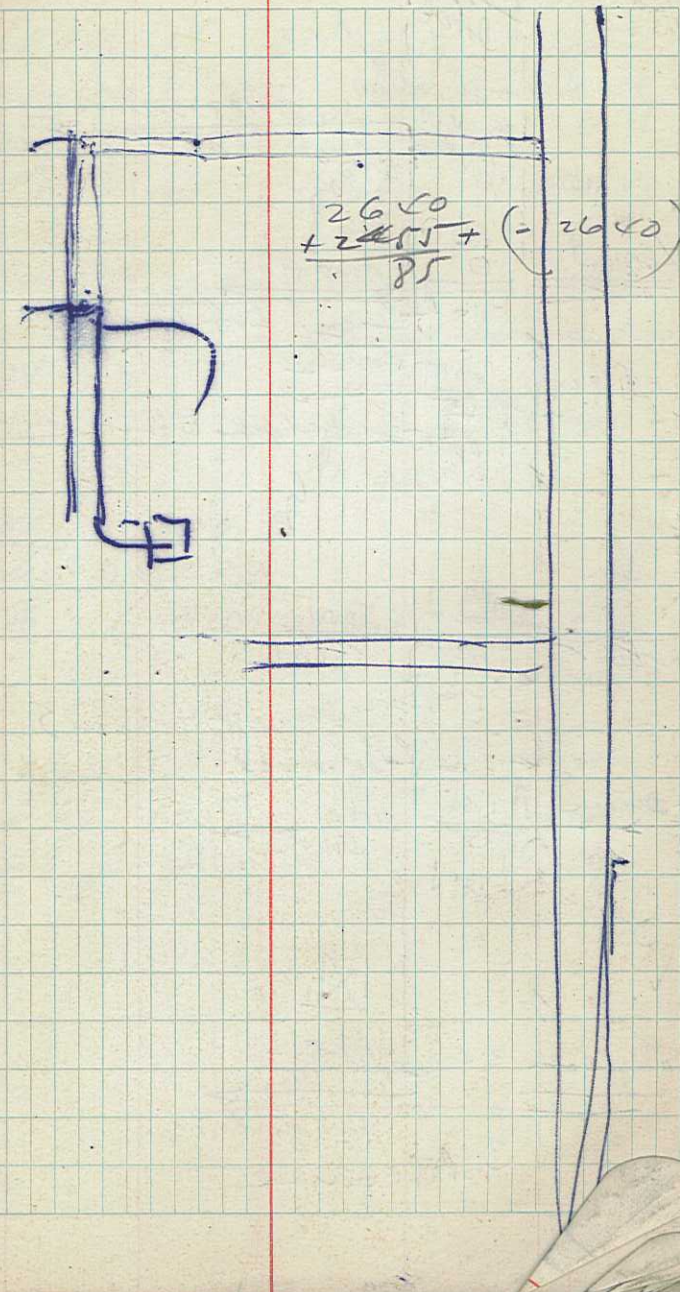
Alma Riggs ... going South!





see page

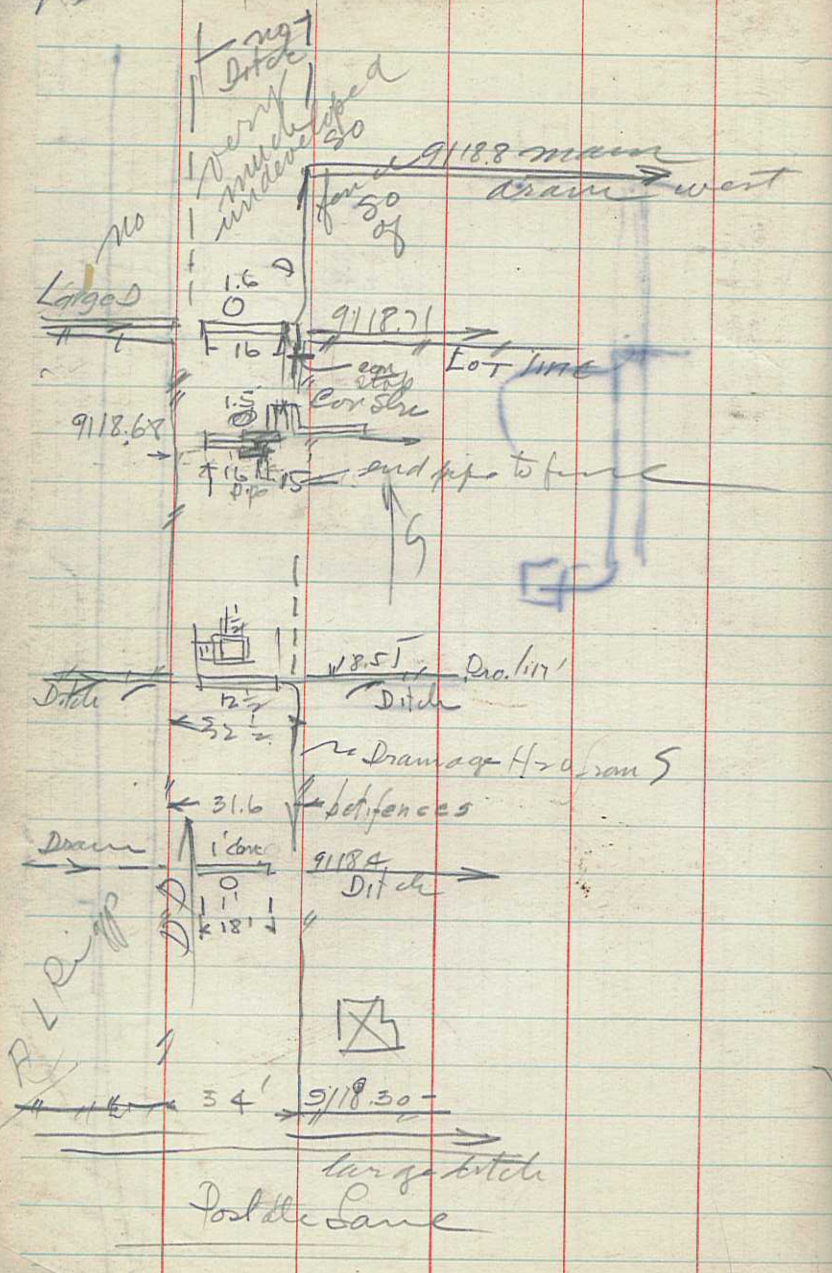
18
1714
86



2640
+ 2855 +
85

(– 2640)

93



6-21-49 94

Study of present upper Surface on Co Road East of center sec 23 12 N 11 E

	old Base	add
Kump barn	4"	6"
100 above Bedolph	3 1/2	6"
80 W of Bedolph	~~Good base~~	
350' W of		
Batts	6"	— 2"
Sta 5#	7" good	none

Oil mat 100' S of center sec 23 12 N 11 E, (plenty sweet) - 2 1/2"

181 41
361 41
360 105
354 51
6 54

354 51
360 05
361 41

5	240° 10	190
4	235 4.0	100
1	234 10	
3	54° 10	2
2	270°	310

1198
380

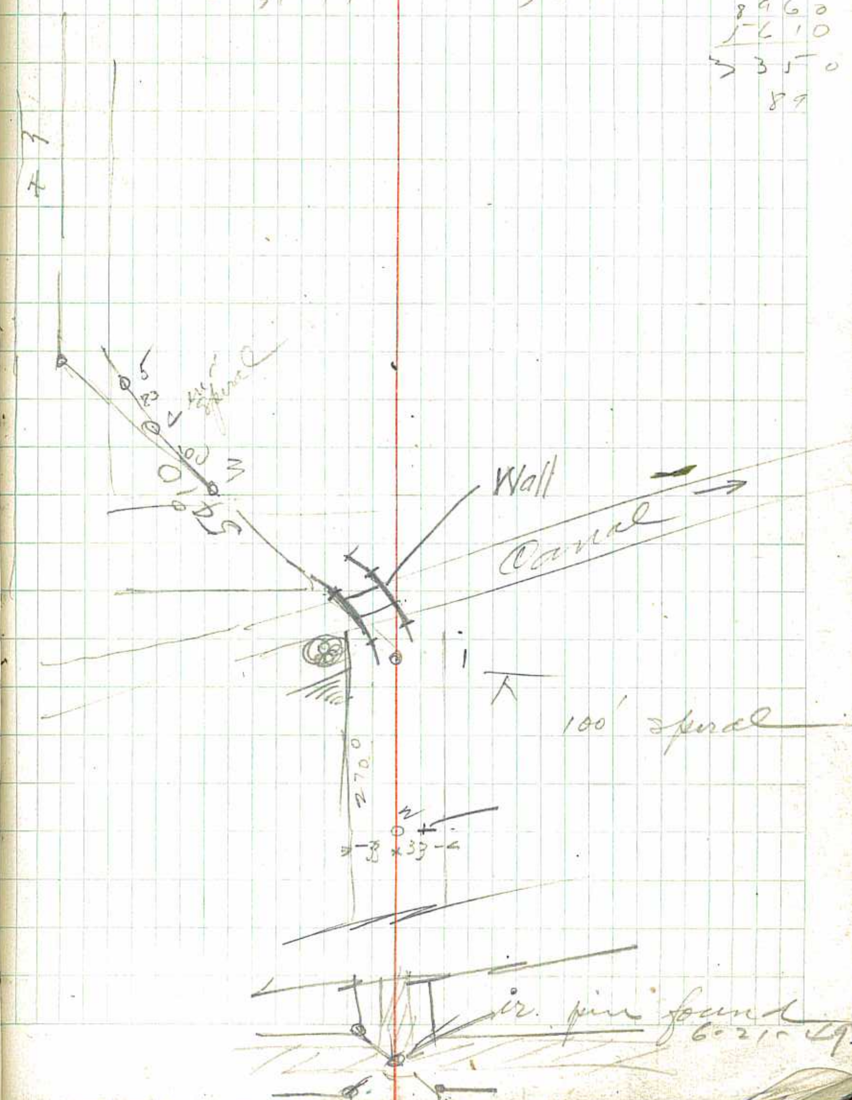
250

2.6

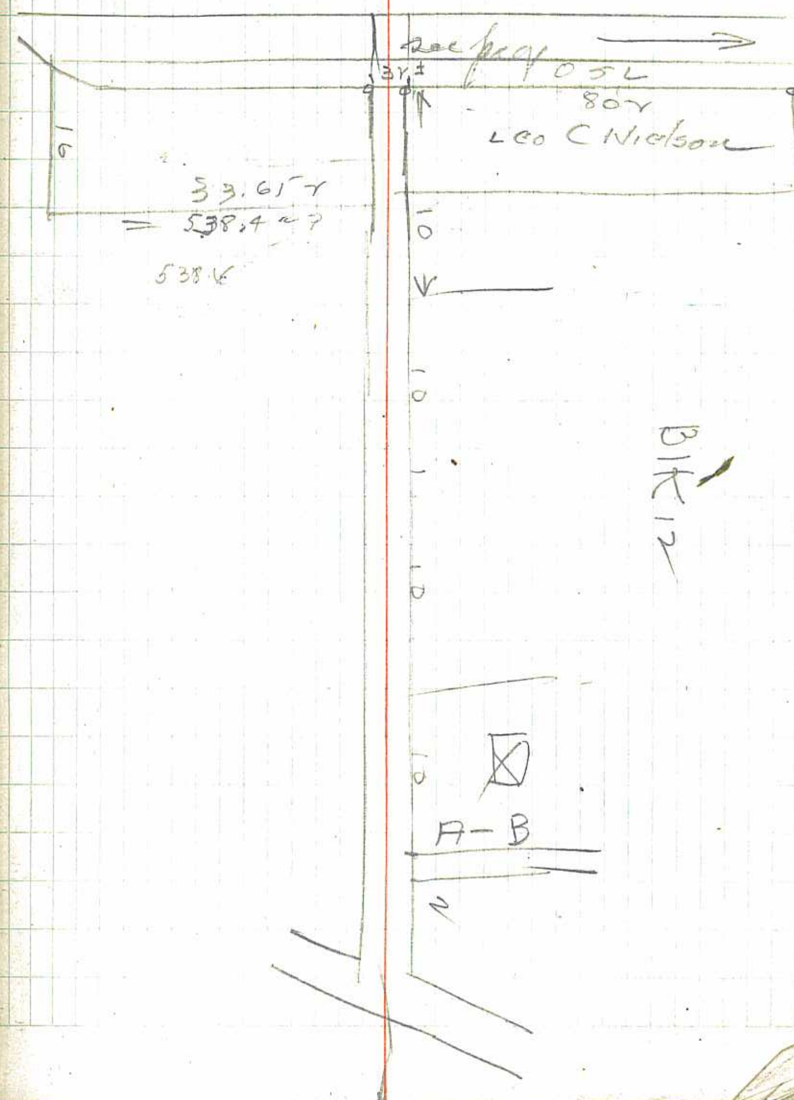
Study of Revere curve road at N Logan over Logan Richmond Canal

89 60	89 60
54 45	56 30
35 15	35 30

89 60
56 10
33 50
89



Survey Ermie Peterson road
Plat shows to be in
SE sec 33 - 11 21 1 E
Speedometer Logan: 9548



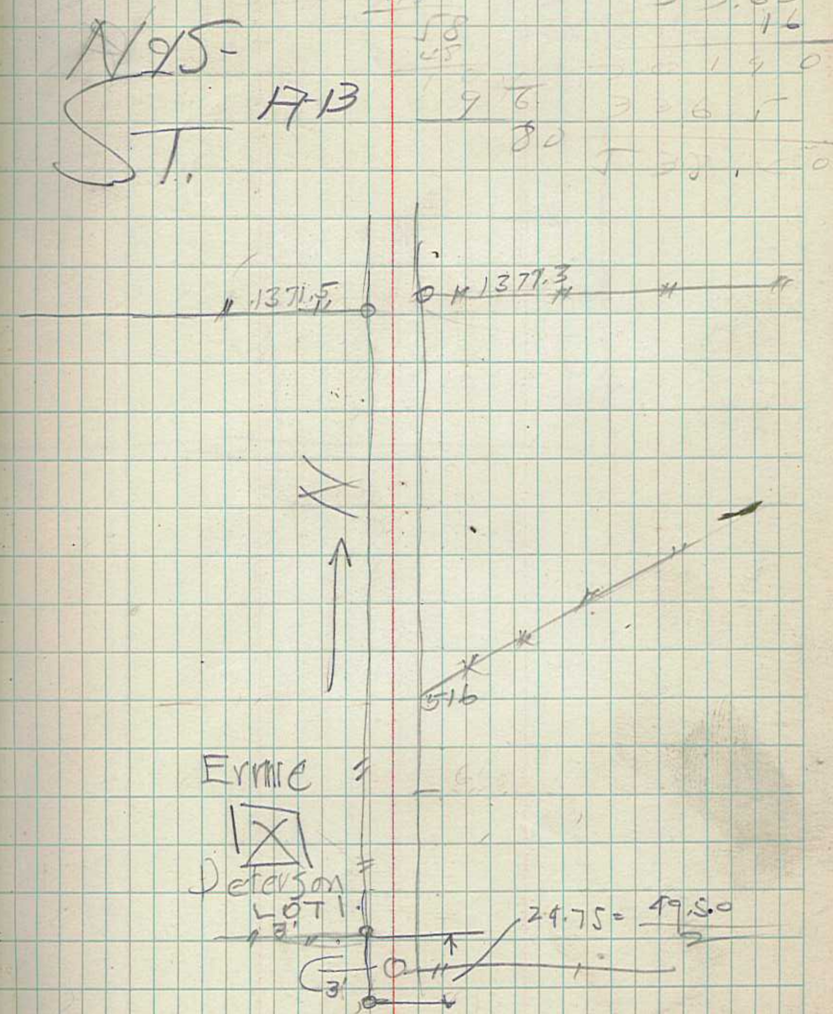
1377.3
1371.5

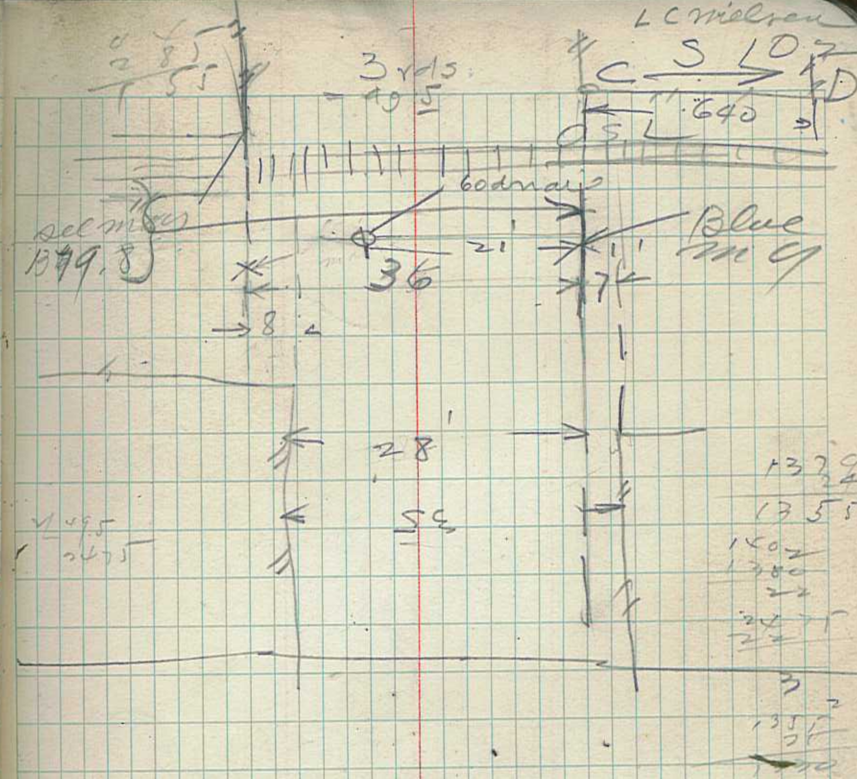
516 N 516'

3' N±

3.365
16

33.65
16

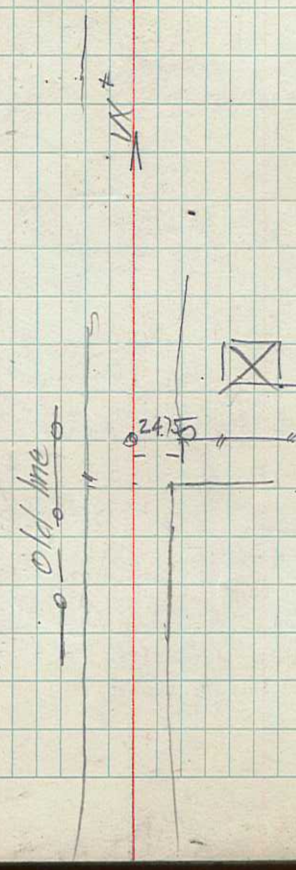



L C Nielsen
3 yds.
60d nails
Blue
36
21'
8'
28'
640

Ernie Peterson Road

in SE¼ sec 33 - ~~11~~ 11 1 E

see sheet

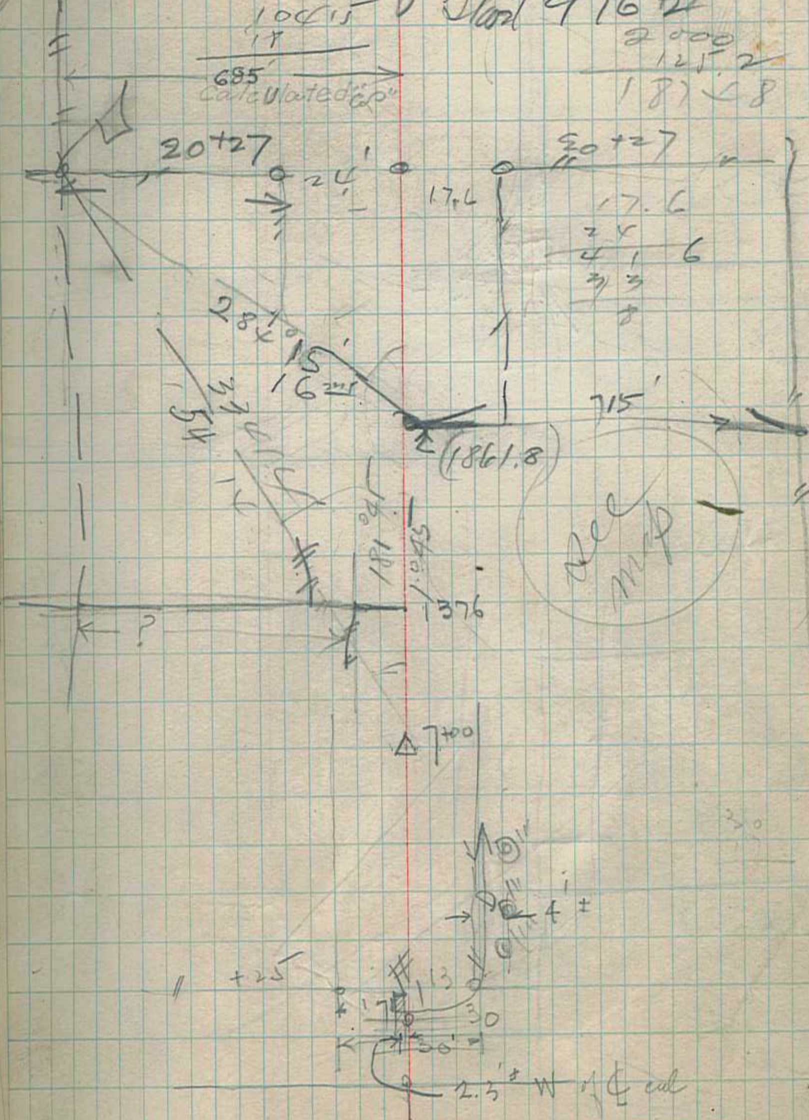


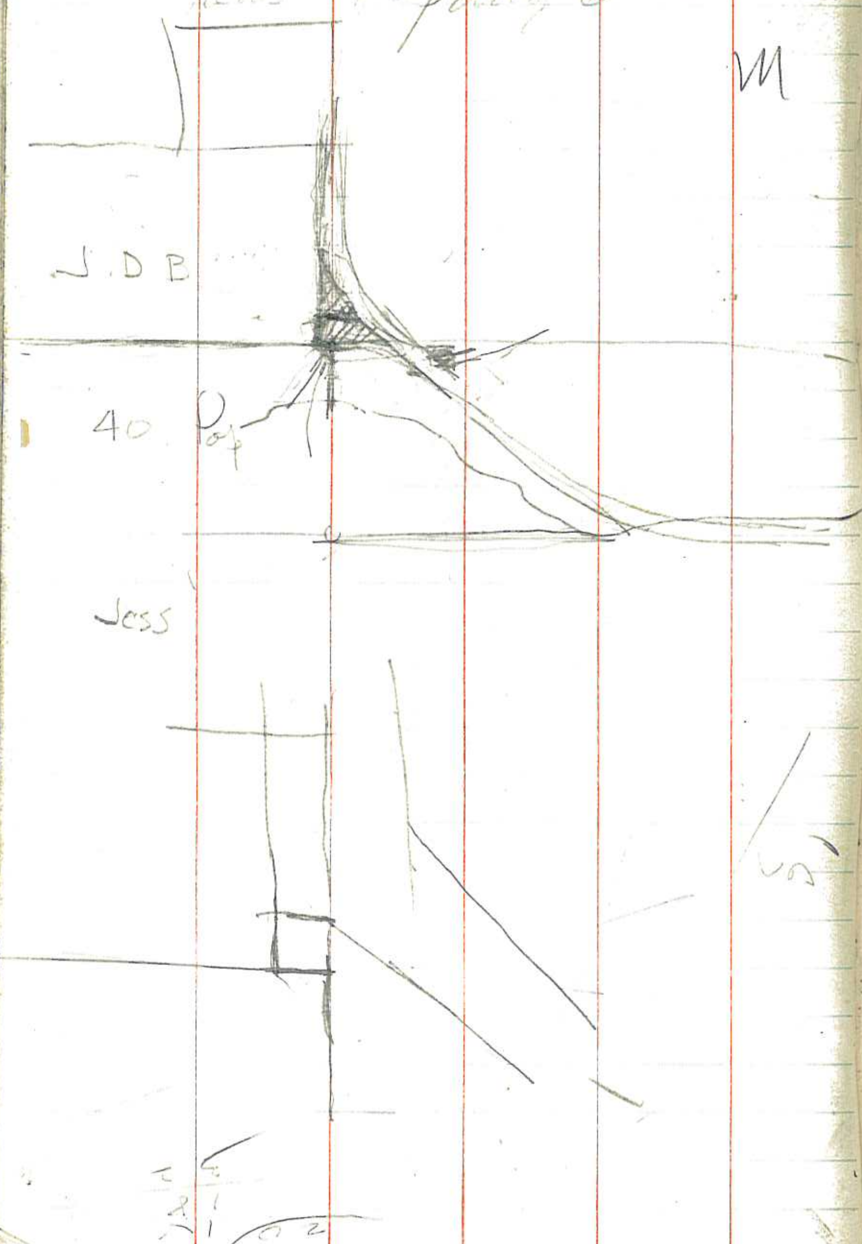
319°41'20" N meri → W Power steel tank
131°10 → So. zip Co. ret. chim in town
1 mile

7+00 1°45.
Do fo un hub with nail
201°52'20" W Spire Temple

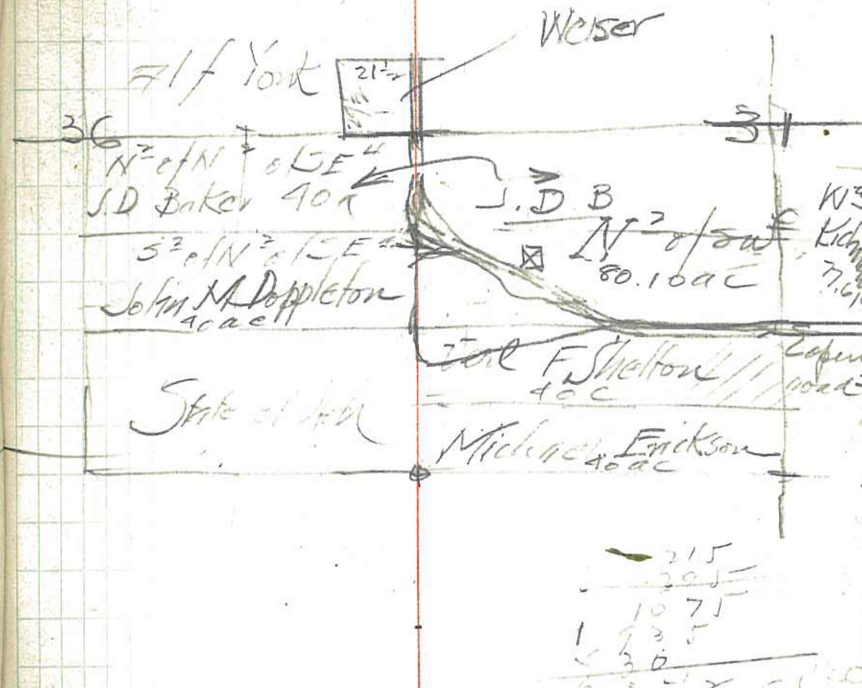
Sept 13-50
194°57' W spire Logan Temple
354°51' along ℄ South

County Road Study
first one west of A.L. Higgs
Start 976+2



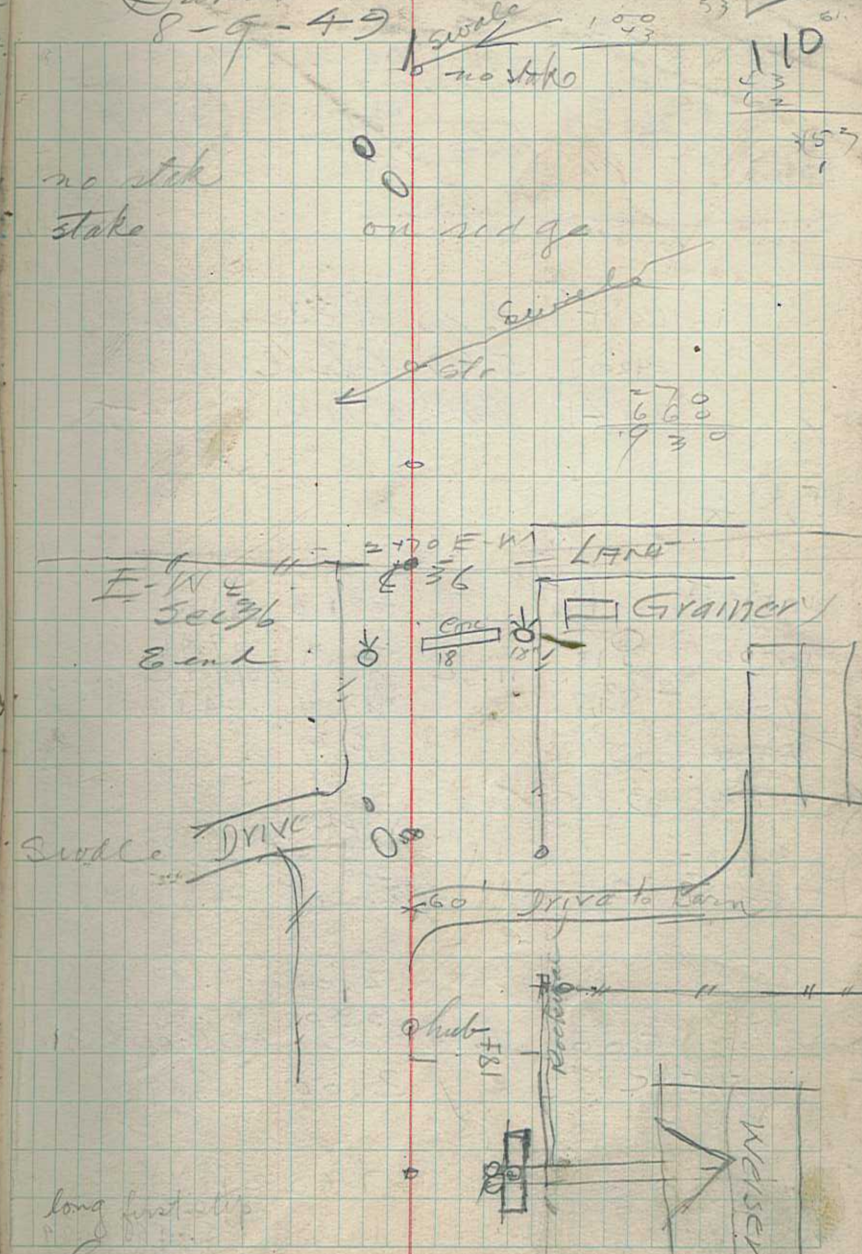


Baker Road at 108
Petersburgh 7-25-49



Sta	BS	FS	IM	Elev	HI
+50			10.60 ℄	15.69	
6			9.35	16.94	
5					
+90			4.00	22.29	
	9.62				4826.29
		1.66		4816.67	
4+00			5.2	13.13	
+60			9.80	08.53	
3+00			8.40	4809.93	
2+70	E4W ℄ 36				
2+64			4.60 6.08	13.73 14.25	
2			4.70	13.63	
1+00			6.50 ℄	4811.83	
0+48					
0+43			4.10	14.23	
0			3.30 ℄R	4815.03	
BM on W	.99			4817.34	4818.33

Baker Road Survey
8-9-49



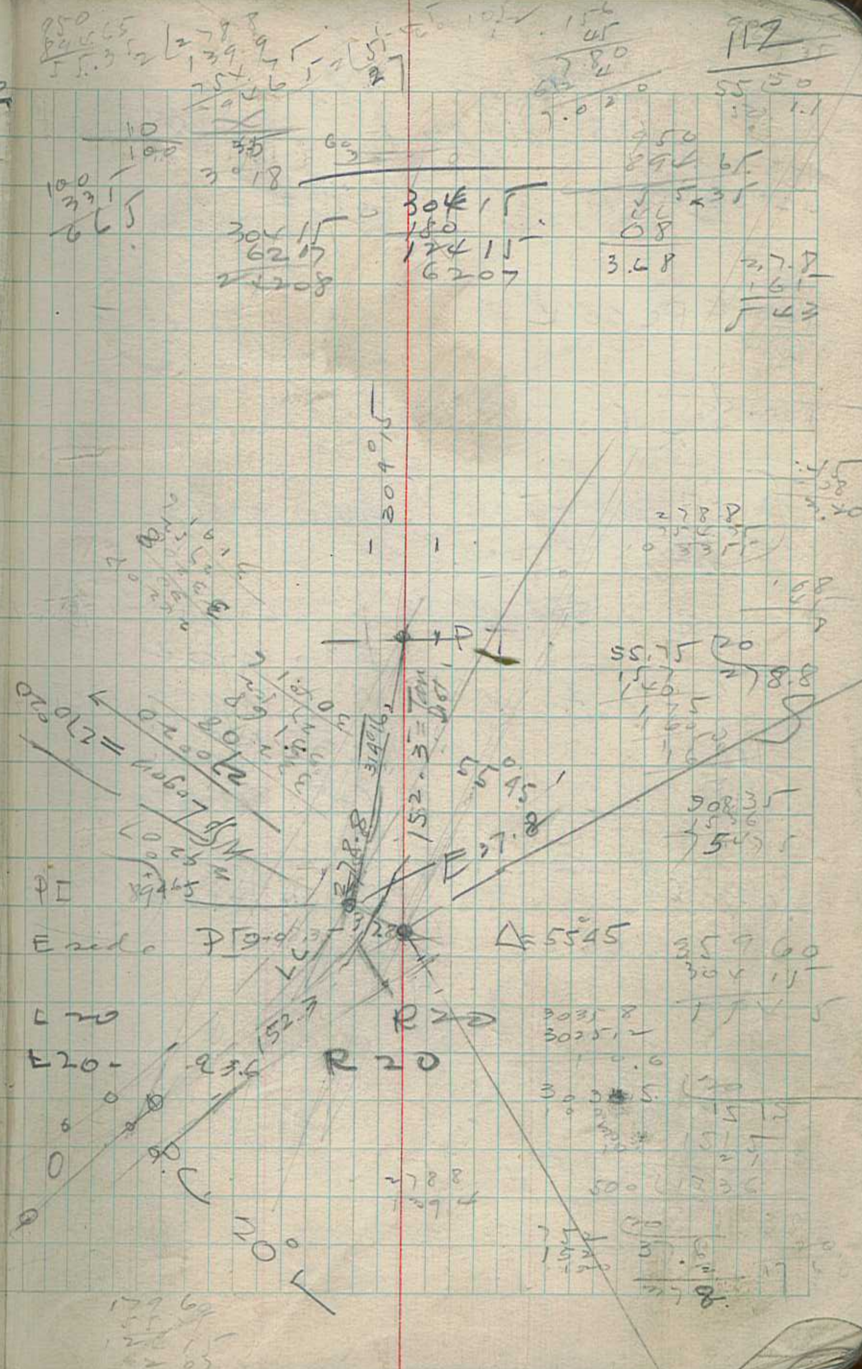
Levels up 9-13-49 - N Ruf Rod

	BS	FS			
	180°	7+54	pc hit on 20° C ~~R~~		
	26°1 54	11-21-49	upper moulder on pole		
PI + 908.35		between post on S 4 cor			

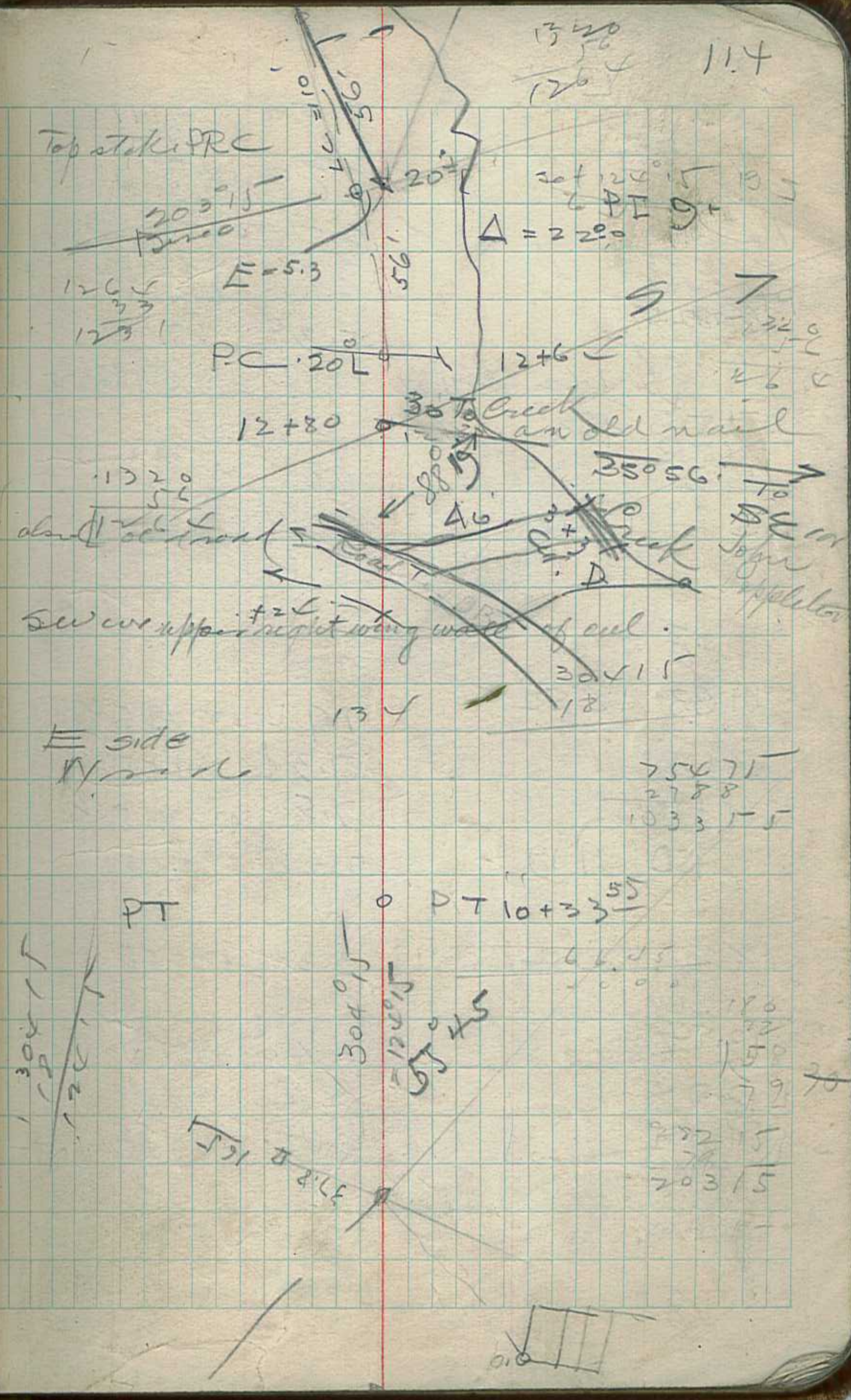
10 | 169°15' | NE cor Weiser barn
| 242°07' | 54.3' | Outside curve
| 218°41' | Amalga Stack

PI 9+08.35

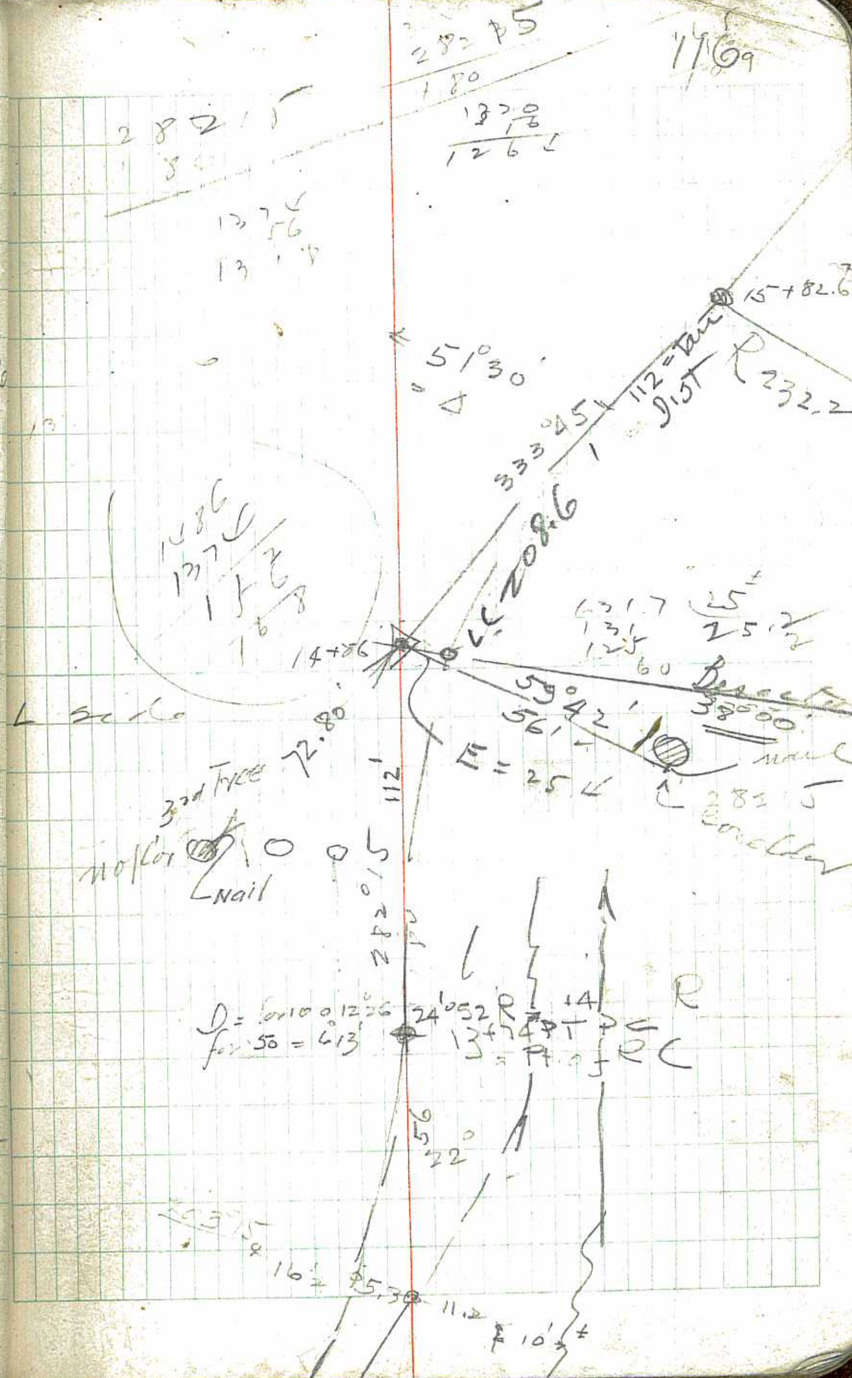
10+33.55 66	PT		8.10	4812.21	
10+00	3°18'	11.76	2.90	17.41	
950	1.07 8°18' 536		6.70	4819.24 24.30	4820.31
~~8+56.6~~	13				
8+94.65	13 48				
			1.15	4829.85	
9+08.35 PT 8+94.65 Curve 8 55.75			3.00	28.00	
			4.20	26.80	
8+50			2.00	29.00	
8+00			3.90	27.10	
	5.00	0.29		4826.00	4831
7+54.75 PC			3.00	23.29	
7+00			7.40	18.89	
6+50			10.60	15.69	4826.29



	BS	FS	un		
	1.78	10.93		4779.07	4780.85
13+20 PI 13+19 ¢ C stake			8.00 ¢ ±	4782.00	
12+64 PC 20° L			4.90	4785.1	
12+80					
+57 Road 12+31 stake ¢ +2			4.00 ¢	4786.00	
Pom 12 ¢	2.56	11.65		4787.4	4790.
			5.70	4793.4	
11	0.76	11.47		4798.33	4799.09
			3.50	4806 30	
11			6.80	4803.0	
11			6 ¢	4803.80	
10+33.55	1.26	11.77	8.10	4808.54 4812.21	4809.80



	L or R				
17+00 15+50 ℄			11.50	59.11	
15+50 L			1.9	68.71	
15+50			~~3.2~~	67.41	
16+00			2.6 ℄	63.01	
15+82 ℄			6.5 ℄	64.11	
PT 15+82 L			4.5	66.11	
15+82.6			6.1	64.51	
			5.3 ℄	65.31	
	1.62	11.86		4768.99	4770.6
15+50	4°3'				
15 R			9.7	71.15	
15 L			9.6	71.25	
15 00	10°21'		8.7 ℄	72.15	
14+86 P.I.					
℄C = 14+83	12°52'		7.9	4772.95	
14+78			7.3 ℄	73.55	
R 14+78			7.5	4773.35	
+50	9°19'		5.20 ℄	75.65	
14 00	R 3°06'		3.30 ℄	4774.55	
13+74 ℄			2.40 ℄	78.45	
L 13+74			2.40	78.45	
R 13+74			1.50	4779.35	4780.85



19+27 7.79 4756.0
7.80 4697

18.00± 475.80

18+90 with 6d nail 9.7 57.1
91 flag Maide Creek

66

18+00 8.2 4755.59

+15

17+00	4.11	10×33		4759.68	4763.79	top 17
17+00			11.50	59.11		
17 L			12.5	58.11		
17 R			10.5	60.11	4770.61	

118

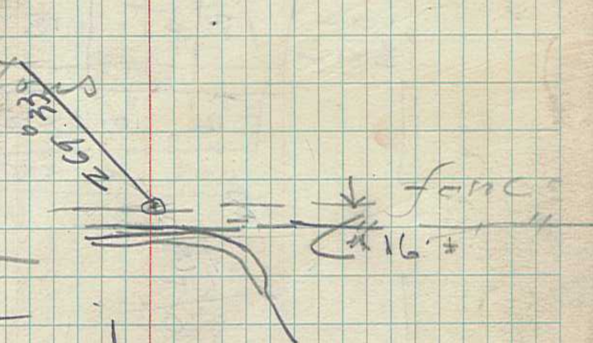
3.15
1.21
2.25

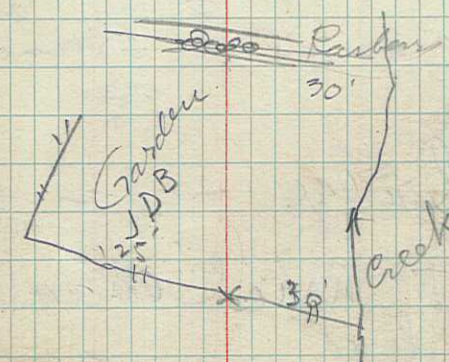
1°30

100 300
.037

(add 59)

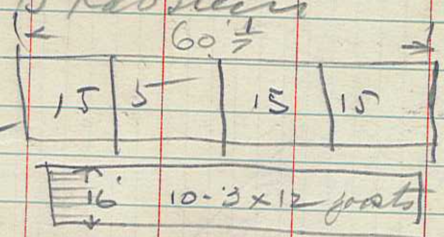
bot channel





Study of Logan River Bridge 9-8-4
with Com. H. R. Adams
B Raostens

10 - 3x12



8

5000

15
12

30

1 5 ~~11~~.5
1 8 0 x 10000

8

22.5 0000
225.0000

2

22.5000 # pounds

Bridge safe for

7T axial concentrated load

8-16-49 120

Spr. Creek

Wonder!

approx wafe

11.3
3

14.3

300 50/2

12
12

3 x 1728 (432)

12

4

72
~~432~~ x 800

4

72
800

57600
6

345,600

15
12
30
15

$m = \frac{W\ l}{8}$

345 600 x 8 - W

180
23

345600
8

2764800 / 180

1 53 80

180
964
900
648
540
1080

Sept 13 - 1949
℄ truck start - 11380

28

27

26

25

24

23

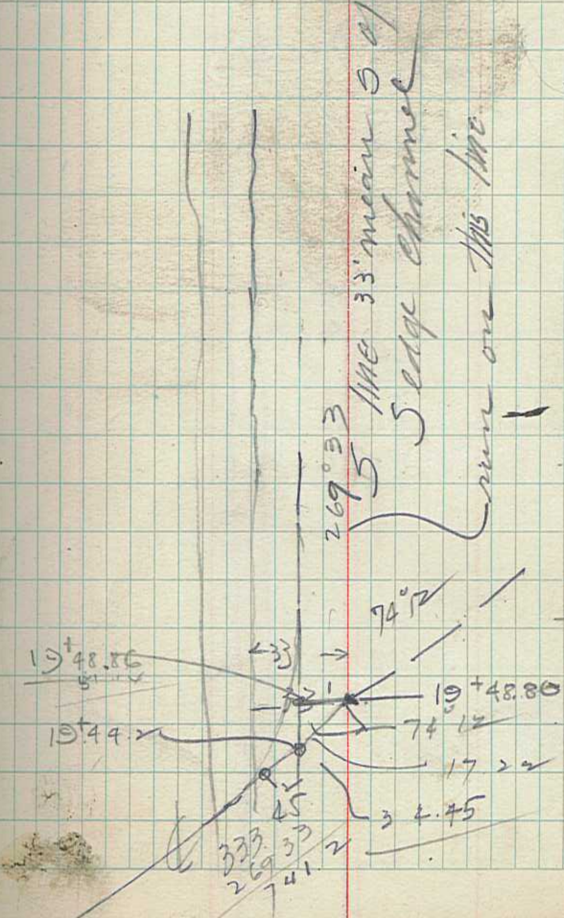
22

21

20+00.0

19+48.86

℄



.273

3 4 4

1927
17.22
1944.22
4.64
1948.86

17.2
2.7

1204
344
1604

Δ38+55.3

+41

38

37

+65

Δ36

35

34

33

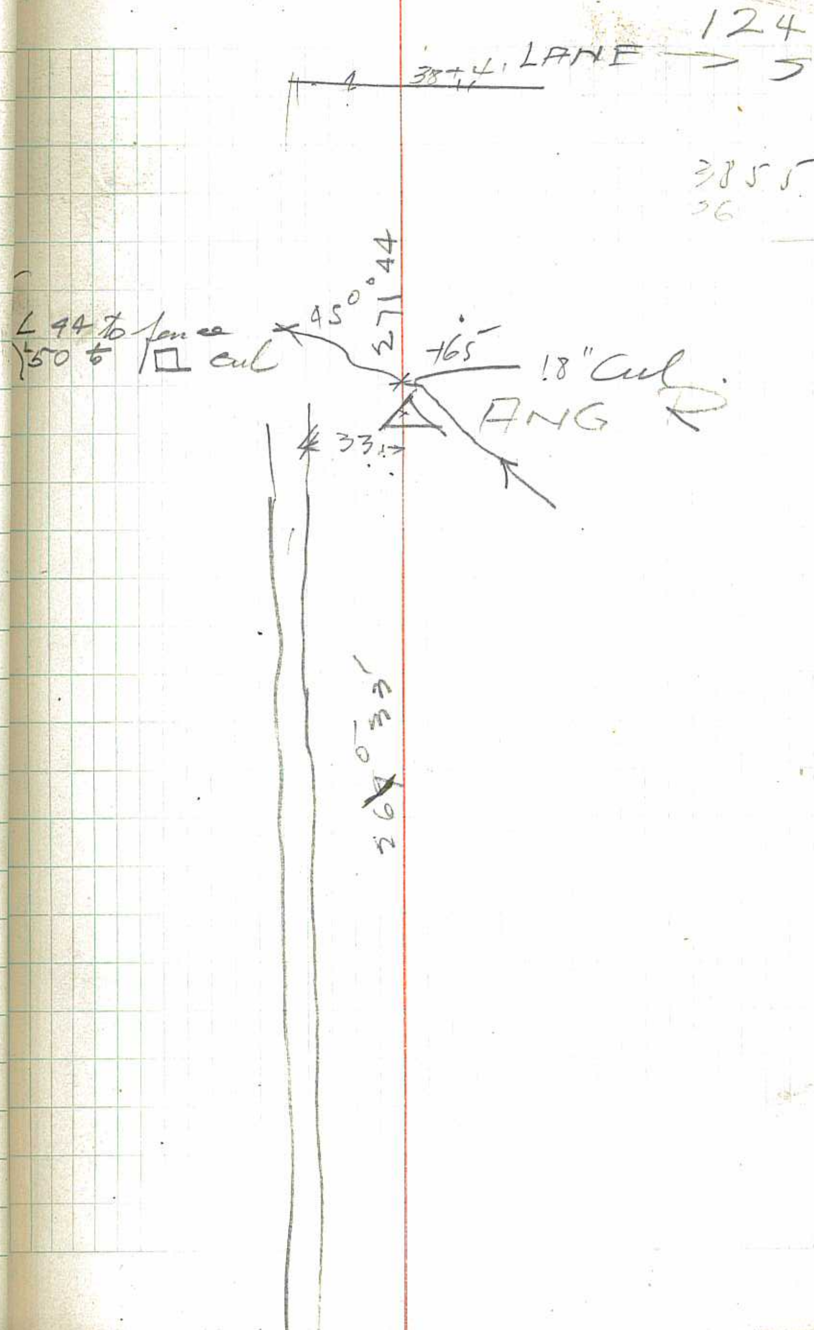
32

31

30

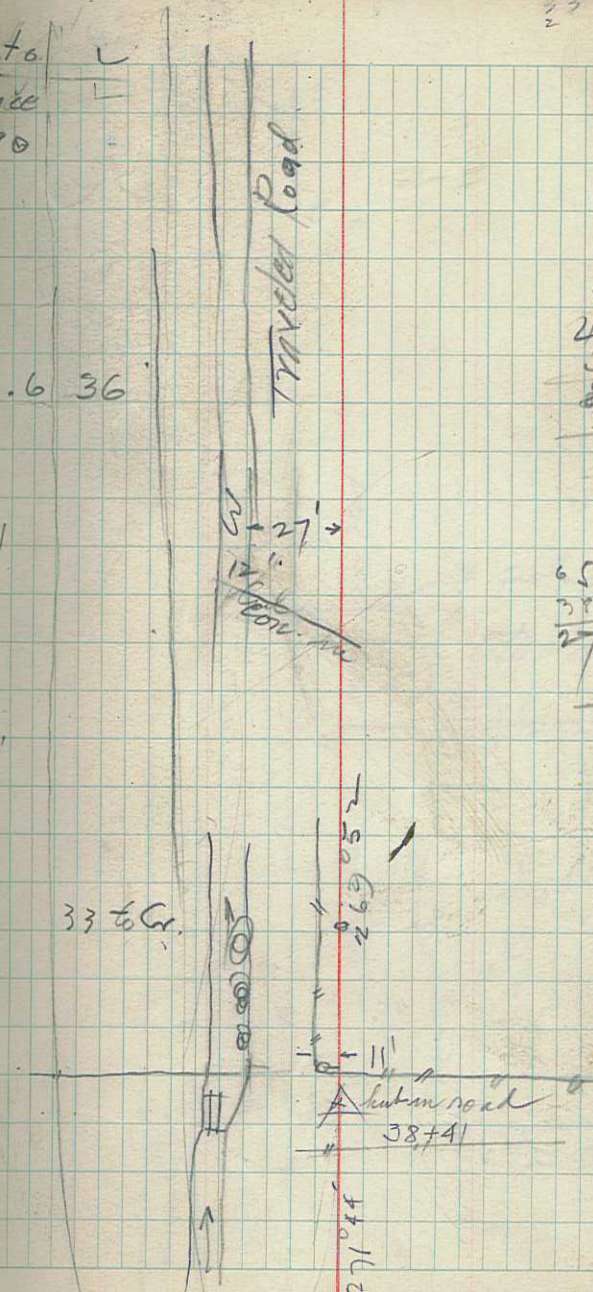
29

28



Sta					
47					
46					
45					
44					
43					
42+00					
+60					
41					
40+00					
39+00					
38+55.3 (44.7)			4670 4610		

℄ to Fence	℄
9.0	
10.6	36
11	
11	
11	33 to Cr.



126
38

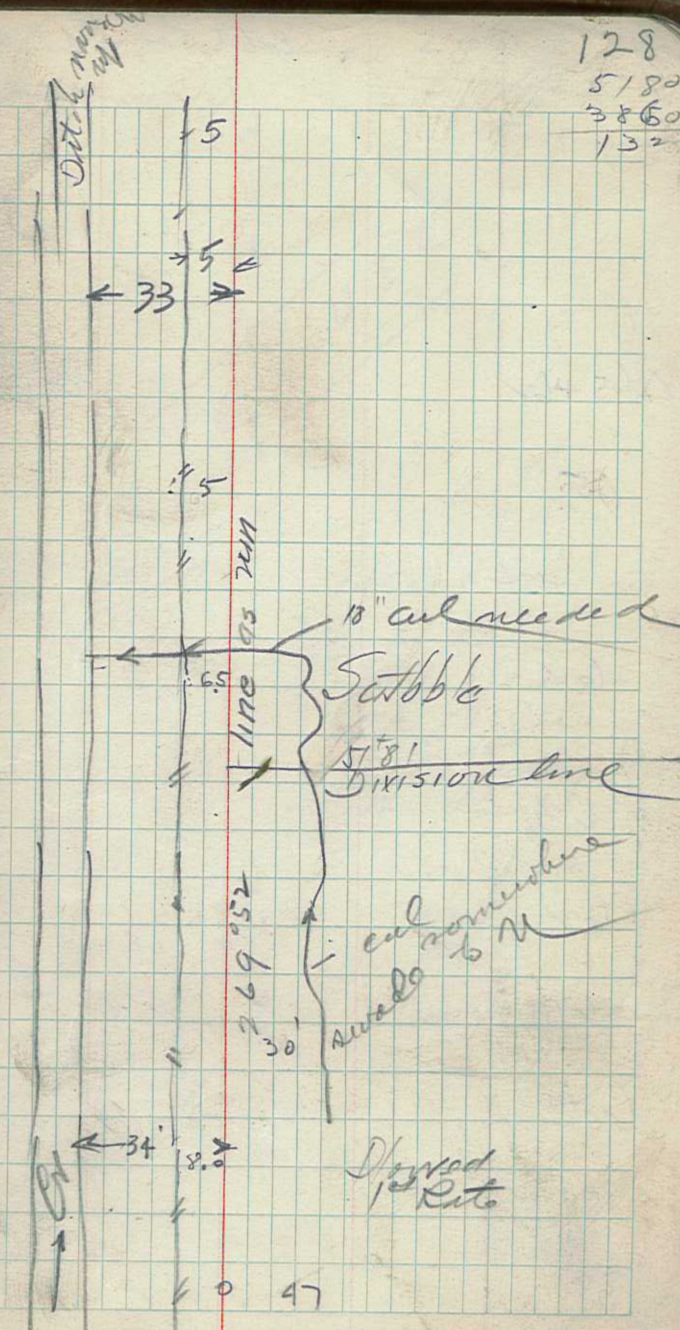
1950

2756
86.00
1400.0
4.8

6562 4670
3855 4186
2707 8
8400 27
81 311
3030

5180
3860
1320

Sta	L/o fence
58	5
57	
56	5
55	
54	5
53	
52	6.50
+81	
51	
50+00	7+
48	8
47	



add 84 4475
" 4445

Δ65+62

4586B
~~4530~~
56

add

65

+84

64

63

62

61

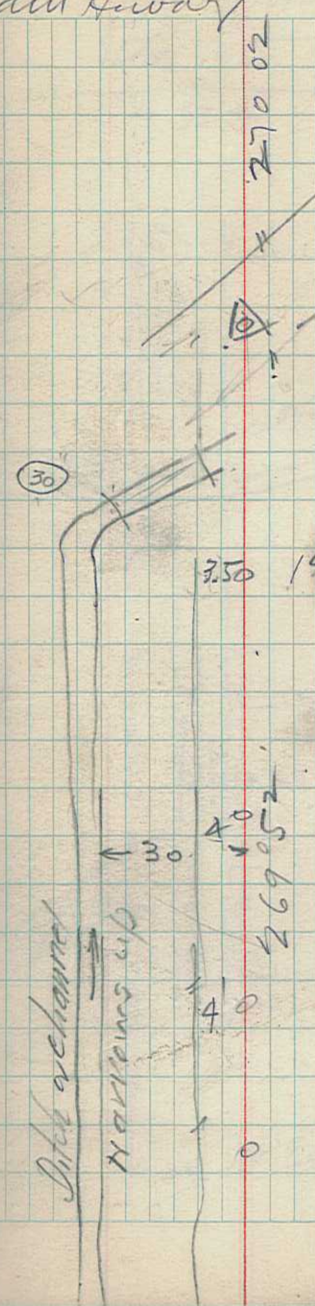
60+00

59

58

Court House is 4534 130
~~4475~~
59
3

main Hwary



4530
54
4589

steel com

14th / 9-14-49
Jay Jensen $6\frac{1}{2}$
Con Olund $6\frac{1}{2}$
Bill Tuckfield $6\frac{1}{2}$
~~W~~ Ruf $6\frac{1}{2}$

15 Jay Jensen 7
con D 7
Bill 7
Ruf 7
Baker & N Logan Roads

74+00

73

72+00

71

70+00
+74

69

68

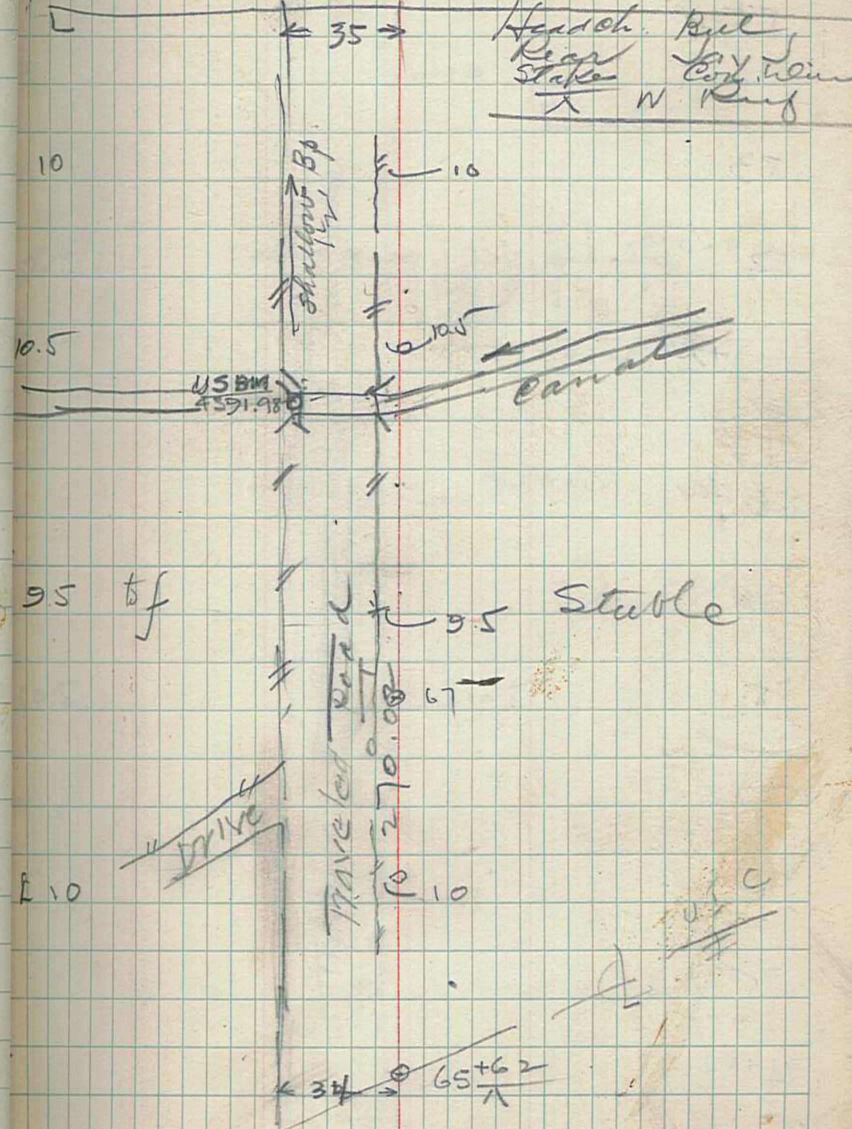
67

66+00

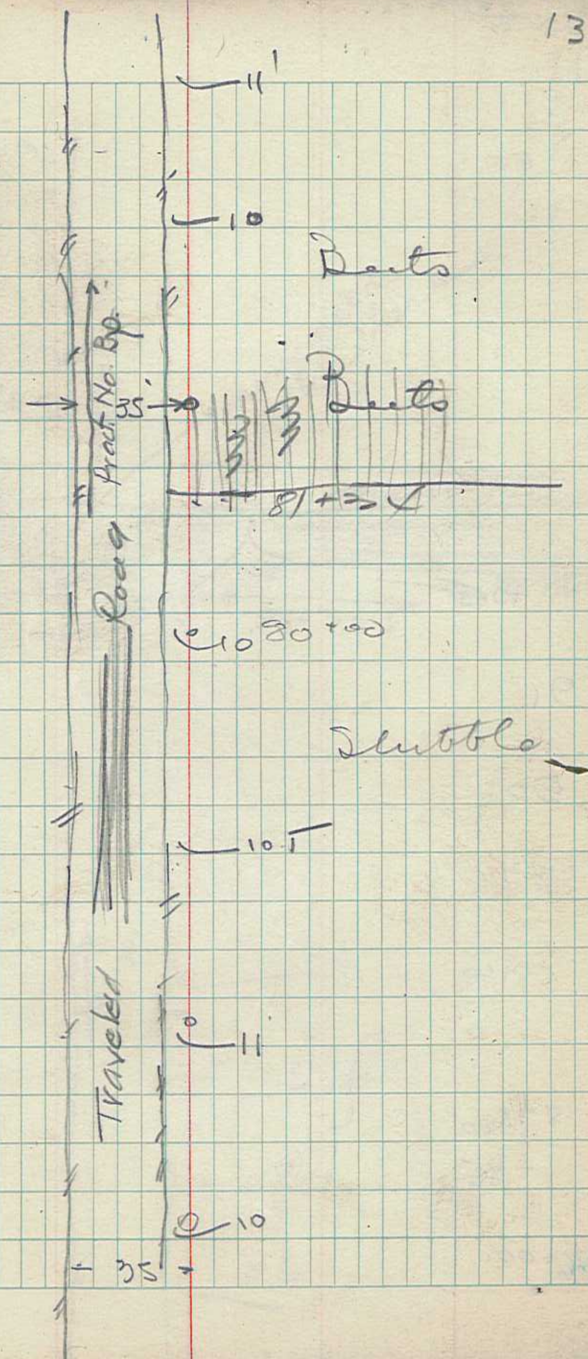
38
65+62

Baker Continue a 132
9-15-49

From Sta 65+62 on old UIC



86+00	1
85	
84+00	0
83	
82+00	9.5
+34	
81	
80+00	
79	
78	10.5
77	
76	11
75	
74+00	



+30.5

91

90

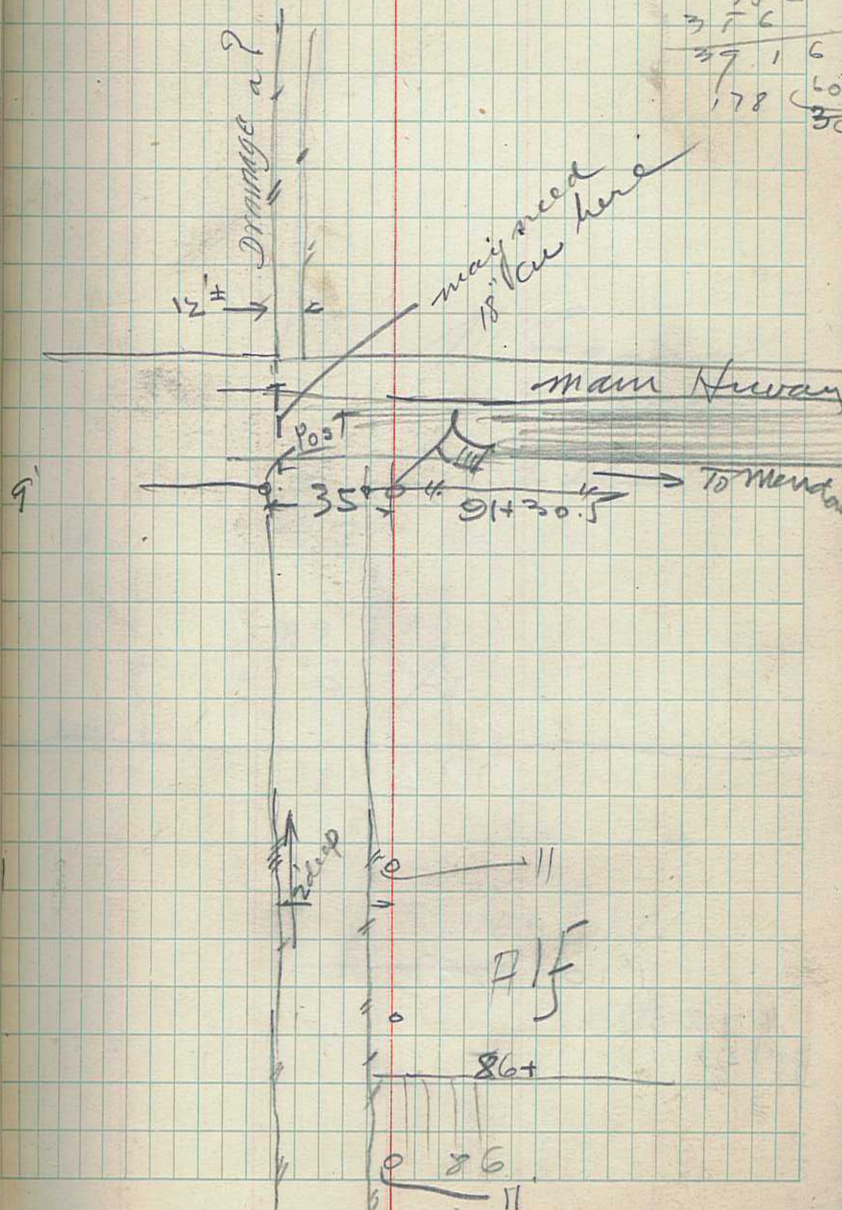
89

88+00

87+00
+85

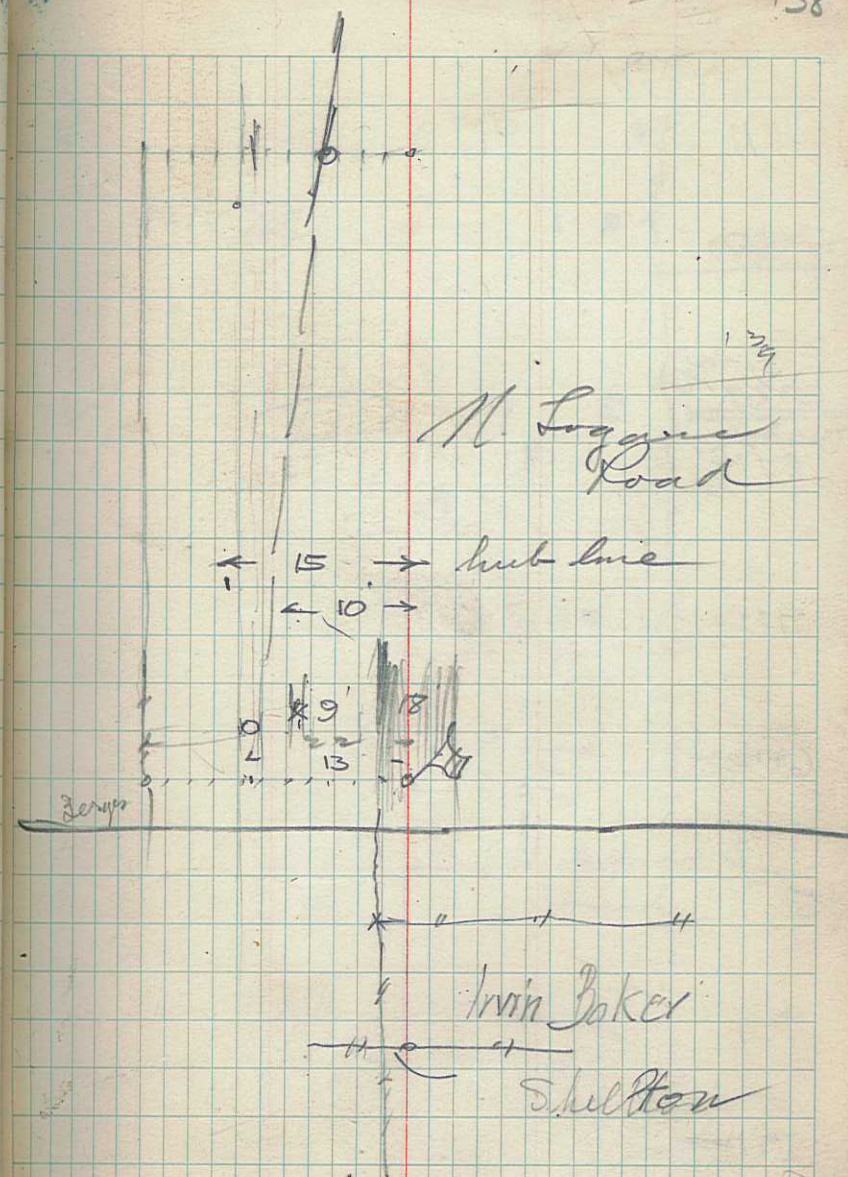
86+00

132.5
125
60
2 2
136
178
22
3 5 6
3 5 6
39 1 6
178
60
30



1°10' 1287

38+55.3



11

10

9+00

8+14

7+00

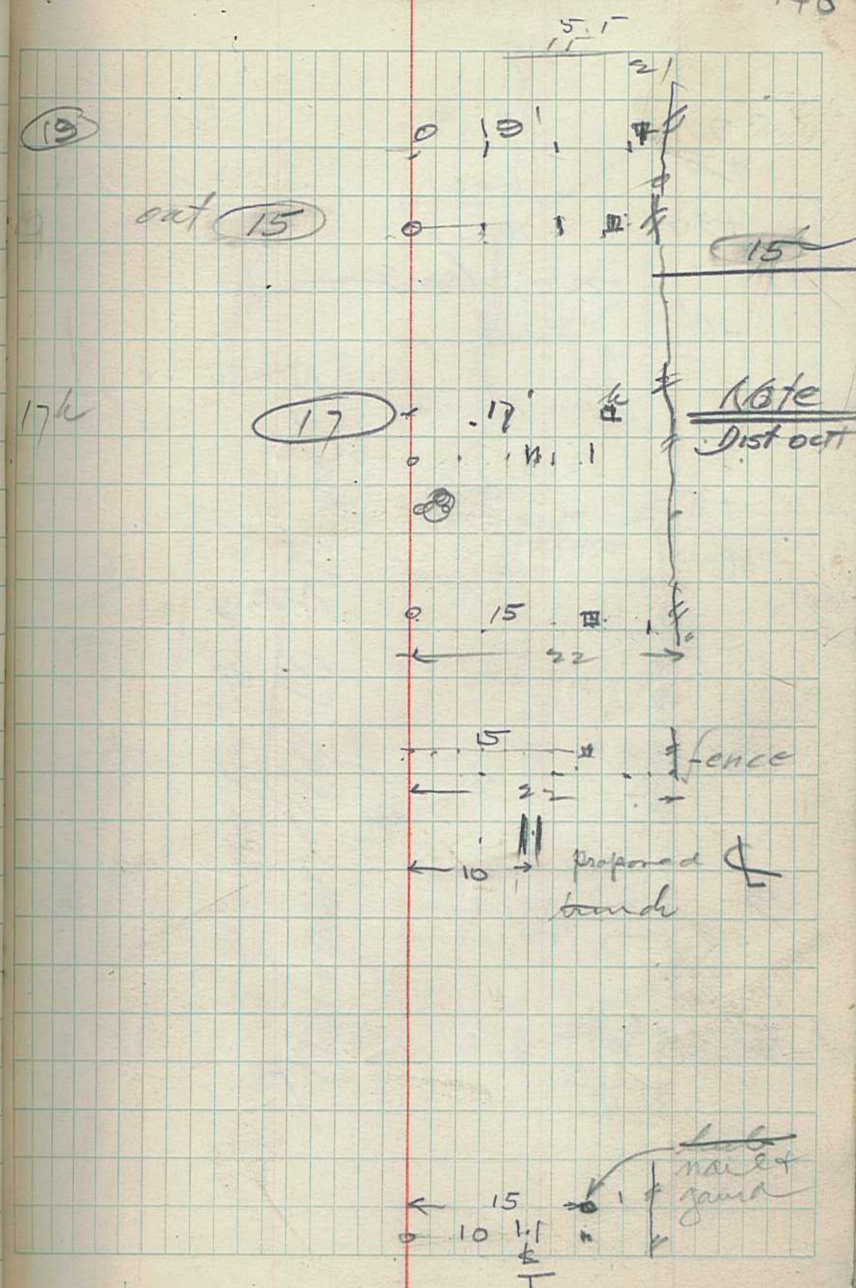
6+10

5

4

3

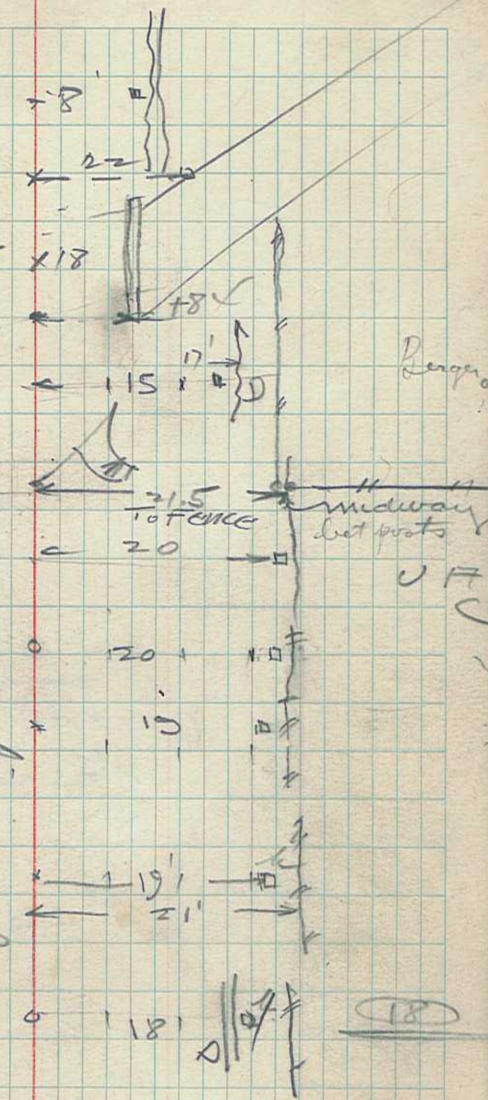
2+00



+70
~~+70~~
+30
18 no hubs
+84
17
+35 x 7
16
15
14
13
12
11

18
22
15
20
20
19
19
18

Survey for lines
N Logan Mt 10th, Nov 8



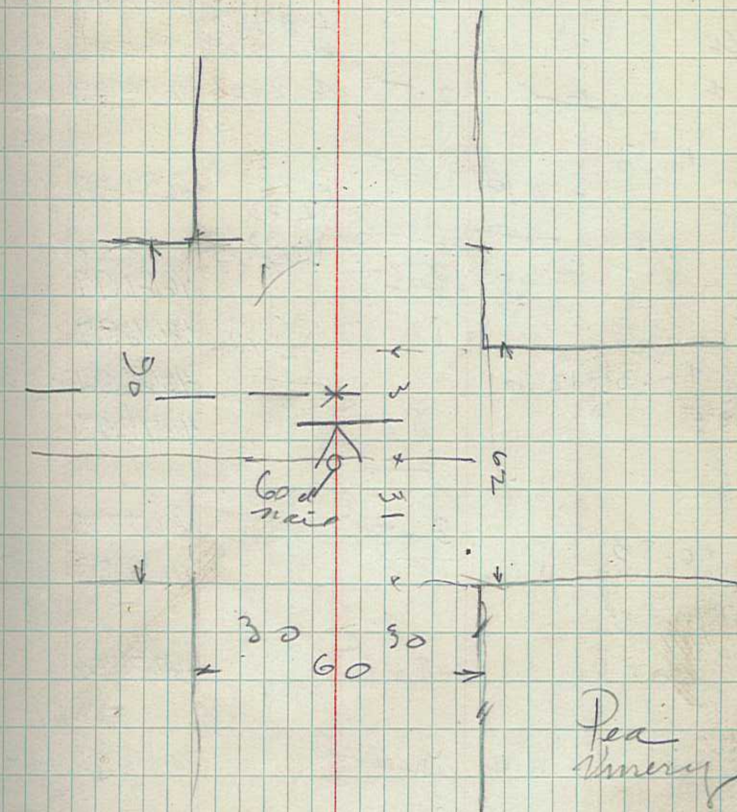
$\frac{600}{100} = \frac{96}{16}$

$$\begin{array}{r} 80 \\ 25 \\ \hline 55 \end{array}$$

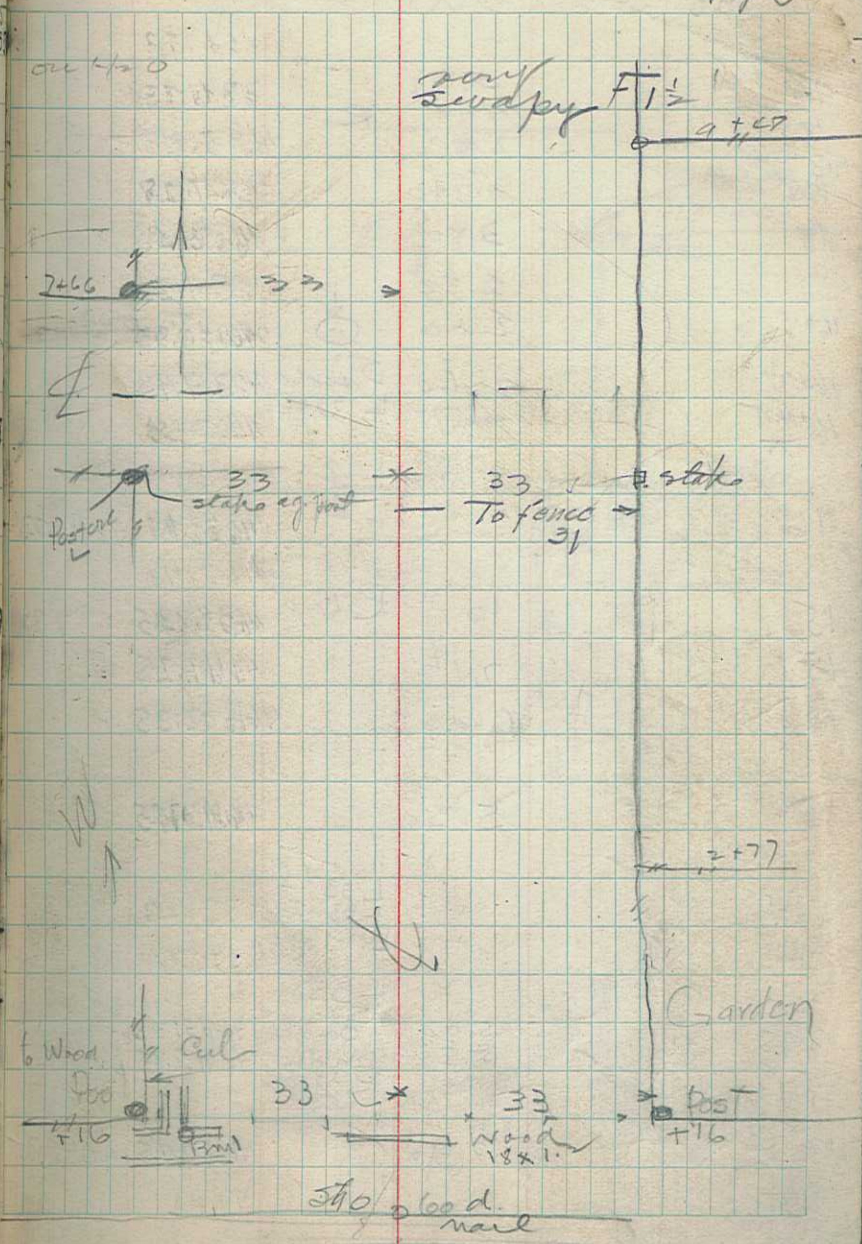
96 | 144
600

17 × 5) 600
150
360

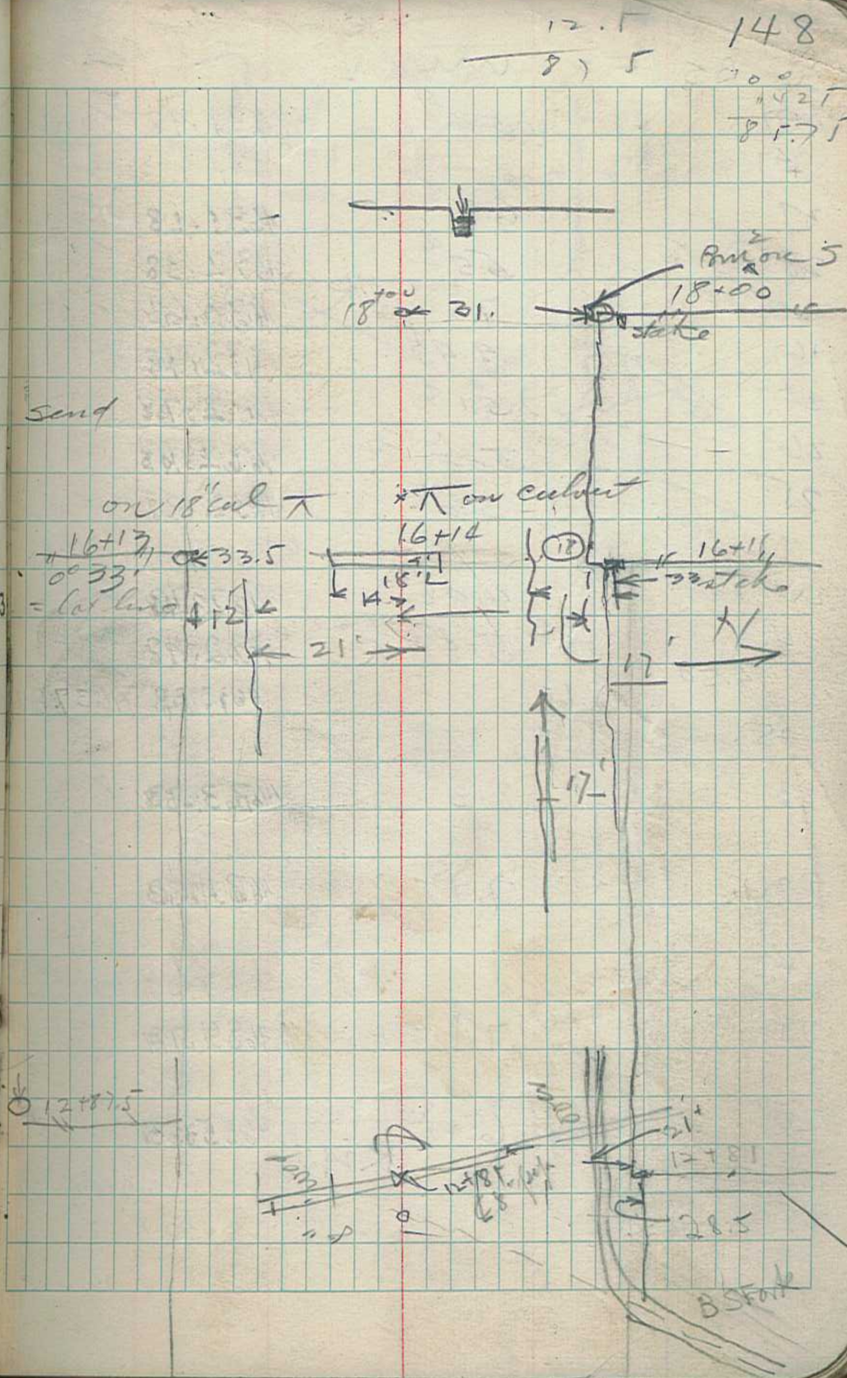
96



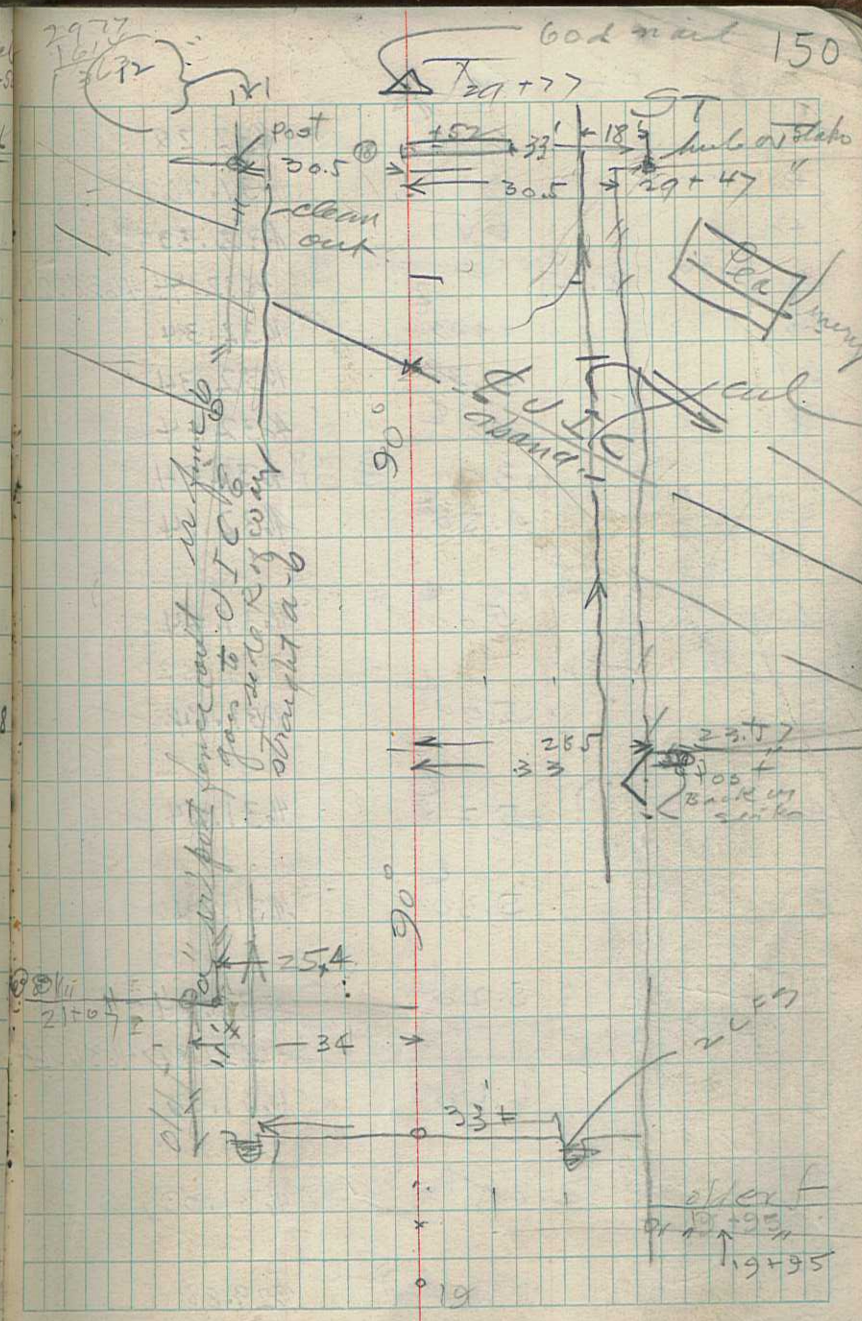
Sta	BS	FS	int	R or L	Elev.	H.I
		68				
11	2.12	11.15	11.3 ℄		4646.23	4648.35
10			10. ℄	L 20'	4646.10	4649.3[illegible]
10			8.5 ℄		4646.98 4648.88	
+48				R 30.5' R 33 st.		
9			7.2 ℄		4650.18	
8			3.8 ℄		4653.58	
7+66				L 33 stake also post		
7+32		~~2~~	2.5	℄ n+5	4654.88	
7+00	+6.0	-11.19 ℄			4657.38	4657.38
+98		~~11.17~~		L 33 L 33 L 31 to f		
6			6.6 ℄		4661.97	
5			1.6 ℄		4666.97	
	+0.33	-12.01			4668.24	4668.57
4+00			8.2 ℄		4672.05	
			~~8~~			
3+00			3.2 ℄		4677.05	
	+0.83	-11.60			4679.42	4680.25
+77						
2+00			8.00 ℄		4683.02	
1+00	+0.11	-11.4	~~11.4~~		4690.91	4691.02
+11						
0			0.70 ℄		4701.61	
BM	2.31				4700.00	4702.31



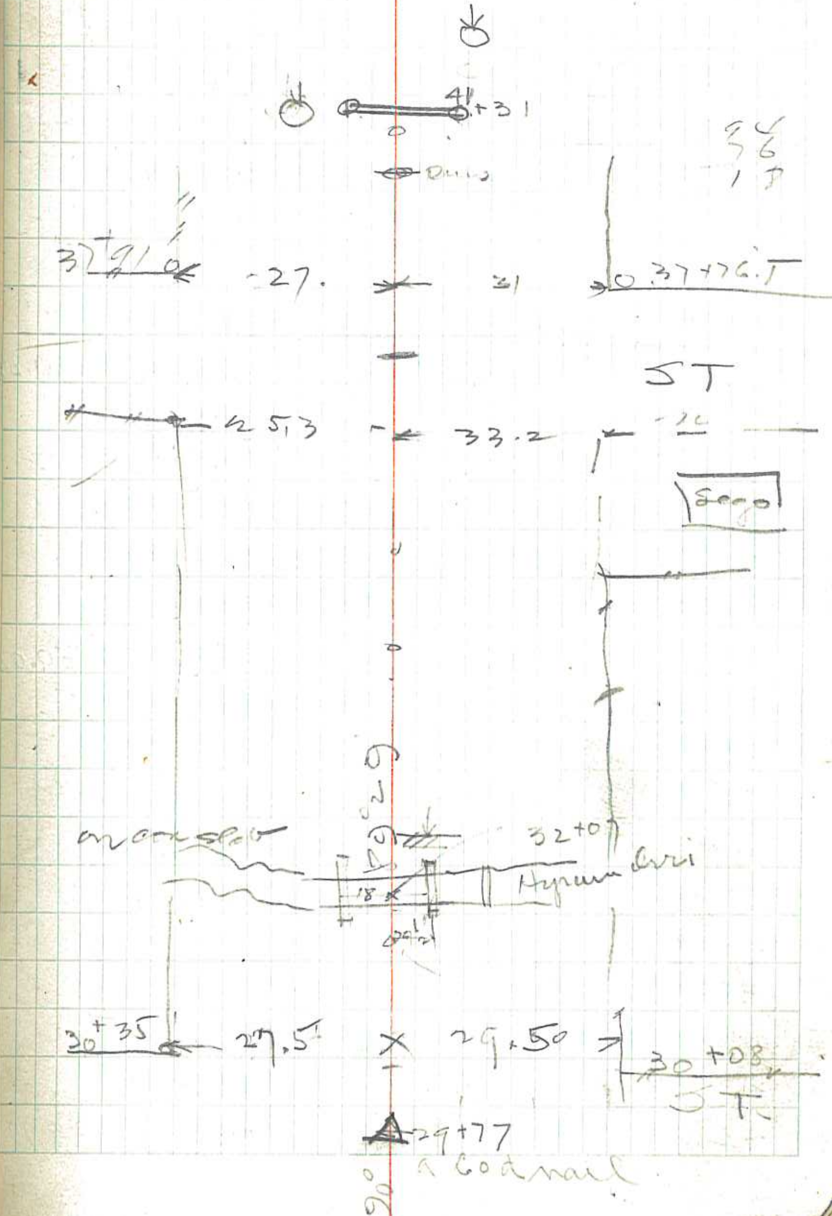
Sta	BS	FS	Inv	Rem	Elev	
19			5.3 ℄		4636.73	✓
18			H_2O 7.00	R	4635.03	✓
+18 Bm #2			4.740		4637.29	✓
18			3.80 ℄		4638.23	✓
17			2.80 ℄		4639.23	✓
16+℄			2.00	18	4640.03	✓
16+14			H_2O 2.60	Inside L 33 stake	4639.43	✓
16+14.25 ⊼						
16	2.16	~~2.16~~ 8.48 ℄			4639.87	4642.03 = Cal line
15			10	R H_2O	4638.35	✓
15			7.1 ℄		4641.25	✓
14			6.00 ℄		4642.35	✓
13+00			5.30 ℄		4643.05	✓
87.5				L 33 + f		
+87.5				L 33 stake		
				Low H_2O		
+87.5				L 33 in		
+87.5			5.00	n. fence Don 8" wood	4643.35	✓
+81			5.5	on H_2O R 33 stake	4642.85	✓
12+			3.90		4644.45	4648.3



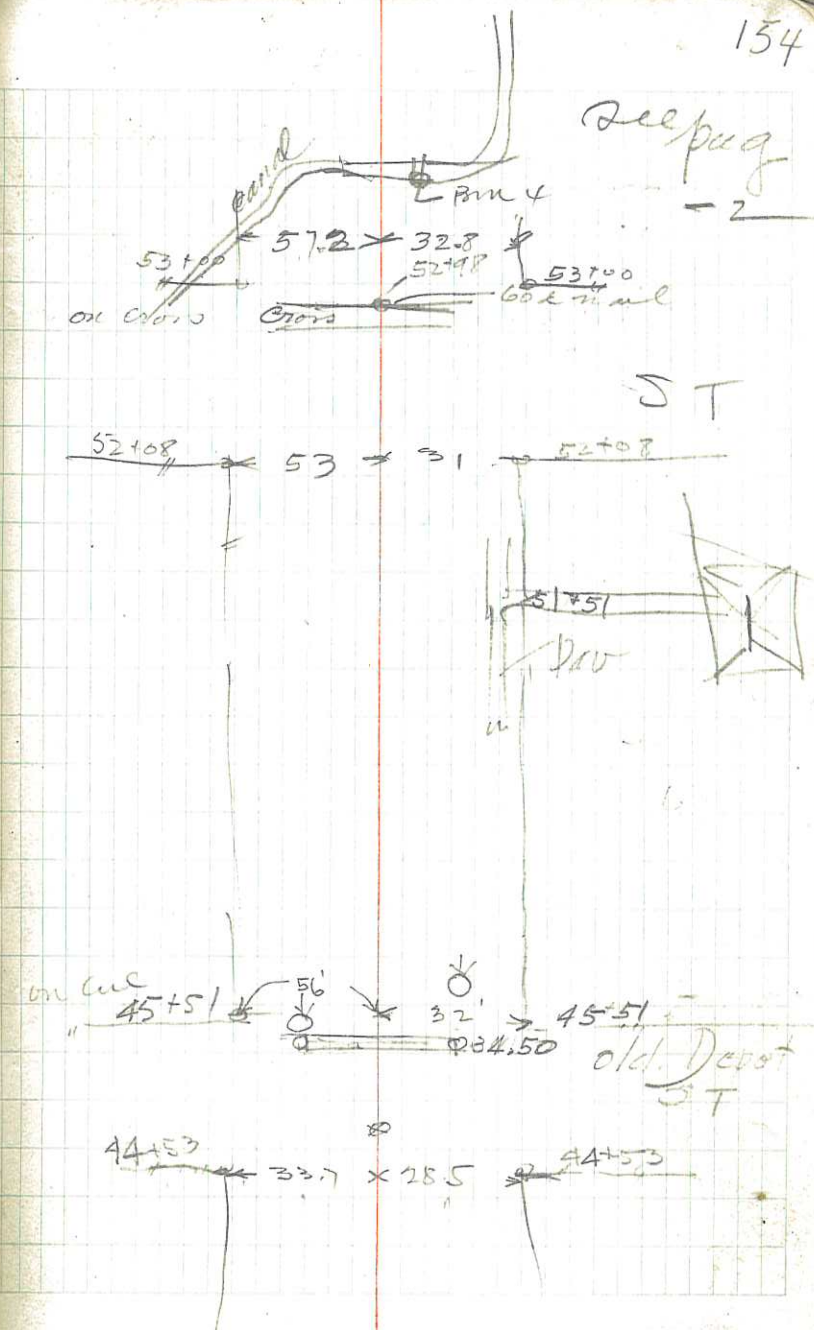
	BS	FS	wm	R or L		Spec 2-17-5
29+77			5.9 ℄		4631.98	71.6
+47						
29			6.7 ℄		4631.18	
28			6.5 ℄		4632.38	
+67			7.2 +20	R	4630.68	
+67			4.9 ℄		4632.98	
27			5.1 ℄		4632.78	
26			5.2 ℄		4632.68	
25			5.0 ℄		4632.88	
24			4.9 ℄		4632.98	
24			5.4	R 1/20	4632.48	
	4.50	8.65			4633.38	4637.88
+57						
23			8.3 ℄		4633.73	
22			7.7 ℄		4634.33	
+07						
21			7.1 ℄		4634.93	
20+00			6.40 ℄	R 29.5	4635.63	
19+95						4642.03



	BS	FS	[illegible]			
42			6.6		4632.20	
+31			7.1		4631.70	
+31			6.47		4632.33	
41	6.36	4.2 ℄			4632.44	4638.80
40			4.3 ℄		4632.34	
39			4.3 ℄		4632.34	
38			4.2 ℄		4632.44	
			3.9	℄ 2nd ST	4632.74	
37+00 +96			4.50 ℄		4632.14	
36			5.00 ℄		4631.64	
35			5.00 ℄		4631.64	
34			5.20 ℄		4631.44	
33+00			5.30 ℄		4631.34	
32+07			5.20 ℄		4631.44	
	382	5.06			4632.82	4636.64
32			6.60		4631.28	
31+00			6.85 ℄		4631.03	
30+08						
30+00						
30			8.00 6.24	R15' H22	4629.88 4631.64	4637.8



Sta	Bs	Fs	m		
BM 4 54+08			1.62	4658.75	
54			3.80 ℄	4656.57	
53+00			no Read		
52+97		5.56 Pav	5.56 Pav	4654.81	
+08	10.91	0.56		4649.46	4660.37
52			1.70 ℄	4648.32	
+51			3.3 p	4646.72	
51+00			5.2	4644.82	
50+00			8.2	4641.82	
49			11.1	4638.92	
	11.84	0.62		4638.18	4650.02
48+00			2.30	4636.50	
47+00			3.50 ℄	4635.30	
46+00			4.50 ℄	4634.30	
			4.80	4634.00	
			4.76	4634.04	
45			4.80 ℄	4634.00	
44					
43			6.50 ℄	4632.30	
42			6.60 ℄	4632.20	38.80



c/o Sy Jensen
Geo Hance 534J
Bill Tuttlefield 1811 nm
Conway Dunn 247

CURVE TABLES.

Published by KEUFFEL & ESSER CO.

HOW TO USE CURVE TABLES.

Table I. contains Tangents and Externals to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20′ to the R. at Station 542+72.

Ext. in Tab. I opposite 23° 20′ = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. I opp. 23° 20′ = 1183.1
1183.1 ÷ 10 = 118.31.

Correction for A. 23° 20′ for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 20′ = 23.33° ÷ 10 = 2.3333 = L. C.

2° 19½′ = def. for sta.	542	I. P. = sta.	542+72
4° 49½′ = " " "	+50	Tan. =	1 .18.47
7° 19½′ = " " "	543	B. C. = sta.	541+53.53
9° 49½′ = " " "	+50	L. C. =	2 .33.33
11° 40′ = " " "	543+86.86	E. C. = Sta.	543+86.86

100 − 53.53 = 46.47 × 3′ (def. for 1 ft. of 10° Cur.) = 139.41′ = 2° 19½′ = def. for sta. 542.

Def. for 50 ft. = 2° 30′ for a 10° Curve.

Def. for 36.86 ft. = 1° 50½′ for a 10° Curve.