21

1010

#21

FIELD BOOK

1808

1010

E Schmidt
Fayetteville Mich
3/5/18

1010

No Smithfield vote
in here

	Pt	Bearing	B.S. or C. station	F.S. or Centre Sta.	L	J
1						
	1	S66°E	13.30		12.73	
2						
	3	N62°30'W	~~1.70~~	~~2.30~~ 2.20		~~2.72~~ 2.72
	3	S75°30'E	1.70			2.72
4						
	5	N40°W		9.50	7.75	
	5	S3°E	2.80			4.85
6						
		N78°E				
BM		N10°E				
	7	N47°W		11.32		13.22
	7	S52°30'E	2.90			4.00
8						
	9	N53°W		7.05	4.80	
	9	S39°E	0.90			2.50
10						
	11	N45°W		14.0	8.90	
	11	S39°E	6.00			1.00
12						
	13	N46°W		8.70		11.6
	13	S48°30'E	2.70			4.28
14						
	15	N79°E		11.0	10.72	
	15	S53°W	4.62			5.16
16						
	17	N60°E		~~8.50~~ 8.50	7.70	~~7.7~~

Survey of proposed [illegible] on farm of Blacksmith Ford [illegible] Thomas Marlow Road

Elc. 238.09 1 foot above first bridge over race below Tyrone Plant

upper 9 20

(4.30 - 246.30) Iron on bank 244 [illegible] NE cor of Barnes shed

244.10 / 3.22 / 240.88

259.80 / 241.30 / 244.10

13.00 about 80 Elc. arom 233.00 HI = 244.00

240.88 30 from 6 on N20 at dandelion

3.22 BM on 3" cottonwood chopped off Elc 240.78 near door

232.68

235.58

HI Elc

11.32

13.44

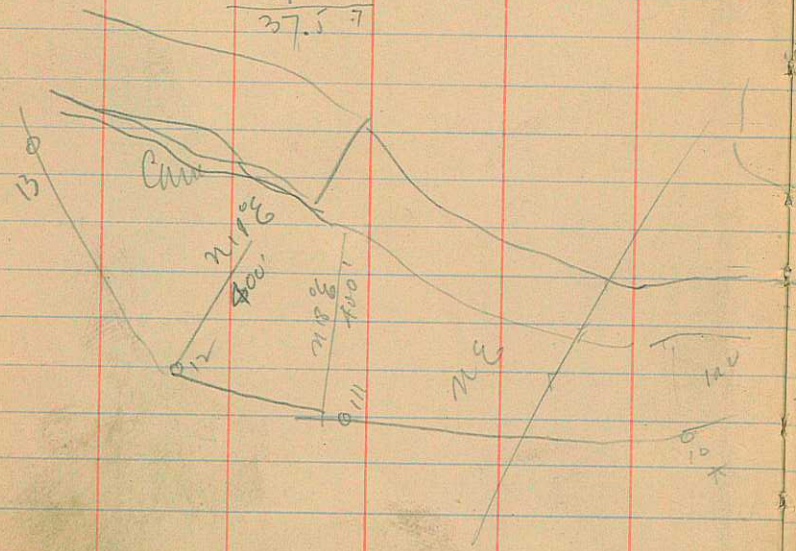
5.12 (B4) on Iron bar 6 above ground on [illegible] Elc 204.37

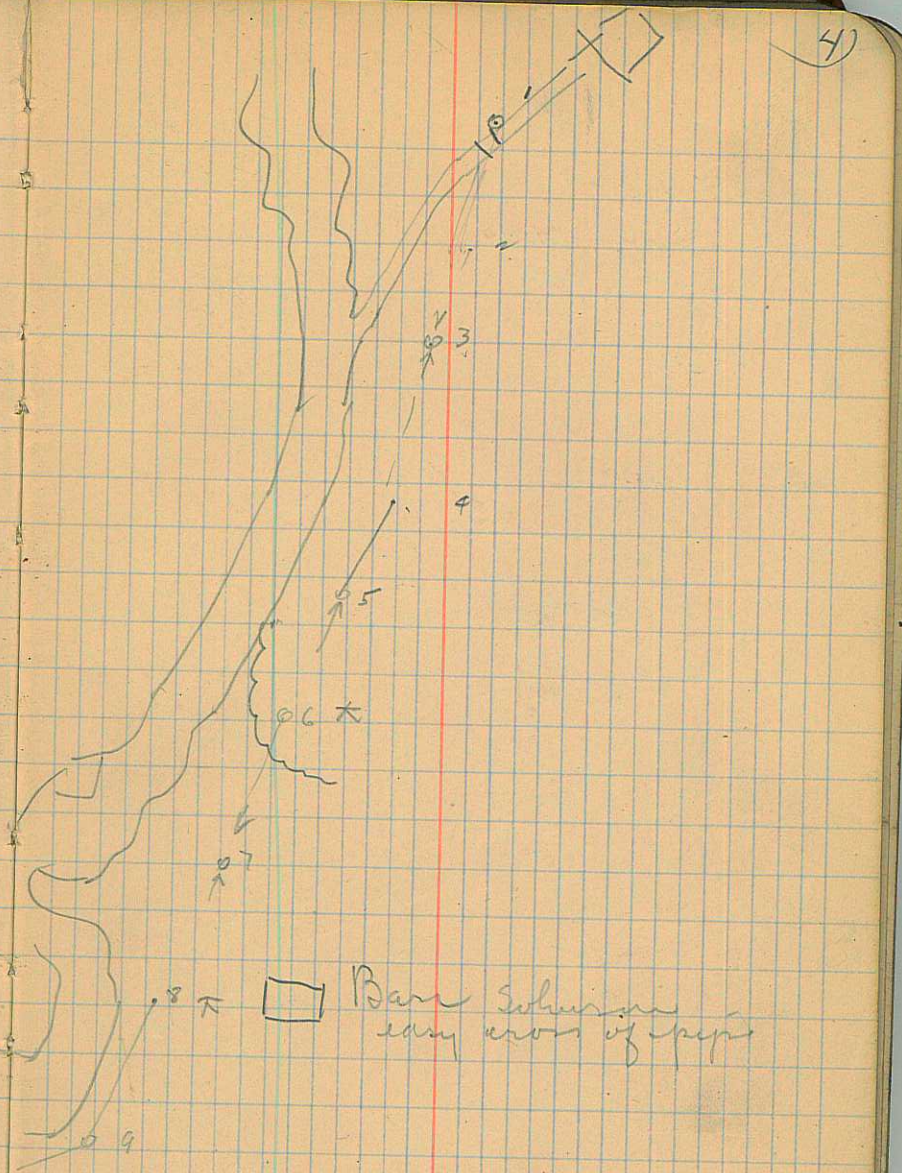
11.0 Canal bed Elc 198.41; HI = 209.93

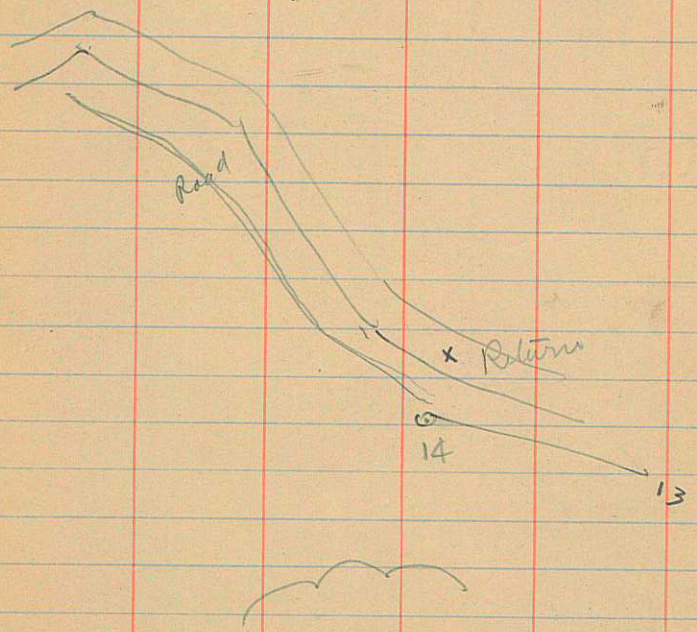
203.03

Run 194.53

BS	FS
13.30	
1.70	2.20
2.80	9.50
17.80	13.
	24.70
	17.80
	6.90
13.00	
2.90	11.32
0.90	7.05
~~0.00~~	14.00
~~2.70~~	8.70
19.50	11.02
	52.09
	19.50
	32.59
	37.5 7






Road
x Bottom
14
13

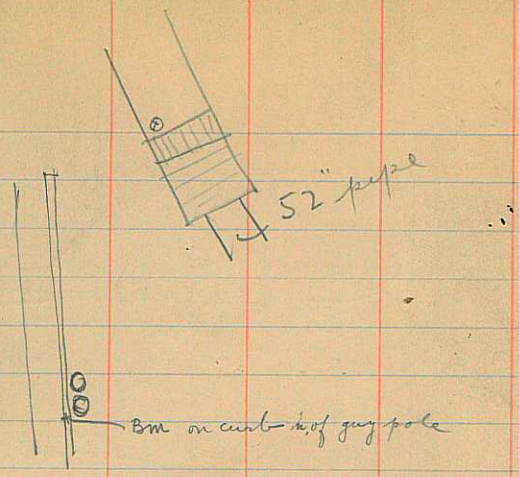
		BS	FS	L	U	Ele	HI	
								(660 feet extra to go to sec line)
	13a	S6°30W	2.62		4.08	204.31	206.93	Brass on port
18								
	19	N18°W		+2.06	10.25	194.87 12.06		on canal at culvert
	20	"		7.13		8.90	199.81	on downstream wall of culvert
			2.02				201.83	" " " "
								Stake from culvert down 35'
			12.4				189.43	on Rwt #20 oppo culvert.
		S42°W	3.90		4.00	199.81	203.71	on wall of culvert
21								
		N12°W	11.38	8.65		199.33		tail on port with brace Enido road

mar 15 - 1918

for S.H. Hatch

Report on Logan Stone & mon. Co

water power



BS	FS	HI	Ele	
1.88			100.00	101.88
		2.58	99.30	
1.88	12.30		89.58	91.46
		7.65	83.81	
5.30	4.540		86.92	92.22
		5.95	86.27	
2.150	7.470		84.75	86.90
		11.08	75.82	
0.01	12.390		74.51	74.52
17.27				
		0.83	73.69	
	7.2760		67.26	
	43.96			
	11.12			
	32.84			

on H2O surface
on east Bm

one pneumo bore to Contact mtr

on top 18" pipe out at L. Sq Mon. race
on far NW cor of Building

on H2O surface Walden Race

Bm N. end of E rail E bridge over Little Logan

23
40
1.55
64,55
1.2

1.000 0.5

.00155 .001 1.55
1
5
65

r = .93
r = 0.97

C = 54 √r s

.54 × .97
.03 .03
1.62 .0291

Slope .10 ft/ft
n = 1.62

16,5
60 .0040
9900

.0015
.04

56
2.24
.97
.04
.0388

Sine .150 ft/ft
v = 2.2



1½ dug 5

1.5
4.4
6.0
2.1.0
7.2.0

675
720

67.56 720
6480 93
2700

√.93
81
12.00

64.55 1.2 0250 .97
45 538 1.2 6026
36 5382
95

.0010
.03

24.55
.026
14730
1910
.63830
55221
1.1902

23
40
1.4
64 1.13
568 56
720
678

56

.0055

.24
.026
1.44
48
.624
.571
1.13

Labels for Table Loops at Weston Rd

at Weston Rd

BS	FS	HI	Elev	
5.88			100.00	105.88
		3.61	102.27	
		6.68		
1.01	12.99			
2.68	12.26			
1.18	11.75			
		13.07 − 2.40	61.16	
7.83	11.73			
18.58				
	11.90			
	60.13			
	18.58			
	41.55			

	BS	FS	HI		
O. Bm	8.78			105.20	111.98
			11.60	100.38	
			3.2	108.78	
			8.50	103.48	

3/18/18

105.88 − 5.88 = 100.00

6.68 + 13.07 = 19.75 (14)

on Height H2O

on concrete wall

on the Surface

Center line of Pelton wheel

on Tail water

at dam

water surface at entrance

water surface

on dam

on Head or low rm.

Sta	BS	FS	Grd Elev	R.R Elev	H I
	4.07		102.27	106.34	
			100.00		
			8.50	97.84	
0	7.50			100.00	
BM			4.30	103.20	107.50
0			7.10	100.40	
1			7.39	100.11	
bot. 1			8.4	99.10	
H₂O			7.48	100.02	
3			7.56	99.94	
3			9.2	98.30	
4			7.63	99.87	
5			7.66	99.84	
Tp on top 5	3.47	5.28		102.22	105.69
6			5.85	99.84	
7			5.95	99.74	
			7.8	97.89	
bank			4.6	101.09	
8			5.98	99.71	
bank			4.2	101.49	
9			6.0	99.69	
bank			4.2	101.49	

9.10 16)

102.27
4.07
106.34
8.50
97.84
100.00
9.78
2.16

on Walk
on concrete

on bottom outlet at Dam
on west rock N of curb 4'
W. Surface

7.66
5.28
2.38

H₂O

5.88
3.47
2.41

	BS	FS			
10			6.08	99.61	105.69
bank			4.00	101.69	
11			6.10	99.59	
bank			4.50	101.19	
12			6.20	99.49	
12	4.42	4.40		101.29	105.71
12			6.28	99.43	
12			8.5	97.21	
13			6.32	99.39	
bank 13			4.8	101.21	
14		H_2O	6.33	99.38	
bad 14			8.5	97.21	
bank 14			4.9	100.81	
15		H_2O	6.42	99.29	
bank 15			4.70	101.01	
16			6.47	99.24	
bank 16			4.80	100.91	
17			6.56	99.15	
bank 17			4.4	101.31	
18			6.60	99.11	
bank 18			4.26	101.54	
18+22			6.60	99.11	
18+22		3.66		102.05	

H_2

on H_2O
on peg
H_2O
bat.

top peg

BS FS (18)

739

347 528
442 440
1528 660
1628
1520
108

1.0804 1728
10368 .06 24
4320

	BS	FS	HI	Elev	Cor'r
18	3.92			6.88	
			3.72		
19			7.98	~~7.98~~	
bot 19			~~8.00~~	8.00	
19				4.00	3.98
20			8.08		~~2.60~~
20				5.50	~~2.60~~
bot 20				8.80	
21			8.18	~~6.60~~	~~1.60~~
bank 21				6.60	1.60
bot 21				8.22	
22			8.28	6.42	1.90
bank 22				8.25	
bot 22					
23			8.38		
bank 23				8.35	
bot 23				9.70	
	1.57	5.18			
	1.34	12.49			
24			4.70		
24+90			9.8		
top 25	1.70	12.56			
gr. 25			2.4		
25+50			13.00	67.37	
	0.55	12.34			
26			4.6		
26+92			8.90		

5.88

.2' total

105.99

5.88

102.27 Brn. conc. wall (AT 105.99)

old data

6.66
2.74
3.92
6.88

100.00

100.49

8.08
5.5
2.58

99.39

8.18
6.60
1.58

8.22
6.42
8.25

99.59

8.38
5.5
1.88

97.64
98.29
100.81 102.38

on Brn. A. 20 of 23

78°25'

89.89 91.23

86.53

81.43

78.67 80.37

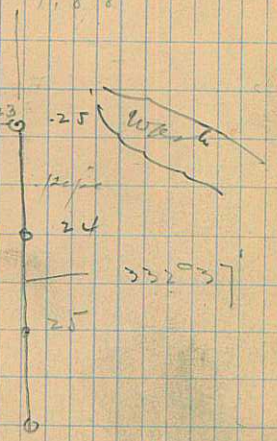
77.97

68.63 (X HI) 68.58 - HI

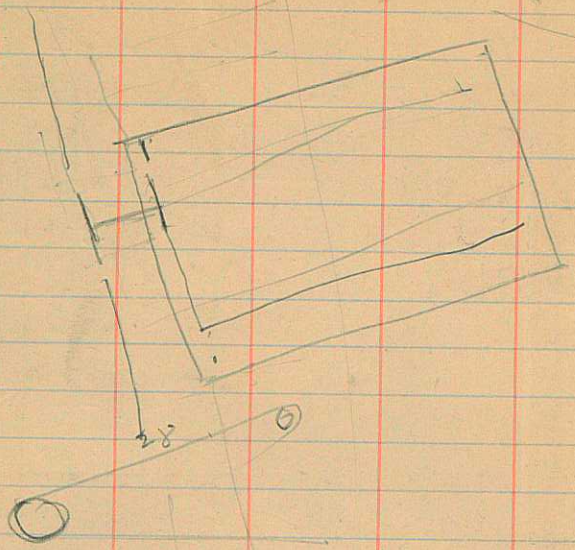
63.98

54.68

Brn. wall in prep.



20



		BS L	FS C	HI U
2'	Ray			
	131°50'		2.8	3.06
	245°		4.1	4.57
	287°30		7.1	7.65
	299°30	8.35	9.00	
	313°30'		9.90	10.5
8	342°16	8.48	8.90	
7	14°0	6.33	6.69	
26+92				
	Dust			
				12.00
				8.50
				11.00
				10.80
				5.30
		1.8		
TP 7	284°30'		10.9	12.70
4 6	299°30'	9		13
265 5	302°40'	10.35		13
4	315°2'	10.6		13
190 3	335°0	11.1		13
170' 2	350°40	11.3		13
150' 1	350°46		11.	11.75
26				
	0.55			

note up

(6 + HI) = 71

61.35
60.05
57.05
55.15
54.35 ✓
55.25 ✓
6° FS on BM B HI = 64.15

BM 13

47.50 bottom culvert on Creek

51.00 Timber cut

48.50 on HI by dimension

48.70 ✓ on HI by bridge

54.20 on top bridge

57.68 ✓ 59.50

54.00

49.72

53.00

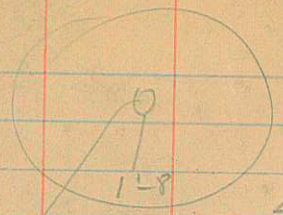
54.43

57.60 (11.12 on BM B) 57.46 on AM

68.58 = HI

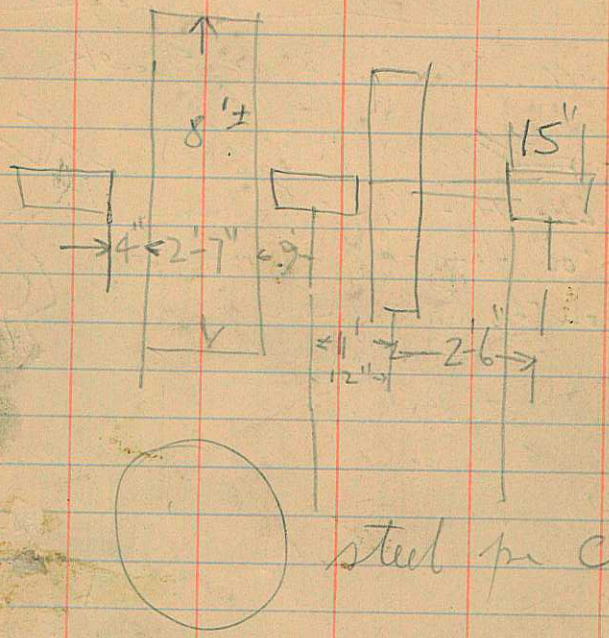
59.50
1.12
8
58.38

57.68
57
59.50

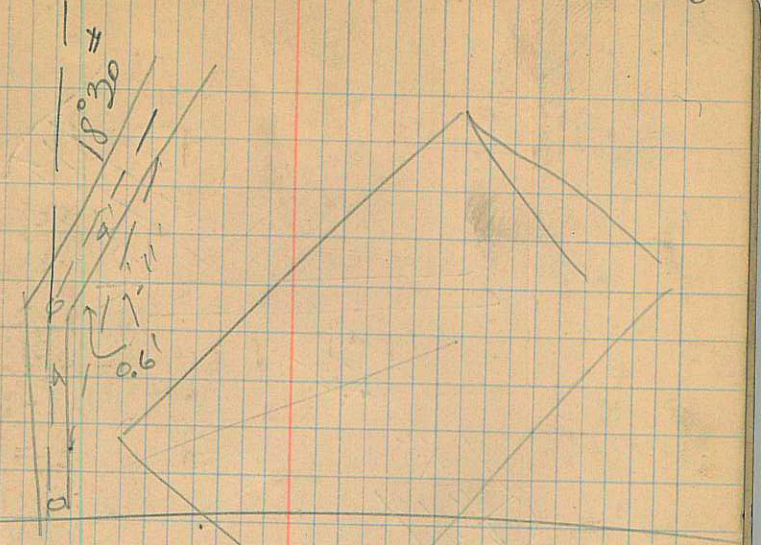


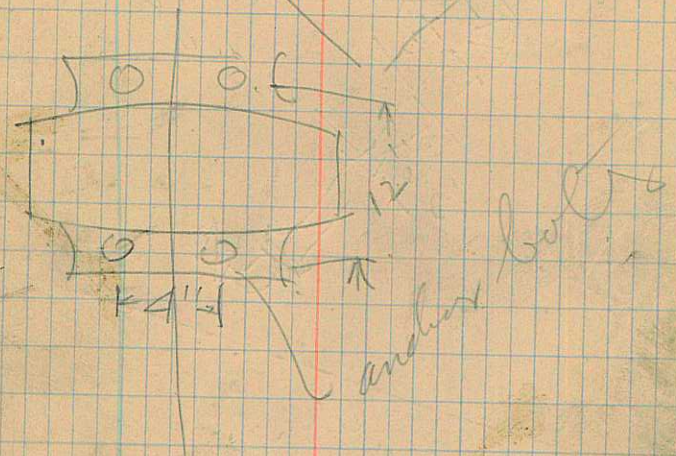
main
arch
4 4" ±
C = 11'-8'
sh

20

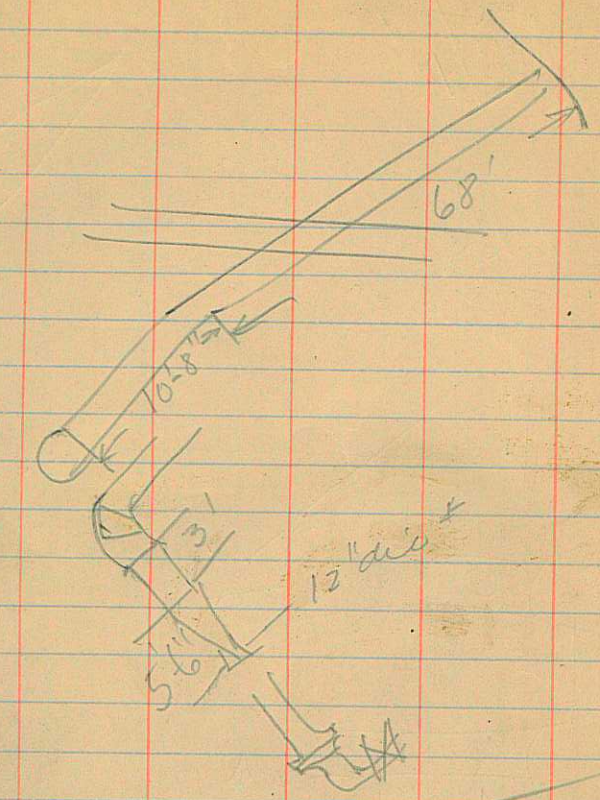


steel pr C = 7.38



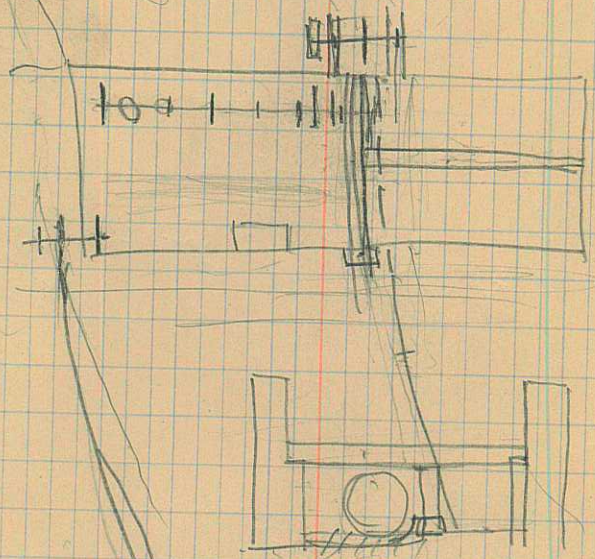


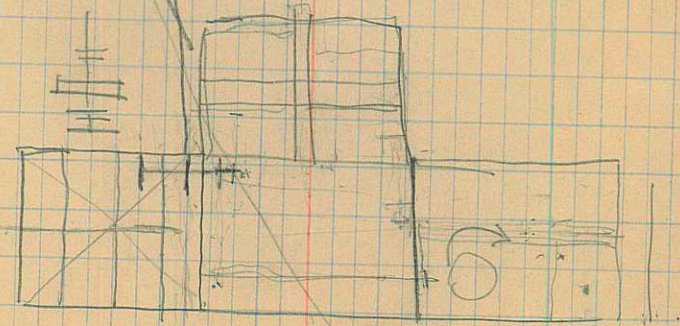
anchor bolt

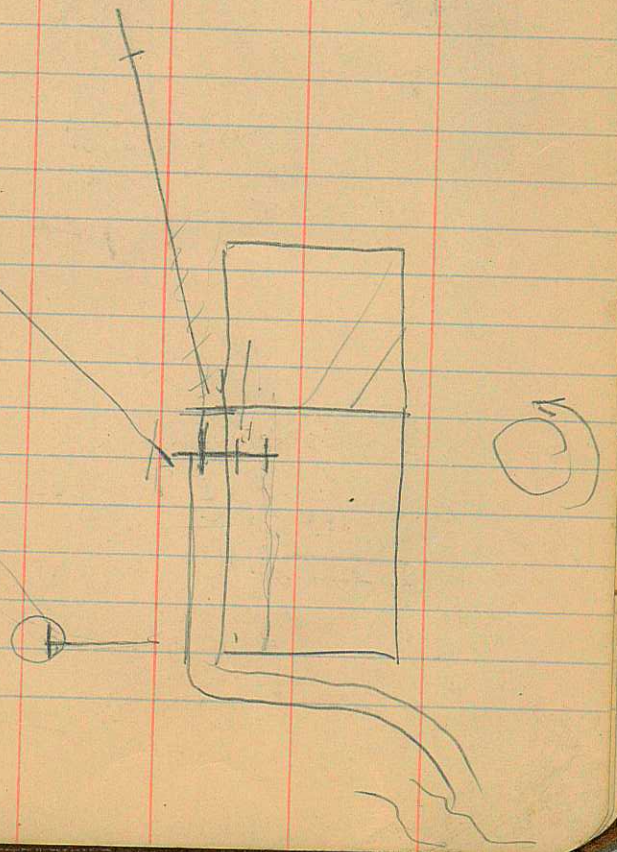


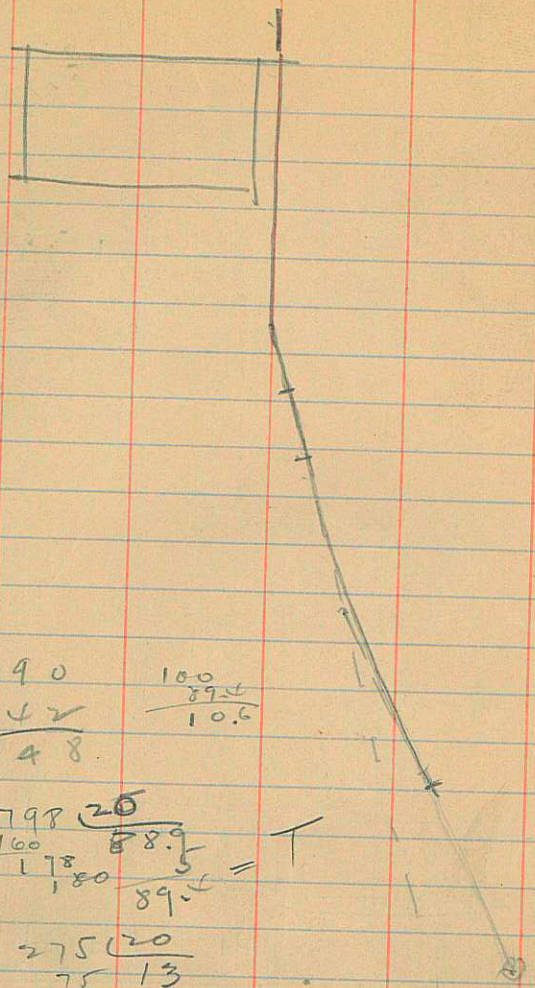
28+36 mule
28+32 house
fence

53
50
47 49
51









28
28

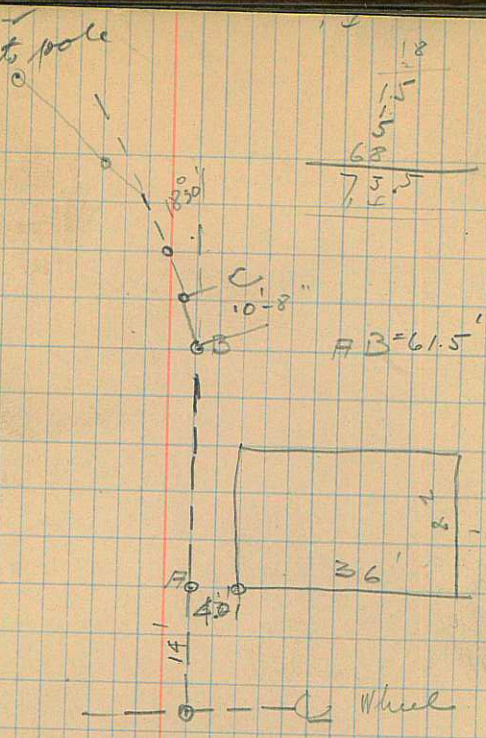
160 90
126 42
348

100
89.5
10.6

1798 20
160 89.5
178 5
180 89.5

275 20
75 13

155° to pole



18
15
5
68
73.5

1798 60
180 30
18 13

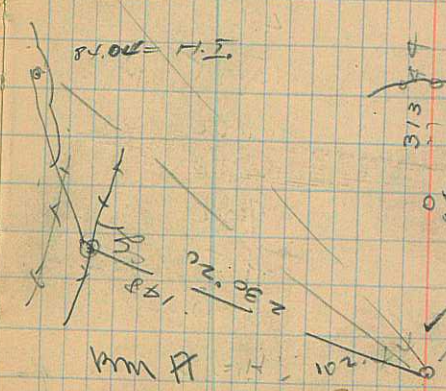
AB = 61.5'

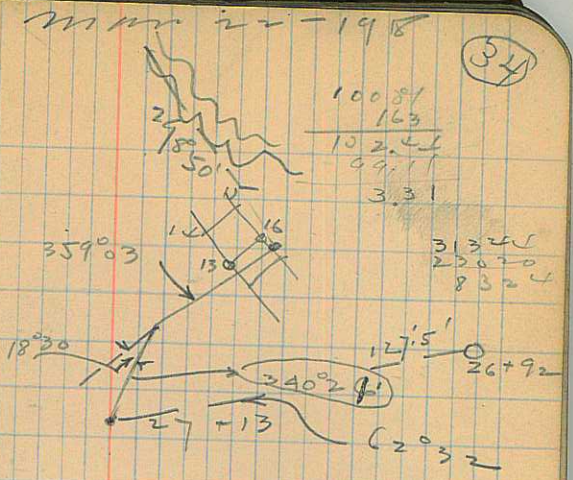
32

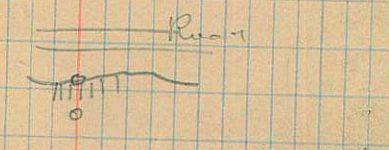
T-Pt Ag	BS	FS	HI	Ele
14			7.3	57.61
13			5.60	59.31
12 265°				2-7.1
11 262°				2-6.6
10 258°20				2-6.1
27+13	3.37	10.32		61.54
			11.90	59.96
27			11.60	60.26
26			5.00	66.86
25+71	0.30	12.48		71.56
		25+22	12.90	71.14
25 00	25+10	on rod	3.20	80.84
24+71			4.80	79.24
			10.00	74.04
24+38	1.75	10.95		81.29
~~24+38~~			11.4	81.84
24			7.40	85.84
	3.27	12.47	89.97	93.24
23-	1.63			

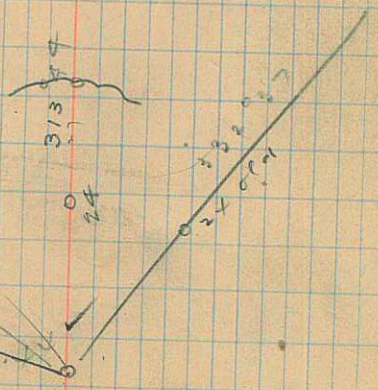
HI = 71.86

84.04 = H.I.









BS	FS	HI	
		8.81	
		7.49	
3.53	1.0✓		
7.12✓	4.5✓		
	~~7.5✓~~	7.5✓	57.39 BM B
261°30		4.60	60.31
321°45		15.25✓	49.66
		17.20	47.71
		12.70	52.21
		9.20	55.71✓
17		9.50	55.41
16		8.00	56.91✓
15		8.33	56.58✓

143

(36)

6.85 + 8
+ 1.2
57.16

Base Floor
52.00

10.05
52

wood
on beam 2.40 below Base Floor

on rock at TP

115' N from N 45°
on 4-20 on curb 145'
bottom test pit
on 4-20 on test pit
all grr. by test pit

Watch Grades
for H Ballast Gravel Pit 3/25/18

Sta	BS	FS	Grade Cut	RR	Cut or Fill
	5.16 +4.61				
			4.51		
			5.16		
0					
1+00			3.51 .038		
2+00			3.548 .038	3.62	
3+00			3.586 .038	3.65	
4+00			3.624 .038	4.00	F 4"
5			3.662 .038	4.60	F 1'
6+00			3.700 .038	4.22	F 6"
7+00			3.738 .038	4.51	F 9½"
8			3.776 .038	4.35	F 7"
9+00			3.814 .038	4	F 3"
10			3.852 .038	3.70	C 1"
11+00			3.890 .038	3.80	C 1"
12			3.928 .038	4.00	F 1"
13			4.066 .038	4.25	F 3"
14			4.104 .038	4.80	F 9"
15			4.142 .038	4.65	F 6"
16			4.180 .038	4.50	F 4"
16+80			4.218 .038	4.60	F 5"
16+80	4.22		4.256	~~4.51~~ ~~4.20~~	F 0.26

F 5"

5.16
4.61
0.55

38

on proj. grade of relaid by West Radio
at Concrete near dump.

5.16
4.51
0.65 | 1680
1040 | 38
1460
1260

5.16
4.51
0.65 00 | 1680.
5040 | 03 87
1460 00
3360 | 0.33
1200
1176
0.038 0 | 0

3.62
3.51
.07

3.63
3.59
.06

.038
.9
3.32
3.51
3,3,1,2

4.26

4.37
4.12
.25

3.74
.81

4.55
4.30
0.25

3.73
3.35
0.38

4.22
4.26
3.96

5.25
1.
4.25
3.96
0.29

0.4800 | 1600
8000 | 0.25

4.38
0.19

4.65
4.30
0.35

7

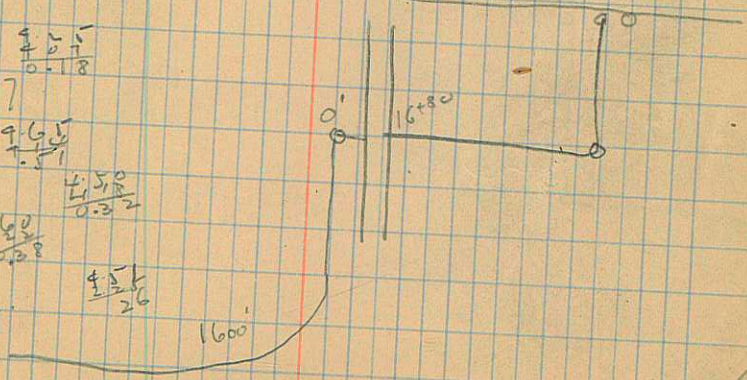
4.65
4.51
.14

68

4.50
4.18
0.32

4.60
4.32
0.28

4.51
4.25
26



Grades with reference to Hydra. gradient 1' above datch grade

0.025 of 0

0	BS	FS	Gr or	RR	CwF
0			4.000	3.40	C8"
1			4.025	3.40	C8"
2			4.050	3.30	C9
3			4.075	3.8	C4"
4			4.100	3.3	C10"
5			4.125	3.6	C6"
6			4.150	3.6	C7"
7			4.175	4.95	F9"
8			4.200	6.00	F1'10"
9			4.225	6.20	F2'
10			4.250	5.2	F1'
11			4.275	6.00	F1'9"
12			4.300	6.30	F2'
13			4.325	4.4	F1"
14			4.350	4.20	C2"
15			4.375	4.80	F5"
16			4.400	5.30	F11"

0.027

4.95
4.17
0.78

6.02
1.85

6.70
4.72
1.98

6.00
4.33
1.67

4.80
3.37
1.43

0.025
2
1.200

3/25/18 Grade for Ammonia monk.

	BS	FS	mm	
	4.07			
		5.10		
0		4.10	4.10	
			.09	
1			4.01	4.90 F 12"
			.09	
2			3.92	5.00 1'1"
			.09	
3			3.83	4.62 F 10"
			.09	
4			3.74	5.00 F 1'3"
			.09	
5			3.65	4.60 F 1'
			.09	
6			3.56	4.6 F 1'
			.09	
7			3.47	3.7 F 3"
			.09	
8			3.38	3.7 F 6"
			.09	
9			3.29	4. F 9"
			.09	
10			3.20	3.20 0
			.09	
11			3.11	3.90 C

Beg at lower end of the ditch in E. bank Dist. Canal to west side Co. road No 5

at point (a)

5.10
4.10
1.00 equal 11
99.00
100 .091

909

4.90

5.92
1.02
4.62
3.37

5.37
1.26

4.66

3.75

3.75

4.33

3.90
3.16
0.74

Survey for Jensen
at Babylon Lane
7/26/18

	BS	FS	HI	Ele	HI
Stk	6.15			100.00	106.15
			3.82		
6	3.95	4.45		101.70	105.65
15	5.33	6.42		99.23	104.56
25	4.51	4.30		100.26	104.77
32+00					
37+37			5.00	99.77	
39	5.00	5.93		98.84	103.84
44			3.90	99.94	
49	2.50	4.77		99.07	101.57
58			4.60	97.00	
64+00	2.80	3.75		97.82	100.62
66			3.00	97.62	
72			5.5	95.12	
	4.66	5.22		95.40	100.06
	34.90				
	4.26		4.26	95.80	
	39.16				
	34.90				
	4.26				

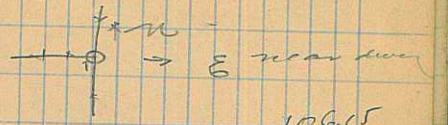
7200
1200
6000

72
55
2346

2600
2346
254

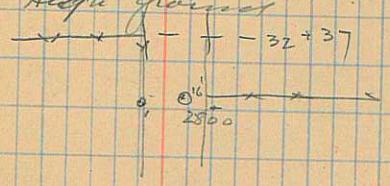
(44)

on 1/2 x 2' Bar A

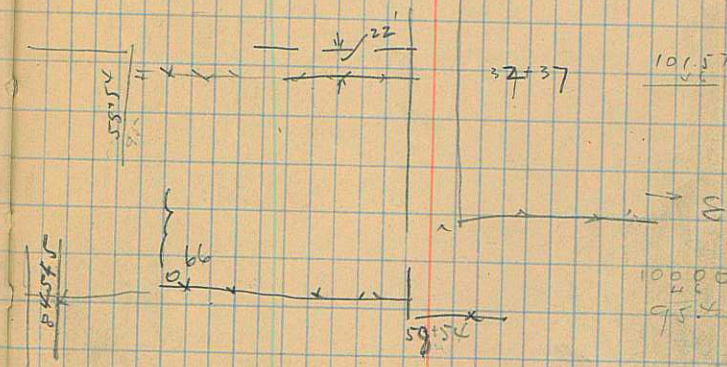


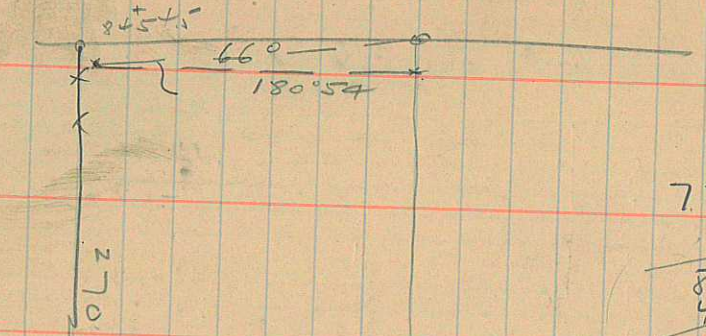
106.15
4.41
101.70
3.41
105.65
4.42
99.23
5.33
104.56
4.30
100.26
3.71
104.77

on alg. Height gauges



104.77
5.93
98.84
5
103.84
4.77
99.07
2.50
101.57
3.75
97.82
2.80
100.62
5.22
95.40
0.00
95.40

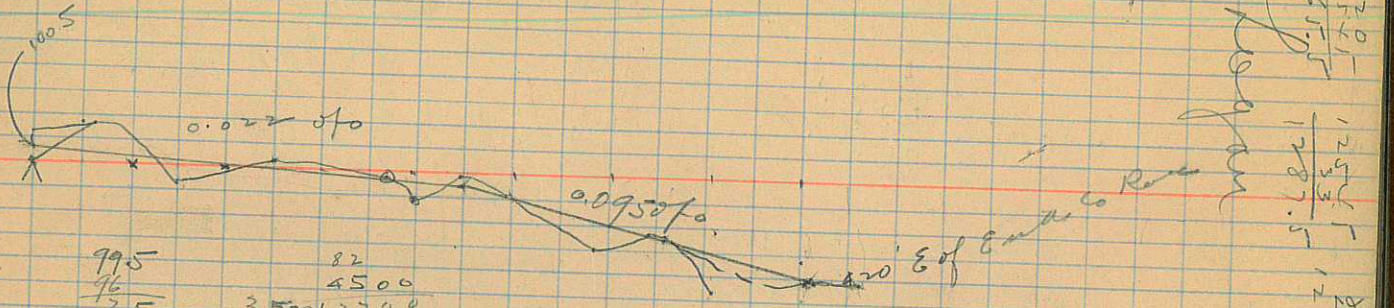




7200
660
9
8760
45
4260

7200
65
71660
9
8695
8700
45
4200

4200
3.5000
3600
1200
1200
083



995
96
3.5

82
4500
3500 3700
3300
4700
1500

.095
3700
6500
285
3.5 1500

1.0000 4500
1.0000
1.0000 .022
1.0000
1.0000
1.0000

	BS	FS	Δ	RR	C-F
			mm	Ele	HI
	5.25			95.80	101.05
0			5.05	5.60	F 7"
1			4.955	5.70	
2			4.860	5.7	
3			4.765	6.9	F 2'-3"
4			4.720	6.2	F 1'-6"
5			4.637	5.4	F 10"
6			4.554	5.2	F 9"
7			4.471	5.3	F 10"
8			4.388	5.5	1'-1"
9			4.305	5.8	F 1'6"
10			4.222	6.1	F 2'
11			4.139	6	F 2'
12			4.056	3.9	C 2"
13			3.973	4.4	F 5"
14			3.890	5.7	F 1'-6"
14	5.54	5.42		95.63	101.08
14			4.01		
12			4.176		
12				3.80	C 4"
13			4.093	3.80	C 3"
14			4.010	4.50	F 6"
15			3.927	3.80	C 1"
16			3.844	4.50	F 9"
			3.761		

5.42

4.7
0.8
3.91

95.80
5.25
101.05
96
5.05

8.5 1 1
7.27 2
12.56 5
1.72 0
1.21 5.5
6.51

96.75

5.05
0.95
4.10

5.60
5.05

5.70
5.48

6.7
6.2
0.5

6.2
1.5

5.4
5.68

5.2
5.17

5.37
5.32

5.55
1.5

5.83
5.83

6.1
1.9

6.1
1.9

4.9

9.05
1.15

5.7
3.9
1.5

top prof

0.0830

1.083
.332

5.05
.33
4.72

101.05
5.33
96.72

95.12

5.42
3.890
1.533
5.554

5.42

1.083.36
.16

101.50
5.42
96.08
5.54
101.62

1.53

5.54
1.53
4.01

101.05
5.47
95.63
5.54
101.17

	BS	F3			
17			3.761	5.00	F1'-3"
18			3.678	4.6	F9"
19			3.595	3.6	Gr.
20			3.512	3.6	Cl
21			3.429	3.60	F3"
22			3.346	3.30	Gr
23			3.263	3.60	F6"
24			3.180	4.6	F1-5"
25			3.097	3.6	F6"
26			3.014	3.9	F11"
on top 26	5.52	3.60	4.934	97.57	103.09 F0.586
27			4.851	5.9	F1'1"
28			4.768	5.7	F1'
29			4.685	5.6	F11"
30			4.602	6.20	F1'8"
31			4.519	6.60	F2-1"
32			4.436	6.1	F1'-9"
33			4.353	4.80	F6"
34			4.270	6	F1'9"
35			4.187	4.9	F9"
36			4.104	4.5	F5"
37			4.021	4.7	F9"
38			3.938	4.4	F6"
39			3.855	5.1	F1'-3"
39	5.78	4.85	4.785	98.24	F0.995
40			4.759	7.1	F2.5"
41			4733	6.7	

(50)

101.17 = 101.67

5.00 / 3.8 / 1.2

1.7 / 4.7

101.17 / 3.84 / 97.33

.083 / 1.66 / 96 / 97.66

16 / .083 / 48 / 125 / 1.328 / 96

101.17 / 3.84 / 97.33

3.60 / 3.3

101.62 / 3.84 / 97.78

101.17 / 36 / 97.57 / 5.52 / 103.09

3.2 / 1.3

4.6 / 3.2 / 1.4 / 3.1

27 / .083 / 81 / 2.76 / 1

14 / .83 / 42 / 1.162 / 1.162 / 96 / 97.16

101.05 / 3.84 / 97.21

103.09 / 4.85 / 98.24

5.526 / .586 / 4.934

3.600 / 3.014 / .586

101.05 / 3.89 / 97.16

1.25000 | 4800 / 96000 / 29000 / 28800 / 2000 / 0.264

1.6 / 6.6 / 2.1

6.6 / 1.7

103.09 / 4.85 / 98.24 / 5.78 / 104.02

103.09 / 3.85 / 99.24

.026 / 48 / 208 / 104 / 1.24

100.50 / 99.25 / 1.25

6.00 / 1.7

0.026 M

104.02 #2

5.3 / 1.4

4.85 / 3.8 / 0.995

5.78 / 4.85 / 4.7 / 5.1

7.1 / 2.4

C.7

	BS	BS	Gr m	RD	Cor F=
41			4.733	4.20	~~C6"~~
42			4.707 (026)	4.20	C6"
43			4.681 (026)	5.8	F1'1"
44			4.655 (026)	5.4	F10"
45			4.629 (026)	5.0	5" F
46			4.603 (026)	5.1	F6"
47			4.577 (026)	5.0	F5"
48			4.551 (026)	5.5	F1'
49			4.525 (026)	4.7	F3"
50			4.499 (026)	5.5	F1'
51			4.473 (026)	5.0	F6"
52			4.447 (026)	3.80	C8"
53			4.421	4.4	Co
53	4.85	3.90	5.371 (026)	100.12	104.97 C0.52
54			5.345 (026)	5.5	F2"
55			5.319 (026)	4.7	C8"
56			5.293 (026)	4.9	C5"
57			5.267 (026)	6.4	F1'1"
58			5.241 (026)	5.7	F6"
59			5.215 (026)	4.4	C1'
60			5.189 (026)	4.8	C5"
61			5.163 (026)	4.8	C4"
62			5.137 (026)	6.6	F1'6"
63			5.111 (026)	6.4	F1'4"
64			5.085	6.	F11"

(026 / 136) 99.24 / 13

104.07 / 4.65 / 99.37

104.02 / 390 / 100.12 / 485 / 104.97

104.97 / 534 / 99.63

54 / 39 / 15 / 24 / 90 / 30 / 39 / 99.24 / 99.63

4.72 / 4.72

5.8 / 4.7

5.4 / 4.8 / 8

5.6

5.6

5.6

5.5

4.7

5

4.4 / 3.8 / 6

4.4

4.42 − 1 / 0.52 / 4.85 / 5.37 / 1

104.97

5.32 / 4.7

4.9 / 5.3 / 4.9

6.4 / 5.3 / 1.1

5.7

5.7 / 5.2

5.2 / 4.8

5.16 / 4.8

6.4 / 4.8 / 1.6

6.4 / 5.1

	BS	FS	HI	RR	Cor'r
64			5.085		
65			5.059	6.3	F1'4"
66			5.033	5.4	F 5"
67		✓	5.007	5.2	F3"
68			4.981	5.10	F2"
68	4.162	4.68		100.29	HI=104.91 C0.301
68			4.921		
69			4.895	5.1	F3"
70			4.869	6.5	F1'8"
71			4.843	5.	F2"
72			4.817	5.5	F9"
73			4.791	4.60	C2"
74			4.765	5.2	F5"
75			4.739	4.7	F 0"
76			4.713	4.9	F3"
77			4.687	3.2	C1'6"
78			4.661	2.6	C2'
79			4.635	4.00	C8"
80			4.609	4.00	C7"
80	4.45	3.68	5.379	101.23	C0.929.
81			5.353	6.1	F10"
82			5.327	5.3	C0"
83			5.301	5.2	C1"
84			5.275	4.8	C6"
85			5.249	4.5	C9"
85+82		5.86	5.223		

104.97
5.007
99.963

6.3
5

5.1

4.981
4.62
0.301
4.921

5.4
5.1
1.6

5.5
5.4
0.1

5.2
5.4
4

4.9
4.7
4.7
3.2
3.5

4.609
3.68
0.929
4.45
5.379

105.68
6.1
5.3
5.3

5.38
5.4
5.25

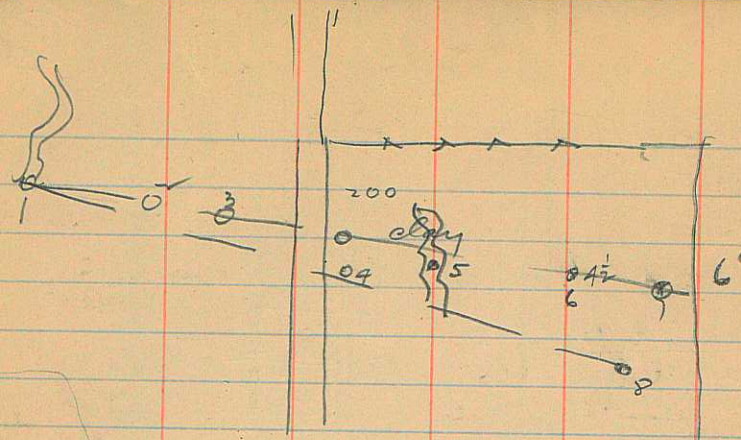
104.97
4.68
100.29
4.62
104.91
3.68
101.23
4.45
10 5.68

5.86
5.61
5.2
0.

5.86
5.22
6.4

67
3.4
2.8
2.6
1.68
1.68
7.28
99.2.4
99.96.8

(54)



4 | 1.66
0.17
0.4

23
66
26
916 | 1.57
942 | 60

60
3
1.80

25.6
.04
1.024
1.57
1.57

.015
1.000 | .015
100 | 66
90

.006
.0015 | 1006
35 | 2.5

.4

.015 | .4
15 | .04

.016

.0060
60

.08
.4
.032

Sta Pt	BS	FS	Diff Elev	HI	
1	5.40				
1			3.9		on H₂O on ground
2	5.65				
2			3.00		on H₂O on ground
3	5.65				on H₂O
			3.90		
4	6.67				on H₂O
5			7.40		on H₂O
6			6.50		on H₂O
6			5.60		on ground
7			5.6		
7			6.6		
8			10		on H₂O
			9.2		

3.9
.5
9.4

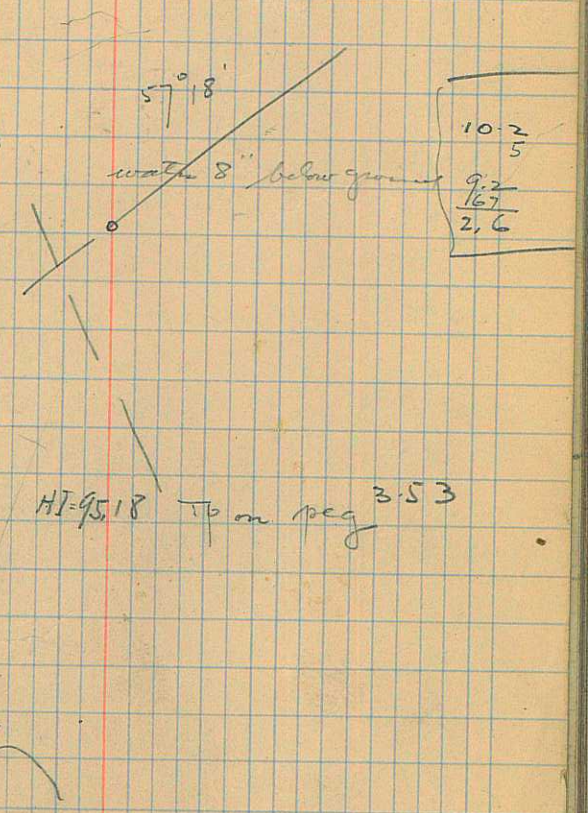
5.60
4.50
1.10
4.00

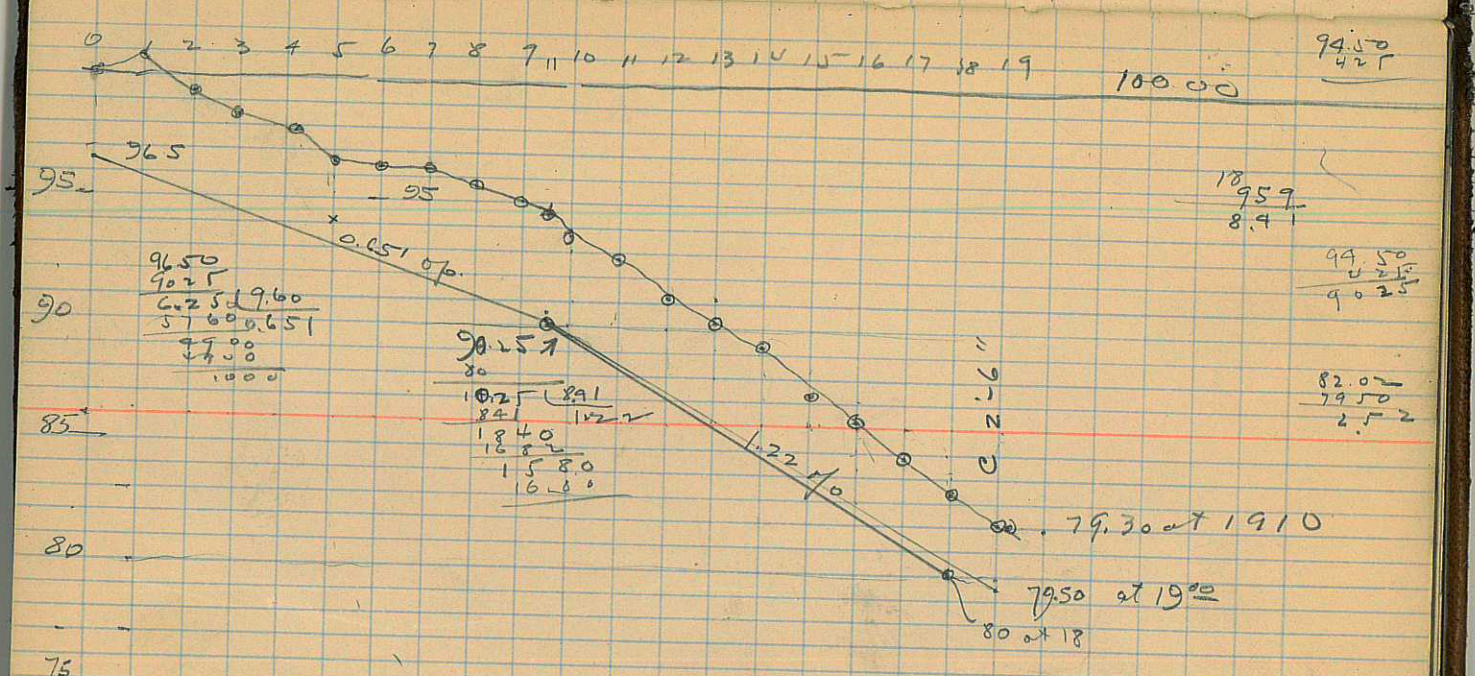
10.00

9.2
4.2
13.4
7.4
0.6.00

Sta	BS	FS	Gr or Ins	RR on stake	Cor	
0	2.60		6.10		3-6"	100.00 on peg HI = 102.60
1	?		6.751	1.80	C 5'	100.80
2			7.402	3.22	C 4'-2½"	99.38
3			8.053	4.02	C 4'-½"	98.58
4			8.774	4.71	C 4'-1"	97.89
5			9.355	5.88	C 3'-6"	96.72
6			10.006	6.25	C 3-9"	96.35
7			10.657	6.20	4'-6"	96.40
8			11.308	6.70	4-7½	95.90
9			11.959	7.60	4'-3"	95.00
9+59		8.10			4'-3"	94.50
9+59		33.68 from below	4.93		4'-6"	on peg 99.50
10.00			5.473	1.48	3'-11"	93.70
11			6.125	2.40	4'-3"	92.78
12			7.847	3.92	3'-11"	91.26
13			9.069	4.95	4'-2"	90.23
14			10.311	5.85	4'-6"	89.33
15	8.00	1.50	11.53		3-6	87.18 HI=95.18 TP on peg 3.53
16			6.25	2.52	3-9"	86.16
17			7.47	3.80	3-8"	84.88
18			8.69	5.28	3-6"	83.40
19			9.42	6.66	3'-3½"	82.02
19+10			10.03	6.76	2'-8"	81.92
	10.20		9.50			78.48 HI 88.68

Landing


57°18'
with 8" below grade
10.25
9.27
2.6
58.10 W
Stair
Stair
Stair

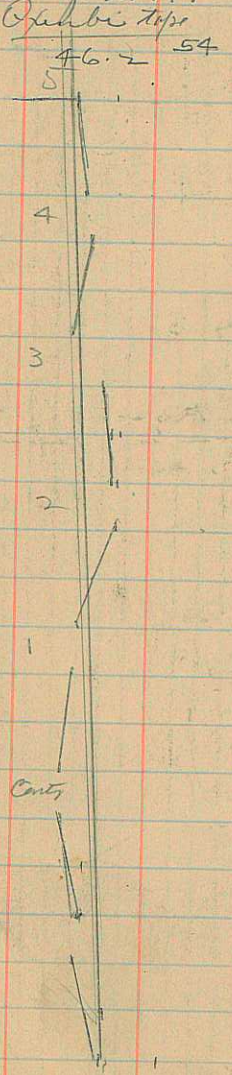

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
100.00
95
90
85
80
75
96.5
95
0.051 o/o
79.30 at 1910
79.50 at 19
80 at 18
94.50
4.25
1859
8.41
94.50
4.25
90.25
82.0
79.50
2.52
96.50
90.25
6.25 9.60
57 60 0.651
99.00
1.000
90.251
80
10.25 8.91
8.41 1.34
1840
1880
1580
1600
.22 H/O
C.N.G.

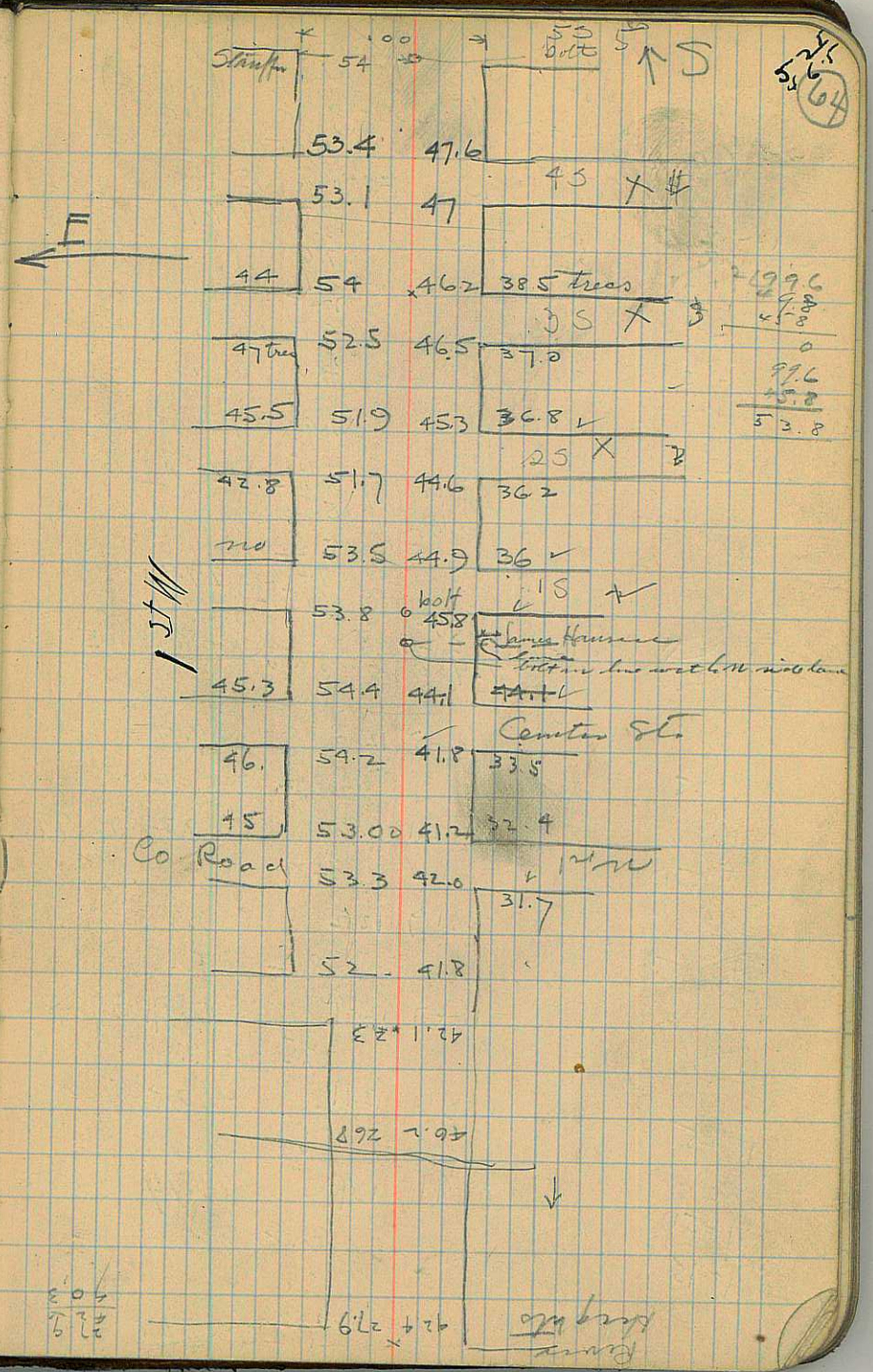
42

W E

Survey of center line 1st West in Providence, Utah, 4/4/18

Wood mt. Rubbie tops

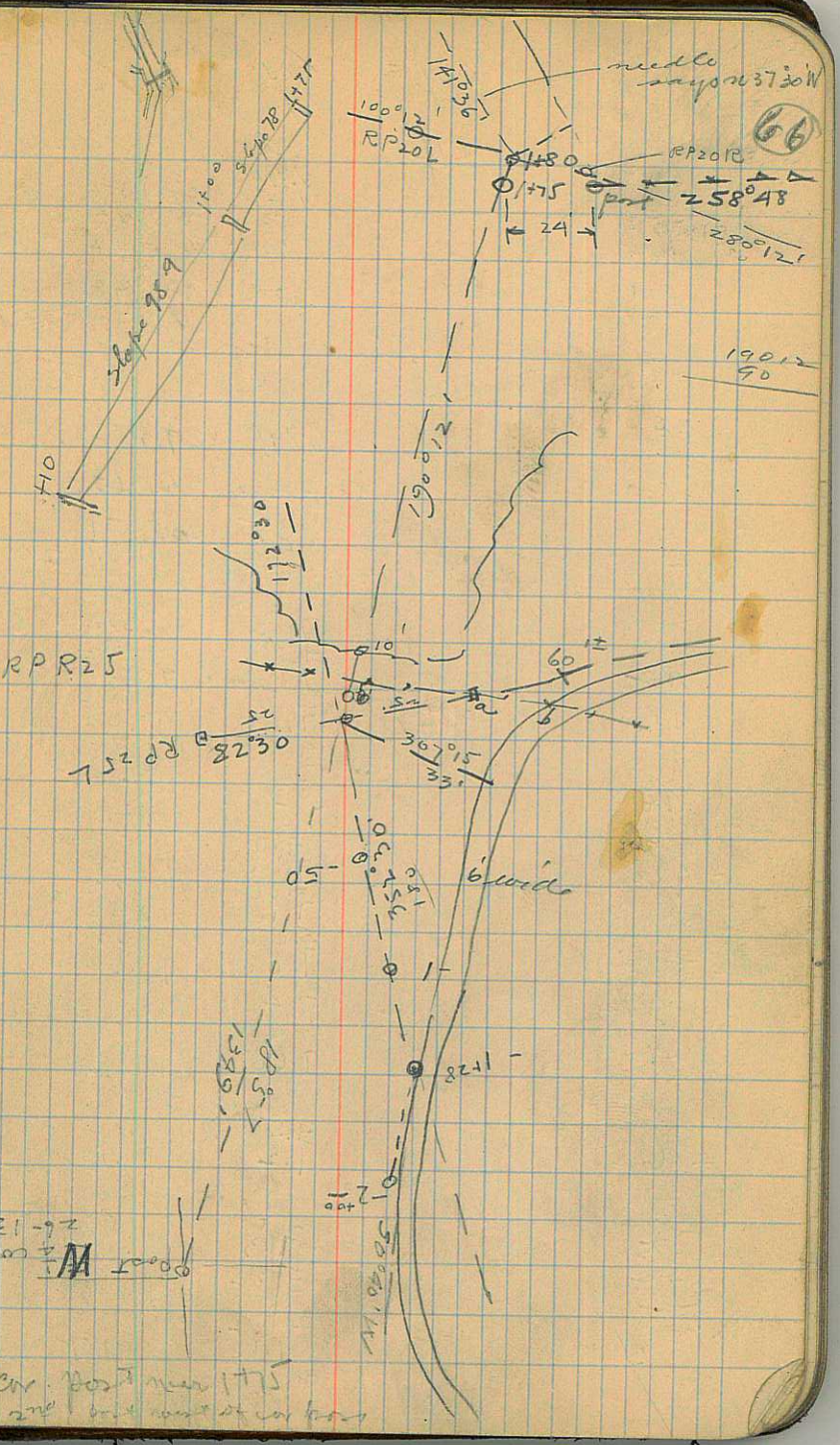




Survey of proposed Concrete spill flume at Summit Creek on L-H-P-S Canal (Con. over)

4/5/18

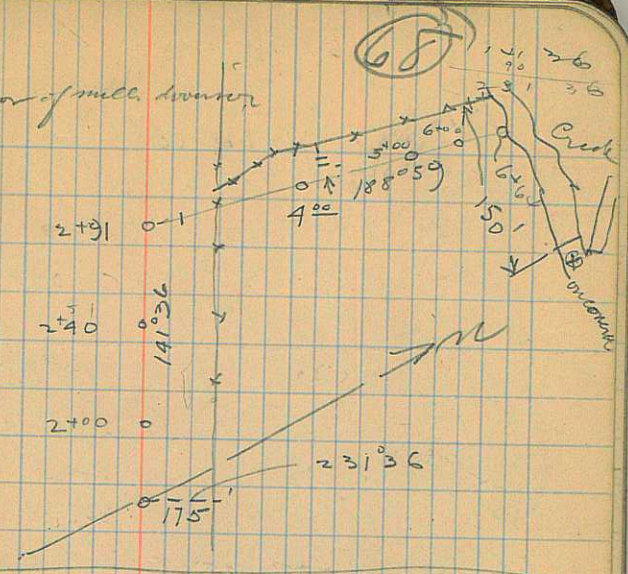
	BS	FS	HI	Ele.	
Canal bank - 2			7.4	97.9	
in Canal on bank 1+28			3.9	101.42	
in Canal - 1			7.6	97.72	
- 50			3.9	101.42	
in Canal b			7.25	98.07	
- 25			4.00	101.32	
RP25L			4.00	101.32	
0			7.40	97.92	
+6			4.95	100.37	
+10			in ditch 5.23	100.09	
			5.22	100.10	
			7.4	97.92	
			6.15	99.17	
190°12'		(5.32 sta)		100.00	105.32
0 - RP25R		1.960	levels down		101.96
	1.28	12.00		89.96	91.24
+25			3.2	88.00	~~88.00~~
	1.21	11.96		79.28	80.49
+ 50			4.9	75.59	
	2.19	12.12		68.37	70.56
+75			8.2	62.36	
	1.47	12.69		57.87	59.34
1+00			9.5	49.84	
	0.36	12.99		46.35	46.71
1+25			6.18	40.53	
	0.91	12.97		33.74	34.65
1+50			2.2	32.4	
1+75			8.6	26.05	
Bm A			6.36	28.29	
			10.4	34.21	



	BS	FS	HI	
			9.90	19.18
6+64				
6+64		T.P. 7.60		21.16 29.08
6			7.90	2 9.86
5 00			1.20	21.56
4 00			5.50	23.26
			5.70	23.06
2+91			4.80	23.96
				4.00 4.55
from 2+91	355°30			
2+40			1.70	27.06
2+00	141°36		2.00	26.76
180+00			3.25	25.51
Bm. A		4.55	levels up	24.21 2876
13			7.00	98.32
12			4.80	100.52
11			7.00	98.32
10			4.3	101.02
10			7.00	98.32
			4.60	100.72
bet. 9+10			7.00	98.32
broadgate				
- 9.00			7.5	97.82
- 8 00			4.7	100.62
- 7+00			7.00	98.32
- 6+18			5.00	100.32
			7.10	98.22
- 6+18			5.00	100.32
			7.00	98.32
			5.4	99.92
- 6			7.60	97.72
			9.5	100.82
			7.2	98.12
- 5			4.8	100.52
- 5			7.3	98.02
- 4			5.3	100.02
- 4			7.05	98.27
bank - 3			3.8	101.52
- 3			7.18	98.17

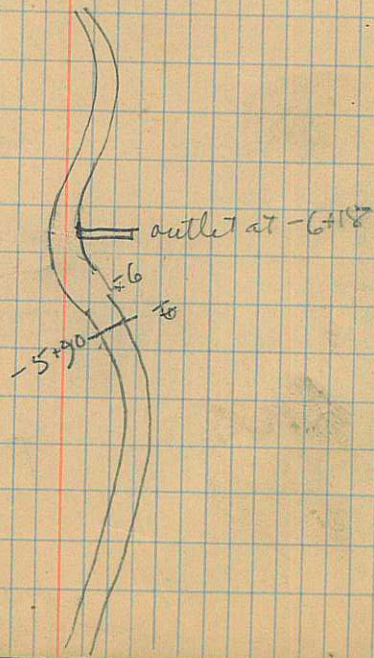
68

on concr. floor of mill, downstream



on Height 120

on outlet gr.



Obs Nelson

4/5/18 trip up trench for Hyde Park
notes in:
along side of 100 d appx. 75
dug 1' deeper for 150'

April 5 - 1918

Ob on Sta 6 of Spill flume survey. L-H-P Sta

	Alt	Vert Ang	
Direct	37°48	48°05	3:10
Invert	39 16	47°20	
	38 32	47°42'30"	
Direct	38°59	47°40'	
Invert	40°07	47°02	3:15
	39 33	47 21	

Σ 39°02'30" 47°31'45"

Sun 539 51 20 W

add 1 49'

---

(7)

Time 1 hour ahead of true Greenwich time

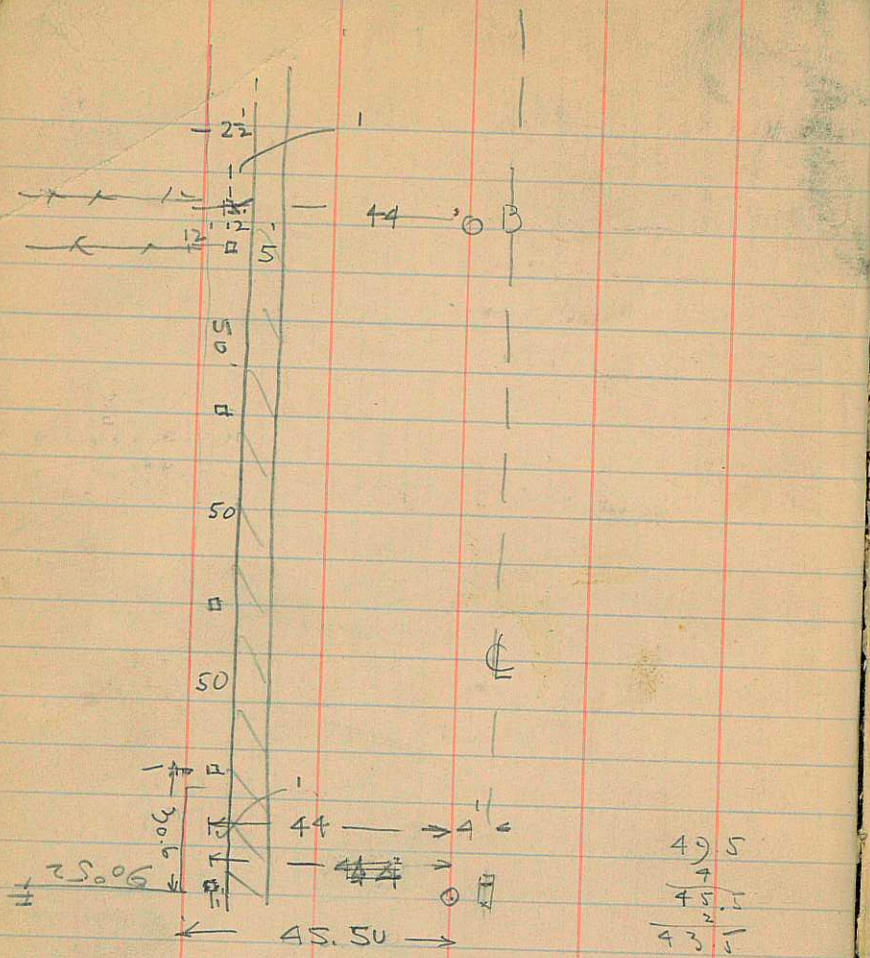
ϕ = 41°50' 30"

Long =

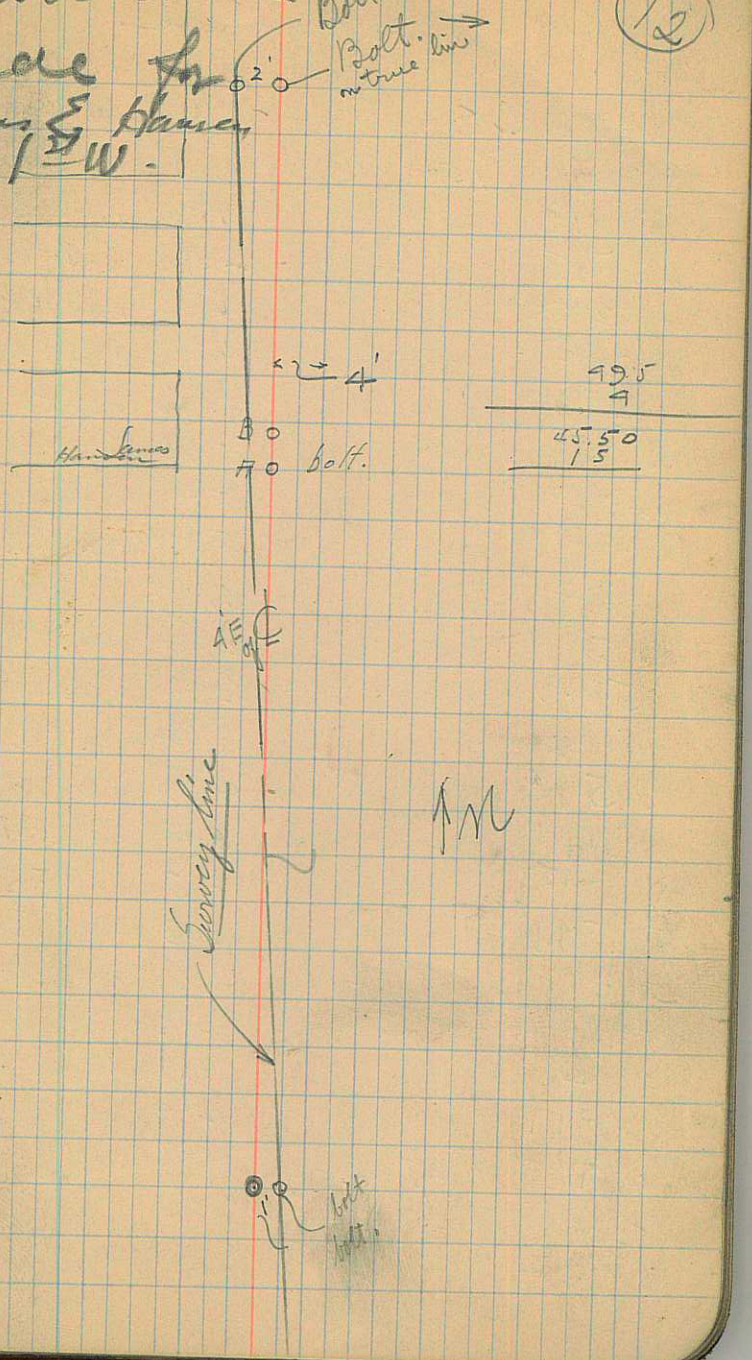
3:10 true time = 2'.10

δ = +6° 00' 47"

$$\sin \tfrac{1}{2} a = \sqrt{\frac{\cos \tfrac{1}{2}(z+\phi+\delta) \sin \tfrac{1}{2}(z+\phi-\delta)}{\sin z \cos \phi}}$$



Procedure
Grade for
James E Bauer
at I-W.



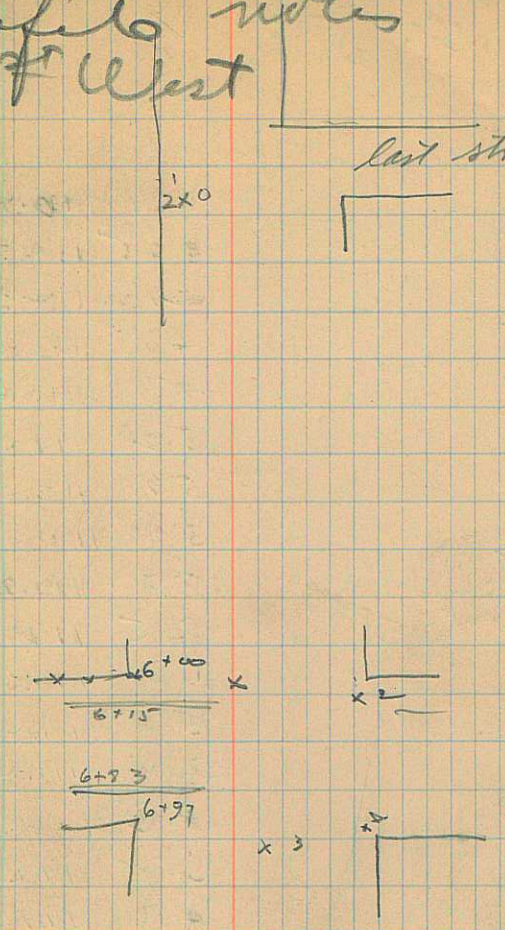
49.5
4
45.50
15

1/2

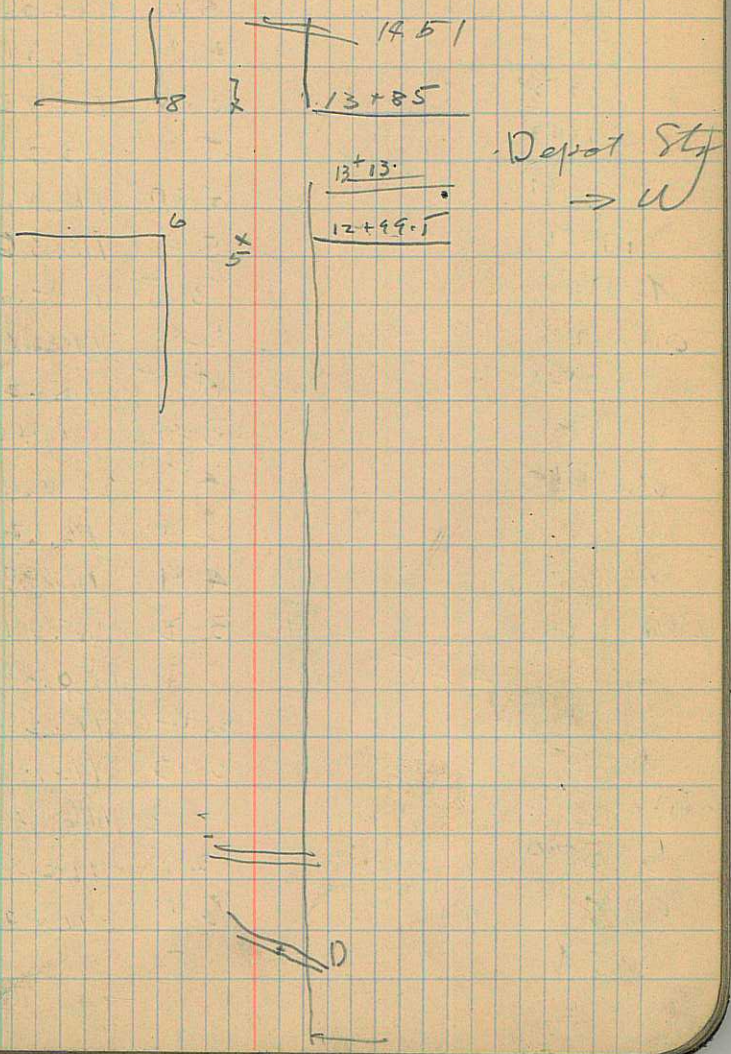
Levels for and Procedure 4/6/18

Sta	BS	FS	HI		
0	9.50			100.00	109.50
1			8.00	101.50 ✓	
D 1+65			~~10~~ 8.00	101.50 ✓	
2+00			6.70	102.80 ✓	
2+67			6.70	102.80 ✓	
3+00			10.00	99.50 ✓	
3+58			5.90	103.60 ✓	
4+00			5.9	104.10 ✓	
D 4+69			5.9	103.6 ✓	
5+00			5.1	104.4 ✓	
℄ Sta			2.00	107.50 ✓	
D 5+33 ✓			6.4	103.10 ✓	
			1.2	108.3 ✓	
D 5+48			4.3	105.20 ✓	
6			3.8	105.7 ✓	
D 6+15			4.5	105.0 ✓	
Sta 6+49			3.3	106.2 ✓	
3			1.00	108.50 ✓	
D 6+83			3.3	106.2 ✓	
4			0.1	109.4 ✓	
6+97			2.4	107.10 ✓	
7				108.90	
8	7.45	0.59	0.6	108.91	116.36

Profile notes on 1F West



	BS	FS	m		
D 14+57			3.4	112.96	116.36
8 ~~8+14~~			1.6	114.76	
7			2.9	113.46	
14 ow			3.65	112.71	
6			2.00	114.36	
13+85			4.00	112.36	
5			2.7	113.66	
D 13+73			5.2	111.16	
~~Ø~~ 13+42			4.3	112.06	
D 13+13			5.70	110.66	
Bldg 12+99.5			5.1	111.26	
Str 12			3.5	112.86	
ow 12			1.8	114.60	
D 12+66			5.1	111.40	
12			5.00	111.40	
ow 11			2.3	114.1	
11			5.2	111.2	
Str 10			4.9	111.5	
ow 10			3.3	113.1	
10			5.6	110.8	
D 10+60			5.8	110.6	
ow 9			3.9	112.5	
walk 9			6.1	110.3	
D 9+60			7.20	109.20	
ow 8			6.1	110.3	
8+31			7.8	108.6	
SW 8	7.45		6.50	109.90	116.36



Sta	BS	FS	HI	
Stake 18+93			4.93	top 113.78
			5.16	gr 113.55
o Sta 18			4.20	114.51
top 18+43			4.95	113.76
Stake 18+43			5.20	113.51
D 18+11			5.65	113.06
18			5.00	113.71
17+93			4.88	113.83
17+93			5	113.71
on top Stake 17+81			4.97	113.74
17+81			5.21	113.50
Sta 17			3.5	115.2
o W 17			2.1	116.6
D 17+41			4.5	114.2
17			3.9	114.8
D 16+96			4.6	114.1
o W 16			2.0	116.70
D 16+56			4.9	113.80
o Sta 16			3.3	115.41
	4.45	2.10		114.76 / 118.71
16			2.12	114.24
D 15+89			3.3	113.1
o W 15			0.0	116.40
D 15+01			3.5	112.9
15			3.2	113.2

gr

BO

12

first sta

22

OSta 21

21⁰⁰

20+74

1 ✓

20+71

11

D 20+58

Sta 20+20

10

9

20+00

D 19+86

on peg

on ~~peg~~ going in

by peg 19+74

D 19+71

Top 19+43

Peg 19+43

Sta 19

on first step to house 19+10

O W 19

Pav 19+10

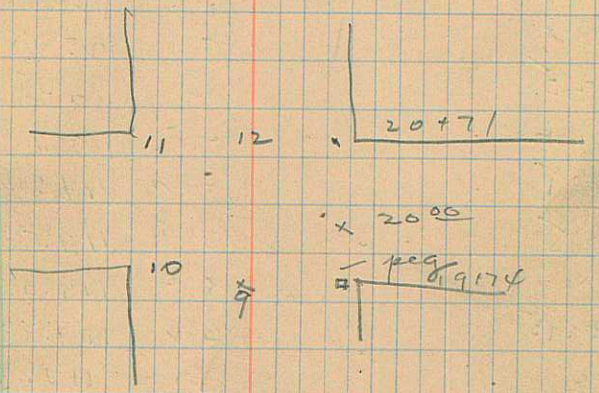
19⁰⁰

D 18+97

O W 18

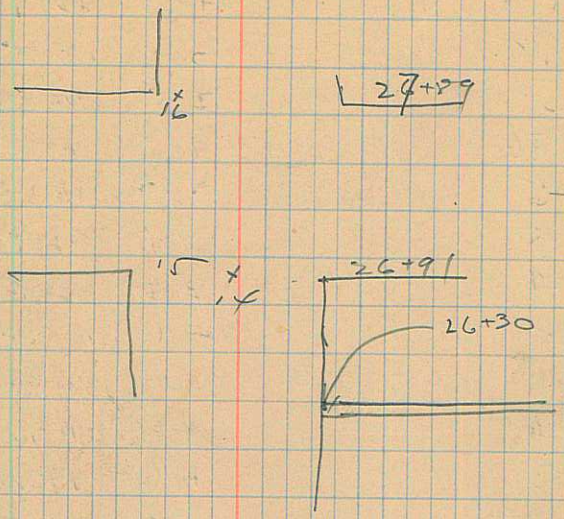
3.9	114.81	✓
3.5	115.21	✓
3.70	115.01	✓
4.60	114.11	✓
3.3	115.41	✓
4.11	114.56	✓
2.7	116.51	✓
5.55	113.16	✓
4.9	113.81	✓
1.8	116.91	✓
3.3	115.41	✓
5.30	113.41	✓
5.40	113.31	✓
4.54	114.17	✓
4.70	114.01	✓
4.70	114.01	✓
5.00	113.71	✓
4.39	114.3	✓
4.7	114	✓
3.7	115.0	✓
4.99	113.72	✓
2.2	116.51	✓
5.23	113.48	✓
5.10	113.61	✓
5.4	113.3	✓
2.9	116.3	✓

19.74
16.85
.89



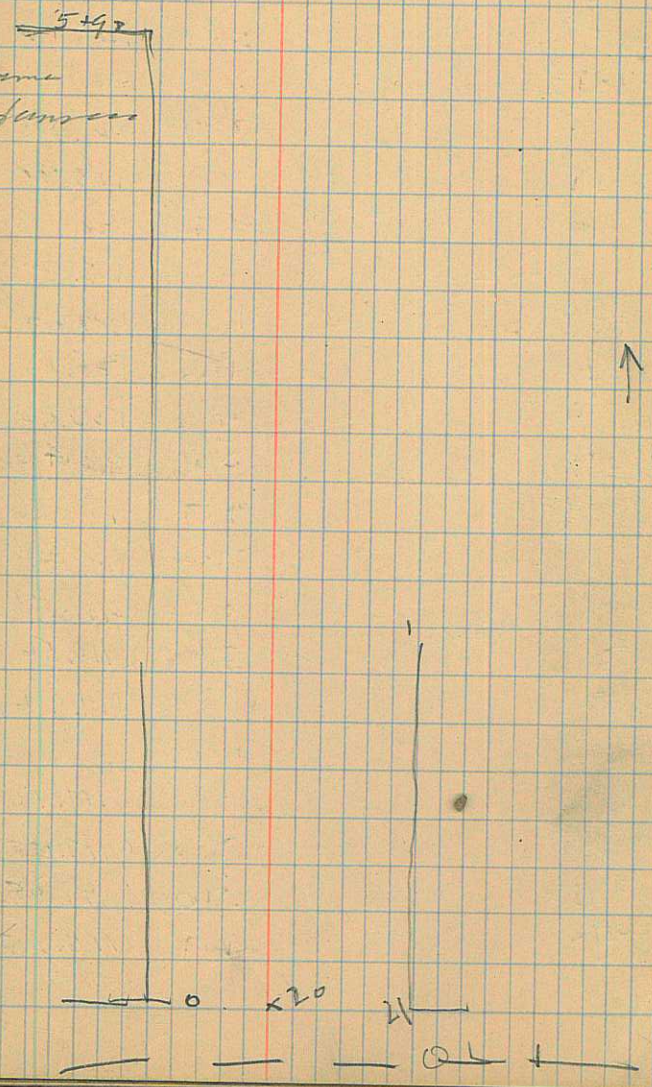
	BS 1= 5.	m	Ele	H
26+30		5.13	122.32	
27+89		0.00	127.45	
E+W 27+37		3.1	124.35	
D 27+04		4.3	123.15	
15		0.4	127.05	
27		3.5	123.95	
14		2.5	124.95	
OW 26		2.2	125.25	
OS 26		3.5	123.95	
26+91		3.5	123.95	
D 26+84		4.1	123.35	
OW 25		6	121.45	
26		4.7	122.75	
OS 25		7.9	119.55	
25		7.9	119.55	
OW 24		8.4	119.05	
D 24+75		9.6	117.85	
OS 24		10.00	117.45	
	9.96 1.22		1174.9	127.45
D 24+31		1.80	116.91	
24		1.95	116.76	
OW 23		3.00	115.71	
Walk 23		4.2	114.51	
OW 22		2.2	116.51	
OS 22		3.8	114.91	
D 22+06				

on ℄ prev to house



	BS	FS	cm	
Stn 6+50			2.7	115.15
D 6+14			4.—	113.65
PM			4.13	113.72
5+98			4.0	113.85
OW 5			7.5	110.35
5+98				
OS 5			7.9	110.45
5			7.1	110.75
OW 4			9.6	108.25
OS 4			10.6	107.25
	10.78	0.57		107.07 117.85
4			0.0	107.64
OW 3			1.6	106.04
OS 3			2.9	104.74
3			2.7	104.94
D 3			3.0	104.64
OS 2			5.6	102.04
2			5.5	102.14
OW 1			7.1	100.54
OS 1			8.5	99.14
BM 1+83			5.62	102.02
1			8.2	99.44
M			10.0	97.64
20			10.5	97.14
Walk 0	10.7			96.94 107.64

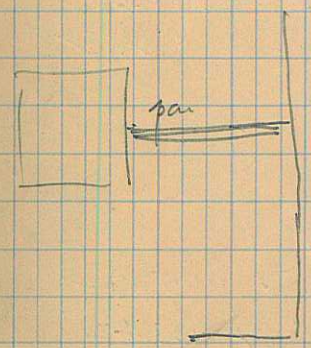
on front steps Jane Hanna



BS 1=5 NW

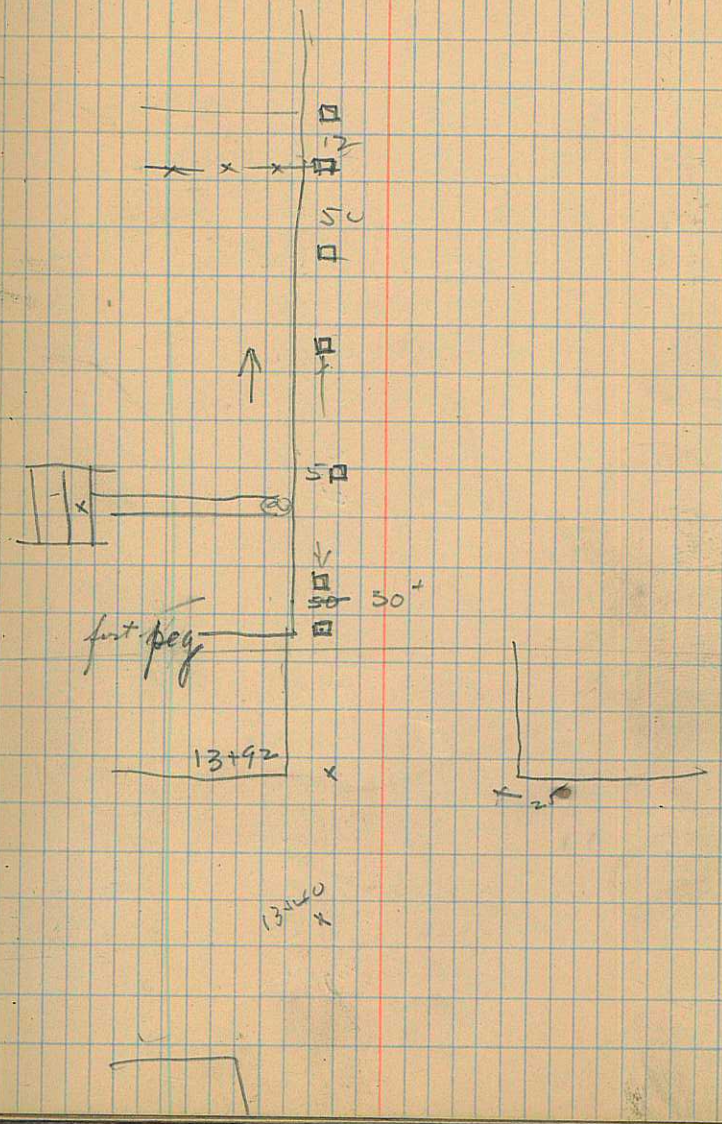
	~3			4.0	134.72
	~2			4.3	134.92
D	13+07			3.5	135.22
	13			3.2	135.52
	12+94			3.6	135.12
	12			6.3	132.42
OW	11			8.9	129.82
OS	11			10.2	128.52
	11			9.70	129.02
		12.0	0.84		126.72 138.72
	10 00			1.00	126.56
D	9+94			1.6	125.96
OW	9			4.1	123.46
OS	9			5.1	122.46
	9			4.8	122.76
OW	8			7.2	120.36
OS	8			8.00	119.56
	8			8.00	119.56
pw	7+38			9.60	117.96
		10.40	0.69		117.16 127.56
	7+00			.70	117.15
	6+98			0.700	117.15
D	6+90			1.70	116.15 117.85

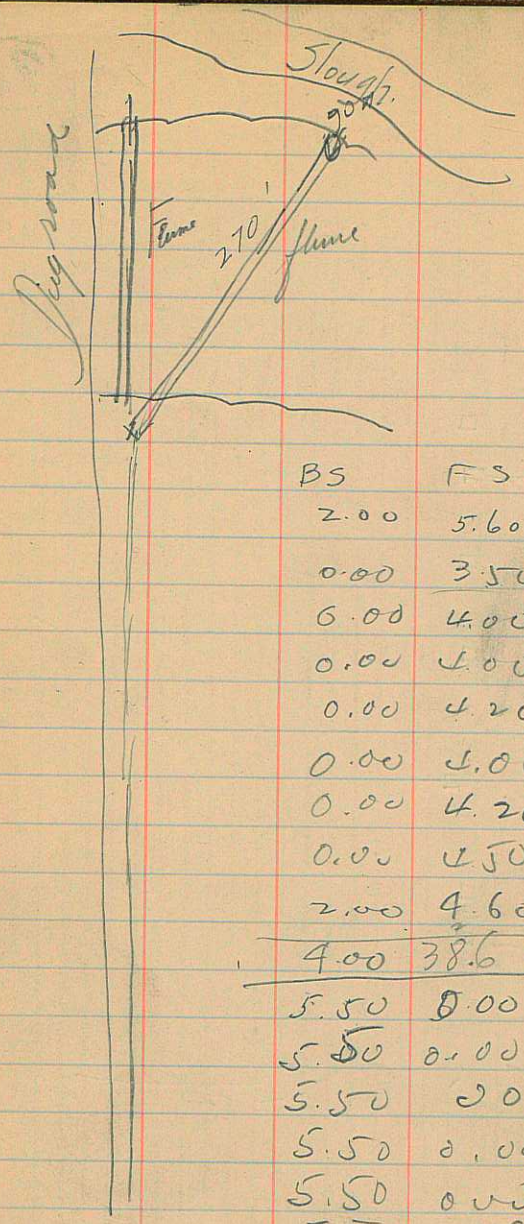




17+81	5.57	113.75 ✓
17+93 50	5.50	113.82 ✓
~~18+43~~		
18+43 50	5.56	113.76 ✓
18+93 50		
19+43 ↘	5.55	113.77 ✓
	a 5.85	113.47
on Tup	5.60	113.72 ✓ 119.32
19+43	5.0 ✓	114.28 ✓
5.17		114.15 ✓

25	1.3	137.92 ✓
13+92 ✓	0.3	138.42
13+40	1.70	137.02 ✓





BS	FS
2.00	5.60
0.00	3.50
6.00	4.00
0.00	4.00
0.00	4.20
0.00	4.00
0.00	4.20
0.00	4.50
2.00	4.60
4.00	38.60
5.50	0.00
5.50	0.00
5.50	00
5.50	0.00
5.50	000
5.50	00
5.50	3.00
5.50	00
44 0	3.00

W H Anderson
Smithfield
pump

4/9/18

BS on pr.
on disk.

PF
3
26 4
40

(90)

lower inlet

BS	FS
5.50	0.0
5.50	0.0
5.50	0.00
5.50	0.00
5.50	0.00
5.50	0.00

5.5
33.0

D. 150' pressure line
70' open race
270 feet flume
same costas for upper site.

5.5
8.0
13.5

Anderson & Sons Co
on Main St.
Tagum

2 270°09' 61'-2 3/8"

~~326'-2 1/4"~~

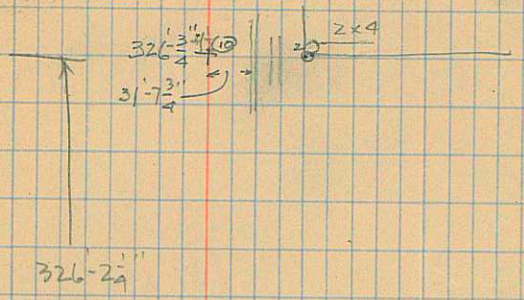
326'-3/4"+1/2" = 326'-2 1/4"

1 270° 58'

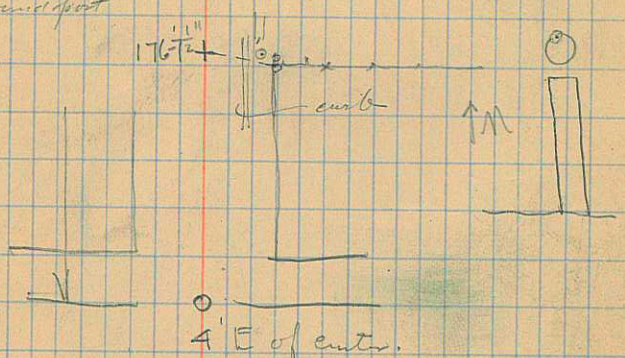
269°18' 61'-9 3/16"

176'-7 1/2" + 3/4"

see over



to top of 8" nominal post



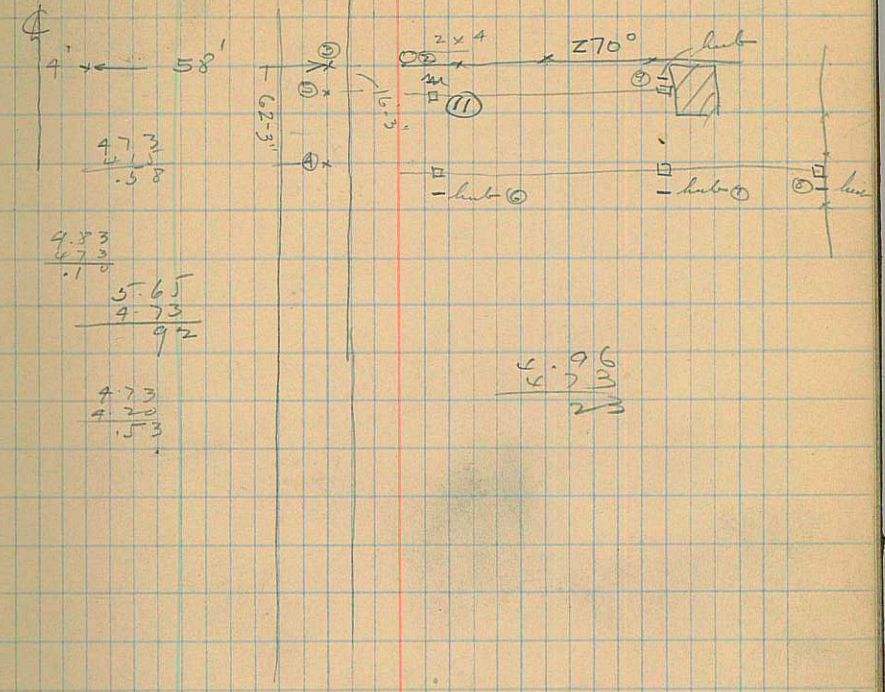
(con. see over)

	BS	FS		
⑨			4.20	$-6\frac{3}{8}$" ✓
⑧			4.15	−7" ✓
⑦			4.83	$+1\frac{1}{4}$" ✓
⑥			5.65	+11" ✓
④		1	496	
⑤	4.73			

16.25 0

3-

Project line 4' east of pt. 3



4.73
1.58
.58

4.83
6.73
.10

5.65
4.73
92

4.73
4.20
.53

5.96
5.73
23

4/12/18 Levels at
Weaks mill
Weston Idaho

4.05 57.40 61.45

7.95
12.20

7.83.

11.60

57.40
40.5
61.45
5.4

61.45
49.25
12.20

or from mill 7.85
2.83
5.02

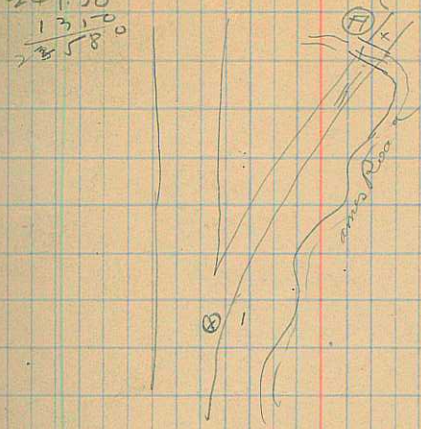
or elev 49.25
1.5
48.75

or Ind elev 61.45
48.75
12.70
11.76
.94

Survey on Lower Black Fork. 4/20/18 Hymn Project

Signs: Andrew
Seth Bowen
Conner Leland

BS	FS	HI	Ele	HT
2.80			246.50	249.30
		13.50		
3.00	0.10		249.2	252.20
4.29	7.86		244.34	248.63
		10.98	237.75	
		5.41	243.22	



249.30
13.50
235.80

246.50
2.80
249.30
13.5
235.8

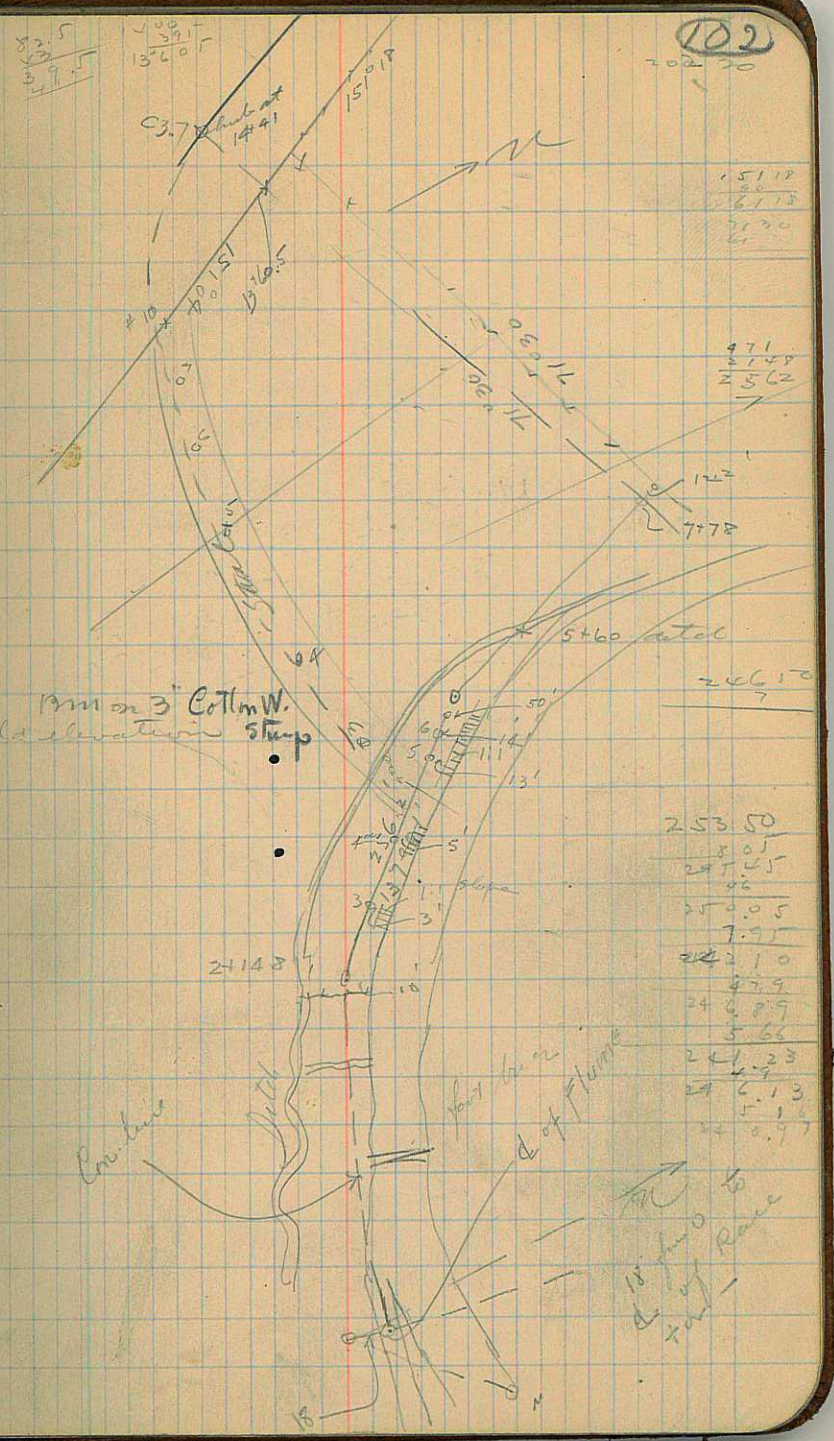
249.30
1
249.20
3
252.20
4.86
244.34
4.29
248.63
10.98
237.75

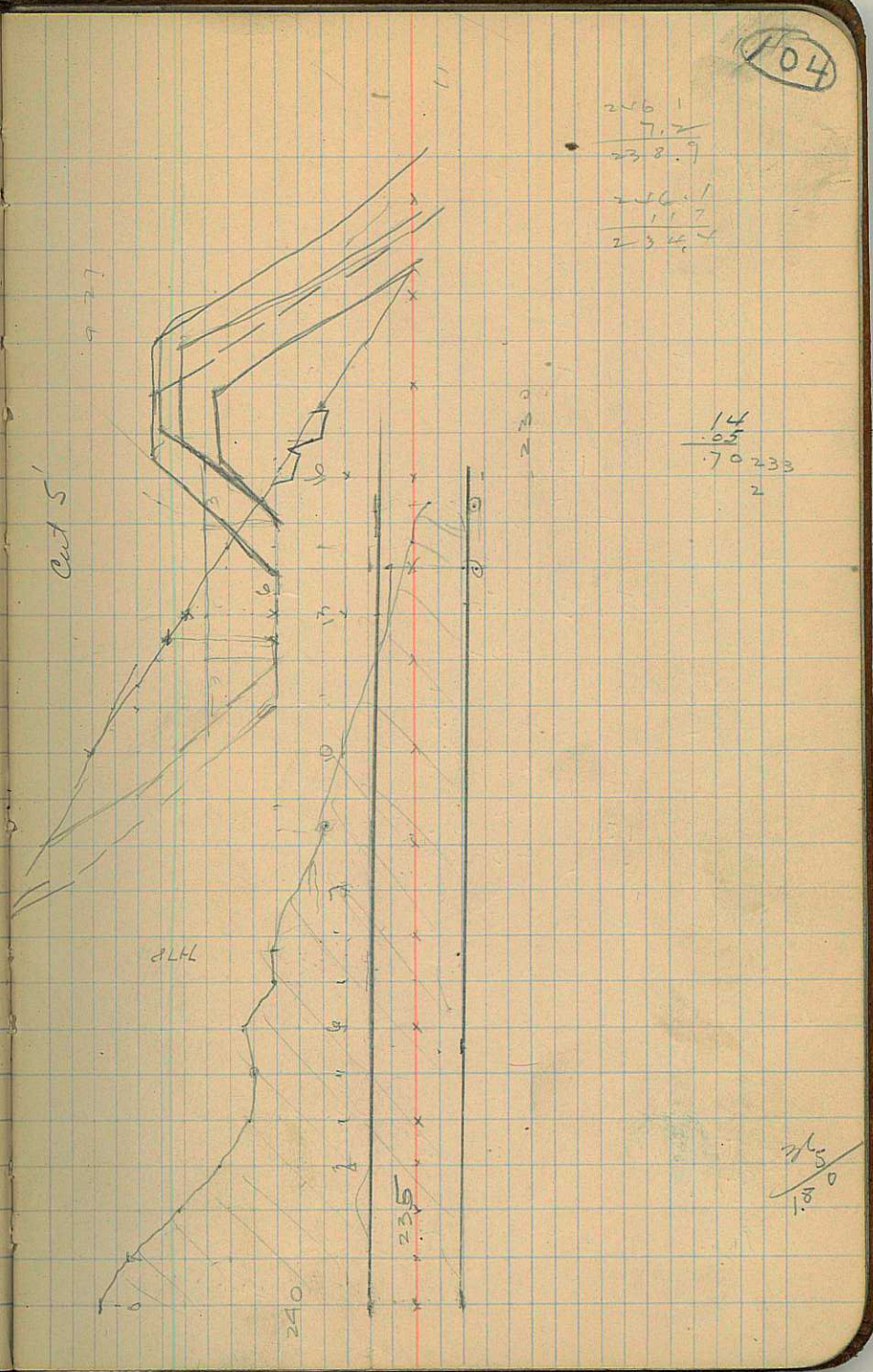
248.63
5.41
243.22

on H₂O surface on Hymn Race just above bridge
on BM on staple driven in dry cotton wood stump 20' below bridge (A)

Water surface at Sta 0. taken as 237.00; grade 233.00.

			BS	FS	HI	Elev		
Sta 10				6.9		239.23		
Sta 9				6.7		239.43		
Sta 8	71°30			5.2		240.93		
#10						235.1		
#9	48°35'					236.3		
#8	46°40'					239.4		
#7	30°40'					237.6		
#6	21°25'					238.1		
#5	11°10'					238.6		
#4	356°30					239.7		
#3	337°46					241.3		
				5.16				
△	7+78	154°17'	4.90	5.66		241.23	246.13	
	7+00	154°17		5.6		241.3		
	6+00	"		4.4		242.5		
	5+00			5.0		241.9		
△	4+71	137°01'	4.89	7.95		242.10	246.89	
	4			7.8		242.2		
	3			6.5		243.5	243.5	
△	2+14.8		4.66	8.05		245.5	250.05	
	2+00	"		8.25		245.3	245.3	
	1+00	115°43		6		247.5	247.5	
	#1	207°30						
				4.55		248.7	247.7	
			7.00			246.50	253.50	




Cut 5'
THTP
240
235

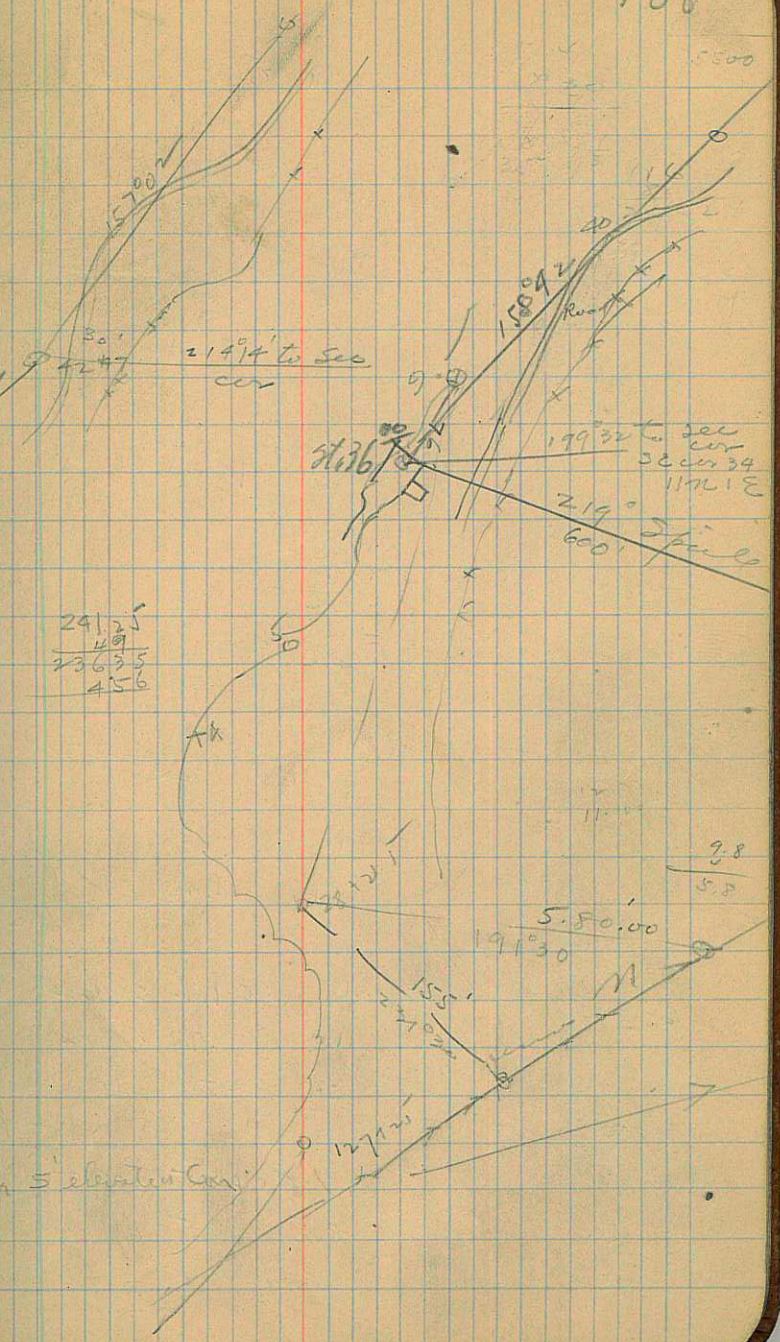
con. over

Sta

		BS	Sum	Ele	H	I	L	C	O
49			6.2	206.25					
48			5.4	207.05					
47			4.5	207.95					
46		1.57	12.85	210.88	212.45				
46			13.0	210.7					
45			16.8	211.9					
44			10.2	213.5					
43	157°02'		8.7	215.					
			1.2	222.53					
Δ	42+47								
		4.91	7.25	218.82	223.73				
42			2.0	224.1					
41			7.7	218.3					
40			9.1	216.9					
39			9.25	216.8					
38			6.2	219.8					
37	158°42		5.00	221.07					
36 -									
		0.20	13.05	225.87	226.64				
Sta 36	307°20'	2.58	4.57	236.34	238.92				
9-									
9	116°29'	4.56	4.9	236.35	240.91	2	9.4		
8	114					7	12.3		
7	114°13'					3	7.65		
6	111°17'					3	6.2		
5	97°53'					4	6.29		
4	82°40'					4	5.28		

Δ 28+21.5

241.25



Use 5' elevation Contours

Ay BS FS HI Ele

11.2 195.00
6.10 200.10 ✓

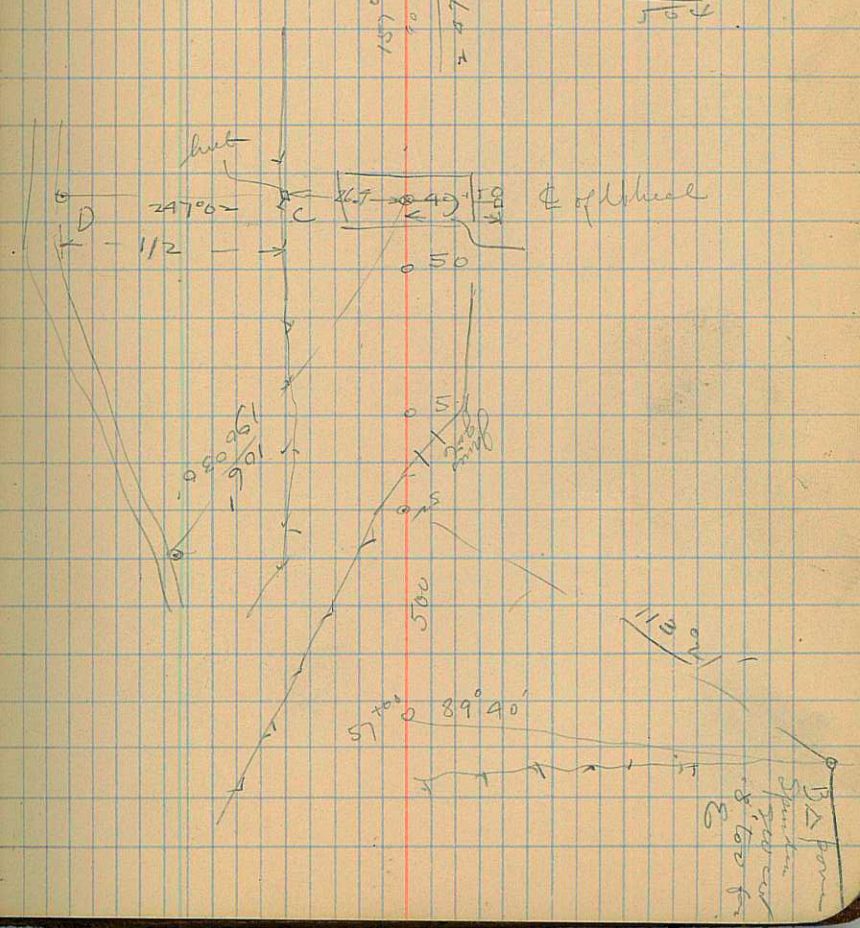
AA 8.21 201.76 206.20
11.00 198.97 ✓
SA 204.50 ✓

SA 7.9 204.55 209.97 ✓
8.00 204.45
8.4 No 4.05

51
50

on Canal Sta above culvert
on Concrete downstream Wall Left on Canal

on Canal Bed
on Farm by Gate


D
247°02'
C
℄ of Wheel
F - 1/2
0 50
0 51
0 50
50c
89°40'
B

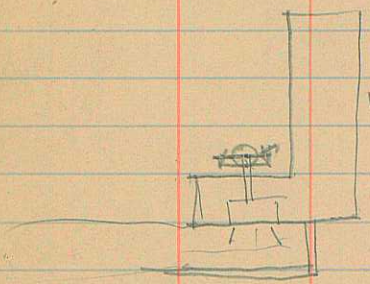
4/24/18 Survey at Avon
Lamb & Schaub
Falls on Hymn Canal
for Avon Power

B S F S M

10.36 8.50

6.74 4.83
17.10 1.22
6.05 6.05
11.05

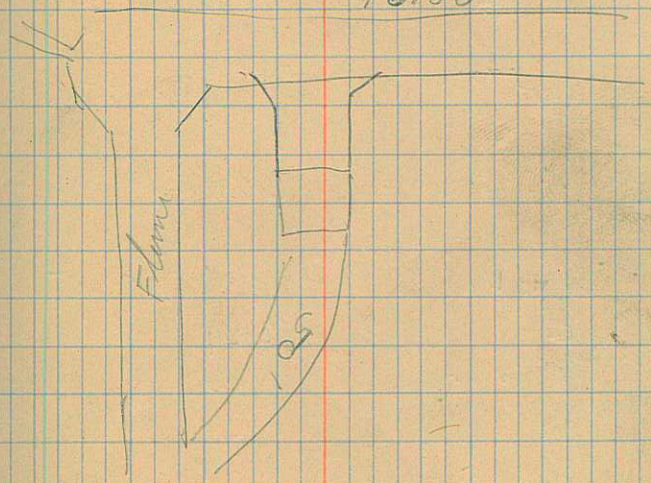
11 foot head
25



18 17.10
1.29 120
250
Con. $150.00
rock 25.00
excv. 50.00
350.00
house 100
675.00
150

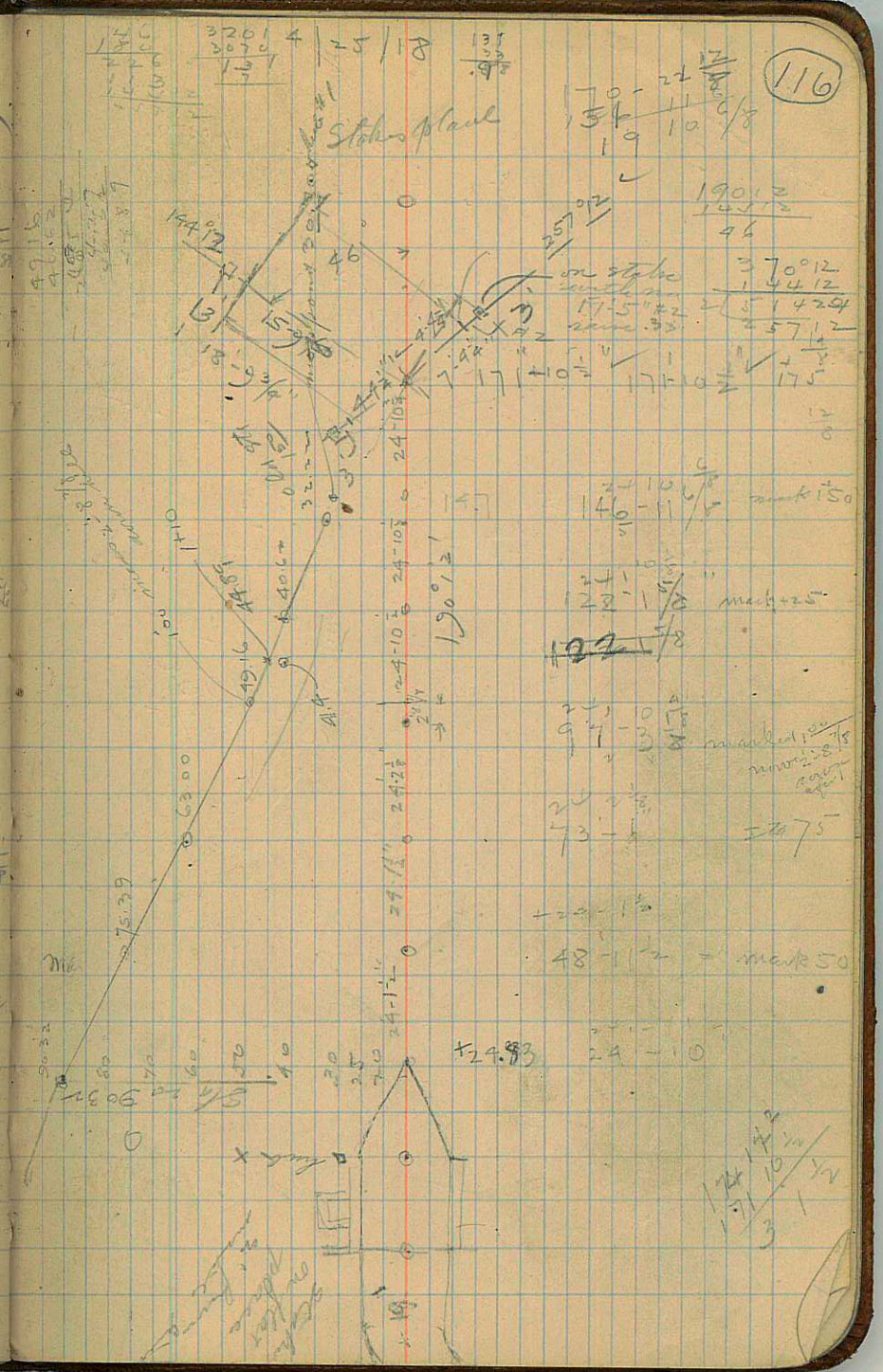
on H2O tail water
cen. post
on note
six forks apart

11 x 62.5 x 45 / 50 = 31.25
31.25



Logan H-P. S. Canal
Concrete Flume
at Summit Creek

Pt	BS	FS	HI	Ele	HI	
Sub +1	7.80			24.21	32.01	Bmm F1-4½"
		5.02	6.37	27.00		
2		4.70	6.20	27.81		F1-5"
1+52		1.31	0.33	30.70 top ware		C 11 5/8"
1+52		FS .33		31.68		
		BS 13.23			44.91	
150		G 4.29	3.99	40.62 muree		C 3½"
		FS 1.13				
		12.80			56.58	
1+10				44.89		
1+10 bott				41.4		top wall
		FS 1.38		55.20		32 below top hub grade
Turne		4.98			60.18	
100		11.08	11.30	49.16		F 3½
75		FS 4.98		55.20		
		12.75			67.95	
75		4.95	4.90	63.00		C 6⅝
		13.36 FS 1.66		-	79.65	
50		G 9.26	1.62	75.39		C 7¾
		St 5166 FS 1.62		78.03		
		12.88			90.91	
		13.38 2.28			102.01	
20		11.69	9.90	90.32		
			2.03			
				100.5	top wall intake	
		1.51	2.32			F 9⅜



Mag. Course point 5½ pr 1+50
at Sta 152+00 true

Cos 23° 0.92

8.0000 | .92 = 8.7
736
640
644

8' - 8½"
4 - 4¼

4 3.78
1280
5658
138
5.20
884
68.09

4.00 | .92 = 433
368
320
276
440
276

4.29
3.9
30

14
17-7½
31-7½
30 19.5
15 9.75

55.20
4.98
60.18
4.98
5.20
12.11
67.95
1.66

44.91
4062
9.29

60.18
4911
11.02

66.29
13.32
79.65
1.62
80.3
12.88
90.91
2.28
88.63
13.38
102.01

102.01 | 90 = 11.69 | 99 = 1.79

5 | 102.01 | 100 = 1.51

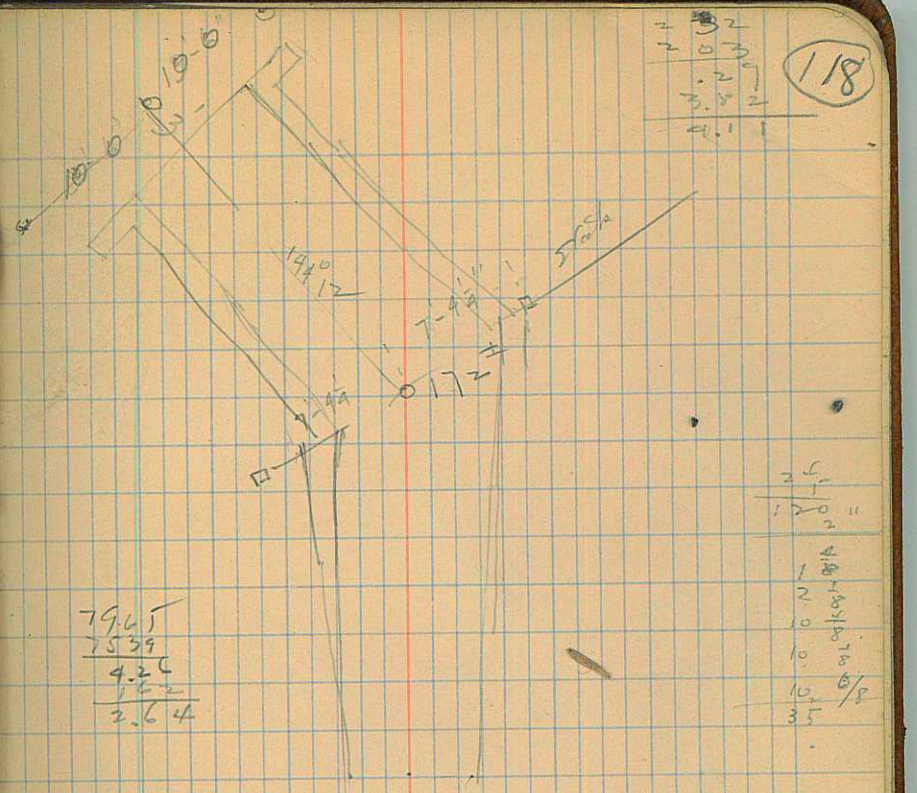
2.37 | 1.1 = .8

56.58
4.89
1169

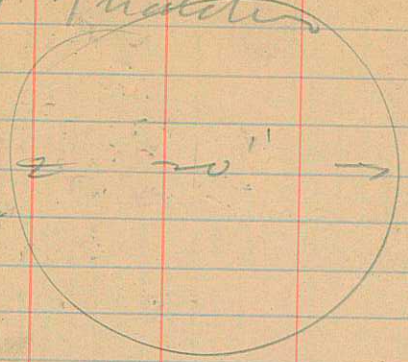
44.89
3.49

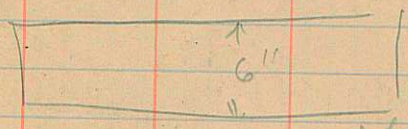
11.30
11.02
28

79.65
7539
4.76
1.62
2.64


19-0
19-0
19-0

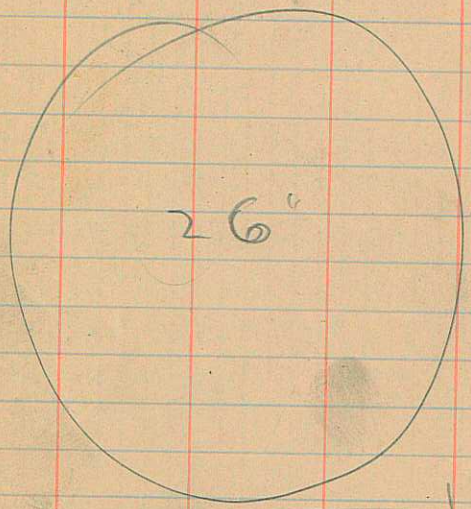
Old wheels at Thatcher's





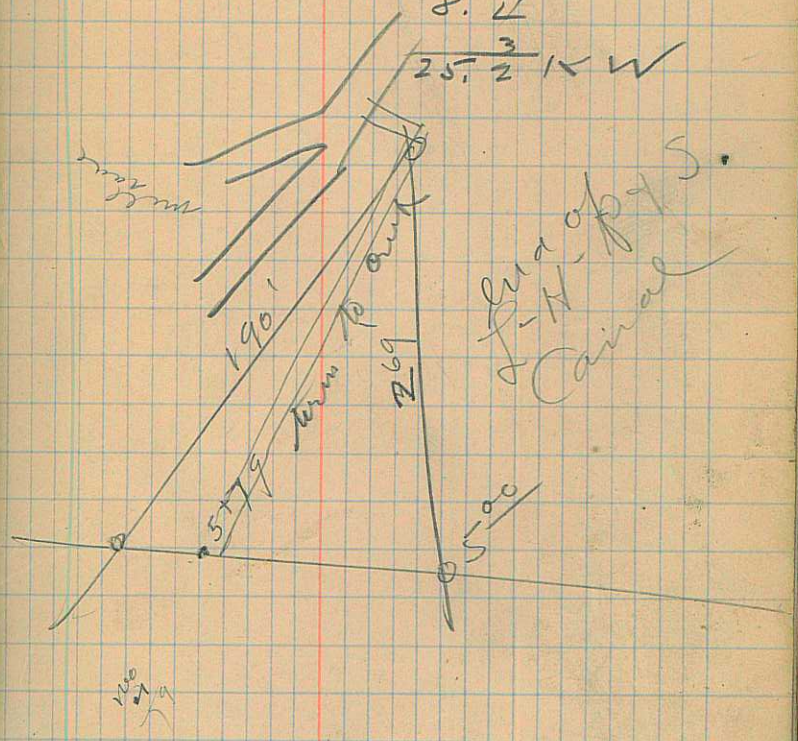
12 gals. per 1 foot

dp/rm



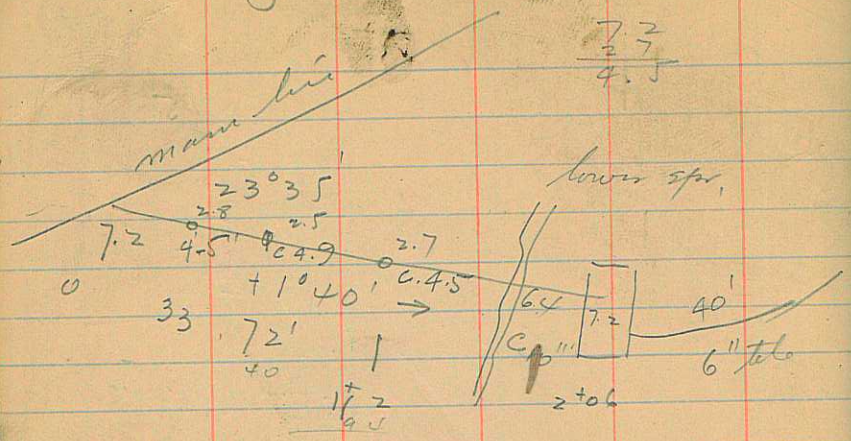
12 gates

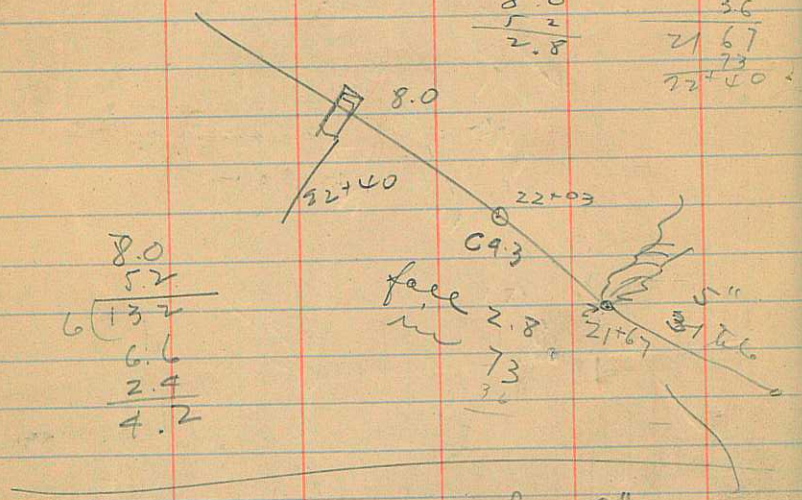
25 × 15
15
125
25
375
09
33.75
8.
25.2 KW



End of P-H-P-S & Canal

Hyde Park





4.8

4"

6.4

3.6
1.0
4.6

4.8
6.1
11.3
4.6

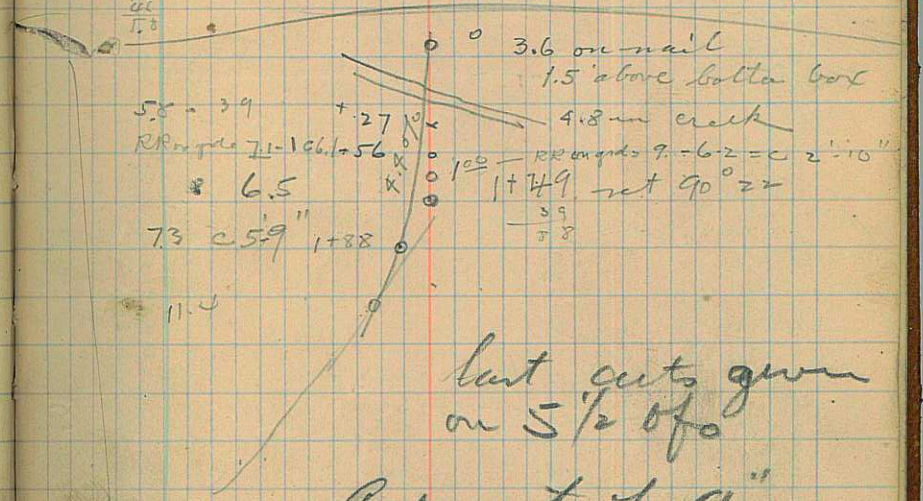
4.6
4.0
9.6
2.8

13
1.6
14.6
3.2

11.3
1.7
13.0
7.3
5.7

5.6
2.4
2.4
2.4
2.6
7.0.6

4.7 4.7 by leaves 5.2 on grade



last cuts given on 5/2 ofo

Capacity of 4"

Qi. 0.40 cfs

(122)

IMPROVED TABLES
AND
INFORMATION

