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Cross Section Book

375

20/6/50

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TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

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	0	1	2	3	4	5	6	7	8	9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	30	20
	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	31	21
		31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	32	22
			32.3	32.4	32.5	32.6	32.7	32.8	32.9	33	23
			33.3	33.4	33.5	33.6	33.7	33.8	33.9	34	24
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					35.4	35.5	35.6	35.7	35.8	35.9	26
						36.4	36.5	36.6	36.7	36.8	27
							37.5	37.6	37.7	37.8	28
								38.5	38.6	38.7	29
									39.6	39.7	30
										40.7	31
											32
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											34
											35
											36

Eugene Schaub
Enggr

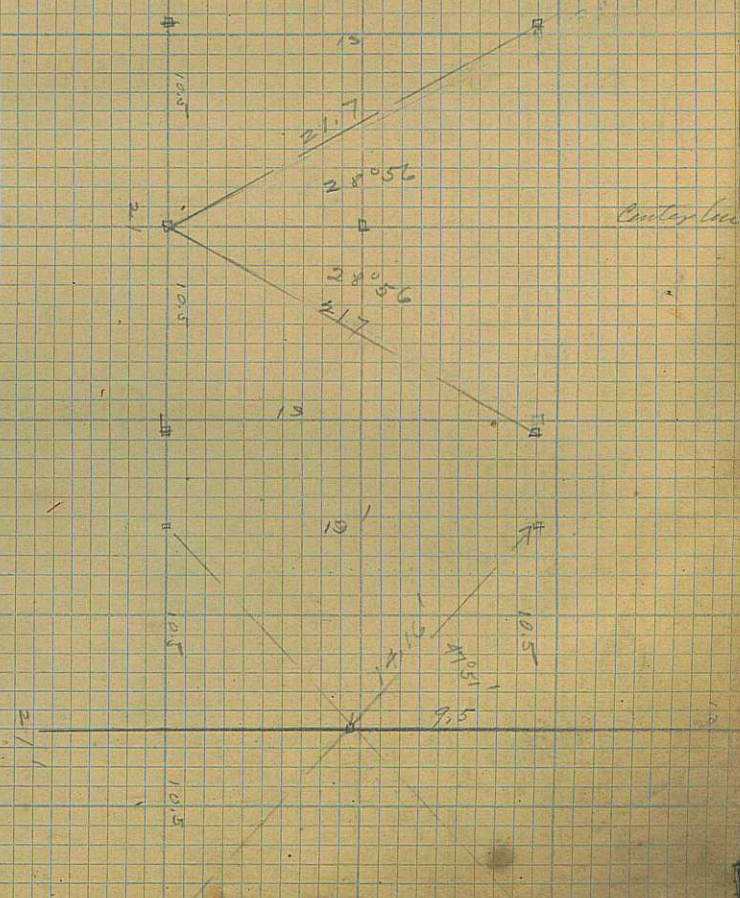
Telluride Power Co

2/1/09

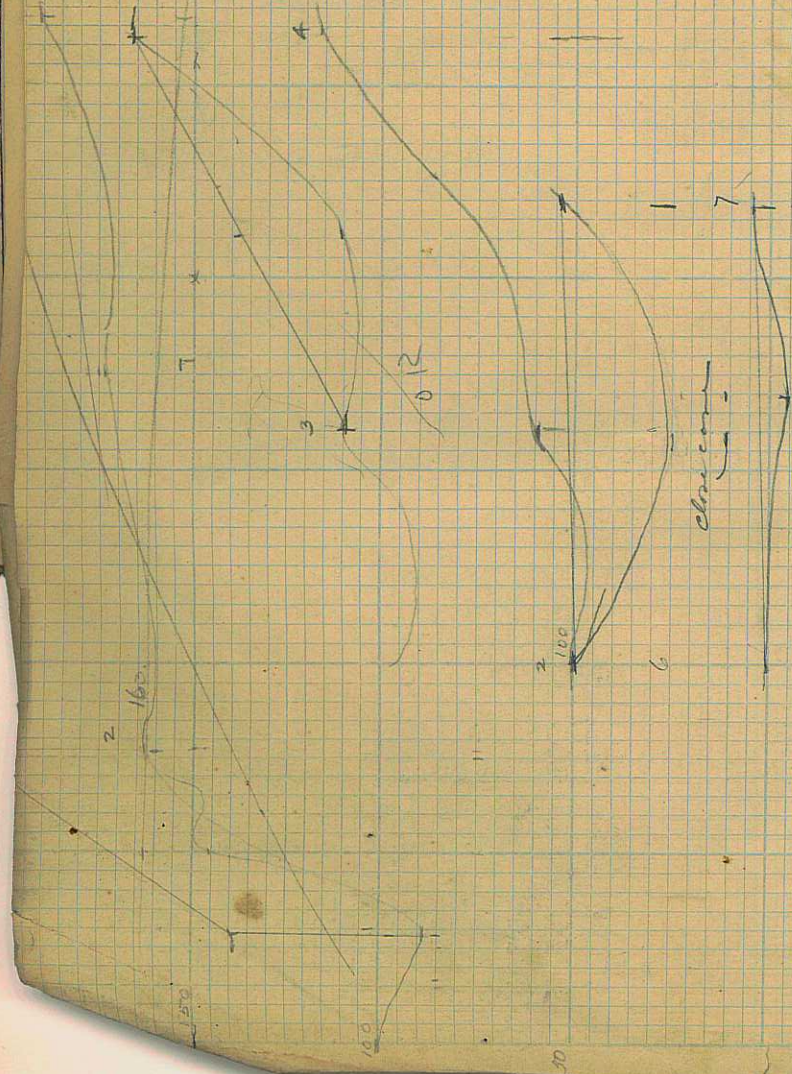
20150
1000
1909

8/1/09

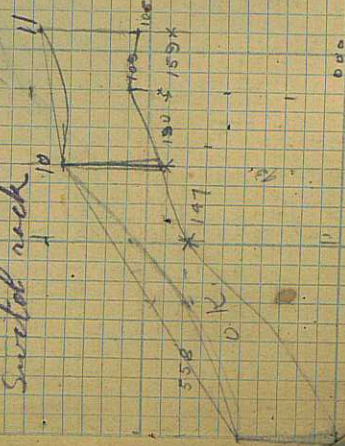
Sketch of Laying stakes for Steel tower



see page 4

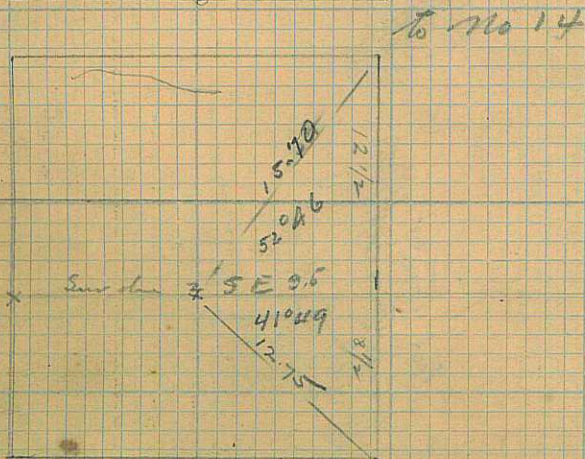
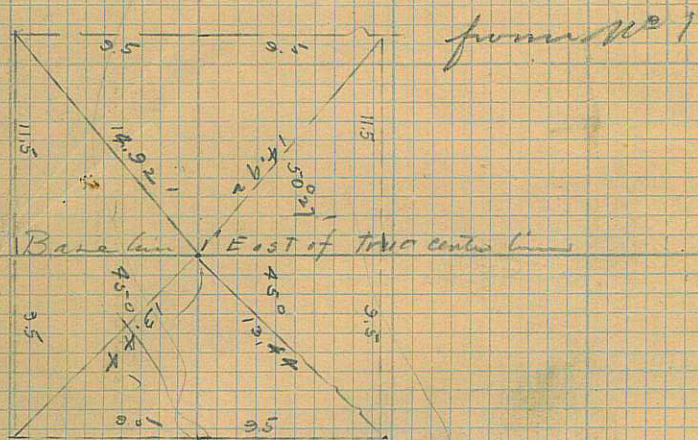


1 East Steel tower
 North from Burningshon
 Swatol neck

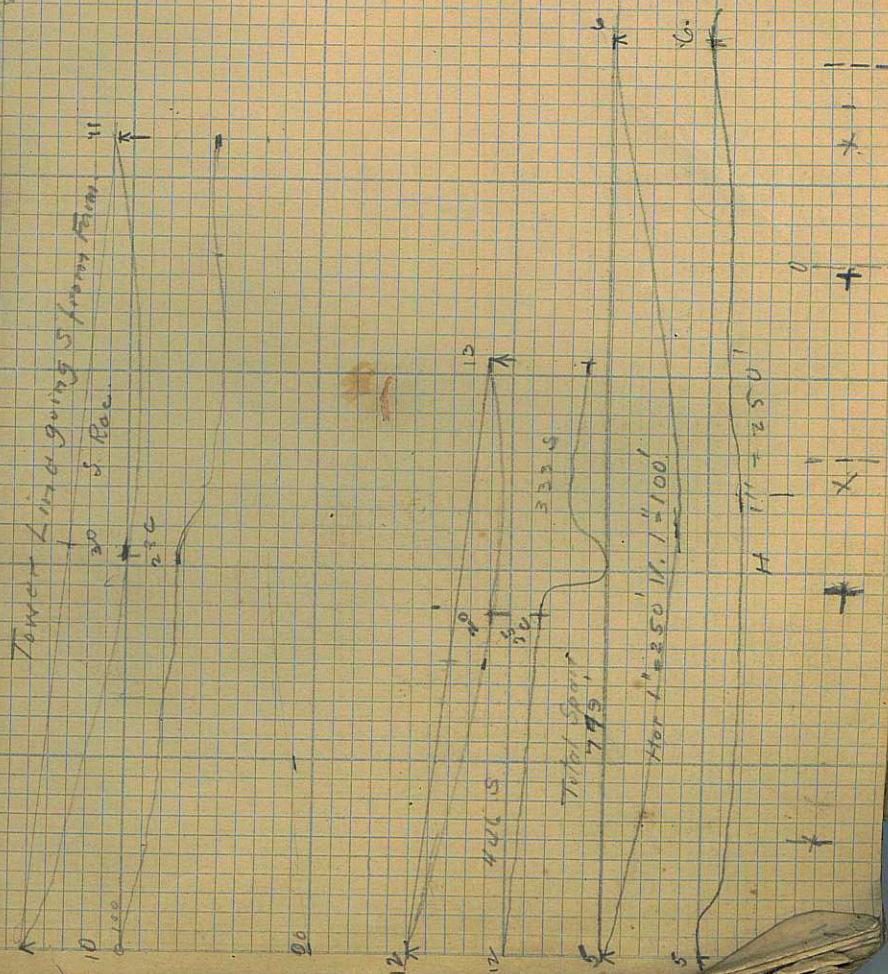


from No 2 going S from Farmington
 Switch rack ^{long} line was run 1' East.

and in order to avoid moving instrument West
 one foot each time I calculate a constant
 as follows.



Tower Line going S from Farm.
 30 S Rec.

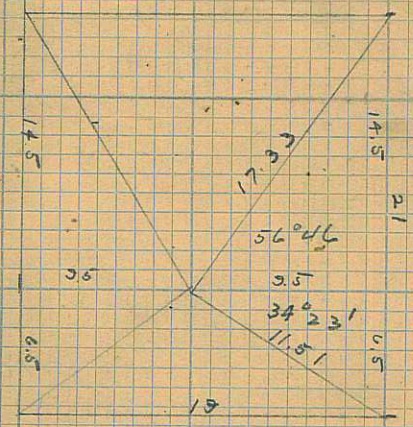


5

Just E of Co. Road

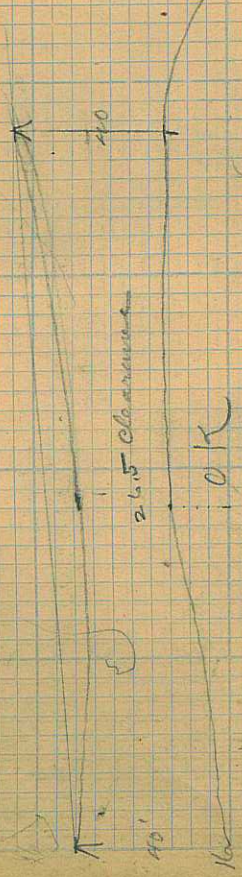
H. 1" = 100'
V. 1" = 100'

Steel towers 4/12/09
Case from No 576



$\sin 11.51$
 $\sin 95 = 0.912913$
 $95 = 0.977724$
 $11.51 = 0.200179$
 $= 34^{\circ}23'$
 $\sin 95 = 0.977724$
 $\sin 34^{\circ}23' = 0.566600$
 $11.51 = 0.200179$
 $= 17.33$
 $\sin 145 = 1.161368$
 $\sin 95 = 0.977724$
 $11.51 = 0.200179$
 $56^{\circ}46'$
 $\sin 95 = 0.977724$
 7.738920
 $11.51 = 0.200179$
 $= 17.33$

Profile of Ground from Wood Tower N° 16 on W. Line N of Farmington.



Scale $1'' = 100 \text{ Feet}$

200
180
160
140
120
100
80
60
40
20
0

Std Tower line N of Farmington
4/19/09

207'

did not pass, not enough clearance

$H = 1'' = 2.50'$ $V 1'' = 50'$

11101

6

27

W of Farmington on E of the

Hub 2.50'
1'' = 50'

Case did not pass, (recovered)

246
-132
114

209.1101 = 3.001787
64.55 = 2.224076
1.245257
176

2.62
480
20960
1048
17.3760

32

28

Hub-1101' from 27

29

H 1" 50'
V 1" 50'

4/22/09

209172 | 2082785
209172 | 2082785
209172 | 2082785
209172 | 2082785

209172
209172

Reconnaissance from 1126 to 7 on old tower N of James

WIND
20 N

570

686

209172 = 3.609853
209172 = 3.077751
209172 = 0.637582
4.8

1
1
6

101720
570
17250
5720
839910

55
112

Spine 551

11
20
2

O.K.

803 feet

Wood Tower N of James tower

O.K.

25
1702

209172 = 2.024501
209172 = 2.929930
209172 = 0.973431
209172 = 2.22

209172 = 2.097183
209172 = 2.741152
209172 = 0.888335
6.9

31

209172 = 0.2051
209172 = 5.03
209172 = 9.162

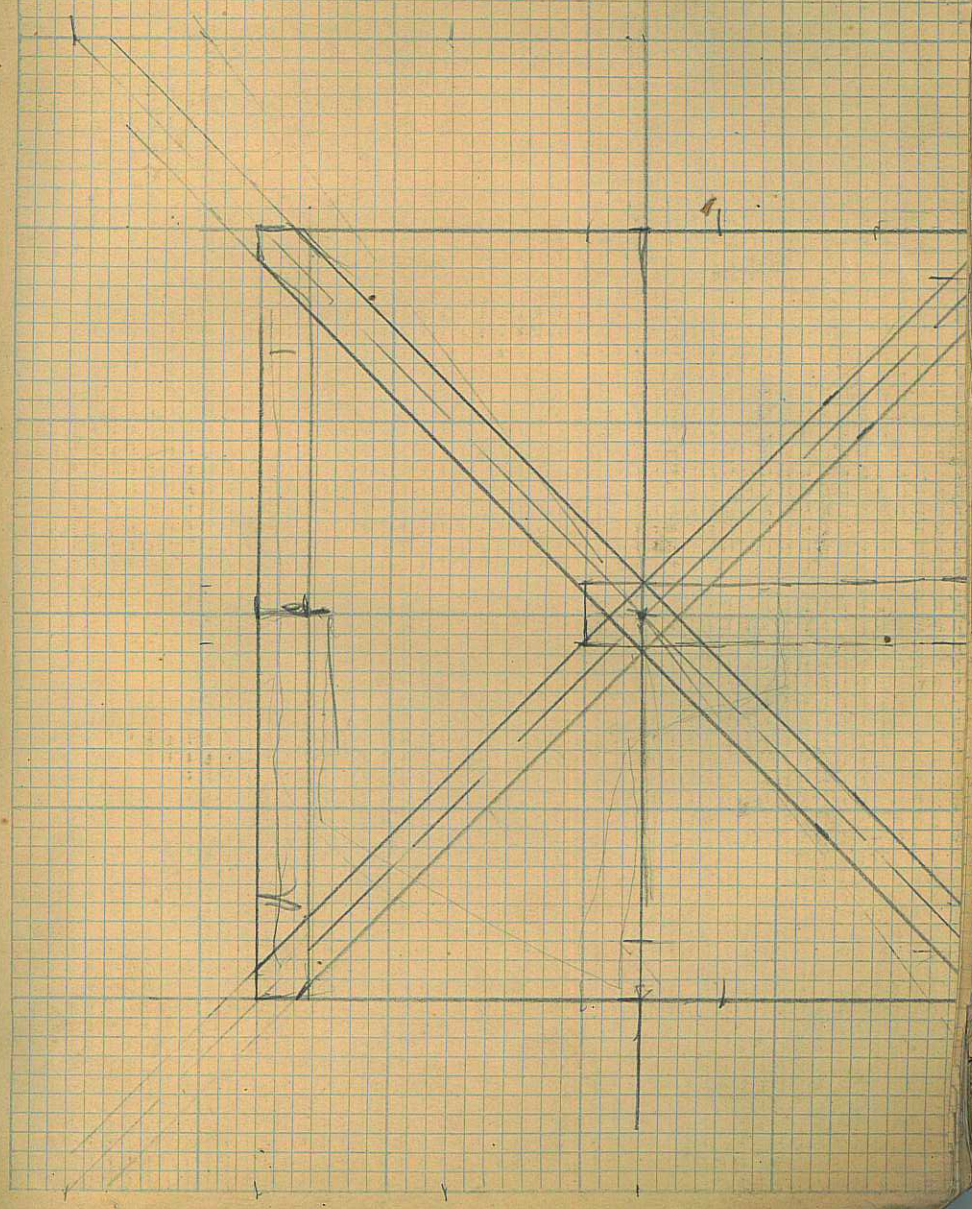
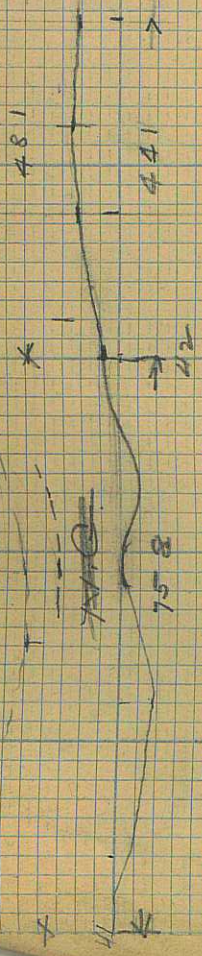
15270

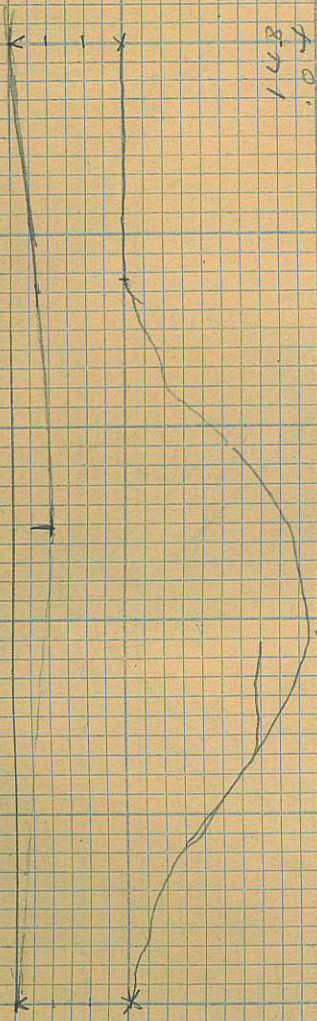
15.36162

100175
800

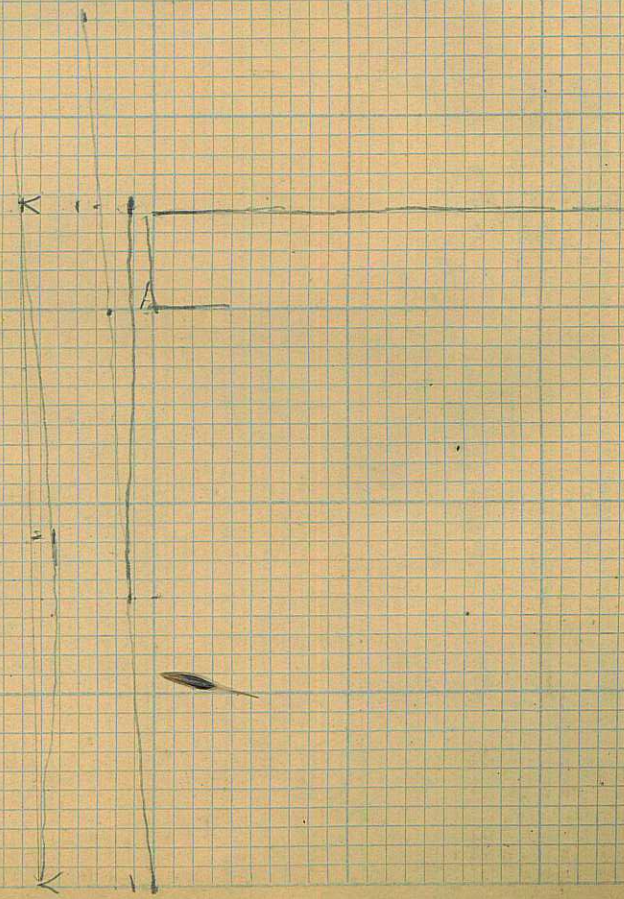
100000

Map of the ...

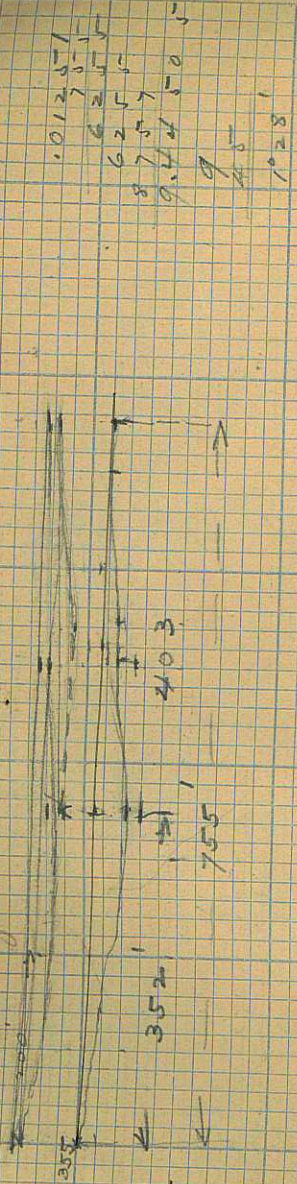




1448
 8771
 5992

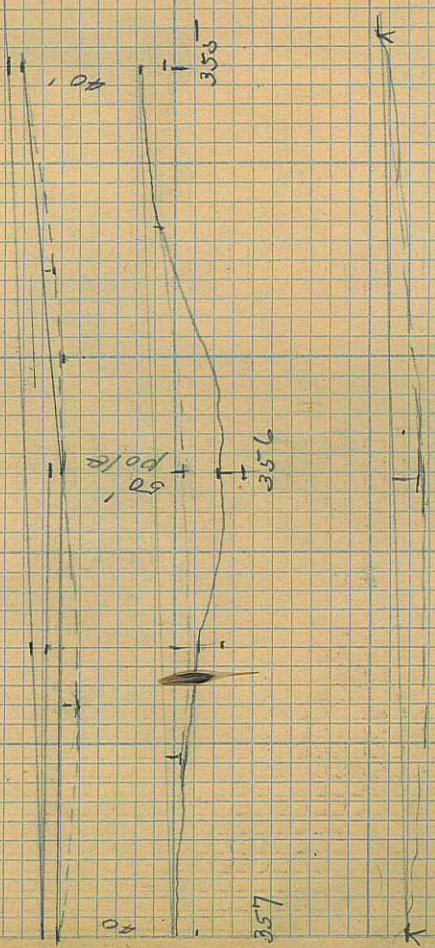


Case East of Hamilton in
 Wright's Lane



10256
 403
 768
 1024
 103168

Final for Above



Span 466

Contours of ground to Logan +
 Old Lake west South of
 Logan

1341
 855
 403

167
 102
 456
 276
 8
 0073
 300
 21900

153
011
153
1683

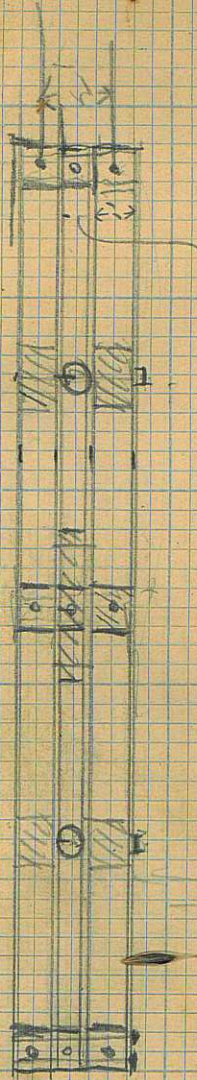
1097
1788
2156
21848
21866

0697
960
768
176
652662

0697
240
27880
1394
164280
662
2315

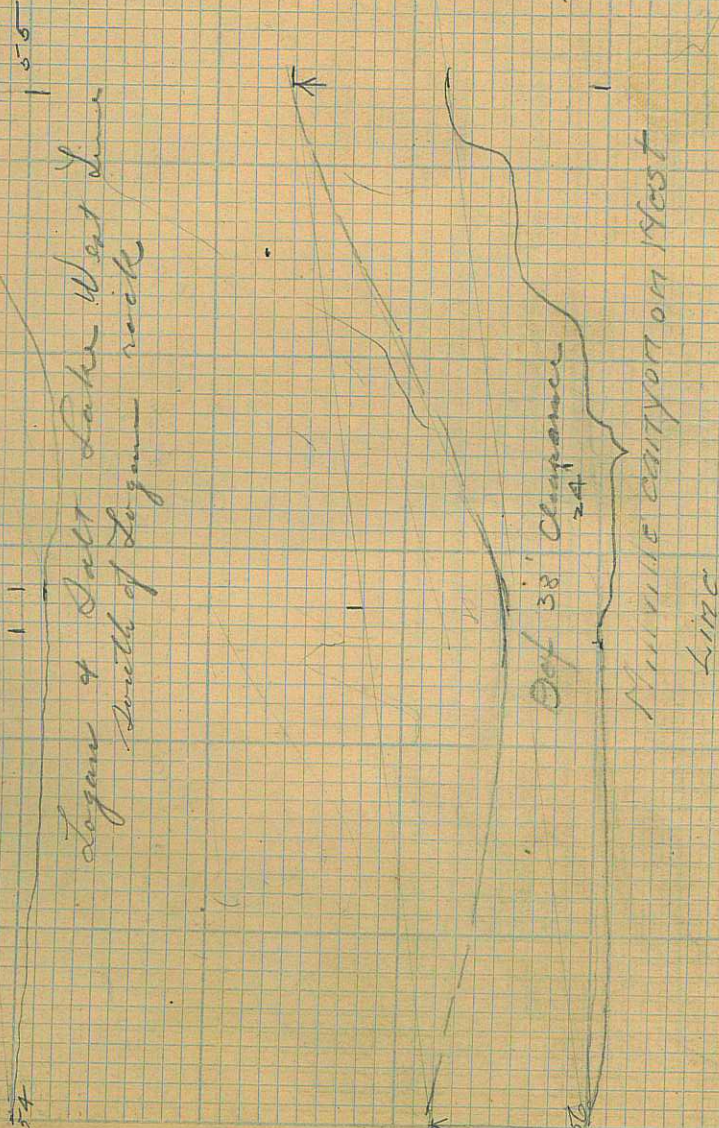
pass

20'c



An scale 1" = 200'
 Kent 1" = 50'

Logans & Salt Lake West Line
 South of Logans rock

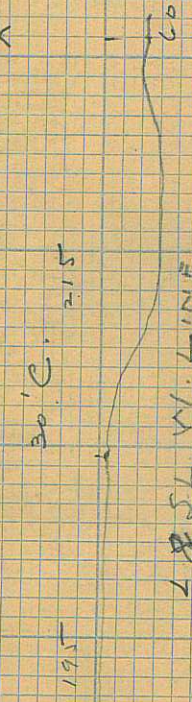


3 35
 52 3 5
 58 1 0 8 5
 47 68
 51 5
 35 8 2 0
 7 1 6 8
 3 1 4 0 0
 5 6 9 1 5 2 0
 2 0
 6 0
 6 3
 2 2

00175
 40350
 00175
 5061
 1050
 875
 188550
 103929
 10824
 15716
 31432
 3929
 4259036

42.6
 21.3
 8
 22.1
 6
 40
 22
 38
 24

215
 195
 210



01309
 195
 6540
 11781
 1309
 2552
 101362
 215
 21810
 7362
 18724
 93783
 27
 1762

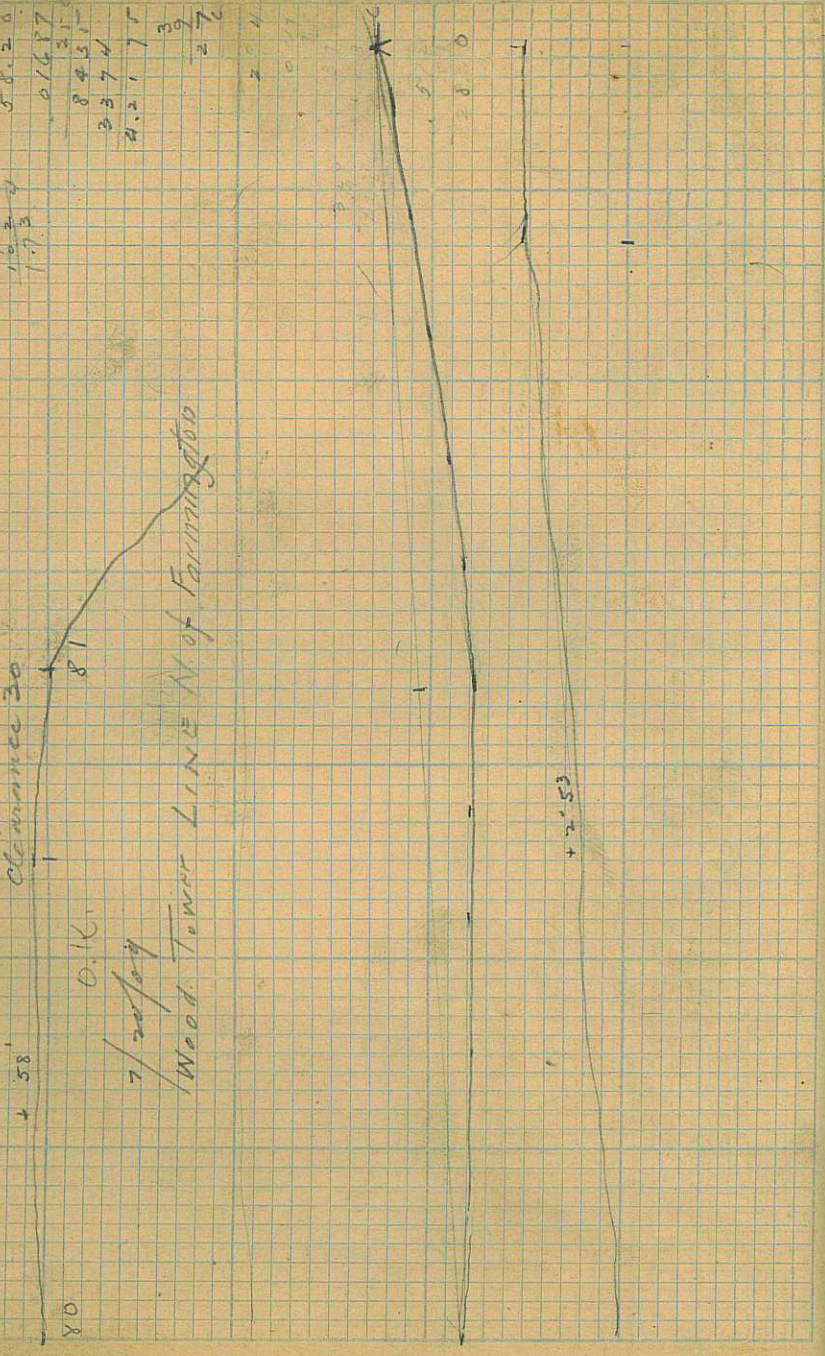
10288
 256
 1792
 1495
 508
 765

Def 3' clearance 24'
 MILLINE CANYON ON WEST LINE
 West Wood Tower 717109
 Span 520
 56' - 1093
 N of Farmington

0.090 = 274

76.0 250
 19.0 348
 1.3
 97
 58.20
 0.1687
 84.510
 3374
 4.21170
 39
 272
 204
 0.71

Def 4
 clearance 30'
 81
 0.16
 7/20/04
 Wood Tower LINE N of Farmington



106
 687
 4748
 375
 687
 4748
 687
 4748
 1026
 4748
 12862
 34

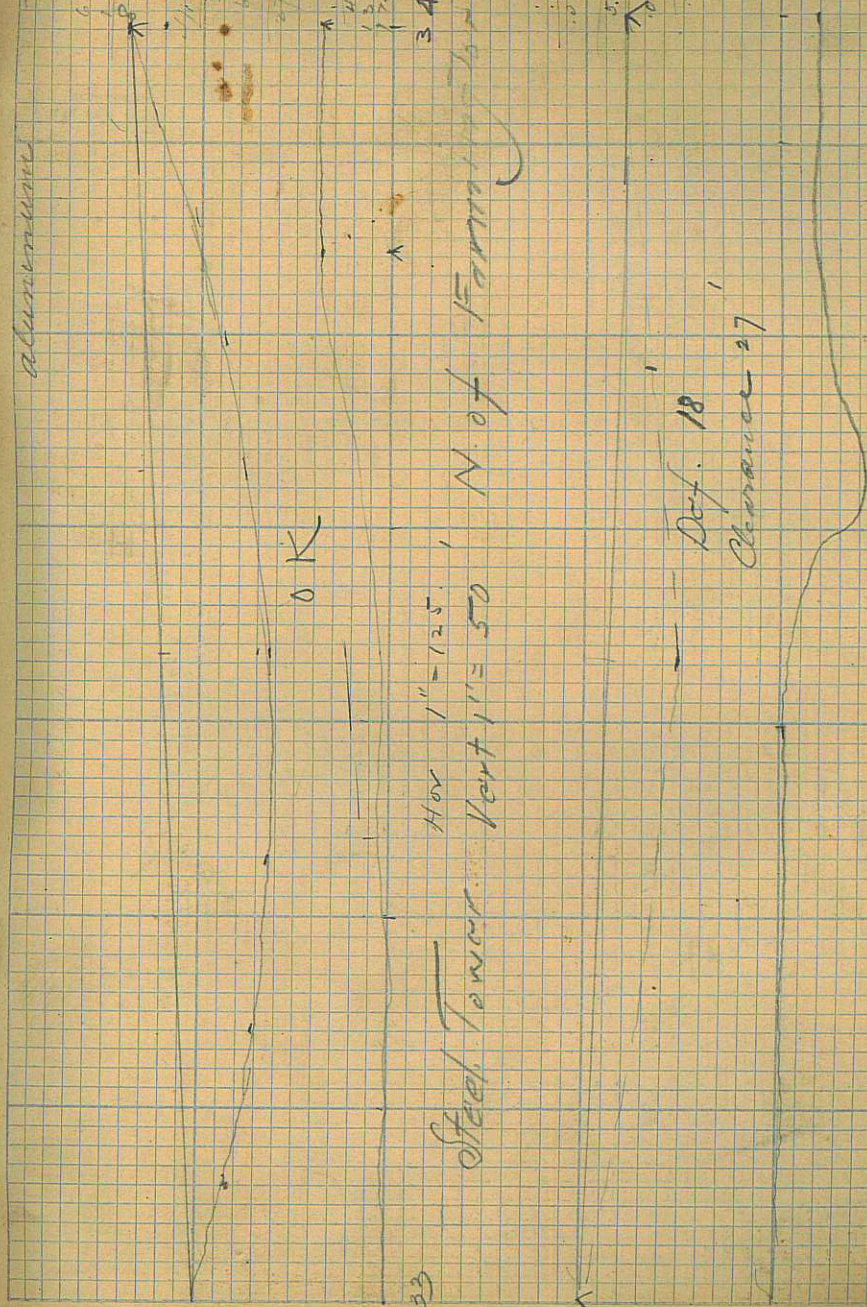
aluminum

OK

Steel Tower Hor 1" = 125', N of Farmington
 Vert 1" = 50'

1.10
 .09
 5.40
 10000
 43500
 1.5

Def. 18
 Clearance 27'

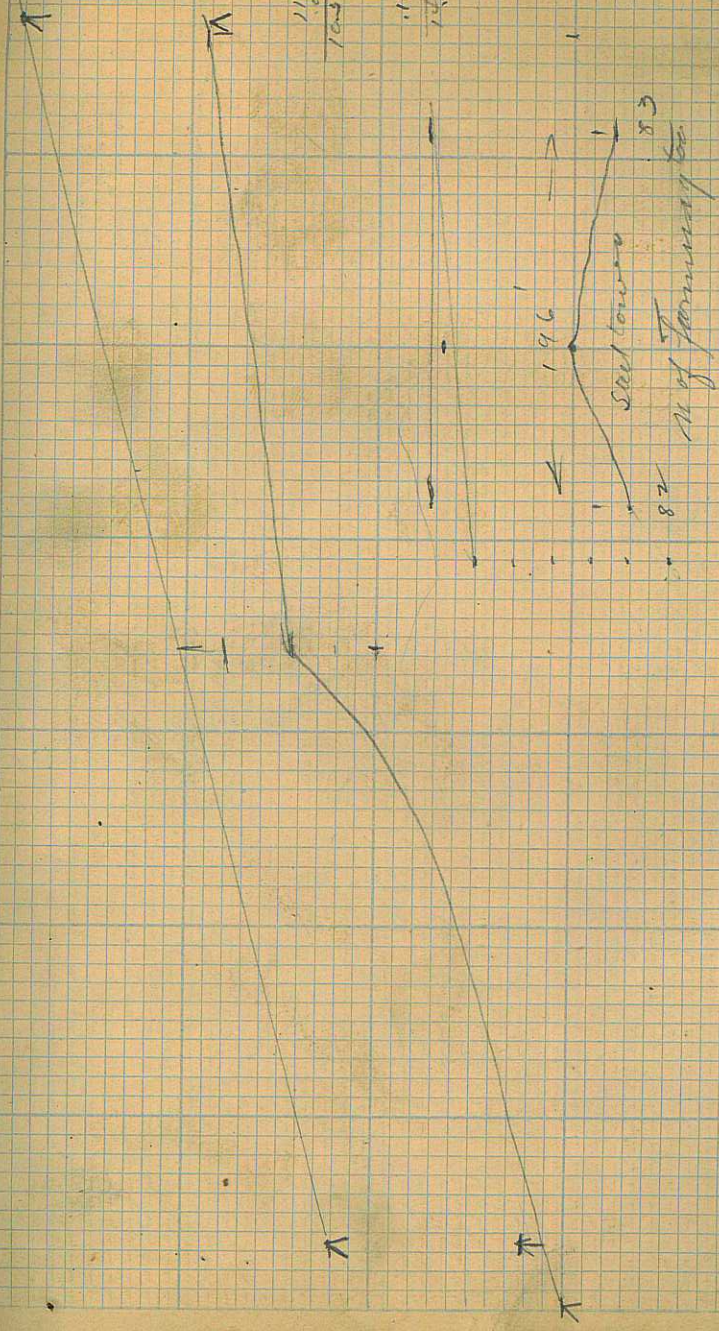
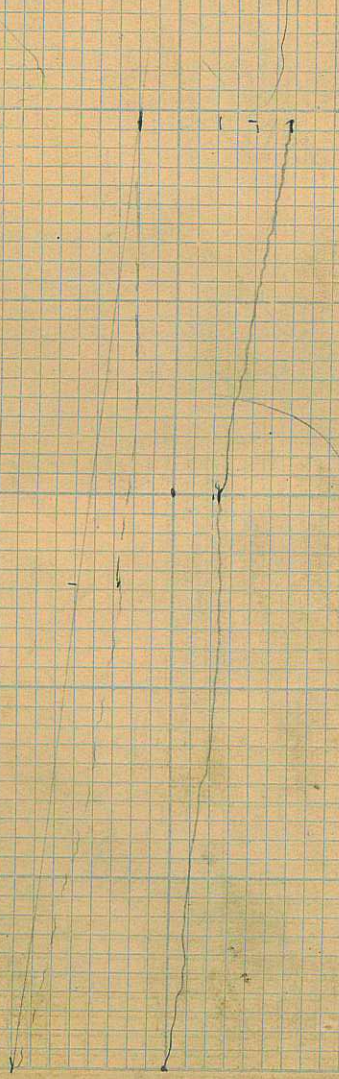


155
 0 K
 Spans 385'
 Wood tower 1/4 of
 Utah Switch rack.
 Seals H = 1" = 100' K. 1" = 50'

$\frac{.34}{.45}$

234
 .036
 1404
 702
 2424

1000
 300
 12.600
 185
 .084
 780
 1520
 1228
 2898



115
 109
 1057

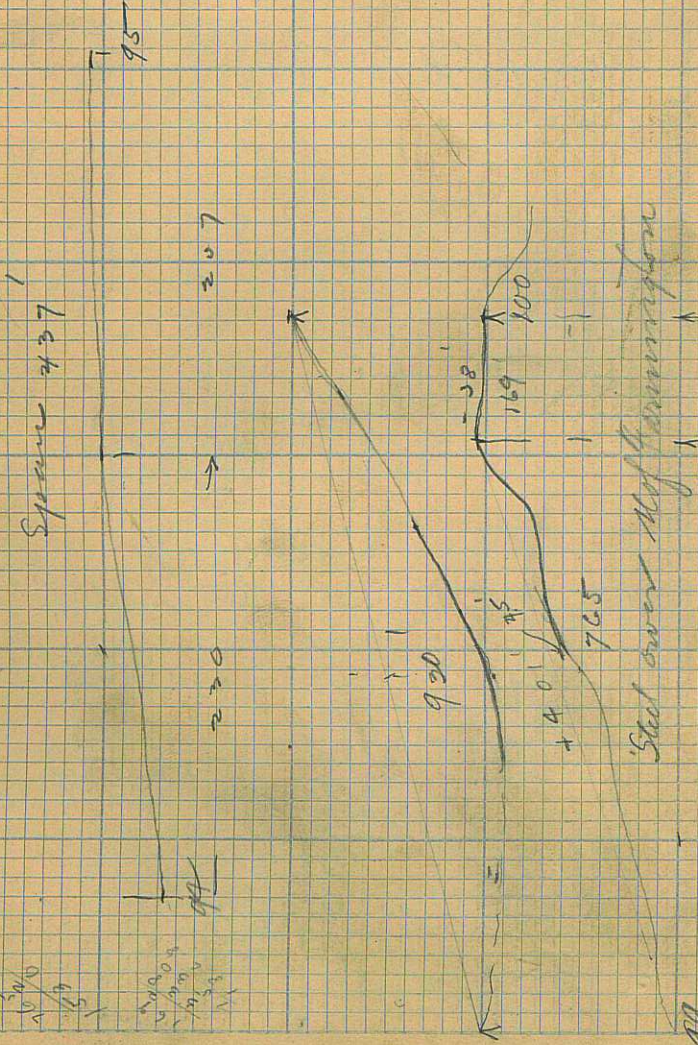
.176
 1480

196
 Seal tower
 83
 N of Perryway for

069
 230
 2070
 138
 15.870

 018
 1656
 2076
 2726

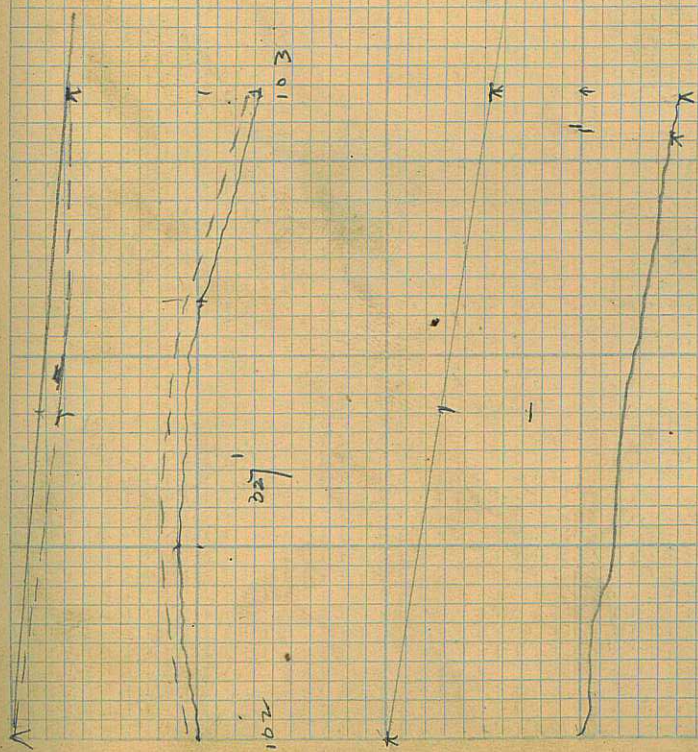
745
 167
 93

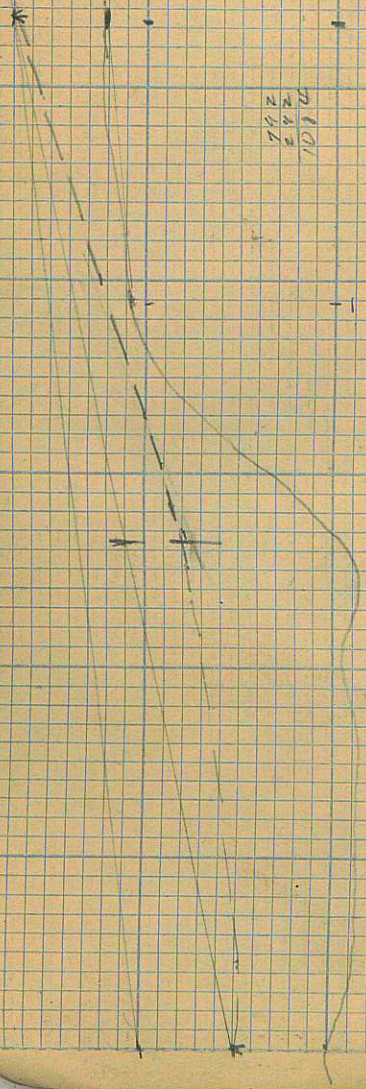


99

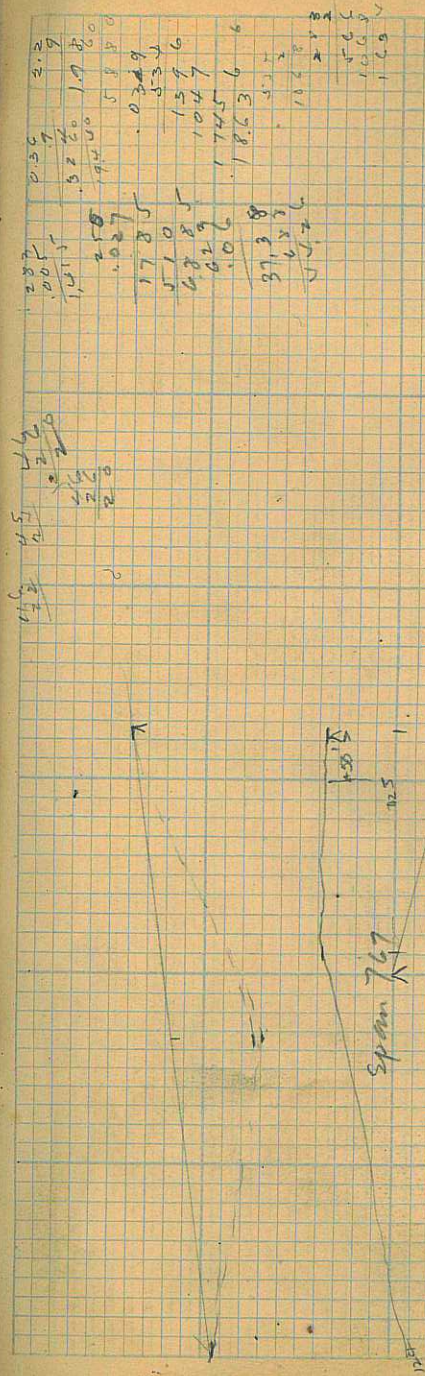
1045
 1045
 235
 5.7

 1.01
 2.19
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 4893
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 041
 109
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 157
 507
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 210
 2.370
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 0.000
 4.0
 1166
 1128





1012
1011
1010



span 767

1012

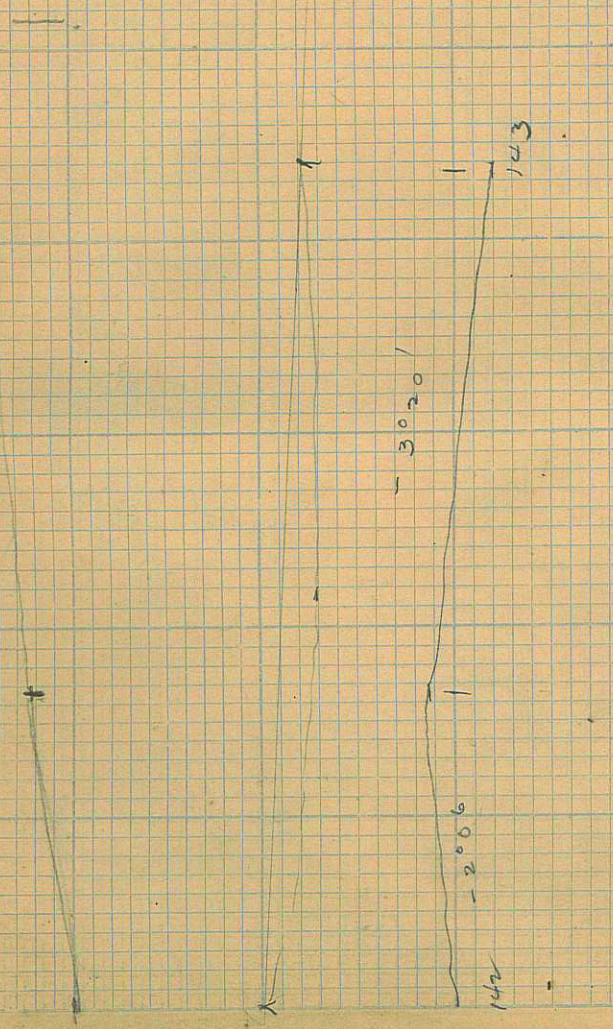
1012
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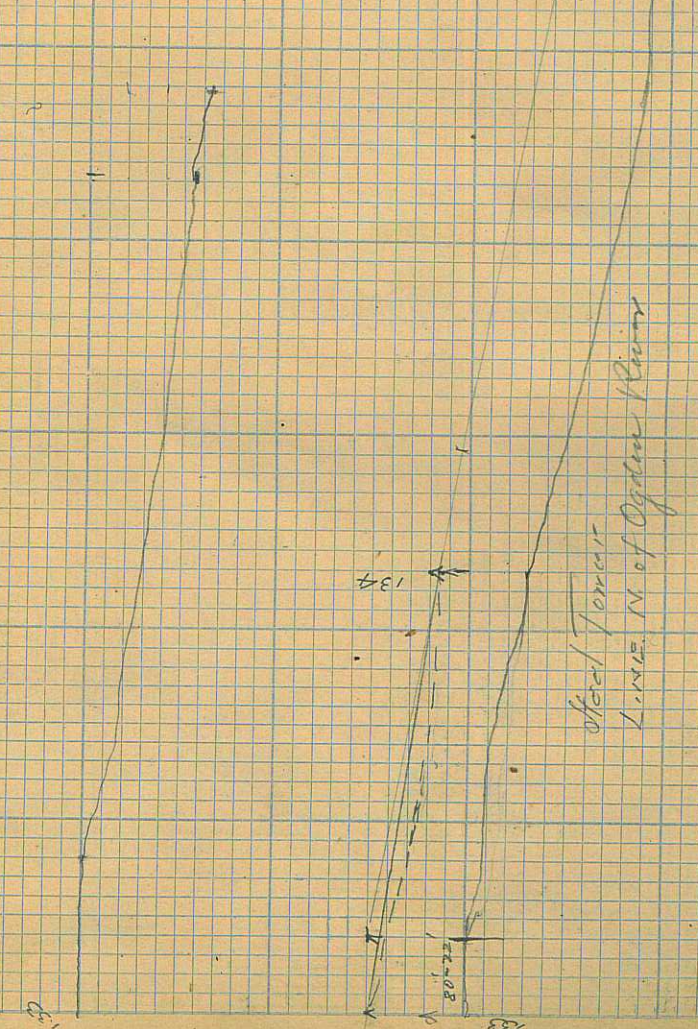
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Steel Tower
1.1515 N. of Ogden River

133

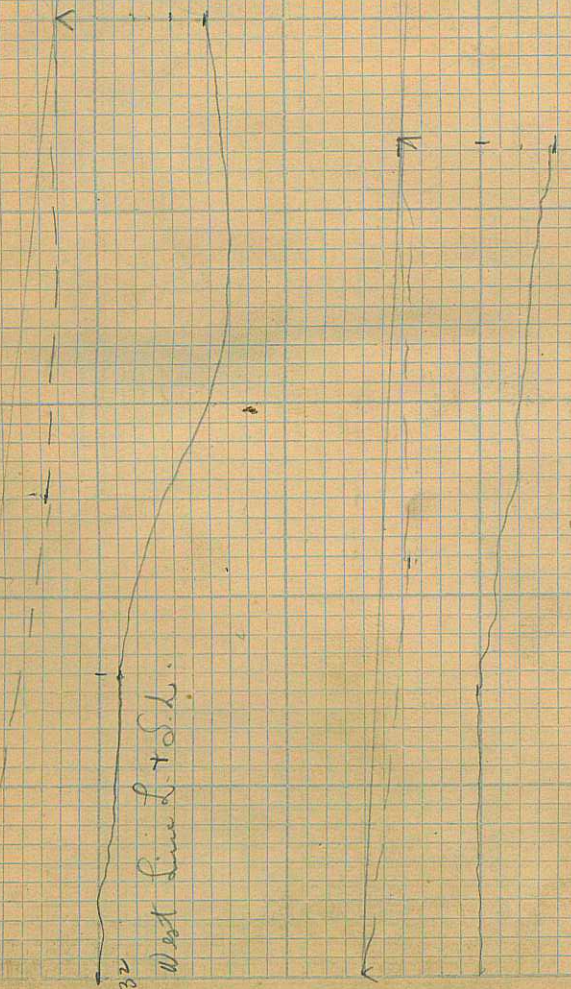
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132 West Line L + S.L.

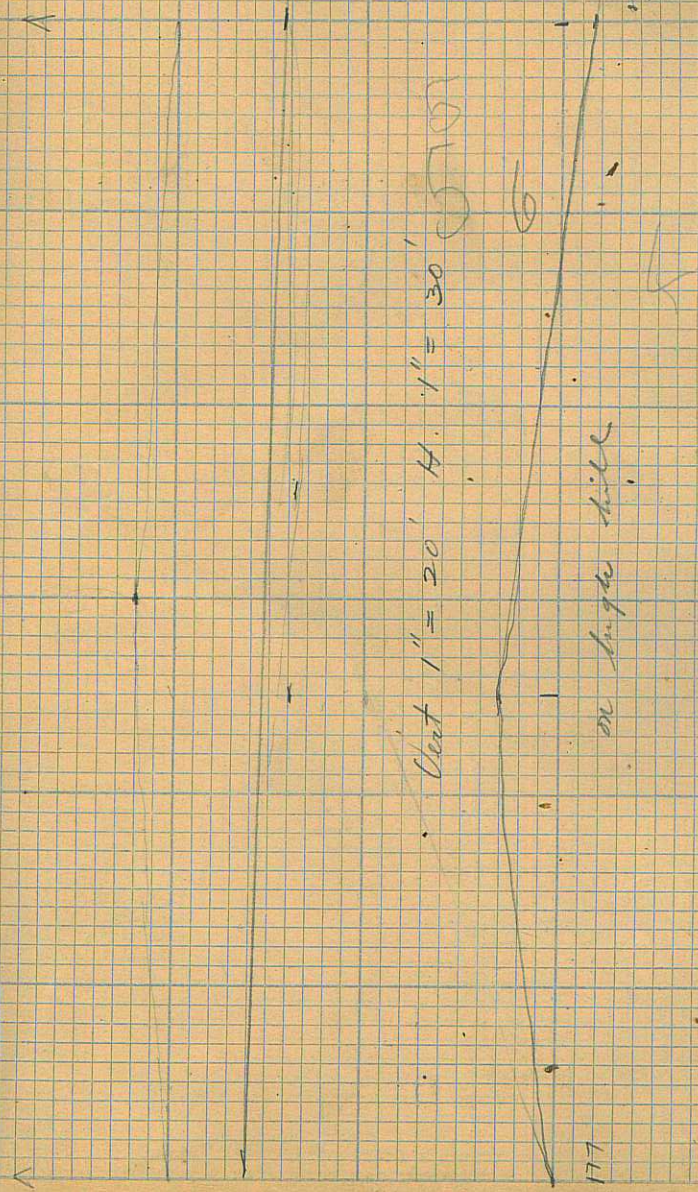


Cont 1" = 20' H. 1" = 30'

or high hill

177

178



ch = use house hca = heating plant
 hc = hedge

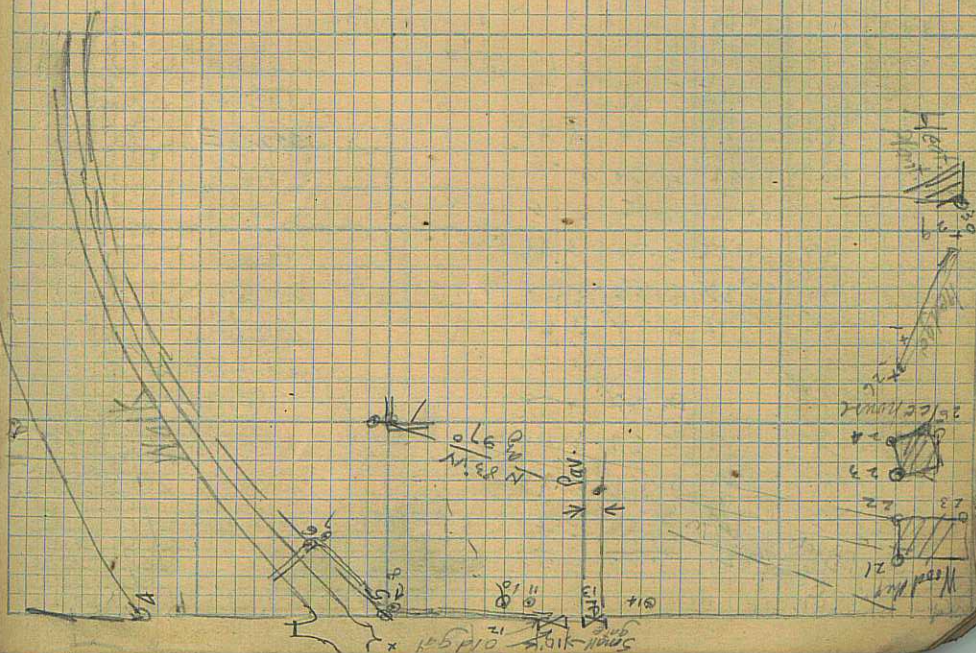
N	Pt.	S point	Stadia			Vert. angle	Elev.	H.I.
			U	C	L			
30	W	79°34	7.21	6.20			199.23	
29	W	80	7.81	6.86			198.57	
28	W	87°02	5.9	6.44	5.9		198.49	
27	W	91°04	6.16	7.19	6.16		198.24	
26		93°04	6.56	7.99	6.16		198.24	
25	Sch	98°08	4.14	3		-1°26	196.71	
24		98°42	4.06	3.0		-1°14	197.87	
23	W	103	4.08	3				
23	W	104°02	6.24	5		-1°21	194.6	
22	W	107°24	4	3	2	-1°22	191.67	
21	W	110°42	4.96	3.0	1.96	-1°25	197.08	
20	W	114°41	2.70	3.85	5.00	-1°20	196.24	
19	W	116°57	7.83	8.72	7.83		196.51	atd
18	W	116°32	7.60	8.67	7.60		196.75	
			6.43	8.01	6.93		197.42	
16	W	120°14	6.47	7.47	6.51		197.96	
15	W	120°41	6.48	7.72	6.78		197.71	
14	W	126°30	6.30	7.04	6.30		198.39	on paw
13	W	134°08	6.53	7.24			199.19	
12	W	139°57	6.03	6.67			198.76	
11	W	146°23	6.00	6.58			198.85	
10	W	150°12	5.60	6.14			199.29	
9	W	178°35	5.19	5.65			199.78	
8	W	179°27	6.17	6.65			198.78	in ditch
7	W	144°44	5.20	5.53			199.90	
6	W	146°52	6.20	6.54			198.9	in ditch
5	W	174°52	5.30	5.80			199.63	
4	W	230°11	4.75	5.5			199.93	
3	W	207°02	4.9	6.00				
2	W	180°30	5.4	6.37				
			5.43					

20000 20543

Topography on east side of
 Temple Block 2/17/14

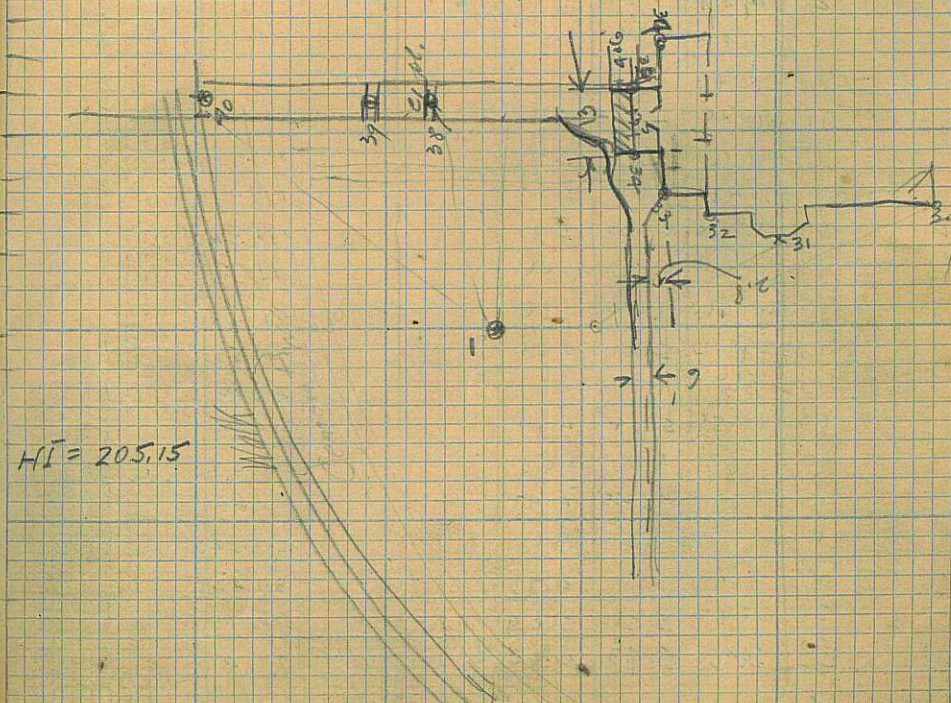
Red: David Christensen
 T = hydrant, eg = emergency
 Lo = top in place

NS



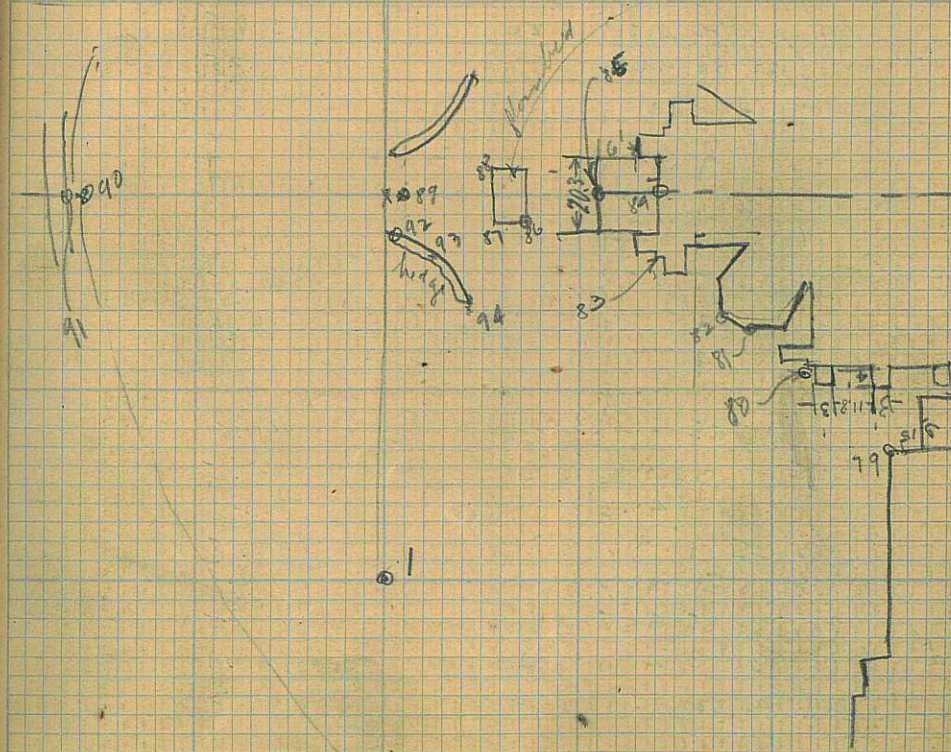
in - entrance building
 T = tree
 SR = side road 12' wide

Sta	Pt	My from 5 ft	Station U.C.	L	Vert angle	Elev.	B.S	F.S
30	SR 57	71°50	4.68		4.00			
29	SR 56	52°	4.66		4.0			
28	SR 55	31°45	4.82		4.00			
27	SR 54	52°39	5.08		4.00			
26	SR 53	66°44	4.88		4.00			
25	SR 52	80°50	4.7		4.0			
24	SR 51	100°22	4.56		4.0			
23	SR 50	122°38	4.60		4.0			
22	SR 49	131°10	4.88		4.0			
21	SR 48	129°50	6.12		5			
6	T 47		5.00		4.47	-20'		
7	part T 46	89°56	5.52	5.				
3	relat T 45	88°52	$\frac{5.3}{2.5}$		$\frac{3.5}{5.5}$	-35'		
6	part T 44	103°12	3		2.19	-116		
9	part T 43	108°34	3		2.39	-130		
8	part T 42	109°17	5.91	5.48		199.24		
10	relat T 41	145°25	5.87	5.51		199.64		
	40	312°49	4.74	4.41		200.74		
	39	0°41	4.94	4.58		200.57		
	38	26°20	5.15	4.74		200.41		
	37	51°52	5.17	4.46		200.69		
	36	53°33	5.25	4.62		200.53		
	35	55°44	4.82	4.22		200.73		
	33					200.45	4.70	
						4.70		
	34	58°19	5.52	4.93		200.50		on part
	33	63°41	5.57	4.98		200.45		on part
	32	67°24	5.88	5.22		200.21		
	31	72°	4.83	5.59	4.83	199.84		



-0 tape

Station	ht.	dy from	Stadia	Vert. angle	Elev.	Needle Reading
1	3' and	5 ft	5.31 4.6			
3	6" D	12 1/2	5.31 4.6		200.55	✓
2	12" D	36 3/8	4.64 3.78		201.31	✓
2	10" D	41 9/16	4.74 3.94		201.21	✓
2	7" D	46 3/8	4.98 4.23		200.92	✓
2	Hyd.	30 8/4	5.06 4.42	0	200.93	✓
2	-0	30 8/4	5.18 4.65	0	200.50	✓
2	-0	72 4/5	5.48	5		
2	78	273 3/4	5.18 4.8		200.35	✓
2	77	274 4/3	5.03 4.76		200.39	✓
2	M 1/3	0 0	5.15		200.00	✓
2	76	110 1/8	4.95 4.88		200.27	✓
2	75	97 5/0	5.32 5.085		200.04	✓
2	74	119 2/2	5.21 4.905	#	200.25	✓
2	73	97 2/2	5.88 5.55		199.60	✓
2	-0	91 4/5	5.98	5.0 angle		
2	72	96 1/0	6.33 5.84		199.31	✓
2	71	96 1/0	6.5 5.90		199.35	✓
2	-0	70 2/9	7.44 6.67		198.48	✓
2	69	95 1/4	6.99 6.21		198.94	✓
2	68	95 4/6	7.46 6.56		198.59	✓
2	67	95 4/6	8.43 7.36		197.79	✓
2	at face	66 2/9	298 0/3		200.52	✓
2	65	56 0	4.99 4.69		200.46	✓
2	64	80 5/5	5.04 4.69		200.46	✓
2	63	58 3/0	4.95 4.63		200.52	✓
2	62	63 1/2	4.825 4.47		200.68	✓
2	61	63 1/2	5.21 4.83		200.32	✓
2	60	66 4/8	5.16 4.73		200.42	✓
2	59	68 0/2	5.56 5.09		200.06	✓
2	center of station	58 74 3/8	5.43 4.80		200.35	✓

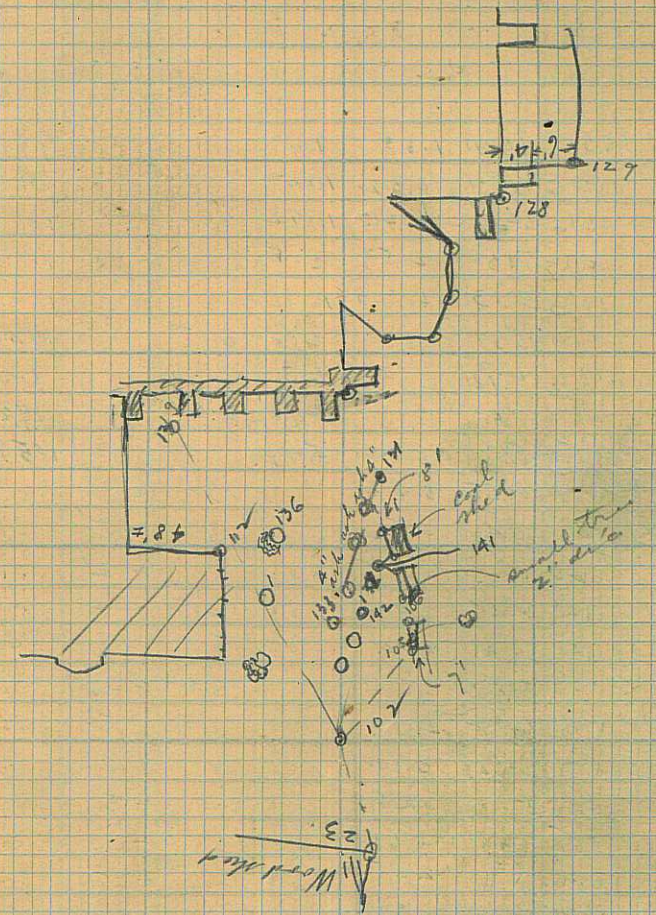


A	PT	By from		Station			Dist angle	Bearing	BS	FS
		S	N	O	C	L				
	102							N83°W		8.75
	33									4.81
	1-									
we	101	323	23	4.48	3.7				201.45	✓
part	100	324	17	4.62	3.85				201.30	✓
line	99	0°32'		5.49	4.72				200.93	✓
2nd pipe	98	11°45'		4.97	4.35				200.80	✓
	97	16°30'		5.40	4.75				200.80	✓
	96	23°39'		4.88	4.20				200.95	✓
	95	33°28'		4.66	3.9				201.25	✓
	94	14°		4.49		3				
	93	8°07'		4.68		3				
	92	2°		4.8		3				
Point	91	355	24	4.59	3.50				201.65	✓
E gate	90	333	55	4.68	3.60				201.55	✓
	89	0°44'		5.20	4.21				200.94	✓
	88	8°54'		7.00		4.88	132'			
	87	10°01'		6.7		4.8	—			
	86	15°55'		4.57	3.56				201.59	✓
	85	21°15'		4.26	3.2				201.95	✓
Point	84	23°35'		4.03	2.95				202.25	✓
	83	25°19'		4.3	3.3				201.85	✓
	82	28°51'		4.52	3.56				201.59	✓
	81	31°35'		4.55	3.60				201.55	✓
ME end	80	36°03'		4.70	3.74				201.41	✓
Camp										
Cor.	79	41°33'		4.74	3.82				201.33	✓

Dist. from 1 to 102 = 240.7' Elev. at 102 = 196.31'
 shown after HI = 205.26 at 33

Station	Angle	Dist	Lat	Long	Vert angle	Elev	B.S.	I.S.
✓ 128	2°50'	3.06	2					
✓ 127g	3°6'	3	2		+35'	201.46	✓	
✓ 126g	1°27'	2.99	2		+38'	201.52	✓	
✓ 125g	3°59'	3.95	3		+1°	201.62	✓	
✓ 124g	0°31'	1.925	1.0		+25'	201.65	✓	
✓ 123g	3°57'	1.89	1.0		+26'	201.65	✓	
✓ 122g	3°55'	4.93	4.00		+128'	202.06	✓	
✓ 121g	3°41'	4.95	4.0		+121'	201.78	✓	
✓ 120g	24'	2.96	2		+41'	201.59	✓	
✓ 119g	3°56'	2.92	2		+48'	201.87	✓	
✓ 118g	3°52'	1.87	1.0		+23'	201.47	✓	
✓ 117g	5°24'	1.40	0.35			200.96	✓	
✓ 116g	11°45'	3.86	3.05			198.6	✓	
✓ 115g	8°52'	3.9	3.12			198.14	✓	
✓ 114g	3°19'	3.63	2.86			198.45	✓	
✓ 113g	3°55'	2.76	2.06			199.25	✓	
✓ 112g	3°40'	2.03	1.41			199.90	✓	
✓ 111g	3°52'	2.77	2.55			198.96	✓	
Coal shed	110g	15°53'	4.46	3.95		197.36	✓	
Coal shed	109g	17°41'	4.47	3.98				
✓ 108g	18°55'	4.93	4.0			197.31	✓	
✓ 107g	22°	4.57	4.00			197.31	✓	
✓ 106g	27°15'	4.51	4.21			197.10	✓	
✓ 105g	3A°21'	4.68	4.40			196.81	✓	
✓ 104g	12'	3.78	3.57			197.74	✓	
✓ 103g	50°36'	6.36	6.2			195.11	✓	
✓ 102g	23	17°27'	6.96	6.60	00	194.53	✓	
102-		5.00						
102-		50						

Setting



97°

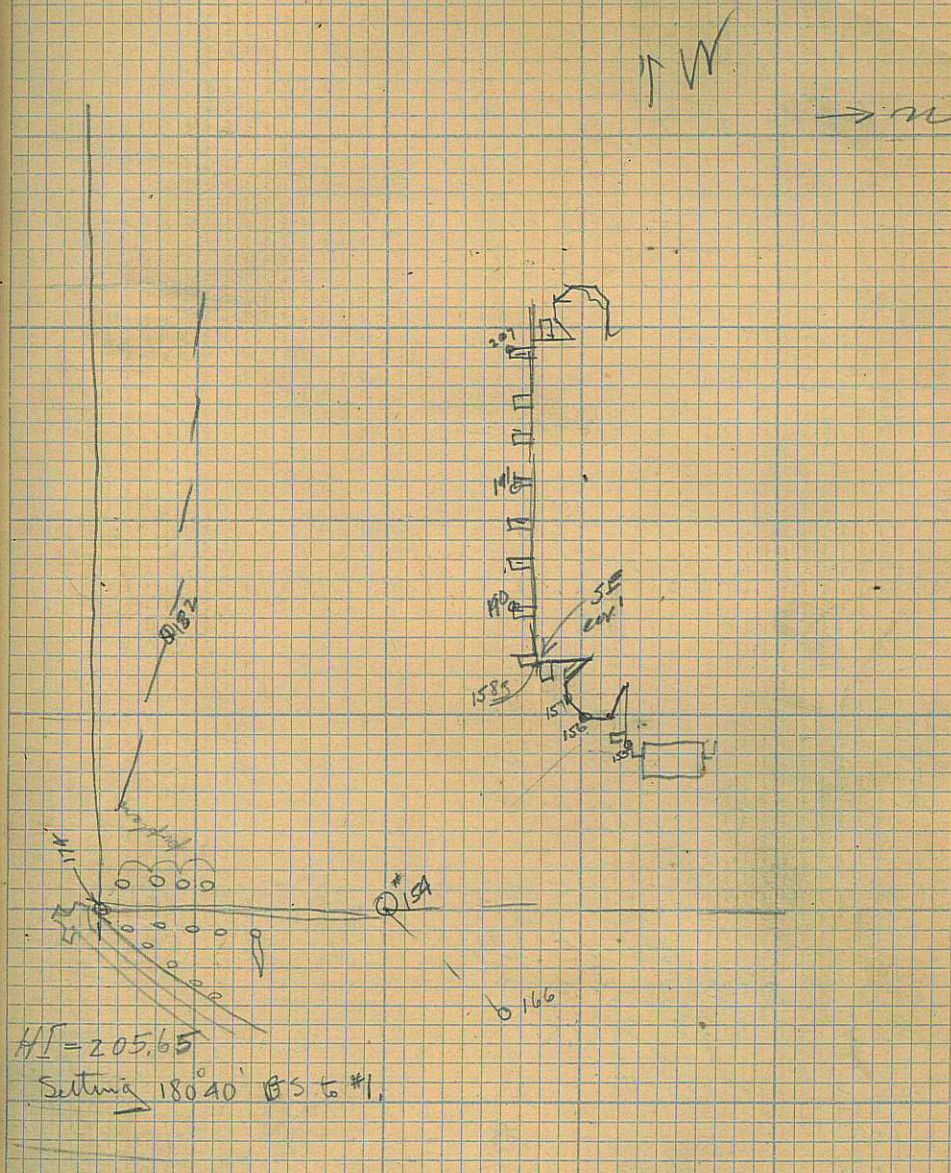
HI at 102 - 201.31
F. St 32nd Ward church spire

7
 N. Pt. ^{1/2 from} Sept. U. ^{Stadi' 6} C. L. Verte. Reading

153	16630	11.33	11.0			190.31
152	6631	10.32	10.07			191.24
151	6491	12.23	11.42			189.39 ✓
150	5735	12.52	12.15			189.16 ✓
149	5013	12.33	11.9			189.41 ✓
148	4359		6.6	6.17		194.71 ✓
147	4921		6.7	6.33		194.61 ✓
146	5745		6.40	6.61	0	194.41 ✓
145	563	6.14	5.94		0	195.37 ✓
Part E. 10"	115	6.55	3.46		3	+5'
Part E	113	9.43	3.56		3	-5'
5" hardwood	142	13.25	3.7		3	+12'
Part E.	141	14.45	3.87		3	0 +4'
6" pine	140	34.41	3.74		3	+30'
12" oak	139	34.53	6.27		5.29	+2.09'
10" oak	138	34.55	2.13		1	-15'
8" pine	137	35.43	3.16		2	0
10" oak	136	35.30	3.28		2	+15'
8" maple	135	1.48	4.31		3	+20'
10" pine	134	6.16	4.45		3	+25'
	133	10.13	3.93		3	+20'
	132	5.01	4.09		3	
4"	131	11.09	4.56		3	+15'
12" oak	130	35.23	3.58		2.00	+31'
	129	5.24	3.19		1.0	+40' 20.73

(continued)

K	PT	As from BS	Stadia		L	Vert. angle	Reading	BS
			U	C				
		179g 81°14'	5.33	4.86			200.79	✓
		178g 117°	4.7	3.84			201.81	✓
		177g 103°30'	5.37	4.9			200.75	✓
		176g 67°28'	4.97	4.63			201.02	✓
		175g 16°52'	4.91	4.39			201.26	✓
	old cor post	174g 43'	5.00	4.12			201.53	✓
		173g 0°30'	4.78	3.85			201.80	✓
		172g 320°13'	4.8	4.53			201.12	✓
		171g 125°34'	4.16	3.68	0		201.97	✓
		170g 125°55'	5.02	4.42	0		201.03	✓
		169g 155°07'		4.72			200.93	dist. 4'
		168g 284°37'	4.66	4.29			201.76	✓
	one wedge	167g 284°34'	4.17	3.76			201.89	✓
	alt. in	166g 239°10'	4.76	4.47			201.18	✓
	at fence	165g 239°10'	4.29	3.73			201.92	✓
		164g 238°24'	4.62	4.07			201.58	✓
	road trench	163g 184°40'	4.63	4.34	0		201.33	✓
	also mid hedge	162g 179°49'	5.40	4.9	0		200.75	✓
	also end hedge	161g 151°21'	4.91	4.54	0		201.11	✓
		160g 134°50'	4.39	3.92	0		201.73	✓
		159g 126°05'	4.49	3.90	0		201.75	✓
	cur	158g 126°05'	4.13	3.46	0		201.19	✓
	cur	157g 132°11'	4.04	3.40	0		202.25	✓
	Box cur	156g 136°20'	3.96	3.32	0		202.33	✓
	cur main	155g 142°24'		3.48	2.80	0	202.17	✓
		99	6.03	5.22			200.43	5.2 ✓ on 12 feet
	ISA							
	- 154						50°40' W	
	1	0°40'					50°40' W	



Pt | BS | FS | LM | nicht Stadien
 | | | | | Beam | V | C | L

A

10.22

B

m

l

r

028°E 5.0
 53°W 5.27 4.81
 6.05 5.45
 781°E 3.45 3.20

B

3.11

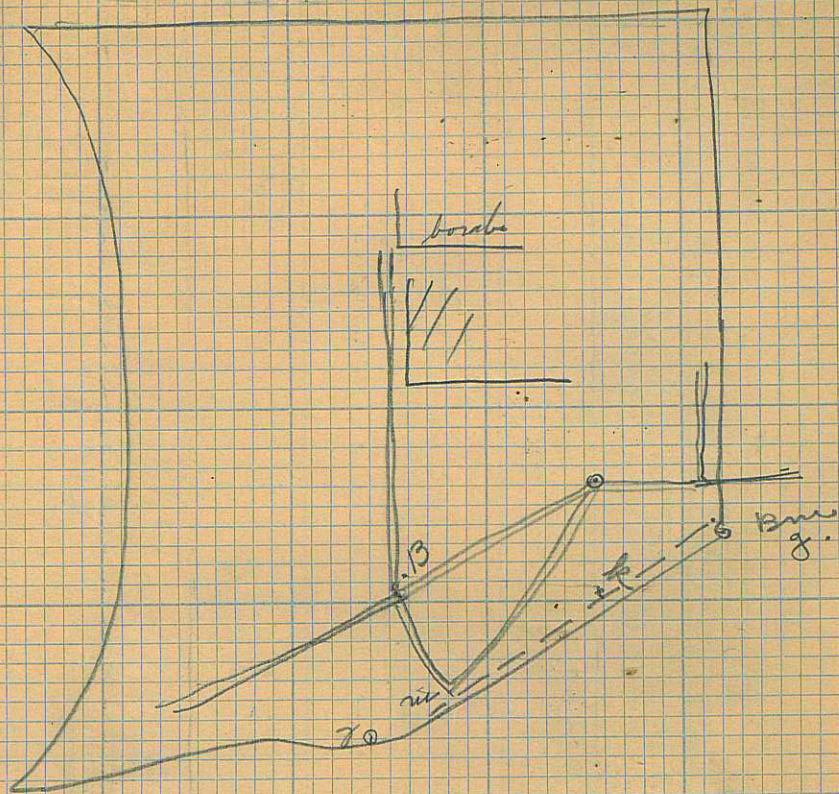
ang 3.44

167°E 4.21 3.11

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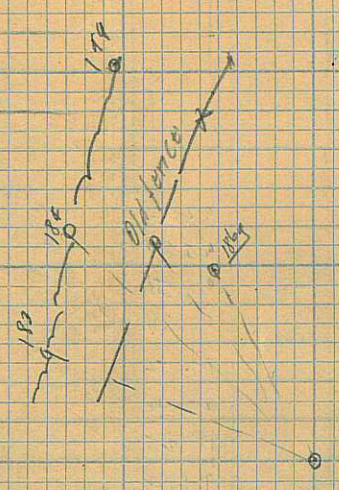
3.11
 3.3



be bank edge

Δ - Pt ^{As from} Spt Station U.C. - Chart Barium

	208g	108°4'	5.66	4.45		201.20 ✓
Cor bottom	207g	109°		2	0.78	-27'
	206g	101°40'	4.95	3.85		201.80 ✓
	205g	108°	5.6	4.5		201.15 ✓
	204g	102°26'	6.13	5.05		200.60 ✓
	203g	94°20'	6.6	5.52		199.05 ✓
	202g	73°	6.11	4.93		199.54 ✓
old fm	201g	63°26'	5.80	4.51		199.85 ✓
be	190g	57°40'	6.65	5.3		199.00 ✓
be	199g	50°25'	6.95	5.71		199.94 ✓
old fm	197g	55°02'	6.47	5.42		200.23 ✓
	197g	72°41'	6.36	5.49		200.16 ✓
	196g	95°55'	7.06	6.25		199.00 ✓
	195g	98°19'	6.22	5.40		200.25 ✓
	194g	101°58'	4.98	4.12		201.53 ✓
	193g	111°24'	4.9	4.0		201.65 ✓
	192g	112°39'	4.48	3.57		202.08 ✓
	191g	115°46'	4.37	3.45		202.20 ✓
	190g	120°25'	4.14	3.4		202.25 ✓
	189g	112°13'	4.50	3.78		201.87 ✓
	188g	100°11'	6.08	5.40		200.25 ✓
	187g	70°51'	6.17	5.47		200.18 ✓
	186g	53°25'	5.71	4.86		200.79 ✓
old fm	185g	46°42'	5.81	4.88		200.77 ✓
be	184g	40°32'	6.62	5.56		200.09 ✓
bank edge	183g	28°40'	5.55	4.50		201.15 ✓
at old fm	182g	32°24'	5.72	4.87		200.78 ✓
	181g	40°31'	5.31	4.60		201.05 ✓
180g	54°49'	5.25	4.69			200.96 ✓
154						



w-p = white poplar
hw = hardwood

Aspen Station Vert
A. P. 5 pt 1 U C I L mfg. Basin

6" Willow	3853	5		3.15		
6" pine	4320	6		3.9		
3 ash	4915	6		3.9		
3 maple	5042	6		3.74		
6 hw	5430	6.0		3.76		
10" ash	575	6		3.6		
8" pine	69	7		4		
8" ash	720	7		3.76		
4 maple	7545	7		3.56		
4 hw	7430	7		3.65		
12 ash	7205	7		3.56		
10" w.p.	224 7320	7		3.5		
	223 7210		11.5	9.54		194.15 ✓
	222 8105		5.	3.16	-24	198.09 ✓
	221 8310		5.	3.2	-30'	197.51 ✓
brush	220 9130		7.96	6.18		197.69 ✓
	219 9911		8.13	6.4		197.52 ✓
	218g 10800	6.08	4.75			200.90 ✓
	217g 1180		7.4	5.80		198.25 ✓
	216g 9535		7.71	6.09		197.94 ✓
	215g 7530	9.0	7.3			198.35 ✓
be	214 7018		8.89	7.06		196.76 ✓
be	213 6308		6.90	5.35		198.75 ✓
aspen	212 6443		5.9	4.64		199.75 ✓
	211 6820		6.30	4.93		199.35 ✓
	210 7651		6.23	4.96		199.42 ✓
	209 8A		6.44	5.22		199.21 ✓

ISA

$\sum I = 205.65$

Lensbank down
= Lb

A. Pt	Elev 3	U	Stations			Vert ang.
			C	L		
Lens	38°6'	5		3.23		
Burst	32°34'	5		3.24		
"	32°34'	5		3.24		
8" ash	46°	5		3.11		
Lb	47°22'	5		3.03		
2" pine	60°30'	5		2.75		
12" hwn	64°38'	5		2.57		
10" hwn	66°25'	5		2.6		
8" ash	74°25'	5		2.0		
2" hwn	81°30'	5		1.7		
5" hwn	84°30'	6		2.7		
3" ash	86°13'	6		2.6		
3" ash	94°24'		3.7	2		
6" W.S	97°21'	5		1.8		
10" pine	90	5		1.8		
6" hwn	85°30'	5		1.83		
8" pine	82°15'	5		2.19		
7" pine	96°06'	5		2.40		
10" pine	89°05'	5		3.10		
9" pine	79°49'	5		2.73		
10" pine	89°45'	5		3.62		
8" ash	75°10'	4		2.82		
Hydr.	66°52'	4		2.77		
6" hwn	54°45'	4		2.64		
4" ash	51°10'	4		2.5		
10" WP	52°38'	4		2.3		
2" ash	47°37'	4		2.22		
3" ash	47°37'	4		2.43		
6" ash	46°13'	4		2.11		
9" ash	36°45'	4		2.36		

97°41'

white
purple

A single vertical wavy line drawn in pencil on the left page of the notebook.

Two vertical lines drawn in pencil on the right page of the notebook, one slightly to the left of the other.



$$v^2 = k_2 g h$$

$$h \frac{dv^2}{2g} + f \frac{L}{d} \frac{v^2}{2g} + m \frac{dv^2}{2g}$$

$$v^2 h g = d h + f L v^2$$

$$h k_2 g = k_2 v^2 + f \frac{L}{d} v^2 + k_m v^2$$

$$h k_2 g = v^2 (d + f L + k_m)$$

$$h k_2 g = v^2 (1.5 + f \frac{L}{d})$$

$$\frac{Q}{a v} = \frac{d v^2}{h k_2 g}$$

$$v^2 = \frac{Q^2}{1.5 + f \frac{L}{d}}$$

$$\frac{d h}{d x} = \frac{h k_2 g}{1.5 + f \frac{L}{d}} = \frac{Q^2}{7854 d^2}$$

$$h k_2 g = \left(\frac{Q^2}{7854 d^2} \right) (1.5 + f \frac{L}{d})$$

$$h k_2 g = \frac{1.5 Q^2 + f \frac{L}{d} Q^2}{7854 d^2}$$

$a^2 \pi$

$.7854 d^2$

78
78
62
506
608

637
632
500
2385
20.075

0.945
2.250
11.250
5.640
20.085

$$k = \frac{Q^2 (1.5 + f \frac{L}{d})}{h k_2 g .7854 d^2}$$

32

6432
61
6432
38592
392352

300
0.020
6.000
1.5
7.5 | 39
7.8 | .2
120 | 44
16
400

.44

10"

graph
manometer
manometer

6.72
8.11
3.11

17.94

300 = 1

2.83
4.94
10.22

17.99

Handwritten scribbles on the grid paper, including a vertical wavy line and a larger horizontal wavy line.

A vertical strip of torn grid paper is attached to the right edge of the left page.

8.92
 6.65

 2.27

7.5 ⁴² 64

2 ⁹² 62

 354

8.92
 2.92

 5.08

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.
 FOR SINGLE TRACK EMBANKMENT.

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

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