Wallace
Curves

555

F.B.555

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
	DEGREES		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

Published by H. S. Crocker Company, Stationers, Drawing Materials, Mathematical Instruments, etc., San Francisco.

MICROFILMED 1964

ENGINEERING DEPARTMENT
CITY OF SAN DIEGO,
CALIFORNIA.

Crocker Quality

FIELD BOOK

COMMUNI CONSENSU PRIMO TRADE MARK

No. 4144

Grade of S.D.E.Ry.Co.

MANUFACTURED BY

H. S. CROCKER CO.

SAN FRANCISCO AND SACRAMENTO
CALIFORNIA

FROM
LORINGS BOOK STORE
San Diego, Cal.

Elevations on Ctr. Go. St. Bridge
on Curb- 12-8-14

4.872	341.212		336.39 Bldg SW Cor. Plg
E. Curb		4.795	336.917
W. "		4.284	336.928
		12-15-14	
E Curb			336.915
W. "			336.923

B.M. 164.96 N.W. Fir plg.

" " 182.96 " " Grape "

" " 195.43 " " Hawthorn "

" " 205.49 " " Ivy "

205.49
0.70
206.19 HI

5.30 / 0.89 — 3.75 / 2.44 — 2.10 / 4.09 — 0.45 / 5.74 — 98.80 / 7.39 — 97.15 / 9.04 — 95.50 / 10.69

195.43
0.78
196.21 HI
11.29
184.92 TP
77
185.69 HI
+73
182.96 ✓
205.49
2.82
208.31 HI

94.42 / 1.79 — 92.58 / 3.63 — 90.67 / 5.54 — 88.75 / 7.46 — 86.83 / 9.38 — 84.92 / 11.29 — 83.00 / 2.69 — 80.00 / 5.69 — 77.50 / 8.19

5.30 / 3.01 — 3.75 / 4.56 — 2.10 / 6.21 — 0.45 / 7.86 — 98.80 / 9.51 — 97.15 / 11.16

95.50 / 3.38 — 94.42 / 4.46 — 92.58 / 6.30 — 90.67 / 8.21 — 88.75 / 10.13 — 86.83 / 12.05

95.43
3.45
98.88 HI
12.05
86.83 TP
155
88.38 HI

84.92 / 3.46 — 83.00 / 5.38 — 80.00 / 8.38 — 77.50 / 10.88

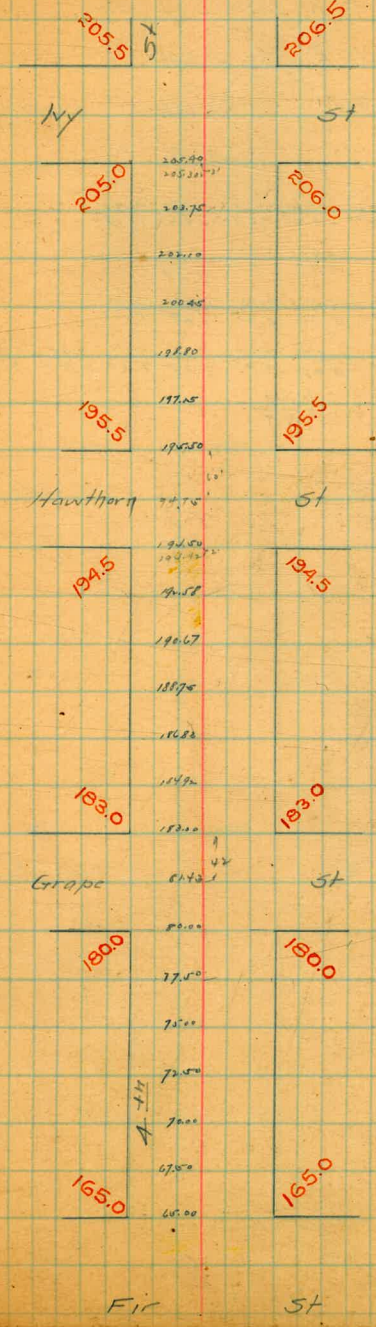
95.43
4.06
99.49 HI

94.75 / 4.74

81.43 / 4.92

82.96
3.39
86.35 HI

Grades for St. Ry. Co. 4th & Fir - Mission Hills



B.M. 205.49 N. W. Cor. Ivy plg

" " 213.97 N. E " Juniper "

" " 224.95 N.W. " Kalmia "

" " 242.51 " " " Laurel "

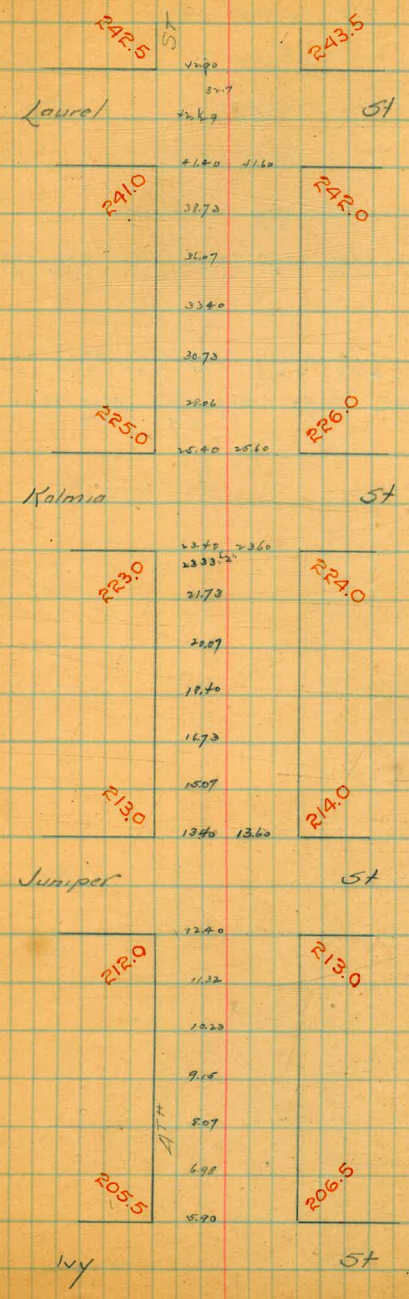
242.51
0.51
243.02 HI
12.29
230.73 TP
.39
231.12 HI
9.39
221.73 TP
0.03
221.76 HI
7.40
213.96 V

41.40	38.73	36.07	33.40	30.73			
1.62	4.29	6.95	9.62	12.29			
28.06	25.40	23.33	21.73				
3.06	5.72	7.79	9.39				
20.07	18.40	16.73	15.07	13.40			
1.69	3.36	5.03	6.69	8.36			
12.40	11.32	10.23	9.15	8.07	6.98	5.90	
2.90	3.98	5.07	6.15	7.23	8.32	9.40	

213.97
1.33
215.30 HI

242.51
4.46
246.97 HI

42.29
4.68



B.M.	242.51	N.W.	Laurel pla
" "	253.46	" "	Maple "
" "	261.96	" "	Nutmeg "
" "	265.20	" "	Olive "

265.20 BM
+71
269.91 HI

265.20
4.78
269.98 HI
8.03
261.95 ✓ BM NW Nutmeg

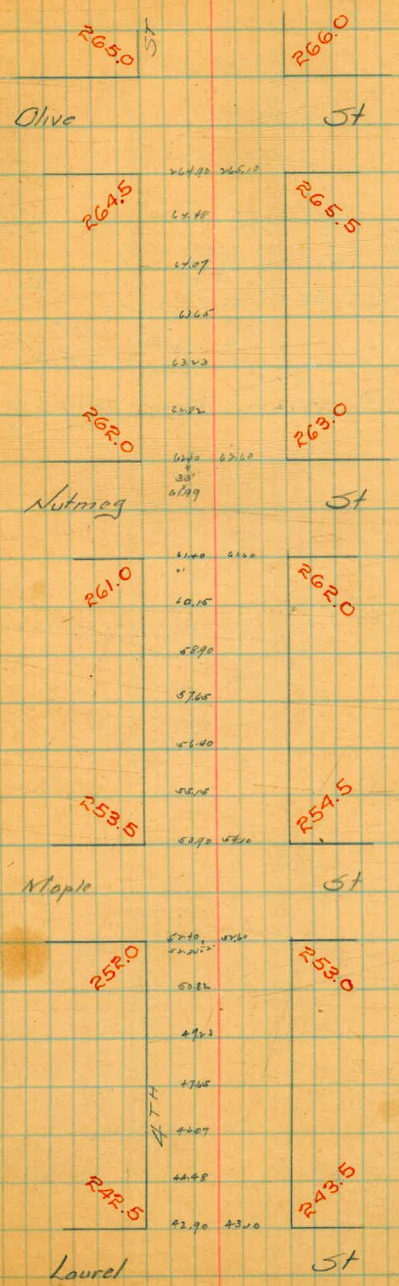
261.96
2.74
264.70 HI
11.24
253.46 ✓
20
253.66 HI

64.90 / 5.01 — 64.48 / 5.43 — 64.07 / 5.84

63.65 / 6.33 — 64.90 / 5.08 — 64.48 / 5.50 — 64.07 / 5.91 — 63.65 / 6.33 — 63.23 / 6.75 — 62.82 / 7.16 — 62.40 / 7.58 — 62.09 / 7.89 — 61.99 / 7.99

61.40 / 3.30 — 60.15 / 4.55 — 58.90 / 5.80 — 57.65 / 7.05 — 56.40 / 8.30 — 55.15 / 9.55 — 53.90 / 10.80

52.34 / 1.32 — 50.82 / 2.84 — 49.23 / 4.43 — 47.65 / 6.01 — 46.07 / 7.59 — 44.48 / 9.18 — 42.90 / 10.76



B.M.	265.20	N.W.	Olive	plg
" "	267.42	N.E	Palm	"
" "	268.91	" "	Quince	"
" "	270.38	" "	Redwood	"

267.42
4.00
271.42 HI
269.98 HI

66.90 / 4.52 — 66.65 / 4.77 — 66.40 / 5.02 — 269.91 HI — 65.40 / 4.51 — 65.65 / 4.26 — 65.90 / 4.01 — 66.15 / 3.76 — 66.40 / 3.51

66.40 / 3.58 — 66.15 / 3.80 — 65.90 / 4.08 — 65.65 / 4.33 — 65.40 / 4.58

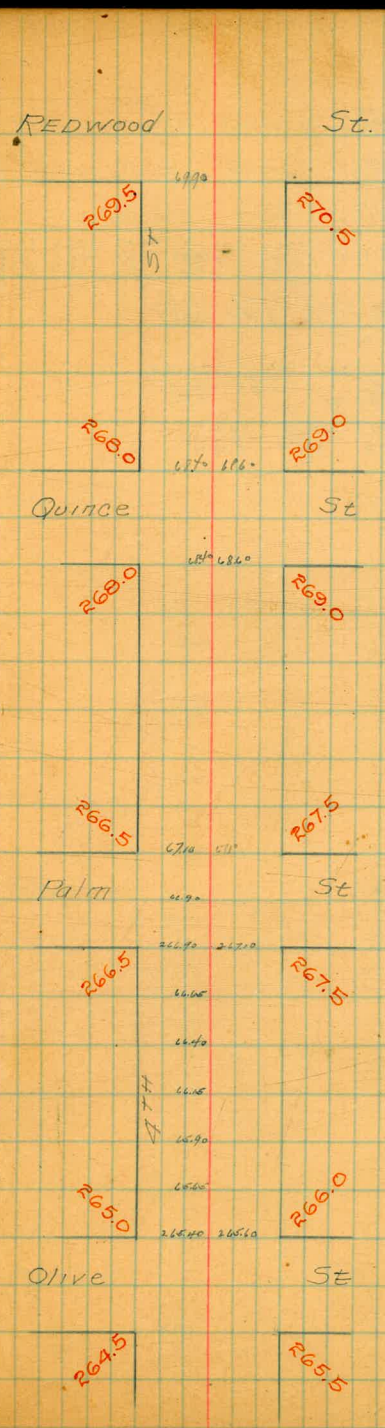
67.42
4.94
72.36 HI

6.90 / 5.46 — 5.34 / 67.02 — 5.50 / 66.86 — 5.40 / 66.96 — 5.14 / 67.22 — 5.25 / 67.11 — 5.20 / 67.16

5.07 / 67.29 +10° — 4.24 / 68.12 — 3.90 / 68.46 — 68.40 / 3.96

70.38 Pavy
2.58
72.96 HI

5.21 / 67.15 — 5.14 / 67.22 — 5.26 / 67.10 — 69.75 / 3.21 — 8.40 / 4.56



B.M. 270.38 N.E. Redwood plg

" " 272.88 N.W. Spruce + Fourth

" " 273.01 N.W. " " Second.

72.70	3.89	72.60	72.50	72.07	71.63	71.20	70.77	70.33	69.90
3.76	72.50	3.86	3.96	4.39	4.83	5.26	5.69	6.13	6.56
.50		4.69	5	5	5	5	5		
4.26		-0.83	4.46	4.89	5.33	5.76	6.19		

272.88 BM
3.50
276.46 H1

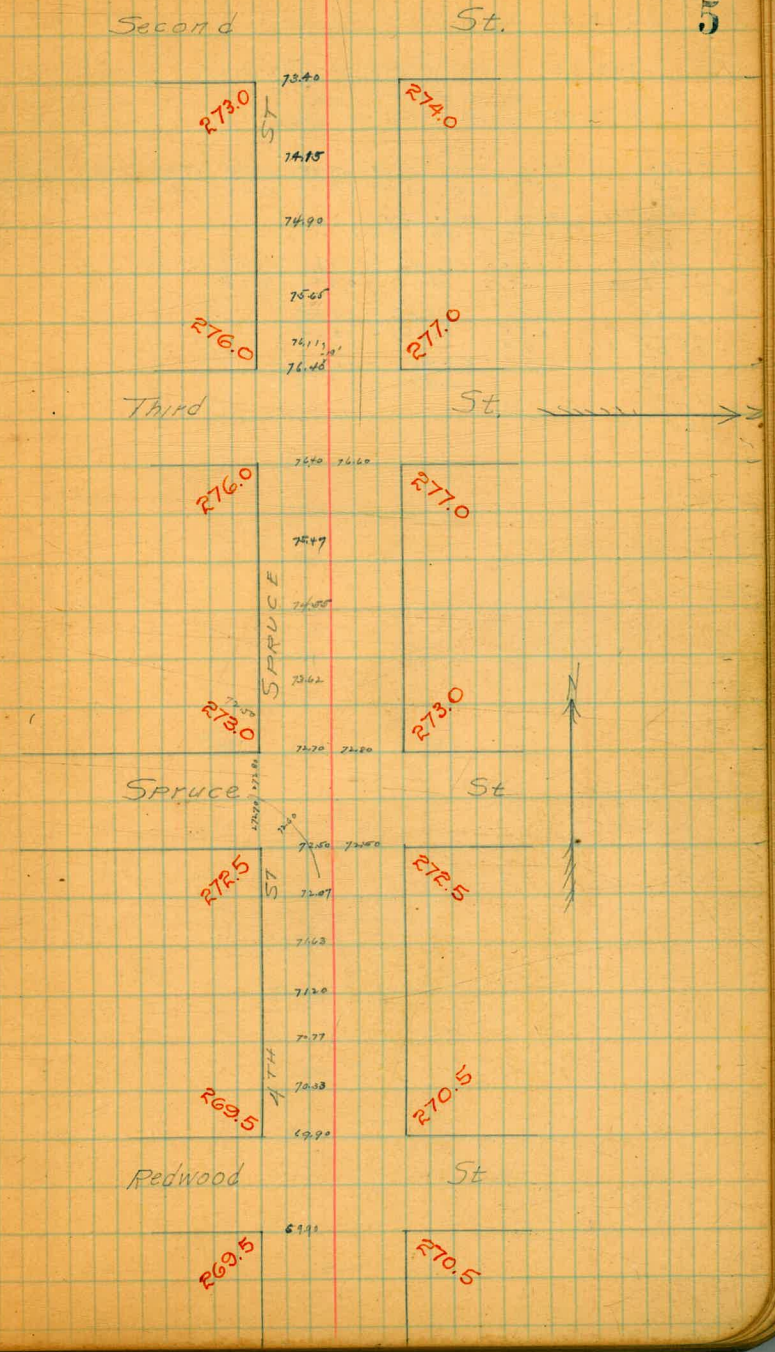
73.62	74.55	75.47	76.40
5.43	4.50	3.58	2.65

272.88
6.17
279.05 H1

272.88 BM 273.01 BM 76.11 76.40 75.47
6.90 3.80 3.51 4.44
279.91 H1

74.90	74.15	73.40
3.82	4.57	5.32

73.01
5.71
78.72 H1



B.M. 273.01 N.W. Spruce & Second

" " 255.00 N.W. First & Thorn

" " 257.51 S.W. " & Upas

57.51
3.38
60.89 H.I.

58.10 / 2.79 — 57.61 / 3.21 — 57.27 / 3.62 — 56.85 / 4.04 — 56.42 / 4.46 — 56.02 / 4.87 — 55.60 / 5.29 — 55.10 / 5.79

57.60 / 6.29 — 54.10 / 6.79 — 53.60 / 7.29

53.60
3.57
57.17 H.I.

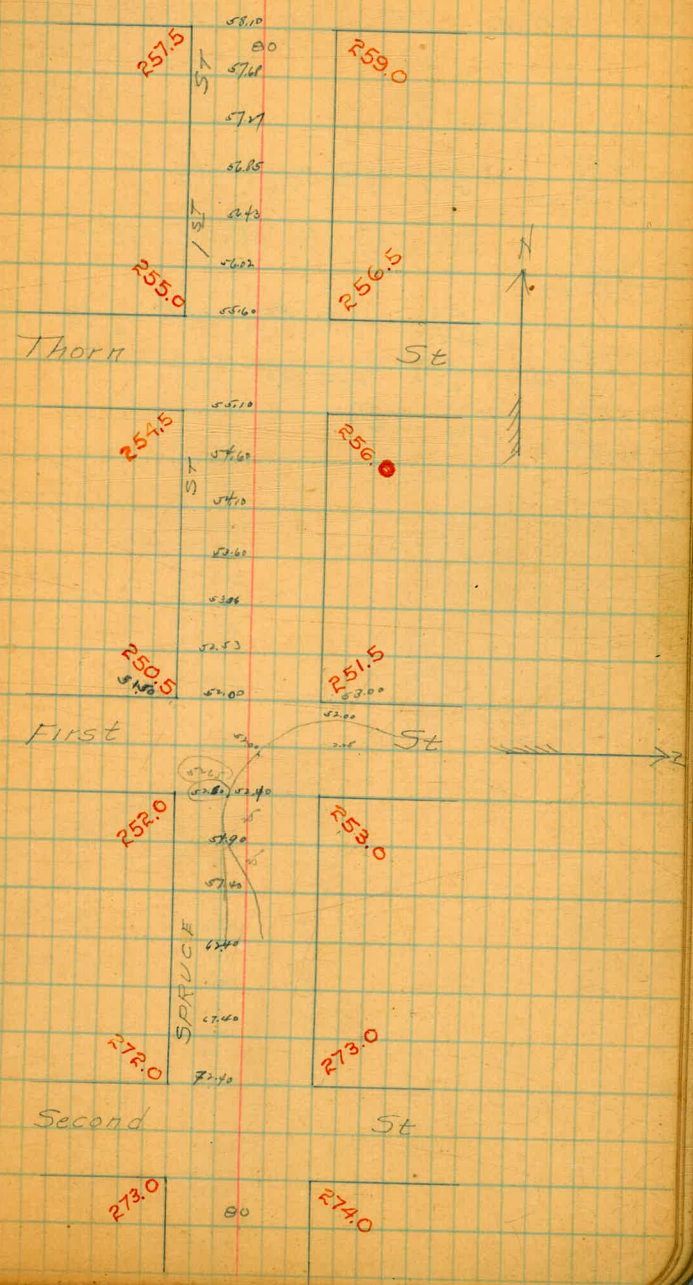
52.00 / 5.17 — 53.06 / 4.11 — 52.53 / 4.64 — 52.50 / 4.67 — 52.97 — 5.36 / 51.81

73.01
0.04
73.05 H.I.
10.65
62.40
40
62.80 H.I.

72.40 / 0.65 — 67.40 / 5.65 — 62.40 / 10.65

97
48

67.40 / 5.40 — 4.90 / 7.90 — 2.60 / 9.20



B.M. 257.51 S.W. First & Upas.

" " 268.82 N.W. Second & Walnut.

" " 263.70 " " " & Brooks

74.84
2.06
76.90 HI

69.70
7.20

4.82

63.70
9.49
73.19 HI

67.73 / 5.46 — 69.40 / 3.79 — 71.06 / 2.13 — 72.06 / 1.18

70.23 / 5.97 — 71.07 / 5.13 — 71.90 / 4.30 — 72.73 / 3.47 — 73.57 / 2.63 — 74.40 / 1.80

68.82
7.38
76.20 HI

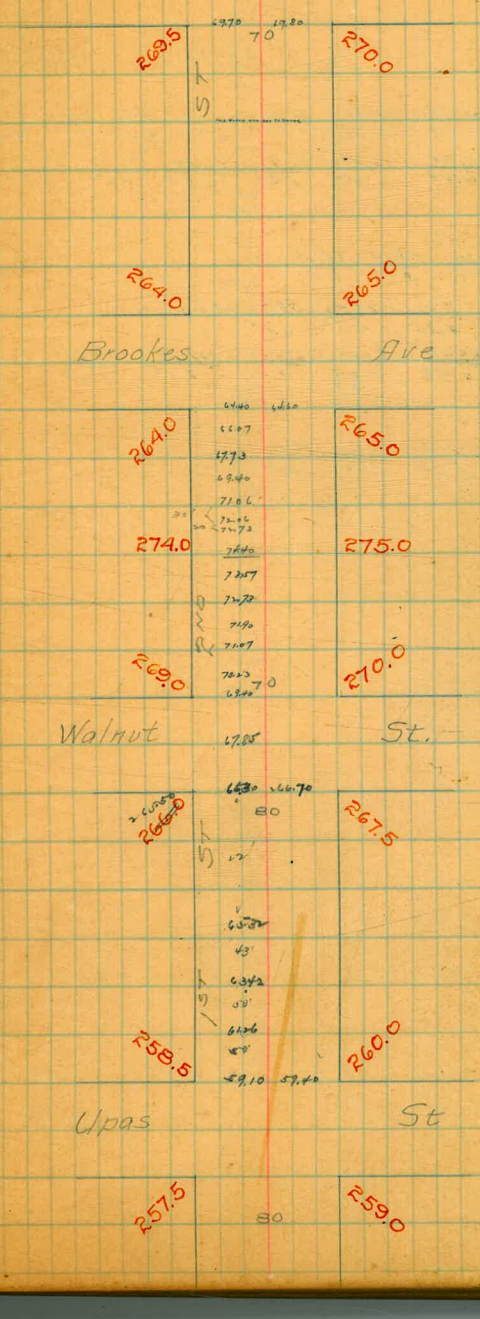
5.96 / 65.60 — 69.40 / 2.16 — 65.80 / 66.76 — 65.80 — 66.30 / 5.26 — 67.85 / 3.71

68.82
2.74
71.56 HI

65.32 / 6.24 — 63.42 / 8.14 — 61.26 / 10.30 — 59.10 / 12.46

68.82
7.10
75.92 HI

72.73 / 3.19 — 73.57 / 2.35



B.M. 274.845 p/g N.W. Second & Robinson.
" " 278.50 " NE " & University.
" " 285.015 " N.E. " " Washington.

74.84 BM.
4.30
79.14 HI
6.34
72.80 TP
3.56
76.36 HI

76.55 / 2.59 — 75.98 / 3.16 — 75.40 / 3.74 — 74.97 / 4.17 — 74.53 / 4.61 — 74.10 / 5.04 — 73.67 / 5.47 — 73.23 / 5.91

72.80 / 6.34 — 72.37 / 3.99 — 71.93 / 1.43 — 71.50 / 4.86 — 71.07 / 5.29 — 70.63 / 5.73 — 70.20 / 6.16

78.50 BM
6.86
85.36

80.20 / 5.16 — 79.44 / 5.92 — 78.86 / 6.50

78.20 / 5.35 — 78.45 / 5.10 — 78.70 / 4.85 — 78.95 / 4.60

78.50
5.05
83.55 HI

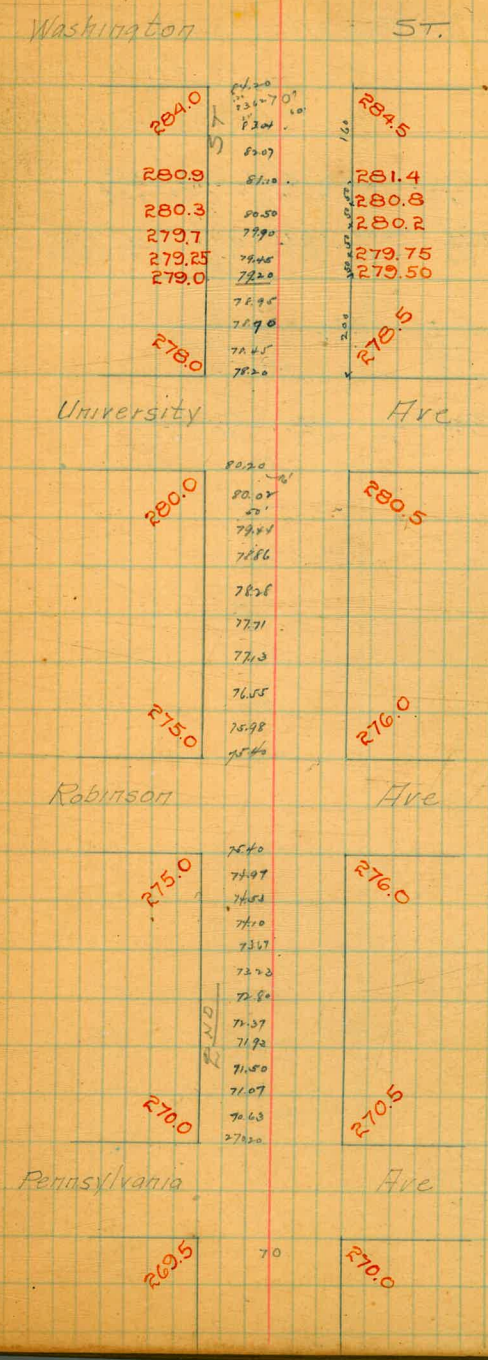
82.07 / 4.98 — 81.10 / 5.95 — 80.50 / 6.55 — 79.90 / 7.15 — 79.45 / 7.60 — 79.20 / 7.85 — 78.95 / 8.10

85.01 BM
2.04
87.05 HI

83.04 / 5.84 — 83.62 / 5.26 — 84.20 / 4.68

285.01
3.87
288.88 HI

85.01
1.37
86.38 HI
7.42
78.96 TP
3.87
82.83 HI



B.M. 285.015 Washington & Second. N.E plg

" " 278.98 " " First N.W. spk.

" " 277.50 " " Albatross plg in mon.

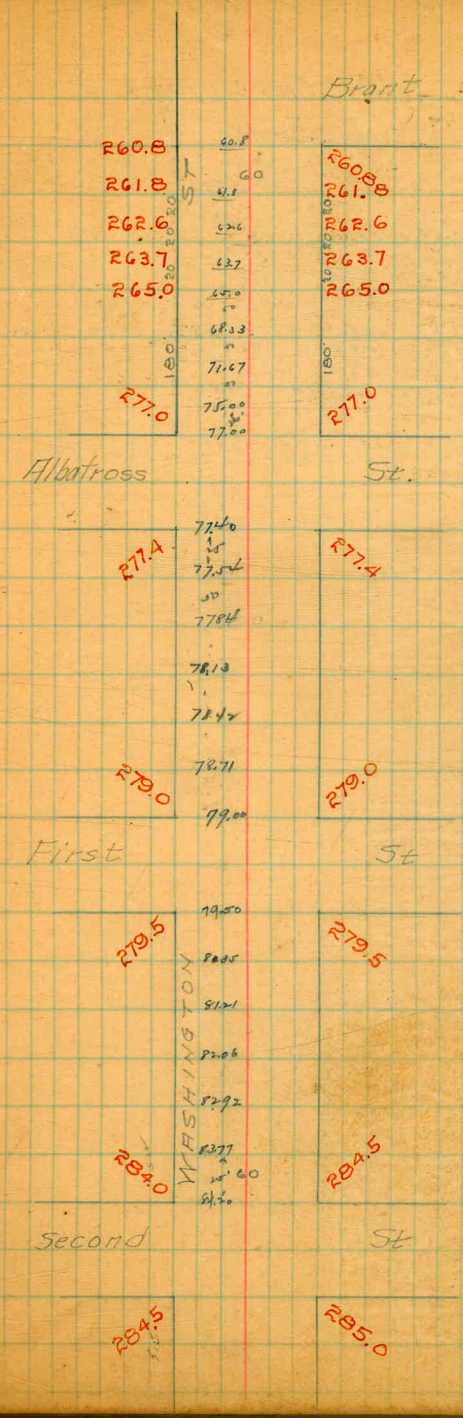
288.88 H.I. 83.77 / 5.11 — 82.92 / 5.96 — 82.06 / 1.82 — 81.21 / 7.67 — 80.35 / 8.53 — 79.50 / 9.38

77.50 / 5.43 — 79.00 / 3.82 — 78.71 / 4.12 — 78.42 / 4.41 — 78.13 / 4.70 — 77.84 / 4.99 — 77.54 / 5.29 — 77.40 / 5.43

82.83 H.I.
5.37
77.46 Mon S.W. Alb.
79
78.25 H.I.
1.25
65.30 T.P.
85
66.15 H.I.

77.00 / 1.38 — 75.00 / 3.25 — 71.67 / 6.58 — 68.33 / 9.92

65.00 / 1.15 — 63.70 / 2.45 — 62.60 / 3.55 — 61.80 / 4.35 — 60.80 / 5.35



B.M. 264.46 N.W. Dove plg.
" " 263.05 N.E. Eagle "
" " 265.50 " " Falcon "

0.79

66.15 HI
8.28
57.87 TP
7.26
65.13 HI
67
64.46
186
66.32 HI

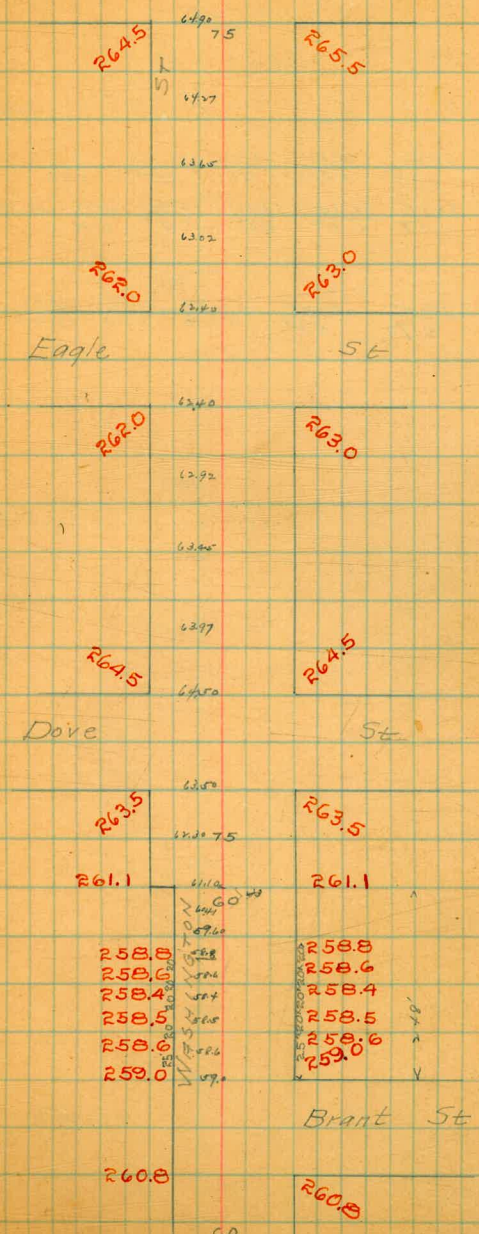
64.46 BM
298
67.44 HI
195
65.49
514
65.50
70.64 HI

59.00 / 7.15 / 67 / 7.82
58.60 / 7.55 / 67 / 8.22
58.50 / 7.65 / 67 / 8.32

58.40 / 6.73 / 67 / 7.40
58.60 / 6.53 / 67 / 7.20
58.80 / 6.33
59.60 / 5.53
60.41 / 4.72

63.50 / 2.82
62.30 / 4.02
61.10 / 5.22

64.50 / 2.94
63.97 / 3.47
63.45 / 3.99
62.92 / 4.52
62.40 / 5.04
63.02 / 4.42
63.65 / 3.79
64.27 / 3.17
64.90 / 2.54



B.M. 265.50 N.E. Falcon plg.
" " 267.02 " " Goldfinch "
" " 263.035 " " Hawk "
" " 269.72 S.E. " & Getti. spk

7064 Ht.

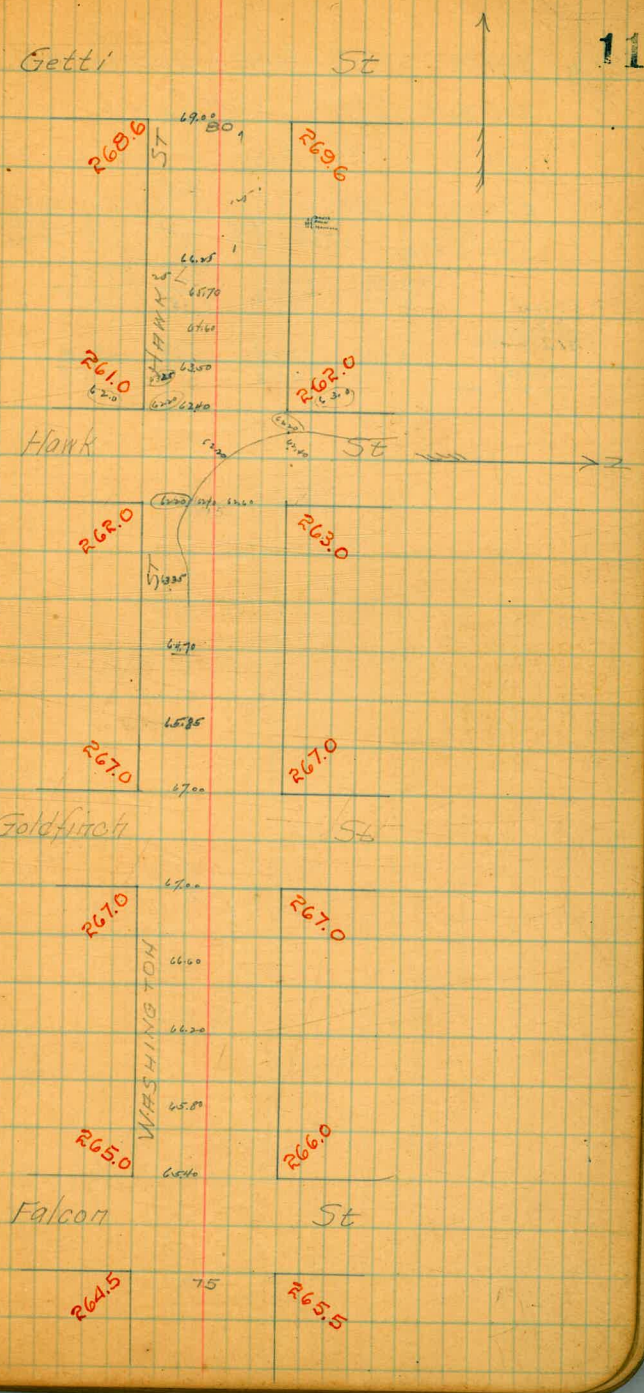
65.40 / 5.24	65.80 / 4.84	66.20 / 4.44	66.60 / 4.04	67.00 / 3.64	

63.03 BM
576
68.79 Ht.

62.20 / 6.59	63.35 / 5.44	64.70 / 4.09	65.85 / 2.94	67.00 / 1.79	62.20

63.03
590
68.93 Ht.

62.20 / 6.73	66.25 / 2.68	63.25 / 5.68	64.60 / 4.33	65.70 / 3.23



B.M. 269.72 S.E Hawk & Getti. spk.
" " 268.345 S.W. " & Lewis "
" " 267.22 S.E. Lewis & Ibis plg in monument.
" " 273.72 S.W. " & Jackdaw spk.

1.57
275.29 Hi.

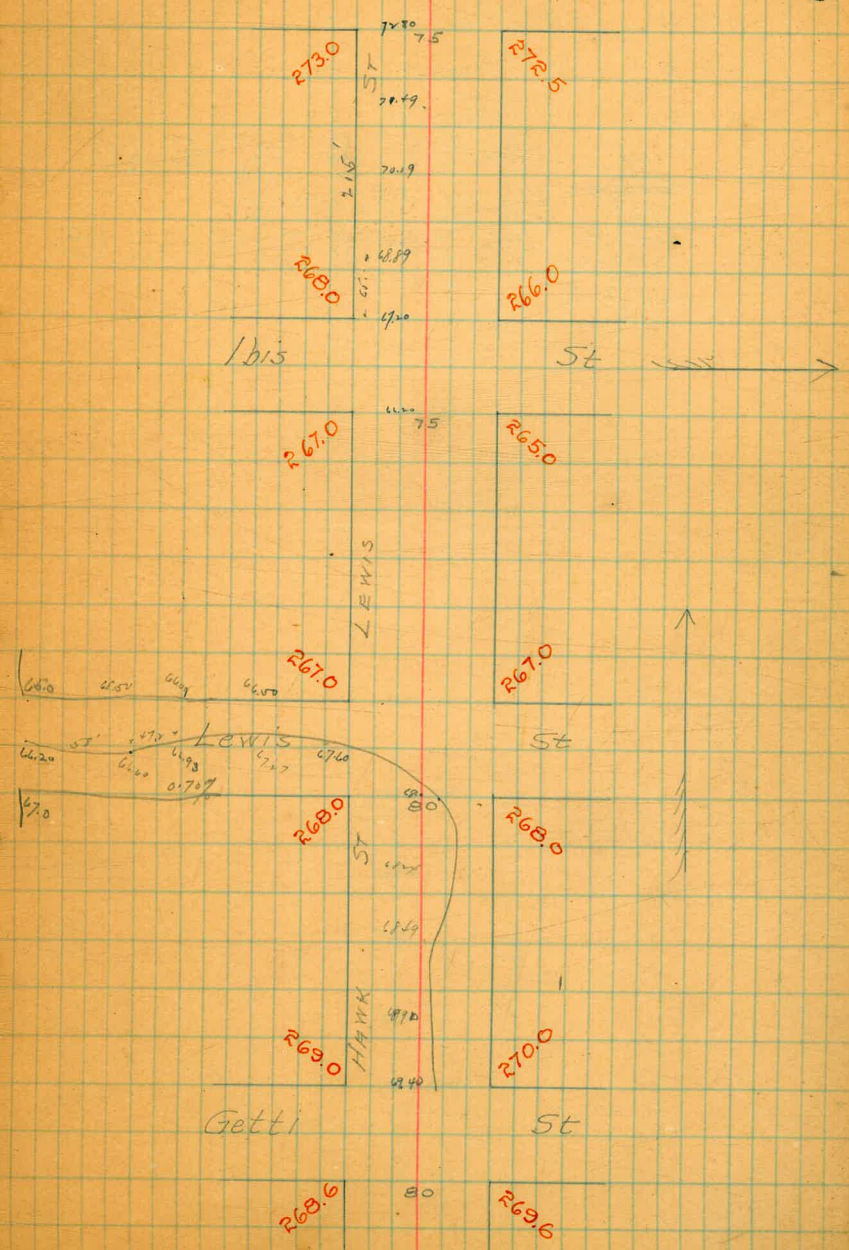
8.42 / 66.87 | 7.49 / 3.80 | 70.19 / 5.10 | 68.89 / 6.40 | 67.20 / 8.09 | 66.20 / 9.09

66.60 / 5.05 | 66.93 / 4.72 | 67.27 / 4.38 | 67.60 / 4.05

68.34
3.31
~~71.65 Hi~~

4.33
72.67 Hi

68.00 / 4.67 | 68.24 / 4.43 | 68.49 / 4.18 | 68.90 / 3.77



B.M. 273.72 S.W. Jackdaw spk.

" " 275.87 S.E. Ingalls "

" " 277.08 S.W. Hooker "

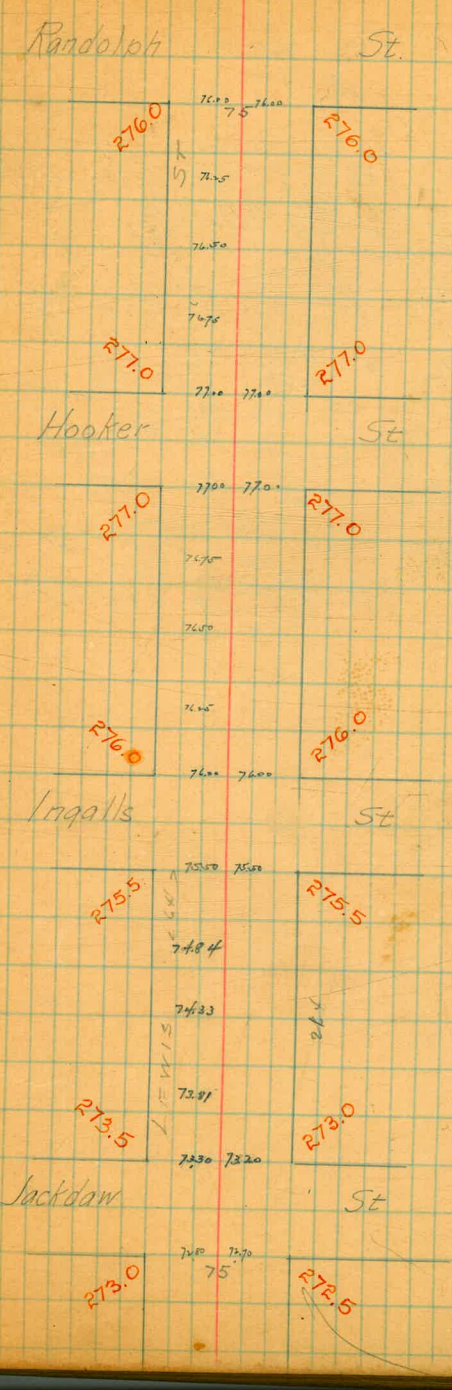
" " 275.60 " " Randolph "

77.08
3.61
~~80.94 HI~~
77.08
3.45
80.53 HI
75.86 BM
2.75
78.62 HI
4.90
73.72 ✓

77.00 — 3.74 — 76.75 — 3.99 — 76.50 — 4.24 — 76.25 — 4.49 — 33 — 76.00 — 4.74 — 75.50 — 5.24

77.00 — 3.53 — 76.75 — 3.78 — 76.50 — 4.03 — 76.25 — 4.28 — 4.82 — 33 — 76.00 — 4.53

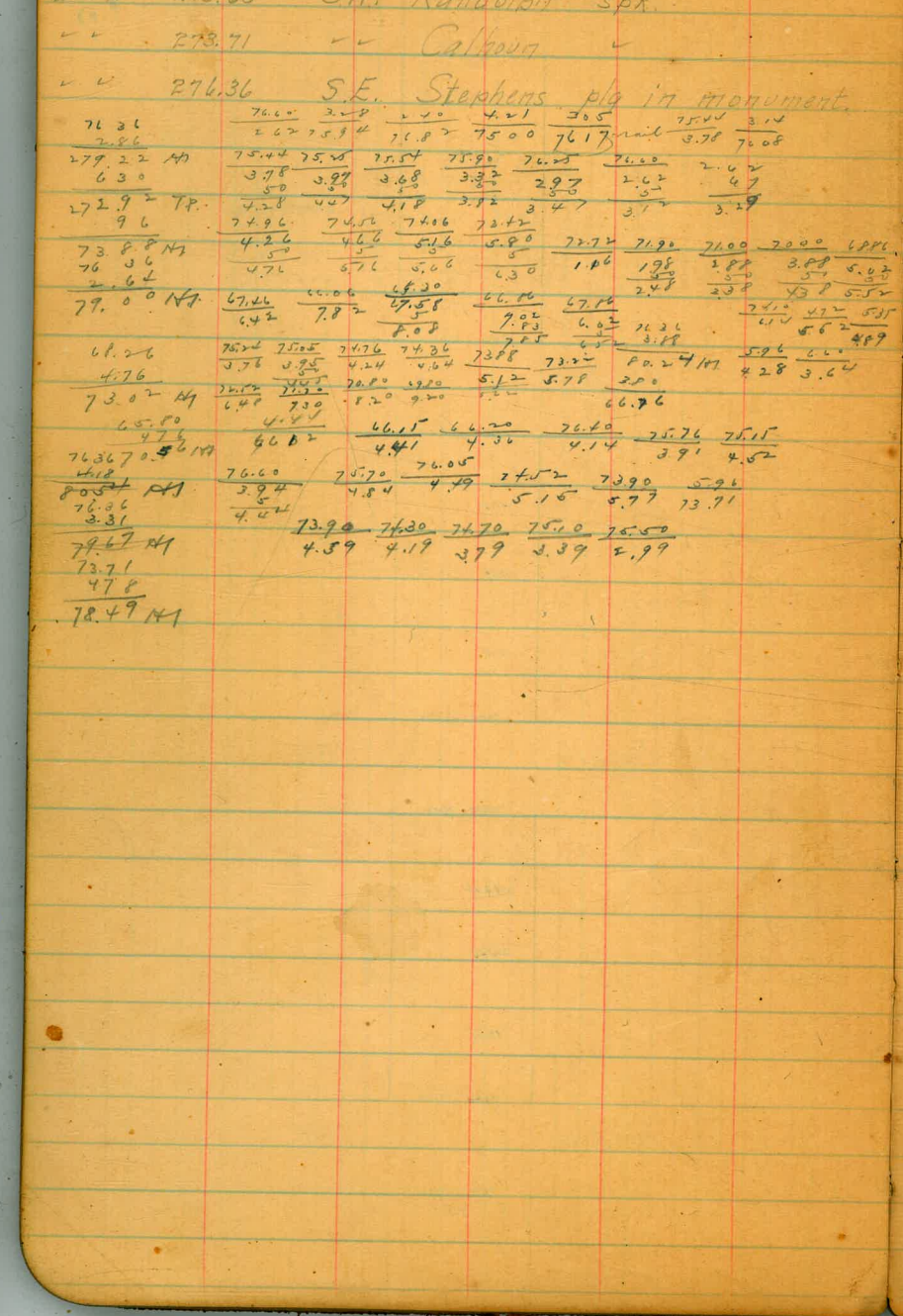
75.50 — 3.12 — 74.95 — 3.67 — 33 — 4.00 — 74.84 — 3.78 — 33 — 4.11 — 74.33 — 4.29 — 3.81 — 4.81 — 3.40 — 5.32 — 72.80 — 5.82

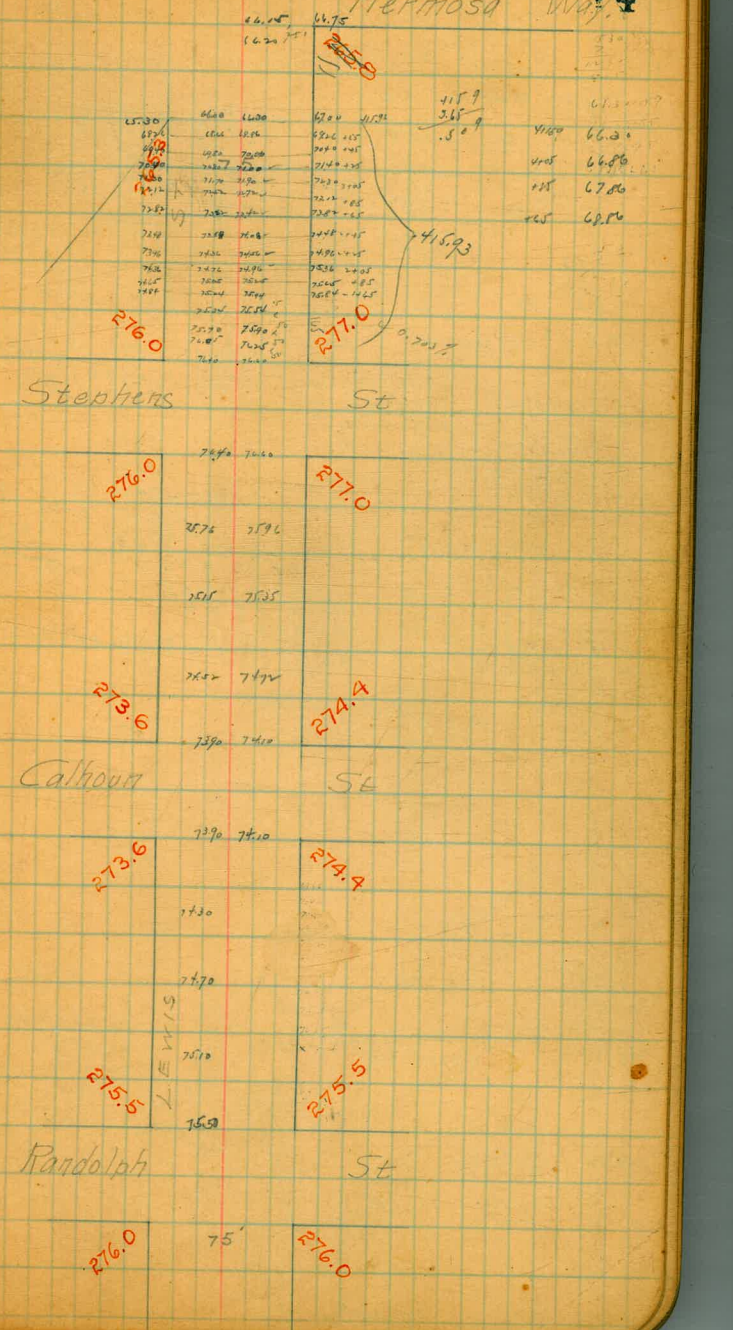


B.M. 275.60 S.W. Randolph spk.

" " 273.71 " Calhoun "

" " 276.36 S.E. Stephens plg in monument.





B.M. 274.80 spk near forks of Road at Nursery.

" " 265.99 S.E. Howard pla in mon.

267.43 - B.M. N.E S.X.
8 76
276.19 141
291
73.28 T.P.
146
74.74 141

66.38 9.81 | 67.87 9.02 | 67.51 8.68 | 73.70 2.49 | 74.10 2.09 | 74.20 1.99 | 74.15 2.04 | 73.95 2.24

73.45 2.74 2.91 | 66.28 | 66.40 8.34 8.53 | 65.0 | 66.70

67.60 7.14

64.82 3.10 | 64.24 3.68 | 63.60 4.32 | 62.94 4.98 | 62.29 5.63

67.43
49
67.92 141
723
260.69 BM Spk pole Arguello

61.64 6.28 | 61.00 6.92 | 60.34 7.58 | 59.70 8.22 | 59.40 8.52

4 | 11.61667
2.90417

150.00
235
152.35

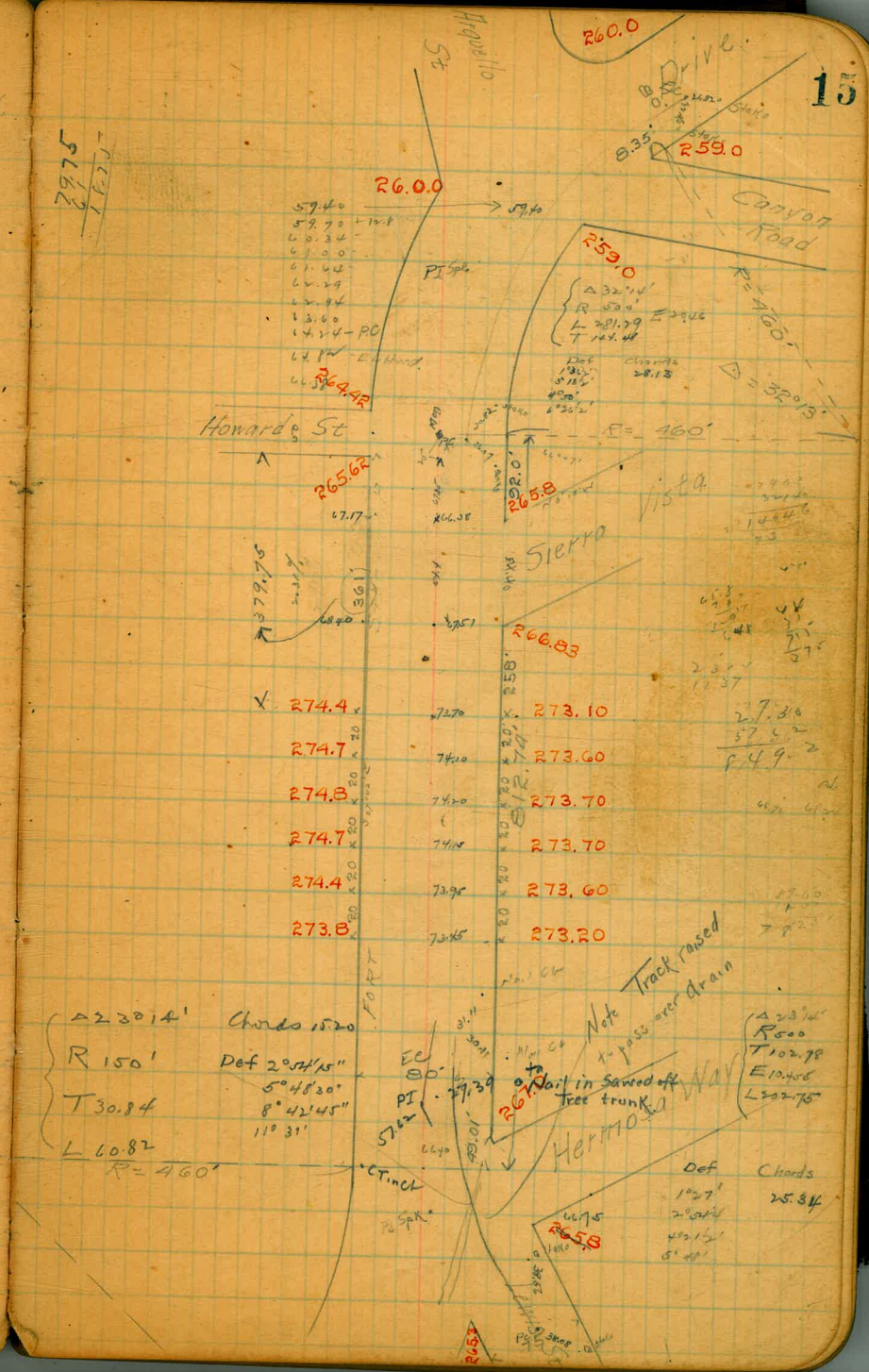
2.90417
5.80834
8.71251
11.61668

.20551
15
102785
20557
30.8355

.4054981
152.35
20274905
12164943
8109962
20274905
4054981
61777635535 out = 61'-9 3/8"

.4054981
14765
20274905
24329886
28384867
16219924
4054981
59.8717944 65 59'-10 1/2"

.4014257
40724
.4054981
15
20274905
4054981
60824713



B.M. 266.34 spk in root Eucalyptus tree WITHERBY

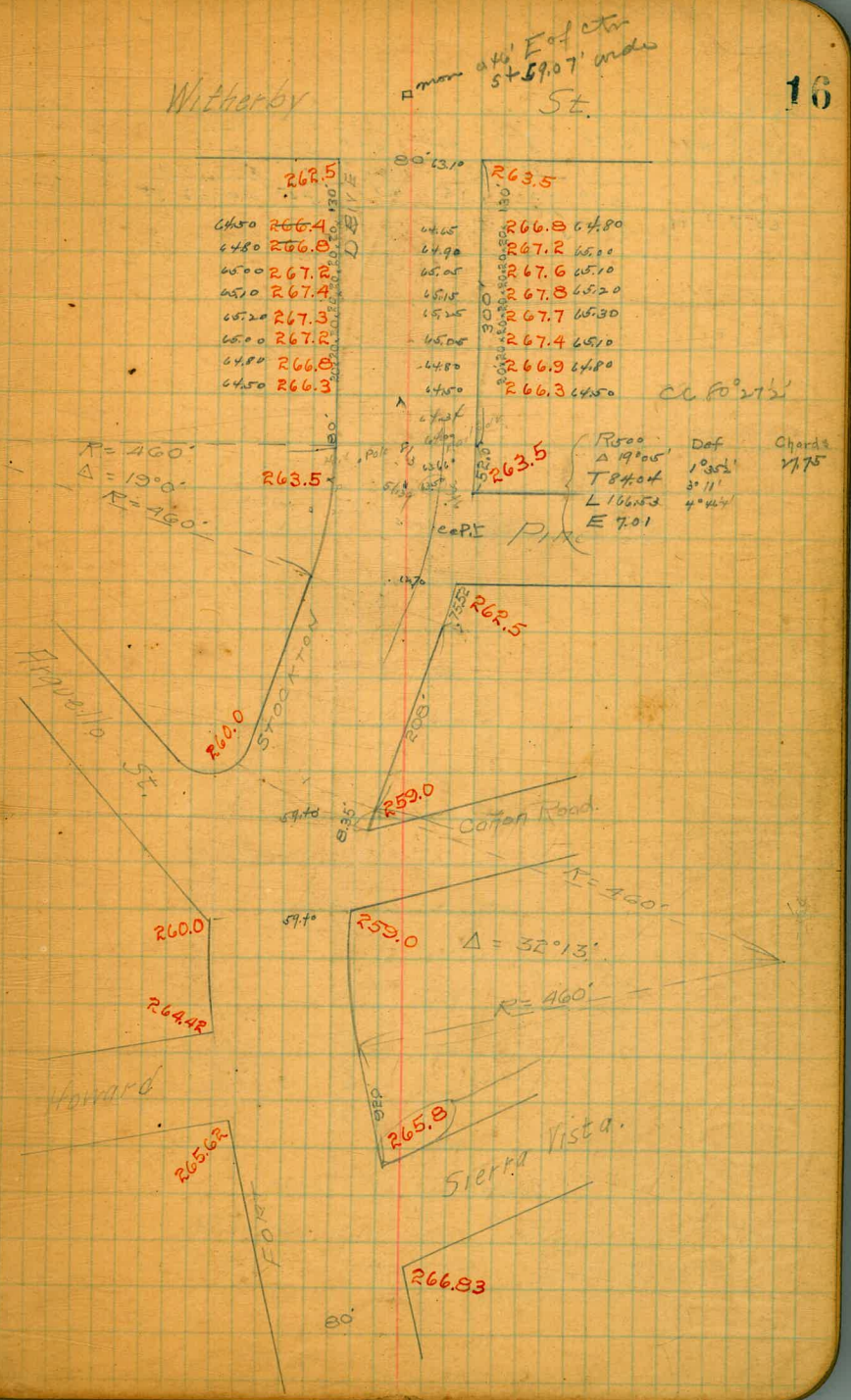
" " 269.72 Cop tack pole near " " 63.10 / 64.65 / 12.75 / 63.87

60.69
4.92
65.61 H.I.
89
64.72 T.P.
0.38
68.10 H.I.

243 / 63.18 — 270 / 29' — 63.50 / 2.11 — 63.66 / 1.95 — 64.00 / 1.61 — 64.34 / 27 — 64.50 / 11'

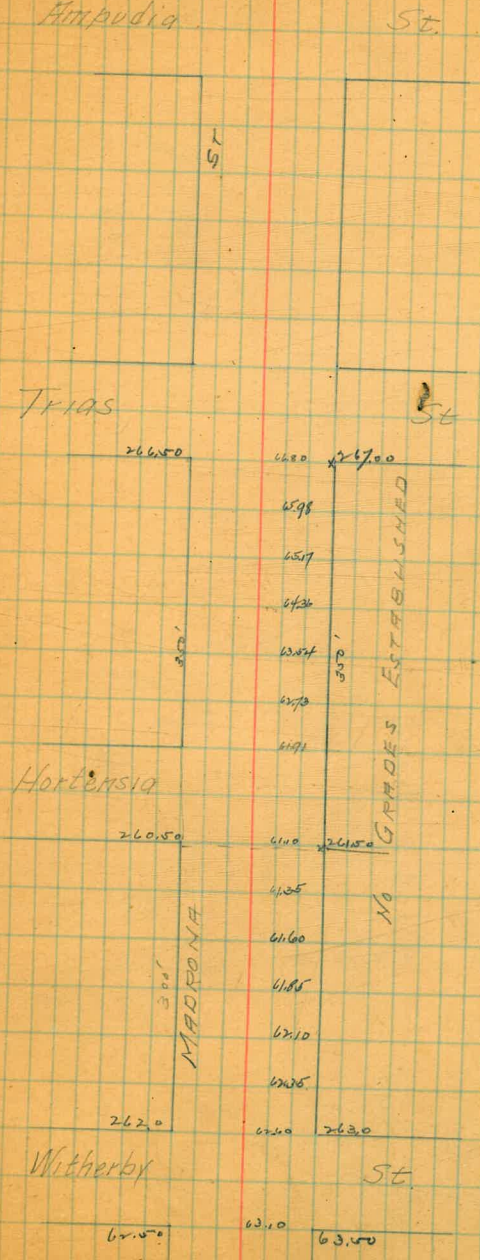
64.80 / 0.81 — 65.05 / 3.05 — 65.25 / 2.85 — 65.15 / 2.95 — 65.05 / 3.05 — 64.90 / 3.20 — 64.65 / 3.45

63.87 / 4.23 — 63.10 / 5.00 — 3.10 — 3.20

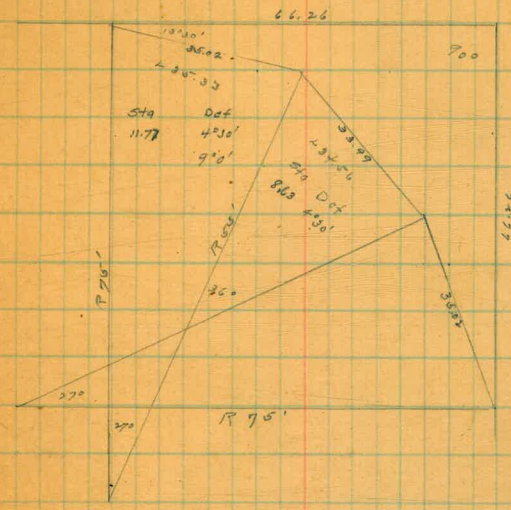


267.96 BM. Mon. SW Trias.

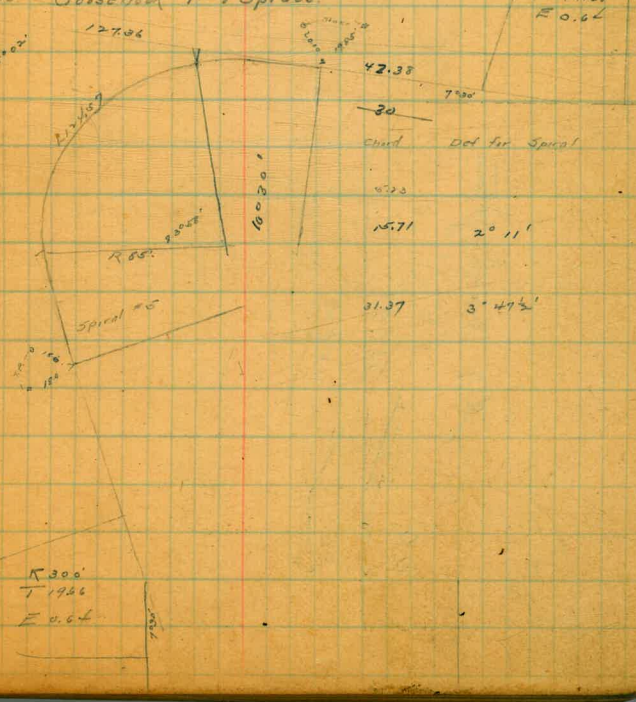
1.43	66.80	65.98	5.17	4.36	3.54	2.73
269.39 M	2.59	3.41	4.22	5.03	5.85	6.66
6.66						
12.73	1.91	1.10	1.35	1.60	1.85	2.10	2.35
2.97	3.79	4.60	4.35	4.10	3.85	3.60	3.35
65.70 M	3.10	2.60					
	2.60	3.10					



Curve - 4th & Spruce



Outside Gooseneck 1st & Spruce

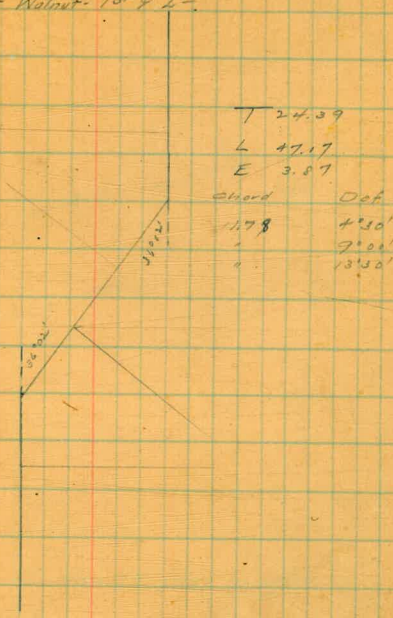


85' R curve

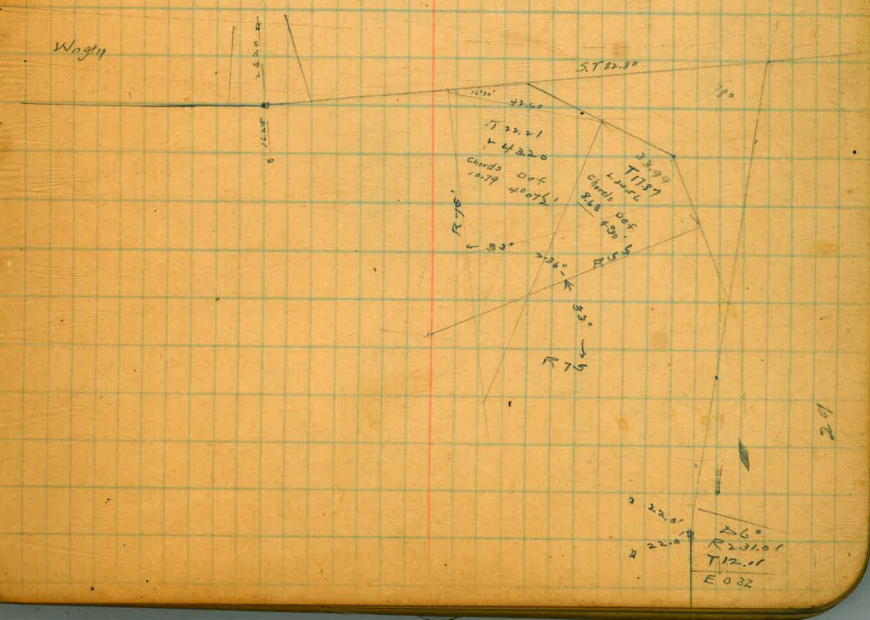
Sta	Def.
10	3° 22' 15"
20	6° 44' 30"
30	10° 06' 45"
40	13° 29'
50	16° 51'
60	20° 13' 15"
70	23° 35' 30"
80	26° 58' 45"
90	30° 20'
100	33° 42' 10"
110	37° 30'
24.57	41° 59'

Chord	Def for Spiral
8.23	
15.71	2° 11'
21.37	3° 47½'

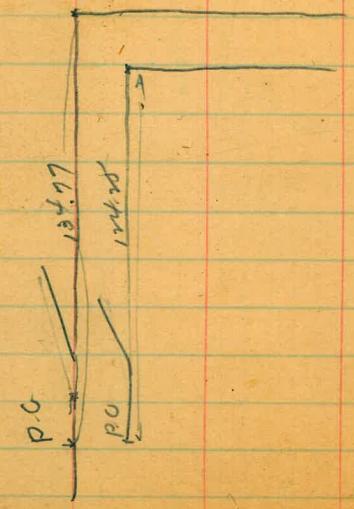
Reverse Curve at Walnut 1st & 2d



Inside Gooseneck 2d & Washington

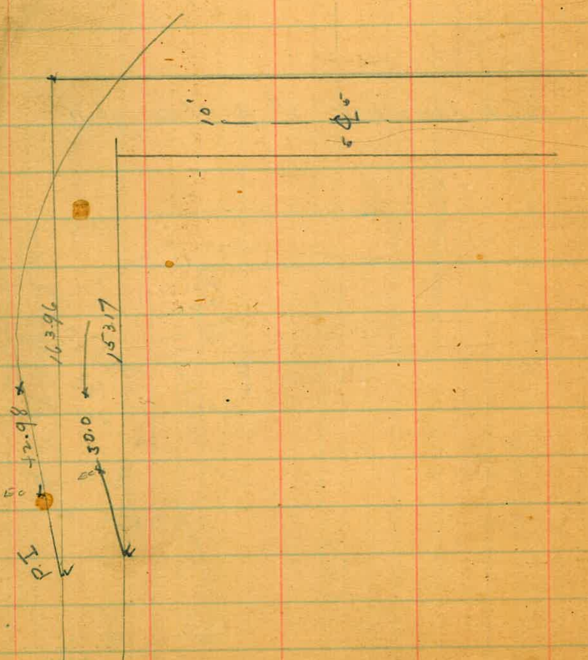


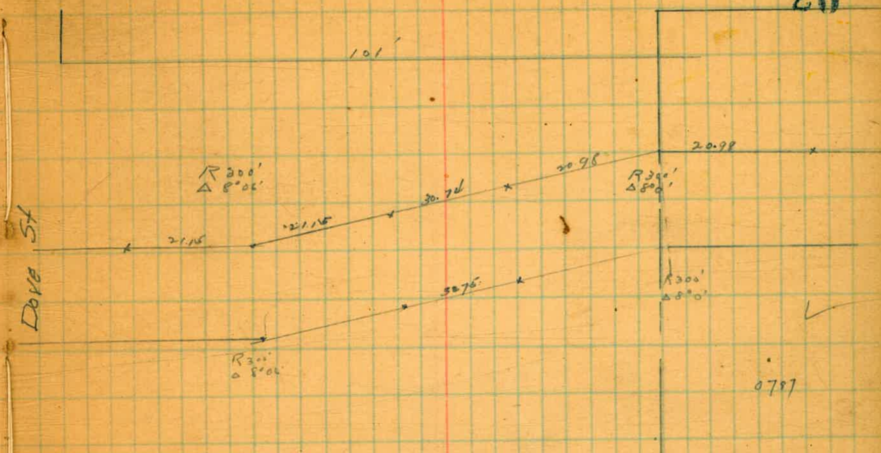
2d & Washington



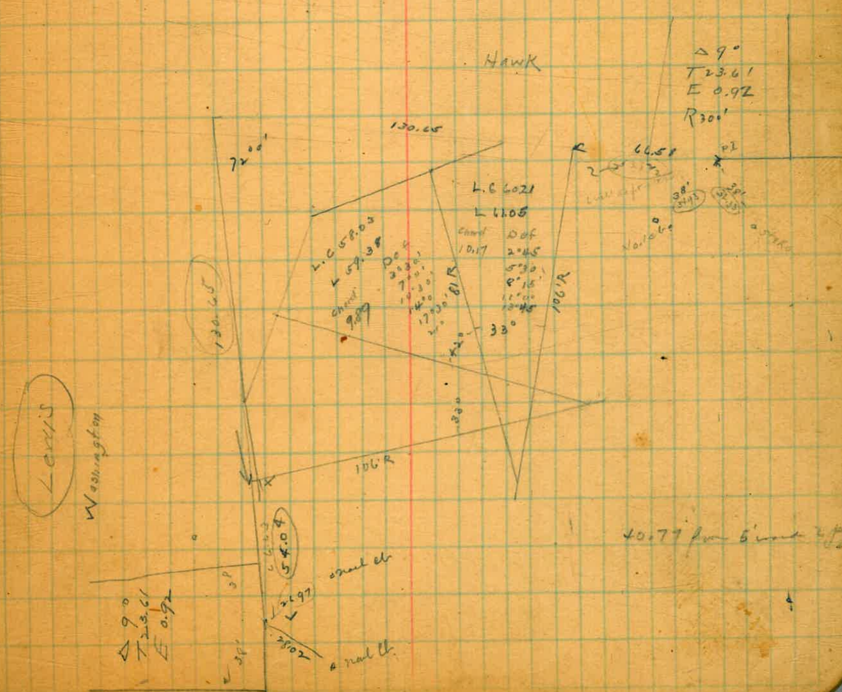
163.96
425
121.46

Hawk – Lewis & Washington





Outside Gooseneck Hawk & Washington.



B S.W. 26.46

A S.W 35.37

Ash SW 36.35

26.46
10.27
36.73 H.

7.76 / 28.97 — 30.02 / 6.71 — 31.25 / 5.48 — 32.47 / 4.26

33.70 / 3.03 — 34.92 / 1.81 — 36.15 / .58

36.60 / 7.00 — 37.00 / 6.65 — 37.40 / 6.25 — 37.80 / 5.85 — 37.47 / 6.18 — 37.13 / 6.52 — 36.80 / 6.85

35.37
7.28
43.65 H.

37.00 / 6.57 — 37.40 / 6.17

35.37
8.20
43.57 H.

36.35
7.18
43.53 H.

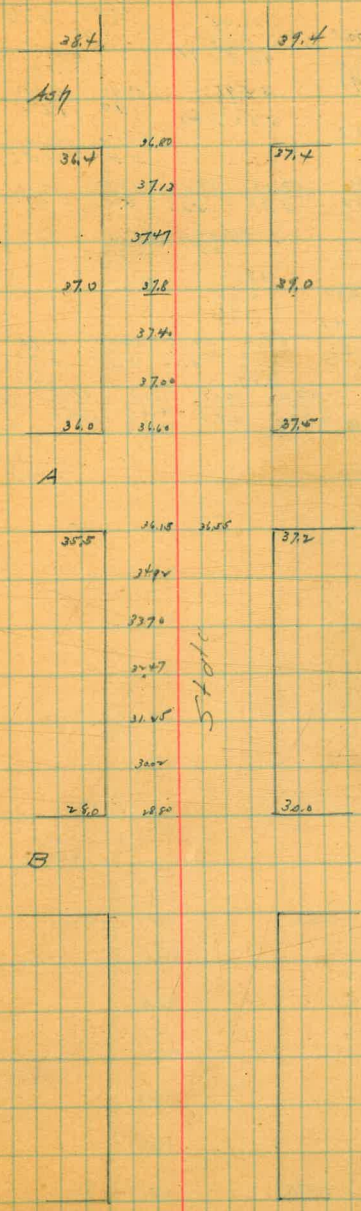
36.80 / 6.73 / 50 / 7.23 — 37.13 / 6.48 / 83 / 7.23 — 37.47 / 6.06 / 33 / 6.39 — 37.80 / 5.73 / 50 / 6.23 — 37.40 / 6.13 / 42 / 6.55 — 37.00 / 6.53 / 25 / 6.78 — 36.60 / 6.90

36.15 / 3.03 — 34.92 / 4.26 — 33.70 / 5.48

35.37
3.81
39.18 H.

30.02 / 9.14 — 31.25 / 7.91 — 32.47 / 6.69 — 33.70 / 5.46 — 34.92 / 4.24 / 5 / 4.49

26.46
12.70
39.16 H.



Beech SW 44.00 — 36.35 / 8.56 / 44.91 HI — 38.80 / 6.11 — 39.67 / 5.24 — 40.53 / 4.38 — 41.40 / 3.51 — 42.27 / 2.64 — 43.13 / 1.78 — 44.00 / 0.91

Cedar SW 56.00 / 55.91 — 55.91 / 50 / 56.21 HI — 56.40 / .89 — 54.57 / 1.64 — 52.73 / 3.48 — 50.90 / 5.31 — 49.07 / 7.14

Date SW 59.00 — 47.23 / 8.98 — 45.40 / 10.81 — 45.16 / 11.06 — 11.20 W — 11.38

55.91 / 7.92 / 63.83 HI — 57.80 / 6.03 — 58.13 / 5.70 — 58.47 / 5.36 — 58.80 / 5.03 — 59.13 / 4.70 — 59.47 / 4.36 — 59.80 / 4.03

55.91 / 0.37 / 56.28 / 44.00 / 12.28 — 44.00 / 12.38 / 56.28 — 44.00 / 1.45 — 43.13 / 2.32 / 58 / 2.90 — 42.27 / 3.18 — 41.40 / 4.05 / 58 / 4.63 — 40.53 / 4.92 / 58 / 5.50 — 39.67 / 5.78 / 58 / 6.36

44.00 BM / 1.45 / 45.45 HI — 38.80 / 6.65 / 33 / 6.98

45.40 / 11.03 — 47.23 / 9.20 / 9.37 — 49.07 / 7.36 — 50.90 / 5.53 — 52.73 / 3.70 / 33 / 4.03 — 54.57 / 1.86 / 33 / 2.19 — 56.40 / 1.03

7.18

44.00 / 12.43 / 56.43 HI — 56.40 / 7.94 / 64.34 HI — 59.80 / 4.56 — 59.47 / 4.89 — 59.13 / 5.23 / 33 / 5.56 — 58.80 / 5.56 — 58.47 / 5.89 / 41 / 6.28 — 58.13 / 6.23 / 29 / 6.48 — 57.80 / 6.56

59.00 / 536 / 64.36 HI / 1.36 / 56.00

59 — 61.0

Date

59.0 — 59.80 — 61.0
59.47
59.13
58.80
58.47
58.13
57.0 — 57.80 — 59.0

Cedar

56.0 — 56.40 — 57.0
54.57
52.73
50.90
49.07
47.23
45.0 — 45.40 — 46.0

Beech

44.0 — 44.0 — 44.0
43.13
42.27
41.40
40.53
39.67
38.4 — 38.8 — 39.4

Ash

ELM SW 67.92

FIR SW 75.93

GRAPE SW. 76.415

59.00
11.17
70.11 Ht.
2.18
67.93

59.80 / 10.31 — 60.70 / 9.41 — 61.40 / 8.71 — 63.73 / 6.38

66.06 / 4.05 — 68.40 / 1.7

67.92
9.68
77.60 Ht
1.68
75.92

69.80 / 7.80 — 70.99 / 6.61 — 72.18 / 5.42 — 73.37 / 4.23 — 74.56 / 3.04

75.75 / 1.85

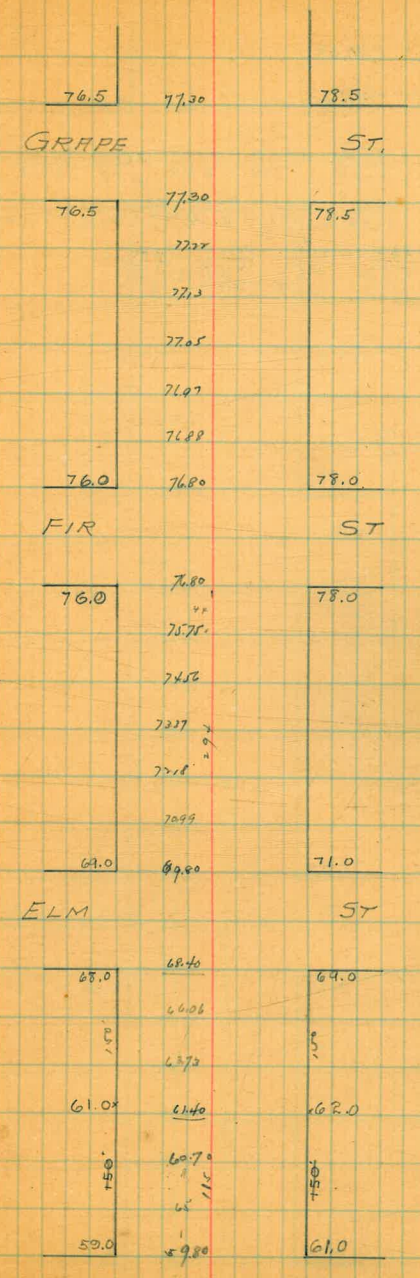
75.93 Bm
6.35
82.28 Ht
5.86
76.42

76.80 / 5.48 — 76.88 / 5.40 — 76.97 / 5.31 — 77.05 / 5.23 — 77.13 / 5.15 — 77.22 / 5.06 — 77.30 — 76.80 / 5.48

75.75 / 4.29 — 74.56 / 5.48 — 73.37 / 6.67 — 72.18 / 7.86 — 70.99 / 9.05 — 69.80 / 10.24

67.92

75.93 Bm.
4.11
80.04 Ht



HAWTHORN SPK S.W 80.07

IVY 5pk SW 74.90

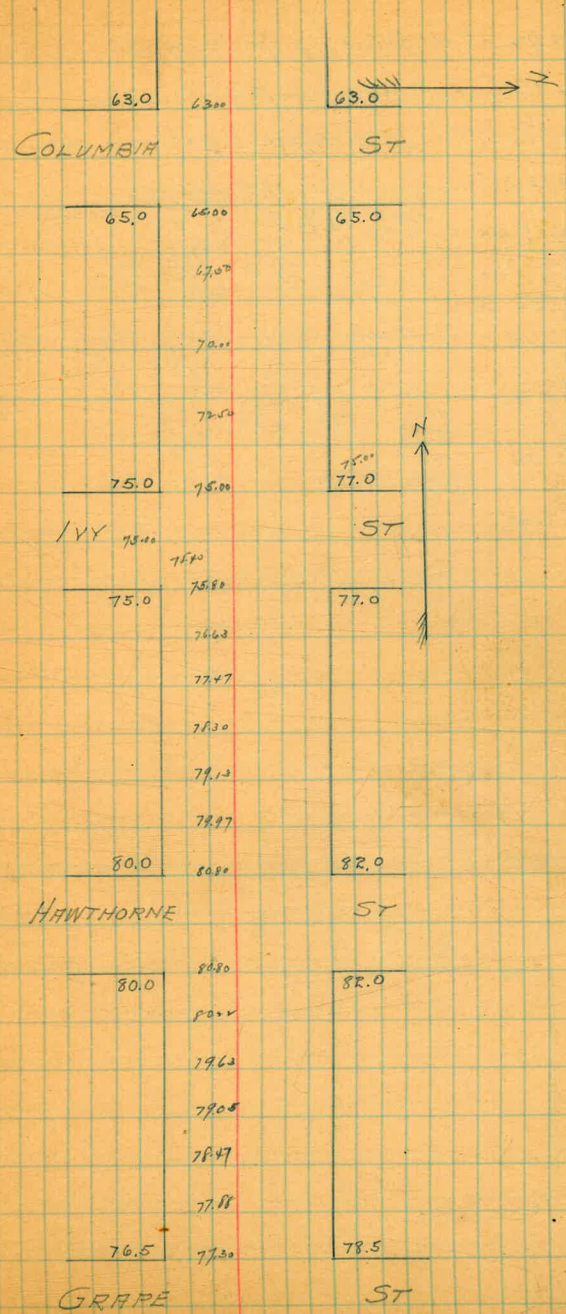
80.07
2.49
82.56 HI
7.65
74.91 TP
0.85
75.76 HI

80.22 / 2.34 | 80.80 / 1.76 | 79.97 / 2.59 | 79.13 / 3.43 | 78.30 / 4.26 | 77.47 / 5.09 | 76.63 / 5.93 | 75.80 / 6.76

75.40 / 0.36 | 75.00 / 0.76 | 72.50 / 3.26 | 70.00 / 5.76 | 67.50 / 8.26 | 65.00 / 10.76

76.42
6.40
82.82 HI

77.30 / 5.52 / 5.77 | 77.88 / 4.94 / 4.19 | 78.47 / 4.35 / 4.60 | 79.05 / 3.77 / 4.02



62.92 N.W Col. & Ivy Spk trolley pole.

45.88 S.W India & Ivy plg rt.

46.87 S.W " Juniper Plg rt.

43.32 N.W " Kal RR. Spk pole

45.88 BM.
11.67
57.55 H.I.
20
57.35 T.P.
7.46
64.79 H.I.
2.92
87
45.88
7.05
52.93 H.I.
46.87
5.39
52.26 H.I.
46.87
3.80
50.67 H.I.

48.00 / 9.55 — 51.75 / 5.80 — 55.50 / 2.05 — 59.25 / 5.5 — 63.00 / 4.79

5.30 / 47.63 — 4.60 / 48.33 — 47.25 / 5.68 — 47.50 / 5.43

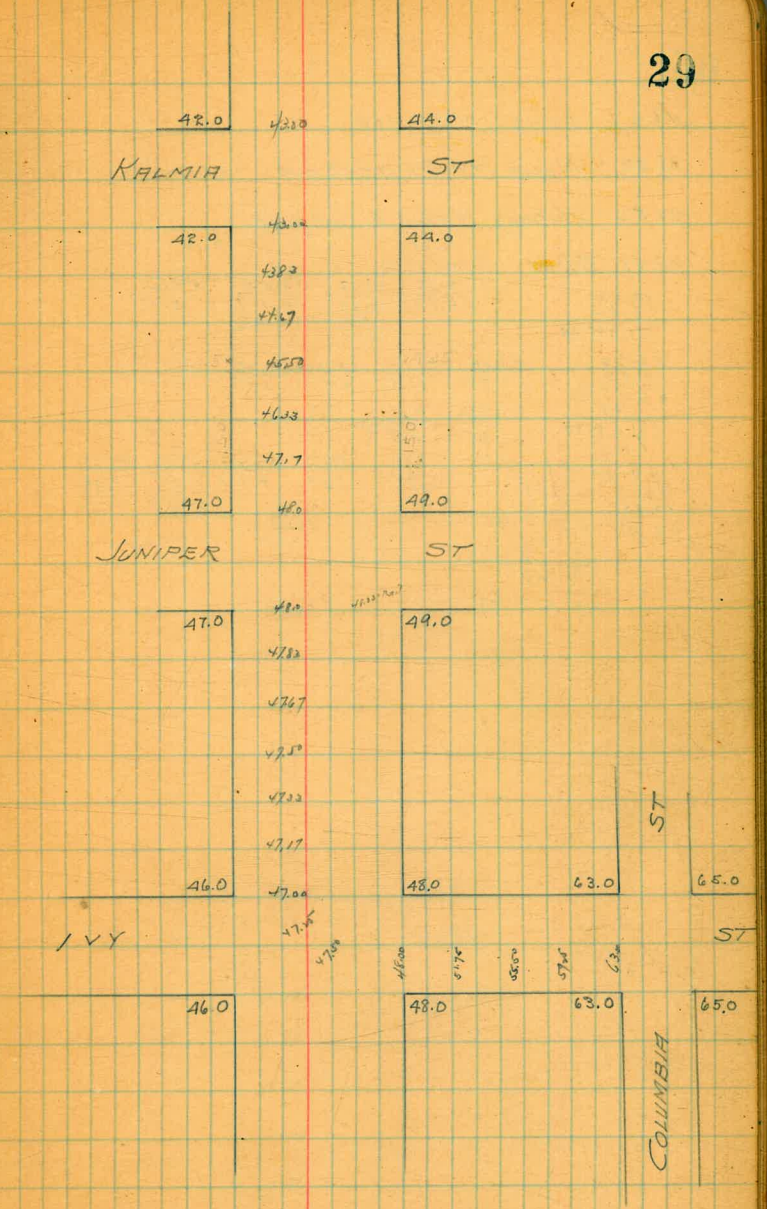
47.17 / 5.76 — 47.33 / 5.60 — 47.50 / 5.43 — 47.67 / 5.26 — 47.83 / 5.10 — 48.00 / 4.93 — 47.00 / 5.93

33 / 6.09 — 33 / 5.93 — 33 / 5.76 — 33 / 5.59 — 33 / 5.43

48.00 / 4.26 — 47.17 / 5.09 — 46.33 / 5.93 — 45.50 / 6.76 — 44.67 / 7.59 — 43.83 / 8.43

33 / 4.59 — 33 / 7.09

43.83 / 6.84 — 43.00 / 7.67



56.33 Laurel N.E Mon

78.99 Maple N.E R R spk pole

92.52 Nutmeg N.W. R.R. spk pole

99.41 Olive S.W R R

56.33
1.42
57.75 Hi

2.95
54.80

50.67
7.08
33
7.41

52.58
5.17
33
5.50

54.50
3.25

56.33
10.94
67.27 Hi
99
66.28 T.P.
11.08
77.36 Hi

55.50
11.77

59.14
8.13

62.71
4.56

66.28
0.99

69.86
7.50

73.43
3.93

77.00
0.36

78.0
9.05

80.17
6.88

82.23
4.82

84.50
2.55
33
2.88

86.67
0.38
33
.71

77.00
10.05
87.05

78.99
8.06
87.05 Hi
72
86.33 T.P.
7.29
93.62 Hi

88.83
4.79

91.00
2.62

91.0		93.0
NUTMEG		ST.
90.0	91.0	92.0
	88.83	
	86.67	
	84.50	
	82.23	
	80.17	
77.0	78.0	79.0
MAPLE		ST
76.0	77.00	78.0
	73.43	
	69.86	
	66.28	
	62.71	
	59.14	
	51	
55.0	55.50	56.0
LAUREL		ST
54.0	54.50	55.0
	52.58	
	50.67	
	48.75	
	46.83	
	44.92	
42.0	43.00	44.0
KALMIA		ST

99.91 Palm S.E. Plg rt.

103.34 Quince S.E. Mon

96.11 Redwood N.W R.R spk pole

91.00
8.36
99.36 Ht.
9
98.42 TP
2.56
100.98 Ht.

99.91
2.65
102.56 Ht

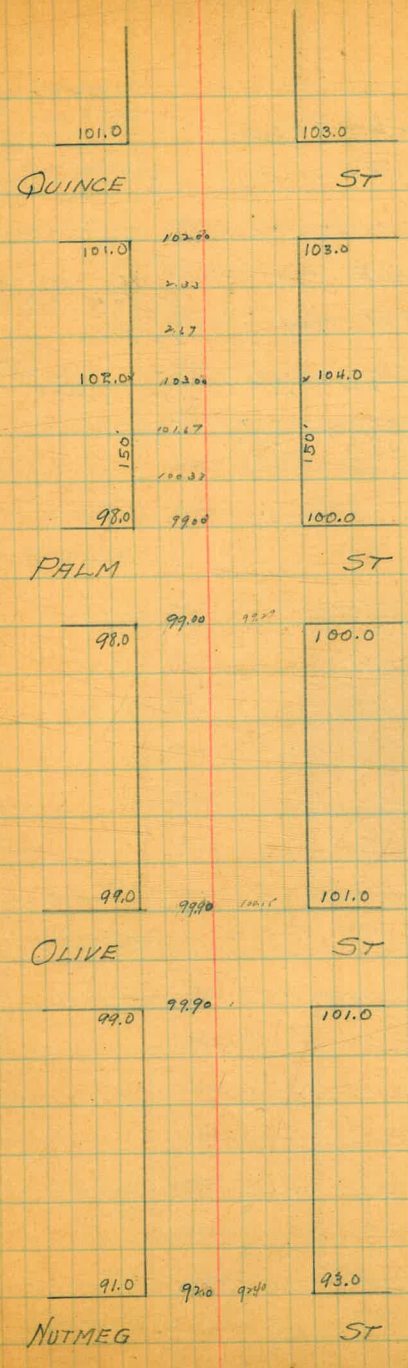
99.91
5.09
105.00 Ht.
1.68
103.32

0.87 / 100.11 — .71 / 100.27 — 99.90 / 1.08 — 8.63 / 92.35

92.00 / 8.98 — 3.27 / 99.29 — 2.41 / 100.15

99.00 / 3.56 — 99.90 / 2.66 — 99.00 / 6.00 — 100.33 / 4.67 — 1.67 / 3.33 — 3.00 / 2.00

2.67 / 2.33 — 2.33 / 2.67 — 2.00 / 3.00



86.42 Spruce S.E RR Spk

85.51 Sass. " " "

89.52 Thorn " " "

83.~~59~~ 40 Upas N.E " "

81.06 Vine SW Mon

103.34 Dry
1.76
105.10 Hi
101.00
95.00 TP
1.53
96.53 Hi

102.0 / 3.10 — 1.33 / 3.77 — 0.67 / 4.43 — 100.00 / 5.10

99.33 / 5.77 — 98.67 / 6.43 — 98.00 / 7.10

97.0 / 8.10 — 95.0 / 10.10 — 93.00 / 3.53 — 91.00 / 5.53

89.0 / 7.53 — 87.0 / 9.53 — 85.0 / 11.53

86.42
1.78
88.20 Hi
4.37
83.83 TP

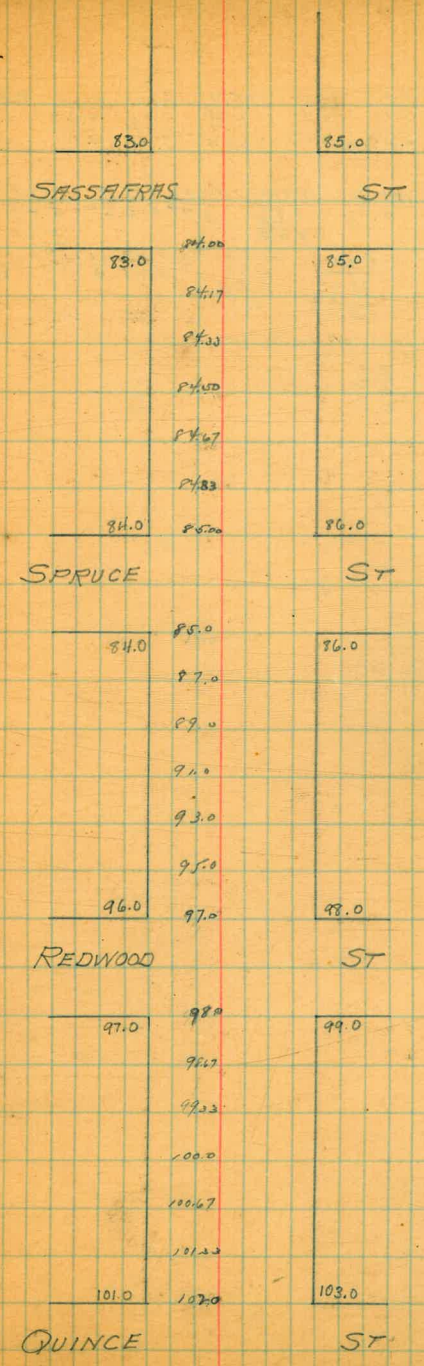
85.00 / 3.20 / 3.17 / 3.37 — 84.83 / 3.37 / 3.52 — 84.67 / 3.53 / 3.17 / 3.70 — 84.50 / 3.70 / 3.17 / 3.87 — 84.33 / 3.87 / 4.04

84.17 / 4.03 / 4.20 — 84.00 / 4.20 / 4.37

103.34
66
104.00 Hi
709
96.91 TP
217
99.08 Hi

102 / 2.00 — 101.33 / 2.67 — 100.67 / 3.33 — 100.0 / 4.00

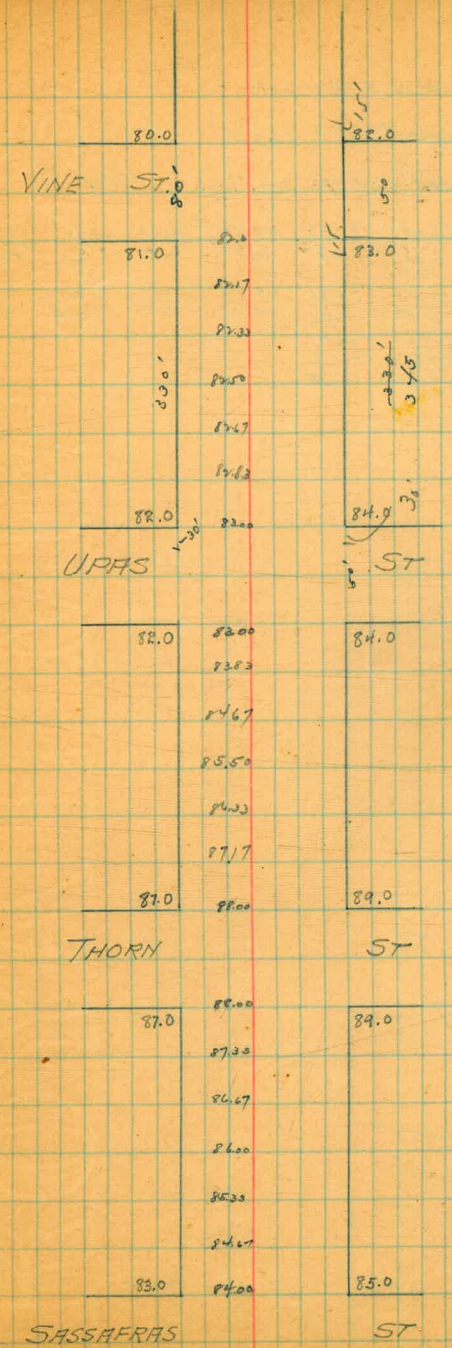
99.33 / 4.67 / 97.00 / 2.08 — 98.67 / 5.33 / 95.50 / 4.08 — 98.00 / 6.00



83.83	84.00	84.67	85.33	86.00	86.67	87.33	88.00
5.78	5.61	4.92	4.28	3.61	2.94	2.28	1.61
89.61 M	17	17	17	17	17	17	17
10	5.88	5.11	4.45	3.78	3.11	2.45	1.78
89.51							

0.60	88.00	87.17	86.33	85.50	84.67	83.83	83.00
89.52	2.12	2.95	3.79	4.62	5.45	6.29	7.12
90.12 M	57	25			25		
6.73		3.26			5.70		

83.40 T.P	83.00	82.83	82.67	82.50	82.33	82.17	82.00
2.74	3.14	3.31	3.47	3.64	3.81	3.97	4.14
86.14 M	03	33				17	
1.06	3.47	3.64				4.14	
85.08 Lower cleat tel pole S.E Vine							



V. 72.32 Willow N.E Spk pole

68.29 Chalmers SE RR spk pole

78.09 Winder N.W Spk pole 1' high

72.32
9.69
82.01 Ht

81.00
1.01
.25
1.26

79.33
2.68

77.67
4.34

76.00
6.01

74.33
7.68
.25
7.93

72.67
9.34

71.00
11.01

72.32
2.47
74.79 Ht

71.00
3.79

70.33
4.46

69.67
5.12

69.00
5.79

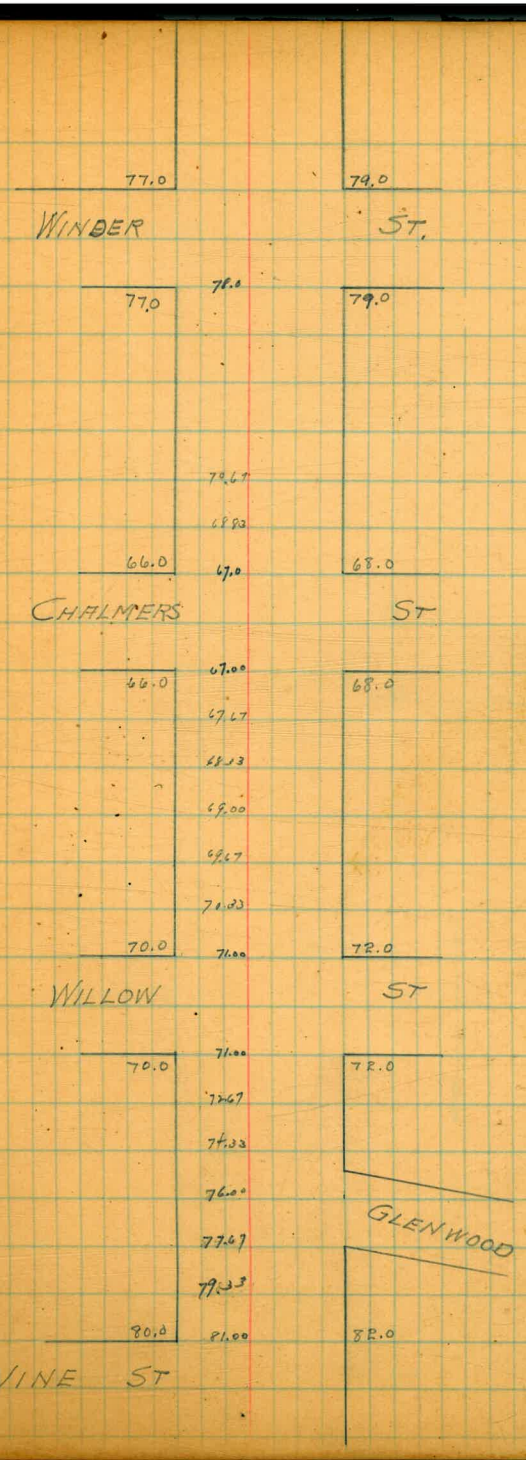
68.33
6.46

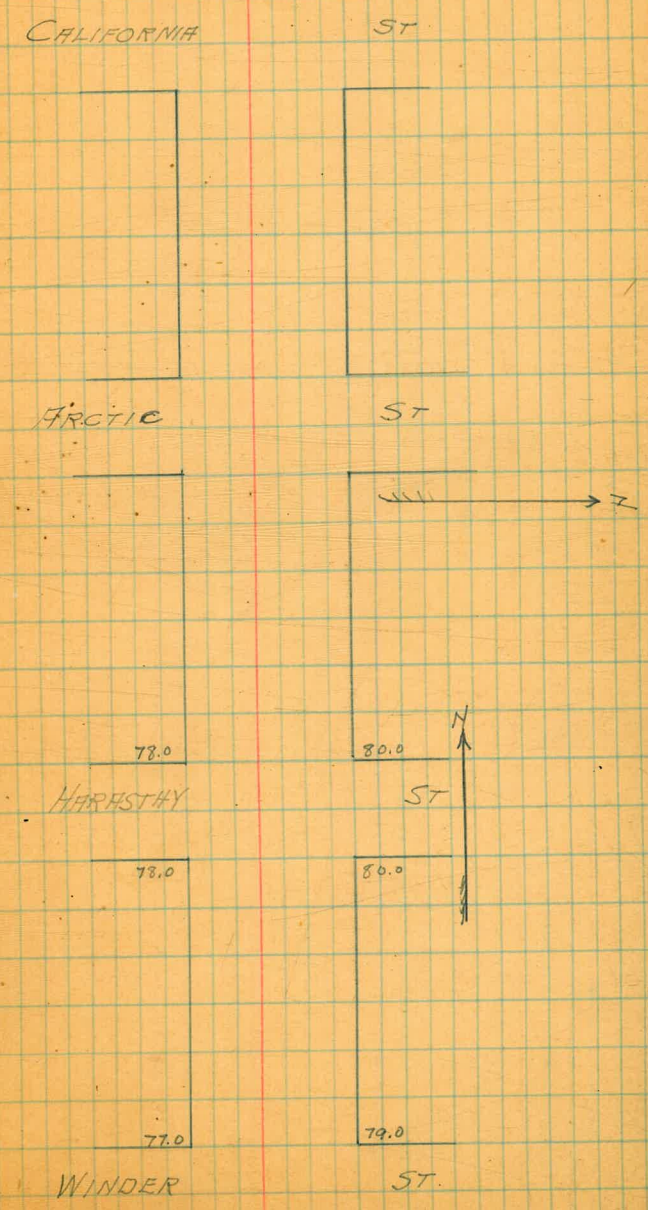
67.67
7.12

67.00
7.79

68.83
5.96
.33
6.29

70.67
4.12
.17
4.29




CALIFORNIA
ST
ARCTIC
ST
N
78.0
80.0
HARASTHY
ST
78.0
80.0
77.0
79.0
WINDER
ST

Curve State & Date

Δ 9°52' R 300' T 25.90 L 51.66 Chord 12.91 Def 1°14'

Curve State & Fir.

Δ 18°30½' R 300' T 27.57 L 55.02 Chord 13.75 Def 2°37½'

Inside Curve State & Ivy — India & Ivy outside

Spiral #4 C.C. 66'R - Def 1' = .47746

Spiral #4

Δ 89°55' T 76.13

L.C.C. 63.37 Δ 60°31'

Sta	Δ 90°04'	O.G = 60.875
5.13	0°22'	G.S = 15.342
10.27	0°52½'	T 76.29
15.40	1°38'	L.C.C. 63.53 Δ 60°40'
20.51	2°37½'	
25.62	3°51'	
30.70	5°18½'	

Chords	Def
10.58	5°03'20"
	10°06'40"
	15°10'
	20°13'20"
	25°16'40"

	State & Ivy	India & Ivy
out	66'-0¼"	65'-10¼'
In	61'-0½"	60'-10 11/16"

Chords	Def
10.55	5°02'40"
	10°05'10"
	15°07'45"
	20°10'20"
	25°13'

Curve India & Olive

Δ 16°21' R 300' T 43.10 L 85.61 Chords 10.70

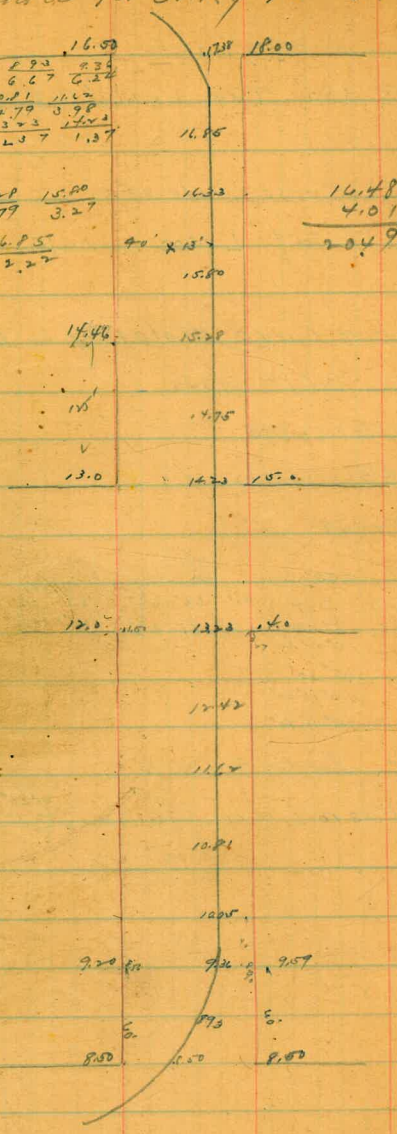
Def	
1°01'20"	4°05'20"
2°02'40"	5°06'40"
3°04'	6°08'00"
	7°09'

45.39°

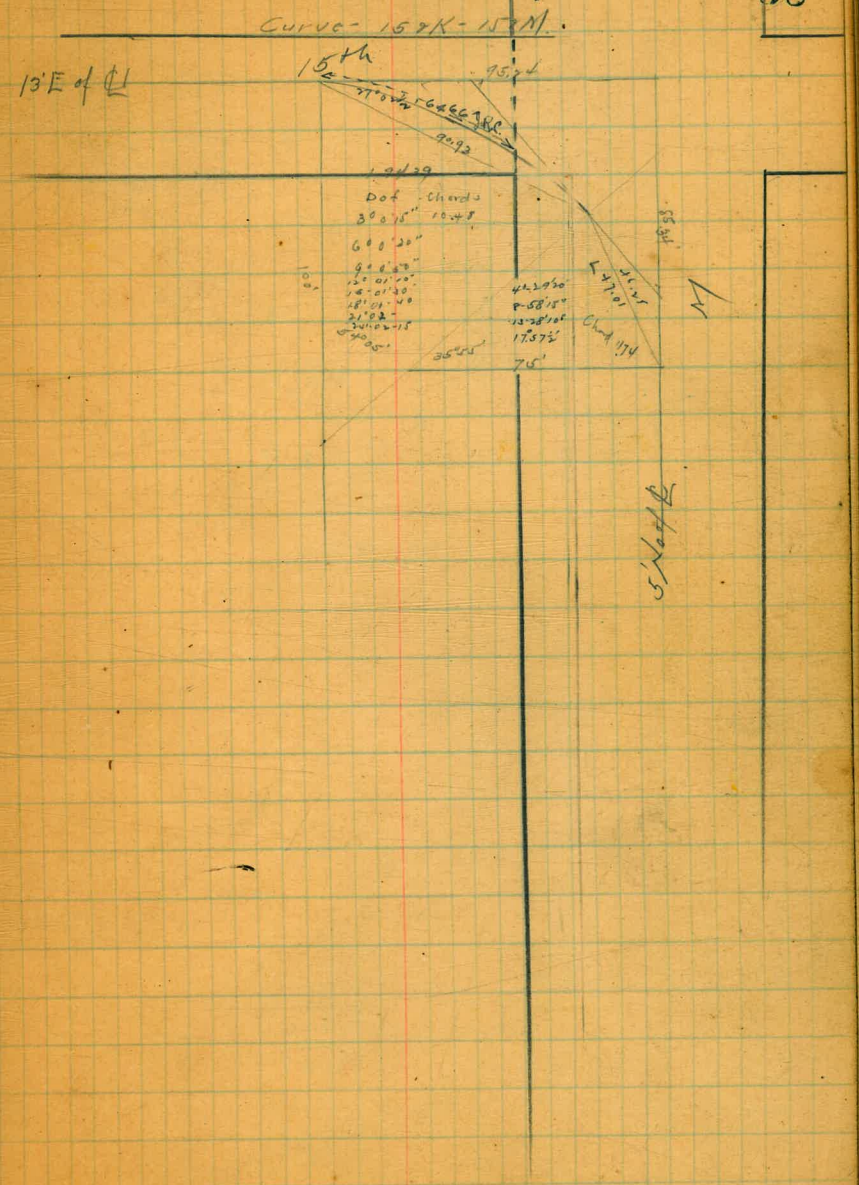
Grades for St. Ry 16th K to M

16.46 NW K

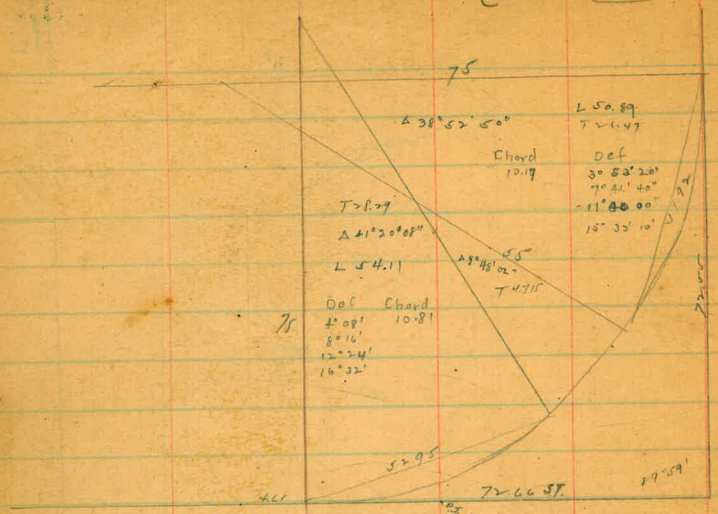
8.46 NE M



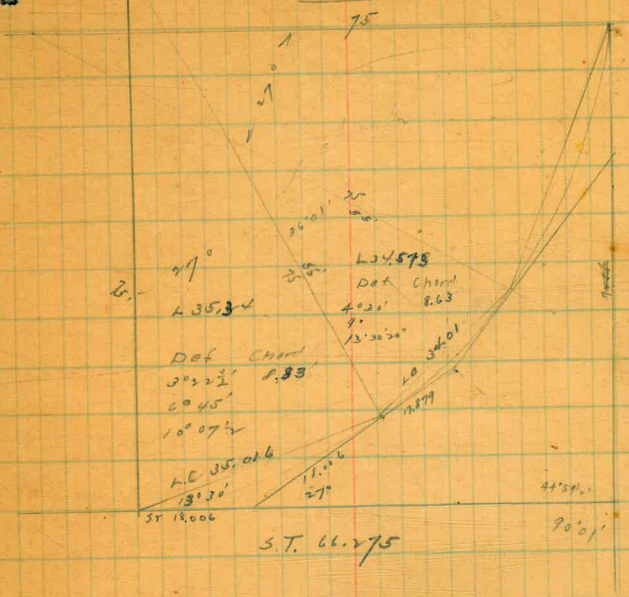
Curve - 15th K - 15th M.

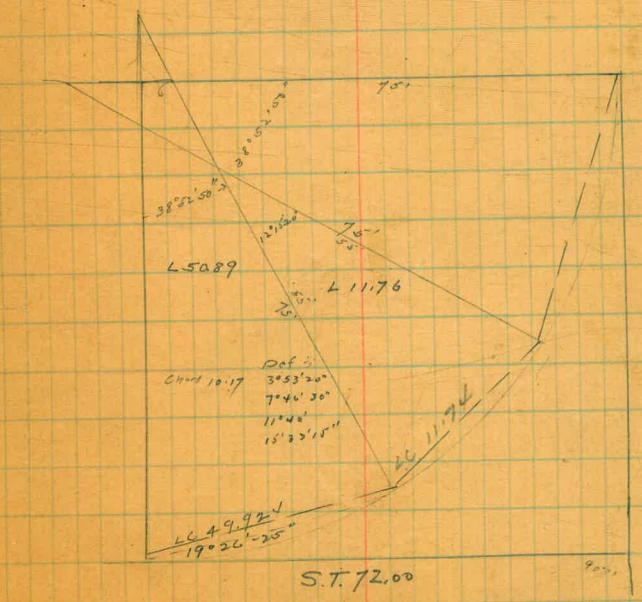


Outside Curve 12th & F



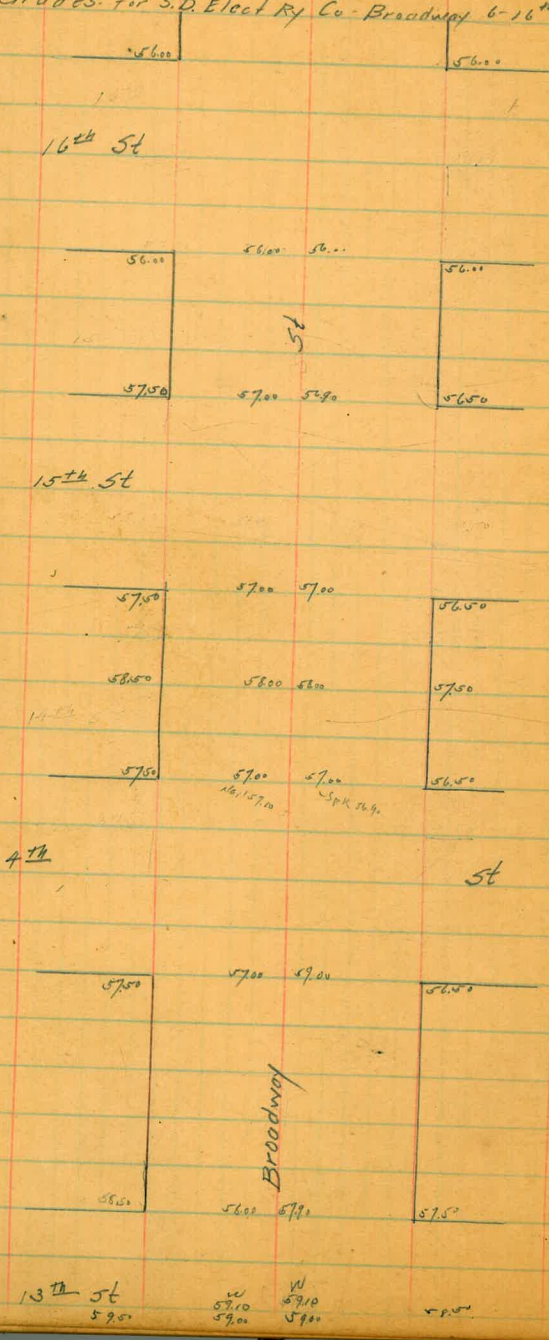
Inside Curve - 12th & Broadway / 12th & "F"





Outside Curve 12th & Broadway

Grades for S.D. Elect Ry Co - Broadway 6-16th { Davis, Hancock, Herrick



57.47 Bm NW. 14th & D
4.90
62.37 H.I.
4.87
57.50 T.P.
4.96
62.46 H.I.
4.38 / 58.00
57.50 / 4.87
5.44 / 57.02
56.50 / 5.96
5.67 / 56.79
56.50 / 5.52
6.12 / 55.90
55.50 / 6.52
57.47 NW 14th
5.36
62.83 H.I.
5.85 / 57.00
56.50 / 6.33
4.83 / 58.00
57.50 / 5.33
3.74 / 59.09
58.60 / 4.23
57.47
5.04
62.51 H.I.
5.01
5.55 / 56.96
5.61 / 56.90
5.41 / 57.10
4.62 / 57.89
57.50 / 5.01
57.50 T.P.
4.53
62.03 H.I.
5.63
56.40 T.P.
4.81
61.21 H.I.
57.47
5.00
62.47 H.I.
56.50 / 5.53
5.14 / 56.89
5.23 / 56.80
56.40 / 5.63
5.72 / 56.87
3.66 / 58.93
55.50 / 5.71
56.50 / 6.09
4.71 / 57.88
57.40 / 5.19
58.50 / 4.09
62.59 H.I.
56.50 / 5.97
57.50 / 4.97

12th St

71.50 71.25 71.15 71.00
71.10 70.90

72.50 72.00 71.90 71.50

71.00 72.00 72.47 70.00

70.00 72.30 72.15 71.50

11th

71.80 71.40 71.40 71.00

68.50 68.75 68.70 68.00

10th

67.00 66.75 66.70 66.50

Broadway

66.50 66.50 66.50 66.50
Spk 66.48 Spk 66.47

9th

60.50 60.20 60.15 60.0

57.0 56.65 56.65 56.50

8th

S.W. 11th Plg 70.74 61.95 NE 9th RR Spk Pole

N.W. 10th " 67.01

72.64
4.21
76.85

5.36 5.84 5.67 5.76 70.60 5.00
71.09 71.05 71.38 71.09 6.25 71.85
4.84 71.50
71.91 5.55

70.74
5.98
76.72 M

5.28 5.36 5.51 5.55 3.76 3.82 3.91
71.44 71.36 72.21 72.17 72.96 72.90 72.81
72.17 4.01 72.17 5.37 5.70 5.09
4.55 72.77 76.1 71.23 70.86 71.57

70.74
6.04
76.78 M

71.97 71.40 5.73 70.40
4.81 5.20 70.87 6.20

72.64
3.96
76.60 M
5.97
5.12
6.25 M

70.74
5.69
76.43 M
67.06
5.95
72.51 M

71.65 70.90 5.83 6.00 5.58
4.78 5.53 66.68 66.51 66.93 = Cut
4.12 4.29 4.58 = Cut
68.03 68.22 67.93

67.01
72
67.73 M
5.75
61.96
3.76
64.71 M
1.95
4.24
66.19 M

3.24 4.56 4.60 7.25 6.87 4.32 4.65
61.47 60.15 60.11 57.36 3.85 59.29 60.07
Sewer NW
4.71 67.01
5.73
61.48 72.74 M
6.25 6.25
6.49 4.99
4.47
56.85

72.50
4.40
70.74
6.16
76.90 M
3.38
3.96
61.32 M
61.95
3.70
65.65 M
61.95
3.97
65.87 M

72.25 71.44 71.80 71.65 4.76 4.65
4.65 65.88 65.83 5.25 56.56 56.67
NE
4.82 5.50 5.48
56.50 56.48 SW NW 60.17
5.71
4.7 61.05
5.95
61.0
4.99
59.65 4.70
6.22 61.47 65.99 M

57.0	56.65	56.65	56.50
8th			St
56.50	56.00	55.90	55.50
	54.00	53.90	
7th			St
	53.25	53.20	
51.50	50.75	50.65	
6th			St
	set to fit joining		
47.8	46.78		46.7
5th			St
47.8			46.7
4th			St

N.W. 7th 53.62 Plg rt NE 8th 57.38 Spk pole

SW. 6th 50.71 Plg. SW. 5th 46.57 Plg rt

57.38
2.69
60.07 HI

3.99
56.08

3.53
56.54
52.75
5.50

56.15
5.92
53.50
4.75

55.50
4.57
6.26
50.75

4.90
53.35
5.42
51.59

4.39
53.86
6.35
50.66

4.37
53.88

5.07
53.18

5.62
4.63
58.25 HI

5.62
3.47
57.09 HI

50.15
6.94

52.70
4.39

53.40
3.69

6.06
46.28

5.62
3.39
57.01 HI

57.38
4.16
61.54 HI

55.40
6.14

56.15
5.39

46.78

46.57
5.77
52.34 HI

5.02
47.32

5.73
46.61

5.73
6.23

5.80
43.57

5.65
43.72

5.82
43.55

5.70
43.67

46.57
2.80
49.37 HI

42.52
6.85

44.41
4.96

42.64
6.73

3.20
46.17

3.30
46.07

44.94
4.43

44.84
4.53

45.06
4.31

45.17
4.20

44.29
5.08

F N.W 59.49 Plg. E N.W 66.53 Plg

D N.W 72.64 Plg. C N.W. 84.48 Plg.

59.49
6.29
65.78 H.

5.39 / 60.39 5.35 / 60.43 59.91 / 5.87 59.93 / 5.85

66.53
4.28
70.81 H

5.69 / 65.12 5.51 / 65.30 64.80 / 6.01 64.65 / 6.16

66.53
4.95
71.48 H

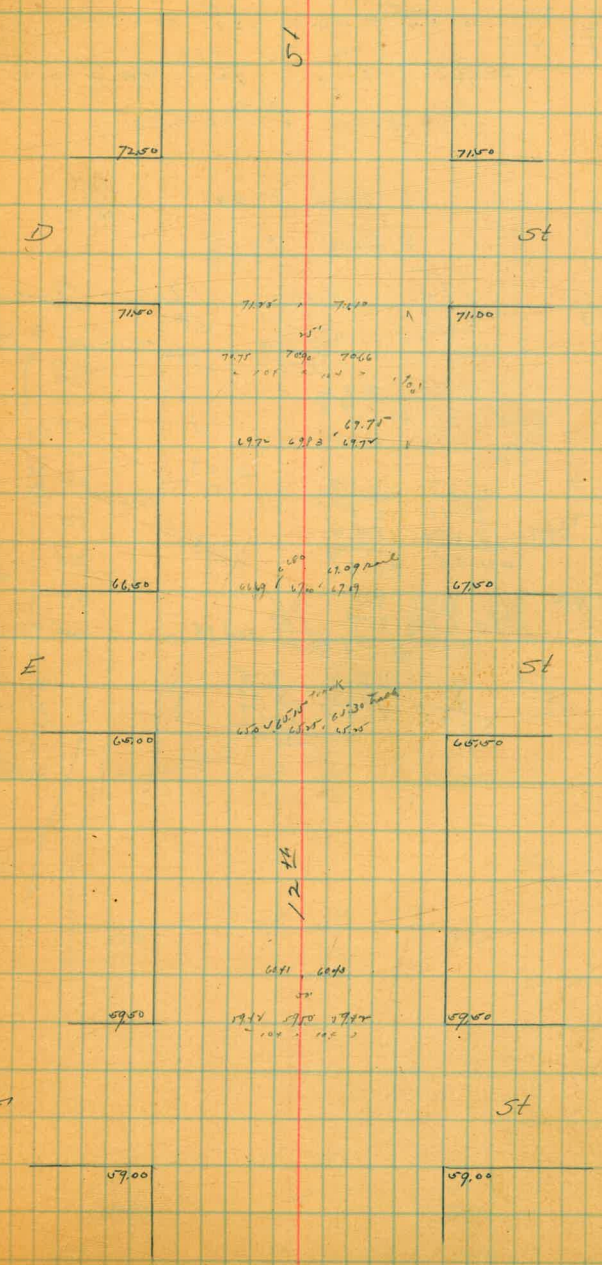
4.74 / 66.74 4.41 / 69.07 66.30 / 5.18 66.59 / 5.89

72.64
3.19
75.83 H.

4.61 / 71.22 72.75 / 5.08 4.73 / 71.10 70.60 / 5.23 6.12 / 69.7 69.75 / 6.08

8 / 14 { Davis, Hancock, Herrick

Grades for St. Ry 12th St - F to Park



C N.W 84.48 Plg. B N.W. 97.48 Plg.

A N.W 105.47 Plg.

50 7' Line "A" 11+08 2 Δ 2° 02' 46" L 68.21

72.64 Bm
6.22
76.86 H1

3.53
73.33 - P.C. W Curve

3.95
72.91 - P.C. E Curve

4.86
72.00 - Ctr E track

4.70
72.16 Ctr W track

5.16
71.70 W Cross

5.26
71.60 E Cross

73.33
71.70
145.03

8.33
41.65

W track 72.33

E track 72.12
4.74

72.51
72.16
2.67
33

4.55
4.37
4.18
.045

4.37
.045
4.41
4.46
4.505

Unw. Ave

72.91
71.60
144.51
72.25
72.00

5.10
315.60
16.43

4.92
315.78
4.9

315.50
5.20
320.70 H1

14.77
5.11
5.26
-0.15

13.77
6.11
5.94
+0.17

15.50
15.00
310.3
309.3
304.85
301.6

315.75
14.77
13.77
12.77
11.77
10.77
9.77
8.77
7.77
6.77
6.25

316.50 for new grade

476

306.90

2.016%
2.996%

144
144
304.0

15.50
4.38
19.88 H1

7.11
6.27
+0.84

8.11
6.72
+1.39

9.11
7.58
+1.53

10.11
8.30
+1.81

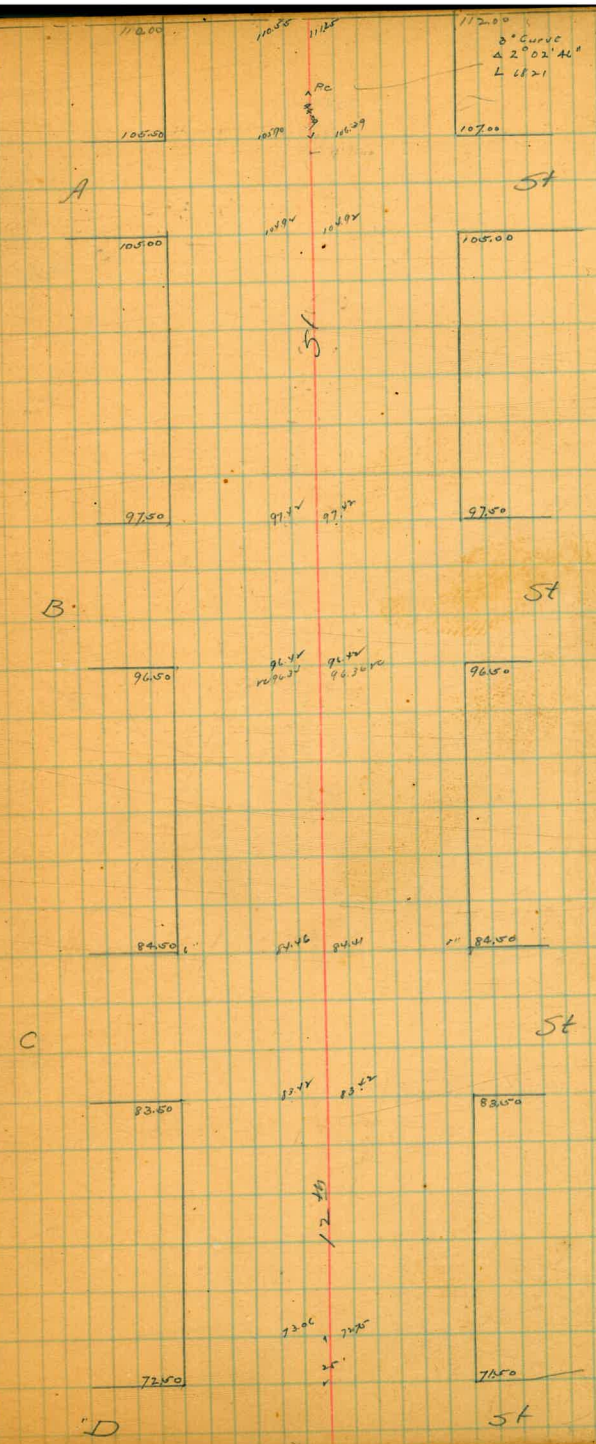
4.85
6.90
11.75
5.87
5.27

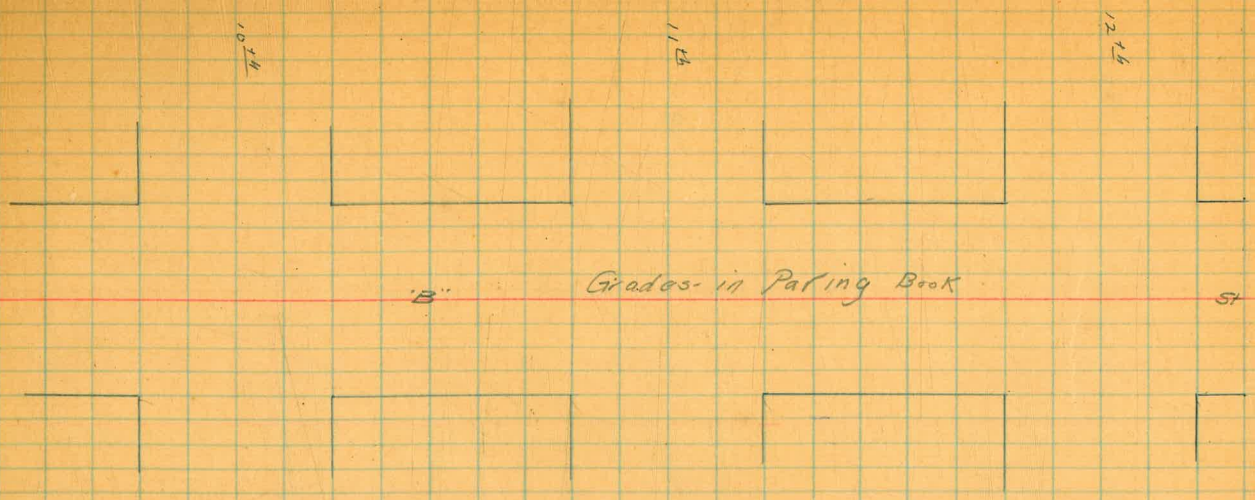
11.11
9
+2.11

12.11
9.70
+2.41

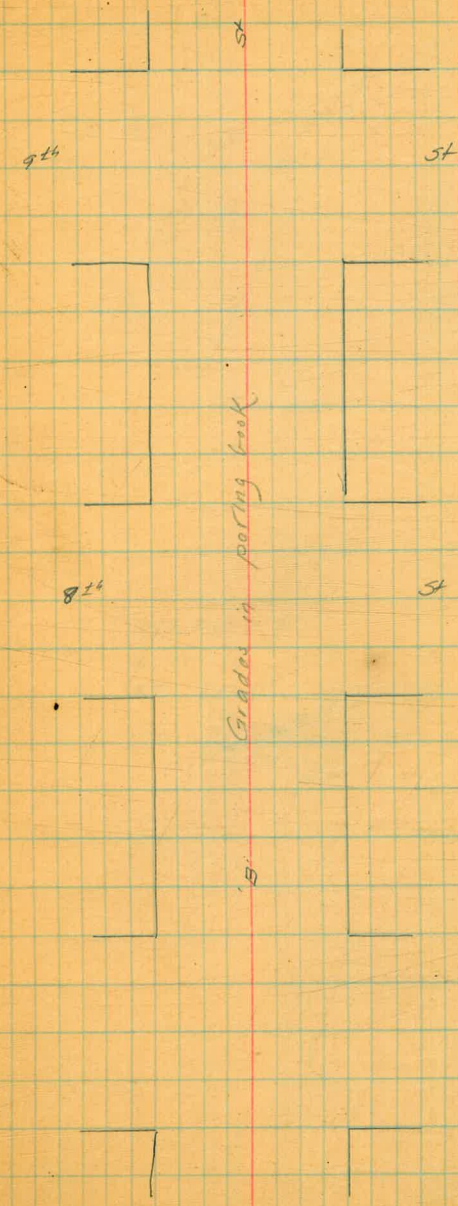
13.11
10.66
+2.45

6.25
13.63
11.58
+2.05

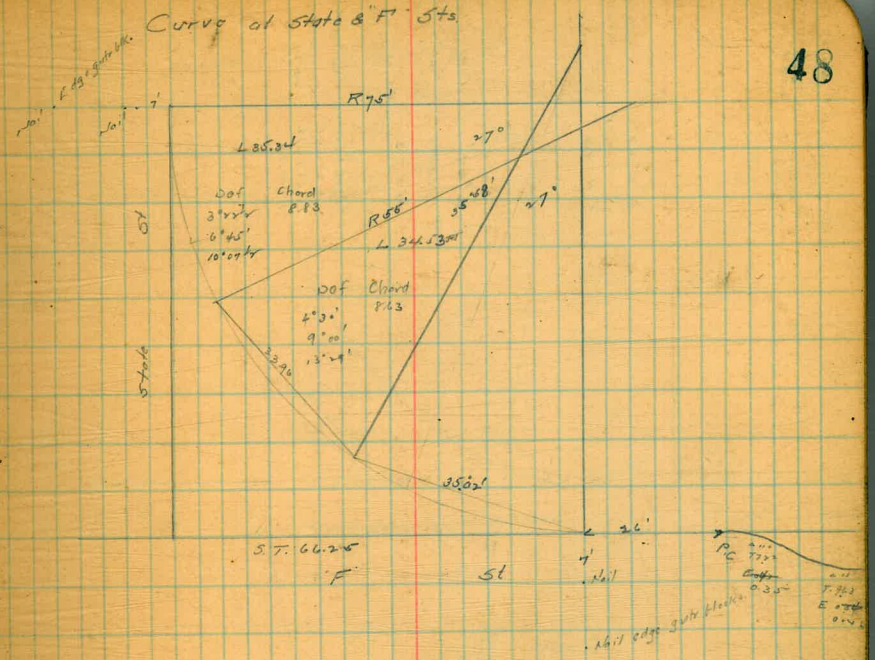




Grades in Parking Book


St
9th
St
8th
St
Grades in poring book
'B'

Curve of State & "F" Sts.



Arctic & F

Δ 90° 75 - 55 - 75

S.T. 66.26 27 - 36 - 27

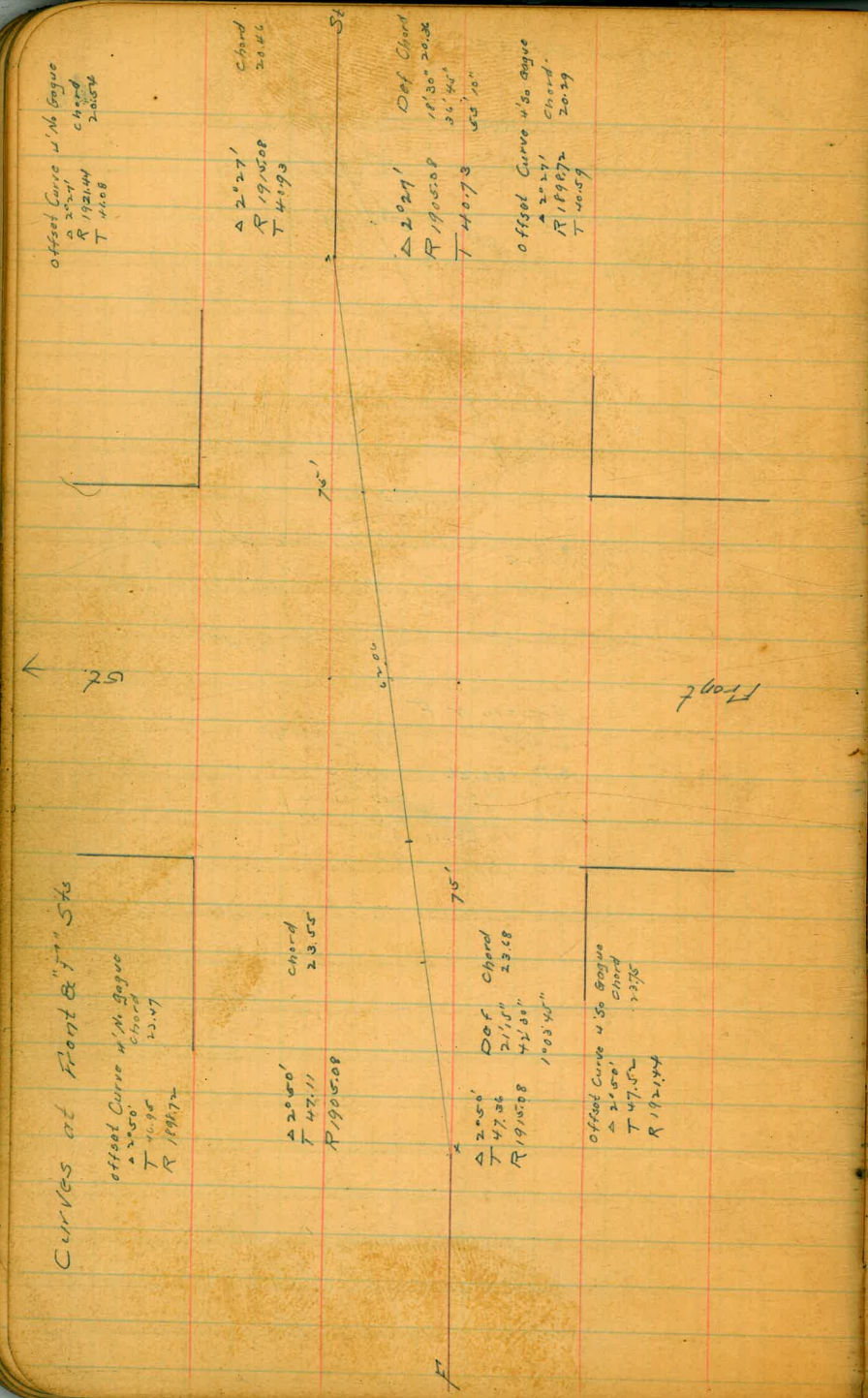
R 55 50' R Curve

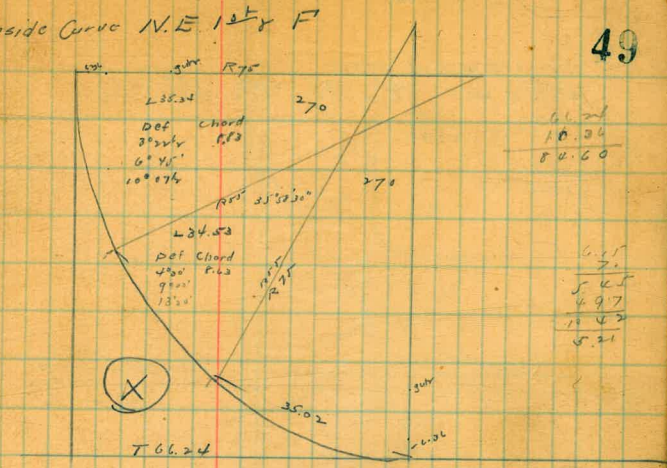
Δ 36° Deg Chords

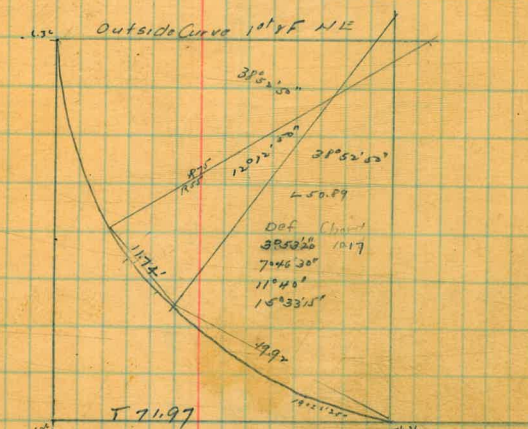
L 34.56 4°30' 8.63

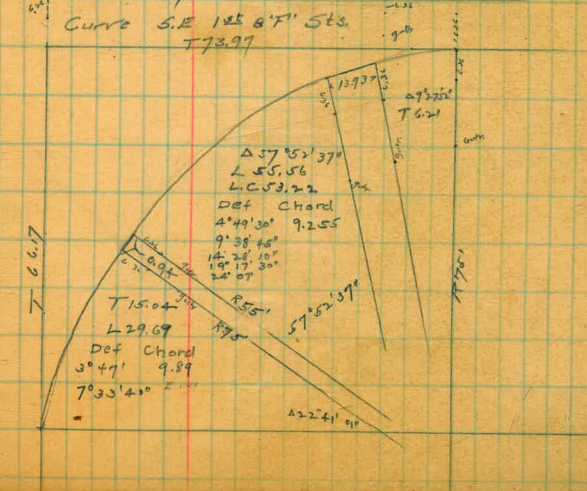
L.C. 33.99 9°00

13°30'


Curves at Front & "F" Sts
Offset Curve 4' No Gague
Δ 2°50'
T 46.95
R 1891.72
Chord
23.47
Δ 2°50'
T 47.11
R 1905.08
Chord
23.55
Offset Curve 4' So Gague
Δ 2°50'
T 47.52
R 1921.44
Chord
23.75
Δ 2°50'
T 47.36
R 1915.08
Def
21'15"
42'30"
1°03'45"
Chord
23.68
Δ 2°27'
R 1915.08
T 40.93
Chord
20.46
Δ 2°27'
R 1905.08
T 40.73
Def
18'30"
36'45"
55'10"
Chord
20.36
Offset Curve 4' So Gague
Δ 2°27'
R 1898.72
T 40.59
Chord
20.29
St
Front
75'
62.00
F


Inside Curve N.E 1st & F
R75
L35.34
Def
Chord
3°22½'
6°45'
10°07½'
8.83
270
R55
35°53'30"
L34.53
Def
Chord
4°30'
9°00'
13°30'
8.63
35.02
T 66.24


Outside Curve 1st & F NE
38°52'53"
R75
R55
12°12'50"
L50.89
Def
Chord
3°53'20"
7°46'30"
11°40'
15°33'15"
10.17
11.74'
49.92
T 71.97


Curve S.E 1st & 'F' Sts.
T 73.97
13.93
Δ 57°52'37"
L 55.56
L.C 53.22
Def
Chord
4°49'30"
9°38'45"
14°28'10"
19°17'30"
24°07'
9.255
T 6.21
T 66.17
T 15.04
L 29.69
Def
Chord
3°47'
7°33'40"
9.89
R55'
R75
57°52'37"
R75'
Δ 22°41'01"

1849 Bur S.W. Front.

2475 N.E. Union & F Top Hyd't.

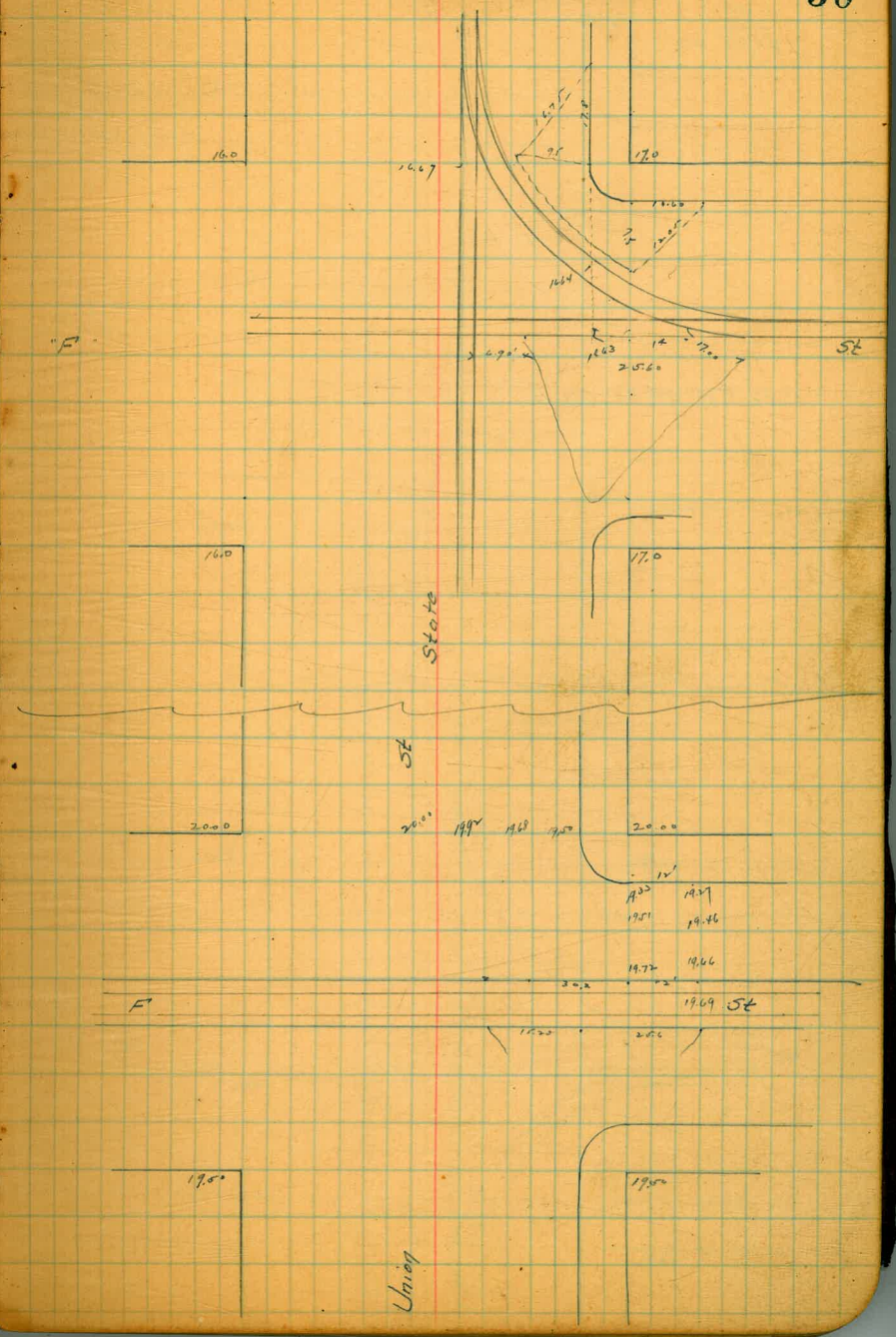
16.00 B.M. S.W. State
5.55
21.55 M

4.45	4.55	4.92	4.88	6.27
17.10	17.00	16.63	16.67	18.48

5.45
21.45 M

1.85
22.90

8.75
24.75 M

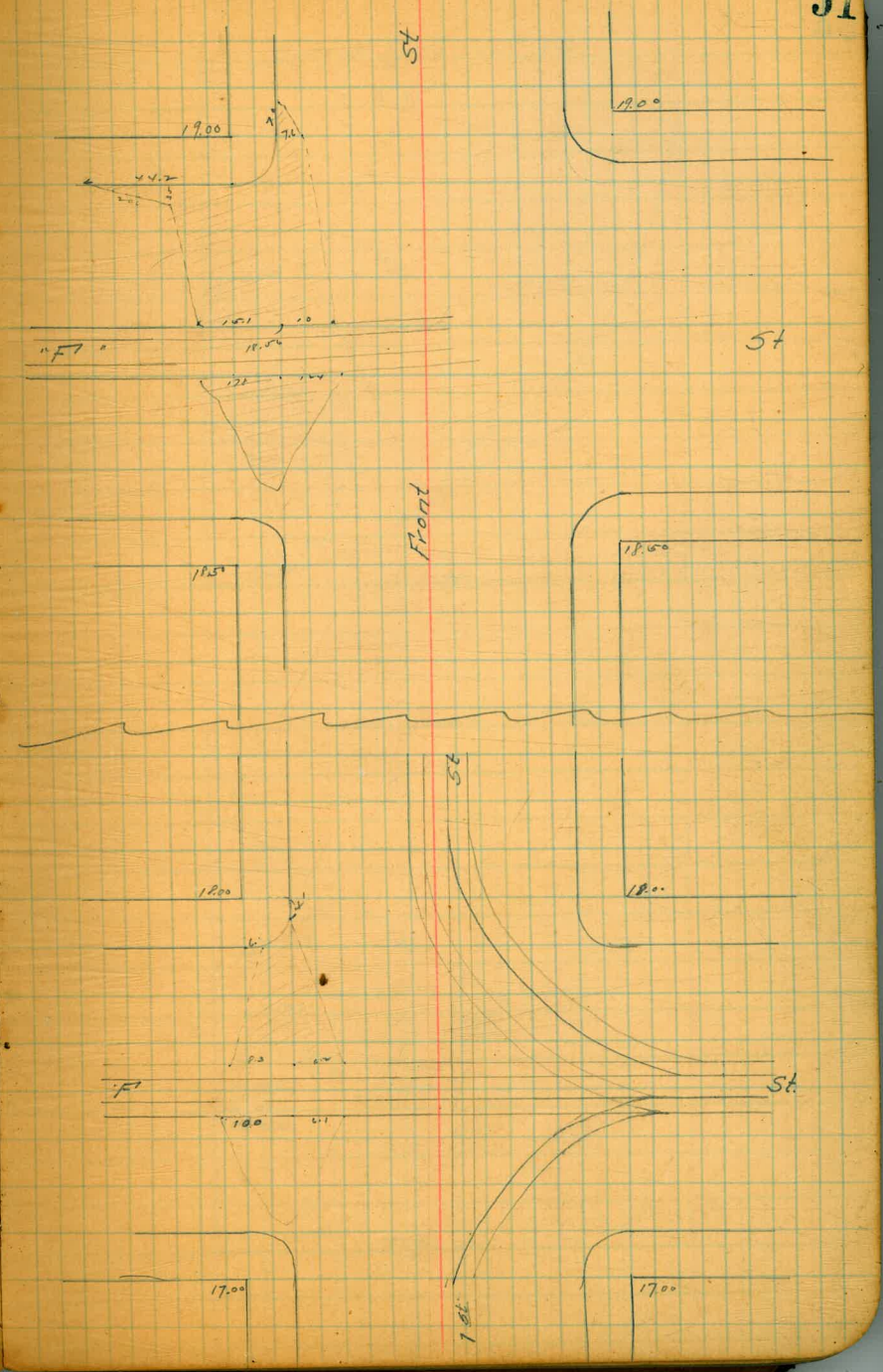


18.49 Plg. S.W Front.

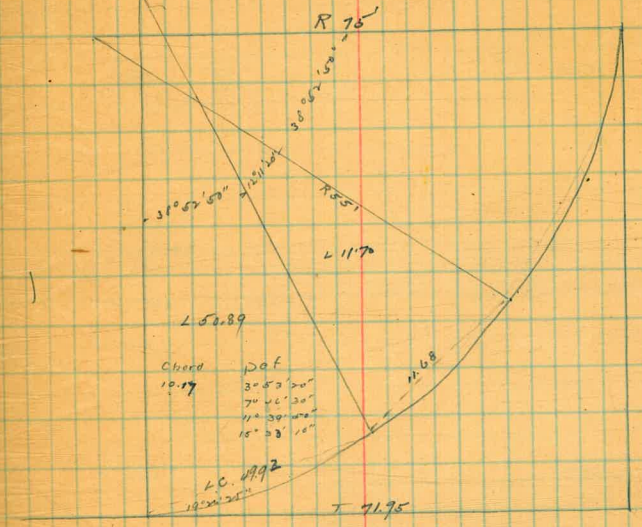
18.49
5.67
24.16 All.

5.60
18.56

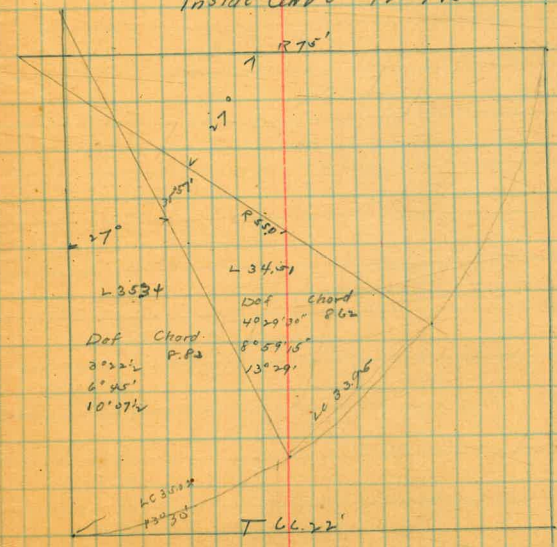
16.92 S.W 1st & F Plg rt.



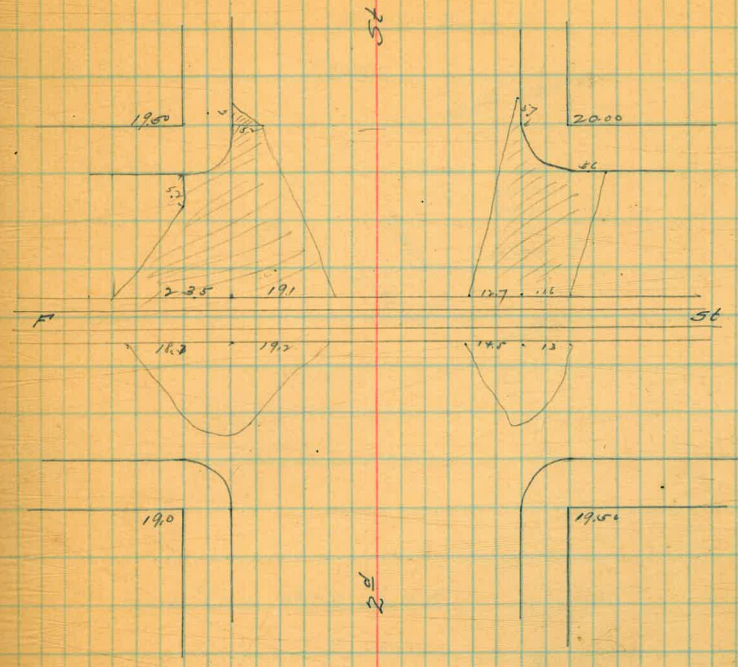
Outside Curve 12th & B



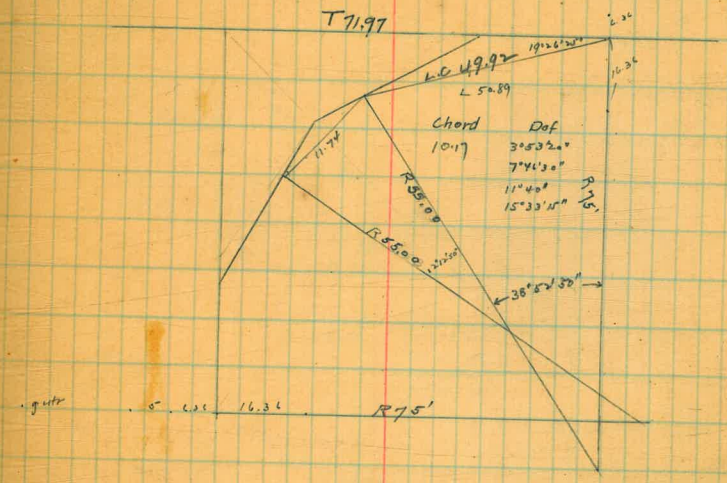
Inside Curve 12th & B



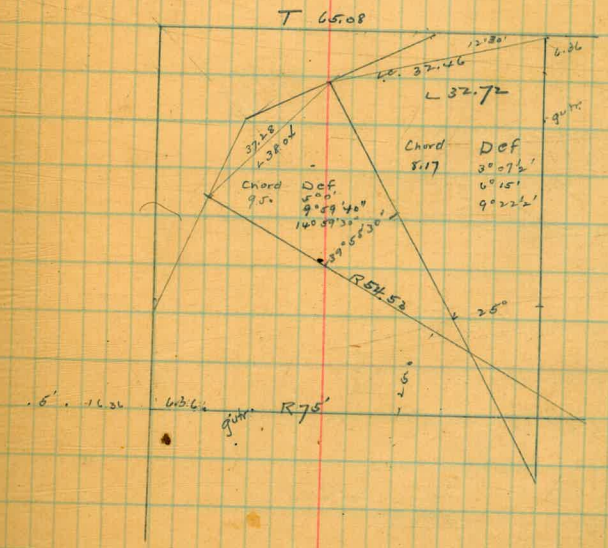
1896 S.W 2d Plg rt.



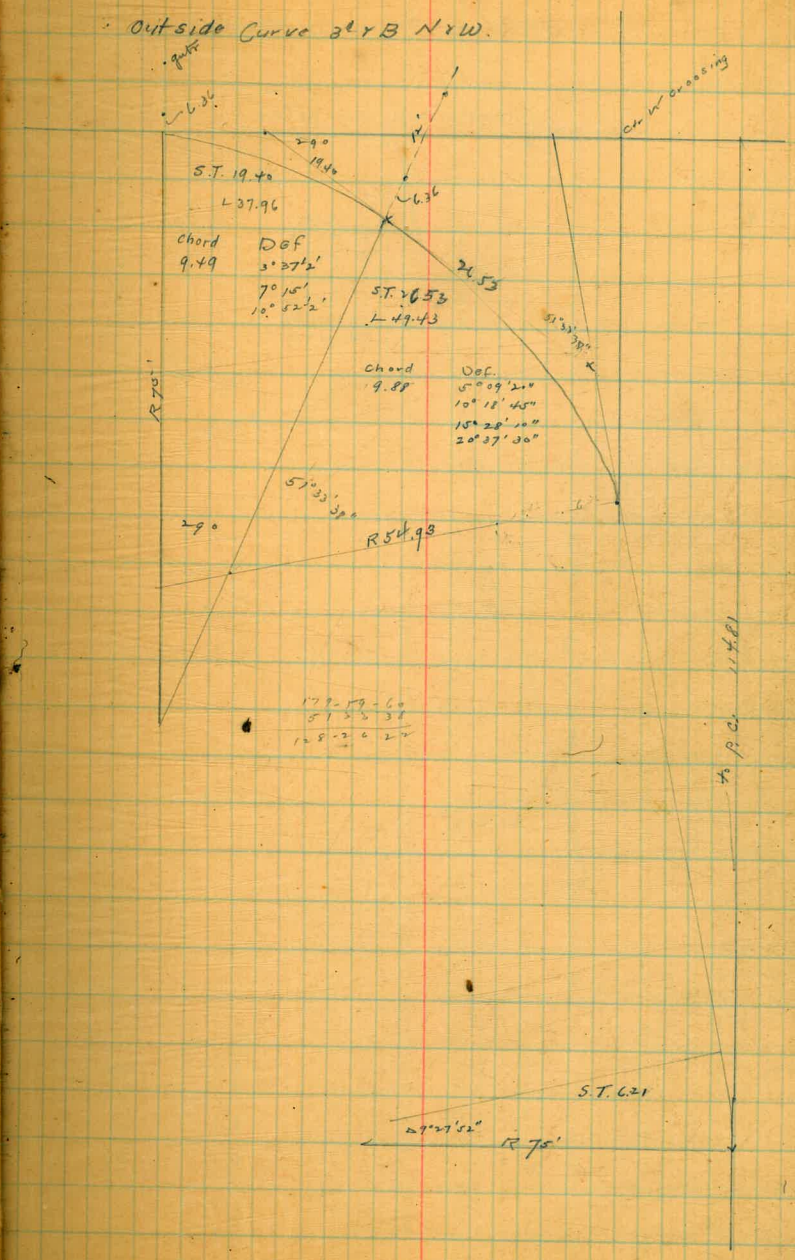
Outside Curve 3d YB No & E



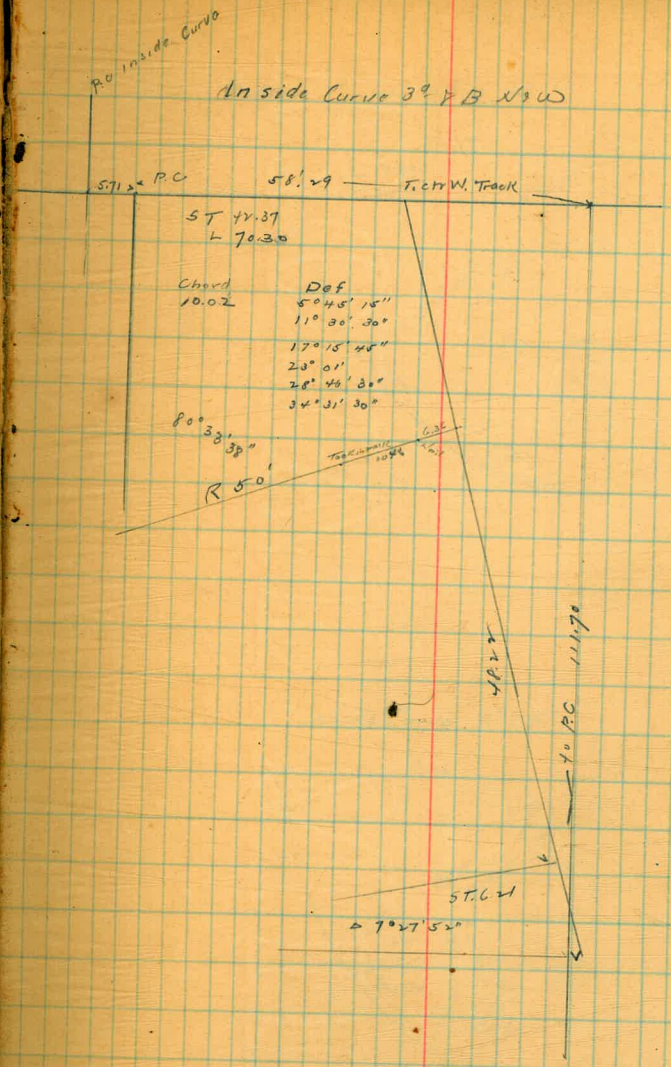
Inside Curve 3d YB No & E.



Outside Curve 2d x B N x W.

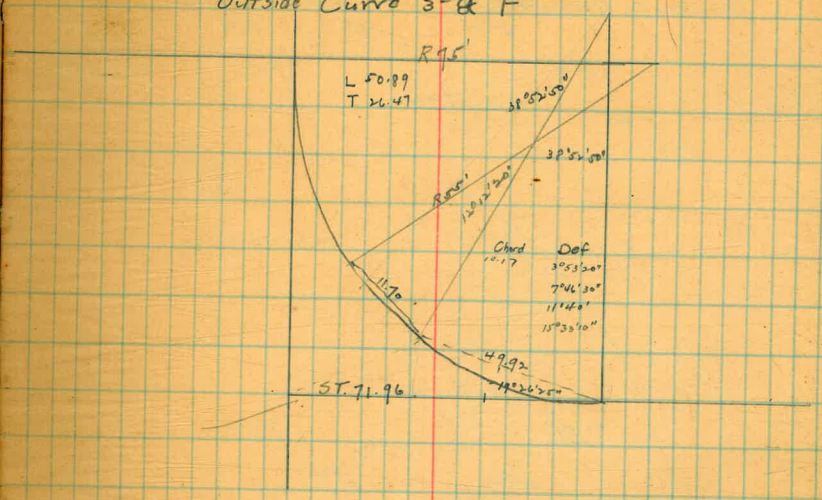


Inside Curve 3d & B N & W

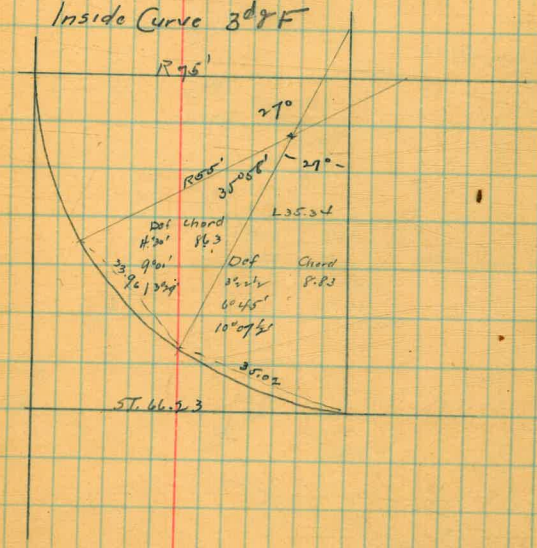


179 59 60
40 33 38
9 9 26 22

Outside Curve 3d & F



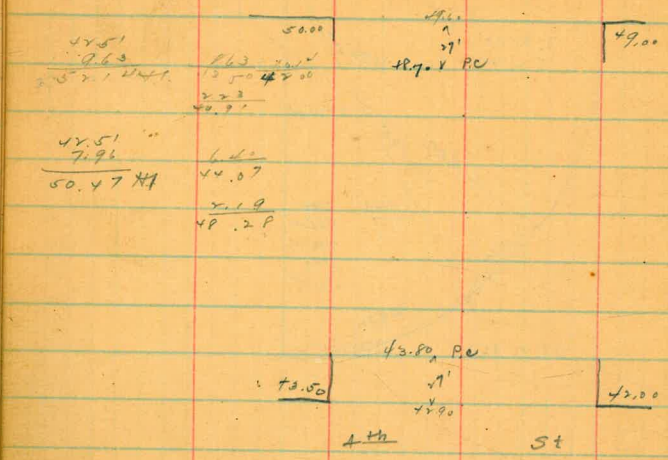
Inside Curve 3d & F



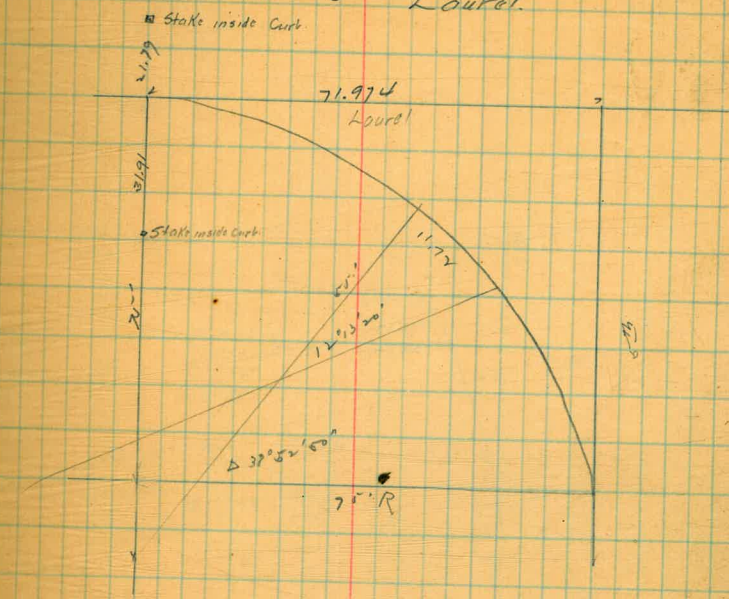
242.51 N.W. Laurel plg S.E. 5th 252.43 Top Hydt.

Grades for Track - 4th to 5th on Laurel Tracks' N. Ctr.

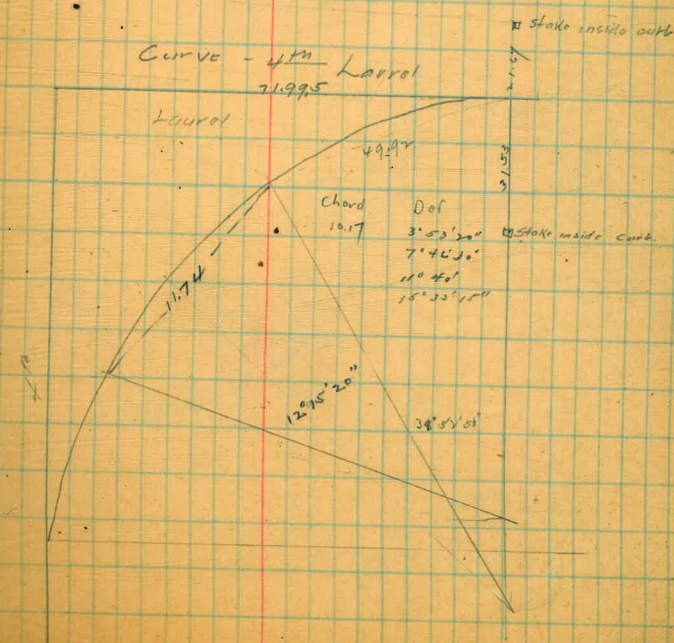
5th St



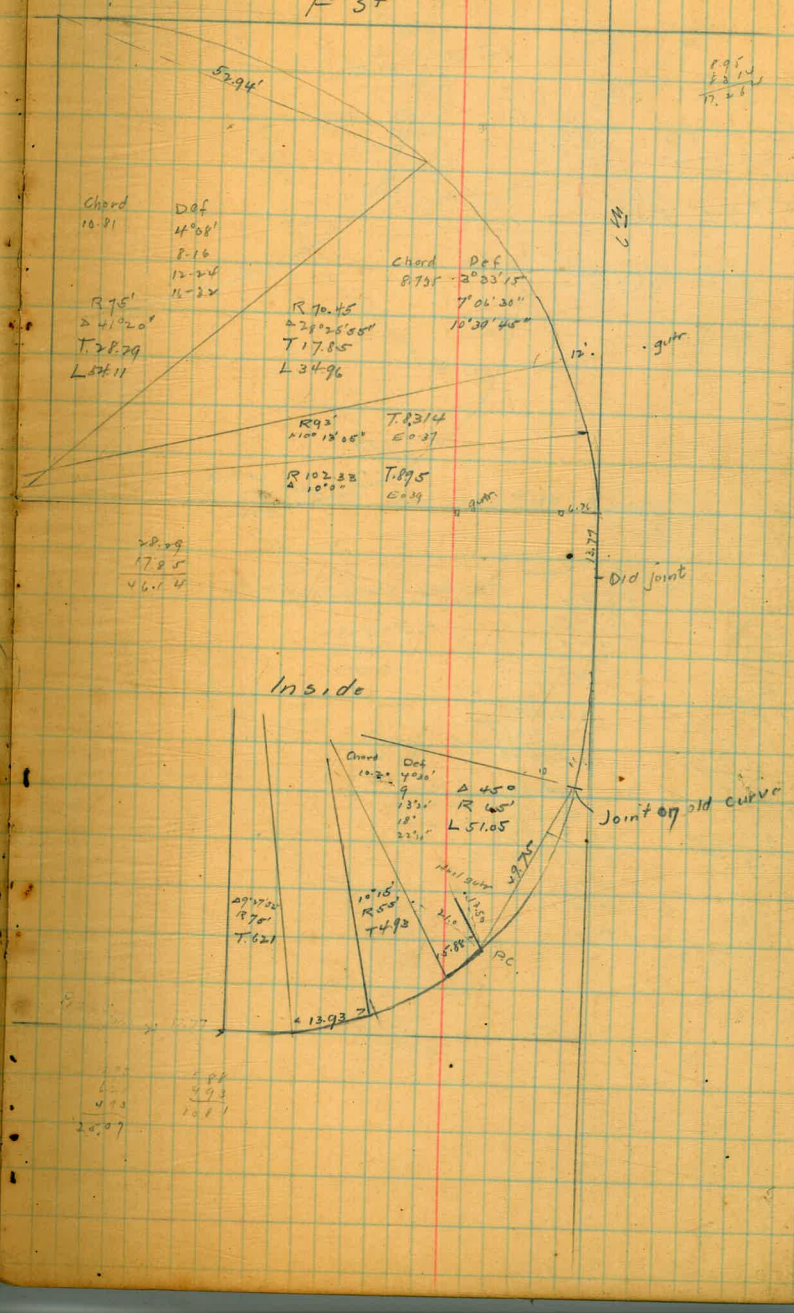
Curve 5th Laurel

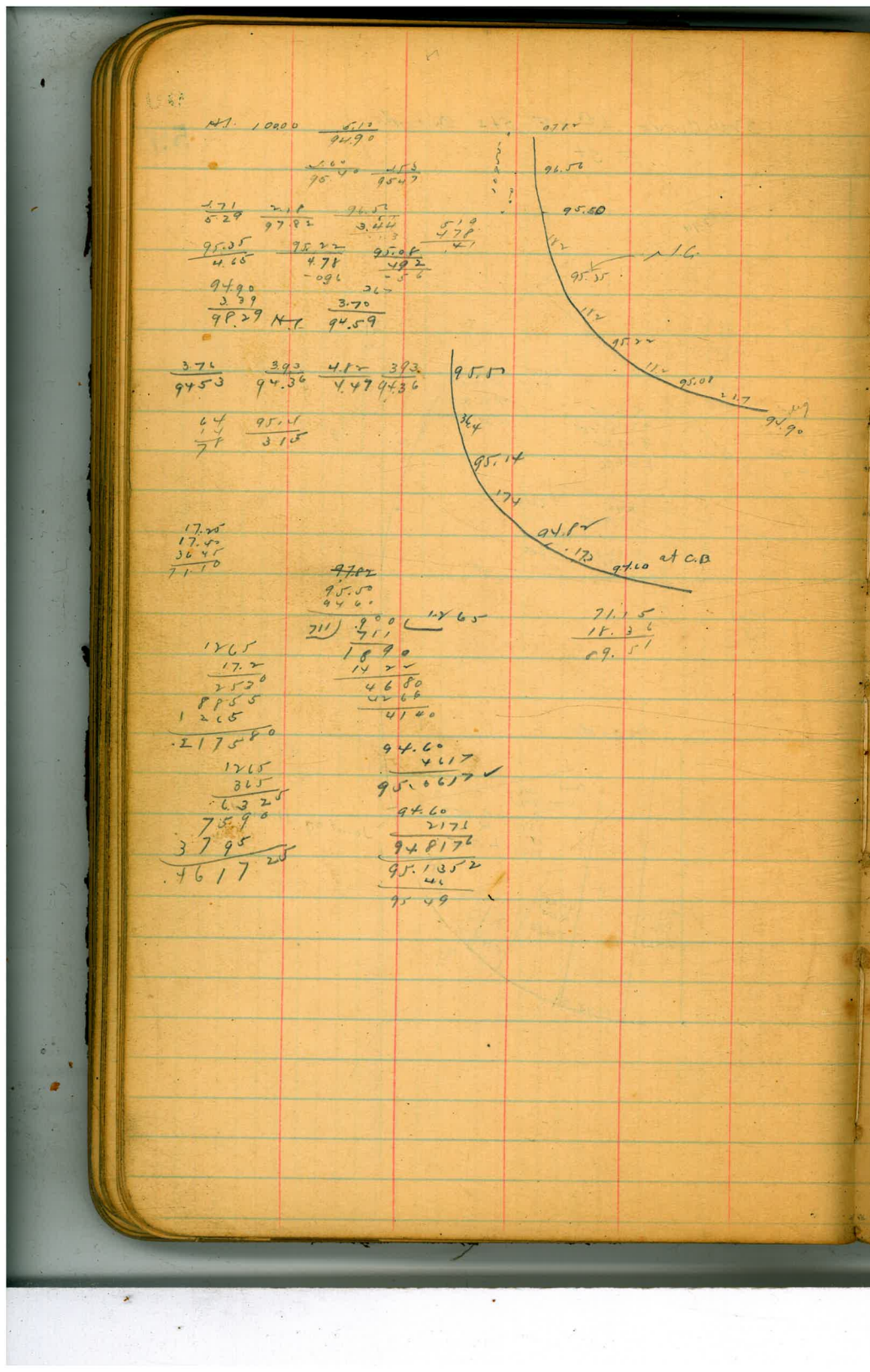


Curve - 4th Laurel

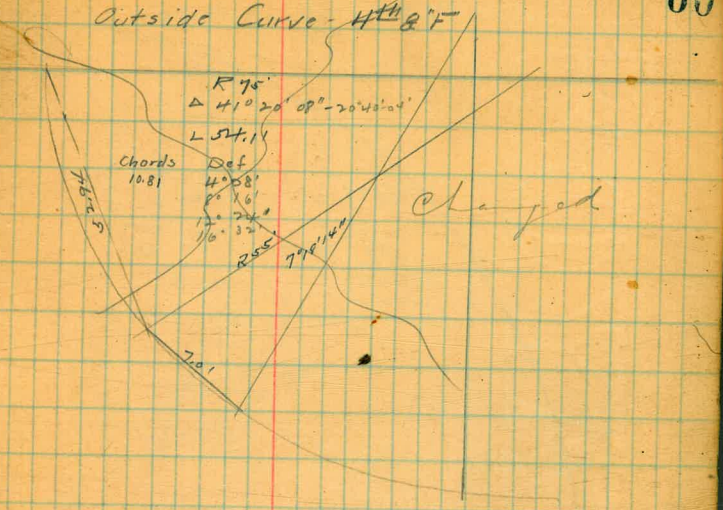


S+W. Curve 6th & F Sts Outside



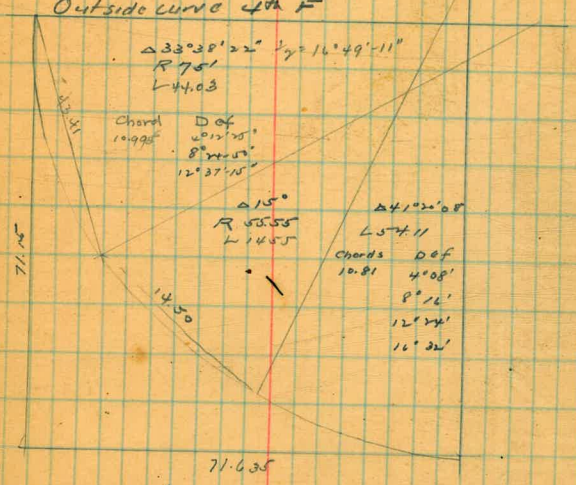


Outside Curve - 4th 8" F

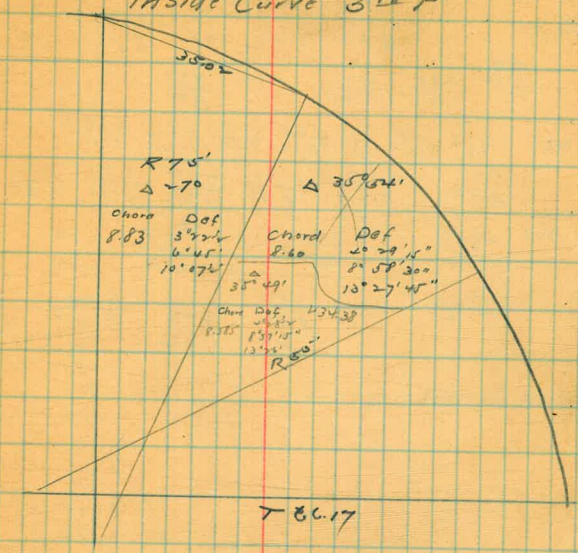


Inside Curve Same as on P 49 ⊗

Outside curve 4th F



Inside Curve 5th F



Bm S.E Arctic Bwdy.
Plg Rt. 10.50 - " side

Elevations 0.50 low

10.00 End old Rt S.E Arctic
4.43
14.43 H.I.

10.51 / 3.92 — 10.88 / 3.55 — 45 / 18 / 63 — 11.25 / 3.18 / 3.52

2.85 / 11.58 — 4.09 / 10.34 — 6.38 / 1.30 — 5.20 / 8.48 — 5.92 — 5.97 / 7.71

10.00 / 3.68 / 13.68 H.I.

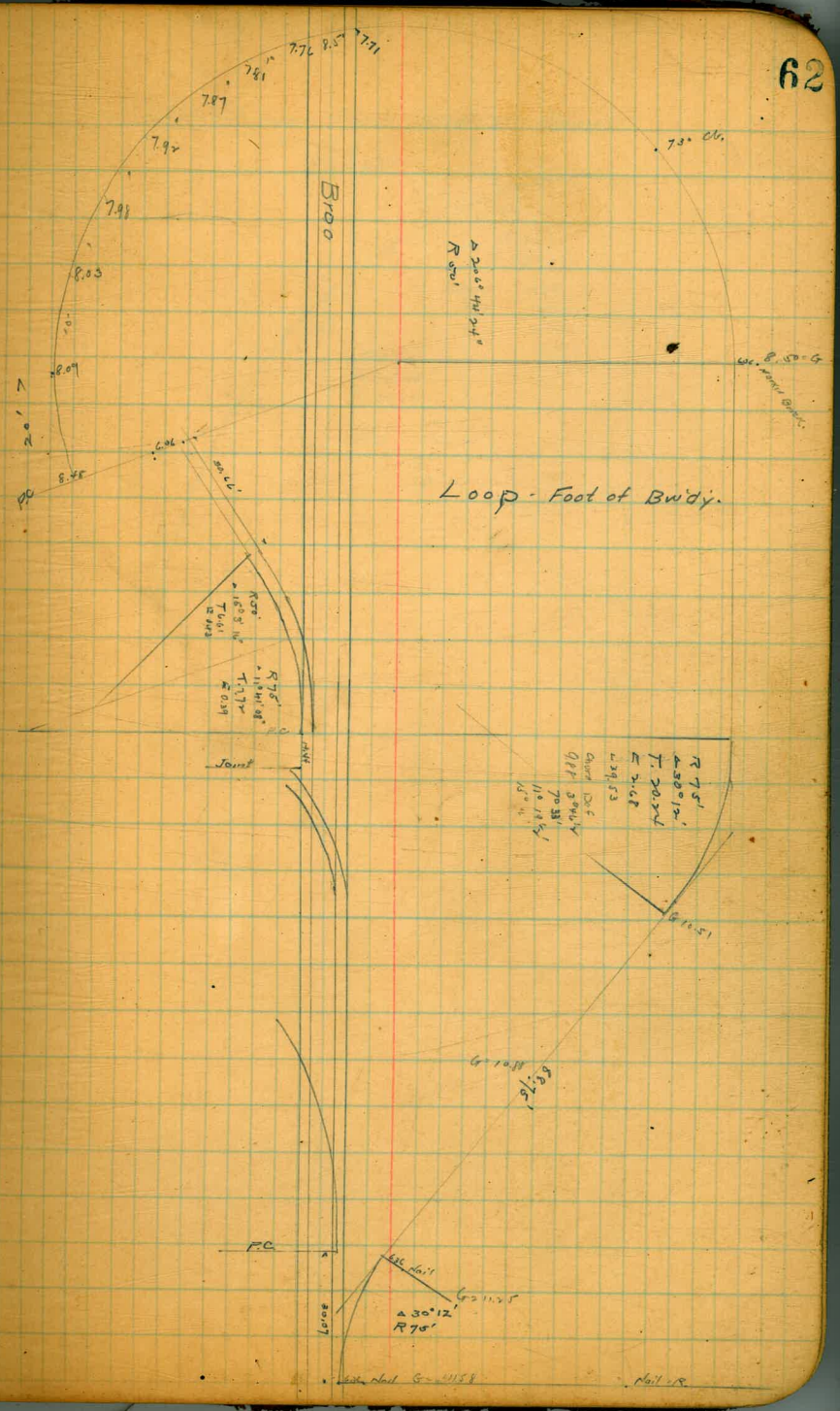
5.79 / 7.89 — 5.78 / 7.90 — 5.77 / 7.91 — 5.61 / 8.00 — 5.59 / 8.09 — 5.43 / 8.25 — 5.19 / 8.49 P.C.

8.09 / 5.59 / .40 — 8.03 / 6.05 / 5.65 / .40 — 7.98 / 5.58 / 6.70 / 0.18 — 7.92 / 6.08 / 5.76 / .32 — 7.87 / 6.01 / 5.81 / .20 — 7.81 / 5.87 — 7.76 / 5.92

10 / 3.63 / 13.63 H.I.

6.33 / 7.30 / 1" — 7.30 / 6.33 / 1" — 7.37 / 6.26 / 2.48 — 7.47 / 6.16 / .18 — 7.59 / 6.04 / 1" — 7.71 / 5.92

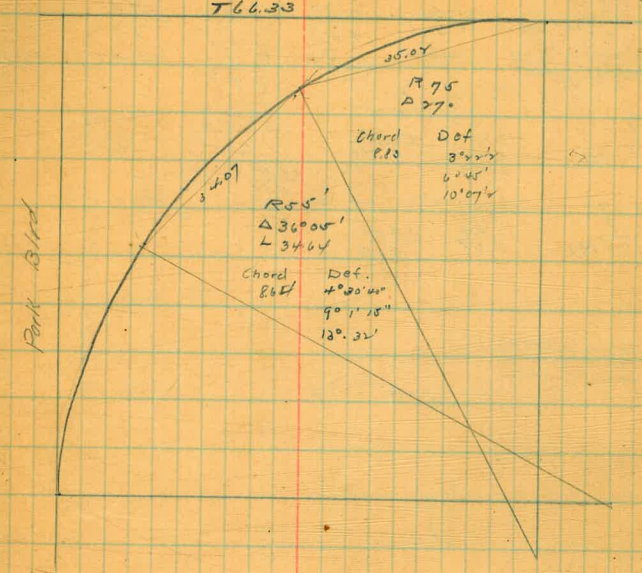
5.13 / 8.50 — 7.60 / 6.03 — 7.84 / 5.79 / .49 — 8.04 / 5.59 / .45 — 8.22 / 5.37 / .49 — 8.50 / 5.13 / .29



Inside Curve- Park Blvd & Adams

Adams Ave

T 66.33



13.30
13.50
3.375

Flo SW Plg rt 340.10

Park Blvd N.E 54.58 Plg Ct. Ga. SW Spk 55.52

54.58
5.86
60.44 Hi

54.58
5.06
59.64 Hi

340.10
3.59
343.69 Hi

54.27
4.18
58.45 Hi

5.63
54.81
5.55
54.89

54.60
5.04
33
5.37

40.26
3.43
33
3.76

38.50
5.19
33
5.67

54.87
5.57
24
4.13
55.5

5.02
54.62

40.20
3.49
33
3.82

5.19
33
9.52

53.46
4.99
33
5.32

5.70
54.74
54.58
4.41
58.99
4.87
4.12
33
4.45

38.75
4.94
33
5.27

39.00
4.69
33
5.02

54.80
5.64

4.12
4.36

5.44
33
5.77

5.27
5.17

82
36
46

4.12

Grades for S. Track - Adams Ave
Park Boulevard to Alabama St

1/15 Davis, Hancock, Harrick, S. Emerson, Fletcher

64

Wt. Alabama 38.50 38.50

Now 70' x 60' E Flo 38.50 38.50 38.50 - 70' E Florida
Florida Narrowed 80 to 60

39.00 39.00 39.00

80' tot breaks

Florida St

60'

Break in grade of track put on old st. line to conform with track already in.

40.50 40.20 40.00

3.00' Block 310

53.00 53.60 53.46 54.00

Georgia St

54.00 54.60 55.00

54.50 54.80 55.10

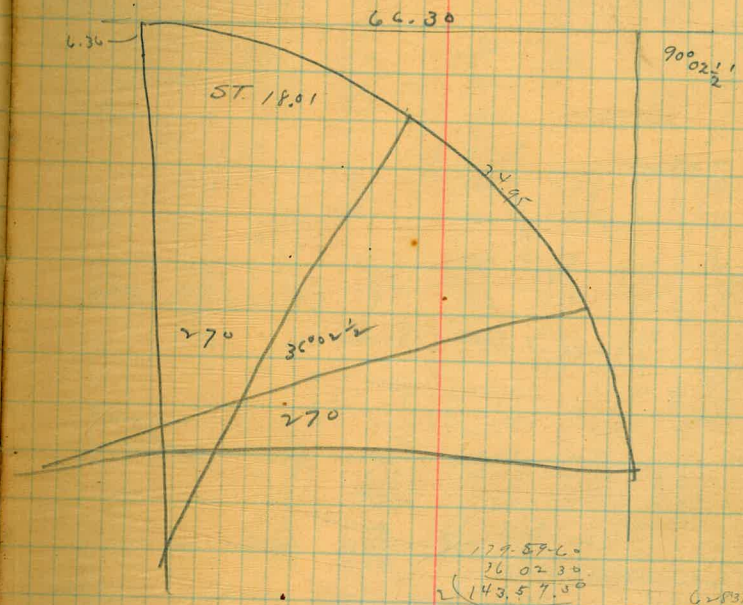
Park Blvd

55.17

54.89 P.C.

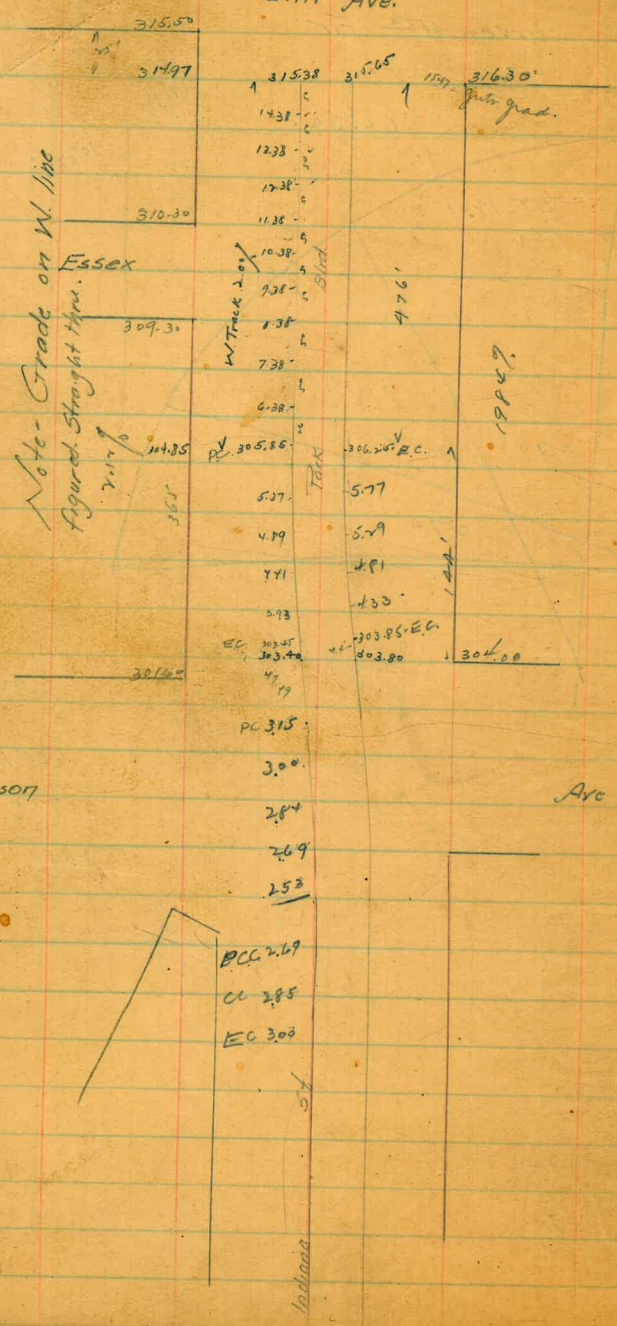
54.50 55.10

Curve 4th Fir

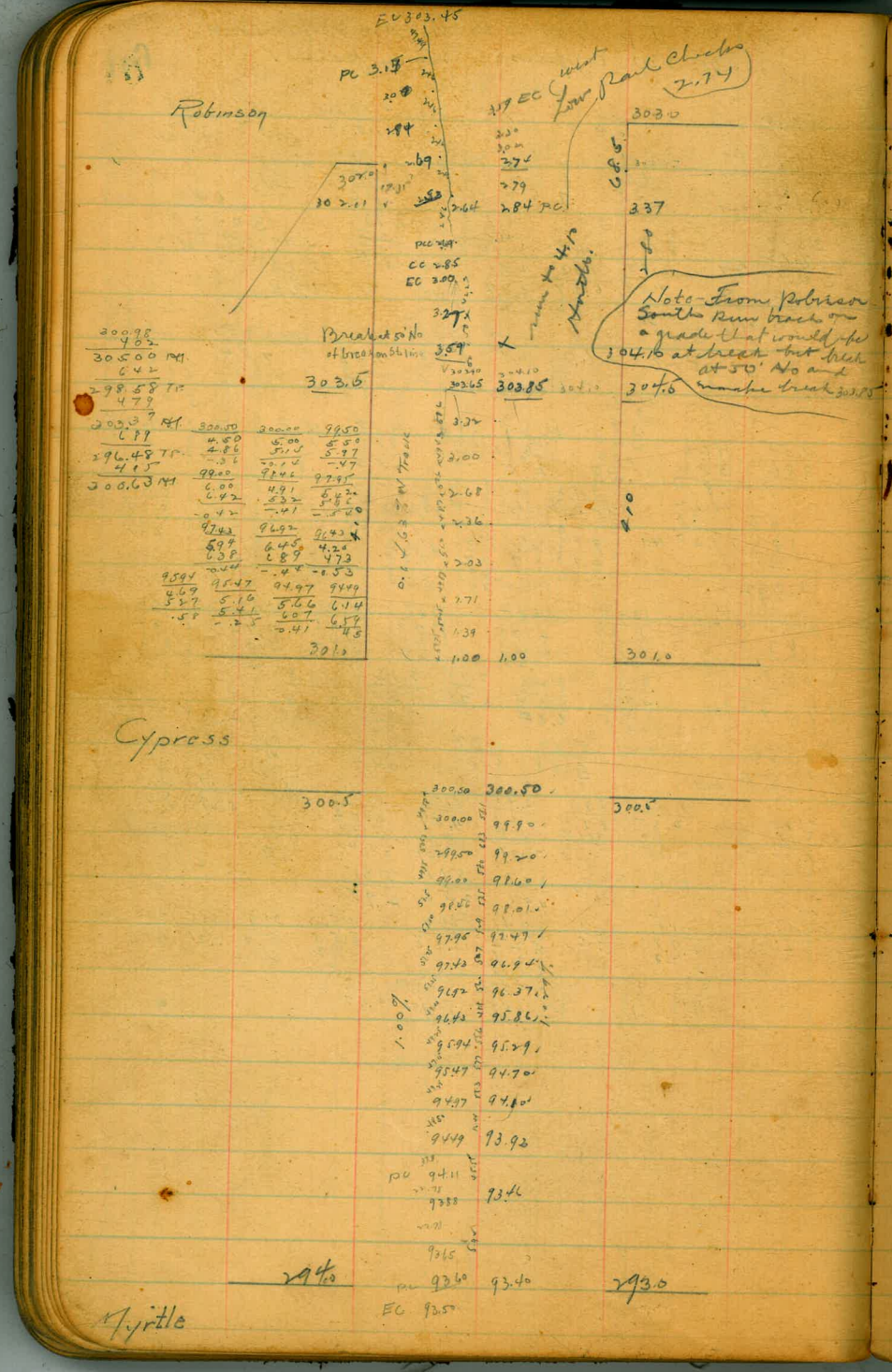


179.59.60
36 02 30
2) 143.57.30
71-08-45

6283185
.5815
9454
.635457
55
3177285
3177285
34950135



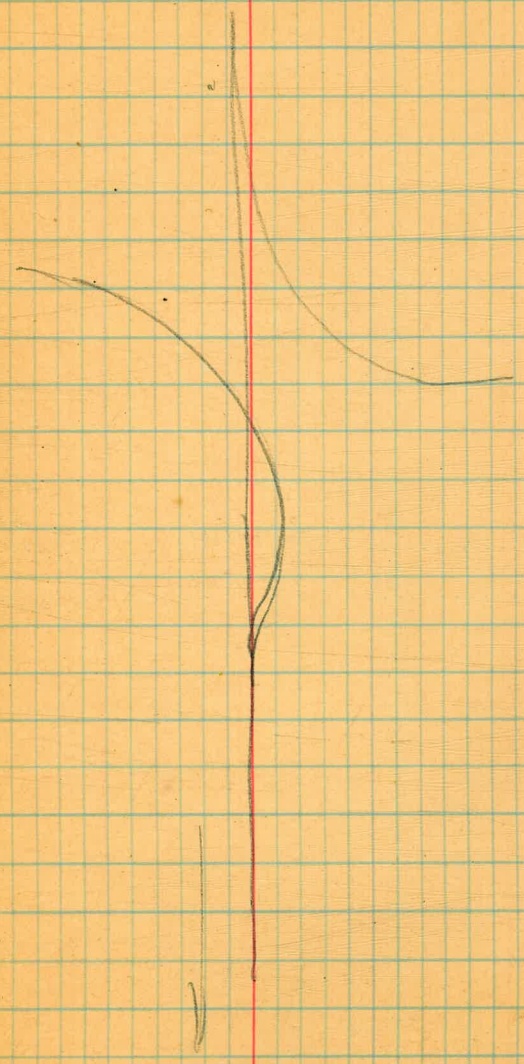
318.32 – Top Hydt S.E Univ Ave & Univ Blvd.
300.98 SW Cypress - Nail & pole.

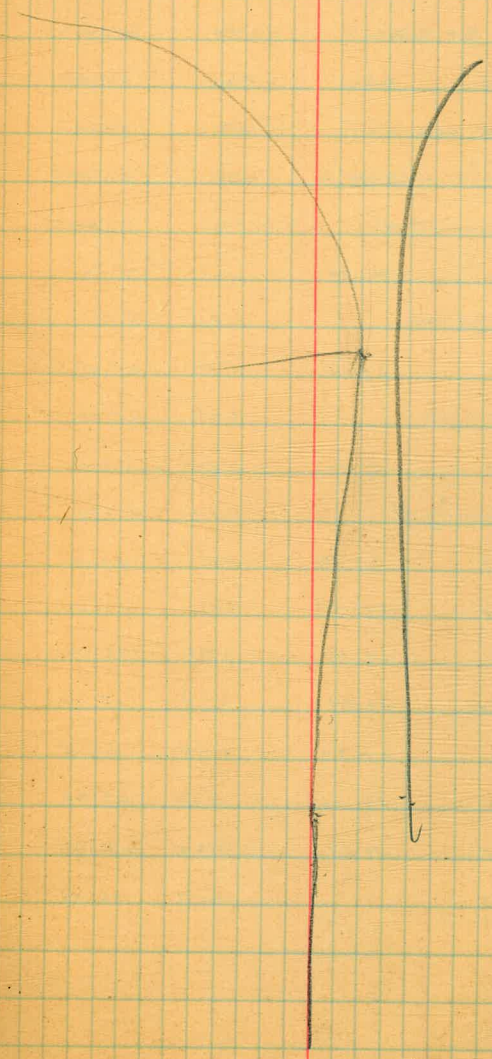


303.18 P/g S.E Rob & Ind.

295.28 Marked bolt ~~Top Hydt~~ Ind & Myrtle (295.42 = Ry Co's Elev) Top Hydt

303.18
5.57
308.75 HI
300.98
462
305.90 HI
4.29
304.95 HI
298.39 TP
300.44
5.20
295.24
303.18
466
307.84 HI
308.09
308.09
474
303.35
5.20
67
4.53
65
5.18
502
453
-49
305.04 HI
297.95 TP
301.92 HI
294.84 TP
400
298.84 HI
4.88
5.09
303.18
308.27 HI
95.42 Run Top Hydt
97.39 HI





BMs on 28th St. Univ to Park

	+	Ht.	−	Elev.
	4.62	50.67		46.05 BM NW Univ & Idaho
T.P	4.35	49.52	5.50	45.17
BM N.E Wightman Spk Pole			3.99	45.53
T.P	4.34	48.21	5.68	43.87
BM N.E Gunn Spk. pole			4.61	43.60
BM S.E Landis-West 2.52 on 7' 1st C.T. 44.73			6.00	42.21
B.M. N.E Landis E Brass Plg rt.			3.26	41.47
T.P	2.30	41.03	6.00	38.73
B.M. N.E Drought Spk Pole			3.92	37.11
T.P.	3.48	39.05	5.46	35.57
BM N.E Capps Spk. pole			3.79	35.26
T.P.	4.05	37.40	5.70	33.35
B.M. N.E Myrtle Brass Plg Rt			4.97	32.43
T.P.	3.43	34.53	6.30	31.10
BM Top Hydt S.E Upas	3.43	34.44	3.52	31.01
TP	4.70	34.56	4.58	29.86
T.P.	3.42	30.84	7.12	27.42
T.P.	6.81	30.20	6.45	24.39
T.P	7.32	34.52	3.00	27.20
T.P.	6.35	38.65	2.22	32.30
B.M. Man S.E 30 Capps			2.07	36.58

	6.38	52.43		46.05 NW Univ Idaho
T.P	3.055	49.365	6.12	46.31
T.P.	3.01	47.17	5.205	44.160
T.P	2.17	45.19	4.15	43.02
T.P.	3.90	43.55	5.54	39.65
T.P	3.00	42.80	3.75	39.80
	4.305	41.045	6.06	36.74
			4.42	36.625

37.28
5.63
31.97
4.42
36.69

# of Length	Inc	Elev A	Elev B
# 5 11.02 (Hor length)	24°30'	60.57	60.41
11.03	23°10'	65.29	65.13
2.25	20°35'	66.13	65.97
5.65	18°25'	68.01	67.85
2.88	16.05	68.84	68.68
6.77	14°35'	70.62	70.46
5.87	12°45'	71.94	71.78
5.89	10°55	73.08	72.92
	8°07'	75.15	

55.43
8.23
63.66 HI
7.85
61.81 T.P.
7.79
69.60 HI
4.22
65.38 T.P.
10.99
76.37 HI

49.58
50.63
49.95
52.50
51.00
51.75
51.35
49.00
49.25
47.15
49.25
48.50

60.41
3.25
55.43
12.52
67.95 HI
8.82
59.13 T.P.
12.82
71.95 HI
6.91
65.04 T.P.
12.67
77.71 HI

65.13 / 4.47 — 65.97 / 3.63 — 67.85 / 8.52
60.57
7.38

65.29 / 6.66 — 66.13 / 5.82 — 67.85 / 9.86 / 9.70
71.78
5.93

73.08
71.78
1.30

68.68 / 9.03 — 70.46 / 7.25
75.15
73.08
2.07

300.50
4958
300.0042
5063
299.4979
4995
98.9984
5350
98.4634
5100
97.9534
5175
97.4359
5135
96.9224
4900
96.4324
4925
95.9399
4715
95.4684
4925
94.9759
4850
94.4909

No. of pipe length	Inclination	Hor. dist	Vert dist	Elev A	Elev B
1	16°30'	11.51		42.91	42.75
2	18°18'	11.48	3.76	46.67	46.51
3	20°06'	11.36	4.13	50.80	50.64
4	21°54'	11.22	4.47	55.27	55.11
5	20°25'	11.24	4.19	59.46	59.30
6	18°37'	11.37	3.83	63.29	63.13
7	16°49'	11.48	3.47	66.76	66.60
8	15°01'	11.59	3.12	69.88	69.72
9	13°13'	11.67	2.75	72.63	72.47
10	11°25'	11.76	2.37	75.00	74.84
11	9°37'	11.83	2.01	77.01	76.85
12	7°49'	11.88	1.60	78.61	78.45
13	5°13'	4.15±	0.40	79.01	
14	3°15		0.68		

46.81
12.95
59.76 HI
4.54
55.22 T.P.
8.27
63.49 HI
.806
55.43 T.P. Bent 2
6.95
62.38 HI

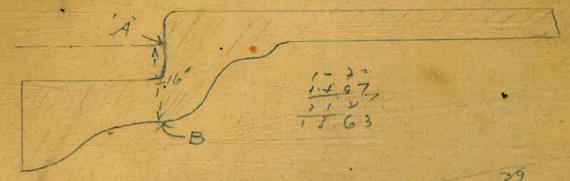
46.51 / 13.25 — 50.80 / 8.96 — 55.27 / 4.49 / 8.22

6.89 = on end last joint
55.49
55.55

1.500 | 6.28
1434
666
478
1820
1912

628
175
3140
3146
439
628
.109900

265.57 B.M. Mon. N.W. Ala. & Univ. 246.81 T.P. pier
315



1.32
14.97
21.2
18.63

7.38
94
6.44

8.33
4.22
4.11 = 22°21'

82.3 .6000 .729
5761
2390
1646
7440
7417

08.33
4165

.00309
7.35
1545
9.27
2163
.0227115

.0212 .00729

17.35
.00309
15615
5205
.0536115

17.35

5.82
36.01
36.44
9.27

3 | 1.10

18.2
18.4
18
23.7
18.3

155
11
139

783 .6000 .766
5481
5190
4698
4920
4998

1095 2320 21
2190
1360
1095
2550

94.90
1815
95.0815
1379
95.2194
1395
95.3589
1294
95.4903

40
2.5
1.5

.00766
182
1532
6128
766
.13788

.00766
23.7
5362
2298
1532
.181542

1.81
2.40
3.3

655

1390 | 2.12
1310
800
655
1450

365
2.12
730
365
730
7.738

301.60
7.74
309.3

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO.
CALIFORNIA.

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Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

MINUTES.	LKS.	MINUTES.	LKS.	MINUTES.	LKS.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	32⅔	34	79⅓	54	126
15	35	35	81⅔	55	128⅓
16	37⅓	36	84	56	130⅓
17	39⅔	37	86⅓	57	133
18	42.	38	88⅔	58	135⅓
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS
°		°		°		°	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07