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400
LEVEL

F.B. 377

Cooker Quality

Published by H. S. CROCKER COMPANY, Stationers, Drawing Materials, and Mathematical Instruments, San Francisco.

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

MICROFILMED DEC 7 1964

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

Crocker Quality

LEVEL BOOK

No. 400

COMMUNI CONSENSU PRIMO

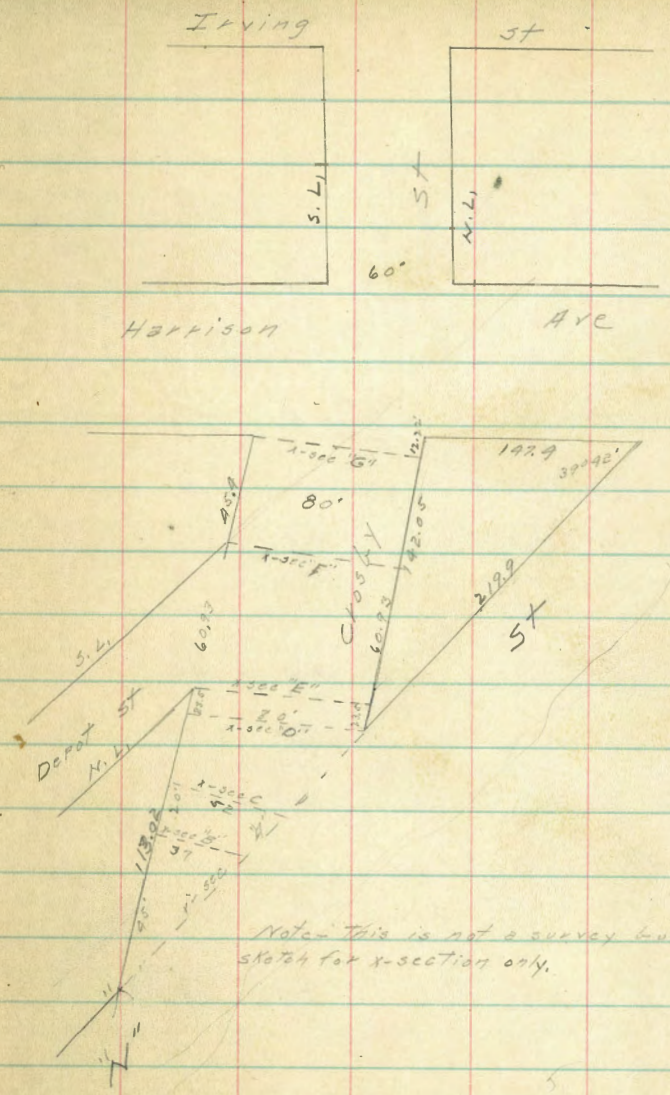
MANUFACTURED BY

H. S. Crocker Co.

SAN FRANCISCO
and
SACRAMENTO

x-section Crosby St S.L."N" St to R.R. St 1/9 Dewitt to Shaw Evans.

B.M. brass Plg N.W. 25th & "N" St				54.32
B.M.	2.04	56.36		
x-sec "A" = S.L."N" St.				
S			5.6	50.8
crb			5.1	51.3
1/4			3.8	52.6
N			4.2	52.2
1/4			4.4	52.0
crb			5.3	51.1
N			7.5	48.9
x-sec "B"				
S			7.5	48.9
crb			7.2	49.2
1/4			4.7	51.7
+10 = N.L."N" St.			4.2	52.2



Note - This is not a survey but a sketch for x-section only.

56.36

X-sec "C"

S	7.8	48.6
crb	8.0	48.4
"4	6.5	49.9
M	4.9	51.5
+12 = N.L. "X"	4.4	52.0

X-sec "D"

N	7.5	48.9
crb	8.0	48.4
"4	8.3	48.1
M	8.6	47.8
+5	8.4	48.0
4	6.2	50.2
+4	8.3	48.1
crb	8.9	47.5
S	8.4	48.0

56.36

X-section "E" = N.L. Depot or Pueblo St

S	8.8	47.6
crb	9.6	46.8
+11	9.0	47.4
"4	7.6	48.8
+4	6.3	50.1
+11	9.1	47.3
M	9.3	47.1
"4	9.7	46.7
crb	10.2	46.2
N	10.2	46.2

N. crb

N	9.7	46.7
crb	9.7	46.7
"4	10.3	46.1
M	9.5	46.9
+6	6.8	49.6
"4	9.3	47.1
crb	9.8	46.6
+3	9.8	46.6
+5	8.9	47.5
S	8.4	48.0

56.36

N ¼

S	9.0	47.4
+ 10	8.9	47.5
+ 12	9.8	46.6
crb	9.8	46.6
¼	9.6	46.8
+7 = top 15" sewer	7.9	48.5
M	10.3	46.1
¼	9.8	46.6
crb	9.6	46.8
N	9.8	46.6

Center

N	9.4	47.0
crb	9.6	46.8
¼	10.0	46.4
+ 9	9.6	46.8
M	8.8	48.4
+ 5	7.4	49.0
+ 8	10.1	46.3
¼	10.3	46.1
crb	9.6	46.8
+ 3	9.6	46.8
+ 5	9.0	47.4
S	9.8	46.6

56.36

S ¼

S	7.9	48.5
+10	8.3	48.1
+12	9.8	46.6
crb	10.0	46.4
¼	9.1	47.3
+ 2	8.7	47.7
-8	6.7	49.7
M	8.3	48.1
+ 3	9.4	47.0
¼	9.7	46.7
crb	9.5	46.9
N	9.2	47.2

S. curb

N	9.8	46.6
crb	9.4	47.0
¼	9.4	47.0
+11	9.0	47.4
M	8.0	48.4
+ 4	6.5	49.9
+10	8.2	48.2
¼	8.5	47.9
crb	9.1	47.3
+ 2	8.2	48.2
S	7.6	48.8

56.36

1-sec "F" = S.L. Depot St.

S	5.8	50.6	
+7	6.3	50.1	
+8	7.3	49.1	
crb	8.2	48.2	
1/4	8.5	47.9	
+7	7.9	48.5	
+11	6.5	49.9	
M	6.8	49.6	
+3	9.0	47.4	
1/4	9.1	47.3	
crb	9.1	47.3	
N	9.5	46.9	

0+75 W of "F"

N	9.9	46.5	
crb	8.9	47.5	
1/4	8.7	47.7	
+8	8.3	48.1	
M	6.6	49.8	
+3	7.6	48.8	
1/4	6.8	49.6	
crb	7.0	49.4	
+9	7.0	49.4	
+10	4.4	52.0	
S	4.3	52.1	

56.36

1-sec "G"

S	3.4	53.0	
crb	4.9	51.5	
1/4	5.5	50.9	
M	6.6	49.8	
1/4	8.1	48.3	
crb	8.5	47.9	
N	9.5	46.9	

E.L. Harrison Graded 100' wide

N	3.9	52.5	
crb	4.3	52.1	
1/4	3.8	52.6	
M	3.5	52.9	
1/4	4.1	52.3	
crb	3.6	52.8	
S	3.4	53.0	
T.P. 7.11	61.64	1.83	54.53

61.64

W. L. Harrison

S	7.8	53.8
+1	8.5	53.1
Crb	8.1	53.5
11A	8.1	53.5
M	8.3	53.3
11A	7.8	53.8
Crb	8.0	53.6
N	8.7	52.9

0+25 N

N	8.0	53.6
+4	7.3	54.3
Crb	7.0	54.6
11A	6.5	55.1
M	6.8	54.8
11A	6.6	55.0
+1	7.2	54.4
Crb	7.0	54.6
+9	7.3	54.3
S	6.8	54.8

61.64

0+50

S	6.1	55.5
+2	6.9	54.7
Crb	6.6	55.0
+3	6.5	55.1
11A	5.9	55.7
M	6.4	55.2
11A	6.2	55.4
Crb	6.5	55.1
+6	7.0	54.6
+7	7.5	54.1
N	7.7	53.9

0+75

N	6.6	55.0
Crb	6.4	55.2
11A	5.8	55.8
M	6.1	55.5
+9	5.8	55.8
11A	6.5	55.1
Crb	6.7	54.9
+9	6.2	55.4
S	5.1	56.5

61.64

1+0

S	4.7	56.9
+1	5.8	55.8
Crk	6.5	55.1
1/4	6.3	55.3
+2	5.6	56.0
M	6.0	55.6
1/4	5.8	55.8
Crk	6.4	55.2
N	6.5	55.1

1+25

N	6.4	55.2
Crk	6.1	55.5
1/4	5.7	55.9
M	5.7	55.9
+8	5.4	56.2
1/4	6.4	55.2
Crk	6.5	55.1
+9	5.8	55.8
S	4.6	57.0

61.64

1+50

S	4.6	57.0
Crk	4.9	56.7
1/4	5.6	56.0
+3	5.0	56.6
M	5.3	56.3
1/4	5.5	56.1
Crk	5.8	55.8
N	6.0	55.6

1+75

N	6.0	55.6
Crk	5.8	55.8
1/4	5.6	56.0
M	5.5	56.1
1/4	5.0	56.6
Crk	4.6	57.0
S	4.2	57.4

61.64

2+0

S	4.3	57.3
Crb	4.6	57.0
1/4	4.8	56.8
M	5.4	56.2
1/4	5.5	56.1
Crb	5.6	56.0
N	5.6	56.0

2+25

N	5.7	55.9
Crb	5.3	56.3
1/4	5.2	56.4
M	5.2	56.4
1/4	4.6	57.0
Crb	4.4	57.2
S	4.2	57.4

61.64

2+50

S	4.2	57.4
Crb	4.3	57.3
1/4	5.2	56.4
M	5.5	56.1
1/4	5.2	56.4
Crb	5.4	56.2
N	5.5	56.1

2+75

N	5.8	55.8
Crb	5.5	56.1
+3	5.4	56.2
+5	6.0	55.6
1/4	6.1	55.5
M	5.9	55.7
1/4	5.7	55.9
+8	5.3	56.3
Crb	4.6	57.0
S	4.5	57.1

61.64

3+0 = E.L. Irving st Graded 80' wide

S	4.4	57.2
crb	4.8	56.8
+ 2	5.6	56.0
"4	6.1	55.5
N	6.3	55.3
"4	6.4	55.2
crb	6.0	55.6
N	5.7	55.9

W.L. Irving

N	6.3	55.3
crb	6.6	55.0
"4	7.3	54.3
N	7.4	54.2
"4	7.3	54.3
crb	7.3	54.3
S	7.0	54.6

61.64

0+25 W

S	7.0	54.6
crb	7.6	54.0
"4	7.6	54.0
N	7.7	53.9
"4	7.6	54.0
crb	6.6	55.0
N	6.5	55.1

0+50

N	7.4	54.2
crb	7.8	53.8
"4	8.1	53.5
N	8.3	53.3
"4	8.4	53.2
crb	8.2	53.4
S	7.4	54.2

		61.64			
		0+75			
S			7.7	53.9	
crb			8.4	53.2	
"a			8.4	53.2	
M			8.3	53.3	
"a			8.3	53.3	
crb			8.4	53.2	
N			8.0	53.6	
		1+0			
N			8.4	53.2	
crb			8.6	53.0	
"a			8.7	52.9	
M			8.5	53.1	
"a			8.1	53.5	
crb			8.1	53.5	
S			7.9	53.7	

		61.64			
		1+25			
S			8.2	53.4	
crb			8.5	53.1	
"a			8.5	53.1	
M			8.6	53.0	
"a			8.8	52.8	
crb			8.8	52.8	
N			8.1	53.5	
		1+50			
N			8.6	53.0	
crb			8.7	52.9	
"a			8.8	52.8	
M			8.8	52.8	
"a			8.6	53.0	
crb			8.2	53.4	
S			8.0	53.6	
T.P.	2.81	56.80	7.65	53.99	

56.80

1+75

S	2.4	54.4
Crb	2.5	54.3
1/4	2.8	54.0
M	3.4	53.4
1/4	4.0	52.8
Crb	4.1	52.7
N	4.2	52.6

2+0

N	3.9	52.9
Crb	3.9	52.9
1/4	3.7	53.1
M	3.4	53.4
1/4	2.7	54.1
Crb	2.4	54.4
S	2.7	54.1

56.80

2+25

S	3.1	53.7
Crb	3.3	53.5
1/4	3.3	53.5
M	3.5	53.3
1/4	3.5	53.3
Crb	3.6	53.2
N	3.2	53.6

2+50

N	3.7	53.1
Crb	3.9	52.9
1/4	3.8	53.0
M	4.1	52.7
1/4	3.8	53.0
Crb	3.2	53.6
S	2.9	53.9

56.80

2+75

S	3.3	53.5
Crb	3.4	53.4
1/4	3.9	52.9
N	4.2	52.6
1/4	4.1	52.7
Crb	4.2	52.6
N	4.0	52.8

3+0 = E.L. Julian st Graded 80' wide

N	4.4	52.4
Crb	4.2	52.6
+2	4.8	52.0
1/4	4.8	52.0
N	4.2	52.6
1/4	4.5	52.3
Crb	4.0	52.8
S	3.6	53.2

56.80

W.L. Julian

S	4.4	52.4
Crb	4.5	52.3
1/4	5.1	51.7
N	4.8	52.0
1/4	5.0	51.8
Crb	5.4	51.4
N	5.2	51.6

0+25 W

N	5.6	51.2
Crb	5.7	51.1
1/4	5.4	51.4
N	5.7	51.1
1/4	5.5	51.3
Crb	5.0	51.8
S	4.6	52.2

56.80

0+50

S	5.8	51.0
crk	6.0	50.8
1/4	6.3	50.5
M	6.3	50.5
1/4	6.2	50.6
crk	6.2	50.6
N	5.9	50.9

0+75

N	6.1	50.7
crk	6.2	50.6
1/4	6.7	50.1
M	6.7	50.1
1/4	6.6	50.2
crk	6.7	50.1
S	6.5	50.3

56.80

1+0

S	6.0	50.8
crk	6.7	50.1
1/4	6.8	50.0
M	6.9	49.9
1/4	6.8	50.0
crk	6.7	50.1
N	6.7	50.1

1+25

N	6.8	50.0
crk	6.7	50.1
+3	7.1	49.7
1/4	6.9	49.9
M	6.9	49.9
1/4	6.6	50.2
crk	6.9	50.4
S	5.9	50.9

	56.80		
	1+50		
S		5.4	51.4
crb		5.8	51.0
11A		6.2	50.6
+8		6.3	50.5
M		6.9	49.9
11A		7.1	49.7
+6		7.6	49.2
crb		6.9	49.9
N		7.3	49.5
	1+75		
N		7.3	49.5
crb		7.1	49.7
+5		7.5	49.3
~~11A~~ 9		7.2	49.6
M		6.9	49.9
+3		6.0	50.8
11A		6.0	50.8
crb		5.6	51.2
S		5.1	51.7

	56.80		
	2+0		
S		5.2	51.6
crb		5.8	51.0
11A		6.4	50.4
+8		6.7	50.1
M		7.4	49.4
11A		7.7	49.1
+6		8.1	48.7
crb		7.7	49.1
N		7.9	48.9
	2+25		
N		8.3	48.5
crb		8.0	48.8
+2		8.4	48.4
11A		8.2	48.6
M		7.9	48.9
+2		7.4	49.4
11A		7.0	49.8
crb		6.2	50.6
S		5.7	51.1

56.80

2+50

S		6.7	50.1
crb		7.4	49.4
1/4		8.1	48.7
M		8.4	48.4
1/4		8.4	48.4
+ 8		8.7	48.1
crb		8.1	48.7
N		8.4	48.4

2+75

N		8.5	48.3
crb		8.5	48.3
+ 1		8.9	47.9
1/4		8.6	48.2
M		8.6	48.2
1/4		8.7	48.1
crb		8.4	48.4
S		7.9	48.9

56.80

3+0 = E.L. Kearney Graded 80' wide

S			7.6	49.2
crb			8.2	48.6
1/4			8.8	48.0
M			8.5	48.3
1/4			8.8	48.0
crb			8.3	48.5
N			7.5	49.3

W.L. Kearney

N			10.4	46.4
crb			10.5	46.3
1/4			10.5	46.3
M			10.3	46.5
1/4			10.4	46.4
crb			10.1	46.7
S			9.9	46.9
T.P.	2.20	49.38	9.62	47.18

	49.38		
	0+25 W of Kearney		
S		3.2	46.2
crb		3.5	45.9
1/4		3.5	45.9
M		3.6	45.8
1/4		3.9	45.5
crb		3.6	45.8
N		3.5	45.9
	0+50		
N		4.1	45.3
crb		4.3	45.1
1/4		4.1	45.3
M		4.0	45.4
1/4		4.0	45.4
crb		4.0	45.4
S		3.7	45.7

	49.38		
	0+75		
S		4.1	45.3
crb		4.2	45.2
1/4		4.4	45.0
M		4.3	45.1
1/4		4.3	45.1
crb		4.2	45.2
N		4.4	45.0
	1+0		
N		4.6	44.8
crb		4.6	44.8
1/4		4.6	44.8
M		4.7	44.7
1/4		4.6	44.8
crb		4.6	44.8
S		4.4	45.0

	49.38		
	1+25		
S		4.5	44.9
crb		4.4	45.0
1/4		4.7	44.7
M		4.8	44.6
1/4		4.7	44.7
crb		4.5	44.9
N		4.3	45.1
	1+50		
N		4.3	45.1
crb		4.6	44.8
1/4		4.7	44.7
M		5.0	44.4
1/4		4.9	44.5
crb		4.9	44.5
S		5.0	44.4

	49.38		
	1+75		
S		5.0	44.4
crb		5.0	44.4
1/4		4.8	44.6
M		4.8	44.6
1/4		4.7	44.7
crb		4.6	44.8
N		4.4	45.0
	2+0		
N		4.4	45.0
crb		4.6	44.8
1/4		4.6	44.8
M		4.7	44.7
1/4		4.8	44.6
crb		5.0	44.4
S		5.1	44.3

		49.38		
		2+75		
S			4.9	44.5
crb			4.8	44.6
"4			4.9	44.5
M			4.8	44.6
"4			4.7	44.7
crb			4.7	44.7
N			4.5	44.9
		2+50		
N			4.6	44.8
crb			4.6	44.8
"4			4.8	44.6
M			4.8	44.6
"4			4.9	44.5
crb			4.9	44.5
S			4.8	44.6

		49.38		
		2+75		
S			5.3	44.1
crb			5.3	44.1
"4			5.0	44.4
M			5.1	44.3
"4			5.0	44.4
crb			4.7	44.7
N			4.6	44.8
		3+0 = E.L. Logan		Paved 80'
N			5.6	43.8
crb			5.9	43.5
"4			5.9	43.5
M			5.8	43.6
"4			5.8	43.6
crb			5.5	43.9
S			5.3	44.1

49.38

W. Logan

S	6.2	43.2
crb	6.6	42.8
"A	6.8	42.6
M	6.9	42.5
"A	7.0	42.4
crb	6.7	42.7
N	6.5	42.9

0+25 W. of Logan

N	7.3	42.1
crb	7.1	42.3
"A	6.9	42.5
M	7.0	42.4
"A	7.2	42.2
+8	8.1	41.3
crb	6.3	43.1
S	6.6	42.8

49.38

0+50

S	6.6	42.8
crb	6.8	42.6
+ 3	8.7	40.7
"A	7.9	41.5
M	7.3	42.1
"A	7.0	42.4
crb	7.1	42.3
N	7.2	42.2

0+75

N	7.5	41.9
crb	7.4	42.0
"A	7.2	42.2
M	7.6	41.8
"A	8.3	41.1
+7	9.2	40.2
crb	6.7	42.7
S	6.5	42.9

		49.38						49.38			
		1+0						1+50			
S			6.8	42.6		S			6.8	42.6	
crb			6.7	42.7		crb			7.2	42.2	
+3			9.0	40.4		+4			9.5	39.9	
1/4			8.4	41.0		1/4			9.2	40.2	
M			7.8	41.6		M			8.5	40.9	
1/4			7.5	41.9		1/4			8.1	41.3	
crb			7.6	41.8		crb			8.1	41.3	
N			7.5	41.9		N			8.2	41.2	
		1+25						1+75			
N			7.6	41.8		N			8.4	41.0	
crb			7.8	41.6		crb			8.3	41.1	
1/4			7.8	41.6		1/4			8.4	41.0	
M			8.2	41.2		M			8.8	40.6	
1/4			8.8	40.6		1/4			9.8	39.6	
+7			9.5	39.9		+4			10.0	39.4	
crb			7.1	42.3		+8			7.6	41.8	
						crb			7.6	41.8	
S			7.1	42.3		S			7.3	42.1	
						T.P.	4.43	44.94	8.87	40.51	

44.94

2+0

S	3.2	41.7
crb	3.0	41.9
+5	3.0	41.9
1/4	5.6	39.3
M	4.7	40.2
1/4	4.2	40.7
crb	3.9	41.0
N	3.9	41.0

2+25

N	4.3	40.6
crb	4.3	40.6
1/4	4.6	40.3
M	5.1	39.8
1/4	5.8	39.1
+2	2.7	42.2
crb	3.4	41.5
S	3.6	41.3

44.94

2+50

S	3.3	41.6
crb	3.9	41.0
+7	3.9	41.0
1/4	6.5	38.4
M	5.6	39.3
1/4	5.1	39.8
crb	5.0	39.9
N	5.1	39.8

2+75

N	5.1	39.8
crb	5.6	39.3
1/4	5.8	39.1
M	6.3	38.6
1/4	6.3	38.6
+3	3.7	41.2
crb	3.7	41.2
S	3.5	41.4

44.94

3+0 = E.L. National graded 80' wide

S			3.4	41.5
crb			3.6	41.3
+7			4.2	40.7
W/A			6.9	38.0
M			6.9	38.0
W/A			6.7	38.2
Crb			6.0	38.9
N.			5.3	39.6
T.P	2.52	40.57	6.89	38.05

W.L. National

N			3.5	37.1
crb			3.7	36.9
W/A			3.9	36.7
M			3.8	36.8
W/A			3.7	36.9
Crb			3.6	37.0
S			3.4	37.2

40.57

0+25 N

S			3.4	37.2
crb			3.8	36.8
W/A			3.9	36.7
M			3.9	36.7
W/A			3.9	36.7
Crb			4.1	36.5
N			3.9	36.7

0+50

N			4.0	36.6
crb			4.2	36.4
W/A			4.1	36.5
M			4.0	36.6
W/A			4.0	36.6
crb			4.0	36.6
S			3.6	37.0

	40.57		
	0+75		
S		3.5	37.1
crb		4.2	36.4
"4		4.2	36.4
M		4.1	36.5
"4		4.1	36.5
crb		4.0	36.6
N		3.7	36.9
	1+0		
N		3.8	36.8
crb		4.0	36.6
"4		4.2	36.4
M		4.1	36.5
"4		4.2	36.4
crb		4.2	36.4
S		4.1	36.5

	40.57		
	1+25		
S		4.1	36.5
crb		4.5	36.1
"4		4.5	36.1
M		4.6	36.0
"4		4.3	36.3
crb		4.1	36.5
N		4.0	36.6
	1+50		
N		4.2	36.4
crb		4.3	36.3
"4		4.5	36.1
M		4.8	35.8
"4		4.8	35.8
crb		4.8	35.8
+1		4.3	36.3
S		4.5	36.1

40.57

1+75

S	4.5	36.1
Crb	4.8	35.8
+1	5.5	35.1
1/4	5.4	35.2
M	5.2	35.4
1/4	4.9	35.7
Crb	4.8	35.8
N	4.7	35.9

2+0

N	5.1	35.5
Crb	5.2	35.4
1/4	5.4	35.2
M	5.7	34.9
1/4	5.8	34.8
+9	5.9	34.7
+9	5.0	35.6
Crb.	5.0	35.6
S	5.1	35.5

40.57

2+25

S	5.4	35.2
Crb	5.5	35.1
+1	5.5	35.1
+1	6.3	34.3
1/4	6.1	34.5
M	5.9	34.7
1/4	5.9	34.7
Crb	5.7	34.9
N	5.6	35.0

2+50

N	6.1	34.5
Crb	6.3	34.3
1/4	6.3	34.3
M	6.3	34.3
1/4	6.6	34.0
+9	6.7	33.9
+9	6.1	34.5
Crb	6.1	34.5
S	6.2	34.4

40.57

2+75

S	6.4	34.2
Crb	6.2	34.4
+1	6.2	34.4
+1	7.2	33.4
11/4	7.0	33.6
M	6.9	33.7
11/4	7.1	33.5
Crb	6.8	33.8
N	6.6	34.0

3+0 = E.L. Newton being graded 80 wide

N	7.2	33.4
Crb	7.5	33.1
11/4	7.7	32.9
M	7.3	33.3
11/4	7.4	33.2
+9	7.6	33.0
+9	6.9	33.7
Crb	6.9	33.7
S	7.0	33.6

40.57

W.L. Newton

S	8.5	32.1
Crb	8.5	32.1
11/4	8.4	32.2
M	8.4	32.2
11/4	8.9	31.7
Crb	9.0	31.6
N	8.9	31.7

0+25 N

N	9.0	31.6
Crb	9.3	31.3
11/4	8.9	31.7
M	8.3	32.3
11/4	8.5	32.1
Crb	8.7	31.9
S	8.6	32.0

40.57

0+50

S	9.0	31.6
Cab	9.0	31.6
"A	9.0	31.6
N	9.0	31.6
"A	9.1	31.5
Cab	9.5	31.1
N	9.9	30.7

0+75

N	10.1	30.5
Cab	9.4	31.2
"A	9.5	31.1
N	9.4	31.2
"A	9.2	31.4
Cab	8.9	31.7
S	9.0	31.6

40.57

1+0

S	9.6	31.0
Cab	9.6	31.0
"A	9.7	30.9
N	9.7	30.9
"A	9.8	30.8
Cab	9.8	30.8
N	10.2	30.4

1+25

N	10.4	30.2
Cab	10.3	30.3
"A	10.1	30.5
N	10.0	30.6
"A	10.0	30.6
Cab	10.1	30.5
S	10.1	30.5

		40.57		
		1+50		
S			9.9	30.7
Crb			10.1	30.5
1/4			10.4	30.2
M			10.5	30.1
1/4			10.6	30.0
Crb			10.8	29.8
N			10.9	29.7
		1+75		
N			11.7	28.9
Crb			11.6	29.0
1/4			11.5	29.1
M			11.4	29.2
1/4			11.3	29.3
Crb			11.3	29.3
S			11.3	29.3
T.P.	1.86	31.32	11.11	29.46

		31.32		
		2+0		
S			1.9	29.4
Crb			2.3	29.0
1/4			2.6	28.7
M			2.8	28.5
1/4			3.4	27.9
Crb			3.4	27.9
N			3.3	28.0
		2+25		
N			4.4	26.9
Crb			4.0	27.3
1/4			3.9	27.4
M			3.7	27.6
1/4			3.4	27.9
Crb			3.2	28.1
S			3.1	28.2

31.32

2+50

S		3.5	27.8
Crb		3.8	27.5
"4		4.1	27.2
M		4.2	27.1
"4		4.8	26.5
Crb		4.9	26.4
N		5.3	26.0

2+75

N		5.6	25.7
Crb		5.6	25.7
"4		5.5	25.8
M		5.5	25.8
"4		5.0	26.3
Crb		4.9	26.4
S		4.6	26.7

31.32

3+0 = E.L. Main st graded 80'

S			5.5	25.8
Crb			5.6	25.7
"4			5.9	25.4
M			6.0	25.3
"4			6.1	25.2
Crb			6.3	25.0
N			6.7	24.6

W.L. Main

N			9.1	22.2
Crb			9.1	22.2
"4			9.4	21.9
M			8.9	22.4
"4			9.0	22.3
Crb			8.6	22.7
S			8.3	23.0
T.P.	2.17	2AA3	9.06	22.26

24.43

0+25 N

S	1.6	22.8
Crb	1.3	23.1
"4	1.4	23.0
N	2.4	22.0
"4	2.8	21.6
Crb	2.7	21.7
N	3.1	21.3

0+50

N	3.7	20.7
Crb	3.6	20.8
"4	3.4	21.0
N	3.2	21.2
"4	2.6	21.8
Crb	2.6	21.8
S	3.2	21.2

24.43

0+75

S	3.8	20.6
Crb	3.9	20.5
"4	3.9	20.5
N	3.9	20.5
"4	3.6	20.8
Crb	3.7	20.7
N	4.1	20.3

1+0

N	5.0	19.4
Crb	4.7	19.7
"4	4.7	19.7
N	4.6	19.8
"4	4.5	19.9
Crb	4.6	19.8
S	4.7	19.7

24.43

1+25

S	5.4	19.0
Crb	5.4	19.0
1/4	5.4	19.0
N	5.2	19.2
1/4	5.4	19.0
Crb	5.2	19.2
N	5.4	19.0

1+50

N	5.7	18.7
Crb	5.7	18.7
1/4	5.8	18.6
N	5.3	19.1
1/4	5.4	19.0
Crb	5.2	19.2
S	5.2	19.2

24.43

1+75

S	5.9	18.5
Crb	5.9	18.5
1/4	6.0	18.4
N	5.9	18.5
1/4	6.9	17.5
Crb	6.6	17.8
N	6.4	18.0

2+0

N	7.3	17.1
Crb	8.2	16.2
1/4	8.3	16.1
N	7.4	17.0
1/4	7.5	16.9
Crb	7.6	16.8
S	7.6	16.8

24.43

2+05

S	7.4	17.0
Cob	7.7	16.7
"a	7.2	17.2
N	8.6	15.8
"a	8.5	15.9
Cob	8.4	16.0
N	7.1	17.3

2+07

N	9.2	15.2
Cob	8.5	15.9
"a	8.6	15.8
N	8.6	15.8
"a	9.2	15.2
Cob	9.1	15.3
S	9.0	15.4

24.43

2+26^{6} = 2' E of rail, S.D.&A.R.R.

S	9.3	15.1
Cob	9.4	15.0
"a	9.3	15.1
N	8.7	15.7
"a	8.4	16.0
Cob	8.4	16.0
N	9.1	15.3

2+28^{6} = E. rail S.D.&A.R.R.

N	8.5	15.9
Cob	8.5	15.9
"a	8.5	15.9
N	8.5	15.9
"a	8.5	15.9
Cob	8.4	16.0
S	8.4	16.0

24.43

2+34.9 = 2' W of W. rail

S	9.2	15.2
Crb	9.3	15.1
W	9.2	15.2
N	8.6	15.8
W	8.5	15.9
Crb	8.5	15.9
N	9.3	15.1

2+50

N	9.5	14.9
Crb	8.8	15.6
W	8.8	15.6
N	8.9	15.5
W	8.9	15.5
Crb	8.5	15.9
S	8.5	15.9

24.43

2+75

S	9.5	16.9
Crb	7.7	16.7
W	7.9	16.5
N	8.7	15.7
W	8.8	15.6
Crb	8.8	15.6
N	8.6	15.8

3+0 = E.L. Pierce Hyc 80'

N	8.9	15.5
Crb	8.9	15.5
W	9.2	15.2
N	9.3	15.1
W	9.3	15.1
Crb	8.8	15.6
S	8.8	15.6

24.43

E. curb

S	8.8	15.6
crb	9.1	15.3
W/A	9.6	14.8
M	9.5	14.9
W/A	9.2	15.2
crb	9.1	15.3
N	9.2	15.2

E W/A

N	9.2	15.2
crb	9.3	15.1
W/A	9.7	14.7
M	9.4	15.0
W/A	9.7	14.7
crb	9.8	14.6
S	9.8	14.6

24.43

Center

S	9.8	14.6
crb	9.9	14.5
W/A	9.9	14.5
M	9.8	14.6
W/A	9.8	14.6
crb	9.7	14.7
N	9.6	14.8

W W/A

N	9.8	14.6
crb	9.8	14.6
W/A	9.8	14.6
M	10.0	14.4
W/A	10.1	14.3
crb	10.0	14.4
S	10.0	14.4

		24.43		
	W. Curb			
S			10.0	14.4
Crb			10.1	14.3
1/4			10.0	14.4
M			9.9	14.5
1/4			9.9	14.5
Crb			9.8	14.6
N			9.8	14.6
	W. L. Pierce			
N			9.9	14.5
Crb			10.1	14.3
1/4			10.3	14.1
M			10.4	14.0
1/4			10.6	13.8
Crb			10.7	13.7
S			10.7	13.7
T. P.	2.94	16.70	10.67	13.76

		16.70		
		0+25 W		
S			3.2	13.5
Crb			3.3	13.4
1/4			3.4	13.3
M			3.2	13.5
1/4			3.1	13.6
Crb			2.8	13.9
N			2.8	13.9
		0+50		
N			3.8	12.9
Crb			3.7	13.0
1/4			3.9	12.8
M			4.1	12.6
1/4			4.0	12.7
Crb			3.8	12.9
S			3.7	13.0

	16.70			
	0+75			
S		4.2	12.5	
Crb		4.3	12.4	
1/4		4.3	12.4	
M		4.4	12.3	
1/4		4.2	12.5	
Crb		4.1	12.6	
N		4.3	12.4	
	1+0			
N		5.2	11.5	
Crb		5.1	11.6	
1/4		5.0	11.7	
M		5.0	11.7	
1/4		5.1	11.6	
Crb		4.8	11.9	
S		4.7	12.0	

	16.70			
	1+25			
S		4.9	11.8	
Crb		5.2	11.5	
1/4		5.3	11.4	
M		5.5	11.2	
1/4		5.5	11.2	
Crb		5.5	11.2	
N		5.7	11.0	
	1+50			
N		6.0	10.7	
Crb		5.9	10.8	
1/4		5.9	10.8	
M		5.8	10.9	
1/4		5.9	10.8	
Crb		5.5	11.2	
S		5.4	11.3	

16.70

1+75

S	5.6	11.1
Crb	5.8	10.9
1/4	5.9	10.8
M	6.1	10.6
1/4	6.3	10.4
Crb	6.5	10.2
N	6.7	10.0

2+0

N	7.0	9.7
Crb	7.0	9.7
1/4	7.0	9.7
M	6.9	9.8
1/4	6.7	10.0
Crb	6.3	10.4
S	6.0	10.7

16.70

2+25

S	6.7	10.0
Crb	6.5	10.2
1/4	6.3	9.9
M	7.1	9.6
1/4	7.2	9.5
Crb	7.2	9.5
N	7.4	9.3

2+50

N	7.7	9.0
Crb	7.7	9.0
1/4	7.8	8.9
M	7.5	9.2
1/4	7.0	9.7
Crb	6.8	9.9
S	6.8	9.9

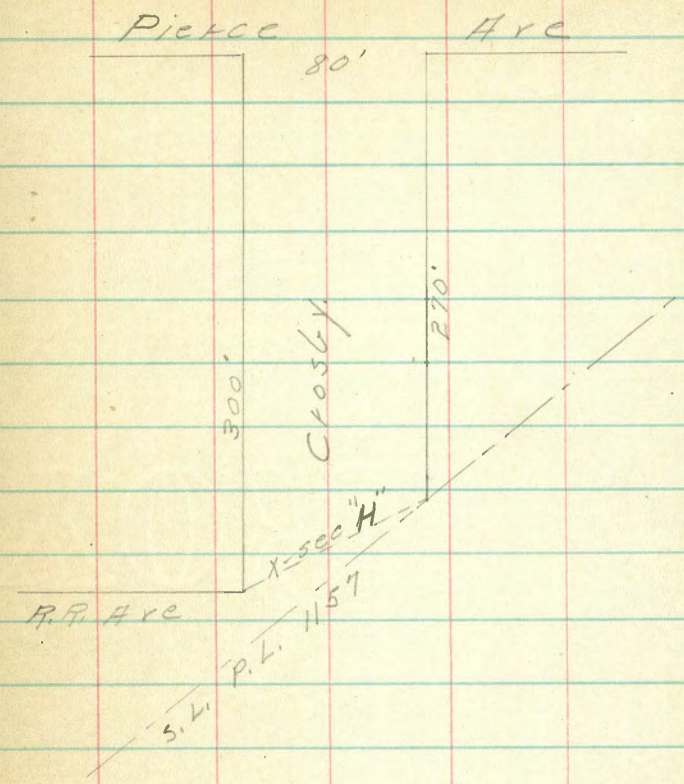
16.70

2+70 W of Pierce

S	7.3	9.4
crb	7.3	9.4
1/4	7.5	9.2
M	7.5	9.2
1/4	7.7	9.0
crb	8.0	8.7
N		

X-sec "H"

N	9.0	7.7
crb	8.8	7.9
1/4	8.6	8.1
M	8.4	8.3
1/4	7.9	8.8
crb	7.6	9.1
S	7.3	9.4



x-section 14th St "I" St to National Ave — 1/17 Dunkle
" 80' wide — 1/10 Shaw

B.M. brass plg	14th & "I" sts.			35.94	Evans.
B.M.	2.87	38.81			
	S.L. "I" St.				
W			3.3	35.5	
Crb			4.0	34.8	
1/4			3.9	34.9	
M			4.4	34.4	
1/4			4.8	34.0	
Crb			4.8	34.0	
E			4.9	33.9	
	0+25 S. of "I" St				
E			4.7	34.1	
Crb			4.8	34.0	
1/4			4.7	34.1	
M			4.3	34.5	
1/4			4.1	34.7	
Crb			4.0	34.8	
W			3.5	35.3	

Note – quarters are all taken 5' out from curb line

		38.81		
		0+50		
W			2.6	36.2
+2			3.4	35.4
Crb			4.0	34.8
1/4			4.2	34.6
M			4.5	34.3
1/4			5.2	33.6
Crb			5.2	33.6
E			5.5	33.3
		0+75		
E			6.2	32.6
+4			5.4	33.4
Crb			6.0	32.8
1/4			5.8	33.0
M			4.8	34.0
1/4			4.4	34.4
Crb			4.2	34.6
+8			3.9	34.9
W			2.1	36.7

38.81

1+0

W	2.3	36.5
Crb	3.6	35.2
"4	4.0	34.8
M	4.9	33.9
"4	6.1	32.7
Crb	6.0	32.8
+5	5.5	33.3
E	8.1	30.7

1+25

E	11.6	27.2
Crb	7.9	30.9
"4	5.9	32.9
M	4.7	34.1
"4	3.9	34.9
Crb	3.3	35.5
W	1.6	37.2

38.81

1+50

W	0.9	37.9
Crb	2.9	35.9
"4	3.8	35.0
M	4.7	34.1
+8	4.8	34.0
"4	9.8	29.0
Crb	12.9	25.9
E	17.2	21.6
+4	19.6	19.2
+15	20.2	18.6

1+75

−15	23.1	15.7
E = W.L. Conduit ditch	22.2	16.6
+4	20.3	18.5
+12	21.7	17.1
Crb	20.1	18.7
"4	18.7	20.1
+2	16.2	22.6
+15	17.6	26.2
M	8.8	30.0
+3	6.5	32.3
+14	7.7	31.1
+15	6.1	32.7
"4	5.4	33.4
Crb	3.6	35.2
+12	1.0	37.8
W	0.0	38.8

38.81

2+0

W			4.5	34.3
+5			5.7	33.1
cb			9.8	29.0
1/4			9.1	29.7
+6			9.6	29.2
T.P.	0.05	27.68	11.18	27.63
M			4.5	23.2
+5			5.1	22.6
+10			9.9	17.8
+19			9.8	17.9
1/4			11.3	16.4
+4			15.4	12.3
cb			15.4	12.3
+5			14.8	12.9
+12			9.9	17.8
E			9.9	17.8
+15			11.1	16.6
		2+25		
−15			11.5	16.2
E			9.9	17.8
+7			11.3	16.4
cb			11.0	16.7
1/4			15.2	12.5
+9			15.4	12.3
+10			11.9	15.8
+16			8.8	18.9
M			9.3	18.4
+6			9.3	18.4
+8			7.3	20.4
1/4			2.7	25.0
cb			0.1	27.6
+11			+0.6	28.3
W			+4.0	31.7

27.68

2+50

W			0.2	27.5
+6			0.6	27.1
cb			5.6	22.1
1/4			8.7	19.0
+4			10.4	17.3
+11			10.5	17.2
+14			8.5	19.2
M			13.0	14.7
+5			15.3	12.4
+15			13.9	13.8
1/4			10.0	17.7
cb			10.4	17.3
+8			8.6	19.1
E			8.8	18.9
+12			14.1	13.6
+20			11.8	15.9
		2+75		
−15			14.6	13.1
E			13.0	14.7
+5			12.9	14.8
cb			11.5	16.2
1/4			11.2	16.5
+6			9.4	18.3
+12			13.7	14.1
+16			15.3	12.4
M			15.4	12.3
+3			15.6	12.1
+5			8.9	18.8
+10			11.8	15.9
+19			11.7	16.0
1/4			10.9	16.8
cb			7.9	19.8
+2			6.2	21.5
+8			3.6	24.1
W			2.7	25.0

27.68

2+87

W	3.8	23.9
+8	4.3	23.4
crb	9.1	18.6
1/4	10.7	17.0
+6	11.5	16.2
+11	9.8	17.9
+15	13.7	14.0
M	15.7	12.0
+4	15.4	12.3
+14	10.3	17.4
1/4	12.2	15.5
crb	12.5	15.2
E	13.8	13.9
+15	13.7	14.0

3+0 = N.L. "J" st graded.

E	14.2	13.5
crb	14.3	13.4
1/4	14.3	13.4
+6	14.5	13.2
+11	15.5	12.2
M	15.6	12.1
+6	15.6	12.1
+6	5.0	22.7
1/4	4.6	23.1
crb	4.0	23.7
W	4.3	23.4

27.68

N.L. "J" st. two readings on N.B.S.L. of "J" account bridge

W	4.3	23.4
crb	4.0	23.7
1/4	4.6	23.1
M	5.5	22.2
1/4	5.7	22.0
crb	5.8	21.9
E	6.5	21.2

S.L. "J" st Top.

E	7.5	20.2
crb	6.6	21.1
1/4	6.6	21.1
M	7.0	20.7
1/4	7.0	20.7
crb	6.7	21.0
W	5.9	21.8

27.68

S.L. "J" St bottom

W			5.9	21.8
crb			6.7	21.0
"4			7.0	20.7
M			7.0	20.7
+2			6.7	21.0
+5			16.9	11.3
"4			15.0	12.7
crb			14.8	12.9
+9			14.6	13.1
E			11.1	16.6

0+25 S of "J" St

E			13.2	14.5
crb			13.3	14.4
"4			13.6	14.1
+5			12.9	14.8
+6			15.0	12.7
+10			16.7	11.0
M			15.9	11.8
+7			15.5	12.2
+8			11.1	16.6
"4			11.0	16.7
crb			10.9	16.8
+4			10.8	16.9
W			6.1	21.6
T.P.	6.20	22.85	11.03	16.65

22.85

0+50

W	4.8	18.1	
+5	7.1	15.8	
crb	7.4	15.5	
"4	7.0	15.9	
+3	7.0	15.9	
+4	9.7	13.2	
+9	11.5	11.4	
M	11.6	11.3	
+6	11.1	11.8	
+7	9.1	13.8	
+10	7.7	15.2	
+17	9.8	13.1	
"4	9.4	13.5	
crb	10.6	12.3	
E	8.1	14.8	

0+75

E	8.8	14.1	
+11	10.0	12.9	
crb	11.6	11.3	
"4	11.0	11.9	
+12	8.0	14.9	
+13	11.5	11.4	
M	11.5	11.4	
+18	10.8	12.1	
+19	7.6	15.3	
"4	7.6	15.3	
crb	8.2	14.7	
+4	7.6	15.3	
+5	6.5	16.4	
+10	5.7	17.2	
W	4.7	18.2	

22.85

1+0

W	6.1	16.8
+6	7.7	15.2
crb	8.5	14.4
114	8.6	14.3
+1	10.6	12.3
M	12.1	10.8
+8	12.2	10.7
+9	11.2	11.7
+11	8.9	14.0
114	9.9	13.0
crb	9.8	13.1
E	9.2	13.7

1.425

E.	10.1	12.8
crb	9.6	18.3
114	10.2	12.7
+13	9.1	13.8
+17	12.7	10.2
M	10.2	12.7
+15	11.6	11.3
+17	8.9	14.0
114	7.8	15.1
crb	7.0	15.9
+7	4.7	18.2
W	3.6	19.3

22.85

1+50

W.	4.2	18.7
crb	5.8	17.1
114	6.7	16.2
+13	8.2	14.7
+14	11.8	11.1
M	13.2	9.7
+9	13.0	9.9
+10	12.2	10.7
+12	9.2	13.7
114	9.0	13.9
crb	9.2	13.7
E	10.2	12.7

1+75

E	10.6	12.3
crb	10.0	12.9
114	10.2	12.8
+11	9.0	13.9
+14	11.6	11.3
+15	14.0	08.9
M	13.5	9.4
+6	12.6	10.3
+7	8.4	14.5
+11	8.3	14.6
+12	7.0	15.9
114	6.4	16.5
crb	6.0	16.9
W	4.3	18.6

22.85

2+0

W	5.4	17.5
crb	6.8	16.1
114	6.8	16.1
+7	7.9	15.0
+13	9.5	13.4
+15	13.5	9.4
M	13.7	9.2
+6	13.3	9.6
+7	12.2	10.7
+10	10.1	12.8
114	10.3	12.6
crb	10.5	12.4
E	10.9	12.0

2+25

E	10.9	12.0
crb	11.0	11.9
114	11.0	11.9
+12	10.6	12.3
+14	12.1	10.8
+15	13.3	9.6
M	13.8	9.1
+9	13.0	9.9
+10	9.8	13.1
+15	10.5	12.4
114	8.6	14.3
crb	7.1	15.8
W	6.0	16.9

42.85

2+50

W	6.8	16.1
+12	8.2	14.7
crb	8.7	14.2
114	10.6	12.3
+7	10.7	12.2
+14	13.8	9.1
M	13.9	9.0
+4	14.0	8.9
+9	10.3	12.6
114	11.1	11.8
crb	10.8	12.1
E	10.8	12.1

2+75

E	10.0	12.9
crb	11.0	11.9
114	11.0	11.9
+9	11.7	11.2
+11	13.0	9.9
+15	14.3	8.6
M	14.3	8.6
+8	13.6	9.3
+10	11.8	11.1
114	11.2	11.7
crb	9.7	13.2
+2	9.0	13.9
W	7.8	15.1

22.85 | 1/18/10 | Dunkle Shaw Evans

3+0 = N.L. "K" st bottom

W			8.4	14.5
crb			8.6	14.3
1/4			8.4	14.5
+5			8.9	14.0
+6			11.9	11.0
M			13.7	9.2
+1			14.8	8.1
+14			14.5	8.4
+15			8.4	14.5
1/4			7.8	15.1
crb			8.4	14.5
E			8.7	14.2

N.L. "K" st top

E			8.7	14.2
crb			8.4	14.5
1/4			7.8	15.1
M			7.5	15.4
1/4			8.4	14.5
crb			8.6	14.3
W			8.4	14.5
T.P.	4.40	18.64	8.61	14.24

18.64

S.L. "K" st top

W			4.9	13.7
crb			4.4	14.2
1/4			4.4	14.2
M			3.8	14.8
+16			3.8	14.8
+16			4.8	13.8
1/4			5.0	13.6
crb			5.0	13.6
E			4.9	13.7

S.L. "K" st bottom

E			4.9	13.7
crb			5.0	13.6
1/4			5.0	13.6
+5			5.3	13.3
+6			8.6	10.0
+10			11.2	9.4
+19			11.1	7.5
M			9.5	9.1
+13			8.0	10.6
+14			4.7	13.9
1/4			4.4	14.2
crb			4.4	14.2
W			4.9	13.7

18.64

0+25 S of K.

W	9.8	13.8
crb	5.7	12.9
1/4	7.2	11.4
+15	9.4	9.2
M	11.3	7.3
+7	11.6	7.0
+9	10.2	8.4
+15	8.8	9.8
+19	8.6	10.0
crb	8.6	10.0
E	8.3	10.3

0+50

E	8.5	10.1
crb	9.2	9.4
1/4	8.8	9.8
+8	9.4	9.2
+13	10.7	7.9
+14	11.5	7.1
M	11.6	7.0
+1	11.5	7.1
+5	9.5	9.1
1/4	8.9	9.7
crb	8.6	10.0
W	7.4	11.2

18.64

0+75

W	7.6	11.0
crb	8.8	9.8
1/4	9.2	9.4
+16	9.1	9.5
M	11.5	7.1
+8	11.4	7.2
+10	10.4	8.2
1/4	9.3	9.3
crb	9.4	9.2
E	8.8	9.8

1+0

E	8.8	9.8
crb	9.1	9.5
1/4	9.3	9.3
+4	10.1	8.5
+9	11.2	7.4
+19	11.5	7.1
M	10.6	8.0
1/4	9.6	9.0
crb	9.1	9.5
W	7.9	10.7

1864

1+25

W	8.2	10.4	
+7	8.6	10.0	
cab	9.6	9.0	
114	10.0	8.6	
17	10.2	8.4	
M	11.1	7.5	
+13	11.5	7.1	
+17	9.9	8.7	
114	9.7	8.9	
cab	9.7	8.9	
E	9.3	9.3	

1+50

E	9.5	9.1	
cab	10.0	8.6	
114	10.1	8.5	
+8	11.5	7.1	
M	11.3	7.3	
+8	10.1	8.5	
114	10.1	8.5	
cab	9.5	9.1	
W	8.9	9.7	

1864

1+75

W	9.1	9.5	
cab	9.2	9.4	
114	9.5	9.1	
+20	10.8	7.8	
M	11.9	6.7	
+12	11.6	7.0	
114	10.7	7.9	
cab	10.3	8.3	
E	9.8	8.8	

2+0

E	10.2	8.4	
cab	10.2	8.4	
114	10.4	8.2	
+8	11.0	7.6	
+13	12.2	6.4	
M	12.2	6.4	
+2	11.4	7.2	
114	10.3	8.3	
cab	9.2	9.4	
W	8.6	10.0	
T.P. 4.57	14.52	8.69	9.95

14.52

2+25

W	3.6	10.9
+4	4.0	10.5
crb	6.4	8.1
"4	6.7	7.8
+8	6.6	7.9
M	8.0	6.5
+9	8.4	6.1
+11	6.7	7.8
"4	6.5	8.0
crb	6.1	8.4
E	5.5	9.0

2+50

E	5.6	8.9
crb	5.2	9.3
"4	5.0	9.5
+8	5.2	9.3
M	8.9	5.6
+6	8.8	5.7
+7	7.5	6.7
"4	7.1	7.4
crb	7.1	7.4
+6	6.7	7.8
W	4.4	10.1

14.52

2+75

W	5.1	9.4
+4	6.8	7.7
crb	7.3	7.2
"4	7.6	6.9
+7	8.0	6.5
+8	8.7	5.8
+17	8.7	5.8
+18	7.8	6.7
M	7.2	7.3
"4	5.6	8.9
crb	5.8	8.7
E	6.0	8.5

3+0 = N.L. "L" St 80' wide

E	6.3	8.2
crb	6.3	8.2
"4	6.0	8.5
M	7.3	7.2
+15	8.6	5.9
+16	9.1	5.4
"4	9.0	5.5
+1	8.1	6.4
crb	7.7	6.8
+10	7.2	7.3
W	6.1	8.4

14.52

N curb "L" st

W	7.8	6.7
crb	8.0	6.5
"4	8.5	6.0
+1	9.4	5.1
+6	9.3	5.2
+7	8.4	6.1
M	7.2	7.3
"4	7.5	7.0
crb	7.4	7.1
E	7.1	7.4

N "4 = 5' S. of N. curb

E	7.9	6.6
crb	7.9	6.6
"4	7.9	6.6
M	8.1	6.4
+14	8.4	6.1
+15	9.2	5.3
"4	9.3	5.2
+2	9.3	5.2
+3	8.6	5.9
crb	8.2	6.3
W	7.6	6.9

14.52

Center

W	7.3	7.2
crb	8.6	5.9
"4	8.8	5.7
+9	9.4	5.1
+10	8.5	6.0
+16	7.7	6.8
+18	6.7	7.8
M	6.7	7.8
"4	6.1	8.4
crb	5.9	8.6
E	5.9	8.6

Center + 3.6 = 2' N. of rail switch of Calif. Southern R.R.

E	4.7	9.8
crb	4.6	9.9
"4	4.6	9.9
M	4.6	9.9
+4	4.6	9.9
+5	7.9	6.6
+9	8.7	5.8
+10	9.4	5.1
"4	9.0	5.5
crb	8.9	5.6
W	7.4	7.1

14.52

center + 5.6 = N. rail

W	4.1	10.4
crb	4.1	10.4
"9	4.2	10.3
M	4.2	10.3
"4	4.6	10.5
crb	4.0	10.5
E	4.0	10.5

center + 12.6 = 7' S. of S. rail

E	4.4	10.1
crb	4.5	10.0
"4	4.5	10.0
M	4.6	9.9
+7	4.8	9.7
+8	8.4	6.1
+14	8.7	5.8
+15	10.0	4.5
"4	9.0	5.6
crb	8.8	5.7
W	7.8	6.7

14.52

center + 14.6

W	7.7	6.8
crb	9.1	5.4
"9	9.1	5.4
+7	10.3	4.2
+8	8.6	5.9
+13	8.2	6.3
+14	4.8	9.7
M	4.9	9.6
"4	4.8	9.7
crb	4.7	9.8
E	4.5	10.0

5 "4 = 5' N. of S curb

E	7.7	6.8
crb	7.9	6.6
"4	7.9	6.6
M	8.2	6.3
"4	9.2	5.3
Crb	9.2	5.3
W	8.1	6.4

14.52

5. curb

W	8.7	5.8
crb	9.4	5.1
1/4	8.8	5.7
M	8.4	6.1
1/4	8.3	6.2
crb	8.2	6.3
E	8.0	6.5

5. L. "L" St

E	7.1	7.4
crb	8.0	6.5
1/4	8.1	6.4
M	8.4	6.1
1/4	8.9	5.6
crb	9.4	5.1
+8	8.2	6.3
W	7.7	6.8

14.52

0+25 of L1

W	5.2	9.3
crb	6.3	8.2
1/4	8.2	6.3
+4	9.1	5.4
+5	10.3	4.2
+18	9.1	5.4
+19	7.7	6.8
M	6.8	7.7
1/4	7.2	7.3
crb	7.0	7.5
E	6.4	8.1

0+50

E	6.3	8.2
crb	7.0	7.5
1/4	7.1	7.4
+13	6.9	7.6
M	8.6	5.9
+1	9.7	4.8
+11	10.1	4.4
+12	9.2	5.3
1/4	8.3	6.2
crb	7.4	7.1
W	6.0	8.5

14.52

0+75

W	6.3	8.2
crb	7.9	6.6
"4	8.1	6.5
+11	9.2	5.3
+12	10.2	4.3
M	10.2	4.2
+3	9.9	4.6
+6	7.0	7.5
"4	7.1	7.4
crb	7.1	7.4
E	6.8	7.7

1+0

E	7.7	6.8
crb.	7.7	6.8
"4	7.9	6.6
+18	8.3	6.2
M	9.2	5.3
+2	9.5	5.0
+3	10.7	3.8
+12	10.3	4.2
+13	9.5	5.0
"4	9.0	5.5
crb	8.3	6.2
W	6.4	8.1

14.52

1+25

W			5.9	8.6
crb			6.2	8.3
"4			9.1	5.4
+20			10.4	4.1
M			9.4	5.1
+10			8.9	5.6
+12			7.6	6.9
"4			7.6	6.9
crb			7.7	6.8
E			7.6	6.9
T.P.	4.06	11.63	6.95	7.57

1+50

E	4.7	6.9
crb	4.7	6.9
"4	4.8	6.8
+6	5.0	6.6
+9	6.4	5.2
M	7.2	4.4
"4	7.0	4.6
+2	6.3	5.3
crb	6.2	5.4
+8	5.3	6.3
W	3.4	8.2

11.63

1+75

W	4.7	6.9
crb	5.6	6.0
"4	6.2	5.4
M	7.4	4.2
+13	7.4	4.2
+18	5.0	6.6
"4	4.8	6.8
crb	4.7	6.9
E	4.1	7.5

2+0

E	5.6	6.0
crb	5.7	5.9
"4	5.7	5.9
+5	5.7	5.9
+7	7.4	4.2
M	8.0	3.6
"4	6.9	4.7
crb	6.6	5.0
W	5.1	6.5

11.63

2+25

W	5.9	5.7
crb	7.1	4.5
+3	7.4	4.2
"4	8.9	2.7
+3	7.6	4.0
M	9.4	2.2
+4	7.6	4.0
"4	5.7	5.9
crb	5.6	6.0
E	5.3	6.3

2+50

E	5.2	6.4
crb	5.7	5.9
"4	5.9	5.7
M	7.7	3.9
+6	8.4	3.2
+8	10.5	1.3
+10	10.1	1.5
+11	9.2	2.4
"4	8.0	3.6
crb	9.7	1.9
+2	7.2	4.4
+12	6.8	4.8
W	5.9	5.7

11.63

2+75

W	6.8	4.8
+5	7.6	4.0
+8	9.1	2.5
Crb	8.9	2.7
+2	11.0	0.6
"a	11.0	0.6
+2	9.3	2.3
M	6.7	4.9
"4	5.8	5.8
Crb	5.6	6.0
E	5.5	6.1

3+0 = N.L. "M" at graded.

E	4.9	6.7
Crb	5.4	6.2
"4	5.6	6.0
M	4.8	6.8
+10	4.8	6.8
"4	8.0	3.6
+3	8.7	2.9
+4	10.8	0.8
Crb	10.8	0.8
+6	11.2	0.4
+8	8.1	3.5
W	8.5	3.1

11.63

5.L. "M" at

W	4.6	7.0
Crb	4.7	6.9
"a	4.9	6.7
M	5.2	6.4
"a	6.2	5.4
Crb	5.0	6.6
E	4.6	7.0

0+05 s of "M" at

E	6.1	5.5
Crb	6.4	5.2
"4	6.6	5.0
M	5.6	6.0
"4	7.5	4.1
Crb	6.9	4.7
+5	5.3	6.3
W	5.0	6.6

11.63

0+25 3 of "M" st.

W	5.2	6.4
+9	5.5	6.1
Crb	7.5	4.1
1/4	7.7	3.9
M	7.1	4.5
1/4	7.0	4.6
Crb	6.6	5.0
E	6.2	5.4

0+50

E	6.6	5.0
Crb	7.2	4.4
1/4	7.3	4.3
M	7.4	4.2
1/4	7.9	3.7
Crb	7.8	3.8
+11	7.4	4.2
W	5.5	6.1

11.63

0+75

W	6.4	5.2
+3	7.7	3.9
Crb	7.8	3.8
1/4	7.6	4.0
M	7.6	4.0
1/4	7.6	4.0
Crb	6.8	4.8
E	6.7	4.9

1+0

E	6.9	4.7
Crb	7.1	4.5
1/4	7.7	3.9
M	7.9	3.7
1/4	8.1	3.5
Crb	7.7	3.9
W	6.5	5.1

11.63

1+25

W	6.7	4.9
Crb	8.2	3.4
"A	8.2	3.4
M	8.0	3.6
"A	8.0	3.6
Crb	7.6	4.0
E	7.1	4.5

1+50

E	7.6	4.0
Crb	7.5	4.1
"A	8.2	3.4
M	8.5	3.1
"A	9.0	2.6
Crb	8.9	2.7
W	6.9	4.7

11.63

1+75

W	7.3	4.3
Crb	8.6	3.0
"A	8.8	2.8
M	9.0	2.6
"A	8.8	2.8
Crb	8.5	3.1
E	8.0	3.6

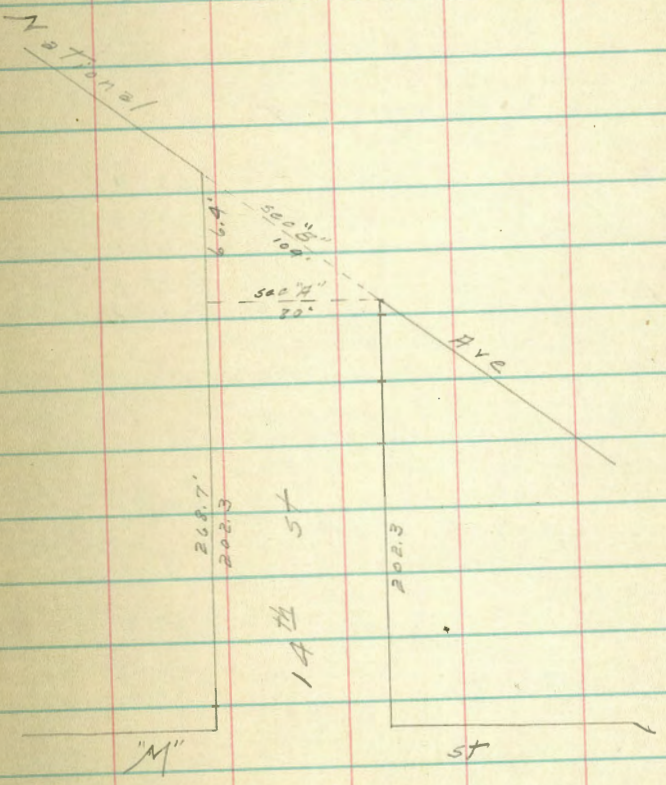
2+02.3 = x-section "A"

E	9.0	2.6
Crb	9.3	2.3
"A	9.4	2.2
M	9.4	2.2
"A	9.2	2.4
Crb	9.1	2.5
W	7.8	3.8

11.63

1-sec "B"

W	7.8	3.8
crb	9.3	2.3
"4	9.2	2.4
M	9.2	2.4
"4	9.7	1.9
crb	9.5	2.1
E	9.6	2.0



X-section Ivy St 29th to Fern 9/27/11 Dunkle
" 80' wide 5' 1/4 s 16' walks Shaw

B.M. spk N.E. Ivy & 30th				286.24	Dunkle
B.M.	0.93	287.17			
T.P	0.92	275.80	12.29	274.88	
	E.L. 29th St				
S		275.8	6.5	269.3	
crb			6.4	269.4	
1/4			6.5	269.3	
M			7.5	268.3	
1/4			21.8	254.0	
crb			22.6	253.2	
N			14.0	261.8	
		0+25 E.			
N.			6.7	269.1	
crb.			14.6	261.2	
1/4			17.9	257.9	
M			5.1	270.7	
1/4			4.7	271.1	
crb			4.5	271.3	
S			4.4	271.4	

		0+50		
S		275.8	2.3	273.5
Crb			2.0	273.8
1/4			2.0	273.8
M			2.2	273.6
+15			13.8	262.0
1/4			13.8	262.0
Crb			11.6	264.2
N			1.8	274.0
T.P	12.89	287.77	0.92	274.88
		0+75		
		287.8		
N			11.0	276.8
+4			11.3	276.5
crb			18.4	269.4
1/4			21.1	266.7
+5			21.1	266.7
M			11.7	276.1
1/4			11.4	276.4
crb			11.5	276.3
S			11.5	276.3

287.77

1+0

S	9.8	278.0
crb	9.3	278.5
1/4	9.4	278.4
M	9.0	278.8
1/4	9.5	278.3
crb	12.6	275.2
+12	9.2	278.6
N	9.2	278.6

1+25

N	8.1	279.7
crb	8.2	279.6
1/4	7.9	279.9
M	7.9	279.9
1/4	8.0	279.8
crb	8.1	279.7
S	8.1	279.7

1+50

S	287.8	7.0	280.8
crb	7.0	280.8
1/4	7.1	280.7
M	6.8	281.0
1/4	6.8	281.0
crb	6.8	281.0
N	6.7	281.1

1+75

N	5.6	282.2
crb	5.5	282.3
1/4	5.7	282.1
M	6.2	281.6
1/4	6.5	281.3
crb	6.5	281.3
S	6.4	281.4

4+00 W.L. Dale graded.

S	287.8	5.6	282.2
crb		6.0	281.8
1/4		6.0	281.8
M		5.3	282.5
1/4		5.6	282.2
crb		5.4	282.4
N		4.7	283.1

E.L. Dale

N		3.4	284.4
crb		3.8	284.0
1/4		4.0	283.8
M		3.7	284.1
1/4		4.6	283.2
crb		4.5	283.3
O		4.1	283.7

0+25 E

S	287.8	3.7	284.1
crb		3.6	284.2
1/4		3.6	284.2
M		3.3	284.5
1/4		2.9	284.9
crb		3.0	284.8
N		3.1	284.7

0+50

N		2.7	285.1
crb		2.8	285.0
1/4		2.9	284.9
M		3.1	284.7
1/4		3.4	284.4
crb		3.5	284.3
S		3.6	284.2

0475

S	287.8	3.8	284.0
Crb		3.7	284.1
1/4		3.6	284.2
M		3.3	284.5
1/4		2.9	284.9
Crb		2.8	285.0
N		2.6	285.2

140

N		2.8	285.0
Crb		3.0	284.8
1/4		3.2	284.6
M		3.6	284.2
1/4		3.7	284.1
Crb		3.8	284.0
S		3.6	284.2

1425

S	287.8	3.6	284.2
Crb		3.7	284.1
1/4		3.8	284.0
M		3.4	284.4
1/4		2.9	284.9
Crb		2.9	284.9
N		2.6	285.2

1450

N		2.3	285.5
Crb		3.1	284.7
1/4		3.2	284.6
M		3.2	284.6
1/4		3.4	284.4
Crb		3.3	284.5
S		3.2	284.6

		287.77			
		1495			
S		287.8	3.2	284.6	
Crk			3.2	284.6	
1/4			3.0	284.8	
M			2.6	285.2	
1/4			2.8	285.0	
Crk			2.8	285.0	
N			2.3	285.5	
		2+0 = W.L. 30th graded			
N			2.1	285.7	
Crk			2.5	285.3	
1/4			3.0	284.8	
M			3.1	284.7	
1/4			3.6	284.2	
Crk			3.5	284.3	
S			2.9	284.9	
T.P	3.64	289.88	1.53	286.24	

	289.88			
	E.L. 30th S			
S	289.9	4.5	285.4	
Crk		5.3	284.6	
+18 = 2 30 of S. rail		5.1	284.8	
1/4		5.0	284.9	
+7 = 2N of N. "		4.9	285.0	
1/4		4.7	285.2	
Crk		4.5	285.4	
N		3.6	286.3	
	0+25 E			
N		3.6	286.8	
+10 = 2 N of N rail		4.5	285.4	
Crk		4.6	285.3	
1/4 = 25 " S "		4.7	285.2	
M		4.5	285.4	
1/4		5.4	284.5	
Crk		5.4	284.5	
+2		4.7	285.2	
S		4.7	285.2	

0+37 = 2' N of N. rail on A.L.

S	289.9	4.7	285.2
+14		4.5	285.4
Crb		5.3	284.6
1/4		5.4	284.5
M		4.8	285.1
1/4		4.7	285.2
Crb		4.4	285.5
−6 = 2' S. of S rail		4.4	285.5
N = 2 N. " N "		4.4	285.5

0+50 = 2' S. of S. rail on A.L.

N		4.3	285.6
+5		4.0	285.9
+14		4.2	285.7
Crb		4.7	285.2
1/4		4.9	285.0
M		5.0	284.9
1/4		5.4	284.5
Crb		5.4	284.5
+W		4.6	285.3
S		4.9	285.0

0+75

S	289.9	5.3	284.6
+14		5.4	284.5
Crb		5.9	284.0
1/4		5.9	284.0
M		5.4	284.5
1/4		5.2	284.7
Crb		5.2	284.7
+2		4.8	285.1
N		4.8	285.1

1+06.5 = W.L. Fern St Graded.

N		5.8	284.1
Crb		6.5	283.4
1/4		6.6	283.3
M		6.5	283.4
1/4		7.0	282.9
Crb		7.3	282.6
+2		6.5	283.4
S		6.6	283.3

#400

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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.		