

5th St

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400

LEVEL

F.B. 144

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

MINUTES	LKS.	MINUTES	LKS.	MINUTES	LKS.
1	2 1/3	21	49	41	95 2/3
2	4 2/3	22	51 1/3	42	98
3	7	23	53 2/3	43	100 1/3
4	9 1/3	24	56	44	102 2/3
5	11 2/3	25	58 1/3	45	105
6	14	26	60 2/3	46	107 1/3
7	16 1/3	27	63	47	109 2/3
8	18 2/3	28	65 1/3	48	112
9	21	29	67 2/3	49	114 1/3
10	23 1/3	30	70	50	116 2/3
11	25 2/3	31	72 1/3	51	119
12	28	32	74 2/3	52	121 1/3
13	30 1/3	33	77	53	123 2/3
14	32 2/3	34	79 1/3	54	126
15	35	35	81 2/3	55	128 1/3
16	37 1/3	36	84	56	130 2/3
17	39 2/3	37	86 1/3	57	133
18	42	38	88 2/3	58	135 1/3
19	44 1/3	39	91	59	137 2/3
20	46 2/3	40	93 1/3	60	140

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 TABLE FOR RUNNING ON SLOPES.
 MICROFILMED

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
0		0		0		0	
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

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Book no. 144

name _____ date _____

10/13/03

Cross Section of
Hawthorne St

Elev.

From Water Pond to

B.M. +1.60 19.15 17.55

T.P. 0.15 8.23 11.11 8.04

— 175' W of W. Line California St

S.L. 10.3 -2.1

bb 9.5 -1.3

1/4 9.4 -1.2

bt 9.0 -0.8

1/4 9.0 -0.8

bb 8.8 -0.6

N.L. 9.4 -1.2

150' W of W.L. Calif. St

N.L. 7.3 +0.9

bb 7.7 +0.5

1/4 7.2 1.0

bt 6.8 1.4

1/4 7.5 +0.7

Alverson
Darius
Darey

1

8.23 Elev.

bb 7.3 0.9

S.L 6.1 2.1

125' W W Line Calif St

S.L 4.2 4.0

bb 5.5 2.7

1/4 5.5 2.7

bt 5.2 3.0

1/4 5.3 2.9

bb 5.1 3.1

N.L 5.5 2.7

100' W W Line Calif St

N.L 2.9 5.3

bb 3.3 4.9

1/4 3.4 4.8

bt 3.1 5.1

1/4 3.2 5.0

bb 2.9 5.3

S.L 2.2 6.0

822

Ely

T.P. ⁺12.85 ⁸20.54 ⁻0.54 7.69

75' W of W Line Calif. St

S.L.	11.5	9.0
bb	11.4	9.1
1/4	12.7	7.8
bb	12.6	7.9
1/4	12.3	8.2
bb	13.0	7.5
N.L.	12.4	8.1

50' W of W Line Calif. St

N.L.	10.2	10.3
bb	10.8	9.7
1/4	9.9	10.6
bb	10.4	10.1
1/4	10.5	10.0
bb	9.9	10.6
S.L.	10.1	10.4

⁸
20.54

Elev.

25' W. W Line Calif St.

S.L.	7.9	12.6
bb	7.9	12.6
1/4	8.0	12.5
bt	7.4	13.1
1/4	7.6	12.9
bb	7.8	12.7
N.L.	7.7	12.8

7' W. of W Line Calif St.

N.L.	6.2	14.3
bb	6.5	14.0
1/4	6.6	13.9
bt	6.1	14.4
1/4	5.6	14.9
bb	5.1	15.4
S.L.	6.3	14.2

Foot of Embankment S.C.R.R.

" " "

20.54

E2v.

W. Line Califa St

S.L.	5.3	15.2
66	4.2	16.3
1/4	4.5	16.0
66	5.5	15.6
1/4	4.7	15.8
66	3.3	17.2
N.L.	2.8	17.7

T.P. 5.16 22.73 2.97 17.57

10/14/03

Alverson
Davis
LambertOn S. Line Hawthorne St across
Califa St. Easterly

S Line	7.5	15.2
+12	6.1	16.6
+15	5.3	17.4
+15.5	5.0	17.7

on Spike Head at N. switch S.C.R.R.

2' west of West switch rail
border of switch

x
22.73

+24	5.0	17.7
+278	4.8	17.9
+32	5.1	17.6
+36	5.1	17.6
+41	5.0	17.7
+50 ²⁴	4.1	18.6
+63	3.1	19.6
E. 5m		
+75	1.9	20.8

Bet West switch & main track
 Center main track
 Between main track & E. switch
 Center E. switch
 2' East of E switch

On Hawthorn St. L. Carb Line
 from E. side Calif St southward

E.L.	2.5	20.2
+12	3.7	19.0
+24.75	4.3	18.4
+36.75	4.7	18.0
+47.5	4.5	17.8
+53.5	4.8	17.9
+58.5	4.7	18.0

2' E of E switch rail
 Between main track & E switch
 " " " Y W "
 Center West switch

	+		ELY.
	22.73		
+ 63	4.9		17.8
Over Hawthorne Mt S. 1/4 line from W. side Calif St. - Easterly			
+ 10.5	5.4		17.3
+ 12	5.2		17.5
+ 15	4.9		17.8
+ 15.5	5.1		17.6
+ 23	5.1		17.6
+ 28	5.1		17.6
+ 37 1/2	5.0		17.7
+ 50.5	4.6		18.1
+ 63.6	4.0		18.7
+ 71	3.9		18.8
EL.			
+ 75	1.9		20.8
T.P.	6.28	23.95 (5.16)	17.57

8
7

2' W of W switch rail & lb

2' W of W switch rail

center of W switch

2' E of W switch

2' W of main track

center main track at frog of E switch

2' E of E switch rail & center of

Foot of Bench

Top

23.85

Elev.

On Hawthorne St Center Line
from E. side Calif St ^{westerly} - southerly

EL	3.1	20.77
+04	5.5	18.3
lob	5.6	18.2
+24 ²⁵	6.0	17.8
bl		
+37.5	6.3	17.5
+39	6.3	17.5
+47	6.2	17.6
+51.5	6.7	17.1
+58	6.4	17.4
bl		
+63	5.9	17.9
+67	6.6	17.2
+68.5	6.6	17.2
W.L	6.8	17.0

Top of Bank

Foot of "

2' East of E. rail of switch

Center main track

2' W. of main track

2' E. of switch

2' W. of switch

Top of embankment

23.85

ELV.

On Hawthorne St N. 1/4
from W. side Calif St - Easterly

W.L.	8.0	15.8
+ 03	6.7	17.1
+ 05	6.6	17.2
+ 14	6.3	17.5
+ 23	6.7	17.1
+ 28	6.3	17.5
+ 35	6.4	17.4
bt + 37 1/2	6.5	17.3
1/4	6.0	17.8
bt	5.8	18.0
+ 71	5.4	18.4
EL	2.7	21.1

Top of slope

2' W of switch

2' E. "

2' W of main track

South main track

2' E of " "

Foot of slope

Top " "

23.85

E2v.

On Hawthorne St. W. side Lane
from E. side Calif. St. - Westward

E.L.	2.7	21.1
+04	5.4	18.4
bb	6.0	17.8
1/4	5.5	17.9
lot	6.6	17.2
+41	6.4	17.4
+47	6.4	17.4
+52	6.8	17.0
bb		
+63	6.3	17.5
+64	6.3	17.5
+73	6.4	17.4
W L	6.5	17.3

Top of Bank

2' E of Switch rail

Center Main track

2' W of main track

2' E of Switch

2' W

23.85

Elev.

On Hawthorne St. N. Line
from W. Line of Calif. St. Eastab.

W.L	6.1	17.7
+7 1/2	6.4	17.4
bt	6.5	16.9
+23.5	6.5	16.9
+28.5	6.4	17.4
+33.5	6.6	17.2
bt	6.6	17.2
1/4	6.0	17.8
bt	6.1	17.7
+71	5.8	18.0
E.L	3.7	20.1

25' East of Calif. St.

N. Line	1.2	22.6
bt	1.6	22.2
1/4	1.8	22.0

at W. rail of W. street

2' E of W. street

2' W of main track

Center main track

2' E of E street rail

Foot of bank

	23.85	23.85	22.1
bt	1.7		22.1
1/4	1.4		22.4
bt	1.9		21.9
S line	1.7		22.1
T.P	12.71	35.85	0.71 23.14

50' East of Calif St

S Line	12.5		23.3
bt	12.2		23.6
1/4	12.1		23.7
bt	12.0		23.8
1/4	11.8		24.0
bt	11.7		24.1
N Line	11.5		24.3

75' East of Calif St

N Line	10.0		25.8
bt	9.8		26.0
1/4	10.4		25.4

	8	
	35.85	ELV.
bt	10.7	25.1
1/4	10.5	24.9
bb	11.2	24.6
S Line	10.7	25.1

100' East of Calif. St

S. Line	9.4	26.4
bb	9.6	26.2
1/4	9.5	26.3
bt	9.4	26.4
1/4	9.1	26.7
bb	9.0	26.8
N Line	8.7	27.1

125' East of Calif. St

N Line	7.7	28.1
bb	7.8	28.0
1/4	8.1	27.7
bt	8.5	27.3

35.85

1/4	8.5	27.3
66	8.6	27.2
S Line	8.2	27.6

150' East of Calif St

S Line	6.8	29.0
66	7.2	28.6
1/4	7.4	28.4
66	7.7	28.1
1/4	7.3	28.5
66	7.0	28.8
N Line	7.1	28.7

175' East of Calif St

4 W Line of Arctic St

N Line	6.6	29.2
66	6.6	29.2
1/4	6.5	29.3
66	6.5	29.3

+
35.85

1/4	6.1	29.7
b.b	6.2	29.6
S Line	5.9	29.9

Swab W. side Artise St

S Line	5.2	30.6
b.b	5.7	30.1
1/4	5.6	30.2
b.t	5.7	30.1
1/4	5.9	30.9
b.b	6.1	29.7
N Line	6.6	29.2

1/4 West side Artise St

N Line	6.0	29.8
b.b	5.5	30.3
1/4	5.2	30.6
b.t	4.5	31.3
1/4	4.4	31.4

~~35.85~~
35.85

b.b. 4.0 31.8

S Line 4.2 31.6
RR

2' W. of W. rail S.D.P.B.Y.L.T
or 33' East of W Line Artex St

S. Line 4.2 31.6

b.b. 3.9 31.9

1/4 3.7 32.1

b.t. 4.2 31.6

1/4 4.5 31.3

b.b. 4.7 31.1

N. Line 4.8 31.0

Center of Artex St
Center of Railway

N. Line 4.1 31.7

b.b. 4.0 31.8

1/4 3.9 31.9

b.t. 3.8 32.0

~~35.85~~

1/4	3.7	32.1
b.l.	3.6	32.2
S Line	3.6	32.2

2' E. of E. rail of S.D.P.R. & R.R.
or 42' East of W. Line Artree St

S Line	4.1	31.7
b.l.	3.5	32.3
1/4	3.7	32.1
b.t.	4.0	31.8
1/4	4.3	31.5
b.l.	4.6	31.2
N Line	4.8	31.0

1/4 East side Artree St

N Line	4.8	31.0
b.l.	4.5	31.3
1/4	4.0	31.8
b.t.	3.5	32.3

~~4~~
35.85

1/4	3.3	32.5
bb	3.1	32.7
S Line	2.2	33.6

Curb E. side Artice St

S Line	1.8	34.0
bb	2.4	33.4
1/4	2.7	33.1
bt	2.9	32.9
1/4	3.6	32.2
bb	3.9	31.9
N Line	4.8	31.0

East side Artice St

N Line	4.1	31.7
bb	3.4	32.4
1/4	2.9	32.9
bt	2.3	33.5
1/4	2.1	33.7

X
35.85

bb 1.6 34.2

S. Line 0.70 35.1

T.P. +11.30 ~~46.30~~ -0.85 ~~34.00~~

25' East of Article St

S. Line 9.8 36.5

bb 10.3 36.0

1/4 10.8 35.5

bt 11.4 34.9

1/4 12.3 34.0

bb 12.8 33.5

N Line 13.4 32.9

50' East of Article St

N Line 12.2 34.1

bb 11.7 34.6

1/4 10.8 35.5

bt 10.3 36.0

1/4 9.8 36.5

46.30

bb	9.5	36.8
S Line	8.5	37.4

75' East of Article St

S Line	7.9	38.4
bb	8.3	38.0
1/4	8.7	37.6
bt	9.2	37.1
1/4	9.9	36.4
bb	10.5	35.8
N Line	10.8	35.5

100' East of Article St

N Line	8.8	37.5
bb	8.7	37.6
1/4	8.5	37.8
bt	8.3	38.0
1/4	7.7	38.6
bb	7.3	39.0
S Line	6.6	39.7

8
46.30

125' East of Article St

S Line	5.6	40.7
6b	6.2	40.1
1/4	6.6	39.7
6c	7.1	39.2
1/4	7.5	38.8
6b	8.0	38.3
N Line	8.0	38.3

150' East of Article St

N Line	6.6	39.7
6b	6.1	40.2
1/4	5.5	40.8
6c	5.4	40.9
1/4	5.3	41.0
6b	5.0	41.3
S Line	4.2	42.1

8
46.30

175' East of Arlice Lt

S Line	2.6	43.7
bb	3.7	42.6
1/4	4.2	42.1
bt	4.4	41.9
1/4	5.2	41.1
bb	5.4	40.9
N Line	5.1	41.2

West Line of India Lt

N Line	2.4	43.9
bb	2.5	43.8
1/4	2.0	44.3
bt	2.2	44.1
1/4	2.6	43.7
bb	2.6	43.7
S Line	1.8	44.5

T.P. ⁺ 10.07 ⁸ 55.52 - 0.85 45.45

2
35.52

East side of India St

S Line	6.5	49.0
b b	7.7	47.8
1/4	7.2	48.3
b t	7.1	48.4
1/4	7.2	48.3
b b	7.4	48.1
N Line	7.7	47.8

25' East of India St

N Line	5.7	49.8
b b	5.0	50.5
1/4	5.0	50.5
b t	4.7	50.8
1/4	4.0	51.5
b b	4.3	51.2
S Line	4.5	51.0

8
55.52

50' East of India St

S Line	2.7	52.8
66	2.6	52.9
1/4	2.8	52.7
64	2.9	52.6
1/4	2.9	52.8
66	3.0	52.5
N Line	2.8	52.7

T.P ⁺11.08 65.981 ⁻0.62 54.90

10/15/03 at 2:45 PM

75' East of India St

N Line	11.4	54.5
66	11.6	54.3
1/4	11.3	54.6
64	12.5	53.4
1/4	12.5	53.4
⁺⁵⁷ 66	11.3	54.6
66	11.0	54.9
S Line	10.7	55.2

Alverson
Davis
Lambert

65.98

100' East of India St

S line	8.8	57.1
b b	9.0	56.9
1/4	10.2	55.7
b t	10.5	55.4
1/4	9.5	56.0
b b	10.0	55.9
N line	9.8	56.1

125' East of India St

N line	8.3	57.6
b t	8.2	57.7
1/4	8.3	57.6
b t	8.4	57.5
1/4	8.5	57.4
b b	7.5	58.4
S line	7.5	58.4

x
65.98

150' East of India St

S Line	6.0	59.9
6.6	6.2	59.7
1/4	6.7	59.2
6.6	7.4	58.5
1/4	6.7	59.2
6.6	6.7	59.2
N Line	7.0	58.9

175' East of India St

N Line	5.2	60.7
6.6	5.3	60.6
1/4	5.3	60.6
6.6	5.6	60.3
1/4	5.5	60.4
6.6	4.8	61.1
S Line	4.8	61.1

65.98

West Line Columbia St

S Line	3.1	62.8
6.6	3.2	62.7
7.4	3.9	62.0
6.6	4.1	61.8
7.4	3.7	62.2
6.6	3.5	62.4
N Line	3.5	62.4

Curve W. side Columbia St

N Line	2.8	63.1
6.6	3.0	62.9
7.4	2.8	63.1
6.6	3.0	62.9
7.4	3.2	62.7
6.6	2.5	63.4
S Line	2.5	63.6

\bar{x}
65.98

 $\frac{1}{4}$ W. side Columbia St

S. Line	1.5	64.4
b.b	1.6	64.3
$\frac{1}{4}$	1.4	64.5
b.t	1.6	64.3
$\frac{1}{4}$	1.8	64.1
b.b	2.0	63.9
N. Line	1.8	64.1

Center of Columbia St

N. Line	1.2	64.7
b.b	1.1	64.8
$\frac{1}{4}$	0.6	65.3
b.t	0.1	65.8
$\frac{1}{4}$	0.2	65.7
b.b	0.4	65.5
S. Line	0.7	65.2

 T.P $\frac{+}{-}$ 10.50 $\frac{\bar{x}}{n}$ 76.07 $\frac{-}{n}$ 0.41 65.57

76.07

1/4 E side Columbia St

S. Line 9.8 66.2

b b 9.5 66.1

1/4 9.5 66.5

b t 9.3 66.7

1/4 9.6 66.4

b b 10.3 65.7

N Line 10.3 65.7

West E. side Columbia St

N Line 9.7 66.3

b b 9.6 66.4

1/4 9.3 66.7

b t 9.1 66.9

1/4 9.2 66.8

b b 9.3 66.7

S. Line 9.5 66.5

76.07

East Line Columbia St

S Line	8.5	67.5
6 ft	8.6	67.4
1/4	8.7	67.3
6 ft	8.5	67.5
1/4	8.6	67.4
6 ft	9.1	66.9
N Line	9.0	67.0

25' East of Columbia St

N Line	7.4	68.6
6 ft	7.4	68.6
1/4	7.2	68.8
6 ft	7.2	68.8
1/4	7.3	68.7
6 ft	7.1	68.9
S Line	7.0	69.0

76.07

50' East Columbia St

S Zone	5.7	70.3
6b	6.1	69.9
1/4	5.8	70.2
6a	5.7	70.3
1/4	5.6	70.4
6b	6.1	69.9
N Zone	6.0	70.0

75' East of Columbia St

N Zone	4.5	71.5
6b	4.5	71.5
1/4	4.2	71.8
6a	4.3	71.7
1/4	4.4	71.6
6b	4.3	71.7
S Zone	4.0	72.0

\times
 76.07

100' East of Columbia St

S Line	2.6	73.4
b.b	2.8	73.2
1/4	2.8	73.2
let	2.7	73.3
1/4	2.8	74.2
b.b	2.7	73.3
N Line	2.9	73.1

125' East of Columbia St

N Line	1.3	74.7
b.b	1.4	74.6
1/4	1.2	74.8
let	1.5	74.5
1/4	1.1	74.9
b.b	1.3	74.7
S Line	1.1	74.9

T.P.	$+$ 5.61	\times 85.00	$-$ 0.68	75.35
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85.00

150' East of Columbia St

S Line	8.2	76.8
b b	8.2	76.8
1/4	8.8	76.2
b t	8.9	76.1
1/4	9.2	75.8
b b	9.5	75.5
N Line	9.1	75.9

175' East of Columbia St

N Line	7.9	77.1
b b	7.9	77.1
1/4	7.6	77.4
b t	7.4	77.4
1/4	7.2	77.8
b b	6.9	78.1
S Line	6.7	78.3

1.85 83.15

an ^{State}razzle of Lloyd S E Cor Columbia & Hawthorne

8
85.00

West Line of State St

S Line	5.2	79.8
b b	5.5	79.5
1/4	5.4	79.6
1/4	5.1	79.9
1/4	5.7	79.3
b b	6.4	78.4
N Line	5.5	79.5
71.7	90.32	52.15

W. Curb State St

S	10.5	79.8
cb.	10.6	79.7
1/4	9.8	80.5
c	9.8	80.5
1/4	9.7	80.6
cb.	10.4	79.9
N	10.5	79.8

B16. Hyatt Nozzle SE Cor - State & Hawthorne

10/8/24 { Helok
Rennie
Lambert

Hotel
10/8/04

W 1/4 State St
70.32

N	9.8	80.5
cb.	9.6	80.7
1/4	8.2	82.1
C	9.1	80.9
1/4	9.3	81.0
cb.	9.7	80.6
S	9.8	80.5

S State St

S	9.2	81.1
cb.	8.7	81.6
1/4	8.7	81.6
C	8.8	81.5
1/4	8.7	81.6
cb.	8.8	81.5
N	9.2	81.1

9032

E 1/4 State St.

N	8.6	81.7
cb.	8.3	82.0
1/4	8.5	81.8
c	8.7	81.6
1/4	8.7	81.6
cb.	8.8	81.5
s	8.7	81.6

E cb State St.

s	8.3	82.0
cb.	8.7	81.6
1/4	8.5	81.8
c	8.5	81.8
1/4	8.3	82.0
cb	8.1	82.2
N	8.7	81.9

Hatch
10/8/04

37

36

90.32

E line State

N	7.7	82.6
cb.	7.8	82.5
1/4	7.5	82.8
C	7.5	82.8
1/4	7.6	82.7
cb.	8.3	82.0
S	8.1	82.2

2 ft E of State

S	5.8	84.5
cb.	5.9	84.4
1/4	7.4	82.9
C	7.1	83.2
1/4	7.5	82.8
cb.	7.5	82.8
N	7.7	82.9

Habit
10/8/0238
37

9032

25 ft E of State

N	5.5	84.8
cb.	5.6	84.7
1/4	5.1	85.2
C	4.6	85.7
1/4	4.4	85.9
cb.	4.0	86.3
S	4.2	86.1

50 ft E of State

S	2.7	87.6
cb.	2.6	87.7
1/4	2.8	87.5
C	3.2	87.1
1/4	3.4	86.9
cb.	3.4	86.9
N	3.4	86.9

Sketch
10/8/0435
3875 ft ^{90.32} E of State

N	1.6	88.7		
cb.	1.9	88.4		
1/4	2.0	88.3		
C	1.6	88.7		
1/4	1.3	89.0		
cb.	1.1	89.2		
S	1.0	89.3		
T.P.	11.47	101.61	0.15	90.17

100 ft E of State

S	10.1	91.5
cb.	10.3	91.3
1/4	10.9	90.7
C	11.1	90.5
1/4	10.9	90.7
cb.	11.2	90.4
N	10.9	90.7

10169

125 ft E of state

N	9.5	92.1
cb.	9.5	92.1
1/4	9.7	92.2
C	9.1	92.5
1/4	8.7	93.2
cb.	7.1	94.5
S	7.6	94.0

150 ft E of state

S	5.8	95.8
cb.	5.1	96.5
1/4	5.9	95.7
C	6.5	95.1
1/4	7.2	94.4
cb.	7.3	94.3
N	7.7	93.9

10169

175 ft E of slab

N	4.2	97.4
cb.	3.7	97.9
1/4	3.3	98.3
C	2.8	98.8
1/4	3.5	98.1
cb.	2.5	99.1
S	2.6	99.0

197 ft E of state

S	0.8	100.8
cb.	0.8	100.8
1/4	1.3	100.3
C	1.5	100.1
1/4	1.5	100.1
cb.	2.2	99.4
N	1.6	100.0

101.64

201.5 ft E of State = W. Line Union St

N	1.2	100.4
cb	1.8	99.8
1/4	1.2	100.4
C	1.3	100.3
1/4	1.7	100.2
cb	1.3	100.3
S	1.9	99.7

W. Curb. Union St.

S	1.3	100.3
cb	1.0	100.6
1/4	0.8	100.8
C	0.7	100.9
1/4	0.6	101.0
cb	0.9	100.7
N	1.3	100.3

101.64

W 1/4 Union St

N	0.1	101.5
cb	0.0	101.6
1/4	0.2	101.4
C	0.2	101.4
1/4	0.7	101.2
cb	0.6	101.0
S	0.9	100.7

T.P. 6.98 108.20 0.12 101.22

B.N.G. spk. in Pole. SW Cor. Hawthorne & Union ^{7.52} 100.68

E Union St.

S	7.2	101.0
cb	6.8	101.4
1/4	6.4	101.8
C	6.2	102.0
1/4	6.0	102.2
cb	5.9	102.3
N	5.8	102.4

108.20

1/2 to Brant

Line from C Union on S to 28' E of C on N

N	5.0	103.2
cb	5.1	103.1
1/4	5.5	102.7
C	5.8	102.4
1/4	6.2	102.0
cb	6.6	101.6
S	7.2	101.0

14ft W of Whine Brant

S	6.8	101.4
cb	6.9	101.8
1/4	5.8	102.4
C	5.3	102.9
1/4	5.7	103.1
cb	4.7	103.5
N	4.3	103.9

42

41

108.20

W Line Brant

N	4.0	104.2
cb	4.3	103.9
1/4	4.6	103.6
C	4.8	103.4
1/4	5.3	102.9
cb	5.7	102.5
S	6.2	102.0

W cb. Brant

S	5.7	102.5
cb	5.9	102.8
1/4	4.9	103.3
C	4.5	103.7
1/4	4.0	104.2
cb	3.8	104.4
N	3.7	104.5

108,20

W 1/4 Brant

N	3.1	105.1
cb.	3.2	105.0
1/4	3.5	104.7
C	4.0	104.2
1/4	4.3	103.9
cb.	4.9	103.3
S	5.7	102.8

C Brant

S	5.1	103.1
cb.	4.7	103.5
1/4	4.3	103.9
C	3.8	104.4
1/4	3.3	104.9
cb.	2.9	105.3
N	2.6	105.6

108,20

E 1/4 Brant

N	2.5	105.7
cb.	2.9	105.3
1/4	3.2	105.0
C	3.7	104.5
1/4	4.1	104.1
cb.	4.4	103.8
S	4.9	103.3

E.Cb. Brant

S	4.8	103.4
cb.	4.3	103.9
1/4	3.8	104.4
C	3.4	104.8
1/4	2.9	105.3
cb.	2.5	105.7
N	2.2	106.0

10820

E. line Brant

N.	0.0	108.2
cb	1.1	107.1
1/4	1.6	106.6
c	2.1	106.1
1/4	2.1	106.1
cb	2.6	105.6
S	2.5	105.7

T.P. 10.71 118.73 / 0.21 107.99

5ft E of Brant

S	9.9	108.8
cb	10.0	108.7
1/4	9.0	109.7
c	10.3	108.4
1/4	10.7	108.0
cb	11.8	113.9
N	11.2	114.5

44

43

11873

10ft E of Brant

N	3.8	114.9
cb	4.5	114.2
1/4	5.2	113.5
c	5.8	112.9
1/4	6.6	112.1
cb	7.7	111.0
S	9.2	109.5

25ft E of Brant

S	7.9	110.8
cb	6.3	112.4
1/4	5.1	113.6
c	4.3	114.4
1/4	4.2	114.5
cb	3.1	115.6
N	2.8	115.9

11873

50 ft. E. of Brant

N	0.8	117.9
cb.	1.6	117.1
1/4	2.0	116.7
C	2.7	116.0
1/4	3.5	115.2
cb.	4.6	114.1
S	6.2	112.5

65 ft. E. of Brant

S	3.3	115.4
cb.	3.2	115.5
1/4	3.0	115.7
C	2.0	116.7
1/4	1.4	117.3
cb.	1.3	117.4
N	0.7	118.0

45

44

11873

75 ft. E. of Brant

S	3.1	115.6		
cb.	2.2	116.5		
1/4	1.8	116.9		
C	1.2	117.5		
1/4	0.5	118.2		
cb.	0.2	118.5		
T.P.	10.01	128.41	0.33	118.40
N		9.3		119.1

95 ft. E. of Brant

N	6.7	121.7
cb.	8.1	120.3
1/4	9.3	119.1
C	8.9	119.5
1/4	9.2	119.2
cb.	10.6	117.8
S	10.5	117.9

128A1

105 ft E of Brant

S	9.8	118.6
cb	9.8	118.6
1/4	9.2	119.2
C	8.6	119.8
1/4	8.4	120.0
cb	7.8	120.6
N	7.0	121.4

Curb and Walk in on
N. side Hawthorne 100ft W
from Albatross.

125 ft. E of Brant

N	5.1	123.0
cb	5.5	122.9
1/4	6.5	121.9
C	6.7	121.7
1/4	7.8	120.6
cb	7.8	120.6
S	7.1	121.3

128A1

150 ft E of Brant

S	4.0	124.4
cb	1.7	123.7
1/4	3.7	124.7
C	3.1	125.3
1/4	2.7	125.7
cb	1.9	126.5
N	1.9	126.5

Cement. Returns in
on SW cor Hawthorne
and Albatross.

175 ft E of Brant

S	0.8	127.6		
cb	1.2	127.2		
1/4	0.2	128.2		
T.P.	11.52	139.15	0.78	127.63
C	10.3	128.9		
1/4	10.0	129.2		
cb	9.5	129.7		
N	9.2	130.0		

139.15

W. Line Albatross.

N	5.9	133.3
cb.	6.1	133.1
1/4	7.0	132.2
C	7.2	132.0
1/4	8.1	131.1
cb.	8.1	131.1
S	7.9	131.3

BIG SE Cor Albatross
and Hawaiian Hydt
Nozzle 14655

139.495

W. Cb. Albatross

S	8.1	131.1
cb.	8.4	130.8
1/4	7.3	131.9
C	6.7	132.5
1/4	6.1	133.1
cb.	6.9	132.3
N	6.0	133.2

47

46

139.15

N 1/4 Albatross

N	4.9	134.3
cb.	5.3	133.9
1/4	5.6	133.6
C	6.1	133.1
1/4	6.6	132.6
cb.	7.5	131.7
S	8.3	130.9

C. Albatross

S	7.1	132.1
cb.	6.5	132.7
1/4	5.9	133.3
C	5.2	134.0
1/4	4.9	134.3
cb.	4.4	134.8
N	4.4	134.8

139.15
E 1/4 Albatross

N	3.6	135.6
cb	4.0	135.2
1/4	4.3	134.9
C	4.8	134.4
1/4	5.4	133.8
cb	6.0	133.2
S	6.6	132.6

E Curb Albatross

S	6.4	132.8
cb	6.0	133.2
1/4	5.3	133.9
C	5.0	134.2
1/4	4.6	134.6
cb	4.0	135.2
N	4.0	135.2

48

47

139.15

E line Albatross

N	3.2	136.0
cb	2.6	136.6
1/4	2.6	136.6
C	3.3	135.9
1/4	1.9	137.3
cb	3.3	135.9
S	1.9	134.3

10 ft E of Albatross

S	1.2	138.0	
cb	1.8	137.4	
1/4	1.0	138.2	
C	1.4	137.8	
T.R. 11.785	150.445	0.69	137.46
1/4	11.5	138.9	
cb	12.0	138.4	
N	8.8	141.6	

150445

25 ft E of Albatross

N	7.4	148.0
cb.	7.9	142.5
8'	8.4	142.0
9'	10.0	140.4
1/4	9.9	140.5
C	10.5	139.9
1/4	10.9	139.5
cb.	11.5	138.9
S	11.3	139.1

30 ft E of Albatross

S	1.0	149.4
cb.	9.8	140.6
1/4	8.6	141.8
C	8.0	142.4
1/4	6.9	144.0
cb.	5.5	144.9
N	4.6	145.8

150445

75 ft E of Albatross

N	1.3	149.1
cb.	1.5	148.9
1/4	2.7	147.7
C	4.7	145.7
1/4	6.4	144.0
cb.	7.9	143.0
2'	8.5	141.9
S	8.8	141.6

100 ft E of Albatross

S	6.3	144.1		
6'	6.1	144.3		
cb.	5.3	145.1		
2'	5.1	145.3		
1/4	2.6	147.8		
C	1.2	149.2		
T.P.	10.83	161.205	0.07	150.375
1/4	9.8	151.4		

48

161.205

cb	8.8	152.4
N	7.9	153.3
125 ft E of Albatross		
N	5.0	156.2
cb	5.9	155.3
1/4	6.9	154.3
C	8.3	152.9
1/4	10.1	151.1
8'	11.7	149.5
11'	14.0	147.2
cb.	14.1	147.1
7'	14.1	147.1
10'	15.1	146.1
S	15.2	146.0

150 ft E of Albatross

S	13.9	147.3
A'	13.9	147.3

161.205

7'	11.6	149.6
cb.	11.6	149.6
1/4	7.5	153.7
C	6.0	155.2
1/4	4.6	156.6
cb.	3.3	157.9
N	2.1	158.8

175 ft E of Albatross

N	+0.9	161.6
cb.	1.3	159.9
1/4	2.7	158.5
C	4.7	156.5
1/4	7.3	153.9
cb.	10.1	151.1
9'	10.7	150.5
10'	12.3	148.9
S	13.1	148.1

Hatch
Rennie
Lambert

161.205

198 ft E of Albatross

S	11.7	149.5
cb.	10.3	150.9
9'	9.3	151.9
1/4	7.0	154.2
C	5.3	155.9
1/4	3.5	157.7
cb.	1.5	159.7
N	+0.3	161.5

BMG Spk in Pole SW Cor
Front of Hawthorn 10.38
(10/8/04 Night) (10/10/04)
6.08 156.905 150.825 150.825

W Line Front

S	7.3	149.6
cb.	6.3	150.6
1/4	5.5	151.4
C	5.7	151.5
1/4	5.1	151.8

10/10/04

50

156.905

cb.	4.2	152.7
N	4.5	152.4

W cb. Front

N	4.7	152.2
cb.	4.8	152.1
1/4	5.3	151.6
C	6.1	150.8
1/4	6.7	150.2
cb.	7.0	149.9
S	6.8	150.1

W 1/4 Front

S	6.7	150.3
cb.	6.3	150.6
1/4	5.7	151.2
C	5.2	151.7
1/4	4.7	152.2
cb.	4.3	152.6
N	3.6	153.3

156.905

① Front

N	3.9	153.0
cb.	4.3	152.6
1/4	4.7	152.2
C	5.1	151.8
1/4	5.4	151.5
cb.	6.0	150.9
S	6.8	150.1

E 1/4 Front

S	6.7	150.2
cb.	6.1	150.8
1/4	5.7	151.2
C	5.3	151.6
1/4	4.8	152.1
cb.	4.6	152.3
N	3.9	153.0

156.905

E.Cb. Front

N	4.7	152.2
cb.	4.9	152.0
1/4	5.5	151.4
C	5.7	151.2
1/4	6.4	150.5
cb.	6.9	150.0
S	6.8	150.1

E line Front

S	6.6	150.3
cb.	6.2	150.7
1/4	5.7	151.2
C	4.8	152.1
1/4	4.7	152.2
cb.	4.6	152.3
N	4.4	152.5

T.P. 8.605 | 64.740 0.77 156.135

164.74

15 ft E of Front

N	7.0	157.7
cb.	8.6	156.1
1'	10.0	154.7
1/4	10.7	154.0
8'	11.3	153.4
C	12.7	152.0
1/4	13.6	151.1
cb.	14.0	150.7
S.	13.8	150.9

25 ft E of Front

S	13.8	150.9
cb.	13.8	150.9
1/4	13.9	151.3
C	11.6	153.1
3'	10.3	154.4
1/4	9.8	154.9

164.74

cb.

8.0 156.7

N

6.0 158.7

50 ft E of Front

N	7	4.1	160.6
cb.		5.5	159.2
1/4		7.9	156.8
C		9.8	154.9
1/4		12.0	152.7
1'		13.2	151.5
cb.		13.8	150.9
S.		13.8	150.9

75 ft E of Front

S	13.7	151.0
cb.	13.5	151.2
1/4	13.4	151.3
C	10.2	154.5
1/4	7.0	157.7

16474

cb.	4.9	159.8
N	3.5	161.2
100ft E of Front		
N	3.5	161.2
cb.	5.8	158.9
1/4	8.5	156.2
C	11.0	153.7
1/4	12.4	152.3
cb.	12.6	152.1
S.	13.4	151.3
125ft E of Front		
S.	11.2	153.5
cb.	10.5	154.2
1/4	10.3	154.4
C	9.0	155.7
1/4	7.2	157.5
cb.	4.8	159.9
N	3.1	161.6

16474

53

150ft E of Front		
N	1.9	162.8
cb.	3.2	161.5
1/4	4.2	160.5
C	5.8	158.9
1/4	7.1	157.6
cb.	7.2	156.5
S	9.2	155.5
175ft E of Front		
S	6.9	157.8
cb.	7.3	157.4
1/4	6.3	158.4
C	4.7	160.0
1/4	3.2	161.5
2'	1.9	162.8
cb.	1.4	163.3
N	0.6	164.1

16474

190 ft E of Front

N	0.0	164.7
cb.	1.1	163.6
1/4	2.6	162.1
C	3.2	161.5
1/4	5.0	159.7
cb.	5.4	159.7
S	4.7	160.0

W Line First.

S	3.1	161.6
cb.	3.1	161.6
1/4	2.0	162.7
C	1.4	163.3
1/4	1.3	163.4
cb.	0.1	164.6
N	+0.1	164.84

T.P. 987 174.31 0.30 164.44

174.31

Nozzle Hydt. SE Cor

BNG. 1st ^{1/2} ^{1/2} Hawthorne 8.58 165.73W curb. 1st St.

S	12.7	161.6
d.	12.6	161.7
1/4	11.6	162.7
C	10.0	163.7
1/4	10.0	164.3
cb.	9.7	164.6
N	9.0	165.3

W 1/4 1st St.

N	8.5	165.8
cb.	8.8	165.5
1/4	8.8	165.5
C	9.5	164.8
1/4	10.3	164.0
cb.	11.1	163.2
S	11.8	162.5

174.31

6 ft W of ϕ of 1st St.

S	11.4	162.9
cb	10.6	163.7
1/4	9.8	164.5
c	9.0	165.3
1/4	8.6	165.7
cb	8.3	166.0
N	7.9	166.4

 ϕ 1st St.

N	7.7	166.0
cb	8.4	165.9
1/4	9.2	165.1
c	9.7	164.6
1/4	10.3	164.0
cb	10.9	163.4
S	11.6	162.7

174.31

55

7 ft E of ϕ of 1st St.

S	11.1	163.2
cb	10.1	164.2
1/4	9.2	165.1
c	8.6	165.7
1/4	8.3	166.0
cb	7.6	166.7
N	6.9	167.4

E 1/4 1st St.

N	6.8	167.5
cb	7.5	166.8
1/4	8.0	166.3
c	8.9	165.9
1/4	9.9	164.9
cb	10.3	164.0
S	11.1	163.2

17431

E. Curb 1st St.

S	9.7	164.6
cb	9.5	164.8
1/4	8.6	165.7
C	7.7	166.6
1/4	7.5	166.8
cb	7.0	167.3
N	6.7	167.6

E. Lure 1st St.

N	6.2	168.1
cb	6.5	167.8
1/4	6.6	167.7
C	7.0	167.3
1/4	7.9	166.4
cb	9.0	165.3
S	9.7	164.9

17431

56

10 ft E of 1st St.

S	6.7	167.6
cb	6.7	167.6
1/4	6.7	167.6
C	6.1	168.2
1/4	5.1	169.2
cb	5.6	168.7
N	4.5	169.8

25 ft E of 1st St.

N	3.0	171.3
cb	4.3	170.0
1/4	4.9	169.4
C	5.7	168.9
1/4	5.7	168.6
cb	6.1	168.2
S	6.3	168.0

174.31

56 ft E of 1st St.

S.	4.3	170.0
cb.	4.8	169.5
1/4	4.6	169.7
C	3.9	170.4
1/4	2.8	171.5
10'	1.7	172.9
T.P. 12.12	183.81	2.62
		171.69
cb.	7.1	176.4
5'	5.1	178.7
N	4.8	179.0

53 ft E of 1st St.

N	4.6	179.2
cb.	4.6	179.2
A'	8.8	175.0
1/4	10.9	172.9
C	12.7	171.1

183.81

57

1/4	13.9	169.9
cb.	13.7	170.1
9'	12.3	171.5
5	13.7	170.1

56 ft E of 1st St.

S.	13.1	170.7
cb.	13.1	170.7
1/4	13.5	170.0
C	11.2	172.6
5'	6.0	177.8
1/4	4.6	179.2
cb.	4.3	179.5
N	4.2	179.6

65 ft E of 1st St.

N	4.1	179.7
cb.	4.1	179.7
1/4	4.4	179.4

183.81

C	5.9	177.9
1/4	8.4	175.4
cb.	10.1	173.7
3'	12.8	171.0
S.	13.7	170.1
75 ft E of 1st St.		
S	14.7	169.1
9'	13.6	170.2
11'	11.7	172.1
cb.	10.6	173.2
1/4	7.7	176.1
C	6.4	177.4
1/4	4.3	179.5
cb.	4.1	179.7
N	4.1	179.7

183.81

58

100 ft E of 1st St.

N	3.5	180.3
cb	3.8	180.0
1/4	4.2	179.6
C	7.8	176.0
1/4	9.0	174.8
cb.	11.8	172.0
6'	13.2	170.6
7'	14.5	169.0
S.	15.5	168.0

125 ft E of 1st St.

S.	17.7	166.1
6'	14.3	169.5
cb.	11.9	171.9
1/4	8.7	175.1
C	5.2	178.6
1/4	3.7	180.1
cb	3.3	180.5
N	2.5	181.3

183.81

150 ft E of 1st St.

N	1.5	182.0
cb.	2.1	181.7
1/4	4.3	179.5
C	7.1	176.4
1/4	10.0	173.8
cb.	13.6	170.2
6'	14.5	169.3
3'	17.9	165.9
S.	18.1	165.7

155 ft E of 1st St.

S	18.1	165.4
8'	18.1	165.7
10'	15.3	168.5
cb.	14.0	169.8
1/4	11.2	172.6
c	8.3	175.5

183.81

59

1/4	5.8	178.0
cb.	3.5	180.3
N	2.6	181.2
T.P.	0.815	173.635
B.R.	10.99	172.82
	spk in Pole NE Cor	
	29 3/4 Hawthorne	0.74
		172.895

175 ft E of 1st St.

N	3.6	170.0
cb.	4.0	169.6
1/4	4.1	169.5
C	4.0	169.6
1/4	6.3	167.3
cb.	7.9	165.7
S	8.3	165.3

187 ft E of 1st St.

S	9.2	164.4
cb.	7.8	165.8
1/4	7.7	165.9

88

173.435

C		8.3	165.3	30'
1/4		8.8	164.8	S
cb		9.0	164.6	ch.
N		7.9	165.7	6'
	200ft E of 1 st St. = W. line 2 ^d St			1/4'
N		4.5	169.1	C
cb		12.9	160.7	1/4
1/4		14.5	159.1	cb.
C		14.2	159.4	N
1/4		9.8	163.8	10'
11'		7.4	166.2	
cb.		9.0	164.6	N
S	Night of (10/10/04)	13.6	160.0	cb.
.25'		18.8	154.8	1/4
BNC	001 172.905		172.895	C

10/11/04

Hatch
Kennie
Jambert

60

172.905

W. Curb. 2^d St.

		21.7	151.2	
		20.2	152.7	
		10.8	162.1	
		6.6	166.3	
		6.6	166.3	
		15.0	157.9	
		14.3	158.6	
		11.3	161.6	
		8.1	164.8	
		6.5	166.4	
	W 1/4 2 ^d St.			
		2.0	170.9	
		3.1	169.8	
		4.3	168.6	
		7.6	165.3	
		5.7	167.2	
		5.9	167.0	

172.905

5'	6.4	166.5
cb.	12.5	160.4
S	18.1	154.8
30'	25.9	147.0

C of 2^d St.

15'	13.0	159.9
S	11.3	161.6
cb.	6.8	166.1
1/4	5.4	167.5
C	4.1	168.5
1/4	3.4	169.5
cb.	2.5	170.4
N	1.5	171.4

E 1/4 2^d St.

N	1.4	171.5
cb.	2.5	170.4
1/4	3.3	169.6

172.905

C	4.3	168.6
1/4	5.1	167.8
cb.	6.0	166.9
S	6.9	166.0

E Curb. 2^d St.

S	6.7	166.2
cb.	5.9	167.0
1/4	5.2	167.7
C	4.0	168.9
1/4	3.1	169.7
cb.	2.2	170.7
N	0.8	172.1

E Line 2^d St.

N	0.6	172.3
cb.	6.8	172.1
1/4	4.9	168.0
C	5.0	167.9

172.905

1/4	6.2	166.7
cb.	12.1	160.8
6'	16.3	156.6
S.	17.3	155.6
30'	17.3	155.6

25 ft E of 2^d st.

N	+0.3	173.2
cb.	2.5	170.4
1/4	6.1	166.8
7'	6.4	166.5
C	10.1	162.8
A'	9.9	163.0
1/4	12.6	160.3
cb.	21.9	151.0
S	28.1	144.8
A'	29.9	143.0
42'	34.7	138.2

Same slope 15 ft further.

172.905

62

50 ft E of 2^d st

48	33.2	139.7
45'	35.0	137.9
5	31.9	141.0
cb.	27.7	145.2
1/4	18.4	154.5
8'	17.4	155.5
C	14.8	158.1
10'	9.3	163.6
1/4	9.0	163.9
3'	8.4	164.5
cb.	4.1	168.8
7	1.2	171.7
N	0.5	172.4

75 ft E of 2^d st

N	1.2	171.7
cb.	5.5	167.4
1/4	12.5	160.4

172.905

7'	13.2	159.7
C	16.7	156.2
1/4	24.1	148.8
7'	24.8	148.1
cb.	28.7	144.5
S	34.3	138.6
44'	36.3	136.6
53'	32.2	140.7

Same as last 15 ft more

55 ft E of 2nd St.

50'	31.3	141.6
33'	36.1	136.8
S	35.5	137.4
cb.	32.1	140.8
7'	28.4	144.5
1/4	28.1	144.8
C	20.9	152.0

172.905

9'	15.5	157.4
1/4	14.9	158.0
4'	14.4	158.5
cb.	8.7	164.2
N	5.1	167.8

100 ft E of 2nd St.

1A'	5A	167.5
N	10.5	162.4
cb.	14.0	159.9

T.P. 0.61 160.61 12905 160.00

10'	5.1	155.5
1/4	5.2	155.4
9'	5.1	155.5
C	6.8	153.8

T.P. 1.30 153.78 813 152.48

1/4	9.2	144.6
cb.	11.7	142.1

15378

3	16.6	137.2
25'	16.9	136.9
41'	12.9	140.9
<i>same slope 30ft more</i>		
<i>125 ft. E of 2^d St.</i>		
<i>same slope 30ft more</i>		
35'	10.2	143.6
13'	15.3	138.5
5	15.7	138.1
11'	16.3	137.5
cb.	13.4	146.4
1/4	12.6	141.2
C	6.3	147.5
7'	2.2	151.6
1/4	1.7	152.1
4'	1.6	152.2
cb.	4.9	148.9
16'	5.5	148.3
N	3.1	150.7
27'	+8.1	161.9

66

15378

64

150ft E of 2^d St.

41'	+2.2	156.0
N	9.5	144.3
9'	8.3	145.5
cb.	4.3	149.5
1/4	4.1	149.7
6'	5.1	148.7
C	9.3	144.5
7'	12.3	141.5
1/4	12.2	141.6
cb.	13.4	140.4
S	11.2	142.6
18'	8.3	145.5
33'	4.2	149.6

175ft E of 2^d St.

30'	+2.5	156.3
S	1.6	152.2

153.78

cb	3.2	150.6
1/4	6.0	147.8
C	9.8	144.0
7'	6.6	147.2
1/4	6.2	147.6
cb	6.8	147.0
7'	11.0	142.8
N	11.3	142.5
50'	5.6	148.2

200 ft E of 2^d = white 3^d st.

60'	13.5	140.3
13'	13.6	140.2
N	10.3	143.5
cb	8.5	145.3
1/4	7.9	146.4
C	4.2	149.6
1/4	1.1	152.7

65

153.78

cb.	+ 3.8	157.6
S.	+ 7.1	160.9
20'	+ 8.3	162.1

XV carb. 3^d st.

18'	+10.9	164.7
S	+9.1	162.9
cb.	+7.2	161.0
1/4	+4.0	157.8
C	+0.5	157.3

1/4	1.9	151.9
cb.	5.7	148.4
N	8.6	145.2
26'	11.4	142.4
62'	11.7	142.1

W 1/4 3^d st.

60'	5.8	148.0
27'	7.6	146.2

153.78

N		2.6	151.2
T.P.	1217 164.06 189		151.89
cb.		8.2	155.9
1/4		4.2	159.9
C		2.3	151.8
1/4		1.0	163.0
T.P.	10.65 174.70 0.01		164.05
cb.		9.1	165.6
S		8.8	165.9
16'		6.8	167.9
	C 3 ^d St.		
18'		3.5	171.2
S		6.4	168.3
cb.		7.0	167.7
9'		8.1	166.6
1/4		9.5	165.2
C		11.0	163.7

174.70

66

1/4		12.0	162.7
cb.		13.1	161.6
10'		16.7	158.0
N		19.5	155.2
30'		24.8	149.9
50'		23.3	151.4
	E 1/4 3 ^d St.		
50'		17.0	157.7
32'		19.8	154.9
N		13.8	160.9
8'		11.8	162.9
cb.		11.6	163.1
1/4		10.8	163.9
C		9.9	164.8
1/4		7.7	167.0
cb.		6.1	168.6
S		3.2	171.5

174.70

10'	0.0	174.7
25'	+2.0	176.7
48'	+6.5	181.2
E curb. 3 ^d		
22'	+4.5	170.2
S	+0.3	179.9
cb.	2.9	171.8
1/4	5.1	169.6
C	7.5	167.2
1/4	8.7	166.0
cb.	10.2	164.5
N	10.5	164.2
50'	13.3	161.4

E line of 3^d St.

37'	10.7	164.7
N	8.7	166.0
cb.	6.7	168.0

174.70

1/4	5.5	169.2
C	4.1	170.6
1/4	2.6	172.1
cb.	0.1	174.6
T.P. 956 184.19 0.07		
174.63		

S	7.1	177.1
15'	4.2	180.0

25 ft E of 3^d

15'	1.2	183.0
S	3.6	180.6
cb.	6.3	177.9
1/4	7.4	176.8
C	8.7	175.5
1/4	9.6	174.6
cb.	10.0	174.2
N	10.4	173.8
30'	11.8	172.4

189.19

30 ft E of 3^d St
Level to N line of street

N	7.6	177.2
cb.	6.0	178.2
1/4	4.8	179.4
C	3.1	181.1
1/4	1.9	182.3
cb.	0.5	183.7
S	+1.1	185.3

T.P. 11.64 195.39 0.14 183.75

75 ft E of 3^d St

S	7.1	188.3
cb.	7.9	187.5
1/4	9.5	185.9
C	10.8	184.6
1/4	11.3	183.1
cb.	11.9	183.5
N	13.0	182.4

Level —

195.39

10/12/04

Hatch
Remire
Fambest

68

T.P.	5.22	199.68	0.93	194.46
B.M.		Hydr. Nozzle		
		at 2 ^d Hawthorne	2.82	196.86

10/12/04

B.M.	2.97	199.83	196.86
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100 ft E of 3^d St.

S	9.6	190.2
cb.	10.6	189.2
1/4	11.2	188.6
C	11.2	188.6
1/4	10.8	189.0
cb.	9.9	189.9
N	9.6	190.2

125 ft E of 3^d St.

N	9.2	190.6
cb.	9.1	190.7
1/4	11.0	188.8
C	10.8	189.0

199.83

1/4	10.6	189.2
cb.	9.7	190.1
S.	9.2	190.6
150 ft E of 3 ^d St.		
S	8.3	191.5
cb.	8.9	190.9
1/4	9.9	189.9
C	9.9	189.9
10'	9.6	190.2
1/4	8.8	191.0
cb.	7.7	192.1
N	7.7	192.2

175 ft E of 3^d St.

N	5.7	194.1
cb.	5.5	194.3
11'	5.5	194.3
1/4	7.2	192.6

199.83

69

C.	8.0	191.8
1/4	7.9	191.9
cb.	7.0	192.8
S	6.8	193.0

W Line 4th St. - 200 ft E of 3^d St.

S	5.4	194.4
cb.	5.3	194.5
1/4	5.1	194.7
C	4.9	194.9
1/4	4.5	195.3
cb.	4.3	195.5
N	4.0	195.8

E Line 4th St.

N	4.0	195.8
cb.	4.3	195.5
1/4	4.4	195.4
C	4.5	195.3

199.83

1/4	4.9	194.9
db	5.2	194.6
S	5.0	194.8

5ft E of 4th St

S	4.8	195.0
db	4.9	194.9
1/4	4.6	195.2
C	3.9	195.9
1/4	3.0	196.8
db	1.1	198.7
N	0.7	199.1

25ft E of 4th St

BNG	974	206.60	196.86
N		6.3	200.3
db		6.7	199.9
1/4		8.7	197.9
C		9.9	197.2

70

206.60

1/4	10.1	196.5
db	10.2	196.4
S	10.2	196.4

50ft E of 4th St

S	8.7	197.9
db	8.6	198.0
1/4	8.5	198.1
C	8.2	198.4
1/4	7.9	199.2
db	6.0	200.0
N	5.5	201.1

75ft E of 4th St

N	4.3	202.3
db	5.5	201.1
6'	5.1	201.6
1/4	6.5	200.1
C	7.9	199.2

206.66

1/4	7.5	199.1
cb.	7.7	198.9
S	7.7	198.9

100 ft E of A^{1st} St.

S	6.5	200.1
cb.	6.8	199.8
1/4	6.5	200.1
C	6.4	200.2
1/4	5.5	201.1
7'	4.5	202.1
cb.	4.2	202.4
N	3.4	203.2

125 ft E of A^{1st} St.

N	1.8	204.8
cb.	3.3	203.3
1/4	5.1	201.5
C	6.4	200.2

206.60

1/4	6.9	199.7
cb.	7.5	199.1
S	7.2	199.4

150 ft E of A^{1st} St.

S	8.6	198.0
cb.	5.8	197.8
7'	10.0	196.6
1/4	10.1	196.5
C	9.5	197.1
1/4	6.0	200.6
cb.	3.4	203.2
N	1.2	205.4

175 ft E of A^{1st} St.

N	1.0	205.6
cb.	3.5	203.1
1/4	5.8	200.8
6'	7.4	199.2

71

20660

C	10.9	195.7
1/4	11.3	195.3
db.	10.6	196.0
S	9.3	197.3

198 ft E of 4th St

S.	10.6	196.0
db.	10.5	196.1
1/4	10.6	196.0
C	10.5	196.1
1/4	8.8	197.8
db.	4.7	201.9
N	1.8	204.8

200 ft E of 4th - W line 5th St

N	7.6	199.0
db.	8.0	198.6
1/4	9.1	197.5
C	10.2	196.4

72

20660

1/4	10.5	196.1
db.	10.5	196.1
S	10.3	196.3
B/C.	7.73	198.87

Spk in Pole. N.E. Cor
Hawthorne Eng 5th

$$\frac{7.73}{1.3}$$

Cross Section of Intersection
of California & Hawthorne

	3.81	21.36	17.55
East Line of California			
M ^o Line	1.0	20.4	
Curb	0.2	21.2	
1/4	0.0	21.4	
Ct.	0.2	21.2	
1/4	0.4	21.0	
-	0.7	20.7	
So Line	1.0	21.0	
10' West of East Line			
So Line	1.3	20.1	
-	2.1	19.3	
4	2.5	18.9	
Ct.	2.8	18.6	
4	3.2	18.2	
-	3.4	18.0	
M ^o Line	3.6	17.8	

1/4/64 Hutchison
Evans
Lewis.

73

(16' West) East Curt of Calif

M ^o Line	3.6	17.8
-	3.4	18.0
4	3.2	18.2
Ct.	2.9	18.5
4	2.6	18.8
-	2.4	19.0
So Line	1.7	19.7

(33' West) East 1/4 Line

So Line	3.0	18.4
-	3.1	18.3
4	3.4	18.0
Ct.	3.6	17.8
4	3.8	17.6
-	4.0	17.4
M ^o Line	4.1	17.3

(50' west) Center line of California

M ^o line	21.36	4.1	
-		3.9	17.5
4		3.9	17.5
Ct.		3.9	17.5
+		3.9	17.5
-		3.5	17.9
So line		3.6	17.8

12' west of Center line

So line		3.7	17.7
-		3.4	18.0
4		3.5	17.9
Ct		3.8	17.6
+		3.8	17.6
-		4.1	17.3
M ^o line		4.6	16.8

(17' west of Ct) West 1/4 line

M ^o line		4.3	17.1
-		3.8	17.6
4		3.6	17.8
Ct.		3.5	17.9
+		3.8	17.6
-		3.6	17.8
So line		4.7	16.7

(27' W) 10' west of West 1/4

So line		5.8	15.6
Ct.		4.9	16.5
4		5.2	16.2
Ct.		6.0	15.4
4		4.9	16.5
-		4.0	17.4
M ^o line		3.3	18.1

Top of Roll
322

3.03 7.11.18

(34) West Curt Line at Calif

M ^o Line	21.36	5.0	16.4
-		6.0	15.4
A		6.5	14.9
Ct.		6.6	14.8
A		6.9	15.5
-		6.8	15.6
So Line		7.0	14.4

(39) West of Curt Line

So Line	7.5	13.9
-	7.1	14.3
A	7.2	14.2
Ct.	7.3	14.1
A	7.8	13.6
-	7.6	13.8
M ^o Line	7.7	14.2

West Line of California

M ^o Line	21.36	8.3	13.1
-		8.4	13.0
A		7.8	13.6
Ct.		7.8	13.6
A		8.1	13.3
-		8.3	13.1
So Line		8.4	13.0

12.65 33.75 0.26 21.10

12.76 46.23 0.28 33.47

10.53 56.19 0.57 45.66

10.00 65.29 0.90 55.29

2.03 63.26

Cross sections on Hawthorn st
Bet 2nd & 3rd

76

φ				160' E of 2 nd 153.10			
0.04	172.87		172.83	No Line	9.8	143.3	
0.04	161.44	11.47	161.40	6' 50"	9.6	143.5	
110' E of 2 nd				15"	4.7	148.4	
No line		3.9	157.5	28"	4.4	148.7	
13 1/2"		9.8	151.6	41" = Center	8.4	144.7	
23"		7.3	154.1	47' 20"	10.2	142.9	
34"		7.9	153.5	60"	11.2	141.9	
40" = Center Hawthorn		12.1	149.3	80" = No Line	7.9	145.2	
	1.73	153.10	10.07	151.37			
140' E of 2 nd				No Line	10.5	142.6	
No line		8.0	145.1	20' 50"	6.3	146.8	
10' 50"		6.8	146.3	33"	6.5	146.6	
17"		3.0	150.1	40" = Center	9.2	143.9	
30"		2.7	150.4	60"	1.1	152.0	
40" = Center		7.4	145.7	No line	+2.9	156.0	
47' 50"		11.6	141.5				
60"		12.4	140.7				
80" = No line		13.3	139.8				

See Next Page

185' E of 2nd

110' E of road
(153.10)

5350 of No. line

10.8

142.3

63 " " "

11.4

141.7

Levels on Intursection of
California & Hawthorn

78

	6.30	28.13	16.83
Solms		Salms Hawthorn	
		10.1	13.03
" W.		8.6	14.5
E. Ch.		3.5	19.6
Elms. S.		2.0	21.1

67.86 - N.E. Cor - Iron pin in ground
Columbus & Juniper

79.35 S.E. cor. Iron pin in ground
State & Juniper

188.35 N.E. cor. spike in tele pole
2nd & Hawthorn.

Levels to determine depths
of foundations for Piers for Bridge
at 156 E.

Frank
Davis
Thomas

83

	0.28		48.32	48.04
	3.47	8.88	42.91	39.44
River Bed			5.7	37.2
Top of Man Hole			3.2	39.7
Foundation			8.6	34.3
	11.0	0.39	53.52	42.52
	6.72	0.68	57.56	52.84
		2.48		50.36
	0.57		56.69	56.12
	1.0	4.89	52.8	51.80
	0.14		48.08	48.04
	2.7	8.64	39.44	42.14

48.04
 28
 48.32
 8.84
 39.44
 3.47
 42.91
 3.9
 42.52
 11
 53.52
 6.8
 52.84
 6.72
 59.54
 2.44
 57.14

144.126
 21.9

161.00
 0.75
 160.45
 160.35
 65.619
 76.3
 77.299

32.8
 4.71
 48.09

48.08
 46.4
 39.44

42.91
 8.84
 39.44
 3.47
 42.91
 3.9
 42.52
 11
 53.52
 6.8
 52.84
 6.72
 59.54
 2.44
 57.14

42.14
 31.41
 39.73

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.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

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