

1008

LEVIN BACK

1978

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
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27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
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34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

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

287.2
J.W. 35072

8
27

RETURN TO CITY ENGINEER'S OFFICE
CITY HALL, SAN DIEGO, CAL.

Mar. 8/17 { Childs
Evans
moore

X sect. Elm Street from
East line 30th to West
line 32nd

60' street - 10' walks -
10' quarters .



276.29'

Horn

207.93'

Elm

222.04'



10' curb
10' quarter

60' 2nd

10' curb 7 1/2 quarter



60'

60.2'

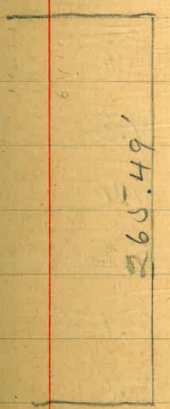
60'

1868'

31st

238.57'

Edgemont



60'

Elm

60'

265.46'

712.49
165'

32nd

ELM ST.

2

J.P.

6.00 ^{H.I.} 263,23 ~~25~~

25723

B.M. S.E. cor

30th + Blue plug in mure.East line 30th street

20' East

So. line

6.8

256.4

So. line

5.6

257.6

cement curb.

7.12

256.1

5.3

257.9

7.1

256.1

4.7

258.5

C

7.0

256.2

C

4.2

259.0

6.8

256.4

4.1

259.1

gutter
cement curb.

7.1

256.1

3.9

259.3

6.27

256.96

no. line

5.9

257.3

no. line

3.5

259.7

3' East

40' E.

no. line

3.9

259.3

no. line

3.2

260.0

4.3

258.9

3.8

259.4

4.4

258.8

4.3

259.0

C

5.2

258.0

C

4.9

258.3

5.1

258.1

4.5

258.7

5.4

257.8

5.1

258.1

So. line

6.1

257.1

So. line

5.6

257.6

263.2

60' E.

So. line

5.5 257.7

5.1 258.1

4.8 258.4

c

4.4 258.8

4.3 258.9

3.9 259.3

No. line

2.9 260.3

80' E.

no. line

3.1 260.1

3.9 259.3

4.6 258.6

c

4.9 258.3

4.8 258.4

5.0 258.2

So. line

5.6 257.6

263.2ELM ST.

4

100' E.

So. line

5.8 257.4

5.3 257.9

4.8 258.4

c

4.7 258.5

4.5 258.7

4.3 258.9

No. line

3.4 259.8

120' E

no. line

3.4 259.8

4.4 258.8

4.3 258.9

c

4.5 258.7

4.8 258.4

5.3 257.9

No. line

5.4 257.8

263.23

140' E

so. line

5.6 257.6

5.5 257.7

5.1 258.1

c

4.9 258.3

4.9 258.3

4.7 258.5

no. line

3.9 259.3

160' E

no. line

5.1 258.1

5.3 257.9

5.7 257.5

c

5.8 257.4

5.9 257.3

5.9 257.3

so. line

6.3 256.9

263.2

ELM ST.

5

180' E

so. line

7.6 255.6

7.4 255.8

7.5 255.7

c

7.6 255.6

7.7 255.5

7.6 255.6

no. line

7.4 255.8

200' E

no. line

10.4 252.8

10.7 252.5

11.1 252.1

c

10.7 252.5

10.3 252.9

9.8 253.4

so. line

9.8 253.4

J.P. H.I. 5.51 256.21 12.53 250.70
224' E

No. line 5.6 250.6

5.9 250.3

6.4 249.8

C 6.4 249.8

6.3 249.9

6.4 249.8

No. line 6.4 249.8

226.77 in 50
226.29 in 70 West line Fern

No. line 7.8 248.4

8.2 248.0

gutter 8.8 247.4

8.7 247.5

C 9.0 247.2

9.8 246.4

gutter 10.7 245.5

10.2 246.0

No. line 10.1 246.1

J.P. 0.13 H.I. 72.7' hub. Fern 245.86 10.48 245.73

East line Fern

No. line 0.2 245.7

0.4 245.5

0.9 245.0

C 1.4 244.5

2.2 243.7

2.0 243.9

No. line 1.8 244.1

20' E

15' No. slope 9.1 236.8

No. line 13.0 232.9

14.7 231.2

13.8 232.1

13.6 232.3

12.1 233.8

10.8 235.1

No. line 8.5 237.4

10' no. slope. 1.6 244.2

245.9

50' E

10' no slope

1.0

244.9

no. line

no. line

4.9

241.0

6.4

239.5

8.3

237.6

C

C

10.8

235.1

15.7

230.2

21.6

224.3

no. line

40. line

24.8

221.1

25' co. slope.

25.5

210.9

no. line

78' E

30 no. slope.

27.5

218.4

no. line

12.6

233.3

C

9.9

236.0

8.3

237.6

C

6.3

239.6

no. line

4.7

241.2

4.3

241.6

no. line

2.5

243.4

245.86

ELM ST.

7

100' E

0.9

245.0

2.3

243.6

3.7

242.2

5.0

240.9

6.2

239.7

7.3

238.6

9.1

236.8

125' E

7.6

238.3

6.1

239.8

4.9

241.0

3.9

242.0

2.9

243.0

1.7

244.2

0.6

245.3

245.9

150' E

no. line

0.7 245.2

1.6 244.3

2.2 243.7

C

3.0 242.9

3.9 242.0

4.1 241.8

40 line

4.9 241.0

175' E

40 line

4.4 241.5

3.9 242.0

3.5 242.4

C

2.8 243.1

2.5 243.4

1.8 244.1

no. line

1.9 244.0

245.9

ELM ST. 8

200' E

no. line

5.4 240.5

5.6 240.3

5.7 240.2

C

5.6 240.3

5.5 240.4

5.6 240.3

40 line

7.0 238.9

207.93' E

40 line

7.4 238.5

7.1 238.8

6.8 239.1

C

6.7 239.2

7.5 238.4

6.8 239.1

no. line

7.2 238.7

245,86

West Side Grove

no. line

9.8 236.1

8.5 237.4

8.8 237.1

c

8.7 237.2

7.5 238.4

7.4 238.5

So. line

7.4 238.5

N. curb

So. line

8.1 237.8

9.6 236.3

10.4 235.5

c

9.9 236.0

10.4 235.5

10.9 235.0

no. line

12.6 233.3

J.P.

no. line

c

So. line

15% slope

So. line

c

no. line

25% no. slope

ELM ST. 9

H.I.

1.87 235.35 12.38 233.48

West. 1/4

6.4 229.0

4.3 231.0

2.4 233.0

2.1 233.2

0.6 234.7

1.2 234.2

1.0 234.3

center

3.5 231.8

2.6 232.7

3.1 232.2

4.9 230.4

5.2 230.2

6.8 228.5

7.9 227.4

10.3 225.0

10.3 225.0

235,35

E 1/4

No. line

13.9 2214

12.6 2227

10.2 2252

C 9.1 2262

8.3 2270

7.7 2276

No. line 6.9 2284

E. curb.

No. line 10.3 2250

11.5 2238

12.0 2233

C 12.9 2224

J.P. 2.01 ^{H.I.} 224.88 12.48 222.87

No 1/4 3.9 2210

5.8 219.1

No. line 7.0 217.9

J.P. A.E. 7' hub. Grove 7.57 223.31

224,88

ELM ST. 10

East line Grove.

11.6 213.3

10.5 214.4

9.4 215.5

6.9 218.0

5.8 219.1

4.7 220.2

4.3 220.6

3.1 221.8

sect A.B. page 2.

6.1 218.8

6.3 218.0

6.9 218.0

7.5 217.4

10.2 214.7

10.6 214.3

11.6 213.3

10.9 214.00

13.04 211.84

J.P.

S.W. 7' hub 3/4

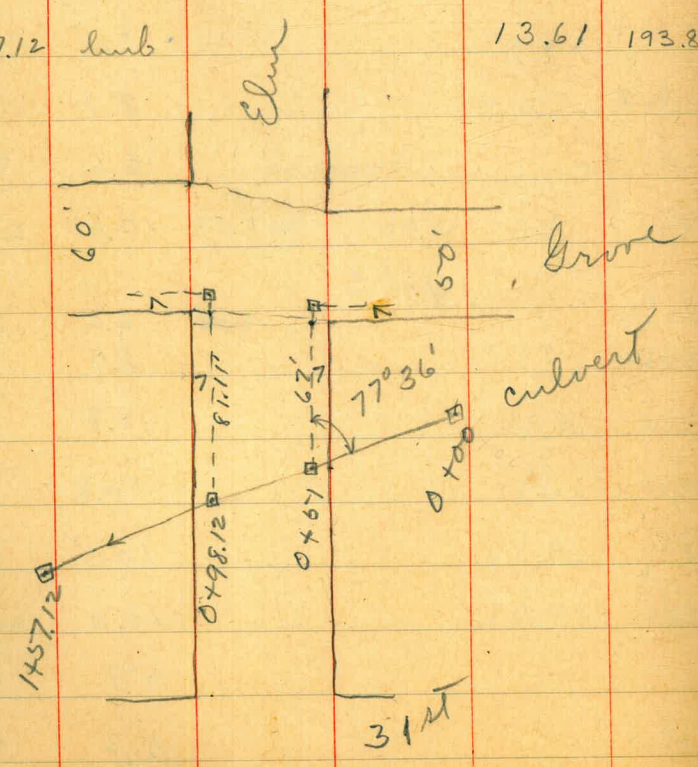
4.15 231.20

levels for Culvert bet. Grove &

30747
50. East. ELM ST. 12

Station	Hub	Dist	Level	Notes
31M			207.47	So. line
0+00	hub.	6.80	200.67	+5'
+36		7.8	199.7	
+51	hub. No. 7' line	8.64	198.83	C +5'
+78		12.5	195.0	
+98.12	hub. No. 7' line	10.70	196.77	
1+30		11.3	196.2	No. line
1+57.12	hub.	13.61	193.86	

7.2	200.3
8.0	199.5
9.0	198.5
10.7	196.8
10.8	196.7
11.9	195.6
9.6	197.9
8.6	198.9
8.2	199.3



60' E.	
No. line	7.8 199.7
	8.9 198.6
	9.8 197.7
C	12.1 195.4
	11.1 196.4
	9.8 197.7
So. line	9.3 198.2

207.47

70' East,

45' no. slope	11.5	196.0	no. line
no. line,	10.5	197.0	+5'
	11.2	196.3	
	11.7	195.8	0
+4'	12.4	195.1	
0	11.0	196.5	
	9.5	198.0	
	8.3	199.2	no. line
no. line	6.5	201.0	
40' no. slope	6.5	201.0	no. line
	5.2	202.3	
40' no. slope	3.9	203.6	
no. line	6.2	201.3	0
	8.0	199.5	
0	9.9	197.6	
	12.8	194.7	no. line
	12.1	195.4	
no. line	11.7	195.8	
45' no. slope	13.1	194.4	

207.47

ELM ST. 13

90' E

12.2	195.3
12.5	195.0
13.0	194.5
11.6	195.9
7.5	200.0
5.0	202.5
3.0	204.5
0.8	206.7

100' E

-3.0	210.5
-1.4	208.9
1.1	206.4
3.5	204.0
7.4	200.1
11.9	195.6
13.4	194.1

207.47

110' East

45' no. slope
10' no.
40. line

13.6 193.9

13.4 194.1

10.6 196.9

6.8 200.7

3.4 204.1

J.P.

11.94

H.I.
219.18

0.23 207.24

C

11.3 207.9

8.8 210.4

6.9 212.3

no. line

4.8 214.4

120' East

no. line

1.0 218.2

1.9 217.3

4.4 214.8

C

7.1 212.1

9.4 209.8

13.4 205.9

no. line

17.7 201.5

45' no. slope

24.3 194.9

219.18

ELM ST. 14

130' East

12.1 207.1

8.3 210.9

4.3 214.9

1.3 217.9

J.P.

12.36

H.I.

231.46

0.08 219.10

C

11.4 220.1

9.4 222.1

7.6 223.9

3.6 227.9

no. line

20' no. slope.

140' East

2.4 229.1

4.0 227.5

6.7 224.8

8.9 222.6

12.0 219.5

15.5 216.0

18.2 213.3

no. line

C

no. line

231.46

150' East

50' so. Slope.

No. line

16.2 215.3

12.6 218.9

9.6 221.9

7.6 223.9

4.7 226.8

2.7 228.8

J.P.

6.50 ^{H.I.} 236.87

1.09 230.37

6.1 230.8

5.2 231.7

no. line

165' E

no. line

2.7 234.2

3.6 233.3

4.6 232.3

6.0 230.9

6.9 230.0

8.5 228.4

9.6 227.3

11.7 225.2

No. line

10' so. Slope.

236.87

ELM ST.

15

175' E

No. line

7.7 229.2

6.8 230.1

5.6 231.3

4.8 232.1

3.4 233.5

2.3 234.6

1.7 235.2

no. line

202.25' E (west line 31st)

1.7 235.2

2.3 234.6

3.0 233.9

3.7 233.2

4.6 232.3

5.3 231.6

6.2 230.7

C

No. line

J.P.

H.I. 5.71 286.91 23120

West curb, 31st

286.9

ELM ST, 16

Center

So. line

6.5 230.4

So. line

7.6 229.3

5.8 231.1

7.0 229.9

5.0 231.9

6.5 230.4

C

4.2 232.7

C

5.6 231.3

3.5 233.4

4.9 232.0

2.9 234.0

4.3 232.6

no. line

2.1 234.8

no. line

3.0 233.4

W. 1/4

E 1/4

no. line

2.8 234.1

no. line

3.9 233.0

3.4 233.5

4.5 232.4

4.2 232.7

5.4 231.5

C

5.0 231.9

C

6.2 230.7

5.6 231.3

6.9 230.0

6.5 230.4

7.5 229.4

So. line

7.2 229.7

So. line

8.2 228.7

2369

E, cb.

no. line

8.9 228.0

no. line

8.4 228.5

7.8 229.1

C

7.2 229.7

C

6.5 230.4

5.6 231.3

no. line

4.7 232.2

no. line

East line 31st.

no. line

5.7 231.2

no. line

6.2 230.7

7.0 229.9

C

7.9 229.0

C

8.4 228.5

9.2 227.7

no. line

9.8 227.1

no. line

J.P.

23691

ELM ST. 17

25 East.

11.7 225.2

10.9 226.0

10.0 226.9

9.2 227.7

8.5 228.4

8.0 228.9

7.3 229.6

50' E.

8.8 228.1

9.2 227.7

10.2 226.7

10.8 226.1

11.7 225.2

12.4 224.5

13.4 223.5

1.09 ^{14.5} 225.03 12.97 223.94

225.03

75' E.

So. line

3.3 221.7

2.7 222.3

1.9 223.1

C

1.5 223.5

1.1 223.9

0.2 224.8

no. line

-1.0 226.0

100' E

15' no. slope.
no. line

10.4 214.6

11.6 213.4

11.0 214.0

9.6 215.4

C

8.7 216.3

7.6 217.4

7.4 217.6

So. line

7.8 217.2

10' so. slope.

8.3 216.7

J.P.

S.W. 7' hub. Edgemont

7.36 217.67

ELM ST.

18

J.P. rock

0.49 ^{H.I.} 212.50 13.02 212.01

125' E

30' so. slope

5.5 207.0

So. line

5.6 206.9

6.0 206.5

C

6.3 206.2

7.1 205.4

8.2 204.3

9.5 203.0

no. line

8.5 204.0

30' no. slope.

6.8 205.7

140' E

30' no. slope
no. line

5.0 207.5

6.2 206.3

7.4 205.1

9.1 203.4

C

11.1 201.4

11.7 200.8

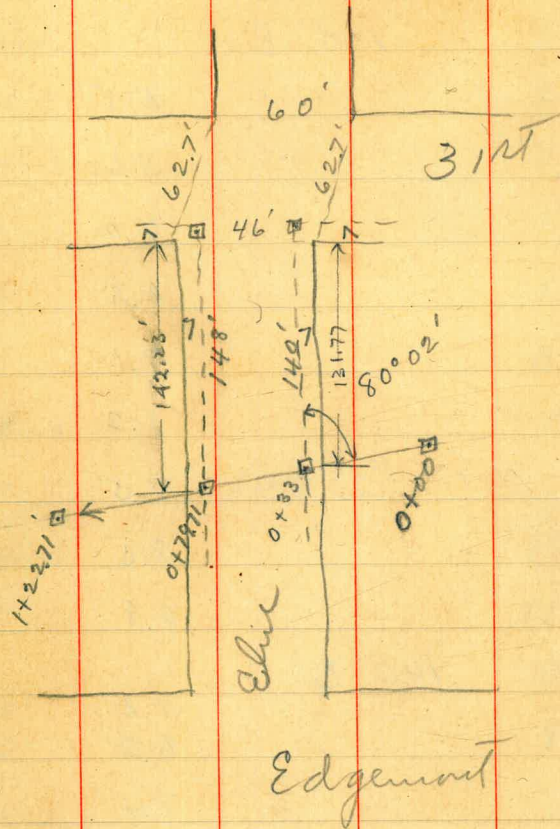
12.4 200.1

no. line

13.0 199.5

35' so. slope

11.6 200.9



1040
170

ELM ST. 19

levels for culvert
between 31st and Edgemont.

212.50

0+00	hub.	6.95	205.55
+33	10.7' hub.	8.86	203.64
+53		11.1	201.4
+79.71	10.7' hub.	12.58	199.9
1+22.71	hub.	14.3	198.2

212.50

150' E

35' no. slope

no. line

14.4 198.1

10.5 202.0

8.7 203.8

8.0 204.5

6.4 206.1

5.1 207.4

3.4 209.1

2.0 210.5

no. line

25' no. slope.

J.P.

12.44

H.I.

222.17

2.77 209.73

161' E

25' no. slope

no. line

20.5 201.7

14.9 207.3

13.5 208.7

12.3 209.9

10.8 211.4

9.8 212.4

8.4 213.8

7.4 214.8

no. line

20' no. slope.

5.4 216.8

2222

ELM ST. 20

175' E

10' no. slope

no. line

C

no. line

20' no. slope.

10' no. slope

no. line

C

no. line

1.8 220.4

2.9 219.3

4.1 218.1

5.7 216.5

7.1 215.1

8.7 213.5

9.7 212.5

10.6 211.6

12.4 209.8

188' E

6.3 215.9

6.3 215.9

5.7 216.5

6.2 216.0

5.0 217.2

3.6 218.6

2.2 220.0

1.2 221.0

2222

300' E

no. line

0.4 221.8

no. line

- 0.8 223.0

1.2 221.0

0.4 221.8

2.1 220.1

1.4 220.8

C

3.4 218.8

C

1.9 220.3

4.4 217.8

3.2 219.0

4.9 217.3

3.8 218.4

no. line

5.4 216.8

no. line

4.5 217.7

225' E

238.59' E (west line Edgemont)

no. line

4.3 217.9

no. line

4.0 218.2

4.1 218.1

4.6 217.6

3.2 219.0

3.7 218.5

C

2.0 220.2

C

3.0 219.2

1.2 221.0

2.3 219.9

0.4 221.8

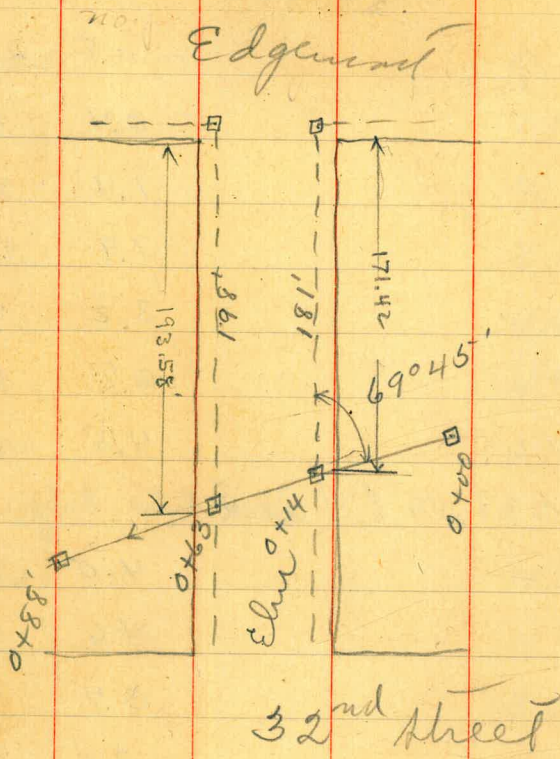
2.1 220.1

no. line

- 0.8 223.0

no. line

1.7 220.5



levels - for culvert between 22 Edgemont + 32nd

	HI.	ELM ST.
4.72	222.39	217.67
0+00 curb		4.52 217.87
+3'		4.5 217.9
+7'		7.5 214.9
+14 70.7' curb.		9.46 212.93
+63 40.7' curb		12.50 209.89
+88 curb		13.8 208.6

J.P.	8.38	H.I. 226.05	217.67	25' E
	East line	Edgement	no. line +5	
no. line		7.9	218.1	8.8 217.2
		8.1	217.9	8.5 217.5
		7.6	218.4	6.9 219.1
C		6.8	219.2	6.1 219.9
		6.6	219.4	5.1 220.9
gutter		6.6	219.4	3.6 222.4
		6.0	220.0	2.2 223.8
no. line		5.4	220.6	0.8 225.2
	2' East			50' E
no. line		1.2	224.8	0.5 225.5
		2.7	223.3	2.0 224.0
		4.3	221.7	3.3 222.7
C		5.9	220.1	4.6 221.4
		6.9	219.1	5.8 220.2
		7.6	218.4	6.8 219.2
no. line		8.9	217.1	7.9 218.1

226.0

75' E

No. line	7.5	218.5
	6.4	219.6
	5.6	220.4
C	4.6	221.4
	3.5	222.5
	2.3	223.7
no. line	0.7	225.3

100' E

no. line	1.3	224.7
	2.5	223.5
	3.6	222.4
C	4.7	221.3
	5.7	220.3
	6.4	219.6
no. line	7.3	218.7

226.0

ELM ST.

24

125' E

	10.0	216.0
	9.2	216.8
	8.4	217.6
	7.7	218.3
	6.8	219.5
	5.4	220.6
	4.4	221.6
	3.5	222.5

150' E

	7.6	218.4
	8.2	217.8
	9.2	216.8
	9.8	216.2
	10.3	215.7
	11.2	214.8
	11.6	214.4
	12.3	213.7
	13.2	212.8

10' 20. slope.
no. line

C

no. line

15' 20. slope.
no. line

C

no. line

20' 20. slope

226.05

175' E.

25' so. slope.

so line

16.8 209.2

13.8 212.2

13.4 212.6

12.8 213.2

c

12.5 213.5

+8'

12.2 213.8

13.4 212.6

12.3 213.7

no. line.

5' no.

11.2 214.8

8.0 218.0

15' no. slope.

7.9 218.1

190' E

15' no. slope.

no. line

6.9 219.1

7.5 218.5

8.5 217.5

9.9 216.1

c

11.9 214.1

14.4 211.6

15.7 210.3

20. line

15.4 210.6

25' so. slope.

17.5 208.5

226.0

ELM ST. 25

200' E

35' so. slope

13.8 212.2

so line

15.1 210.9

13.3 212.7

10.6 215.4

c

9.0 217.0

7.9 218.1

6.9 219.1

no. line

6.0 220.0

10' no. slope.

6.1 220.9

210' E

no. line

5.4 220.6

6.2 219.8

7.4 218.6

c

8.5 217.5

9.6 216.4

10.8 215.2

no. line

12.4 213.6

30' so. slope.

16.6 209.4

226.0

225' E

15' so. slope

so. line

12.8 213.2

10.8 215.2

9.9 216.1

8.9 217.1

c

7.8 218.2

6.7 219.3

5.3 220.7

no. line

3.8 222.2

250' E

no. line

2.3 223.7

4.0 222.0

5.4 220.6

c

6.3 219.7

7.4 218.6

8.7 217.3

so. line

9.7 216.3

10' so. slope

10.9 215.1

226.05

ELM ST.

26

265.49' E (west line 32nd)

10' so. slope

so. line

12.0 214.0

10.6 215.4

8.6 217.4

7.3 218.7

c

6.0 220.0

4.7 221.3

3.2 222.8

no. line

1.9 224.1

T.P.

11.20 ^{HI} 231.47 5.79 220.27

T.P.

mon. S.W. cor. 31st & Elm. 2.20 229.27

X sect. 31st street from south line
60' street 10' walls 10' quarters

Graps to north line of Elm

Builds
Evans 27
moore

2700

mar. 22/17

NE. cor. 31st & Graps. 147 ^{H.F.} 270.02 268.55

B.M.

2' south sect AB

South line Graps.

West line

W. line

0.6 269.4

2.6 267.4

1.1 268.9

2.7 267.3

1.6 268.4

3.0 267.0

C

2.0 268.0

C

2.8 267.2

1.9 268.1

2.6 267.4

1.5 268.5

2.6 267.4

E line

0.7 269.3

E line

2.2 267.8

25' so.

sect AB. See page 36

E line

1.5 268.5

E line

0.8 269.2

1.4 268.6

1.6 268.4

1.2 268.8

2.1 267.9

C

1.0 269.0

C

2.2 267.8

1.2 268.8

2.2 267.8

0.9 269.1

2.1 267.9

W. line

0.8 269.2

W. line

2.6 267.4

270.031ST ST.

50' RO.

White

1.2 268.8

1.4 268.6

1.9 268.1

C

1.9 268.1

2.1 267.9

2.2 267.8

Eline

2.4 267.6

75' RO.

Eline

3.0 267.0

2.9 267.1

2.7 267.3

C

2.4 267.6

2.1 267.9

2.0 268.0

W. line

2.0 268.0

270.0

28

100' RO.

White

2.3 267.7

2.6 267.4

3.0 267.0

C

2.9 267.1

3.1 266.9

3.6 266.4

Eline

4.0 266.0

125' RO.

Eline

4.6 265.4

4.1 265.9

3.6 266.4

C

3.5 266.5

3.5 266.5

3.1 266.9

W. line

2.9 267.1

270.0

31ST ST.

150' NO.

W. line

3.1 266.9

3.4 267.6

3.7 266.3

C

3.9 266.1

4.0 266.0

4.6 265.4

E. line

5.0 265.0

175' NO.

E line

5.3 264.7

4.8 265.2

4.4 265.6

C

4.2 265.8

4.1 265.9

3.7 266.3

W. line

3.2 266.8

270.0

20

300' NO.

W. line

3.5 266.5

4.1 265.9

4.4 265.6

C

4.4 265.6

4.5 265.5

4.9 265.1

E line

5.3 264.7

225' NO.

E line

5.2 264.8

5.1 264.9

4.8 265.2

C

4.6 265.4

4.8 265.2

4.4 265.6

W. line

3.9 266.1

270.00

31ST ST.

250' NO.

W. line

4.5

265.5

C

4.8

265.2

5.0

265.0

4.9

265.1

5.1

264.9

5.2

264.8

E line

5.4

264.6

275' NO.

E line

5.9

264.1

5.6

264.4

5.6

264.4

C

5.5

264.5

5.5

264.5

5.3

264.7

W. line

4.9

265.1

270.0

50

300' NO.

W. line

5.6

264.9

5.9

264.1

6.0

264.0

C

6.2

263.8

6.2

263.8

6.2

263.8

E line

6.5

263.5

325' NO.

E line

7.1

262.9

7.0

263.0

6.8

263.2

C

6.9

263.1

6.8

263.2

6.7

263.3

W. line

6.3

263.7

270.02

31ST ST.

263.4

31

350' SO. (north line Fir)

710. 1/4

W. line

7.6 262.4

W. line

1.8 261.6

7.5 262.5

1.7 261.7

7.4 262.6

1.8 261.6

C

7.7 262.3

C

1.9 261.5

7.6 262.4

1.8 261.6

7.8 262.2

2.0 261.4

E. line

7.9 262.1

E. line

2.1 261.3

J.P.

H.I.
1.58 263.36 8.24 261.78

Center

710. cb.

E. line

2.6 260.8

E. line

1.7 261.7

2.0 260.9

1.5 261.9

2.3 261.1

1.4 262.0

C

2.4 261.0

C

1.4 262.0

2.1 261.3

1.3 262.1

2.2 261.2

1.3 262.1

W. line

2.1 261.3

W. line

1.3 262.1

2634

31ST ST.

So. 1/4

W. line

2.5 260.9

2.6 260.8

2.7 260.7

C

2.8 260.6

2.8 260.6

3.0 260.4

E. line

3.1 260.3

So. cb.

E. line

3.5 259.9

3.5 259.9

3.2 260.2

C

3.2 260.2

3.0 260.4

2.9 260.5

W. line

2.9 260.5

2634

32

So. line. Fir.

W. line

3.4 260.0

3.5 259.9

3.6 259.8

C

3.7 259.7

3.7 259.7

4.0 259.4

E. line

4.1 259.3

25' 10.

E. line

5.2 258.2

5.3 258.1

5.1 258.3

C

5.0 258.4

4.9 258.5

4.8 258.6

W. line

4.7 258.7

2634 31ST ST.

50' 20.

W. line

6.2 257.2

6.4 257.0

6.5 256.9

C

6.4 257.0

6.5 256.9

6.6 256.8

E. line

6.9 256.5

75' 20.

E. line

8.8 254.6

8.4 255.0

8.2 255.2

C

8.2 255.2

8.1 255.3

8.2 255.1

W. line

8.2 255.2

26336

33

100' 20.

W. line

10.3 253.1

10.4 253.0

10.8 252.6

C

11.1 252.3

11.3 252.1

11.4 252.0

E. line

11.9 251.5

J.P.

1.29 ^{HE} 257.78 12.87 250.49

125' 20.

E. line

3.3 248.5

3.1 248.7

2.6 249.2

C

2.4 249.4

2.1 249.7

2.1 249.7

W. line

1.7 250.1

251.8

31ST ST.

251.78

34

150' SO.

200' SO.

W. line

4.7 247.1

W. line

9.7 242.1

5.0 246.8

10.1 241.7

4.8 247.0

10.2 241.6

C

5.1 246.7

C

10.9 240.9

5.7 246.1

11.3 240.5

6.2 245.6

11.8 240.0

E. line

6.5 245.3

E. line

12.1 239.7

170' SO.

T.P.

4.04 ^{H.I.} 242.84 12.98 238.80

E. line

9.4 242.4

225' SO.

5.8 237.0

9.1 242.7

E. line

5.3 237.5

8.5 243.3

4.5 238.3

C

8.2 243.6

C

4.0 238.8

7.7 244.1

7.6 244.2

3.5 239.3

W. line

7.4 244.4

W. line

3.3 239.5

3.0 239.8

242.8 31ST ST.

250' 20.

W. line

5.0 237.8

5.6 237.2

5.5 237.3

C

6.3 236.5

6.6 236.2

7.2 235.6

E line

7.9 234.9

275' 20.

E. line

9.8 233.0

9.1 233.7

8.5 234.3

C

8.2 234.6

7.5 235.3

7.3 235.5

W. line

6.7 236.1

342.84

35

280.69' 20. (sect. C 40) page 36

W. line

7.6 235.2

7.9 234.9

8.3 234.5

C

8.9 233.9

9.0 233.8

9.8 233.0

E. line

10.4 334.4

North line E line

E. line

11.6 231.2

10.6 232.2

9.8 233.0

C

9.4 233.4

8.7 234.1

8.0 234.8

W. line

7.6 235.2

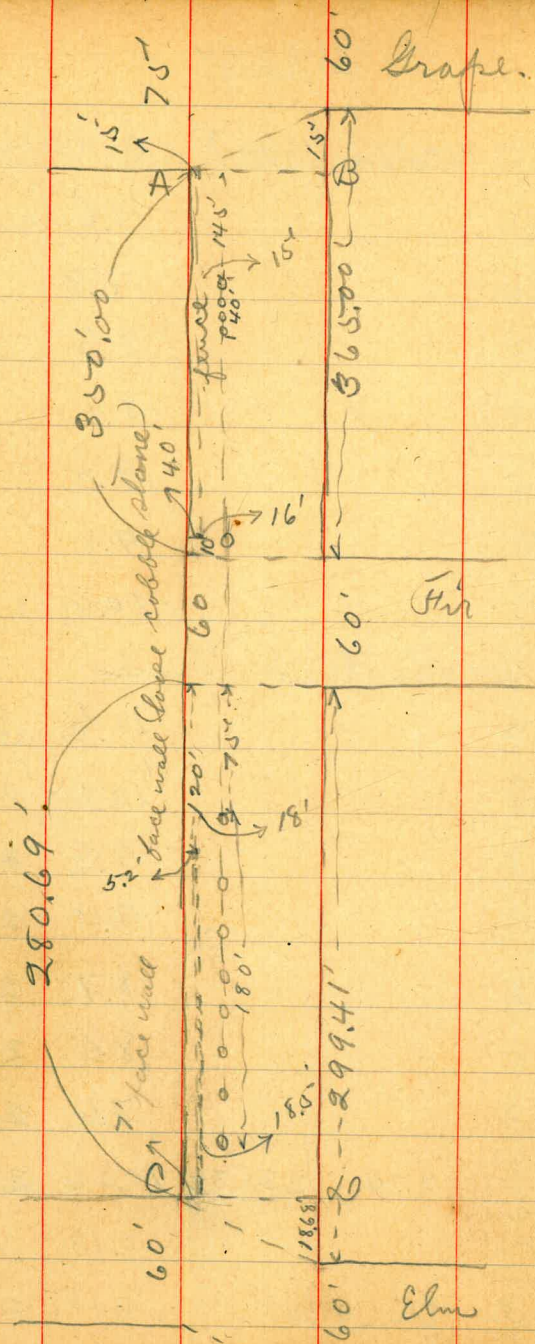
J.P.

2.74 ^{H.L.} 235.32 10.26 232.58

6.13 229.19

A.W. 7' hub. E line + 31ST

4.16 231.16



3/24/17
Gregory
Moore
Miller

Levels on Sutter St
from the E.L. of Marine View
to E.L. of Jackdaw St

on B.M. 4.18 261.17 256.99 N.E. Gold Vnch.
4 Sutter

E. L. MARINE VIEW.

No. Cb. 5.15 256.02 cement curb
So. ✓ 5.25 255.92

39.54' W

No. Cb. 4.6 256.6 Dirt Curb

79.08' W of No. 30 } SECT A
45.25' " " }

No. Cb. 4.5 256.7 ✓ ✓

So. ✓ 4.6 256.6 ✓ ✓

11.5' W of A.

No. Line 4.2 257.0 Step to house^{nate}

✓ Curb 4.5 256.7 Dirt Curb

So. Line 4.1 Step to house

SECT B 257.1

No. Curb 4.6 256.6 ✓ ✓

So. ✓ 4.5 256.7 same thing
at E.L. Crane

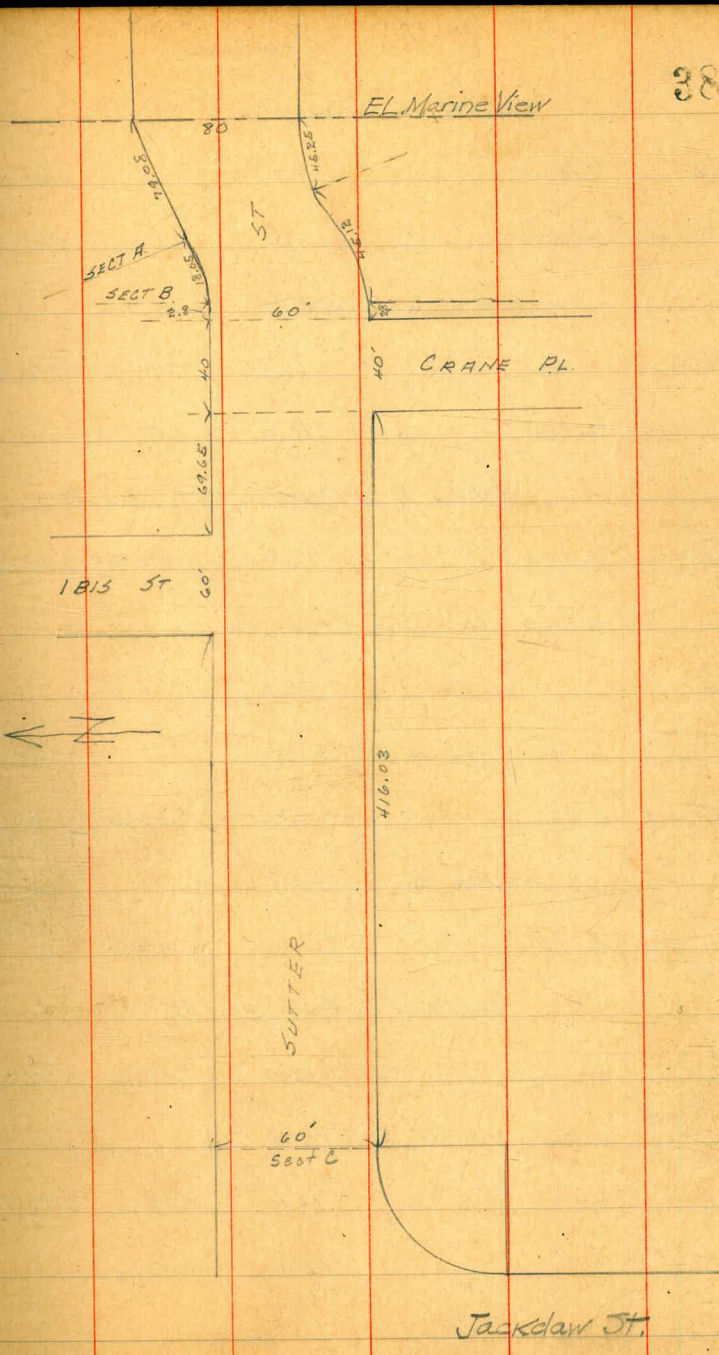
12.42' W of B = Lot Line bet 2 & 3

No. cb 4.5 256.7 Dirt Cb.

N.L. Crane Place

No. cb 5.2 256.0 ✓ ✓

So. cb 5.9 255.3 ✓ ✓



261.17

30' W of Crane Place

So. Cb 7.7 253.5 dirt ob.

No. ✓ 7.6 253.6 dirt ob.

60' W of Crane Pl.

No. ✓ 10.0 251.2 dirt ob.

So. ✓ 10.0 251.2

69.65' W of Crane Pl. = E.L. 1815 St

No. Cb. 10.8 250.4 dirt ob.

80' W of Crane Pl.

So. Cb. 10.7 250.5

100' W of Crane.

So. Cb. 11.2 250.0

120' W.

So. Cb. 11.6 249.6

129.65 W = W.L. 1815 St.

No. Cb. 12.0 249.2 dirt curb

140' W. of Crane Pl.

No. 12.6 248.6 curb washed out.

So. Cb. 12.0 249.2

261.17

SUTTER.

39

160' W of Crane

11.9 249.3

12.2 249.0 curb washed out

180' W. of Crane

12.5 248.7 curb washed out.

11.7 249.5 dirt Cb

200' W of Crane

10.7 250.5 dirt ob.

11.3 249.9 curb washed out

220' W of Crane

9.8 251.4 dirt curb.

9.9 251.3 dirt curb.

227' W of Crane.

8.9 252.3 = dirt approach to garage.

240' W. of Crane

8.6 252.6 dirt curb.

8.2 253.0 cement walk to house is laid above st.

9.3 251.9 dirt curb

So. curb washed out front 100' to 180' W of Crane & readings taken at high ground

261.17

260 W. of Crane.

No. cb	7.8	253.4	dirt curb
So v	7.2	254.0	v v

272.6 W. of Crane.

Prop.	6.0	255.2	cement walk to house
Curb	6.4	254.8	dirt curb

284 W. of Crane

Line	5.7	255.5	cement step to house taken below bottom of road.
------	-----	-------	--

298 W. of Crane.

cb	4.8	256.4	dirt curb
----	-----	-------	-----------

320.0 W. of Crane = W.L. Lot "9"
Top of bank is 6' above

cb	3.1	256.1	dirt curb
cb	3.7	257.5	dirt curb

324 W. of Crane

prop.	2.4	258.8	dirt app. to garage
-------	-----	-------	---------------------

332 W. of Crane.

Line	2.4	258.8	cement walk to house laid above st.
------	-----	-------	-------------------------------------

336 W. of Crane.

cb	2.8	258.4	dirt curb
cb	2.1	259.1	v v

SUTTER

40

370 W. of Crane = W.L. Lot 10
Top of bank is 8' above

No. cb	0.7	260.5	dirt curb
So cb	2.0	259.2	dirt curb

416.03 W. of Crane = Sect. C

So. cb	1.5	259.7	dirt curb
No. cb.	0.5	260.7	- -

4/10/17
 Gregory Moore Miller
 1/4 acre
 CROSS SECTION OF
 First St (50 wide)
 From N.L. Maple St to
 S.L. Olive St

This is the center
 50 feet of the
 80' St.

See Book 91, p. 2 for grades.
 227.1

165-290

42

B.M. 3.08 227.07 223.99 B.M. 1st Maple

on West side of 1st St. GRADED 80' wide to 145 No. of Maple
 146 No. on East N.L. MAPLE

W 3.9 223.2

cb 3.4 223.1

1/4 3.0 224.1

c 2.5 224.6

1/4 2.2 224.9

cb 2.2 224.9

F 2.0 225.1

50' No.

E 2.4 224.7

cb 2.3 224.8

1/4 2.7 224.4

c 2.7 224.4

1/4 3.2 223.9

cb 3.9 223.2

W 4.5 222.6

100' No.

W 4.9 222.2

cb 4.5 222.6

1/4 4.3 222.8

c 4.2 222.9

1/4 3.9 223.2

cb 3.5 223.6

E 3.3 223.8

135' No.

F 3.7 223.4

cb 3.9 223.2

1/4 3.7 223.4

c 5.1 222.0

+3 5.7 221.4

1/4 5.9 221.2

+3 6.1 221.0

1/4 5.6 221.5

W 5.6 221.5

145' No.

W 8.9 218.2

cb 7.8 219.3

1/4 6.9 220.2

227.07

227.1

FIRST ST.

43

+3	6.1	221.0
C	4.9	222.2
1/4	3.8	223.8
+5	3.3	223.8
cb	3.5	223.0
F	3.6	223.5
159' No.		
E	3.4	223.7
+5	3.3	223.8
+7	2.2	224.9
cb	2.2	224.9
1/4	5.6	221.5
C	10.1	217.0
+3	11.3	215.8
1/4	10.6	216.5
cb	10.0	217.1
W	9.7	217.4
+15	10.5	216.6
168' No.		
-15	15.8	211.3

W	15.8	211.3
cb	15.2	211.9
1/4	15.0	212.1
+6	14.4	212.7
C	13.1	214.0
1/4	8.9	218.2
cb	4.5	222.6
+3	3.4	223.7
E	2.7	224.4
180' No.		
E	2.8	224.3
cb	8.2	218.9
1/4	12.9	214.2
+4	16.4	210.7
C	17.0	210.1
1/4	17.6	209.5
cb	18.3	208.8
W	19.3	207.8
+15	20.0	207.1
+30	18.3	208.8

	227.07			
	190' No.			
-40		21.7	205.4	
-15		22.4	204.7	
W		21.8	205.3	
cb		20.3	206.8	
1/4		19.8	207.3	
+5		19.6	207.5	
C		18.8	208.3	
+2		18.8	208.3	
1/2		16.5	210.6	
cb		12.6	214.5	
E		7.0	220.1	
+3		4.5	222.6	
T.P.	3.29	218.57	11.79	215.28
	200' No.			
-5		+3.8	222.4	
E		+0.5	219.1	
cb		6.4	212.2	
1/4		10.6	208.0	
C		13.6	205.0	
1/2		12.2	204.4	
cb		15.5	203.1	
W		16.5	202.1	

	218.6	FIRST ST.	
	210' No.		
		17.8	200.8
		18.6	200.0
		20.2	198.4
		22.7	195.9
		22.1	196.5
		20.9	197.7
		18.0	200.6
		16.5	202.1
		15.4	203.2
		14.3	204.3
		10.6	208.0
		7.3	211.3
		0.7	217.9
		+4.3	222.9
	220' No.		
		+4.0	222.6
		1.2	217.4
		7.8	210.8
		12.0	206.6
		14.2	204.2
		16.0	202.6
		16.8	201.8
		19.6	199.0
		22.1	196.5
		24.7	193.9
		27.0	191.6
		26.6	

218.57218.6FIRST ST.

45

	235 No.	33.6	
-75		29.3	189.3
-60			194.8
-15		23.8	
W		20.2	198.4
cb		16.6	202.0
1/4		14.2	204.4
C		12.4	206.2
1/4		10.4	208.2
cb		8.1	210.5
E		1.7	216.9
+10		+5.6	224.2
	240 No.		
-10		+5.8	224.4
E		1.5	217.1
cb		7.5	211.1
1/4		9.9	208.7
C		11.4	207.2
1/4		13.9	204.7
cb		15.7	202.8
W		19.8	198.8
+15			196.4
+45 +40	242	22.2	194.4
+65		27.1	191.5
+75		29.9	188.7
	252 No.	32.2	
-45		25.0	193.6
-30		20.9	197.7
-15		17.6	201.0

W	18.6	200.0
cb	17.1	201.5
1/4	14.1	204.5
C	10.4	208.2
1/4	7.9	210.7
cb	5.6	213.0
+4	4.8	213.8
E	1.6	217.0
+10	+5.3	223.9
	268 No.	
-10	+6.0	224.6
E	0.8	217.8
+7	4.4	214.2
cb	5.0	213.6
1/4	7.0	211.6
C	10.4	208.2
1/4	12.8	205.8
+2	13.3	205.3
cb	13.6	205.0
W	13.3	205.3
+15	14.9	203.7
+90	16.9	201.7

218.57

278' No.

-		13.7		
-15		10.1	208.5	
W		7.2	211.4	
cb		6.3	212.3	
1/2		6.9	211.7	
C		7.3	211.3	
1/2		6.5	212.1	
cb		3.8	214.8	
T.P.	10.68	229.11	0.14	218.13
E		10.1	219.0	
+10		0.6		
	293' No.	0		
-10		2.1		
E		7.3	221.8	
cb		11.8	217.3	
+4		13.4	215.7	
1/2		15.1	214.0	
+2		12.3	216.8	
C		12.1	217.0	
1/4		12.1	217.0	
cb		13.2	215.9	
+5		13.9	215.8	

229.1

FIRST ST

46

W.		13.2	215.9	
+15		15.7	213.4	
	301' No. = 5L NUTMEG ST (80' wide)			
-15		12.3	216.8	
-5		10.6	218.5	
W		10.7	218.4	
cb		4.6	219.5	
+4		10.3	218.8	
1/2		8.9	220.2	
C		7.4	221.7	
1/4		7.6	221.5	
cb		5.7	223.4	
E		0.8	228.3	
T.P.	7.66	236.53	0.24	229.87
	5L +7			
E		7.4	229.1	
cb		9.1	227.4	
1/2		9.5	227.0	
C		10.1	226.4	
1/2		12.7	223.8	
cb		12.0	224.5	

236.53

236.53

FIRST ST. 47

W	13.6	222.9
+15	17.6	218.9
	So. cb.	
-15	16.8	219.7
W	12.8	223.7
cb	11.3	225.2
1/4	10.3	226.2
C	9.8	226.7
1/4	8.8	227.7
cb	8.2	228.3
E	6.9	229.6
	So. Quarter	
E	6.0	230.5
cb	6.8	229.7
1/4	7.2	229.3
C	7.9	228.6
1/4	8.5	228.0
cb	9.6	226.9
W	10.7	225.8
-15	15.3	221.2

-15

W

cb

1/4

C

1/4

cb

E

E.

cb

1/4

C

1/4

cb

W

+15

-15

Center

11.6

9.7

4.1

7.9

7.5

7.0

6.6

6.3

No. Quarter

6.4

6.5

6.8

7.3

7.9

8.1

9.0

10.4

No. Cb.

9.7

224.9

226.8

227.4

228.6

229.0

229.5

229.9

230.2

230.1

230.0

229.7

229.2

228.6

228.1

227.5

226.1

226.8

236.53

W		8.2	228.3
cb		7.7	228.8
1/4		7.3	229.2
C		7.0	229.5
1/4		6.7	229.8
cb		6.3	230.2
E		6.1	230.4

No. Line NUTMEG

E	3006	5.8	230.7
cb	230	5.9	230.6
1/4		6.1	230.4
C		6.5	230.0
1/4		6.7	229.8
cb	225.	7.0	229.5
W	2806	7.6	228.9
+15		8.6	227.9
	25' No.		
-15		7.4	229.1
W		6.4	230.1
cb		5.8	230.7

236.5

FIRST ST

48

1/4		5.0	231.5
C		5.2	231.3
1/4		4.9	231.6
cb		4.8	231.7
E		4.6	231.9
	50' No.		
E		3.5	233.0
cb		4.4	232.1
1/4		4.4	232.1
C		4.3	232.2
1/4		4.4	232.1
cb		5.0	231.5
W		5.2	231.3
+15		6.4	230.1
	25' No.		
-15		5.3	231.2
W		4.7	231.8
cb		4.5	232.0
1/4		3.9	232.6
C		4.2	232.3

296.53

1/4	40	232.5
cb	38	232.7
F	29	233.6

100' No.

F	25	234.0
cb	30	233.5
1/4	33	233.2
C	36	232.9
1/4	38	232.7
cb	41	232.4
W	42	232.3
+5	52	231.3
+15	49	231.6

125' No.

-15	49	231.6
-5	50	231.5
	43	232.2
W	41	232.4
cb	39	232.6
1/4	36	232.9
C	35	233.0

236.5FIRST ST.

49

1/4	32	233.3
cb	28	233.7
E	21	234.4

150' No.

F	22	234.3
cb	27	233.8
1/4	30	233.5
C	37	232.8
1/4	40	232.5
cb	44	232.1
W	46	231.9
+4	50	231.5
	58	230.7
+15	52	231.3

175' No.

-15	69	229.6
-5	66	229.9
	60	230.5
W	57	230.8
cb	50	231.5
1/4	43	232.2
C	39	232.6

236.53

1/4	3.5	233.0
cb	3.1	233.4
E	2.2	234.3

185' No.

E	2.4	234.1
cb	3.2	233.3
1/4	3.6	232.9
C	4.1	232.4
1/4	4.6	231.9
cb	5.7	230.8
W	6.5	230.0
+5	7.8	228.7
+15	8.3	228.2

200' No.

-15	11.3	225.2
-6	11.1	225.4
W	9.5	227.0
cb	7.4	229.1
1/4	6.2	230.3
C	5.3	231.2

236.5

FIRST

70

1/4	4.5	232.0
cb	3.8	232.7
E	3.1	233.4

220' No.

E	4.3	232.2
cb	5.5	231.0
1/4	7.7	228.8
+4	10.2	226.3
C	10.5	226.0
1/4	12.1	224.4
cb	14.3	222.2
W	15.5	221.0
+15	17.5	219.0

230.5' No.

West 1/4	16.2	220.3
C	13.9	222.6
1/4	12.4	224.1
cb	10.2	226.3
E	5.1	231.4

236.53

220 No. on West } = End of Contemplated Grading
250 ✓ ✓ East }

FIRST

W.	15.5	221.0	
db	16.0	220.5	
1/2	16.2	220.3	
e	16.3	220.2	
1/4	16.3	220.2	
db	15.6	220.9	
E	14.9	221.6	
chk.	7.47	229.06	cb. 521st Noting
✓✓	6.50	230.03	cb NE ✓ ✓✓

olive-

First St
rutting

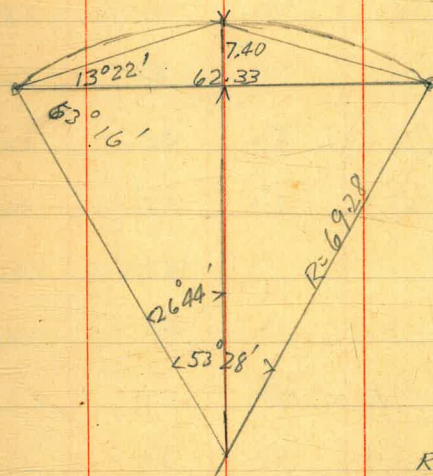
Maple

			.00	bottom of footing - assumed
12.30	12.30	0.80	11.50	top of parapet
		0.18	12.12	nail in tree B.M

3-25-22

00

T.P.	3.99	3.99	3.87	0.12	
	12.70	12.82	1.32	11.50	Top of Parapet
			0.01	12.81	nail in tree



$$\begin{array}{r}
 7.40 \quad | \quad 62.33 \\
 62.33 \quad | \quad .11872 \\
 \hline
 11670 \quad | \quad \\
 62.33 \cdot 23754 \\
 \hline
 54370 \\
 49864 \\
 \hline
 45060 \\
 43631 \\
 \hline
 14290 \\
 R = \frac{31165}{\sin 26^{\circ}44'}
 \end{array}$$

+ 30.83	12° 46'
+ 31	12° 50'
+ 24	9° 56'
+ 12	4° 58'
0	

"Otay"

$$\begin{array}{r}
 1.493667 \\
 9.653057 \\
 \hline
 69.28 \quad | \quad 1.840610
 \end{array}$$

CROSS-SECTION OF
SUTTER ST
from the West Line of
Jackdaw
to the East Line of
Marino View.

W. Quarter.

Center

E. Quarter

BM	1.45	258.44	256.99	NE Sutter + Gold/Inch	N	28	261.8
T.P.	7.04	264.57	0.91	257.53	10 cb	33	261.3
W. L. Jackdaw 50' ST.					+2	37	260.9
N			2.5	262.1	+11.62 = 1/4	34	261.2
10' cb			3.1	261.5	+11.63 = C	39	260.7
12.5' 1/4			3.2	261.4	+11.62 = 1/4	39	260.7
12.5' C			3.5	261.1	+11.63 = cb	43	260.3
12.5' 1/4			3.6	261.0	+10 = S	47	259.9
12.5' cb			4.3	260.3			
10' S			4.2	260.4	S	47	259.9
W. Curb					+10 = cb	44	260.2
S			4.6	260.0	+11.25 = 1/4	42	260.4
10' cb			4.3	260.3	+11.25 = C	39	260.7
12' 1/4			4.0	260.6	+11.25 = 1/4	36	261.0
12' C			3.8	260.8	+10	36	261.0
12' 1/4			3.4	261.2	+11.25 = cb	34	261.2
12' cb			3.1	261.5	+10 = N	27	261.9
10' N			2.8	261.8			
					N	26	262.0

+R	3.1	261.5
+10 = cb	3.3	261.3
+1	3.8	260.8
+10.87 = 1/4	3.6	261.0
+10.88 = C	3.9	260.7
+10.88 = 1/6	4.3	260.3
+10.87 = cb	4.5	260.1
+10 = S	4.7	259.9

E. Curb.

S	4.8	259.8
+10 = cb	4.6	260.0
+10.5 = 1/4	4.4	260.2
+10.5 = C	3.9	260.7
+10.5 = 1/6	3.7	260.9
+9.5	3.6	261.0
+10.5 = cb	3.4	261.2
+8	3.2	261.4
+10 = N	2.6	262.0

F. Line Jackdaw (produced)
 From this pt. Sutter is 60' wide 10' walls. +10' 1/4's

N	2.4	262.2
---	-----	-------

+R	3.1	261.5
cb	3.4	261.2
+1	4.0	260.6
1/4	3.9	260.7
C	4.0	260.6
1/6	4.4	260.2
cb	4.8	259.8
S	5.2	259.4

SECTION "C" (see page 38)

S	4.7	259.9
+8	5.0	259.6
cb	5.5	259.1
1/4	4.9	259.7
C	4.4	260.2
1/6	4.4	260.2
+9	4.6	260.0
cb	4.0	260.6
+7	3.6	261.0
N	2.6	262.0

20' EAST

N	3.0	261.6
---	-----	-------

+9	40	260.6
cb	39	260.7
+1	47	259.9
1/4	46	260.0
c	45	260.1
1/4	51	259.5
+9	55	259.1
cb	49	259.7
5	49	259.7
	40' E	
5	51	259.5
cb	50	259.6
+1	57	258.9
1/4	53	259.3
c	48	259.8
1/4	48	259.8
+9	48	259.8
cb	41	260.5
+6	38	260.8
N	23	262.3

	60' E	
N	2.6	262.0
+5	44	260.2
cb	49	259.7
+1	58	258.8
1/4	55	259.1
c	55	259.1
1/4	58	258.8
+9	64	258.2
cb	57	258.9
5	57	258.9
	80' E	
5	61	258.5
cb	63	258.3
+1	71	257.5
1/4	65	258.1
c	63	258.3
1/4	63	258.3
+9	61	258.5
cb	56	259.0

264.57

SUTTER

56

+5	5.5	259.1
N	4.5	260.1
	87' E	
N	5.3	259.3
cb	5.8	258.8
1/4	6.8	257.8
c	6.6	258.0
1/4	6.8	257.8
+9	7.2	257.4
cb	6.5	258.1
S	6.6	258.0
	115' E	
S	7.8	256.8
cb	8.1	256.5
+1	9.0	255.6
1/4	8.3	256.3
c	8.2	256.4
1/4	8.6	256.0
+9	9.1	255.5
cb	8.2	256.4
N	8.0	256.6

150' E

N	10.3	254.3
cb	10.6	254.0
+1	11.3	253.3
1/4	10.7	253.9
c	10.4	254.2
1/4	10.4	254.2
+9	10.9	253.7
cb	10.2	254.4
S	10.2	254.4
	170' E	
S	11.6	253.0
cb	11.6	253.0
+1	12.3	252.3
1/4	11.7	252.9
c	11.8	252.8
1/4	11.9	252.7
cb	12.3	252.3
N	11.9	252.7

264.57

190° E

N			12.4	252.2
cb			13.5	251.1
1/4			13.4	251.2
C			13.2	251.4
T.P.	2.47	254.39	12.65	251.92
1/4			2.9	251.5
+9			3.2	251.2
cb			2.7	251.7
S			3.0	251.4
		210° E		
S			3.9	250.5
cb			3.9	250.5
1/4			4.2	250.2
C			4.2	250.2
1/4			4.3	250.1
cb			4.2	250.2
+6			4.6	249.8
N			2.8	251.6

SUTTER.

57

218° E

N			5.3	249.1
cb			4.8	249.6
1/4			4.7	249.7
C			4.6	249.8
1/4			4.5	249.9
cb			4.3	250.1
S			4.2	250.2
		230° E		
S			4.7	249.7
cb			4.7	249.7
1/4			4.9	249.5
C			5.1	249.3
1/4			5.3	249.1
cb			5.8	248.6
N			6.0	248.4
		237° E		
N			6.0	248.4
cb			6.3	248.1
1/4			5.5	248.9

254.39

SUTTER,

58

C	5.2	249.2
1/4	5.1	249.3
cb	5.0	249.4
S	5.2	249.2
238' E		
-30	24.5	229.9
S	10.2	244.2
cb	5.1	249.3
1/4	5.1	249.3
C	5.2	249.2
1/4	5.5	248.9
cb	6.3	248.1
N	6.0	248.4
250' E		
N	6.0	248.4
cb	6.0	248.4
1/4	5.6	248.8
C	5.4	249.0
1/4	5.3	249.1
cb	5.3	249.1

S	13.0	241.4
+11	19.4	235.0
+25	27.6	226.8
+35	31.0	223.4
+45	33.4	221.0
270' E		
-55	42.0	212.4
-50	40.5	213.9
-33	35.8	218.6
-23	33.4	221.0
-19	26.4	228.0
-10	22.7	231.7
S	16.2	238.2
cb	7.6	246.8
+4	5.6	248.8
1/4	5.5	248.9
C	5.5	248.9
1/4	5.6	248.8
cb	5.7	248.7
N	6.2	248.2

254.39

286.38' E = 14.1 / 813 5T (60' WIDE)

N	5.7	248.7
cb	5.6	248.8
1/4	5.4	249.0
C	5.9	249.1
1/4	5.3	249.1
+8	5.0	249.4
cb	5.7	248.7
S	13.2	241.2
+25	28.2	226.2
+38	36.4	218.0
+48	31.3	223.1
X 14.1 1613. + 3.62 = break in grade		
-40	29.8	224.6
-35	29.5	224.9
-25	27.2	227.2
S	11.0	243.4
cb	5.7	248.7
+2	4.9	249.5
1/4	5.2	249.2

SUTTER

59

C	5.1	249.3
1/4	5.2	249.2
cb	5.6	248.8
N	5.2	249.2
N. Curb		
N	5.4	249.0
cb	5.5	248.9
1/4	5.1	249.3
C	5.0	249.4
1/4	5.1	249.3
+8	4.8	249.6
cb	5.4	249.0
S	10.0	244.4
+25	26.7	227.7
+35	25.6	228.8
N. Quarter.		
-30	19.4	235.0
-18.0	19.6	234.8
S	8.0	246.4
cb	4.9	249.5

25439

1/4	48	249.6
c	48	249.6
1/4	49	249.5
cb	5.2	249.2
N	5.2	249.2
X Quarter + 3.62 = break in grade		
N	4.8	249.6
cb	5.3	249.1
1/2	4.8	249.6
c	4.7	249.7
1/2	4.7	249.7
cb	4.6	249.8
5	7.8	246.6
+15	17.9	236.5
+25	17.7	236.7
Center.		
-25	14.4	240.0
-11	14.4	240.0
5	7.4	247.0
cb	4.5	249.9

JUTTER,

CO

1/4	46	249.8
c	46	249.8
1/4	47	249.7
cb	5.0	249.4
N	4.5	249.9
E. Quarter		
N	4.6	249.8
cb	4.6	249.8
1/2	4.4	250.0
c	4.2	250.2
1/2	4.2	250.2
cb	4.1	250.3
+5	4.5	249.9
5	6.4	248.0
+5	9.9	244.5
+10	8.2	246.2
X Quarter + 3.62 = break		
-10	6.3	248.1
-4	7.6	246.8
5	5.1	249.3
+2	4.2	250.2

cb	41	250.3
1/4	40	250.4
c	40	250.4
1/4	43	250.1
cb	46	249.8
N	46	249.8
E Curb.		
N	44	250.0
cb	46	249.8
1/4	41	250.3
c	38	250.6
1/4	39	250.5
cb	39	250.5
5	39	250.5
+5	38	250.6
E.L. 1613		
5	29	251.5
+4	36	250.8
cb	36	250.8
1/4	35	250.9

c	34	251.0
1/4	37	250.7
cb	43	250.1
N	37	250.7
X 3.62' E = break in grade		
N	30	251.4
+3	38	250.6
cb	39	250.5
1/4	35	250.9
c	32	251.2
1/4	34	251.0
+7	37	250.7
cb	34	251.0
+6	34	251.0
5	28	251.6
35' E of 1613		
5	08	253.6
cb	14	253.0
+2	21	252.3
1/4	18	252.6

254.39

C			1.6	252.8
1/4			1.6	252.8
+8			1.9	252.5
cb			1.2	253.2
+7			1.1	253.3
N			0.2	254.2
T.P.	848	260.25	1.92	252.47
		64.65 E of 1/815		
N			5.2	255.8
cb			5.5	255.5
+2			6.2	254.8
1/4			6.4	254.6
C			6.5	254.5
1/4			6.5	254.5
+8			6.4	254.6
cb			5.5	255.5
S			5.1	255.9
		69.65 E. of 1/815 = Mt. CRANE Pt. 40' into 5' walk		
S			5.7	255.3
cb			6.0	255.0

SUTTER

12

+2			6.6	254.4
1/4			6.3	254.7
C			6.2	254.8
1/4			6.2	254.8
+8			6.1	254.9
cb			5.2	255.8
N			4.9	256.1
		Mt. CRANE		
N			4.6	256.4
cb			5.0	256.0
+2			5.8	255.2
1/4			6.2	254.8
C			6.0	255.0
1/4			6.0	255.0
+5			6.2	254.8
cb			5.9	255.1
S			5.8	255.2
		Mt. Quarter		
S			5.4	255.6
cb			5.6	255.4

260.95

1/4	58	255.2
C	57	255.3
1/4	58	255.2
+8	57	255.3
cb	49	256.1
N	44	256.6
Center		
N	41	256.9
cb	47	256.3
+2	55	255.5
1/4	56	255.4
C	55	255.5
1/4	55	255.5
cb	56	255.4
S	54	255.6
E Quarter		
S	52	255.8
cb	53	255.7
1/4	53	255.7
C	51	255.9

SUTTER.

63

1/4	53	255.7
+8	54	255.6
cb	45	256.5
N	40	257.0
E Curb		
N	39	257.1
cb	45	256.5
+2	53	255.7
1/4	51	255.9
C	49	256.1
1/4	51	255.9
cb	51	255.9
S	43	256.7
E. L. CRANE PL		
S	34	257.6
+4	42	256.8
cb	45	256.5
+2	50	256.0
1/4	49	256.1
C	47	256.3

260.45

1/4	49	256.1
+8	52	255.8
ch	44	256.6
N	41	256.9
$\left. \begin{array}{l} 20.25' \text{ E on So.} \\ 47.92' \text{ - No.} \end{array} \right\} = \text{SECT. A (see page 38)}$		
N	36	257.4
+2	42	256.8
ch	44	256.6
+1	48	256.2
1/4	44	256.6
0	44	256.6
1/4	48	256.2
+8	50	256.0
ch	44	256.6
+8	43	256.7
5	36	257.4
$\left. \begin{array}{l} 19.08' \text{ E on No.} \\ 45.25' \text{ - So.} \end{array} \right\} = \text{E.L. Marine View}$ SUTTER 80' wide on this section.		
5	46	256.4
14	50	256.0
ch		
+3	55	255.5

SUTTER.

1/4	53	255.7
0	49	256.1
1/4	52	255.8
+8	52	255.8
ch	49	256.1
+2	43	256.7
N	39	257.1
ch	340	257.05 = 256.99

3/23/17

Gregory
Moore
Miller

CROSS-SECTION
OF
ESSEX ST 50' wide
17 Essex Place

From N.L. Park Blvd to N.L. Essex Pl.

B.M.	7.80	310.98	303.18
		N.L. Park Blvd	
So.		3.6	307.4
cb		3.0	308.0
1/4		2.7	308.3
c		2.3	308.7
1/5		2.3	308.7
cb		2.0	309.0
No.		1.6	309.4
		25' W	
No.		4.1	306.9
cb		4.1	306.9
1/4		4.1	306.9
c		4.3	306.7
1/5		4.6	306.4
cb		4.8	306.2
So		4.6	306.4
		50' W	
S		5.8	305.2

Hub SE
Indiana Room

cb	5.9	305.1
1/4	5.7	305.3
c	5.5	305.5
1/4	5.5	305.5
cb	5.5	305.5
N	5.4	305.6
	75' W	
N	7.4	303.6
cb	7.4	303.6
1/4	7.1	303.9
c	7.3	303.7
1/4	7.6	303.4
cb	7.7	303.3
S	7.7	303.3
	100' W	
S	8.9	302.1
cb	9.1	301.9
1/4	9.4	301.6
c	9.2	301.8
1/4	9.0	302.0

310.98

cb			93	301.7
N			8.7	302.3
		125' W		
N			11.3	299.7
cb			11.3	299.7
1/2			11.4	299.6
c			11.3	299.7
1/2			11.4	299.6
cb			11.3	299.7
S			10.6	300.4
		141' W		
S			11.1	299.9
cb			12.1	298.9
1/2			12.4	298.6
c			12.5	298.5
1/2			12.6	298.4
cb			13.2	297.8
N			12.3	298.7
T.P.	1.01	298.99	13.0	297.98

ESSEX

67

			145' W	
N			1.8	297.2
cb			1.4	297.6
1/2			1.0	298.0
c			0.6	298.4
1/2			0.8	298.2
cb			0.3	298.7
S			+0.5	299.5
			160' W	
S			0.6	298.4
cb			1.5	297.5
1/2			1.9	297.1
c			2.2	296.8
1/2			2.5	296.5
cb			2.7	296.3
N			3.9	295.1
			175' W	
N			3.7	295.3
cb			3.6	295.4
1/2			3.3	295.7

298.99

C	3.4	295.6
1/4	3.0	296.0
cb	2.7	296.3
S	2.2	296.8
200' W		
S	4.0	295.0
cb	4.5	294.5
1/4	5.0	294.0
C	5.1	293.9
1/4	5.2	293.8
cb	5.4	293.6
N	5.2	293.8
210' W		
N	6.2	292.8
cb	6.0	293.0
1/4	5.9	293.1
C	6.0	293.0
1/4	5.9	293.1
cb	5.8	293.2
+R	4.4	294.6

Essex

68

S	4.4	294.6
225' W		
S	7.5	291.5
cb	8.1	290.9
1/4	8.2	290.8
C	8.2	290.8
1/4	7.6	291.4
cb	7.7	291.3
N	7.9	291.1
250' W		
N	9.8	289.2
cb	10.2	288.8
1/4	10.2	288.8
C	13.4	285.6
1/4	13.6	285.4
cb	14.1	284.9
S	12.1	286.9
+10	9.1	289.9
TP	6.28	293.45
	11.82	287.17

29345

280' W

-20	10.2	283.3
S	13.4	280.1
cb	12.6	280.9
1/4	12.0	281.5
C	11.6	281.9
1/4	10.0	283.5
+2	9.8	283.7
cb	6.8	286.7
+3	5.0	288.5
N	5.4	288.1

300' W

N	6.3	287.2
+5	6.4	287.1
cb	7.4	286.1
1/4	9.4	284.1
C	10.2	283.3
1/4	10.7	282.8
cb	11.8	281.7
S	12.5	281.0

ESSEX

69

+18

14.3

279.2

315' W

-20

14.8

278.7

S

13.8

279.7

cb

13.3

280.2

1/4

12.9

280.6

C

12.6

280.9

1/4

11.9

281.6

+3

11.4

282.1

cb

9.1

284.4

+3

7.1

286.4

N

7.1

286.4

332' W

N

7.4

286.1

+7

7.6

285.9

cb

9.6

283.9

+2

10.8

282.7

1/4

11.4

282.1

C

11.9

281.6

1/4

12.7

280.8

209.45

E35EX

70

cb 13.5 280.0

+10

10.1 283.4

3 14.0 279.5

TP 10.86 303.58 0.73 292.72

+20 15.6 277.9

TP 6.83 309.27 1.14 302.44

350' W

on BM

5.34 303.99 B.P. NW
Ch. + Univ Arc

-20 19.1 280.4

3 9.7 283.8

cb 7.6 285.9

1/4 6.9 286.6

c 6.8 286.7

1/4 7.7 285.8

cb 7.2 286.3

N 7.0 286.5

359.8' W on 110 }
360.8' W - 50 } = West End

N 5.8 287.7

cb 5.4 288.1

1/4 5.0 288.5

c 4.5 289.0

1/4 5.0 288.5

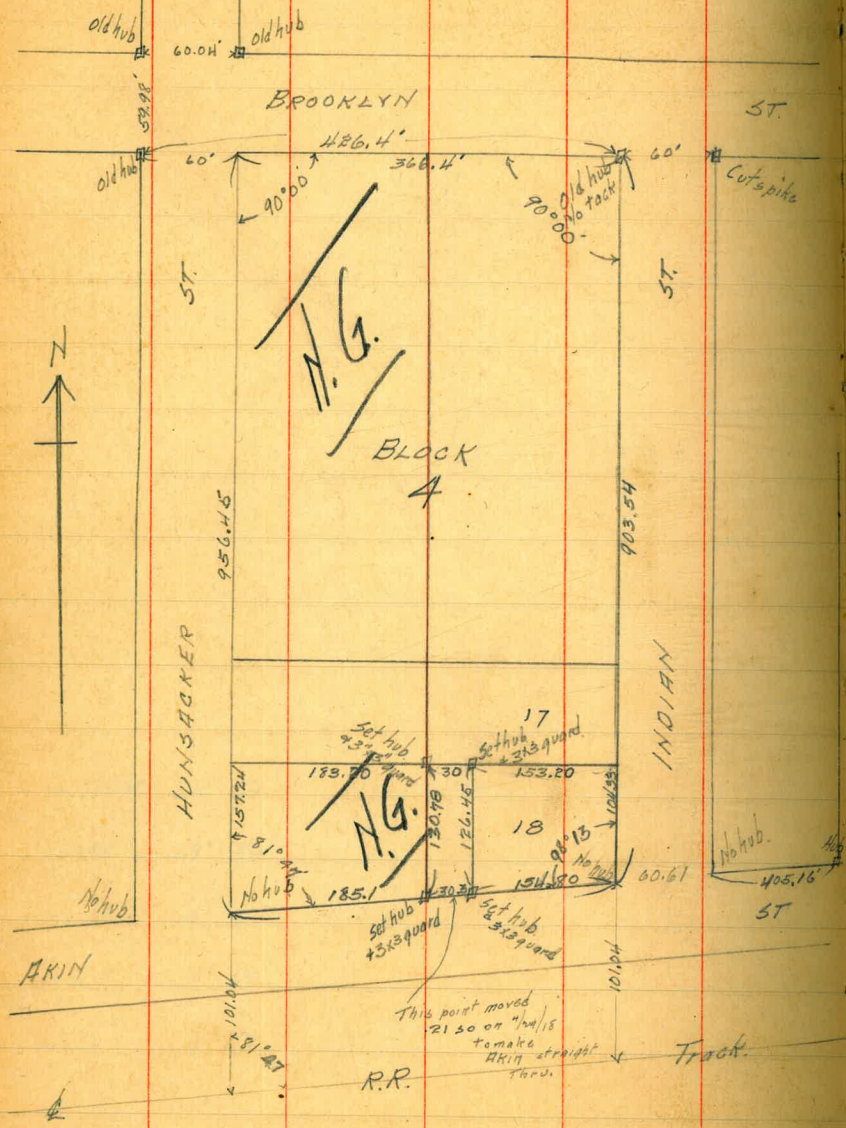
cb 5.7 287.8

3 7.7 285.8

920	+ 57.41	23° 52'
1148	+ 48	19° 56'
1128	+ 36	14° 57'
1148	+ 24	9° 58'
1148	+ 12	4° 59'
	0	0
1024	- 10.5	4° 22'

7/26/17
Gregor Moore
Miller

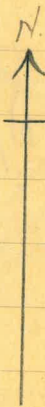
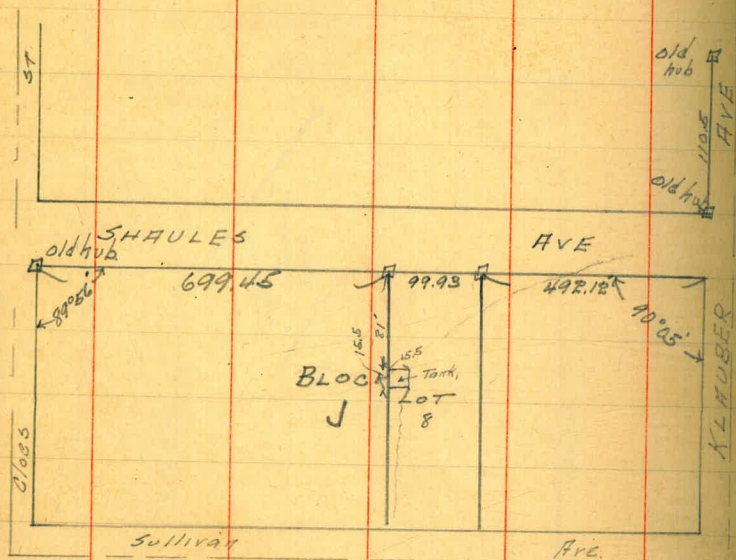
SURVEY OF THE
WEST 30 Feet
of Lot 18 BIRK
ENCANTO HIGHTS



3/4/42

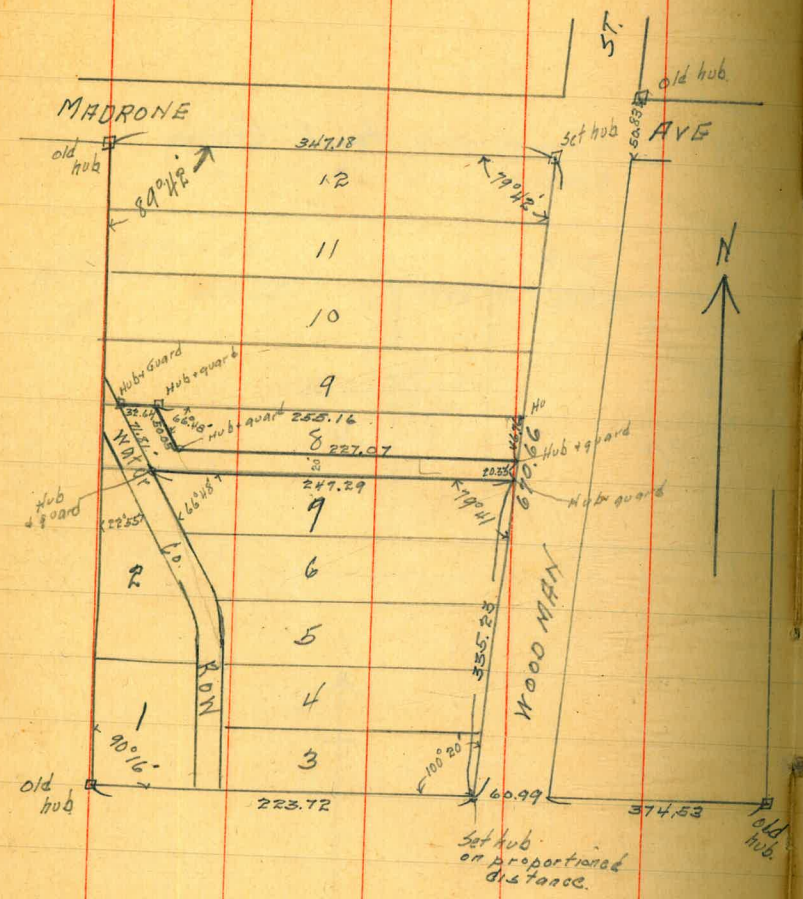
Map 1170

5000 gal tank. Gone
8000 " " "



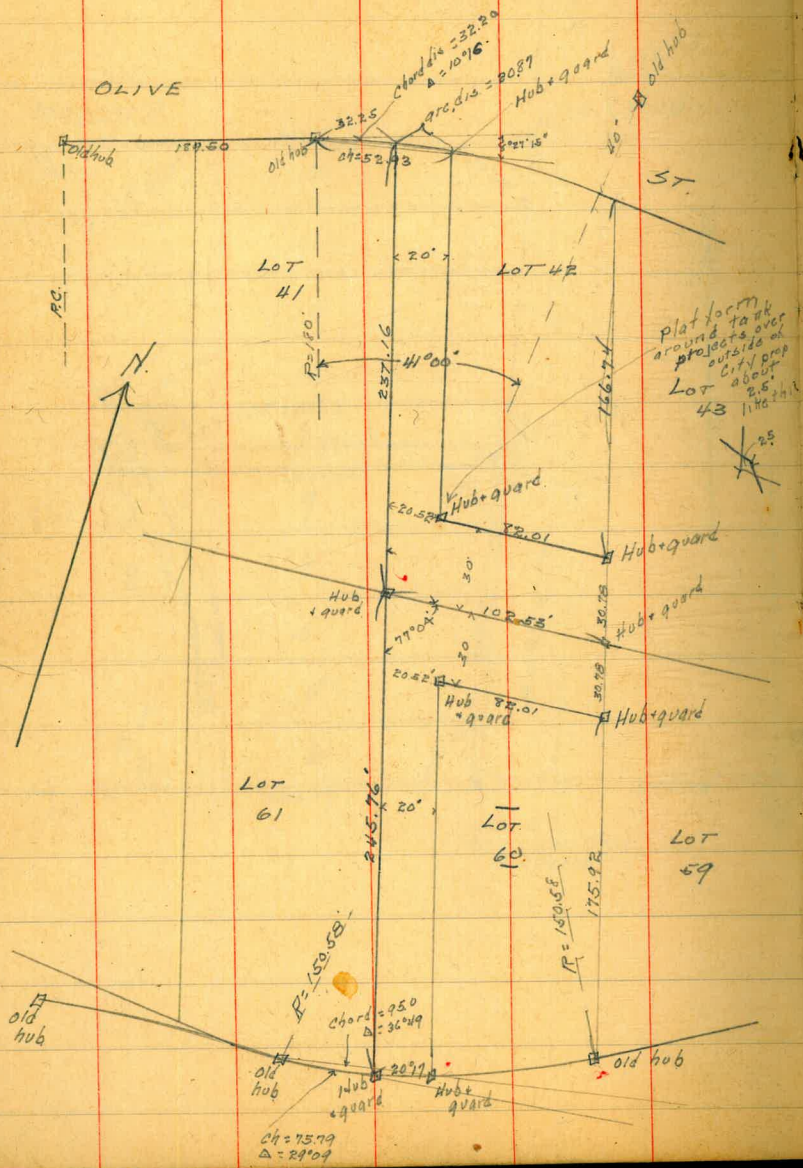
1/30/17
Gregory
Moore
Miller

Survey of the southerly
20' and the westerly
30' of Lot 8 Encanto
Park Add.



8/1/17
Gregory
Moore
Miller

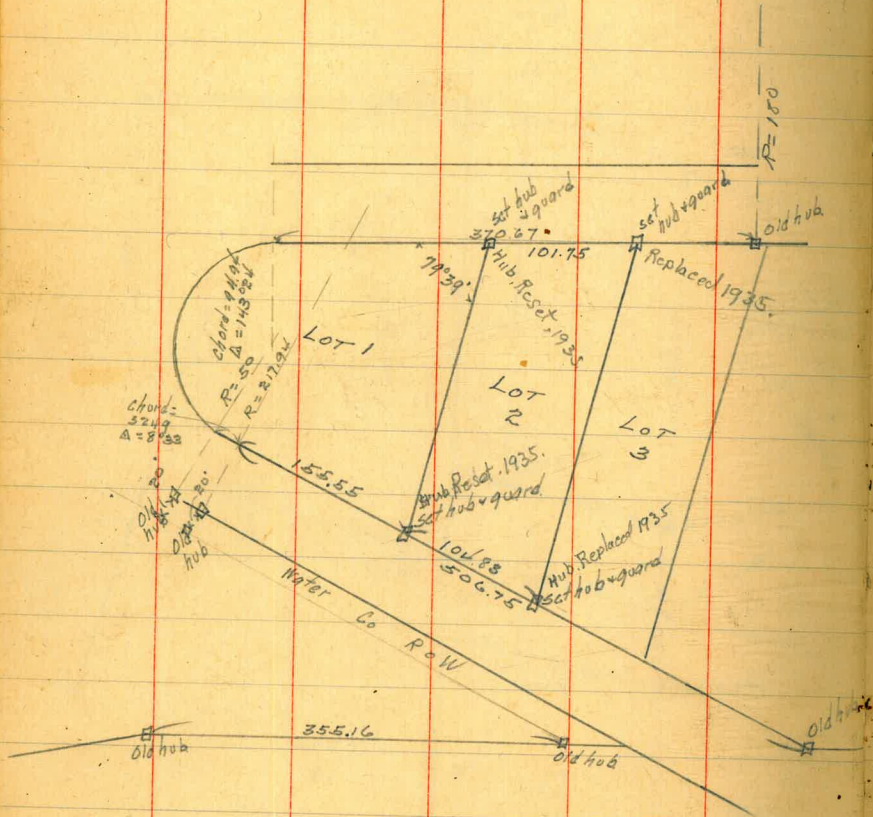
SURVEY OF WESTERLY 20'
OF LOTS 42+60
AND Southerly 30' OF LOT 42
✓ Northerly 30' - - 60
Resubdivision of a portion of
Resamont Addition



8/3/17 Gregory
Moore
Miller

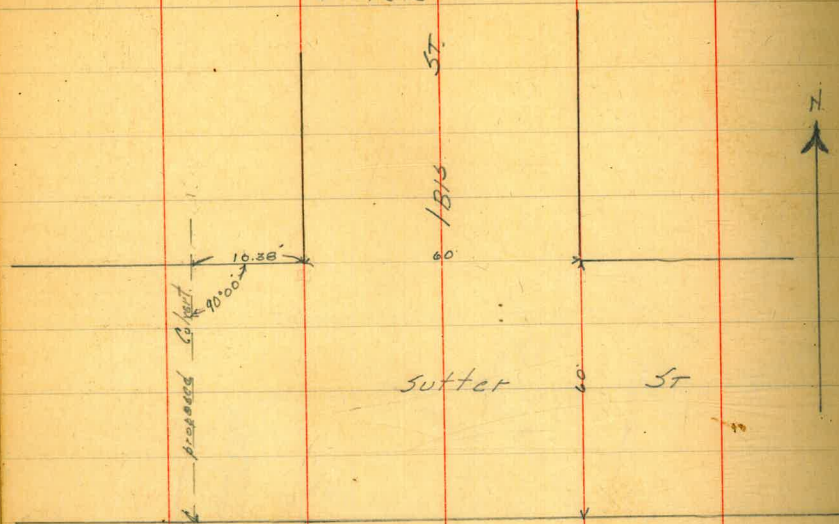
SURVEY OF
Lot 2 Rosemont add
to Encanto

76



4/15/8 Gregory
Moore
Miller

Levels over Site of
Proposed Culvert
on Sutter St
at 1615



Levels on E. of Culvert.

on B.M.	4.80	261.79	256.99	N.E. Gold Street Sutter
T.P.	5.73	256.71	12.91	248.88
10' N. of N. Line			6.6	248.1
N. Line Sutter			6.6	248.1
N. Curb			6.3	248.4
N. Quarter			6.2	248.5
Center			6.1	248.6
S. Quarter			6.0	248.7
7' S. of S. 1/2			6.0	248.7
S. Curb			7.4	247.3

254.71

77

S. Line Sutter

	14.3	240.4
10.50	21.8	232.9
21	28.1	226.6
25	33.4	221.3
30	36.0	218.7
43	38.3	216.4
53	37.0	217.7

4/21/12 Gregory Miller Levels on 63rd St Crossing

210.04

on B.M.	10.58	20290	
150' No. of $\frac{1}{2}$ of Track on 63rd	9.1	193.5	
180.3' - - - - - = No. End Bridge	8.2	194.5	
72.8' - - - - - = So - - -	7.2	195.7	
50.5' - - - - - = So Line Akin	4.9	198.0	
$\frac{1}{2}$ of Track	1.8	201.1	
5' So of $\frac{1}{2}$	1.6	201.3	
T.P.	8.93	210.04	1.79
50.5' So of $\frac{1}{2}$ of Track = N. Imperial Ave	2.2	207.8	
$\frac{1}{2}$ of Imperial Ave.	1.0	209.0	
West Line of 63rd St.			
$\frac{1}{2}$ of Track	9.5	200.5	
15' No. of $\frac{1}{2}$ of Track = Top of Cot.	8.6	201.4	
25' - - - - -	8.8	201.2	
15' So - - - - - = Top of Cot.	5.3	204.7	
$\frac{1}{2}$ of Imperial Ave	1.5	208.5	
25' W. of N.L. 63rd St.			
$\frac{1}{2}$ of Imperial Ave	1.6	208.4	
15' So of $\frac{1}{2}$ of Track = Top of Cot.	4.5	205.5	
$\frac{1}{2}$ - - - - -	10.1	199.9	

42 = correct elev
192.32 spk N.Y. Akin

15' No. of $\frac{1}{2}$ of Track = Top of Cot	6.5	203.5
25' - - - - -	6.8	203.2
5.5' W. of N.L. 63rd St		
25' - - - - - $\frac{1}{2}$ of Track	7.5	202.5
15' - - - - - = Top of Cot.	7.0	203.0
$\frac{1}{2}$ of Track	10.7	199.3
15' So. of - - - = Top of Cot	4.9	205.1
$\frac{1}{2}$ Imperial Ave	2.3	207.7
9.5' W. of N.L. 63rd St		
$\frac{1}{2}$ Imperial Ave	3.2	206.8
15' So. of $\frac{1}{2}$ of Track = Top of Cot	6.5	203.5
- - - - -	11.4	198.6
15' No. of - - - = Top of Cot	10.4	199.6
25' - - - - -	10.5	199.5
160' W. of N.L. 63rd St		
25' No. of $\frac{1}{2}$ of Track	11.6	198.4
15' - - - - - = Top of Cot	9.4	200.6
$\frac{1}{2}$ of Track	12.8	197.2
15' So. of $\frac{1}{2}$ of Track = Top of Cot	8.1	201.9
$\frac{1}{2}$ of Imperial Ave	4.9	205.1

210.04

200' W of N.L. 63rd St

↳ Imperial Ave	5.8	2042
15' So of Q of Track = Top of Cot.	9.1	200.9
✓ ✓ -	13.5	1965
15' No of ✓ - - = Top of Cot	11.2	198.8
25' - - - -	12.7	197.3

250' W of N.L. 63rd St

25' No. of Q of Track	13.7	1963
15' - - - - = Top of Cot.	13.2	1968
Q of Track	14.6	1954
15' So. of Q of Track = Top of Cot.	11.0	199.0
↳ Imperial Ave	7.3	2027

300' W of N.L. 63rd St

↳ Imperial Ave	9.3	200.7
15' So. of Q of Track = Top of Cot.	12.1	197.9
Q of Track	15.6	194.4
15' No. of Q of Track = Top of Cot	14.5	195.5
25' ✓ - - - -	15.6	194.4

210.04

50' E of Q of 63rd St

25' No. of Q of Track	7.6	2024
13' - - - - = Top of Cot.	7.1	2029
✓ - -	8.0	2020
15' So of - - - = Top of Cot	3.8	2062
↳ Imperial Ave	0.6	209.4

100' E of Q of 63rd St

↳ Imperial Ave	0.8	2092
15' So. of Q of Track = Top of Cot.	3.8	206.2
Q of Track	7.1	2029
13' No. of Q of Track = Top of Cot	5.1	204.9
25' - - - -	6.2	203.8

200' E of Q of 63rd St

25' No. of Q of Track	4.6	2054
13' - - - - = Top of Cot.	4.6	205.4
Q of Track	5.2	204.8
15' So of - - - = Top of Cot.	3.5	206.5
↳ Imperial Ave	1.5	208.5

253' E of Q of 63rd St

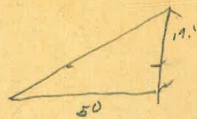
↳ Imperial Ave	2.1	207.9
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210.04

15' So. of Q of Track	4.0	2060
4' ✓ ✓ Q of Crossing	3.9	2061
13' No. of Q of Track	4.4	2056
25' ✓ ✓ - - -	5.2	2048
Platform of Freight Shed.	0.0	210.0

6.185
 2.617
 3.568
 3.152
 6.720

17.5' x 30' 30
 30
 5250
 50
 21

21
32.1

50:30 :: 32.5' x 30
 50) 9750
 50
 475
 475
 21

966.1
 957.4
 8.7
 43.1
 961.75
 960.8
 957.95
 956.45

99
 235
 99355

981.4
 81.46
 179.60

33888
 83
 347.18
 S.E. From 244.0
 179.00
 770.0
 102.16
 N.E. 246.0 326.69
 N.W. Grove 232.0
 S.W. 231.0
 N.E. 230.0
 S.E. 228.0
 N.W. 3+ST 227.0
 N.E. 225.0
 S.W. 226.0
 S.E. 224.0
 N.W. Edgemoor 220.0
 N.E. 220.0
 S.W. 218.0
 S.E. 218.0
 N.W.
 S.W.

RETURN TO CITY ENGINEER'S OFFICE
 CITY HALL, SAN DIEGO, CAL.

8-30 from 30th East

209 222.4
 202 3.00 14
 206 200.695
 238.6 10000 667
 2336
 16140257
 14316
 18240
 95
 84
 380
 760
 7980
 2195
 214.7
 214.7
 214.7
 214.7

7
 350
 3.16

451
 37
 382
 18.05
 6.6
 11.45

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.
 FOR SINGLE TRACK EMBANKMENT.

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

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

416.03
 129.66
 286.37