

1068

DEITZGEN  
4 1/2 IN. x 7 IN.

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ENGINEERS  
FIELD BOOK

No. 403

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Survey Mean High Tide Line from S. Line Eureka Lemoine Tract 2-  
Using -4.10 City Datum To Mission Beach Addition

A Section of Borron Pt. N.W. of Pt. Loma  
Country Club House for Tide St. Fill . 6

Sta.	B.S.	I	F.S. Red	Elev.	B.M.
					6335
	1.24	7.58			
0+37			11.68	-4.10	
3-			11.68	-4.10	
6-			11.68	-4.10	
9-			I.P. 11.68	-4.10	

Elev. B.M. 6335  
Grand Ave N. Line P.L. 1193 E. Side inside prop line Brass plug Con. Man.

6335  
1.24  
7.58  
- 4.10  
11.68

Survey of Mean High Tide Line

Nov. 1919

William  
Dunkle  
Surveyor  
Illinois

58°12'30"E 300

30

512°26'30"E 300°

27

515°27'E 300°

24

518°41'E 300

21

19+97.45 521°26'E 300

18

526°30'30"E 300

15

533°36'30"E 300

12

542°51'E 300

9

549°33'30"E 300

6

555°49'30"E 300

3-

562°17'E 263°

0+37

South

0+00

South Line Fureka Lemon Tract 700' from  
West Line Santa Fe R. of Way

197.45

22

303.87

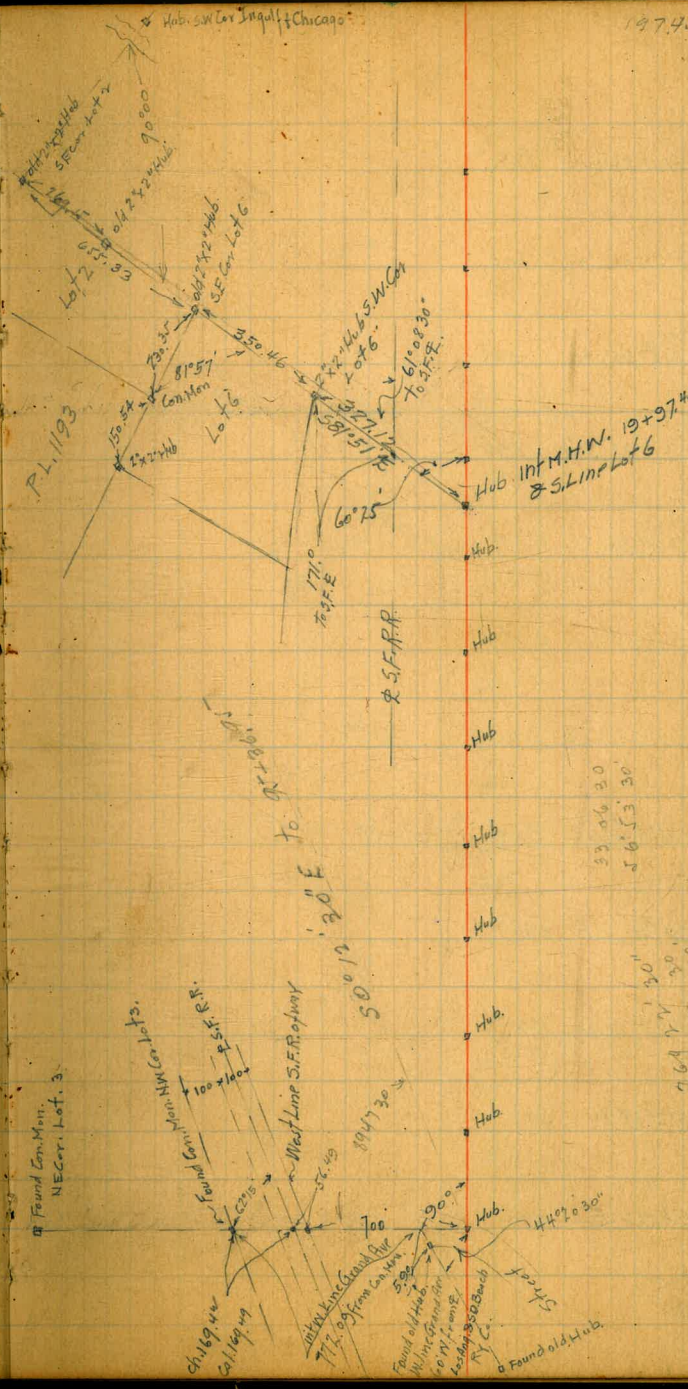
23.21

3+27.12

521°26'E

60' 15"

581°51'E







1865

91+00  
89+51.3  
1 48.7

7 34

N 73° 19' E  
73 34 20  
146 53 30  
33 06 30 E

87+91.0  
1 603  
87+51.3

5

93+89.25  
1 47.70  
95+36.95

220 43 20  
73 34 20  
146 53 30

95+36.95

573° 19' W 147.70

93+89.25

549° 00' W 189.25

92

543° 09' 30" W 100.0

91+00

537° 27' W 148.7

89+51.3

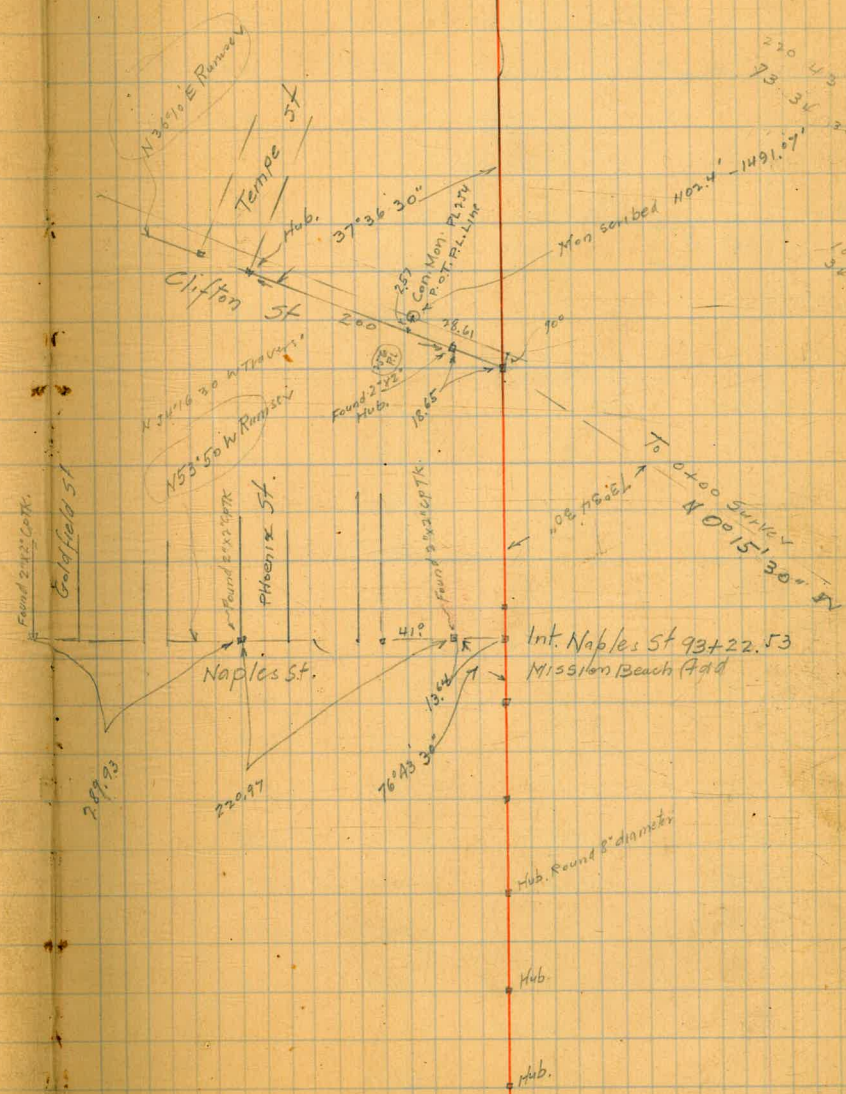
549° 33' 30" W 160.3

87+91.0

530° 22' W 300.0

84+91.0

549° 56' 30" W 91.0



Found 2 1/2\"/>

Goldfield St.

N 37° 36' 30\"/>

N 53° 50' W Rumisch

Phoenix St.

Naples St.

Int. Naples St 93+22.53  
Mission Beach 798

Hub. Round Bottom

Hub.

Hub.

Mon. scribed Horiz. - 1491.07

To 0200 Survey  
N 00° 15' 30\"/>

76° 45' 30\"/>

250

Found 2 1/2\"/>

Hub.

Found 3 1/2\"/>

41

13.04

220.97

900

28.61

200

103.34

220

43

20

73

34

20

146

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30

400

20

73

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220

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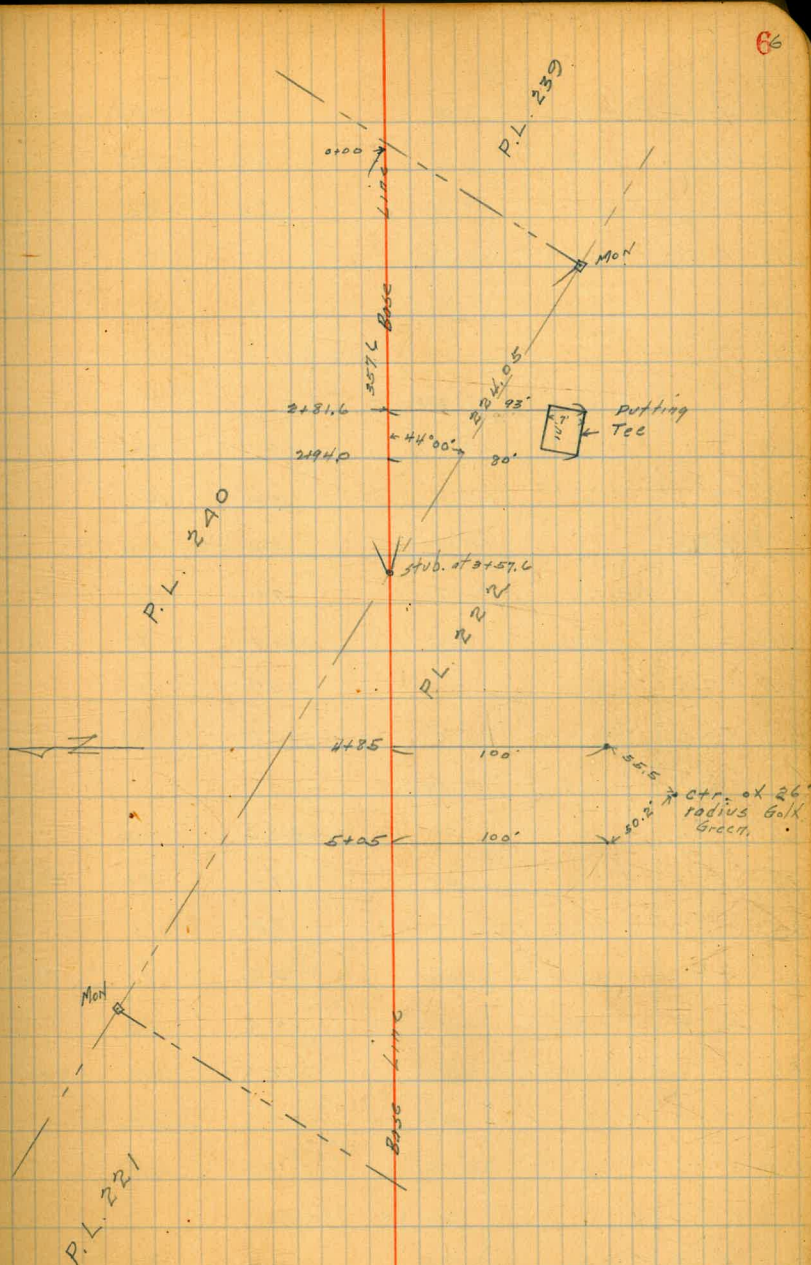
20

73

34

2/4/00 <sup>Gregory</sup> ~~Phyllis~~ <sup>5/10/00</sup> CROSS SECTION OF Proposed Borrow Pit  
NW. of Pt Lenny Club House

	12.44	54.19	41.75	SW Rose + 2/7/00
	0.92	43.31	11.80	42.39
	0.26	31.20	12.37	30.94
	1.10	19.49	12.81	18.39
		0400		
Base.			11.3	8.2
20' N			17.2	2.3
42' N			14.7	-0.2
		0430		
50' N. of Base.			19.9	-0.4
23' N ✓			18.0	1.5
14' N ✓			11.4	8.1
Base.			10.5	9.0
31' S. of Base.			8.3	11.2
		0460		
63' ✓ ✓ ✓			8.1	11.4
45' ✓ ✓ ✓			7.6	11.9
10' ✓ ✓ ✓			6.8	12.7
7' N ✓ ✓			7.1	12.4
25' ✓ ✓ ✓			12.2	7.3
45' ✓ ✓ ✓			19.8	-0.3
60' ✓ ✓ ✓			19.9	-0.4
		0485		
60' ✓ ✓ ✓			19.9	-0.4
40' ✓ ✓ ✓			20.7	-1.2





1949

20' N. of Base	9.2	10.3
Base	6.6	12.9
38' S. of Base	6.0	13.5
47' - - -	7.1	12.4
68' - - -	7.2	12.3
90' - - -	7.0	12.5

1+20

100' - - -	6.1	13.4
50' - - -	5.0	14.5
Base	6.1	13.4
14' N. of Base	7.8	11.7
38' - - -	16.2	3.3
45' - - -	19.7	-0.2
60' - - -	19.9	-0.4

1+85

65' - - -	20.0	-0.5
53' - - -	19.9	-0.4
30' - - -	8.0	11.5
16' - - -	2.8	15.7
20' So. - -	2.9	16.6
58' - - -	2.6	16.9
100' - - -	2.6	16.9
125' - - -	2.6	16.9

2+30

125' - - -	0.2	19.3
100' - - -	0.0	19.5

77

70' S. of Base	0.2	19.3
15' N. - -	1.6	17.9
53' - - -	18.8	0.7
65' - - -	20.2	-0.7
75' - - -	19.9	-0.4

2+55

75' - - -	20.0	-0.5
64' - - -	20.2	-0.7
49' - - -	18.1	1.4

TP 1203 31.52

0.0 19.49

6' N. of Base	12.4	19.1
6' S. - -	10.7	20.8
45' - - -	10.6	20.9
93' - - -	10.2	21.3
125' - - -	10.5	21.0

3+10

Bottom

125' - - -	6.1	25.4
70' - - -	6.2	25.3
45' - - -	6.1	25.4
10' - - -	6.4	25.1
Base	7.8	23.7
56' N. of Base	32.1	-0.6
76' - - -	32.2	+0.7

3+45

75' - - -	32.4	-0.9
59' - - -	31.7	-0.2

	31.5			
54' N. of Base		27.1	4.4	
4' " "		37	27.8	
8' S. " "		2.6	28.9	
50' " " "		2.1	29.1	
125' " " "		2.6	28.9	
	3480			
T.P.	11.22	42.50	0.22	31.28
Base		10.2	32.2	
13' N. of Base		13.2	29.3	
61' " " "		37.1	5.1	
69' " " "		42.6	-0.1	
76' " " "		42.7	-0.2	
	4425			
95' " " "		42.7	-0.2	
86' " " "		42.2	0.3	
76' " " "		37.9	4.6	
62' " " "		31.1	11.1	
76' " " "		11.1	31.4	
15' " " "		8.1	34.4	
16' S. " "		6.5	36.0	
64' " " "		6.2	36.3	
125' " " "		6.8	35.7	
	4455			
Base		5.6	36.9	
22' N. of Base		7.0	35.5	
40' " " "		14.1	28.1	

82' N. of Base	39.3	3.2	
106' " " "	43.2	-0.7	
	4485		
106' N. of Base	42.1	0.4	
96' " " "	41.6	0.9	
71' " " "	33.3	9.2	
28' " " "	9.3	33.2	
15' " " "	4.7	37.8	
31' S. " "	2.8	39.7	
85' " " "	3.3	39.2	
125' " " "	4.1	38.4	
	5405		
Base	3.1	39.4	
17' N. of Base	5.2	37.3	
57' N. " "	27.9	14.6	
76' " " "	34.5	8.0	
	5425		
52' " " "	21.3	21.2	
39' " " "	16.4	26.1	
25' " " "	9.0	33.5	
8' " " "	3.2	39.3	
19' S. " "	1.8	40.7	
65' " " "	1.2	41.3	
125' " " "	2.9	39.6	

2/16/00

Gregory  
C Moore  
Miller  
B Shaw  
MooreCROSS-SECTION OF ALLEY  
IN BLOCK 4  
BLAIRS HIGHLAND 16" WIDE

312.07

99

	1.32	312.23	310.91	NE Palm & Granada
	12.45	312.07	12.61	299.62
	N.L. PALM ST.			
	10.12	301.95	26.00	W
E	8.6	303.4		E
C	9.4	302.6		C
W	9.9	302.1		W
	15' N			
W	10.0	302.0		W
C	9.2	302.8		C
E	8.3	303.7		E
	35' N			
E	8.3	303.7		E
C	9.6	302.4		C
W	10.7	301.3		W = ctr of 9' door of garage
	55' N			
W	10.9	301.1		W
C	10.3	301.7		C
E	9.5	302.5		E = ctr of 10' door of garage
	75' N			
E	9.9	302.1		T.P. 7.70 319.29
	90' N			
E	9.8	302.2		E
C	10.1	301.9		C
W	10.3	301.7		+7.5' fence

107' N

W	9.4	302.6
C	9.1	302.9
E = ctr of cement floor 8' wide garage	8.9	303.17 9' from ctr

150' N

E	6.9	305.1
C	7.4	304.6
W	7.8	304.2

200' N

W	6.0	306.0
C	5.5	306.5
E	5.0	307.0

255' N

E	3.5	308.5
C	3.7	308.3
W = ctr of 9' door of garage	4.0	308.0

290' N = M.H  
309' N

W	2.2	309.8
C	1.7	310.5
E = ctr of 10' door of garage	1.7	310.3

T.P. 7.70 319.29

350' N

E	7.0	312.2
C	7.2	312.0
+7.5' fence	7.6	311.6

9' from ctr  
cement floor8' from ctr  
dirt floor

319.29

392' N

W + 0.8 = fence

6.6 312.6

C 6.3 312.9

E = ctr of 9' door to garage 9 on C

6.1 313.1

8' x long dirt floor

450' N

E 4.8 314.4

C 4.6 314.6

W 5.1 314.1

465' N

W 5.7 313.5

C 5.2 314.0

E 4.8 314.4

490' N

E 4.7 314.5

C 4.2 315.0

W 4.6 314.6

505' N

W 5.3 313.9

C 4.8 314.4

E = ctr of 9.5' door to garage

4.7 314.5

10' x 10' dirt floor

525' N

E 4.2 315.0

C 4.4 314.8

W 5.2 314.0

550' N

W 5.1 314.1

319.29

ALLEY BLK 4 Highland 10

C 4.7 314.5

E 4.1 314.8

570' N

E 3.8 315.4 = lawn

C 3.7 315.5

W 3.9 315.3

598' N

W 4.1 314.8

C 4.3 314.9 = M.H.

E 3.6 315.6

599' N

E 5.3 313.9

6.01 313.2 = 66.00 E

C 6.0 313.2

W 6.1 313.1

10/20

Grogort  
Moore  
Miller  
Shaw  
Moore

CROSS SECTION OF  
LAUREL ST  
29th to 30th

50' wide  
10' walks

295.6 = HJ.

111

backs	N.D.	F.S rod	Elev
+5.91	275.62		289.71

BPSE  
30th Kalmia

14' West

	W.L. 30th ST		
S		10.1	283.5
cb		10.9	284.7
1/2		11.2	284.4
c		11.6	284.0
1/2		11.9	283.7
cb		12.5	283.1
N		12.6	283.0

N  
cb  
1/2  
+L  
c  
1/2  
cb  
S

12.7	282.9
12.5	83.1
11.2	84.4
9.4	86.2
5.4	90.2
5.4	90.2
5.4	90.2
5.4	90.2

3' West

21' West

N		11.7	283.9
cb		12.0	283.6
1/2		11.8	283.8
c		11.4	284.2
1/2		10.8	284.8
cb		10.2	285.4
S		8.8	286.8

S  
cb  
1/2  
c  
1/2  
+L  
cb  
+3

5.1	90.5
5.1	90.5
5.1	90.5
5.2	90.4
5.3	90.3
9.8	85.8
11.9	83.7
12.6	83.0
12.4	83.4

7' West

25' West

S		5.5	290.1
cb		6.3	289.3
+1		8.0	287.6
1/2		8.8	286.8
c		10.9	284.7
1/2		11.8	283.8
cb		12.0	283.6
N		11.4	284.2

N  
cb  
1/2  
c  
1/2  
cb

5.5	90.1
5.4	90.2
5.0	90.6
5.0	90.6
5.0	90.6
5.1	90.5

295.6

S	50	290.6
50' West		
S	5.1	290.5
cb	5.0	90.6
1/2	5.0	90.6
c	5.0	90.6
1/2	5.1	90.5
cb	5.1	90.5
N	5.0	90.6
100' West		
N	4.7	90.9
cb	4.9	90.7
1/2	5.1	90.5
c	5.1	90.5
1/2	5.1	90.5
cb	5.1	90.5
S	5.0	90.6
160' West		
S	4.5	91.1
cb	4.5	91.1
1/2	4.6	91.0
c	4.8	90.8
1/2	5.1	90.5
cb	5.3	90.3
N	5.4	90.2

295.6 = H.J. LAUREL

12/2

200' West

N	6.1	289.5
cb	5.8	89.8
1/2	5.3	90.3
c	5.1	90.5
1/2	4.7	90.9
cb	4.7	90.9
S	4.7	90.9
250' West		
S	4.3	91.3
cb	4.8	90.8
1/2	5.1	90.5
c	5.3	90.3
1/2	6.0	89.6
cb	6.4	89.2
N	6.7	88.9
300' West		
N	6.9	88.7
cb	6.7	88.9
1/2	6.3	89.3
c	5.8	89.8
1/2	5.6	90.0
cb	5.4	90.2
S	4.0	91.6

295.62

325' West

S	4.0	291.6 ✓
cb	4.5	91.1 ✓
1/6	5.0	90.6 ✓
c	5.6	90.0 ✓
1/2	6.2	89.4 ✓
cb	6.7	88.9 ✓
N	7.0	88.6 ✓

350' West

N	7.2	88.4 ✓
cb	7.0	88.6 ✓
1/4	6.4	89.2 ✓
c	5.9	89.7 ✓
1/6	5.1	90.5 ✓
cb	4.7	90.9 ✓
S	4.4	91.2 ✓

400' West

S	3.9	91.7 ✓
cb	5.0	90.6 ✓
1/4	5.1	90.5 ✓
c	5.6	90.0 ✓
1/2	6.3	89.3 ✓
cb	7.6	88.0 ✓
N	7.6	88.0 ✓

295.6

LAUREL

133

435' West

N	7.8	287.8 ✓
+5	8.0	87.6 ✓
cb	7.5	88.1 ✓
1/4	6.3	89.3 ✓
c	5.6	90.0 ✓
1/4	4.8	90.8 ✓
cb	4.4	91.2 ✓
S	4.0	91.6 ✓

465' West

S	4.7	90.9 ✓
cb	5.5	90.1 ✓
1/4	6.2	89.4 ✓
c	6.5	89.1 ✓
1/6	7.2	88.4 ✓
cb	8.2	87.4 ✓
N	9.4	86.2 ✓

500' West

N	11.3	84.3 ✓
cb	10.1	85.5 ✓
1/4	8.7	86.9 ✓
c	8.0	87.6 ✓
1/4	7.4	88.2 ✓
cb	6.5	89.1 ✓
S	5.7	89.9 ✓

295.62

550' West

S		8.4	287.2 <sup>✓</sup>
cb		9.1	86.5 <sup>✓</sup>
1/4		9.7	85.9 <sup>✓</sup>
c		10.6	85.0 <sup>✓</sup>
1/4		11.8	83.8 <sup>✓</sup>
cb		12.9	282.7 <sup>✓</sup>
TP	3.98	287.37 <sup>✓</sup>	12.23 283.39 <sup>✓</sup>
N		6.2	281.2

575' West

N		8.5	278.8 <sup>✓</sup>
cb		6.8	80.5 <sup>✓</sup>
1/4		5.1	81.9 <sup>✓</sup>
c		4.1	83.2 <sup>✓</sup>
1/4		3.2	84.1 <sup>✓</sup>
cb		2.4	84.9 <sup>✓</sup>
S		1.5	85.8 <sup>✓</sup>

6013 West = E.L. 29<sup>1/2</sup> 5r 80' wide

S		27	84.6 <sup>✓</sup>
cb		4.1	83.2 <sup>✓</sup>
1/4		5.2	82.1 <sup>✓</sup>
c		6.0	81.3 <sup>✓</sup>
1/4		7.2	80.1 <sup>✓</sup>
cb		8.9	78.4 <sup>✓</sup>
N		11.4	75.9 <sup>✓</sup>

287.3 = N.I.

LAUREL 50' 14

E. CURB

N		13.2	274.1 <sup>✓</sup>
cb		10.3	277.1 <sup>✓</sup>
1/4		8.6	274.0 <sup>✓</sup>
c		7.2	8.8
1/4		6.1	78.7
cb		4.8	80.1 <sup>✓</sup>
S		3.1	81.2 <sup>✓</sup>
			82.5 <sup>✓</sup>
			83.9 <sup>✓</sup>

E QUARTER

S		4.4	83.0
cb		5.8	82.9 <sup>✓</sup>
1/4		7.3	81.5 <sup>✓</sup>
c		9.0	80.0 <sup>✓</sup>
1/4		10.8	78.3 <sup>✓</sup>
cb		11.6	76.5 <sup>✓</sup>
N		14.5	75.7 <sup>✓</sup>
			73.8 <sup>✓</sup>

Center

N		16.0	71.3 <sup>✓</sup>
cb		13.5	73.8 <sup>✓</sup>
1/4		12.0	75.3 <sup>✓</sup>
c		10.2	77.1 <sup>✓</sup>
1/4		8.7	78.6 <sup>✓</sup>
cb		7.4	79.9 <sup>✓</sup>
S		5.4	81.9 <sup>✓</sup>

West QUARTER

S		6.6	80.7 <sup>✓</sup>
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cb			8.4	279.0 278.9
1/4			9.8	277.5
c			11.5	75.8
1/4			13.2	74.1
cb			15.3	72.6
N			18.2	69.1

## West Curb

T.P.	1.13	279.64	8.86	278.51	on 13' curb
N			13.6	66.0	
cb			11.1	68.5	✓
1/4			7.7	71.9	✓
c			5.8	73.8	✓
1/4			3.7	75.9 65.9	
cb			2.0	77.6	✓
s			0.2	79.4	✓

WEST LINE 29<sup>TH</sup> ST.

s			2.4	77.2	✓
cb			4.3	75.3	✓
1/4			6.3	73.3	✓
c			9.3	70.3	✓
1/4			12.1	67.5	✓
cb			14.5	65.1	✓
N			18.5	61.1	✓

2/16/00 Gregory

LEVELS ON ALLEY  
bet IVY + JUNIPER  
FERN TO 31st.

	0.97	286.05	285.08	NW 30th JUNIPER
E.L. FERN			282.6	
+50			81.9	
1+00			81.7	
1+45			81.1	= M.H.
2+00			81.1	
2+50			81.9	
3+00			83.1	
3+50			84.1	
4+00			84.9	
4+50			85.3	
5+00			85.2	
5+50			85.3	
5+92			85.6	
5+97 = W.L. 31st St.			84.7	

E. Gutter Fern St. 3.5 82.6

3.03 285.11 285.08

Top of 12" cement pipe in Alley + E gutter Fern 900 79.11

Cuts on DRAIN 5' N of  
4' of Alley on opposite page.  
Stakes set 2' N of pipe line

186

	289.52	285.08	T. flow line
grade			
End of Fern	278.15	9.37	+4.5
50' E	278.40	9.12	+3.4
100' E	278.64	8.88	+2.8
150' E	278.88	8.64	+2.5
175' E	279.0	8.52	+2.0

3/3/20 Graphical Levels to determine elev. of  
Flooded Basement  
House SE. cor. Dates Granada

1717

" B.M. 5.72 213.67 207.95 B.P. SW  
Dates Granada

Elev. of lowest point in basement 6.9 206.8

Basement floor when built should be .5 higher than  
this low point.

Elev. of Pipe Inlet N.W. cor. Dates  
Granada 6.9 206.8

3/9/00

Levels at 5th + Broadway  
for Drainage

188

2.76 53.47 5071 SW. 6<sup>th</sup>

S. Cb Broadway

20' E. of 5 7.12 46.35

10' " " " 7.42 46.03

EL 5<sup>th</sup>. 7.49 45.98

Int. of Cb lines 7.20 46.09

10' W. of E cb. 7.00 46.47

S. L. Broadway

E cb. 7.53 45.94

10' W. of E cb 7.20 46.27

10' N. of S cb.

20' E. of 5<sup>th</sup>. 6.86 46.61

10' " " " 7.08 46.39

EL. 5<sup>th</sup> 7.06 46.41E cb 5<sup>th</sup> 6.89 46.58

S rail

E cb 6.77 46.70

E. L. 6.77 46.70

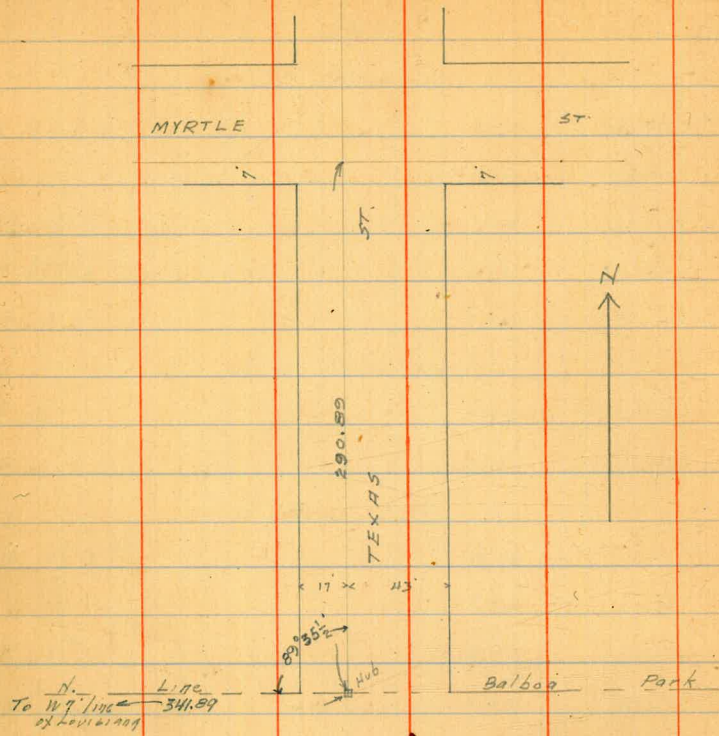
10' E 6.67 46.80

20' E 6.53 46.94

Gregory  
Miller  
Shaw

Ties between Texas St  
& Balboa Park.

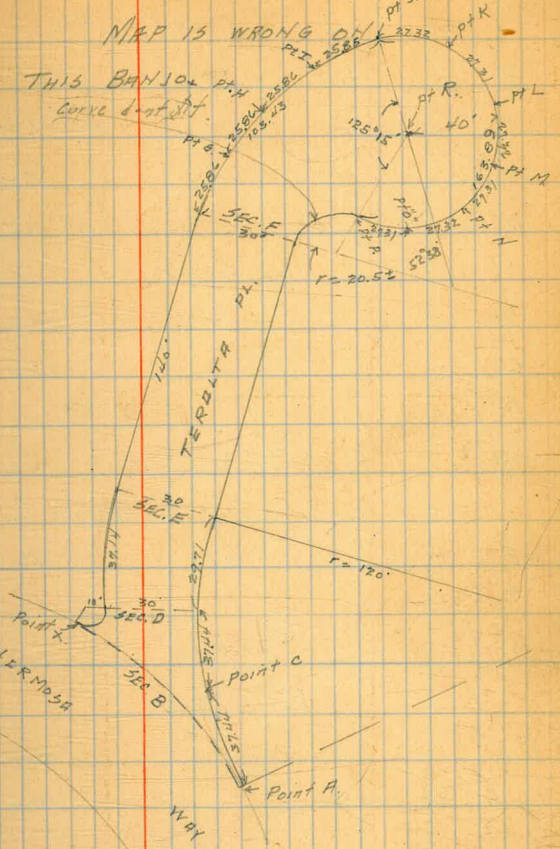
1919



7/27/20  
Gregory Miller  
Shaw

CROSS SECTION OF  
TERALTA PL.  
End to End

	1.25	277.73	276.48	NW Alvarado & Hermosa
T.P.	0.31	245.17	12.87	264.86
SEC. B = N/L Hermosa Way				
E.L.			1.1	
	on Co. opp. Point A.		1.65	
c			5.1	
W.L. = Point X			7.0	
Point C				
E.L.			3.1	in drive
SEC. D.				
W.L.			6.2	
c			5.9	
E.L.			4.9	on lawn
SEC. E				
E.L.			9.2	
c			9.5	
W.L.			9.6	
14' N.				
W.L.			10.9	
c			11.2	
E.L.			11.2	
T.P.	0.57	252.92	12.82	252.35
40' N.				
E			2.6	
c			2.6	



N			9.2	some slope
W			18.1	
c			9.7	
tg			8.0	
E			9.2	
T.P.	0.33	240.43	12.82	240.10

		240.43		
		90' N		
E			1.4	
+3			1.2	
C			7.2	
W			11.9	
		115' N		
W			19.2	
C			13.8	
E			10.1	
TP	0.24	-227.97	1270	227.73
		140' N = 3 SEC. F.		
E			4.0	
C			6.8	
W			10.6	
		PT G		
N.L.			13.2	
15' E on radius L.			10.4	
		PT H.		
20' S.E. of N.W.L. on radius			11.9	
N.W.L.			17.1	
		PT I		
N.L.			18.3	
20' S			14.6	
		PT J		
N.L.			19.1	

NEL

EL

SEL

SEL

Radius pt of Banjo

SE

S

PT K

PT L

PT M

PT N

PT R

PT O

PT P

20.0

21.2

18.3

11.9

13.1

5.3

5.1

10/16/20 Gregory

Fir St  
Elevations on curb S. Side  
Albatross to Front.

22

	2.36	102.39	100.03	RP. NW Firt Front
W.L. Front.			99.89	
25' W			98.76	
50' W			97.70	
75' W			96.59	
100' W			95.44	
112.5' W			94.76	
125' W			94.32	
150' W			93.59	
175' W			92.78	
E.L. Albatross			92.00	



12/21/0  
Gregory  
Miller  
Shaw

CROSS SECTION OF  
NEALE ST  
From 210' W. of WELLBORN  
To E. Middletown Add Line

43' wide  
10' walks  
575' 1/4

Neale -  
Wellborn

275 272.37 269.62  
1.22 260.69 12.90 259.47  
215' W. of Wellborn

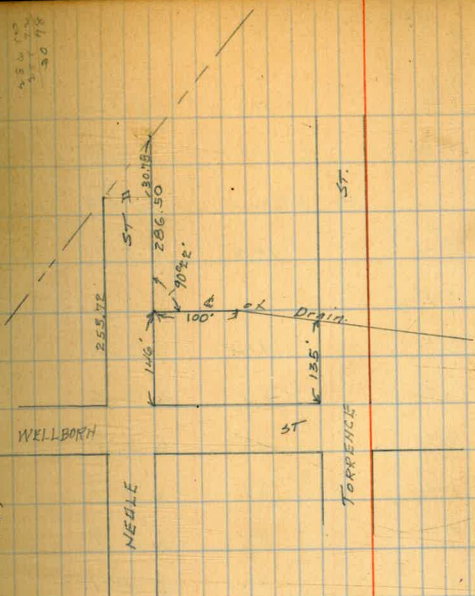
S		10.9	49.8
cb		11.2	49.5
1/4		11.4	49.3
C		12.0	48.7
1/4		12.6	48.1
cb		13.1	47.6
N		13.3	47.4

200' W

N		9.3	51.4
cb		9.1	51.6
1/4		9.1	51.6
C		8.9	52.0
1/4		8.7	52.0
cb		8.7	52.0
S		8.5	52.2

175' W

S		4.6	56.1
cb		5.3	55.4
1/4		5.3	55.4
C		5.6	55.1
1/4		5.8	54.9
cb		5.9	54.8



N		6.4	54.3
N		3.8	56.9
cb		3.0	57.7
1/4		2.7	58.0
C		2.5	58.2
1/4		2.2	58.5
cb		2.1	58.6
S		1.6	59.1
	12.95	272.12	1.22 259.47
		125' W	
S		9.8	62.6
1/4		11.2	61.2
cb		11.2	61.2
1/4		11.1	61.3

27 r. 40

NEELE

24

C		11.1	61.3
1/4		11.8	60.6
cb		12.6	60.0
N		12.3	60.1
	100° W		
N		9.2	63.2
cb		8.9	63.5
1/4		8.5	63.9
c		8.7	63.7
1/4		8.5	63.9
cb		8.3	64.1
S		7.6	64.8
	75° W		
S		5.3	67.1
cb		6.1	66.3
1/4		6.3	66.1
c		6.2	66.2
1/4		6.2	66.2
cb		6.4	66.0
N		6.5	65.9
	50° W		
N		4.1	68.3
cb		4.1	68.3
1/4		3.9	68.5
c		4.0	68.4
1/4		4.2	68.2

cb		4.0	68.4
S		3.1	69.3
	25° W		
S		1.8	70.6
1/4		2.4	70.0
cb		2.7	69.7
1/4		2.8	69.6
c		2.6	69.8
1/4		2.4	70.0
cb		2.2	70.2
N		2.2	70.2
	W. L. Wallport		
N		1.2	71.2
cb		1.4	71.0
1/4		1.6	70.8
c		2.0	70.4
1/4		2.2	70.2
cb		2.2	70.2
S		2.0	70.4

FOR NOTES ON INTERSECTION SEE BOOK 868

E. L. Wallport

S		3.6	68.8
cb		3.6	68.8
1/4		3.2	69.2
c		3.1	69.3
1/4		3.1	69.3

	48	69.6
cb	26	69.8
N	51	67.3
cb	61	66.3
1/4	63	66.1
c	62	66.2
1/4	64	66.0
cb	70	65.4
S	71	65.3
	78	69.6
cb	70	65.4
1/4	64	66.0
c	62	66.2
1/4	63	66.1
cb	62	66.2
N	58	66.6
	73	65.1
cb	77	64.5
1/4	79	64.5
c	79	64.5
1/4	82	64.2
cb	87	63.7
S	93	63.1

50' E

51' E

75' E

	10.6	61.8
S	10.3	62.1
cb	10.0	62.4
1/4	97	62.7
c	98	62.6
1/4	97	62.7
cb	89	63.5
N	10.72	261.70
T.P.	10.21	271.91
	95	62.4
cb	10.1	61.8
1/4	10.2	61.5
c	10.6	61.3
1/4	10.8	61.1
cb	11.2	60.7
S	11.5	60.4
	11.8	60.1
S	11.4	60.5
cb	10.8	61.1
1/4	10.6	61.3
c	10.6	61.3
1/4	10.6	61.3
cb	10.1	61.8
N	9.9	262.0

100' E

125' E

150' E =

271.91

175' E

N	8.7	63.2
cb	9.7	62.2
1/4	9.5	62.1
c	10.0	61.9
1/4	10.2	61.7
cb	10.6	61.3
+6	11.3	60.6
S	11.1	60.8

200' E

S	10.2	61.7
cb	9.2	62.7
1/4	8.8	63.1
c	8.5	63.4
1/4	8.4	63.5
cb	7.9	64.0
N	7.1	64.8

255.72' E = SECT A see page 23

N	2.3	64.6
cb	2.8	69.1
1/4	3.2	68.7
c	3.5	68.4
1/4	3.6	68.3
cb	4.0	67.9
S	4.2	67.7

NEALE

26

E.L. Middletown Add.

S	1.2	70.7
cb	1.3	70.6
1/4	1.3	70.6
c	1.6	70.3
1/4	1.7	70.2
cb	2.0	69.9
N	2.3	69.6

see next page for notes on drains

12/11/10 Gregory  
177/164  
3740.

Levels on Proposed Drain  
Shown on page 23

	3.48	265.18	261.70	
10 1/2 L. Neale			2.8	62.4
HL Neale			3.2	62.0
10 1/2			3.6	61.6
15.75 3			3.9	61.3
21.50 3			4.1	61.1
27.25 3			4.1	61.1
33 3			4.7	60.5
43 3 = SL Neale			5.6	59.6
50 5. of - - -			8.7	56.5
98 - - - -			10.9	54.3
100 - - - -			11.7	53.5
T.P.	1.78	254.11	12.55	254.33
150 3			3.7	50.4
173 ✓			4.2	49.9
176 ✓			5.4	48.7
T.P.	0.69	241.70	13.10	241.01
185 3			0.6	41.1
200 3			8.2	33.5
207 <sup>56</sup> 3 = HL Torrence			10.2	31.5
214 3			14.4	29.3
T.P.	0.45	229.92	14.23	229.47
222 3			7.4	22.3
235 3			10.2	19.4
243 3			16.6	13.1

262 3	25.5	204.2
278 -	31.6	198.1
295 -	35.4	94.3
297 -	33.5	96.2
312 ✓	35.0	94.7
338 ✓	43.0	86.7

3/31/20

Gregory  
Moore  
Miller  
Shaw

CROSS SECTION OF  
39th ST 60' 51' 10" cbs 10' 1/4"  
From SL of WOOLMAN AVE  
To SL of YALLE AVE or 5th ST

111.14  
0+75

0.68 111.14 110.46 <sup>spt NE</sup> 39th Woolman

SL WOOLMAN

E	0.8	110.3
cb	0.8	110.3
1/4	0.8	110.3
c	0.9	110.2
1/4	1.2	109.9
cb	1.4	109.7
W	1.1	110.0

0+25

W	1.2	109.9
cb	1.6	109.5
1/4	1.7	109.4
c	1.5	109.6
1/4	1.3	109.8
cb	1.3	109.8
E	1.3	109.8

0+50

E	2.7	108.4
cb	2.6	108.5
1/4	2.6	108.5
c	4.5	108.6
1/4	4.3	108.8
cb	4.2	108.9
W	1.7	109.4

W	4.0	109.1
+5	3.1	108.0
cb	3.4	107.7
1/4	3.5	107.6
c	3.5	107.6
1/4	3.6	107.5
cb	3.7	107.4
E	4.2	106.9

1+00

E	6.5	104.6
cb	6.1	105.0
1/4	6.0	105.1
c	5.9	105.2
1/4	5.6	105.5
cb	5.3	105.8
+7	4.7	106.4
W	3.4	107.7

1+20

W	7.8	103.3
cb	8.2	102.9
1/4	8.5	102.6
c	8.6	102.5
1/4	9.1	102.0
cb	9.1	102.0
+7	8.9	102.4

		111.14		
E			10.5	100.6
		1+35		
E			12.8	98.3
+3			11.8	99.3
cb			11.3	99.8
1/4			11.4	99.7
C			10.9	100.2
1/2			11.1	100.0
cb			10.8	100.3
W			10.6	100.5
		1+46		
W			11.8	99.3
cb			12.7	98.4
1/4			13.0	98.1
C			12.9	98.2
T.P.	0.20	98.41	12.93	98.21
1/4			0.5	97.9
cb			0.4	98.0
+7			0.4	98.0
E			0.8	97.6
			0.05	98.36
		1+50		
E			2.8	95.6
+3			1.2	97.2
cb			1.0	97.4
1/4			1.3	97.1

		39+7	29
C		0.9	97.5
1/4		0.9	97.5
cb		0.6	97.8
W		0.7	97.7
		1+75	
W		4.9	93.5
cb		4.6	93.8
1/4		5.1	93.3
C		5.0	93.4
1/4		4.8	93.6
cb		5.0	93.4
E		5.3	93.1
+16 = steps to house		3.6	94.8
		2+00	
-15		5.1	93.3
E		7.2	91.2
cb		8.1	90.3
1/4		8.1	90.3
C		8.2	90.2
1/4		8.3	90.1
+9		8.1	90.3
W		9.0	89.4
+10		9.3	89.1
		2+30	
-10		12.6	88.5
W		12.5	88.6

98.41

+2	11.8	86.6
cb	11.3	87.1
1/4	11.4	87.0
c	11.0	87.4
1/4	10.6	87.8
cb	10.4	88.0
+8	9.8	88.6
E	9.0	89.4

2+60

E	12.0	86.4
+2	12.8	85.8
cb	12.8	85.8
1/4	13.3	85.1
c	13.0	85.4
T.P.	0.53	85.96
1/4	1.3	84.7
cb	2.0	84.0
+2	1.2	84.8
W	1.5	84.5
W	3.2	82.8
cb	3.2	82.8
1/4	3.7	82.3
c	3.0	83.0
1/4	3.1	82.9
+6	3.4	82.6

W+85 = NL Teak St

54.09 mids on W  
52.18  
10' cbs 10.5 1/2

39+4

30

cb	2.9	83.1
+8	3.3	82.7
E	2.6	83.4

10'5 = N. curb

E	3.9	82.1
cb	4.2	81.8
1/4	4.2	81.8
c	4.0	82.0
1/4	4.5	81.5
cb	4.3	81.7
+2	5.0	81.0
W	4.5	81.5
W	5.8	80.2
cb	5.4	80.6
1/4	5.2	80.8
c	5.0	81.0
1/4	4.8	81.2
cb	5.0	81.0
E	4.7	81.3

Center

E	5.4	80.6
cb	5.2	80.8
1/4	5.4	80.6
c	5.8	80.2
1/4	6.1	79.9



cb	6.1	79.9
W	6.1	79.9
	3 1/2	
W	6.5	79.5
+9	6.7	79.3
cb	7.3	78.7
1/2	7.2	78.8
c	6.9	79.1
1/2	6.6	79.4
cb	6.2	79.8
E	5.6	80.4
	5 Curb	
E	6.9	79.1
cb	7.6	78.4
1/2	7.7	78.3
c	8.0	78.0
1/2	8.5	77.5
cb	8.6	77.4
+1	8.2	77.8
+9	8.0	78.0
W	8.5	77.5
	5. Line of Teak = 0+100	
W	10.1	75.9
+1	9.1	76.9
cb	9.4	76.6
+1	9.7	76.3

1/2	9.9	76.1
c	9.2	76.8
1/2	8.9	77.1
cb	8.5	77.5
E	8.5	77.5
	0+25	
-10	10.5	
E	10.9	75.0
cb	10.9	
1/2	11.3	
c	11.8	74.1
1/2	12.0	
cb	11.7	
+8	11.7	
W	12.2	73.7
+2	12.6	
+10	12.6	
T.P.	1.53	74.90
		0+50
-10	2.4	
W	2.3	74.6
+2	1.7	
cb	2.2	
1/2	2.0	
c	1.9	73.0
1/2	1.7	

74.90

cb	1.8	
E	1.2	78.7
+10	0.3	
	1+00	
-5	3.0	
E	3.7	71.2
cb	4.0	
1/4	4.0	
c	3.6	71.3
1/4	3.8	
cb	3.8	
+9	3.7	
W	4.4	70.5
+10	4.2	
	1+50	
-12	7.6	
-5	6.1	
W,	4.7	70.2
+6	4.7	
cb	5.3	
1/4	5.2	
c	5.1	69.5
1/4	5.3	
cb	5.4	
E	5.2	69.7
+1	4.3	

7490

39th

32

1+90

-5	7.3	
E	6.9	68.0
cb	6.7	
1/4	6.7	
c	6.4	68.5
1/4	6.3	
cb	6.0	
+6	5.6	
W	6.2	68.7
+3	6.7	
+10	6.8	
	$\left. \begin{array}{l} 2+06.34 \text{ on E} \\ 2+05.76 - W \end{array} \right\} = N.L. 5. \text{ or } Val/c$	$\left. \begin{array}{l} 50.34 \\ 10.68 \\ 7.51/6 \end{array} \right\}$
W	5.2	69.7
cb	6.0	
1/4	6.2	
c	6.6	68.3
1/4	7.0	
cb	7.2	
E	7.4	67.5
	N/cb	
E	7.4	67.5
cb	7.3	
1/4	7.1	
c	6.5	68.4
1/4	6.2	

74.90

cb	5.9	
W	5.7	69.2
	$N \frac{1}{4}$	
W	5.3	69.6
cb	5.7	
$\frac{1}{4}$	6.1	
c	6.4	68.5
$\frac{1}{4}$	6.9	
cb	7.2	
E	7.5	67.4
	Center	
E	7.5	67.4
cb	7.3	
$\frac{1}{4}$	6.9	
c	6.5	68.4
$\frac{1}{4}$	6.3	
cb	5.9	
W	5.4	69.5
	$S \frac{1}{4}$	
W	5.3	69.6
cb	5.8	
$\frac{1}{4}$	6.3	
c	6.6	68.3
$\frac{1}{4}$	7.0	
cb	7.2	
E	7.6	67.3

74.90

39th 33

S. Corb,

E	7.8	67.1
cb	7.7	
$\frac{1}{4}$	7.3	
c	7.0	67.9
$\frac{1}{4}$	6.4	
cb	5.9	
W	5.6	69.3
	$S. L. "S"$	
W	5.2	69.7
cb	5.6	
$\frac{1}{4}$	6.4	
c	6.5	68.4
$\frac{1}{4}$	7.1	
cb	7.4	
E	7.7	67.2

3/3/24 Gregory Moore Miller Moore  
 CROSS SECTION OF  
 ALLEY E x 39' 15' wide  
 + bet Woolman + Tent

11.50 109.86 98.36 T.P. #929

1+02

E.L. ~~39~~ = 104.00

S	39	14.2	95.7	
+L		12.5	97.4	
C		12.0	97.9	
N		11.6	98.3	
	0+20			
N		11.8	98.1	
+L		13.2	96.7	
C		13.5	96.4	
S		13.9	96.0	
	0+45			
S		13.3	96.4	
C		12.9	97.0	
+S		12.9	97.0	
N		11.9	98.0	
	0+70			
N		10.5	99.4	
+2		11.5	98.4	
C		11.0	98.9	
S		11.0	98.9	
	1+00 = garage or S yard with ground			
S		8.3	101.6	
C		7.9	102.0	
N		7.5	102.4	

N	7.5	102.4
C	7.7	102.2
+L	7.3	100.6
S	6.3	101.6
	1+20	
S	3.3	106.6
+L	4.7	105.2
C	4.7	105.2
N	5.0	104.9
	1+40	
N	3.0	106.9
C	2.8	107.1
S	2.3	107.6
	1+60	
S	1.2	108.7
+2.5	1.6	108.3
C	1.9	108.0
N	1.7	108.2
	1+80	
N	2.0	107.9
C	2.2	107.7
+5	1.8	108.1
S	1.2	108.7

10986

2+00

S	4.6	107.3
C	3.1	106.8
N	2.2	107.7

2+20

N	4.0	105.9
C	4.3	105.6
S	3.7	106.2

2+55

S = garage floor	7.5	102.4
C	7.7	102.2
N	7.6	102.3

2+70

N	9.9	100.0
C	9.1	100.5
S	8.5	101.5

3+00

S	11.5	98.4
T.P.	0.10	97.29
+5	1.3	96.0

C	1.7	95.6
N	1.8	95.5

3+25

N	4.5	92.8
C	4.2	93.1
+4	3.9	93.4

97.29

619.2

95

S

2.0 95.3

3+65

S	4.5	92.8
+4	5.6	91.7

C

5.6 91.7

N

6.0 91.3

4+00

N	7.7	89.6
---	-----	------

C

6.6 90.7

+3.5

6.6 90.7

S

4.3 93.0

4+40

S

5.2 92.1

C

8.5 88.8

N

9.3 88.0

4+70

N

11.9 85.4

C

11.6 85.7

S

9.3 88.0

5+00

S

12.2 85.1

T.P.

0.40

84.67

13.0 84.27

+5

2.1 82.6

C

2.1 82.6

N

2.7 82.0

Alley

8467

5+40

N	4.5	80.2
C	4.0	80.7
+v	4.0	80.7
S	1.6	83.1

5+70

S	1.8	82.9
+6.5	3.7	81.0
C	4.7	80.0
N	5.5	79.2

6+00

N	8.8	75.7
C	8.6	76.1
S	7.2	77.5

6+49.25 = WL 40<sup>th</sup> St

S	12.0	72.7
C	12.4	72.3
N	12.8	71.8

Gregory  
170076  
171162  
5200W

Cross Section of  
Flyway  
bet 25 + 26th Sts  
and B + C  
20' wide

SW 25th St

of. B.M.	2.48	199.40	196.92
N.	on paving + curb	5.08	194.32
C.	✓ ✓	5.46	193.94
S	✓ ✓ + curb	5.42	193.98
	0+35		
S		4.7	194.7
C		5.0	194.4
N		5.0	194.4
	0+65		
N		4.6	194.8
C		4.7	194.7
S	garage dirt floor.	4.7	194.7
	1+00		
S	garage dirt	4.1	195.3
C		4.2	195.2
N	garage dirt	3.7	195.7
	1+50		
N		2.7	196.7
C		3.3	196.1
S	garage cement floor	3.1	196.3
N	- garage dirt floor.	146.7	196.7
	1+60 = West end of Cement Apron		
1'3.0 x 5.2 = Wedge of cement apron		2.25	197.15
S		2.3	197.1
C		3.1	196.3

(Plotted)

N	2.3	197.1
N = garage dirt floor.	1+08 2+00	197.4
N	1.3	198.1
C	2.0	197.4
S	1.8	197.6
+1 on apron.	1.8	197.6
	2+07 = East end of Apron.	
1'3.0 x 5.2 = Wedge apron.	1.75	197.65
	2+20	
2'3.0 x 5.2 = garage dirt.	1.6	197.8
S	0.9	198.5
C	1.1	198.3
N	0.8	198.6
+3 = garage.	0.2	199.2
T.P.	823	207.62
	2+65	
N	7.7	199.9
C	8.0	199.6
S	7.7	199.9
	2+92 = W. end of cement drive on S.	
S = Wedge of cement	6.7	200.9
	3+00	
S = Wedge of cement	6.6	201.0
C	6.7	200.9
N	6.2	201.4
	3+10	
S = broken grade cement apron		201.18

207.62

3+32 = E. end of cement drive on S.

N	5.5	202.1
C	5.6	202.0
S = N. edge of cement	5.4	202.7
3+50		
S	4.6	203.0
C	4.7	202.9
N = garage dirt floor	4.8	202.8
3+75 = center of 20' double on S		
N	3.6	204.0
C	3.6	204.0
S = garage dirt floor	3.3	204.3
4+00		
S	2.3	205.3
C	2.4	205.2
N	2.3	205.3
4+35		
N	1.0	206.6
C	1.1	206.5
S	1.4	206.2
4+55		
S	1.2	206.4
C	1.1	206.5
N	0.8	206.8
This is a new section 4+70		
2.4' N. x N.L. = garage cement floor		205.9
N		205.5

C on Magohole

S		205.8
S		206.0
S		205.1
C		205.0
N		205.8

4+82 This an added section

4+90		
S	3.1	204.5
C	3.6	204.0
N	3.1	204.5
5+06.0 = W. end of wall on S.		
N	6.4	201.2
C	6.2	201.4
S bottom of wall	6.0	201.6
S Top ✓ ✓	4.3	203.3

5+34 = W. end of low curb on N.

N = Top of Curb + ground,	9.7	197.9
5+40		
S Top of Wall	9.1	198.5
S bottom of Wall	10.7	196.9
C	10.6	197.0
N	10.7	196.9
N Top of Curb	10.1	197.5

5+60 = W.L. of 26<sup>th</sup> St.

N = Top of Alley curb	10.56	197.06
N ground	11.0	196.6
C	11.2	196.4
S = Wall + ground.	11.35	196.27
S = Top of alley return	10.40	197.22

38



207.62

W curb line 36<sup>th</sup>

S on curb

10.71 196.91

N - ✓

10.80 196.82

Location & Operating of Fisher St. From National City Boundary to 32nd St.  
 14' Curbs, 13' Quarters on 80' St. 10' Curbs, 10' Quarters on 60' St.

(Contract) Nov 1922:  
 Miller  
 Squires  
 Watercock

1.20	14.27 <sup>✓</sup>	B.M. Nov 13.07 Division & Main	
2.11	5.36 <sup>✓</sup>	11.02	3.25 <sup>✓</sup>
7.22	7.92 <sup>✓</sup>	4.66	0.70 <sup>✓</sup>
4.23	9.63 <sup>✓</sup>	2.52	5.40 <sup>✓</sup>
5.62	9.17 <sup>✓</sup>	6.08	3.05 <sup>✓</sup>
3.33	6.42 <sup>✓</sup>	6.08	3.09 <sup>✓</sup>
6.18	9.08 <sup>✓</sup>	3.52	2.90 <sup>✓</sup>

South line of Fisher St produced to intersection of National City line:

Appx 44' from intersection of S.L. Fisher with East line Vesta produced:

Along Division line (See sketch)

S.	8.9	0.2
+5	8.9	0.2
+11	10.3	-1.2
cl	10.6	-1.5
+10	10.9	-1.8
1/2	11.8 (edge water)	-2.7
±		-3.9
1/2 These readings under Appx 1' of water	Appx 13.0	-3.9
cl		-3.9
N.L.		-3.9
Appx 44' but at RTA N.L.	Appx 13.0 (under water)	-3.9
N.C.B.	11.9 (edge water)	-2.8
1/2	11.1	-2.0

Platt  
 Jan 11/23/22

±	10.4	-1.3
1/2	10.5	-1.4
cl	9.3	-0.2
S.L.	8.9	0.2
35' East of intersection S.L.	7.9	1.2
cl	9.9	0.2
1/2	9.3	-0.2
±	10.3	-1.2
1/2	10.6	-1.5
cl	10.9	-1.8
N.L.	11.7 = Edge water	-2.6
E Line Vesta N.L. (60' wide)	9.6	-0.5
+7	9.0	0.1
cl	6.6	2.5
1/2	6.7	2.4
±	6.9	2.2
1/2	6.9	2.2
+9	6.7	2.4
cl	5.9	3.9
S.L.	9.3	4.8
E Curb Vesta S.L.	3.1	6.0
cl	2.9	6.2
1/2	5.2	3.9
±	6.8	2.3
1/2	6.7	2.4
cl	6.4	2.7
S.L.	7.0	2.1

	+	$\pi$ 9.08	-	
E 1/4 Vesta: N.L.			6.2	2.9
cl			6.5	2.6
1/4			6.6	2.5
$\pm$			5.2	3.9
1/4			4.0	5.1
cl			2.6	6.5
S.L.			2.6	6.5
$\pm$ Vesta S.L.			1.8	7.3
cl			2.4	6.7
1/4			3.1	6.0
$\pm$			4.2	4.9
1/4			5.1	4.0
cl			6.4	2.7
N.L.			6.4	2.7
W 1/4 Vesta N.L.			5.9	3.2
cl			4.8	4.3
1/4			4.1	5.0
$\pm$			3.6	5.5
1/4			2.5	6.6
cl			1.8	7.3
S.L.			2.0	7.1
W Cb Vesta S.L.			2.0	7.1
cl			1.8	7.3
1/4			2.0	7.1
$\pm$			2.9	6.2
1/4			3.4	5.7
cl			4.1	5.0

	+	9.08	-	FISHER	41
N.L.			4.5	4.6	
W N.L. Vesta:			3.5	5.6	
cl			3.2	5.9	
1/4			2.6	6.5	
$\pm$			2.4	6.9	
1/4			2.0	7.1	
cl			1.8	7.3	
S.L.			1.8	7.3	
#	4.33	10.80 <sup>✓</sup>	3.11	5.97 = 13. Mon Fisher & Vesta	
+50 SL			3.3	7.5	
cl			2.9	7.9	
1/4			2.8	8.0	
$\pm$			2.8	8.0	
1/4			2.8	8.0	
cl			2.7	8.1	
N.L.			2.7	8.1	
100 N.L.			2.5	8.3	
cl			2.7	8.1	
1/4			2.8	8.0	
$\pm$			3.1	7.7	
1/4			3.2	7.6	
cl			3.3	7.3	
S.L.			3.6	7.2	
+50 SL			4.0	6.8	
cl			3.5	7.3	
1/4			3.4	7.4	

	+	π 10.80	-	
±			3.5	7.3
¼			3.4	7.4
cl			3.3	7.5
N.L.			3.0	7.8
2+00 N.L.			3.5	7.3
cl			3.7	7.1
½			3.9	6.9
±			4.1	6.7
½			4.2	6.6
cl.			4.5	6.3
S.L.			4.5	6.3
2+00 S.L.			4.7	6.1
cl			4.5	6.3
¼			4.4	6.4
±			4.3	6.5
½			4.1	6.7
cl.			4.1	6.7
N.L.			4.0	6.8
3 N.L.			3.7	7.1
cl			3.7	7.1
¼			4.2	6.6
±			4.3	6.5
½			4.5	6.3
cl.			4.6	6.2
S.L.			4.7	6.1

	+	π 10.80	-	FISHER 42
2+00 S.L.			4.9	5.9
cl			4.9	5.9
¼			4.6	6.2
±			4.5	6.3
½			4.1	6.7
cl			3.5	7.3
N.L.			4.0	6.8
2+00 N.L.			3.7	7.1
cl			4.2	6.6
¼			4.4	6.4
±			4.5	6.3
¼			4.7	6.1
cl			4.4	6.4
S.L.			4.1	6.7
2+00 S.L.			4.7	6.1
cl			4.6	6.2
¼			4.5	6.3
±			4.6	6.2
½			4.4	6.4
cl			4.3	6.5
N.L.			4.2	6.6
5+00 N.L.			4.3	6.5
cl			4.5	6.3
¼			4.6	6.2
±			4.3	6.5
¼			3.7	7.1
cl			4.1	6.7

	+	π 10.80	-	
S.L.			4.4	6.4
S+10 S.L.			5.7	5.6
cl			5.7	5.6
1/4			4.9	5.9
±			4.8	6.0
1/4			4.5	6.3
cl			4.5	6.3
'N.L.'			4.3	6.5
6+00=EL Una: N.L.			4.3	6.3
cl			4.6	6.2
1/4			4.8	6.0
±			5.0	5.8
1/4			5.0	5.8
cl			4.9	5.9
S.L.			5.0	5.8
#	2.57	9.39 <sup>v</sup>	4.98	5.82 = 13' Mem.
Scb Una S.L.			3.0	6.4
cl			2.9	6.5
1/4			3.7	5.7
±			3.6	5.8
1/4			3.3	6.1
cl			3.2	6.2
N.L.			2.8	6.6
E 1/4 Una N.L.			2.7	6.7
cl			2.9	6.5
1/4			3.1	6.3

	+	π 9.39	-	FISHER 43	
±				3.5	5.9
1/4				2.5	5.9
cl				2.6	6.8
S.L.				2.6	6.8
± Una S.L.				3.1	6.3
cl				2.3	6.1
1/4				2.5	5.9
±				3.4	6.0
1/4				2.7	6.7
cl				2.6	6.8
'N.L.'				3.0	6.4
W 1/4 Una N.L.				3.1	6.3
cl				2.9	6.5
1/4				2.8	6.6
±				3.4	6.0
1/4				3.6	5.8
cl				3.7	5.7
S.L.				3.8	5.6
W cl Una S.L.				4.0	5.4
cl				3.7	5.7
1/4				3.6	5.8
±				3.4	6.0
1/4				3.2	6.2
cl				3.2	6.2
N.L.				3.4	6.0

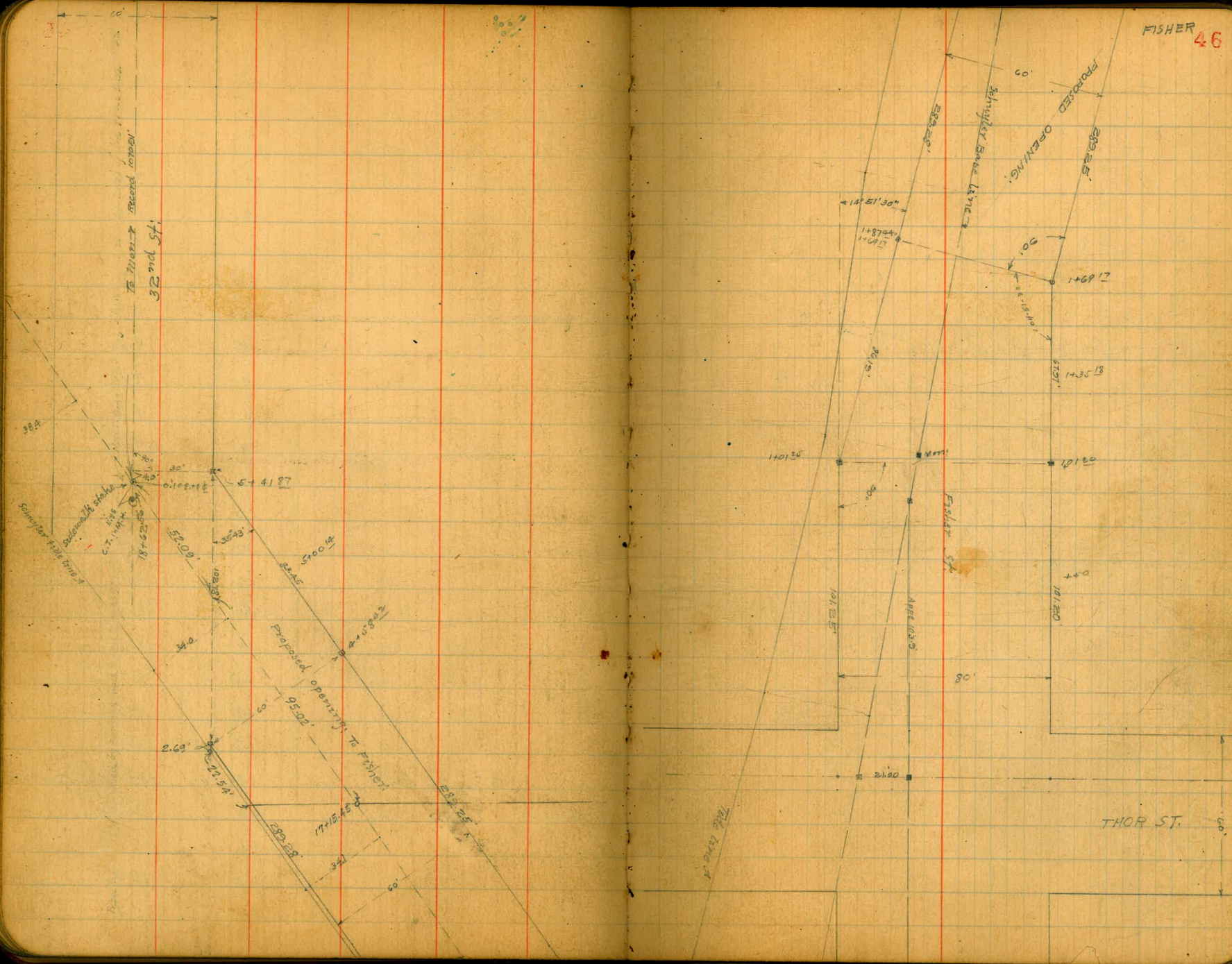
	+	π 9.39	-
oo=N.L. Una St. N.L.			3.4 6.0
cl			2.4 6.0
1/2			3.0 5.9
±			3.6 5.8
1/4			3.8 5.6
cl			3.8 5.6
S.L.			4.0 5.4
+SD S.L.			4.4 5.0
cl			4.2 5.2
1/4			4.1 5.3
±			4.1 5.3
1/4			4.0 5.4
cl			3.6 5.8
N.L.			3.3 6.1
1+SD N.L.			3.1 6.3
cl			4.0 5.4
1/4			4.1 5.3
±			4.3 5.1
1/4			4.2 5.2
cl			4.2 5.1
S.L.			5.0 4.4
1+SD S.L.			5.2 4.0
cl			5.2 4.2
1/4			5.1 4.3
cl			5.0 4.4
1/4			4.6 4.8

	+	π 9.39	-
cl			4.3 5.1
N.L.			4.3 5.1
2+SD N.L.			4.2 5.0
cl			4.5 4.9
1/4			4.7 4.7
±			4.8 4.6
1/4			4.8 4.6
cl			5.1 4.3
S.L.			5.0 4.4
2+SD S.L.			4.5 4.9
cl			4.1 4.3
1/4			4.1 4.3
±			3.9 5.5
1/4			3.7 5.7
cl			3.6 5.8
N.L.			3.6 5.8
3+SD N.L.			3.3 6.1
cl			3.5 5.9
1/4			3.5 5.9
±			3.6 5.8
1/4			3.9 5.5
cl			4.0 5.4
S.L.			4.1 5.3
3+SD S.L.			4.4 5.0
cl			4.4 5.0
1/4			4.2 5.2

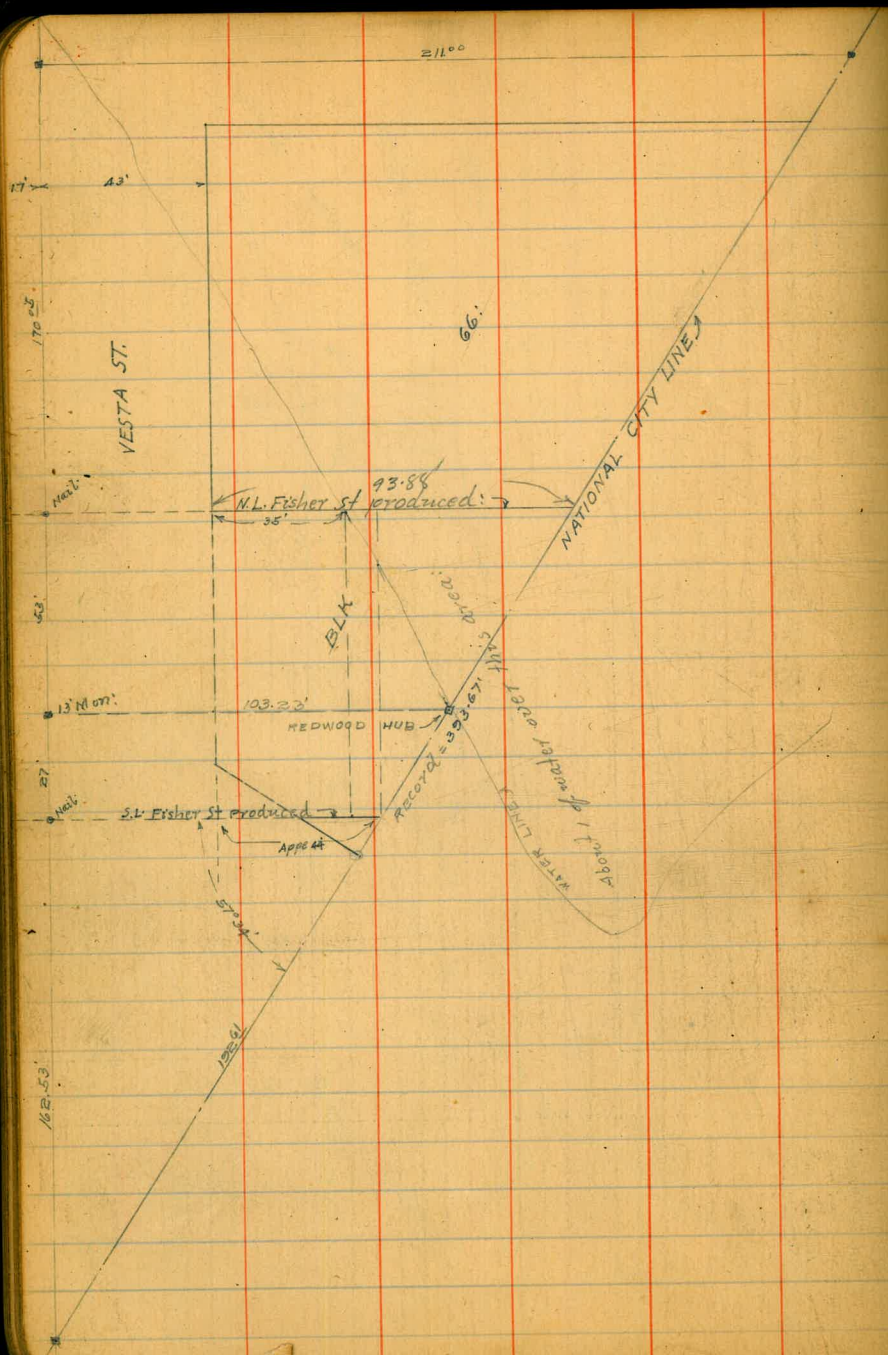
	T 9.39	
±	2.0	5.4
1/2	3.6	5.8
cl	3.4	6.0
N.L.	3.6	5.8
400 N.L.	3.6	5.8
cl	3.6	5.8
1/2	3.7	5.7
±	4.1	5.3
1/2	4.1	5.3
cl	4.4	5.0
S.L.	4.2	5.2
400 S.L.	4.9	4.5
cl	4.7	4.7
1/2	4.5	4.9
±	4.5	4.9
1/2	4.4	5.0
cl	3.9	5.5
N.L.	3.7	5.7
500 N.L.	4.7	4.7
cl	4.3	5.1
1/2	4.5	4.9
±	5.0	4.4
1/2	5.5	3.9
cl	5.7	3.7
S.L.	5.9	3.5

	T 9.39	FISHER 45
500 N.L.	6.5	2.9
cl	6.2	3.2
1/2	6.1	3.3
±	5.8	3.6
1/2	4.8	4.6
cl	4.5	4.9
S.L.	4.6	4.8
600 ± E.L. Thor. S.L.	4.6	4.9
cl	4.8	4.6
1/2	4.7	4.7
±	5.1	4.3
1/2	5.4	4.0
cl	5.6	3.9
N.L.	5.3	4.1
E CB Thor St S.L.	5.0	4.4
cl	5.0	4.4
1/2	5.0	4.4
±	4.9	4.5
1/2	4.5	4.9
cl	4.8	4.6
N.L.	4.8	4.6
# 4.79 10.2N	3.96	5.4 ± Men. 13. Izno Thor.
E A Thor St N.L.	5.0	5.2
cl	5.1	5.1
1/2	5.2	5.0
±	5.3	4.9

FISHER 46







FISHER 47

1/4	5.3	4.9
cl	4.9	5.3
+7	4.7	5.5
+10	9.2	1.0
S.L	9.9	0.3
S.L+10	9.9	0.3
± Thor S.L-10	9.5	0.7
S.L	9.8	0.4
+6	5.2	5.0
cl	4.9	5.3
1/4	5.0	5.2
±	5.2	5.0
1/4	5.3	4.9
cl	5.0	5.2
N.L	5.0	5.2
W 1/4 Thor St N.L.	5.0	5.2
cl	5.2	5.0
1/4	5.2	5.0
±	5.3	4.9
1/4	4.6	5.6
cl	4.8	5.4
+7	4.6	5.6
+10	9.7	5.5
S.L	9.9	0.3
S.L+10	9.9	0.3

	+	π 10.20	-
W.Cb Thor St S.L-10			9.8 0.4
S.L.			9.8 0.4
+10			4.7 5.5
Cb			5.2 5.0
1/4			5.0 5.2
±			5.4 5.0
1/4			5.3 4.9
Cb			5.7 4.5
N.L.			5.6 4.6
W.L. Thor St N.L.			6.0 4.2
cb			6.2 4.0
1/2			6.1 4.1
±			5.6 4.6
1/4			5.4 4.8
Cb			5.2 5.0
+10			9.7 0.5
S.L.			9.5 0.7
S.L. +10			9.7 0.5
0+10 S.L-10			9.6 0.6
S.L.			9.7 0.5
+12			9.5 0.7
Cb			6.3 3.9
1/2			6.1 4.1
±			6.1 4.1
1/4			6.2 4.0
Cb			6.4 4.0
N.L.			6.2 4.0

	+	π 10.20	-
10120 N } 10126 H } N.L.			6.1 4.1
Cb			6.2 4.0
1/4			6.2 4.0
±			6.3 3.9
+8			9.5 0.7
1/4			9.6 0.6
Cb			9.7 0.5
S.L.			9.7 0.5
+8 = Reservation fence.			9.5 0.7
103518 N } 10355 S } S.L-20 = Reservation fence.			9.4 0.8
S.L.			9.4 0.8
Cb			9.5 0.7
1/4			9.6 0.6
+3			9.4 0.8
±			5.6 4.6
1/4			5.6 4.6
±			5.7 4.5
N.L.			5.7 4.5
10674 N } 10874 S } 10° Cbs 10° S. N.L.			4.6 4.6
Cb			4.5 4.7
1/4			4.5 4.7
±			4.6 4.6
1/4			9.1 1.1
Cb			9.5 0.7
S.L.			9.6 0.6
S.L. +10 = Reservation fence.			9.5 0.7

	+	10.22	-
W.C.			
	2+00 S.L. - 10 = Reservation fence:		9.2
S.L.	S.L. - 3		8.2
+10	S.L.		5.1
Cb	+4		4.2
1/2	Cb		3.3
±	1/2		3.7
1/4	±		4.0
Cb	1/4		4.1
N.L.	Cb		4.4
W.L.	N.L.		4.2
Cb	2+10 N.L.		4.0
1/2	Cb		4.7
±	1/2		4.0
1	±		4.2
C	+3		4.2
+	+5		6.7
S.	1/2		7.0
S	Cb		8.9
O	S.L.		8.7
	S.L. + 5.0 = Reservation fence:		9.2
	S.L. - 3.0 = " " " "		9.1
	S.L.		8.9
	Cb		9.3
	1/2		9.5
	±		9.1
	+4		8.9
	N.L.		

	+	10.22	-
	1/2		4.4
	Cb		4.6
	N.L.		4.2
	2+50 N.L.		4.0
	Cb		4.4
	+8		4.3
	1/2		9.4
	±		9.2
	1/4		9.4
	Cb		9.3
	S.L.		8.9
	S.L. + 2.6 = Reservation fence:		9.0
	2+00		8.9
	S.L. - 3.0 = " " " "		8.7
	S.L.		8.6
	Cb		8.3
	1/2		8.3
	±		4.0
	+4		4.0
	1/2		4.3
	Cb		4.5
	N.L.		3.6
	2+58.22 N.L.		3.8
	Cb		3.6
	1/4		9.2
	+4		9.5
	±		

	+	π 10.22	-	
1/4			9.4	0.8
Cb			9.3	0.9
S.L			9.5	0.7
S.L + 20 = Reservation fence:			9.7	0.8
500' <sup>10</sup> N.L.			9.3	6.9
Cb.			9.7	6.5
1/4			9.4	7.0
+3			9.3	6.9
+7			9.3	0.9
±			9.6	0.6
500' <sup>10</sup> on N. (taken along E line 32nd st) N.L.			8.8	4.4
Cb.			4.5	5.7
1/4			9.2	7.0
+3			9.3	6.9
±			9.6	0.6
1/4			9.3	0.9
Cb			9.2	1.0
S.L			9.7	0.5
H	7.43	9.43	8.22	2.00 = D.M. Manhole = 2.00 600' = 1.05 from 32nd MAIN.
32nd st intersection 10' Cbs 1/4 1/4's			60' st.	
Sec A E.L			6.0	3.4
cl			6.7	2.7
1/4			7.0	2.4
±			7.2	2.2
1/4			7.4	2.0
cl			7.9	1.5
OKL			7.1	2.3

	+	π 9.43	-	FISHER 50
B W.L			7.4	2.0
cl			7.5	1.9
1/4			7.4	2.0
±			7.1	2.3
1/4			7.1	2.3
cl			7.0	2.4
E.L			5.9	3.5
O E.L			5.1	4.3
cl			5.8	3.6
1/4			6.6	2.8
±			7.0	2.4
1/4			7.4	2.0
cl			7.5	1.9
+6			7.6	1.8
+6			8.5	0.9
OKL			8.6	0.8
D W.L			8.4	1.0
+4			8.4	1.0
+4			8.4	1.0
Cb			7.6	1.8
1/4			7.8	1.6
±			7.7	1.7
1/4			8.9	0.5
+6			8.4	1.0
cl			4.9	4.5
+3			3.1	6.3
E.L			3.6	5.8



1/16/16

Cross Section  
33rd St.  
from N.L. Kalmia St  
To N.L. Hamden

80' wide  
14' cbs

0.01 293.88 293.87

89 SE  
Bancroft St

333

292.61

52

Station	0.01	293.88	293.87	89 SE Bancroft St	N. Curb		
T.P.	0.19	281.17	12.90	280.98	-39	34.4	35.3
	0.39	269.66	11.90	269.27	-30	32.8	36.9
		N.L. Kalmia St	80' wide		-11	26.3	43.4
W			4.4	65.3	E	22.7	47.0
cb			6.0	63.7	cb	16.5	53.2
(5' Not v)			(7.0)	62.7	1/4	11.0	58.7
1/2			10.2	59.5	+8	7.4	62.3
(10' Not v)			(12.7)	57.0	c	7.2	62.5
+3			14.6	55.1	1/4	6.0	63.7
+5			10.3	59.4	cb	6.6	63.1
c			13.0	56.7	W	5.0	64.7
(15' Not v)			(19.0)	50.7	N 1/4		
1/4			17.6	52.1	W	5.5	64.2
(25' Not v)			(28.2)	41.5	cb	5.0	64.7
cb			22.4	47.3	1/4	5.5	64.2
(15' Not v)			(30.5)	39.2	c	5.6	64.1
(20' ---)			(29.3)	40.4	1/4	6.3	63.4
(25' ---)			(26.3)	43.4	cb	12.8	56.9
E			29.0	40.7	E	18.8	50.9
(3' Not v)			(32.5)	37.2	+13	23.8	45.9
(8' ---)			(32.4)	27.3	+26	30.0	39.7
(20' ---)			(25.1)	42.6	Center Kalmia		
+6			33.3	36.4	-26	26.8	42.9
+13			33.3	36.4	E	15.9	53.8
+26			30.0	39.7	cb	9.2	60.5

26966

+8	53	64.4
1/4	4.8	64.9
C	5.4	64.3
1/4	5.1	64.5
cb	4.4	65.3
W	5.3	64.7
	5.1/4	
W	4.5	65.2
cb	3.5	66.2
1/4	4.3	65.4
C	5.0	64.7
1/4	5.3	64.4
+3	5.6	64.1
cb	9.5	60.2
E	15.6	54.1
+26	26.7	43.0
	5 Curb	
-45	37.4	32.3
-37	35.2	34.5
-24	29.9	39.8
E	21.4	48.3
cb	16.0	53.0
1/4	11.1	58.6
C	5.4	64.3
1/4	4.2	65.5
+6	3.5	66.2

26966

24 249 33<sup>rd</sup>

53

cb	3.2	66.5
W	3.8	65.9
	5 L Kalmia	
W	3.7	266.0
cb	4.1	65.6
+6	4.7	65.0
1/4	6.9	62.8
C	11.6	58.1
1/4	17.2	52.5
cb	21.0	48.7
E	26.5	43.2
+20	31.3	38.4
+40	30.2	39.5
	17' 5	
-20	20.5	49.2
E	16.8	52.9
cb	18.3	51.4
1/4	17.7	52.0
C	17.1	52.6
1/4	15.8	53.9
cb	12.9	56.8
W	7.6	62.1
+0.5	5.9	63.8
+5.0	3.9	65.8
	30' 5	
-7	4.5	65.2

269.66

W	8.4	61.3
+10	13.2	56.3
cb	14.6	55.1
1/4	15.5	54.2
+7	16.0	53.2
0	14.2	55.5
1/4	11.2	58.5
cb	11.8	57.9
E	12.9	56.8
+15	14.6	55.1
35' S		
-15	13.8	55.9
E	12.0	57.2
cb	10.5	59.2
1/4	9.3	60.4
C	10.8	58.9
1/4	12.2	57.5
+5	14.2	55.5
cb	14.6	55.1
W	11.3	58.4
+12	3.2	66.5
42' S		
-10	5.1	64.6
W	11.0	58.2
+9	13.1	56.6
cb	11.2	58.5

331.57

54

1/4	9.4	260.3
C	8.1	61.6
1/4	7.8	61.9
cb	9.0	60.7
E	11.0	58.2
+15	12.9	56.8
60' S		
-15	11.4	58.3
E	9.5	60.2
cb	7.1	62.6
1/4	4.9	64.7
C	3.2	66.5
1/4	2.2	62.5
cb	1.1	68.6
W	0.2	69.5
T.P.	931	278.58
100' S		
W	5.7	72.9
cb	6.7	71.9
1/4	7.8	70.8
C	9.4	69.2
1/4	10.6	68.0
cb	12.2	66.4
E	14.4	64.2
+15	16.4	62.2
150'		



278.58

150' S

- 20	13.6	65.0
E	11.2	62.4
cb	9.8	68.8
1/4	8.4	70.2
c	7.0	71.6
1/4	6.4	72.2
cb	5.1	73.5
W	4.0	74.6

200' S

W	3.1	75.5
cb	4.6	74.0
1/4	5.3	73.3
c	6.1	72.5
1/4	7.0	71.6
cb	8.2	70.4
E	9.5	69.1
+ 6	10.3	68.3

230' S

- 10	10.0	68.6
E	8.9	69.7
cb	7.8	70.8
1/4	7.0	71.6
c	6.3	72.3
1/4	5.0	73.6
cb	4.0	74.6

278.58

33rd

55

W	2.7	75.9	
300' S =	N.W.	Juniper St	80' wide 14' cbs
W	1.6	77.0	
cb	2.5	76.1	
1/4	3.4	75.2	
c	4.7	73.9	
1/4	5.4	73.2	
cb	7.2	71.4	
E	8.9	69.7	
+ 10	10.3	68.3	

N cb

- 10	10.3	68.3
E	8.9	69.7
cb	6.9	71.7
1/4	5.4	73.2
c	4.2	74.4
1/4	3.2	75.4
cb	2.1	76.5
W	1.4	77.2

N. 1/4

W	1.2	77.4
cb	2.2	76.4
1/4	2.9	75.7
c	4.4	74.2
1/4	5.4	73.2
cb	6.8	71.8

278.58

E	8.9	69.7
+10	10.2	68.4
Center Juniper		
-10	9.7	68.9
E	8.7	69.9
cb	7.4	71.2
1/4	6.1	72.5
C	4.8	73.8
1/4	3.7	74.9
cb	2.7	75.9
W	1.8	76.8
5 1/4		
W	2.6	76.0
cb	3.6	75.0
1/4	4.6	74.0
C	5.8	72.8
1/4	6.8	71.8
cb	7.9	70.7
E	9.1	69.5
+10	10.0	68.6
5 Curb		
-10	9.6	69.0
E	8.9	69.7
cb	7.9	70.7
1/4	7.2	71.4
C	6.4	72.2

278.58

33'd

56

1/4	5.2	773.7
+8	4.7	73.9
cb	3.5	75.1
W	2.7	75.9
6.5 S. of 5 Cb. = N. edge cement walk		
W	2.61	76.0
2.1 E = inside edge walk	2.79	75.81
1.7 = end of walk on West	3.30	75.3
16 W. of Eb. = - - - on East	7.47	71.11
2.1 = inside edgewalk	8.37	70.21
S.L. Kalmia		
W	2.6	76.0
+7.4 = outside edge walk	2.77	75.81
+19	3.6	75.0
+22	4.5	74.1
1/4	4.9	73.7
C	5.7	72.9
1/4	7.4	71.2
cb	7.7	70.9
E	8.30	70.3
T.P. 11.37 28249	7.46	271.12
50'S		
E	11.6	70.9
+7.4 = outside of walk	11.60	2270.87
cb	11.4	71.1
1/4	10.6	71.9
C	9.1	73.7

28249

1/4	8.6	73.9
+5	8.4	74.1
+8	7.1	75.4
+6.6 = outside edge walk	6.10	76.4
W	5.8	76.7

100' 5

W	5.3	77.3
+7.4 = outside edge walk	5.57	77.92
cb	6.1	76.4
+6	6.6	75.9
+8	8.3	74.2
1/4	8.4	74.1
c	9.0	73.5
1/4	10.4	72.1
cb	11.0	71.5
+6.6 = outside edge walk	11.15	71.34
E	11.1	71.4

150' 5

E	11.1	71.4
+7.2 = outside edge walk	10.82	71.67
cb	10.5	72.0
+5	10.3	72.2
+6	10.6	71.9
1/4	10.1	72.4
c	8.7	73.8
1/4	8.0	74.5

28249

57

+5	8.0	74.5
+8	6.3	76.2
cb	5.7	76.8
+6.8 = outside edge walk	5.23	77.26
W	4.9	77.6

200' 5

W	4.0	78.5
+2	4.4	78.1
+7.2 = outside edge walk	4.72	77.77
cb	5.2	77.3
+5	5.6	76.9
+8	7.1	75.4
1/4	7.3	75.2
c	8.0	74.5
1/4	9.6	72.9
+6	10.2	72.3
+7	9.8	72.7
cb	10.2	72.3
+6.8 = outside edge walk	10.28	72.21
E	10.4	72.1

250' 5

E	10.2	72.3
+7.2 = outside edge walk	9.66	72.83
cb	9.5	73.0
+7	9.2	73.3
+8	9.7	72.8



C		6.7	75.8
1/4		8.1	74.4
cb		9.8	72.7
E		11.8	70.7
	N 1/4		
E		11.4	71.1
cb		9.6	72.9
1/4		8.2	74.3
C		6.8	75.7
1/4		5.8	76.7
cb		4.7	77.8
W		3.5	79.0
	center W		
W		2.8	79.7
cb		4.1	78.4
1/4		5.3	77.2
C		7.0	75.5
1/4		8.1	74.4
cb		9.0	73.5
E		10.7	71.8
	S 1/4		
E		11.3	71.2
cb		9.5	73.0
1/4		8.6	73.9
C		7.5	75.0
+3		5.3	77.2

1/4		4.0	78.5
cb		2.6	79.9
W		1.2	81.3
	4' S of 5 1/4		
E		12.1	70.4
cb		10.1	72.4
1/4		8.8	73.2
C		7.5	75.0
7.7	W of E L. = outside edge	9.83	72.66
2.4	inside	10.28	72.21
	5 Curb.		
W		1.3	81.2
cb		2.8	79.7
1/4		4.2	78.3
+3		7.3	75.2
C		7.4	75.1
+1		8.4	74.1
1/4		9.1	73.4
+8		9.5	73.0
cb		9.3	73.2
+6.3 = edge of walk		9.83	72.66
E		10.6	71.9
	6.7' S of 5 curb = outside edge of walk		
E		10.4	72.09
2.2' W		10.28	72.21
7.7' W		9.80	72.69
17.7' = end of walk		8.97	73.52

28249

3L IVY

E	10.5	72.0
+7.7 = outside edge walk	9.74	72.75
cb	9.3	73.2
+6	9.2	73.3
+7	9.5	73.0
1/4	9.3	73.2
+12	8.5	74.0
C	7.5	75.0
+1	6.2	76.3
1/4	4.6	77.9
cb	2.7	79.8
W	1.8	80.7

35'5

W	2.4	80.1
cb	4.4	78.1
1/4	5.7	76.8
+12	6.9	75.6
C	8.2	74.3
+2	9.1	73.4
1/4	10.1	72.4
+5	10.4	72.1
+7	9.9	72.6
cb	10.0	72.5
+6.3 = outside edge walk	10.28	72.21
E	10.3	72.2

70 3.7

28249

70'5

E	10.7	71.8
+7.7 = outside edge walk	10.77	71.72
cb	10.5	72.0
+6	10.7	71.8
+7	11.2	71.3
1/4	10.8	71.7
+11	10.1	72.4
C	9.2	73.3
+1	8.5	74.0
1/4	8.2	74.3
cb	6.6	75.9
W	3.7	78.8

100'5

W	6.6	75.9
cb	8.5	74.0
+4	9.3	73.2
1/4	9.7	72.8
+12	10.2	72.3
C	10.8	71.7
+2	11.3	71.2
1/4	12.0	70.5
+6	12.0	70.5
+8	11.6	70.9
cb	11.3	71.2
+6.4 = outside edge walk	11.27	71.22
E	11.1	71.4

33rd

60

282.49

140'5

E		12.7	69.8
+7.5 = outside edge walk		12.85	69.64
cb		12.8	69.7
+5		13.0	69.5
+7		13.8	68.7
1/4		13.5	69.0
+11		12.8	69.7
C		11.6	70.9
1/4		10.6	71.9
cb		9.9	72.6
W		9.2	73.3
TP	3.06	292.56	12.99 269.50
		177'5	
W		0.7	71.9
cb		1.6	71.0
1/4		2.0	70.5
+11		2.8	69.8
C		3.6	69.0
+2		4.5	68.1
1/4		5.4	67.2
+6		5.7	66.9
+8		4.9	67.7
cb		4.7	67.9
+6.5 = outside edge walk		4.88	67.68
E		4.6	68.0

272.56

210'5

E		6.7	65.9
+7.5 = outside edge walk		7.0	65.56
cb		6.9	65.7
+5		7.0	65.6
+7		7.5	65.1
1/4		7.4	65.2
C		6.5	66.1
1/4		7.0	65.6
cb		7.1	65.5
W		7.1	65.5
		235'5	
-10		13.6	59.0
W		14.0	58.6
+10		13.2	59.4
cb		11.7	60.9
1/4		10.4	62.2
+8		10.1	62.5
C		8.3	64.3
1/4		9.1	63.5
+5		9.6	63.0
+7		8.8	63.8
cb		8.6	64.0
+6.5 = outside edge walk		8.75	63.81
E		8.5	64.1

61

272.56

250' S

E	9.9	62.7
+7.5 = outside edge walk	9.78	62.78
cb	9.8	62.8
+6	9.8	62.8
+7	10.5	62.1
1/4	10.3	62.3
c	9.4	63.2
+7	13.9	58.7
1/4	15.0	57.6
cb	16.6	56.0
W	17.5	55.1
+15	17.9	54.7

270' S

-15	22.1	50.5
W	20.5	52.1
cb	21.8	50.8
1/4	20.1	52.5
+7	16.9	55.7
c	12.2	60.4
+2	11.0	61.6
1/4	11.9	60.7
+2	14.6	60.1
+9	11.4	61.2
cb	11.4	61.2
+6.5 = outside edge walk	11.55	61.01
E	11.6	61.0

272.56

33rd

62

285' S

E	13.0	59.6
+7.5 = outside edge walk.	12.85	59.71
cb	12.6	60.0
+6	12.8	59.8
+7	15.1	57.5
1/4	13.0	59.6
+9	12.4	60.2
TP	0.03	259.73
c	2.2	57.5
1/4	10.8	48.9
cb	15.1	44.6
+4	14.9	44.8
W	12.0	47.7
+8	12.1	47.6
+15	14.2	45.5
+45	17.8	41.9
300' S = N. Hawthorn		
-35	24.8	34.9
-45	21.0	38.7
-12	17.4	42.3
W	17.1	42.6
cb	20.9	38.8
+8	18.1	41.6
1/4	14.5	44.9
c	6.2	53.5



259.73

+5		2.9	56.8
1/4		2.7	57.0
+2		5.5	54.2
TP	4.93	4.62	455.11
+8		1.8	58.2
cb		1.5	58.5
+6.5 = outside edge walk.		1.77	58.27
(3.53 of NL Hawthorn = S end of walk)		(2.10)	57.94
E		1.9	57.8
	13' 5.0 x NL Hawthorn		
F		5.8	54.2
cb		6.4	53.8
+6		6.8	53.2
+10		8.5	51.5
1/4		7.0	53.0
+9		8.0	52.0
9.		10.6	49.4
1/4		19.4	40.6
+8		24.8	35.2
cb		25.8	34.2
W		22.3	37.7
+10		21.4	38.6
	25' 5.0 x NL Hawthorn		
W		28.4	31.6
+10		31.1	28.9
cb		30.9	29.1

259.73

33rd 63

1/4		23.7	36.3	
C		15.1	44.9	
+8		10.9	49.1	
1/4		10.9	49.1	
cb		7.7	52.3	
F		7.2	52.8	
TP	1277	271.30	1.51	258.53
	1096	281.32	0.94	270.36
chk BM		267	278.65 = 61	33rd/1/4

10' Op  
7.5 1/4

X. Sec. of Pine St. from westerly line of  
Trias St to Easterly Line Ampudia

10/8/24  
miller  
Sears  
Walsh  
SE. Pine  
& Trias

274.69

64

B.M.	4.68	274.69	270.01
	00 = W. Line Trias		
s	4.5	70.2	
cb	4.3	70.4	
1/4	4.5	70.2	
c	4.4	70.3	
1/4	4.1	70.6	
cb	4.0	70.7	
N	3.9	71.1	
	25' W		
N	3.9	70.8	
cb	4.0	70.7	
1/4	4.0	70.7	
c	4.2	70.5	
1/4	4.0	70.7	
cb	4.3	70.4	
S	4.2	70.5	
	50' W		
s	4.4	70.3	
cb	4.5	70.2	
1/4	4.2	70.5	
c	4.5	70.2	
1/4	4.2	70.5	
cb	4.4	70.3	
N	4.0	70.7	

	85' W	
N	4.6	70.1
cb	4.4	70.3
1/4	4.6	70.1
c	4.6	70.1
1/4	4.6	70.5
cb	4.6	70.5
S	4.7	70.0
	100' W	
S	4.6	70.1
cb	4.7	70.0
1/4	4.8	69.9
c	4.8	69.9
1/4	4.5	70.2
cb	4.6	70.1
N	4.1	70.6
	125' W	
N	4.6	70.1
cb	4.8	69.9
1/4	5.0	69.7
c	5.2	69.5
1/4	5.2	69.5
cb	5.0	69.7
S	5.0	69.7
	175' W	
S	5.5	69.2
cb	5.8	68.9

274.69

175' W. (con)

1/4	6.0	68.7
el	6.0	68.9
1/4	5.3	69.4
eb	5.5	69.2
N	5.7	69.0

200' W

N	5.9	68.8
cb	5.9	68.8
1/4	5.8	68.9
C	6.3	68.4
1/4	6.3	68.4
cb	6.2	68.5
S	5.9	68.8

250' W

S	4.3	68.4
cb	4.6	68.1
1/4	6.8	67.9
C	4.9	67.8
1/4	6.5	68.2
eb	6.4	68.3
N	6.7	68.0

285' W

N.	7.1	67.6
PL	6.6	68.1
eb	6.9	67.8
1/4	7.6	67.1

274.69

Pine St

65

C	7.9	66.8
1/4	7.6	67.1
cb	7.0	67.7
S	6.9	67.8

300' W = E Line Ampudia

S	7.4	67.3
cb.	7.7	67.0
+2	8.6	66.1
1/4	8.8	65.9
C	8.6	66.1
1/4	8.3	66.4
+4	7.5	67.2
eb	7.3	67.4
+5	7.1	67.6
+6	7.8	66.9
N	7.8	66.9

4' W

N	7.8	66.9
+4	7.6	67.1
+6	7.1	67.6
cb	7.7	67.0
1/4	8.6	66.1
C	9.1	65.6
1/4	9.3	65.4
cb	9.4	65.3
S	9.7	65.0

274.69  
12.5 W = E. cb. Ampudia

S	10.22	64.5	onemt cb
cb	9.9	64.8	
1/4	9.8	64.9	
c	9.5	65.2	
1/4	9.2	65.5	
cb	8.7	66.0	
N	8.3	66.4	
8.5 W of E. cb.			
N	8.6	66.1	
cb	9.4	65.1	
1/4	10.1	64.6	
c	10.1	64.6	
1/4	10.2	64.5	
cb	10.3	64.4	
S	10.6	64.1	
12.5 W of E. cb = E. Ampudia			
S	10.6	64.1	
cb	10.4	64.3	
1/4	10.4	64.3	
c	10.4	64.3	
1/4	10.4	64.3	
cb	10.4	64.3	
N.	10.4	64.3	

Ampudia West to Flivsta 10/21/04 Pine St

Moore

66

	254	26646	263.92	NW 1/4 Ampudia + Pine
		W.L. Ampudia		
N			2.3	64.2
cb			2.2	64.3 low yardage
1/4			2.15	64.01 top corner cb
1/4			2.5	64.0
c			2.46	64.0 on paving
1/4			2.6	63.9
S gut.			2.9	63.6
S cb			2.48	63.98 top corner cb
2. W				
S gut			2.9	63.6
1/4			2.8	63.7
c			2.4	64.1
1/4			2.2	64.3
+2			0.6	65.9
cb			0.8	65.7
N			0.9	65.6
2.5 W				
N			2.2	64.3
cb			2.0	64.5
1/4			2.1	64.4
+6			1.8	64.7
c			3.2	63.3
1/4			3.6	62.7
S. gut			3.7	62.8

266.46

50'W

S gut	4.8	61.7
1/4	4.6	61.9
+7	4.4	62.1
C	2.7	63.8
1/4	2.7	63.8
cb	2.7	63.8
N	3.3	63.2

75'W

N	4.0	62.5
cb	3.8	62.7
1/4	3.6	62.9
C	3.5	63.1
+1	5.0	61.5
1/4	5.5	61.0
S gut	5.7	60.8

100'W

S cb	6.17	60.29	top com cb
S gut	6.6	59.9	
1/4	6.4	60.1	
+6	5.8	60.7	
C	4.4	62.1	
1/4	4.4	62.1	
cb	4.4	62.1	
N	4.8	61.7	

125'W

266.46

Pine

67

N	5.7	60.8
cb	5.5	61.0
1/4	5.4	61.1
C	5.4	61.1
+5	6.6	59.9
+2	7.0	59.5
1/4	7.3	59.2
S gut	7.7	58.8

150'W

S gut	8.6	59.9
1/4	8.2	58.5
+6	7.9	58.6
C	6.4	60.1
1/4	6.0	60.5
cb	5.4	61.1
N	5.7	60.8

175'W

N	6.3	60.2
cb	6.3	60.2
1/4	6.7	59.8
C	7.5	59.0
+3	8.5	58.0
1/4	8.9	57.6
S gut	9.5	57.0

192+3W

S cb P.C. on S. side

947

157.0 top com cb

		266.46		
S gut			10.1	56.4
1/4			9.6	56.9
+ 4			9.3	57.2
+ 6			8.0	58.5
C			7.6	58.9
1/4			7.6	58.9
cb			6.8	59.7
N			6.7	59.8
T.P. top of Sect	3.39	260.38	9.47	256.99
		209.3 W		
N			0.9	59.5
cb			1.6	58.8
1/4			2.2	58.2
C			2.6	57.8
+ 4			4.3	56.1
1/4			4.6	55.8
cb			4.7	55.7
SL top of concrete			4.21	56.2
SL gut. on paving			4.80	55.6
		225' W		
S on paving			5.0	54.7
cb			5.8	54.6
1/4			5.3	55.1
+ 2			5.0	55.4
+ 6			4.0	56.4
C			3.8	56.6

		260.38		Pine St 68
1/4			3.4	57.0
cb			2.4	58.0
N			1.5	58.7
		245' W		
N			3.5	56.8
cb			4.0	56.4
+ 2			5.6	54.8
1/4			6.1	54.3
C			6.1	54.3
+ 3			6.6	53.8
+ 5			7.3	53.1
1/4			7.6	52.8
cb			7.4	53.0
S on paving			7.45	52.7
		265' W		
S ✓ ✓			10.77	49.6
cb			10.7	49.7
1/4			10.4	50.0
C			9.8	50.6
1/4			9.6	50.8
+ 4			9.2	51.2
cb			8.2	52.2
+ 2			7.7	52.7
N			7.9	52.5
		280' W		
N			9.8	50.6

260.38

+9		10.3	50.1	
cb		10.9	49.5	
1/4		11.3	49.1	
C		11.6	48.8	
+3		11.6	48.8	
1/4		12.4	48.0	
cb		12.7	47.7	
SL on paving		12.75	47.6	
SL top com ct		12.36	48.02	
$\frac{I}{F}$	170	249.49	12.59	247.79
		300' W - El. of Arista to N.		
SL + 4 top com ct		3.53	46.0	45.96
gutter		3.8	45.7	
S ct		3.7	45.8	
1/4		3.7	45.8	
C		2.8	46.7	
1/4		2.4	47.1	
cb		2.1	47.4	
N		1.6	47.9	
	E of Arista			
N		2.5	47.0	10' S/W 7.5' 1/4 S
cb		3.2	46.3	
1/4		3.5	46.0	
C		3.8	45.7	
1/4		4.6	44.9	
ct		4.2	45.3	
+5.3 top com ct		4.48	45.0	for vantage

249.49

PINE ST 69

	E 1/4		
SL + H.8 top com ct	50.5	44.41	for vantage
cb	4.8		
1/4	5.0		
C	4.4		
1/4	4.1		
cb	3.9		
N	3.4		
	Center		
N	3.8	45.7	
cb	3.9		
1/4	4.5		
C	4.8	44.7	
1/4	5.2		Note: S/W side W side of Arista Drive E side
cb	5.3		
+5 top com ct	5.45	44.01	End of semi S/W
SL	5.3	44.2	
	W 1/4		
SL	6.3		
+	5.5		
cb	5.7		
1/4	5.5		
C	4.9		
1/4	4.8		
ct	4.5		
N	4.7		

Continued on page 73

16' wide See AHey B/K & Blair's Highlands

11.78 306.73

00 N. Line Palm

E	3.0	303.7
+2	3.2	303.5
+3	4.2	302.5
E	4.7	302.0
W	4.67	302.06 on wall

15' N

W	4.5	302.2
E	4.5	302.2
+5	4.1	302.6
+6	3.2	303.5
E	3.0	303.7

35' N

E	3.0	303.7
+2	3.1	303.6
+3	4.0	302.7
E	4.4	302.3
W	4.3	302.4

55' N

W	4.3	302.4
E	4.4	302.3
E	4.1	302.6

75' N

E	3.93	302.80 on cement floor
---	------	------------------------

306.73

70

90' N E Garage on E 5.5' Back

0.5 E of line	3.68	303.05 on cement floor
E	4.0	302.7
E	4.1	302.6
W	3.9	302.8

167' N Garage on E 9' from E

W	3.6	303.1
E	3.7	303.0
E	3.56	303.17 on cement floor

143' N Garage on W 10' Back

W-10	2.82	303.91 on cement floor
W-7	2.99	303.74 on cement floor

150' N

E	1.5	305.2
+1	1.5	305.2
+3.5	2.3	304.4
E	2.5	304.2
W	2.3	304.4

200' N

W	0.5	306.2
E	1.3	305.4
+4	1.6	305.1
+6	1.02	306.9
E	1.03	307.0

T.P.	10.95	317.29	0.39	306.34
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317.29

225' N Garage on E 2.5 Back

E-2.5	9.70	307.6	on cement floor
E	10.1	307.2	
C	10.9	306.4	
W	10.4	306.9	

253' N Garage on W 1' w of line

W	9.14	308.15	on cement floor
+25	9.24	308.05	" " approx
C	9.6	307.7	
E	9.0	308.3	

261 & Double Garage on E 6' Back

E-6	8.50	308.8	on cement floor
E-4	8.55	308.85	" " approx

275' N

E	7.9	309.4	
C	7.3	309.0	
W	8.3	309.0	

295' N

W	7.6	309.7	
C	7.5	309.8	
+4	7.9	309.4	
E	7.3	310.0	

309' N Garage on E 6.5 Back

E-6.5	6.53	310.76	
E	6.9	310.4	
+4	7.6	309.7	
C	7.6	309.7	
W	7.3	310.0	

Alley BIK 4 Blairs Highlands 71

343  
243' N Garage on W 4' Back

317.29

W-4	6.28	311.01	on cement floor
W	6.40	310.89	
W+2	6.42	310.87	" " approx
C	6.4	310.8	
E	6.0	311.2	

357' N Garage on W 4.5 Back

W-4.5	5.95	311.34	on cement floor
W+2	5.93	311.36	" " approx

392' N Garage Gone

408' N Garage on E 10' Back

E	4.24	313.05	on cement floor
C	4.4	312.7	
W	4.4	312.9	

450' N

W	3.2	314.1	
+2	3.4	313.5	
C	3.7	313.6	
+4	3.4	313.9	
E	2.9	314.5	

465' N

E	2.8	314.5	
+1	3.6	313.7	
E	3.7	313.6	
+5	3.8	313.5	
+6	3.4	313.9	
W	3.4	313.9	

317.29

↑ 90' N

W	2.8	314.5
+3	2.8	314.5
+4	3.7	313.6
C	3.7	313.6
+7	3.8	313.5
E	3.2	314.1

505 N Garage on E dirt floor 2' Back

E	3.1	314.2
+3	3.6	313.7
C	3.7	313.6
W	3.5	313.8

525' N

W	3.3	314.0
C	3.5	313.8
+5	3.3	314.0
+7	2.1	315.2
E	2.0	315.3

550' N

E	2.1	315.2
+2	2.1	315.2
+3	3.2	314.1
C	3.3	314.0
W	3.0	314.3

581' N S End Garage on E dirt floor

W	3.0	314.3
C	3.2	314.1
E	3.0	314.3

Alley BIK 4 BIAI'S Highlands

317.29

561' N N. End Garage

72

E	2.9	314.4
C	3.1	314.2
+7	3.1	314.2
W	2.4	314.9
W	2.3	315.0
+1	3.1	314.2
C	3.1	314.2
+4.5	3.1	314.2
+5.5	1.9	315.4
E	1.7	315.6

590' N

E	1.9	315.4
+2	2.0	315.3
+3	3.1	314.2
C	3.3	314.0
+6	3.2	314.1
W	2.3	315.0

598' N

W	3.1	314.2
+3	3.9	313.4
C	4.0	313.3
+5	3.7	313.6
+6	1.7	315.6
E	1.7	315.6

599' N = 541' Redwood

E	4.1	313.2
C	4.45	312.84
W	4.30	312.99

on paving

on W.C.P.

Continued from P69

249.49

Pine St

Pine St 73

Wch

N		4.9	44.6
cb		4.9	
114		5.2	
C		5.2	44.3
114		5.7	
cb		5.7	
S		6.3	43.2

W/L Frista to N

S		6.7	42.8
cb		6.2	
114		5.9	
C		5.5	41.0
114		5.1	
cb		5.4	40.1
N		5.5	

TP	12.87	262.32	0.04	249.45
----	-------	--------	------	--------

TP	8.96	268.80	2.48	259.84
----	------	--------	------	--------

		4.88	263.92	263.92
--	--	------	--------	--------

Pine St  
B.M. Ampudia

Note: - 7 Eucalyptus trees in row 10' N of E of Pine between Ampudia &amp;

Frista Drive. Hardly possible to save them.

11 Eucalyptus trees same location between Ampudia

&amp; Trias also on S side 3 Fanleaf Palms

Walker  
Hardin  
Huntley  
1-8-46

CROSS SECTION 15' Alley Bk. 38, Resub of Bks. H & I, Teratta  
Between 34th and Swift Ave  
from Orange Ave to Fil Cajon Blvd.

INDEXED  
C.S.N.

FD 7' x 6" L+D LK  
1 1/2" dia  
74  
505  
11/20/46

5.13 381.06 375.23  
0-14 = N. cb. Orange Ave

E	Gut on Conc. Pav	6.32	74.74
"	on Alley cb Ret	5.64	75.42
E	" Conc. Pav	6.41	74.65
W	" " "	6.43	74.63
"	" Alley cb Ret	5.64	75.42

0+100 = N. L. Orange Ave

W	Top cb.	5.55	75.51
"	Gut. on Pav.	5.82	75.24
E	" " "	6.08	74.98
E	" " "	5.68	75.38
E	Top cb.	5.55	75.51
	+3' on Conc. Drive	5.37	75.69

0+12

-3'	Conc. Drive	5.12	75.94
E	"	4.6	76.5
E	"	4.6	76.5
W	"	4.4	76.7

+2.5' on Conc. Drive S. Ent.

0+25 = Pole Anchor 0.5' in Alley

0+50 = Pole " "

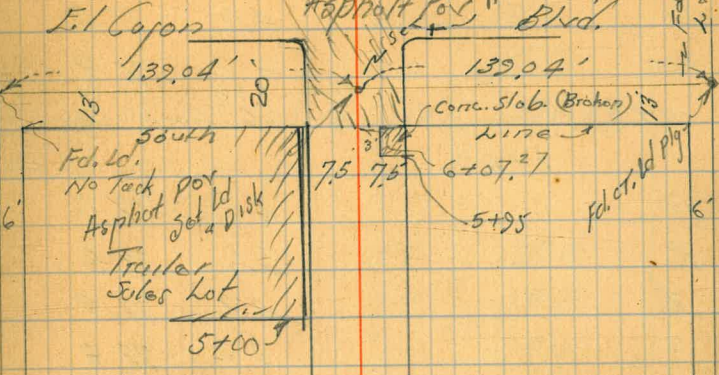
-2.5'	on Conc. Drive at Garage S. Ent.	3.87	77.19
W	"	4.7	76.9

R.M. N.W. 1/4  
Orange  
+ Swift

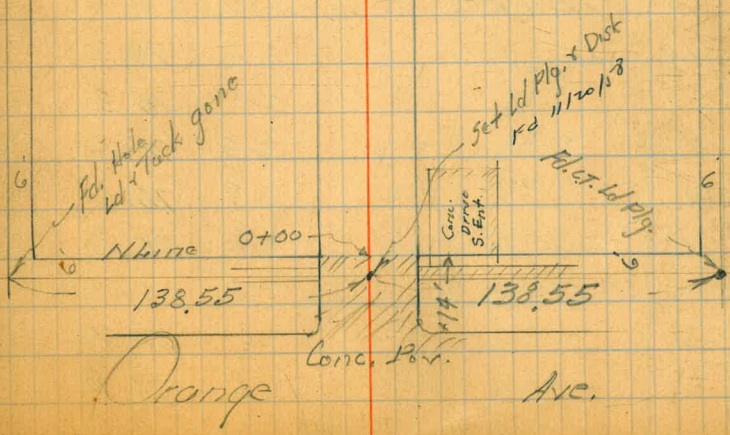
FD 7' x 6" L+D LK  
1 1/2" dia

34th

Swift



Bk 38  
Re. Sub Bks H & I  
Teratta



℄	3.9	77.2
E	4.0	77.0
+10	4.2	76.9
0+83 = Garage on W Floor = 3.36 Back Corr. Floor.		
1+00	2.6	77.20
-10	4.1	77.0
E	3.6	77.5
℄	3.2	77.9
W	3.2	77.9
+25 at Bld.	2.8	78.3
1+46		
-5 = Low Point in yd.	3.2	77.9
W	3.2	77.9
℄	2.9	78.2
E	3.0	78.1
+10'	3.0	78.1
1+98 Pole on W on line		
2+00		
-10 = Low Pt in yd	2.9	78.2
E	2.8	78.3
℄	2.5	78.6
W	2.5	78.6
+10' = Low Pt in yd.	2.8	78.3
2+50		
-10	2.4	78.7
W	2.4	78.7

℄	2.4	78.7
E	2.6	78.5
+10	2.6	78.5
T.P. 527 384.19 2.14 378.92		
2+72 Pole on W 0.5' Back		
3+00		
-5'	5.4	78.8
E	5.4	78.8
℄	5.1	79.1
W	5.3	78.9
71 at Bld. Ground on		
5.9	78.3	
3+50 = beginning Board Fence on E		
-10	6.0	78.2
W	5.6	78.6
℄	5.3	78.9
E at Board Fence		
5.2	79.0	
+5	5.2	79.0
3+97 = Pole on W 0.8' Back		
4+00		
-5	5.5	78.7
E+2 at fence		
5.5	78.7	
℄	5.3	78.9
W	4.9	79.3
+5	4.9	79.3
4+25 = W end Above Fence 0.7' in Alley		
4+50		
-10	4.8	79.4

38419

4+50

W	4.8	77.4
℄	4.9	79.3
E	5.0	79.2
+10	5.2	79.0
	5.0	79.2
4+56 = Garage on E 58' Back Dirt Floor		

4+75

E-5	4.8	79.4
E	4.8	79.4
℄	5.0	79.2
W	5.0	79.2
+26 = Low Pt in yd.	5.4	78.8
	Floor = 4.54	79.65
4+92 = Garage on W 7.5' Back Conc. Floor		
Trailer auto lot		
5+00 = veg. Asphalt Pav. on W 1' Back.		

-1' on Pav.	4.61	79.58
W	4.6	79.6
℄	4.9	79.3
E	5.2	79.0
+10 = Low Pt.	5.6	78.6
	5+50	

-10	4.8	79.4
E	4.6	79.6
℄	4.7	79.5
W	4.5	79.7
+1' on Asphalt Pav.	4.35	79.84

38419

76

-1' on Asphalt Pav.	4.60	79.59
W	4.6	79.6
℄	4.7	79.5
+3' on Conc. Slab	4.58	79.61
E " " "	4.54	79.65

6+04 = Brk in Conc. Slab

E	4.69	79.50
+4.5 on Conc. Slab.	4.63	79.56
0' " Ground	5.1	79.1
℄	4.9	79.3
W	4.7	79.5
+1 on Pav	4.74	79.45

6+07.27 = Sh. E/Cajon.

W on cb	4.79	79.40
" " Pav.	4.95	79.24
℄ " "	5.16	79.03
E Gut 3' W.N.L.	4.97	79.22
E on cb	4.87	79.32

6+27.3 0. Cb. E/Cajon

E on cb. Ret	5.12	79.07
E " Gut	5.35	78.84
E on Pav	5.32	78.87
W " "	5.38	78.81
W " Cb. (settled)	5.41	78.78
T.P. 259	381.13	5.69
		378.60

chk. starting 8 mi.

	5.41	375.92
		375.91
		0.01

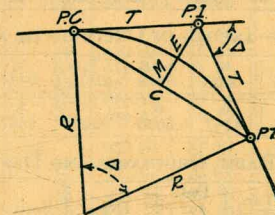
(Pav. settled  
at here)



Sta.	B.S.	I	F.S.	Elev	B.M.
B.M.	6.53	17.86			11.33
T.P.	7.08	23.55	1.39	16.47	
T.P.	9.14	31.34	1.35	22.20	
T.P.	8.01	38.92	0.43	30.91	
T.P.	4.34	42.16	1.10	37.82	
T.P.	4.46	42.67	3.95	38.21	
T.P.	2.31	32.18	12.80	29.87	
T.P.	1.20	20.52	12.86	19.32	
T.P.	5.20	13.55	12.17	8.35	
B.M.			7.21		6.34

## DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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1.95  
9.01  
10.96

B.M. 10.25 =

### CURVE FORMULAS

Radius= $R = \frac{50}{\sin \frac{D}{2}}$  (1) Degree of Curve= $D$  and  $\sin \frac{D}{2} = \frac{50}{R}$  (2)

Tangent= $T = R \tan \frac{\Delta}{2}$  (3) Length of Curve= $L = 100 \frac{\Delta}{D}$  (4)

Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$  (5) =  $R \text{vers} \frac{\Delta}{2}$  (6)

External= $E = T \tan \frac{\Delta}{4} = R \div \cos \frac{\Delta}{2} - R$  (7) =  $R \text{exsec} \frac{\Delta}{2}$  (8) (9)

Long Chord= $C = 2 R \sin \frac{\Delta}{2}$  (10)  $\Delta$  = Central Angle

### EXPLANATION AND USE OF TABLES

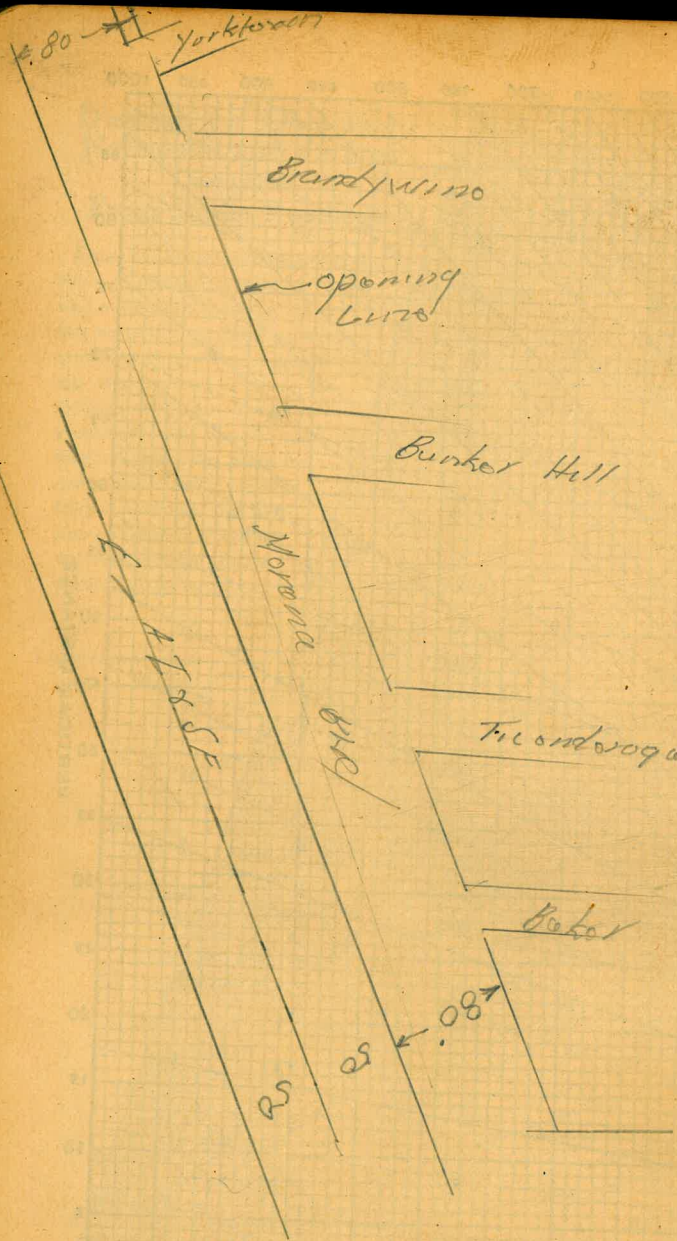
**Stations.**—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 3454.1$  and  $\div 8\frac{1}{3} = 414.49$  ft. From Table V correction = .36 or  $T = 414.85$  ft. P. C. = Sta. P. I. —  $T = 157 + 45.50$ . Also from (4)  $L = 746.00$  and P. T. = Sta. P. C. +  $L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance =  $158 - \text{Sta. P. C.} = 54.50$ , hence offset =  $7.27 (54.50 \div 100)^2 = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle =  $\frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For c ft. = (in minutes)  $.3 \times C \times D^\circ$  or = defl. for 1 ft. from Table III  $\times C$ . For Sta. 158 of above curve =  $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$  or  $2^\circ 16.2'$ , or =  $2.50 \times 54.5 = 136.2'$  from Table III. For Sta. 159 deflection angle =  $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$ , etc.

**Externals.**—May be found in similar manner to tangents. Thus  $E$  for curve above is 115.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$  and from Table V correction = .10 or  $E = 115.37$ . Or suppose  $\Delta = 32^\circ$  and  $E$  is measured and found to be 42 ft. What is  $D$ ? From Table IV  $E = 230.9$  and  $\div 42 = 5.5$  or  $D = 5^\circ 30'$ .





5234  
30.9  
21.3  
3/104.59  
3486

400.00  
102.77  
502.77 E SF  
from E.S. St  
300.7  
299.3 E SF  
Total M.H.T.

371.20 x 150.120  
74280  
312  
44660 29.71  
20 7488  
1456  
1000  
1000  
150

6300  
6133  
1310 | 1670 | 100127  
20576  
50  
20576  
461.54  
62.09  
523.61

00127  
600  
76200

52363  
52358

4133  
76  
6209

00127  
60  
07620

00127  
17  
589  
127  
02159

6417  
76  
6293

635

DISTANCES FROM CENTER OF ROADWAY FOR  
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½.  
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be  $41.9 + (20 - 16) \div 2$  or 2 ft. added to  $41.9 = 43.9$ . For slopes of 1 on 1 see inside of front cover.