1130

FIELD BOOK

361

CITY OF
SAN DIEGO, CALIFORNIA

OTAY-SAN DIEGO SECOND MAIN CONDUIT, CROSS-SECTIONS.

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.

	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
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
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
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
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.

FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

State & Nutmeg.

Lower Otay

B.M.	4.18	499.07			494.89
			6.88	492.19	
			6.89	492.18	
			2.92	496.15	
B.M.#1			7.56	491.51	
T.P.	11.61	510.62	0.06	499.01	
T.P.	12.37	522.27	0.72	509.90	
T.P.	3.42	516.87	8.82	513.45	
B.M.#2			8.58	508.29	
T.P.	0.12	504.54	12.45	504.42	
T.P.	0.30	493.21	11.63	492.91	
T.P.	0.18	481.37	12.02	481.19	
T.P.	0.19	469.03	12.53	468.84	
T.P.	0.45	456.60	12.88	456.15	
T.P.	0.08	444.07	12.61	443.99	
T.P.	0.28	432.25	12.10	431.97	
T.P.	0.48	419.91	12.82	419.43	
T.P.	0.16	407.54	12.53	407.38	
B.M.#3			4.92	402.62	
			5.58	401.96	
B.M.#4			7.28	400.26	
B.M#5			11.52	396.02	

Hayler - level
Burk - rod

1

4-24-23

Bub's B.M.#6 Rock in concrete Top of lining of small reservoir basin near west end.

Top of Roadway slab on dam

Top of Parapet wall opposite stairs on Westend of dam

Top of Eye bolt Anchor in down stream face of dam in sixth panel of hand rail East of West stairway.

Top of Anchor Bolt at North corner of concrete foundation bed near blue-stone house.

Top of concrete curb around coagulant shaft, at inside angle of S.E. Corner

Brass Nail in Footing Block of S.E. Post in Filter Plant (S.W. Cor of Block near foot of stairs)

On Cement Floor of Filter Plant just inside of Main Door

On S.W. Cor of West Wall of Tunnel Channel - Top of Concrete Wall

On N.E. Cor of concrete pier under N. End of 36" to 46" Reducer where Wood Stave Pipe begins.

3.94

Station	−	H.I	+	Elev. Top of Pipe	Grade Rod
B.M. #5	5.95	401.97		396.02	
1+50			3.26	398.71	7.2
1+75			3.05	398.92	7.0
2+00			3.12	398.85	7.1
2+25			3.07	398.90	7.0
2+50			3.24	398.73	7.2
T.P	3.60	401.97	3.60	398.37	
2+75			3.12	398.85	7.1
3+00			3.37	398.65	7.3
3+25			3.60	398.37	7.5
3+57.5 = 3+48 BC.			3.51	398.46	7.5
3+78			3.30	398.67	7.2
4+00			3.37	398.60	7.3
4+50			4.12	397.85	8.1

Hayler, level 7.9 4.6 4-25-23. 2
Burk, rod

L	℄	R	
0.0 / 14	+0.7 / 7.5	0.0 / 4.9	West Bulkhead of Trestle #1
-0.3 / 3.7	0.0	-4.1 / 3	Pipes 7'-6" centers
-2.9 / 4.6			
+2.8 / 10.3	0.0	-0.2 / 4.6	Pipes 6.43' centers
+4.4 / 10.1	+0.4	+0.9 / 5.0	Typical Section
			Pipes 5.44' centers
+6.3 / 11.0	+6.3 / 8.0	0.0 / 4.6	
+5.4 / 10.6	+0.3	+0.9 / 5.1	
+4.2 / 10.0	+0.3	+0.5 / 4.8	
+3.8 / 9.8	+3.6 / 5	+0.2 / 4.7	
+2.8 / 8.3	+3.8 / 6	+0.2 / 5.0	
+2.7 / 9.3	+0.1	+0.6 / 4.9	
+3.8 / 9.8	+0.6	+0.8 / 5.0	
+3.6 / 9.7	+0.7	+1.0 / 5.1	
+3.1 / 9.5	+0.3	+0.5 / 4.9	

3.94

Station	−	H. I.	+	Elevation Top of Pipe	Grade Rod
5+00		401.97	4.98	396.99	8.9
5+40			6.08	395.89	10.0
5+60			6.86	395.11	10.8
6+00			8.41	393.56	12.35
6+50			9.17	392.80	13.1
7+00			10.91	391.06	14.85
7+50			11.63	390.34	15.6
7+65			11.72	390.25	15.7
T.P.	6.98	397.27	11.68	390.29	
8+00			7.47	389.80	11.4
8+50			8.51	388.76	12.45
8+70			9.71	387.56	13.65
9+00			14.4±	382.87	18.3
T.P.	0.29	384.92	12.64	384.63	
9+20			8.60	378.32	12.54

Hayler T
Burk Rod

7.9

4.6

3

	L	℄	R
	+3.8 / 9.8	+0.2	+1.3 / 5.3
	+5.2 / 10.5	0.0	+3.3 / 6.3
	+3.0 / 9.4	0.0	0.0 / 4.6
	+4.3 / 10.1	+0.4	+0.9 / 5.1
	+4.6 / 10.2	+0.2	+0.7 / 5.0
	+4.0 / 9.9	+0.3	+0.9 / 5.1
	+3.3 / 9.6	+0.1	+0.4 / 4.8
	+2.3 / 9.1	+0.2	+0.6 / 4.9
4-26-23			
	+3.6 / 9.7 +3.6 / 3	+0.4	+1.0 / 5.1
	+7.0 / 11.4 +7.4 / 6.5 +4.5 / 3.0	+1.0	+2.7 / 5.0 +3.5 / 6.4
	+6.9 / 11.4 +4.3 / 4	+1.1	+4.6 / 6.9
Bottom width 11.9	+5.0 / 10.4 +4.4 / 8	+1.0	+1.1 / 2 +3.7 / 6.5
8+45	+4.6 / 10.8	+1.0	+2.5 / 5.9

3.94

Station	−	384.92 H.I.	+	Elevation Top of Pipe	Grade Rod
	0.21	372.46	12.67	372.25	
9+35			2.15	370.31	6.1
9+50			7.83	364.63	11.8
9+65			12.72	359.74	16.7
T.P.	0.40	360.19	12.67	359.79	
9+75	Bulkhead		3.35	356.84	7.3
9+90	Bent #1		6.94	353.25	10.9
T.P.	0.01	352.33	8.77	351.42	
10+05	Bent #2		0.89	351.44	
10+20	Bent #3		1.28	351.05	
10+28					
10+35	Bent #4		1.30	351.03	
10+50	Bulkhead		1.34	350.99	5.3
10+65			0.56	351.77	4.5
B.M. #6			5.31	347.02	
T.P.	12.05	363.84	0.54	351.79	
10+75			11.45	352.39	15.4
11+00			9.95	353.89	13.9

4-26-23 4

Hayler T
Burk-Rod 7.9 4.6
Lockhart

L ℄ R

Bottom width

8.9 +4.5 / 11.2 +4.4 / 4 +2.2 / 2 0.0 0.0 / 3.0 +1.0 / 5.1

9.3 +4.9 / 11.8 +5.6 / 8 +1.6 / 4.5 +1.0 / 2 0.0 Fill

9.7 +4.2 / 11.8 +5.0 / 7.0 +1.0 / 3.0 +1.0 / 2 0.0 Fill

10.00 +1.4 / 10.7 +1.0 / 7.6 +1.8 / 2 0.0 Fill East Bulkhead Trestle #2

350.9 / 16 347.7 / 11.0 348.3 / 7.5 0.0 / 5.7 +0.6 / 2 0.0 Fill

5.9 8.0 8.9 6.2 6.4 6.0
346.4 / 20 344.3 / 17 343.4 / 14 341.1 / 7.5 345.9 / 2 346.3 / 7.0

12.5 13.0 10.3 10.5 10.7 11.0
339.8 / 30 339.3 / 21.5 342.0 / 18 341.8 / 7.5 341.6 / 2 341.3 / 10

(12.8) 339.5 / 7.5 10.0

13.0 11.3 10.5 10.2 7.7
338.6 / 28.5 341.0 / 17.5 341.7 / 7.5 341.8 / 2 342.1 / 5 344.6 / 9

5.7 6.4
10.00 +0.6 / 10.3 0.0 / 8.5 -0.4 / 7.5 345.9 / 2.0 West Bulkhead Trestle #2

9.6 +2.7 / 11 +0.5 0.0 / 4.6

On NE Cor of South Footing West Bulkhead Trestle #2

9.3 0.0 / 9.5 0.0 / 4 +1.9 / 2 +0.9 +2.5 / 5.9

8.6 +3.5 / 10.4 +4.9 / 4 0.0 +4.4 / 6.8

3.94

Station	−	H. I.	+	Elevation Top of Pipe	Grade Rod
11+25		363.84	8.77	355.07	12.7
11+50			7.50	356.34	11.4
12+00			4.92	358.92	8.9
12+50			2.38	361.46	6.3
T.P.	12.92	375.94	0.82	363.02	
12+75			13.03	362.91	17.0
13+00			10.72	365.22	14.7
13+35			(13.79) 2.75	373.19	
T.P.	11.24	386.98	0.20	375.74	17.7
T.P.	11.70	398.50	0.18	386.80	
13+75			11.95	386.55	15.9
14+00			5.26	393.24	9.2
T.P	6.20	404.58	0.12	398.38	
14+20			8.21	396.37	12.15
14+75			6.23	398.35	10.2
14+80			6.23	398.35	10.2
B.M #7			4.11	400.47	

Hayler-T:
Burk-Rod
Lockhart

7.9

4.6

4-26-23

J

L	℄	R
+5.7 / 10.8	+4.8 / 4	0.0
+4.4 / 10.1	+4.8 / 6	+0.8
+3.0 / 9.4	+3.7 / 5.0	+0.7
+2.0 / 8.9	+4.0 / 2	+0.2
+2.9 / 9.4	+3.2 / 5	+1.0
+5.7 / 10.8	+4.8 / 6	+1.4
+9.5 / 12.7	+9.0 / 7.5	+6.3 / 4
+10.2 / 13.0	+10.0 / 7	+2.4 / 3
+7.9 / 11.9	+7.3 / 8	+4.2 / 4
+7.2 / 11.5	+7.2 / 8	+4.0 / 2.0
+5.5 / 10.7	+4.7 / 5	+0.9
+6.0 / 10.9	+6.3 / 7	+5.0 / 5

L	℄	R
0.0 / 3	+2.4 / 6.8	
+1.2 / 3	+3.1 / 6.2	
+1.1 / 5.2		
+0.7 / 3.5	+1.6 / 5.4	
+2.1 / 2	+3.5 / 5.9	
+1.6 / 5.4		
0.0	+3.4 / 5	+5.1 / 7.2
+3.2 / 4.0	+5.2 / 7.2	
+2.2 / 3.5	4.5 / 6.9	
+2.0 / 4	+3.0 / 6.1	
+1.0 / 5.1		
+1.8 / 3.5	+1.8 / 2	0.0

L	℄	R
+5.0 / 5	+1.8 / 3.5	+1.8 / 2
0.0 / 4	+2.2 / 5.7	

4-27-23

On top of Flange at top of 4" Valve (Air Valve)

+3.94

Station	−	H.I.	+	Elevation Top of Pipe	Grade Rod
15+00		404.58	6.47	398.11	10.41
16+00			10.41	394.17	14.35
16+50			13.11	391.47	17.05
T.P.	0.45	392.41	12.62	391.96	
17+00			4.31	388.10	8.25
17+25			7.55	384.86	11.5
17+50			11.67	380.74	15.6
T.P.	0.93	380.68	12.66	379.75	
17+80			5.87	374.81	9.8
18+00			11.80	368.88	15.7
T.P.	0.70	368.77	12.61	368.07	
18+25			7.95	360.82	11.9
T.P.	0.45	356.63	12.59	356.18	
18+50			4.65	351.98	8.6
18+70			11.98	344.65	15.9
T.P.	0.43	344.22	12.84	343.79	
19+00			11.48	332.74	15.4
T.P.	0.53	331.78	12.97	331.25	
19+20			6.53	325.25	10.5

Hayler π
Burke, Rod
Lockhart

7.9

4.6

4-27-23

6

L					℄		R	
+4.2 / 10.0	+6.1 / 6	+4.5 / 4	+1.2 / 3	+1.0 / 2	0.0	+0.6 / 4	+1.1 / 5.2	
+4.4 / 10.1	+5.1 / 7	+4.1 / 4	+1.8 / 3	+1.3 / 2	0.0	0.0 / 4	+2.1 / 5.7	
+4.4 / 10.1	+6.0 / 6.5	+4.9 / 4	+2.0 / 3	+1.1 / 2	0.0	0.0 / 3.5	+2.8 / 6.0	
+3.8 / 9.8	+5.5 / 7	+3.8 / 4	+0.7 / 3	+0.7 / 2	0.0	0.0 / 3.5	+0.8 / 5	
	+3.8 / 9.8	+4.0 / 8	+2.0 / 3	+2.0 / 2	0.0	0.0 / 4.6		
			+4.4 / 10.1		+0.8	+1.2 / 5.2		
		+4.0 / 9.9	+4.2 / 8		+0.4	0.0 / 3.8	Fill	
		+3.0 / 9.4	+4.4 / 8		+0.2	0.0 / 1	Fill	
		+4.4 / 10.1	+2.7 / 7	+4.5 / 4.0	+0.5	0.0 / 2.5		
			+6.4 / 11.1	+5.4 / 3.5	+1.4	+1.5 / 5.4		
			+6.5 / 11.2	+6.4 / 8	+0.9	+0.4 / 2.5	+0.5 / 4.9	
			+5.2 / 10.5	+4.7 / 7.5	+0.6	+0.4 / 4.8		
			+3.8 / 9.8	+4.3 / 8	+0.4	0.0 / 4.0		

Station	−	H.I.	+	Elevation Top of Pipe	+3.94 Grade Rod
19+40		331.78	13.43	318.35	17.4
T.P.	0.10	319.06	12.91	318.87	
19+60			5.98	313.08	9.9
19+80			9.85	309.21	13.8
T.P	0.45	306.72	12.79	306.27	
20+00			0.70	306.02	4.64
20+12	Bulkhead		1.88	304.84	5.82
20+27	Bent #1		2.31	304.41	
20+42	Bent #2		2.26	304.46	
20+57	Bent #3		2.31	304.41	
20+72	Bent #4		2.31	304.41	
20+87	Bent #5		2.31	304.41	
21+02	Bulkhead		2.12	304.60	6.06
B.M #8			8.19	298.53	
T.P.	12.42	318.61	0.53	306.19	
21+20			11.89	306.72	15.83

Hayler T
Burk Rod
Lockhart

7.9 4.6

4-27-23

Bottom Width	L	℄	R
8.0	+3.4 / 9.7	+3.3 / 6	+0.7	+0.4 / 4	+0.8 / 5
8.5	+2.8 / 9.9	+0.8	+1.0 / 3	+0.7 / 5.0
9.1	+2.7 / 10.5	+2.9 / 5.5	+1.1 / 4	+0.4 / 2	0.0	Fill
9.6	+2.1 / 10.7	+2.9 / 5.5	+1.2 / 4	+0.3 / 2	0.0	Fill

4-28-23

10.0	8.2 298.5 / 17.5	0.0 / 3.3	+1.0 / 7.5	0.0 / 5.5	+0.2 / 2	0.0	Fill	East Bulkhead Trestle #3
	14.0 295.7 / 20	8.4 298.3 / 11	8.9 297.8 / 7.5	9.4 297.3 / 5.5	9.1 297.6 / 2		9.2 297.5 / 2	8.1 298.6 / 6
	14.0 292.7 / 20		12.8 293.9 / 12.5	12.6 294.1 / 7.5	12.0 294.7 / 2		11.5 295.2 / 2	10.4 296.3 / 7
	17.7 289.0 / 20		17.3 289.4 / 9.5	16.0 290.7 / 7.5	15.4 291.3 / 4		15.4 291.3 / 2	14.7 292.0 / 10
			12.7 294.0 / 20	12.9 293.8 / 7.5	12.8 293.9 / 2		13.0 293.7 / 2	12.5 294.2 / 10
			10.5 296.2 / 20	11.2 295.5 / 7.5	11.5 295.2 / 2		10.9 295.8 / 2	10.5 296.2 / 8
	5.9 300.8 / 20		0.0 / 11.5	6.7 300.0 / 7.5	8.2 298.5 / 2	0.0	Fill	

Nail in E Face of Cap (South End) at Sta. 20+94.3

9.5	+5.9 / 12.5	+5.0 / 7	+1.6 / 4	+1.3 / 2	0.0	0.0 / 4.6	

3.94

Station	−	H. I.	+	Elevation Top of Pipe	Grade Rod
21+40		318.61	8.04	310.57	12.0
T.P.	12.82	331.32	0.11	318.50	
21+60			14.94	316.38	18.9
21+80			6.86	324.46	10.8 (23.1)
T.P.	12.54	343.64	0.22	331.10	
22+00			11.60	332.04	15.54
T.P.	12.56	356.00	0.20	343.44	
22+35			7.88	348.12	11.8
22+50			1.83	354.17	5.8 (17.8)
T.P.	12.22	368.06	0.16	355.84	
T.P.	12.80	380.57	0.29	367.77	
22+90			13.3	367.27	17.2
23+00			9.97	370.60	13.9
23+25			2.50	378.07	6.44
T.P.	12.88	393.29	0.16	380.41	
23+50			8.16	385.13	12.1
T.P.	9.82	402.95	0.16	393.13	
23+70			12.24	390.71	16.2
24+00			7.33	395.62	11.3

Hayler π
Burk, Rod
Lockhart

7.9 4.6 4-28-23 8

Bottom Width	L			℄		R	
8.92			+8.4 / 12.1	+6.4 / 6	+1.4	+1.5 / 4	+2.0 / 5.6
8.37		+12.4 / 14.6	10.9 / 9	+6.2 / 2	+1.8	+3.5 / 6.4	
7.9	+13.4 / 14.6	+12.9 / 13	+10.0 / 10	+6.0 / 4	+1.2	+1.2 / 2.5	+3.8 / 6.5
	+14.0 / 14.9	+13.1 / 12	+8.1 / 6	+6.5 / 3	+1.4	+1.1 / 3	+3.4 / 6.3
		+9.7 / 12.8	+9.6 / 12	+5.0 / 7	0.0	0.0 / 4.6	
			+7.6 / 11.7	+5.4 / 6	+0.2	0.0 / 4.6	
			+7.2 / 11.5	+7.0 / 9	+1.5	+1.5 / 5.4	
			+7.2 / 11.5	+5.1 / 8	+0.6	0.0 / 4.6	
				+6.8 / 11.3	+1.0	+1.1 / 5.2	
		+6.5 / 11.2	+6.5 / 7	+4.0 / 3.0	0.0	+1.5 / 5.4	
		+5.8 / 10.8	+6.0 / 8	+5.0 / 6	+1.0	+3.0 / 6.1	
		+5.5 / 10.7	+6.3 / 7.5	+3.5 / 3.5	+0.2	+0.3 / 3	+1.4 / 5.3

+3.94

Station	—	H.I.	+	Elevation Top of Pipe	Grade Rod
24+80		402.95	5.45	397.50	9.4
25+00			5.26	397.69	9.2
B.M# 9			3.12	399.83	
25+50			5.41	397.54	9.4
26+00			6.78	396.17	10.7

Hayler T.
Burk-Rod
Lockhart

7.0

4.6

4-28-23 9

L	℄	R
+4.4 / 10.1	+0.7	+0.5 / 3 — +1.6 / 5.4

+4.8 / 10.3 — +6.0 / 8 — 8.5 / 4.5 — +1.0 / 3 — +1.1 / 2 — 0.0 — Fill

On top of flange at top of valve 4" Air Valve

+5.3 / 10.6 — +6.2 / 8 — +4.0 / 4.5 — +1.2 / 3.0 — +1.2 / 2 — 0.0 — Fill

+5.2 / 10.5 — +6.3 / 8 — +4.2 / 5 — +1.0 / 3 — +0.8 / 2 — 0.0 — Fill

See book 1139-1
1123-

Levels ℄ of Alley between Pacific & Oliver
Commencing at ℄ of North & South alley between Bayard & Cass, and running to 40' West of Ingraham.
B.M. Pacific & Bayard S.E. Cor top of hydrant Elev=462.
B.M. by Fred Miller.

	+	π	−	
	4.52	9.14		4.62 BM
00 See above.			4.4	4.74
0+50			3.8	5.34
1+00			3.4	5.74
1+50			3.3	5.84
2+00			3.2	5.94
2+50			4.2	4.94
#	1.16	6.57	3.73	5.41
3+00			2.0	3.97
3+50			2.6	3.97
3+57.5 = W.L. Cass			3.3	3.27
3+59			4.1	2.47
3+80			5.2	1.37
3+87.5 = W.L. Concrete Pavement			4.79	1.78
4+07.5 = E.L. " "			4.72	1.85
4+17			5.2	1.35
4+22			4.2	2.35
4+27			4.9	1.65
4+67.5 = 00 = E.L. Cass.			5.0	1.55
0+50				

	+	π	−	
		9.57		
0+50			5.7	0.85
1+00			6.8	-0.25
1+50			7.4	-0.85
2+00			7.7	-1.15
2+50			7.5	-0.95
#	6.18	5.82	6.93	-0.36
3+00			6.5	-0.68
3+50			6.1	-0.38
4+00			5.7	0.12
4+50			5.1	0.72
5+00 = W.L. Dawes St.			4.9	0.92
5+17			4.8	1.02
5+21			5.3	0.52
5+40 = ℄ Dawes			4.6	1.22
5+45			5.4	0.42
5+48			4.7	1.12
5+80 = 00 = E.L. Dawes St.				
0+50			5.0	0.82
1+00			4.9	0.92
1+50			4.0	1.82
2+00			2.8	3.02
#	10.27	13.88	7.21	3.61
2+50			9.7	4.18
3+00			8.2	5.68

	+	T	−	
		13.88		
3+50			7.0	6.88
4+00			5.9	7.98
4+50			4.5	9.38
5+00 = W.L. Everts St.			4.0	9.88
5+40 = ℄ "			3.2	10.68
5+80 = E.L. Everts St. = 0+00			2.2	11.68
0+50			1.0	12.88
#	6.91	20.79 ✓	0.00	13.88 ✓
0+90			6.2	14.59
1+00			6.4	14.39
+25			7.4	13.39
1+50			6.7	14.09
2+00			6.3	14.49
2+50			5.5	15.29
3+00			5.0	15.79
3+50			4.6	16.19
4+00			4.5	16.29
4+50			4.5	16.29
5+00 = W.L. Fanuel St			3.4	17.39
5+40 = ℄ " "			2.8	17.99
#	9.77	28.23 ✓	2.33	18.46 ✓
5+80 = 0+0 = E.L. Fanuel St.			9.6	18.63
0+50			8.6	19.63
1+00			7.3	20.93
1+50			6.2	22.03
2+00			5.2	23.03

	+	T	−	
		28.23		
2+50			4.5	23.73
3+00			4.2	24.03
3+50			4.2	24.03
4+00			4.1	24.13
4+50			4.2	24.03
#		5.35	29.95 ✓	3.63	24.60 ✓
5+00 = W.L. Greshham St.			5.9	24.05
5+40 = ℄ "			6.1	23.85
5+80 = E.L. Greshham St. = 0+00			6.4	23.55
0+50			6.1	23.85
1+00			5.4	24.55
1+50			4.3	25.65
2+00			2.3	27.65
#		12.27	42.22 ✓	0.05	29.91 ✓
2+50			11.6	30.62
3+00			8.5	33.72
3+50			3.8	38.42
4+00			2.9	39.32
#		11.39	53.61 ✓	0.00	42.22 ✓
4+50			1.4	42.21
5+00 = W.L. Haines St.			0.7	41.41
5+40 = ℄ Haines			1.1	46.51
5+80 = 0+00 = E.L. Haines St.			5.1	48.51
#			0.98	53.13 ✓ Nails in lone eucalyptus in alley

Xsection of Long Branch from Guizot to Venice.

July 13th 25

Dannam Bliss Northern

	+ 10'Cbs	+ 7½ Cts	Ave −	+	
	3.03	154.41		151.38	
	3.27	145.14	12.54	141.87	
... E.L. Sunset Grove = W.L. Venice.				137.50	
S.L.			7.64		Pipe Cor Venice & Long Branch
cb			8.5	136.6	
1/2			9.1	136.0	
E			9.9	135.2	
1/2			10.6	134.5	
cb			11.3	133.8	
N.L.			12.28	137.86	Venice & Long Brach Pipe Cor
+10			13.3	131.8	
		0+20			
-10			11.5	133.5	
N.L.			10.7	134.4	
cb			9.6	135.5	
1/2			9.0	136.1	
E			8.1	137.0	
1/2			7.2	137.9	
cb			6.6	138.7	
S.L.			5.4	139.7	
		0+50			
S.L.			3.7	141.4	
cb			4.7	140.4	
1/2			5.5	139.6	
E			6.3	138.8	

	+	145.14	− 50'Wide.

Long Branch

1/2	7.1	138.0
cb	7.8	137.3
N.L.	8.9	136.2
+10	9.8	135.3
	0+75	
-10	7.9	137.2
N.L.	6.9	138.2
cb	5.8	139.3
1/2	5.1	140.0
E	4.4	140.7
1/2	3.6	141.5
cb	2.9	142.2
S.L.	2.0	143.1
	1+00	
S.L.	0.3	144.8
cb	1.2	143.9
1/2	1.8	143.3
E	2.6	142.5
1/2	3.4	141.7
cb	4.1	141.0
N.L.	5.2	139.9
+10	6.3	138.8
	1+20	
-10	4.6	140.5
N.L.	3.8	141.3

	+	π 145.14	−	
CL			2.7	142.4
1/4			1.9	143.2
℄			1.0	144.1
1/4			0.0	145.1
#	9.94	151.58	3.50	141.64
CL			5.6	146.0
S.L.			4.8	146.8
		1+50		
S.L.			3.6	148.0
CL			4.4	147.2
1/4			5.0	146.6
℄			6.0	145.6
1/4			6.8	144.8
CL			7.4	144.2
N.L.			8.5	143.1
+10			9.4	142.2
		1+75		
-10			7.8	143.8
N.L.			6.9	144.7
1/4			5.9	145.7
CL			5.4	146.2
℄			4.6	147.0
1/4			4.2	147.4
CL			3.6	148.0
S.L.			2.8	148.8
		2+00		

50' Wide. 14

Long Branch

	+	π 151.58	−	
S.L.			2.2	149.4
CL			2.9	148.7
1/4			3.3	148.3
℄			3.7	147.9
1/4			4.3	147.3
CL			4.9	146.7
N.L.			5.8	145.8
+10			6.6	145.0
		2+25		
-10			5.8	145.8
N.L.			5.2	146.4
CL			4.5	147.1
1/4			4.1	147.5
℄			3.4	148.2
1/4			2.9	148.7
CL			2.6	149.0
S.L.			2.4	149.2
		2+50		
S.L.			2.2	149.4
CL			2.5	149.1
1/4			2.9	148.7
℄			3.3	148.3
1/4			3.8	147.8
CL			4.2	147.4
N.L.			4.7	146.9

	+	π 151.58	−	
		2+75		
N.L.			4.9	146.7 ✓
Cb			4.5	147.1 ✓
1/4			4.2	147.4 ✓
℄			4.1	147.5 ✓
1/4			4.0	147.6 ✓
cb			3.9	147.7 ✓
S.L.			3.5	148.1 ✓
#	0.65	147.01	5.22	146.36
		3+03		
N.L.			0.9	146.1 ✓
cb			0.6	146.4 ✓
1/4			0.4	146.6 ✓
℄			0.2	146.8 ✓
1/4			0.1	146.9 ✓
℄			0.0	147.0 ✓
S.L.			0.0	147.0 ✓
		3+06		
S.L.			0.9	146.1 ✓
cb			1.4	145.6 ✓
1/4			1.7	145.3 ✓
℄			1.8	145.2 ✓
1/4			2.1	144.9 ✓
cb			2.4	144.6 ✓
N.L.			2.3	144.7 ✓
		3+25		

	+	π 147.01	− 50' Wide.	15
			Long Branch.	
N.L.			3.3	143.7 ✓
+4			2.9	144.1 ✓
+7			3.7	143.3 ✓
Cb			3.7	143.3 ✓
1/4			3.6	143.4 ✓
℄			3.4	143.6 ✓
1/4			3.2	143.8 ✓
Cb			2.9	144.1 ✓
+3			2.3	144.7 ✓
S.L.			2.3	144.7 ✓
		3+50		
S.L.			4.8	142.2 ✓
+7			5.0	142.0 ✓
Cb			5.3	141.7 ✓
1/4			5.4	141.6 ✓
℄			5.7	141.3 ✓
1/4			5.5	141.5 ✓
cb			5.9	141.1 ✓
N.L.			5.8	141.2 ✓
		3+75		
N.L.			8.4	138.6 ✓
+4			8.4	138.6 ✓
+6			8.9	138.1 ✓
Cb			9.0	138.0 ✓
1/4			8.8	138.2 ✓

	+	⊼ 147.01	−	
℄			8.6	138.4
1/2			8.3	138.7
Cb			7.9	139.1
S.L.			7.5	139.5
		4+00		
S.L.			10.4	136.6
Cb			10.7	136.3
1/2			11.0	135.5
℄			12.0	135.0
1/2			12.0	135.0
Cb			12.1	134.9
+5			12.0	135.0
N.L.			11.3	135.7
#	0.56	135.00	12.57	134.44
		9+25		
N.L.			2.6	132.4
+3			2.5	132.5
+4			2.9	132.1
Cb			3.0	132.0
1/2			3.0	132.0
℄			2.8	132.2
1/2			2.3	132.7
+5			2.3	132.7
Cb			1.8	133.2
S.L.			1.4	133.6
		42+50		

	+	⊼ 135.00	−	50' Wide. 16
				130.6 Long Branch.
S.L.			4.4	
+2			4.4	130.6
+4			5.0	130.0
Cb			5.4	129.6
1/2			5.5	129.5
℄			6.0	129.0
1/2			6.1	128.9
Cb			6.1	128.9
+5			6.1	128.9
+7			5.6	129.4
N.L.			5.5	129.5
		4+75		
N.L.			8.4	126.6
+2			8.4	126.6
+4			9.3	125.7
Cb			9.3	125.7
1/2			8.9	126.1
℄			8.8	126.2
1/2			8.8	126.2
Cb			8.5	126.5
+3			8.4	126.6
+6			7.1	127.9
S.L.			7.1	127.9
		4+95		
S.L.			9.1	125.9
+3			9.2	125.8

	+	π 135.00	−		
+7			10.2	124.8	✓
Cb.			10.3	124.7	✓
1/4			10.5	124.5	✓
℄			10.7	124.3	✓
1/4			10.9	124.1	✓
Cb			11.1	123.9	✓
+8			11.1	123.9	✓
+8			10.8	124.2	✓
N.L.			10.8	124.2	✓
4+978 = W.L. Sunset Grove Tract.					
N.L.			11.2	123.8	✓
Cb			10.5	124.5	✓
1/4			10.8	124.2	✓
℄			10.7	124.3	✓
1/4			10.6	124.4	✓
Cb			9.8	125.2	✓
S.L.			9.2	125.6	✓
		√+25			
S.L.			13.0	126.0	✓
#	0.41	123.13 ✓	12.28	122.72	✓
Cb			1.0	121.6	✓
1/4			1.9	121.2	✓
℄			2.0	121.1	✓
1/4			2.3	120.8	✓
Cb			2.7	120.4	✓
N.L.			2.7	120.4	✓

	+	π 123.13	−	50' Wide.	17
		√+50		Long Branch	
N.L.				5.9	117.2 ✓
Cb				√.7	117.4 ✓
1/4				√.9	117.2 ✓
℄				√.3	117.8 ✓
1/4				√.1	118.0 ✓
Cb				4.6	118.5 ✓
S.L.				4.1	119.0 ✓
		√+75			
S.L.				7.4	115.7 ✓
+9				7.7	115.4 ✓
Cb				8.0	115.1 ✓
+3				8.8	114.3 ✓
1/4				8.8	114.3 ✓
℄				8.8	114.3 ✓
1/4				9.3	113.8 ✓
+4				9.4	113.7 ✓
Cb				9.0	114.1 ✓
N.L.				9.3	113.8 ✓
#	0.12	110.89		12.36	110.77
		6+30			
N.L.				0.8	110.1 ✓
Cb				0.6	110.3 ✓
+4				1.0	109.9 ✓
1/4				0.8	110.1 ✓
℄				0.4	110.5 ✓

+	T	−
	110.89 ✓	
1/4		0.4 110.5 ✓
+4		0.2 110.7 ✓
Cb		+1.0 111.9 ✓
S.L.		+1.3 112.2 ✓
	6+2 ✓	
S.L.		2.3 108.6 ✓
+9		2.6 108.3 ✓
Cb		3.0 107.9 ✓
+6		4.0 106.9 ✓
1/4		4.0 106.9 ✓
℄		4.0 106.9 ✓
1/4		4.4 106.5 ✓
+4		4.6 106.3 ✓
Cb		4.3 106.6 ✓
N.L.		4.2 106.7 ✓
	6+5-0	
N.L.		8.0 102.9 ✓
Cb		7.8 103.1 ✓
1/4		7.4 103.5 ✓
℄		7.2 103.7 ✓
1/4		7.2 103.7 ✓
+6		6.6 104.3 ✓
Cb		6.2 104.7 ✓
S.L.		5.7 105.2 ✓
	6+7 ✓	
S.L.		8.6 102.3 ✓

+	T	−
	110.89	
Cb		9.0 101.9
1/4		7.5 ✓ 101.4 ✓
℄		9.5 ✓ 101.4 ✓
1/4		10.6 100.3 ✓
+4		11.0 99.9 ✓
Cb		10.5 ✓ 100.4 ✓
N.L.		11.0 99.9 ✓
	7+0-0	
S.L.		11.1 99.8 ✓
Cb		11.6 99.3 ✓
1/4		12.0 98.9 ✓
℄		12.2 98.7 ✓
1/4		12.1 98.8 ✓
+4		13.4 97.5 ✓
Cb		13.0 97.9 ✓
N.L.		13.6 97.3 ✓
# 2.02	100.17 ✓	12.74 98.15 ✓
	7+3 ✓	
N.L.		6.1 94.1 ✓
Cb		5.7 94.5 ✓
1/4		5.7 94.5 ✓
℄		5.1 95.1 ✓
1/4		5.0 95.2 ✓
+5		4.7 95.5 ✓
Cb		4.0 96.2 ✓
S.L.		3.6 96.6 ✓

50' Wide. 18

1019

Long Branch

	+	π 100.17	−		
7+38 Co = E.L. of Guizot St					
S.L.			8.3	91.9	✓
Cement Curb			8.60	91.57	✓
Gutter			8.6	91.6	✓
1/4			8.6	91.6	✓
℄			8.7	91.5	✓
1/4			8.9	91.3	✓
Gutter			9.1	91.1	✓
Cement Curb			9.13	91.04	✓
N.L.			8.8	91.9	✓
#			8.19	91.78 = 91.96 Ch Long branch & Guizot	

See Page 78.

Donnan
Bliss
Northern.

July 14th 1925

Levels on sewer line to serve Blk 1 Sunset Grove Tract.

00 = Most Westerly Cor of lot 8, thence across Lot 6, thence on ℄ of alley to existing M.H.

	+	T	−			
	4.93	156.31 ✓		151.38 T.P. Curb Cor Brighton & Venice. See page 58	Grade.	
0+00			4.5	151.8	146.5	
0+42½ = Easterly line of dwelling.			4.2	152.1		
# Tunnel	3.39	155.26 ✓	4.44	151.87 ✓		
0+62½ = Westerly line of dwelling.			4.2	151.1		
1+00			5.4	149.9		
1+10					141.20	
1+50			7.6	147.7	Blk in 2.0	
1+82			10.5	144.8		
#	1.14	147.38	9.02	146.24		

1+90 = Upper end of existing open ditch.

1+90 On top stake: N.B. these stakes not set for alignment.			3.12	(144.26)	138.51	
1+90 Bottom of ditch.			8.2	139.2		
2+40 Top stake			7.48	(139.90)	134.15	
2+40 Bottom ditch.			13.0	134.4		
2+90 Top stake.			12.44	(134.94)	129.79	
#	0.00	134.94	12.44	134.94		
2+90 Bottom of ditch.			5.2	129.7		
2+40 Top Stk			4.57	(130.37)	125.43	
3+40 Bottom ditch			9.3	125.6		

3+90 = Division line between Sunset Grove & Ocean View.

3+90 = Top stake			9.44	(125.50)	121.07	

+ T 134.94 −

3+90 Bottom ditch			13.4	121.5	
℄	0.71	126.21	7.44	125.50	
4+25½ = Existing M.H. On Rim			4.70	121.51	118.0 +3.51
4+25½ = Concrete Bottom of M.H.			8.90	117.2	118.0
4+25½ = Bottom of 5" opening M.H.			11.50		
#			8.86	147.38 = 117.16	See Page 58

144.05 / 5.68 / 149.73

Blk 1+10 1+90

147.10 / 1.73 / +3.36 / +5.37

143.20 / 6.58 / +.40 / +6.98

138.55 / 11.32 / +5.20 / +5.75 / 5.75

+5.75

+5.75

+5.15

+4.94

+4.43

Dennon.
Bliss.
Northern.

July 13th 1925

Levels on Sewer line to serve Blk 2 Sunset Grove: from 0+00 = ℄ of the Northeast to Southwest alley in Blk 2, to M.H. in Ocean View

	+	H	−	
	6.87	139.73		132.86 Pipe Cor Page 13
0+00			10.2	129.5
#			10.23	129.50 on lot stake.
0+50			6.8	132.9
1+00			3.9	35.8
1+50			2.1	37.6
2+00			3.1	36.6
2+50			7.0	32.7
3+00			12.3	27.4
#	0.12	127.81	12.04	127.69
3+50			5.7	22.1
3+82.5 = Division line between Sunset Grove & Ocean View.				
3+89.5			9.7	18.1
4+08' = Manhole Ocean View Alley			12.58	115.23
4+08' = to Concrete Bottom			16.69	111.12
4+08' = to Bottom of 5" opening.			19.18	108.63
#			5.09	122.72 = T.P. 122.72 See Page 17.

Donnan
Bliss
Northern

July 14th 1925

Levels on Sewerer Line, commencing at 0+00 = intersection of the ℄ of the alleys in Blk E Sunset Grove Tract, to Sta 1+32.5 = ℄ of Muir St with ℄ of alley, thence to M.H. on ℄ of Muir St in Ocean View Tract.

	+	⊼	−		
	0.07	129.57 ✓		129.50	Lot Stake Page 21
0+00.0			0.0	129.6	
0+50			5.7	123.9	
1+00			11.4	118.2	
#	3.45	120.81 ✓	12.21	117.36 ✓	Lot Stake.
1+32.5 = 00 = ℄ Muir			6.5	114.3	
0+50			4.5	116.3	
1+00			1.7	119.1	
#	5.56	126.09	0.28	120.53	
1+50			4.3	121.8	
2+00			3.4	122.7	
2+50			5.0	120.7	
#	0.45	117.97	8.57	117.52	
3+00			1.1	116.9	
3+50			5.9	112.1	
3+82.5 = Division line between Sunset Grove & Ocean View.					
3+82.5			9.7	108.3	
4+17.3 = Existing Manhole ℄ of Muir St.					
#	8.69	115.86	10.80	107.17	
4+17.3 = Rim of M.H.			11.92	103.94	
4+17.3 = Concrete			17.52	98.34	

	+	⊼	−		
		115.86			
4+87.3 = to bottom of 8" opening			20.14	95.72	
#			0.65	115.21 = 115.23 M.H. Rim	
				See Page 21	

50'St 10 Cbs 7½ Qts. July 14th 25 Donnan. Bliss. Northhern.

X section of Muir Ave from Venice to Guizot.

	+	π	−	
	0.02	117.38 ✓		117.36 T.P. Lot stake See Page 32.
0+00 = N.C. Venice St				
-10			14.3	103.1 ✓
N.C.			13.0	104.4 ✓
cb			11.4	106.0 ✓
½			10.1	107.3 ✓
℄			9.1	108.3 ✓
½			8.1	109.3 ✓
cb			7.0	110.4 ✓
S.C.			5.7	111.7 ✓
		0+50		
-10			11.1	106.3 ✓
N.C.			9.8	107.6 ✓
cb			8.1	109.3 ✓
½			7.1	110.3 ✓
℄			6.3	111.1 ✓
½			5.1	112.3 ✓
cb			4.1	113.3 ✓
S.C.			3.0	114.4 ✓
		1+00		
S.C.			0.8	116.6 ✓
cb			1.7	115.7 ✓
½			2.7	114.7 ✓
℄			3.6	113.8 ✓

	+	π	−	
		117.38		Muir Ave 23
½			4.4	113.0 ✓
cb			5.3	112.1 ✓
N.C.			7.0	110.4 ✓ ✓
+10			8.4	109.0 ✓
#	3.15	120.51 ✓	0.02	117.36 ✓
		1+50		
-10			9.2	111.3 ✓
N.C.			8.1	112.4 ✓ ✓
cb			6.4	114.1 ✓
½			5.4	115.1 ✓
℄			4.7	115.8 ✓
½			3.7	116.8 ✓
cb			2.6	117.9 ✓
S.C.			1.7	118.8 ✓
		2+00		
S.C.			+1.1	121.6 ✓
cb			+0.1	120.6 ✓
½			1.1	119.6 ✓
℄			2.7	118.3 ✓
½			3.0	117.5 ✓
cb			4.0	116.5 ✓
N.C.			5.5	115.0 ✓ ✓
+10			6.9	113.6 ✓
#	6.24	125.91 ✓	0.84	119.67 ✓

	+	π 125.91	−	
		2+50		
N.L -10			10.1	115.8
N.L.			8.5	117.4
cb			6.7	119.2
1/4			5.9	120.0
E			5.1	120.8
1/4			4.0	121.9
cb			2.9	123.0
S.L.			1.7	124.2
#	2.22	124.97	3.16	122.75
		2+03		
S.L.			+1.1	126.1
cb			0.1	124.9
1/4			0.9	124.1
E			1.9	123.1
1/4			2.7	122.3
cb			3.6	121.4
N.L.			5.3	119.7
+10			6.5	118.5
		3+06		
N.L -10			6.8	118.2
N.L			5.5	119.5
cb			4.0	121.0
1/4			3.5	121.5
E			2.6	122.4
1/4			1.7	123.3
cb			1.0	124.0

	+	π 124.97	−	Mariave 24
S.L.			+0.5	125.5
		3+25		
S.L.			+0.3	125.3
cb			1.3	123.7
1/4			2.0	123.0
E			2.5	122.5
1/4			3.4	121.6
cb			4.3	120.7
N.L.			5.7	119.3
+10			7.1	117.9
		3+50		
N.L. -10			7.4	117.6
N.L.			6.1	118.9
cb			5.1	119.9
1/4			4.3	120.7
E			3.5	121.5
1/4			3.0	122.0
cb			2.3	122.7
S.L.			0.8	124.2
		3+75		
S.L.			2.5	122.5
cb			3.6	121.4
1/4			4.3	120.7
E			4.9	120.1
1/4			5.6	119.4
cb			6.4	118.6

	+		—	
		124.97		
N.L.			7.4	117.6
+10			8.5	116.5
		4+00		
N.L -10			10.0	115.0
N.L.			8.6	116.4
cb			8.1	116.9
1/4			7.3	117.7
℄			6.4	118.6
1/4			5.9	119.1
cb			5.3	119.7
S.L.			4.3	120.7
		4+25		
S.L.			6.5	118.5
cb			7.4	117.6
#	0.09	118.72	6.34	118.63
1/4			1.9	116.8
℄			2.6	116.1
1/4			3.2	115.5
cb			3.9	114.8
N.L.			4.9	113.8
+10			6.2	112.5
		4+50		
N.L. -10			8.4	110.3
N.L.			7.4	111.3
cb			6.4	112.3
1/4			5.6	113.1

	+		—	Main Ave 25
		118.72		
℄			4.9	113.8
1/4			4.1	114.6
cb			3.5	115.2
S.L.			2.5	116.2
		4+75		
S.L.			5.5	113.2
cb			6.4	112.3
1/4			7.0	111.7
℄			7.6	111.1
1/4			8.3	110.4
cb			9.0	109.7
N.L.			9.9	108.8
+10			11.0	107.7
4+97.8 = Division line between Sunset Grove & Ocean View				
-10			13.3	105.4
N.L.			12.7	106.0
cb			11.5	107.2
1/4			10.9	107.8
℄			10.3	108.4
1/4			9.7	109.0
cb			9.0	109.7
S.L.			8.3	110.4
#			12.55	106.19 Ridge Div line Left side.
#			3.98	115.24 = 115.23 M.H. Rim See Page 21

Continued Book 1128 Page 58

July 1925

32nd St 60' Wide: 10' Cbs, 10' Cts: Woolman Ave South. {Donnan. Bliss. Northern.

+	↑	−	
	3.83	64.23	60.40 S.W. 32nd & Woolman Top of Hydrant & Miller.
	0+00 = S.L. of Woolman Ave.		
W.L.		64.2 / 6.0	58.2 ✓
Cb		6.3	57.9 ✓
+2		6.8	57.4 ✓
1/2		6.8	57.4 ✓
℄		6.8	57.4 ✓
+7		6.9	57.3 ✓
1/4		6.6	57.6 ✓
+8		7.1	57.1 ✓
Cb		6.8	57.4 ✓
E.L.		6.7	57.5 ✓
	0+07		
-10		8.5	55.7 ✓
E.L.		8.8	55.4 ✓
Cb		9.2	55.0 ✓
1/4		9.0	55.2 ✓
+5		8.1	56.1 ✓
℄		7.6	56.6 ✓
1/4		7.5	56.7 ✓
+5		7.6	56.6 ✓
Cb		8.5	55.7 ✓
W.L.		8.5	55.7 ✓
+10		7.8	56.4 ✓
	0+15		
-10		7.3	56.9 ✓
W.L.		8.0	56.2 ✓

+	↑	−	
	64.23		
	64		
Cb		9.0	55.2 ✓
+6		8.4	55.8 ✓
1/4		8.4	55.8 ✓
℄		8.4	55.8 ✓
1/4		9.2	55.0 ✓
+5		10.4	53.8 ✓
Cb		10.6	53.6 ✓
E.L.		10.4	53.8 ✓
+10		10.3	53.9 ✓
	0+20.		
-10		11.6	52.6 ✓
E.L.		11.3	52.9 ✓
+5		11.0	53.2 ✓
Cb		10.2	54.0 ✓
1/4		8.6	55.6 ✓
℄		7.9	56.3 ✓
1/4		7.5	56.7 ✓
Cb		7.4	56.8 ✓
+3		7.6	56.6 ✓
W.L.		5.7	58.5 ✓
+10		4.3	59.9 ✓
	6+70		
W.L.		3.9	60.8 ✓
+5		3.9	60.3 ✓
+8		6.1	58.1 ✓

	+	π 64.23 ✓	−	64″	
CL			6.1	58 1/2	✓
1/4			6.3	57 9/4	✓
E			6.8	57 4/4	✓
1/4			7.6	56 6/4	✓
+5			7.7	56 1/2	✓
CL			8.3	55 3/4	✓
E.L.			10.2	54 0	✓
+10			11.6	52 6	✓
		0+74			
−10			9.0	55 2	✓
E.L.			8.0	56 0	✓
CL			7.3	56 3/4	✓
1/4			7.4	56 2/4	✓
E			6.6	57 6/4	✓
1/4			6.0	58 0	✓
CL			5.8	58 1/2	✓
+3			6.0	58 0	✓
+5			3.8	60 1/2	✓
W.L.			3.4	60 8/4	✓
W.L.		1+00			
W.L.			2.1	62 1/4	✓
+6			2.8	61 1/2	✓
+8			4.2	60 0	✓
CL			4.4	59 3/4	✓
1/4			4.5	59 1/4	✓
E			5.0	59 0	✓

	+	π 64.23 ✓	−	64″	
1/4			5.9	58 1/4	✓
+1			5.4	58 3/4	✓
CL			6.7	57 1/2	✓
E.L.			7.3	56 3/4	✓
+10			8.0	56 0	✓
		1+25			
+10	On lawn		7.5	56 1/4	✓
−1	" "	Edge of	7.3	56 3/4	✓
E.L.			6.0	58 0	✓
+5			5.8	58 1/2	✓
CL			4.6	59 6/4	✓
+9			4.0	60 0	✓
1/4			4.4	59 3/4	✓
E			4.0	60 0	✓
1/4			3.4	60 3/4	✓
CL			3.5	60 1/4	✓
+3			3.4	60 3/4	✓
+5			1.8	62 1/4	✓
W.L.			1.3	62 3/4	✓
		1+50			
W.L.			1.9	62 1/3	✓
+8			2.2	62 0	✓
+9			3.3	60 3/4	✓
CL			3.6	60 1/2	✓
+5			3.1	61	

	+	π 64.23	−		
			64.2		
1/4			3.2	61.0	✓
E			3.6	60.6	✓
1/4			4.0	60.2	✓
Cb			4.5	59.7	✓
+5			5.3	58.9	✓
E.L.			5.6	58.6	✓
+1	On lawn.		7.4	56.8	✓
+10	" "		7.6	56.6	✓
		1+75			
-10			7.0	57.2	✓
-1			6.8	57.4	✓
E.L.			6.3	57.9	✓
Cb			4.8	59.4	✓
1/4			4.6	59.6	✓
~~Cb~~ E			4.3	59.9	✓
1/4			3.8	60.4	✓
Cb			4.1	60.1	✓
+2			3.1	61.1	✓
W.L.			3.1	61.1	✓
		2+00			
W.L.			3.9	60.3	✓
Cb			4.0	60.2	✓
+1			5.1	59.1	✓
1/4			4.4	59.8	✓
E			5.0	59.2	✓
1/4			5.3	58.9	✓

	+	π 64.23	−	32nd St 28	
			64.2		
Cb			6.6	57.6	✓
E.L.	On lawn		6.9	57.3	✓
+10	" "		7.1	57.1	✓
		2+25			
-10	On lawn.		7.5	56.7	✓
E.L.	" "		7.5	56.7	✓
Cb			6.7	57.5	✓
1/4			6.1	57.1	✓
E			5.6	58.6	✓
1/4			5.3	58.9	✓
+9			5.1	59.1	✓
Cb			4.7	59.5	✓
W.L.			4.8	59.4	✓
		2+50			
W.L.			5.6	58.6	✓
Cb			5.6	58.6	✓
+1			6.6	57.6	✓
1/4			6.1	58.1	✓
~~Cb~~ E			6.2	58.0	✓
1/4			6.7	57.5	✓
Cb			6.3	57.9	✓
E.L.	S Edge Lawn		6.9	57.3	✓
+10	" " "		7.4	56.8	✓
		2+75			
-10	In Flower Garden		7.4	56.8	✓
E.L.	" "		7.2	57.0	✓

+	π 64.23	−	
	64.2		
Cb	7.1	57.1	
1/4	7.0	57.2	
℄	6.9	57.3	
1/4	6.6	57.6	
+9	7.2	57.0	
Cb	6.1	58.1	
W.L.	5.7	58.5	
3+00 = N.L. Valle. on the West (80' St. 14' Cbs, 13' Qts)			
W.L.	6.2	58.0	
Cb	6.7	57.5	
+1	7.8	56.4	
1/4	7.4	56.8	
Cb	7.6	56.6	
1/4	7.8	56.4	
Cb	7.7	56.5	
E.L. In Flower Garden.	7.7	56.5	
N. Cb Valle			
E.L.	8.0	56.2	
Cb	8.3	55.9	
1/4	8.3	55.9	
℄	8.0	56.2	
1/4	7.8	56.4	
+9	8.3	55.9	
Cb	7.3	56.9	
W.L.	6.6	57.6	
N. 1/4 Valle			

+	π 64.23	−	
	64.2		
W.L.	7.0	57.2	
Cb	7.7	56.5	
1/4	8.0	56.2	
℄	8.3	55.9	
+8	8.8	55.4	
1/4	8.2	56.0	
Cb	8.2	56.0	
E.L. In Flower Garden.	8.6	55.6	
± Valle.			
E.L. In Flower Garden.	9.1	55.1	
Cb	8.7	55.5	
1/4	9.0	55.2	
+8	8.9	55.3	
℄	8.7	55.5	
1/4	8.7	55.5	
+8	8.8	55.4	
Cb	8.3	55.9	
W.L.	7.2	57.0	
5 1/4 Valle.			
W.L.	7.6	55.6	
Cb	8.8	55.4	
+5	9.2	55.0	
1/4	9.2	55.0	
℄	9.4	54.8	
+8	10.3	53.9	
+9	9.7	54.5	

+	±	−
	64.23 ✓	

			64.2 / 9.7	
1/4				54.5 ✓
#	0.29	55.77 ✓	8.75	55.48=3 Nails Tel pole SW. Valle & 32nd. ✓
			55.8 / 1.2	54.6 ✓
cb				
E.L.			1.4	54.4 ✓
	Scurb of Valle.			
E.L.			2.1	53.7 ✓
cb			2.0	53.8 ✓
1/4			2.0	53.8 ✓
+2			2.4	53.4 ✓
℄			1.6	54.2 ✓
1/4			1.3	54.5 ✓
+9			1.5	54.3 ✓
cb			0.7	55.1 ✓
W.L.			+0.4	56.2
	0.0= S.L. Valle.			
W.L.			0.5	55.3 ✓
cb			1.0	54.8 ✓
+1			2.3	53.5 ✓
1/4			2.1	53.7 ✓
℄			2.3	53.5 ✓
1/4			1.9	53.9 ✓
cb			1.7	54.1 ✓
E.L.			3.0	52.8 ✓
	0+25			
E.L.	In grain Field.		6.9	49.9 ✓
cb			5.4	50.4 ✓

+	±	−
	55.77 ✓	

32nd St. 30

55.8

1/4	5.0	50.8 ✓
℄	4.4	51.4 ✓
1/2	4.1	51.7 ✓
+7	4.6	51.2 ✓
cb	3.8	52.4 ✓
+4	2.2	53.6 ✓
W.L.	1.6	54.2 ✓
	0+50	
W.L.	2.7	53.1 ✓
+5	2.8	53.0 ✓
cb	5.0	50.8 ✓
+1	6.3	49.5 ✓
1/4	6.2	49.6 ✓
℄	6.7	49.1 ✓
1/4	7.5	48.3 ✓
cb	8.3	47.5 ✓
E.L. In paddock.	9.2	46.6 ✓
" "	9.8	46.0 ✓
		0+75
+10 In paddock	12.7	43.1 ✓
E.L. In paddock.	11.7	44.1 ✓
+8	11.3	44.5 ✓
cb	10.7	45.1 ✓
1/4	9.8	46.0 ✓
℄	8.5	47.3 ✓
1/4	8.1	47.7 ✓
+9	7.9	47.9 ✓
cb	6.4	49.4 ✓

	+	π 5-5-77 ✓	−		
			55 8		
+3			5'.6	50.7	✓
+7			5'.4	50.1	✓
W.L.			4.4	51.4	✓
		1+0-0			
E.L.-10	In paddock		12.5'	41.3	✓
E.L.	" "		13.5'	42.3	✓
cb			13.1	42.7	✓
+1			12.0	43.8	✓
1/2			10.8	45.0	✓
⅔			10.1	45.7	✓
1/2			9.5'	46.3	✓
+9			9.6	46.2	✓
cb			8.3	47.5	✓
+5			7.7	48.1	✓
W.L.			6.5'	49.3	✓
		1+2.5'			
W.L			7.8	48.6	✗
+7			9.7	46.1	✗
cb			10.0	45.6	✗
+1			11.1	44.7	✗
1/2			11.0	44.8	✗
⅔			11.5'	44.3	✗
1/4			12.8	43.0	✗
cb			13.6	42.2	✓
+1			12.5'	43.3	✗
E.L.			14.8	41.0	✗

	+	π 5-5-77 ✓	−	32nd st. 31	
			55 8		
E.L.+10			15.7	46.1	✗
		1+0-0			
E.L.+10			16.8	39.0	✗
E.L.			15.9	39.5	✗
+9			15.7	46.1	✗
cb			15.0	40.8	✗
1/4			14.4	41.4	✗
⅔			13.0	42.8	✗
1/2			12.5'	43.3	✗
+9			13.0	42.8	✗
cb			11.5'	44.3	✗
+4			11.0	44.8	✗
W.L.			9.5'	46.3	✗
		1+7.5'			
W.L.			11.5'	44.3	✓
+5'			12.8	43.0	✓
#	0.35	.44 .82 ✓	11.30	.44 .47 3nails in Tel	
cb			2.4	42.4	✗
+1			3.5'	41.3	✗
1/2			3.4	41.4	✗
⅔			3.5	41.5	✗
1/4			4.9	39.9	✗
cb			5'.3	35.5	✗
+2			6.1	38.7	✗
E.L.			6.3	38.5	✓

Rpt W side 32nd.

	+	π 44.82 ✓	−	44 8
E.L.+10			7.0	378 ✓
149⁵ On the West = N.L. Martin Ave on the East: 50' Wide: 10 CBs:				
E.L.-10			8.0	368 ✓
E.L.			7.7	37.1 ✓
cb			6.6	38.2 ✓
1/4			6.3	38.5 ✓
+7			5.0	39.8 ✓
℄			4.8	40.0 ✓
1/4			4.6	40.2 ✓
+9			4.6	40.2 ✓
cb			3.9	40.9 ✓
W.L.			1.8	430 ✓
2+05⁻ on West = N Cb of Martin Ave on the East.				
W.L.			2.7	42.1 ✓
cb			4.5⁻	40.3 ✓
+2			5.2	39.6 ✓
1/4			5.1	39.7 ✓
℄			5.4	39.4 ✓
+2			5.4	39.4 ✓
1/4			6.6	38.2 ✓
cb			7.4	37.4 ✓
E.L.			8.1	36.7 ✓
E.L.+10			8.8	36.0 ✓
2+125 On W = N 1/4 of Martin Ave on E.				
E.L.-10			8.8	36.0 ✓
E.L.			8.4	36.4 ✓

	+	π 44.82 ✓	−	32nd St. 32
				44 8
cb			7.8	37.0 ✓
1/4			7.1	37.7 ✓
+7			5.6	39.2 ✓
℄			5.6	39.2 ✓
1/4			5.3	39.5 ✓
+8			5.4	39.5 ✓
cb			4.9	39.9 ✓
W.L.			3.8	41.0 ✓
2+20 On W = ℄ Martin on E.				
W.L.			3.4	41.4 ✓
cb			5.0	39.8 ✓
+2			5.6	39.2 ✓
1/4			5.5⁻	39.3 ✓
℄			5.8	39.0 ✓
+2			6.0	38.8 ✓
1/4			7.2	37.6 ✓
cb			7.8	37.0 ✓
E.L.			8.8	36.0 ✓
E.L.+10			9.5⁻	35.3 ✓
2+27⁵ On W = S 1/4 of Martin on the East.				
E.L.+10			9.2	35.6 ✓
E.L.			8.9	35.9 ✓
Cb			8.0	36.8 ✓
1/4			7.0	37.8 ✓
+7			5.8	39.0 ✓

	+	π 44.82 ✓	—		
			448		
E			5.8	390	✓
1/4			5.6	392	✓
+8			5.9	389	✓
cb			5.7	396	✓
W.L.			3.9	409	✓
	2+35 on the West = Scb of Martin On the East.				
W.L.			4.0	408	✓
cb			5.5	393	✓
+2			6.2	386	✓
1/4			5.6	392	✓
E			6.0	388	✓
+7			6.3	385	✓
1/4			7.6	372	✓
cb			8.5	363	✓
E.L.			8.9	359	✓
+10			9.2	356	✓
	2+45 On the West = S.L. of Martin Ave On the E.				
-10			8.1	367	✓
E.L.			8.0	368	✓
Cb			8.4	364	✓
+5			7.8	370	✓
1/4			6.6	382	✓
E			6.0	388	✓
1/4			5.7	391	✓
Cb			6.5	383	✓
Cb			6.0	388	✓
W.L.			4.2	406	✓

	+	π 44.82 ✓	—		
			2+75	448	
W.L.			4.0	408	✓
cb			5.2	396	✓
+2			6.0	388	✓
1/2			5.7	391	✓
E			5.9	389	✓
1/4			6.1	387	✓
cb			6.1	387	✓
E.L.	In Garden		6.5	383	✓
+10	" "		6.6	382	✓
	3+00 = N.L. of Martin Ave on the West: 80' wide: 19' CBs:				
E.L.	In Garden		5.1	392	✓
cb			5.0	398	✓
1/4			4.9	399	✓
+2			5.3	395	✓
E			5.1	397	✓
1/4			4.8	400	✓
+8			5.2	396	✓
cb			4.2	406	✓
W.L.			3.9	409	✓
	N. Cb of Martin on the W				
W.L.			3.7	411	✓
cb			3.7	411	✓
+2			4.5	403	✓
1/4			4.3	405	✓
E			4.6	402	✓

	+	π +4.82 ✓	−	448	
+7			5.0	398	✓
1/4			4.4	401	✓
CL			4.5	403	✓
E.L.	In driveway		4.8	406	✓
	N 1/4 Martin on the West.				
E.L.	On lawn		3.6	412	✓
CL			4.0	408	✓
1/4			4.0	408	✓
+1			4.0	408	✓
+4			4.4	404	✓
℄			4.3	405	✓
1/4			4.0	408	✓
+8			4.3	405	✓
+9			3.4	414	✓
CL			3.4	414	✓
W.L.			3.1	417	✓
	℄ Martin				✓
W.L.			2.9	419	
CL			3.3	415	✓
+1			3.4	414	✓
+2			4.1	407	✓
1/4			3.9	409	✓
℄			4.0	408	✓
+7			4.0	408	✓
+9			3.6	412	✓
1/4			3.5	413	✓

	+	π 44.82 ✓	−	448	
CL			3.5	413	✓
E.L.	On lawn.		3.4	414	✓
	S 1/4 of Martin Ave.				
E.L.	In Orchard.		3.0	418	✓
CL			3.4	416	✓
1/4			3.3	415	✓
+1			3.3	415	✓
℄			3.8	410	✓
1/4			3.9	409	✓
+8			4.0	408	✓
CL			3.6	412	✓
W.L.			3.4	416	✓
	S Curb of Martin Ave.				
W.L.			3.7	411	✓
CL			3.6	412	✓
+1			3.7	411	✓
+2			4.3	405	✓
1/4			4.0	408	✓
℄			3.9	409	✓
+6			4.1	407	✓
+9			3.4	414	✓
1/4			3.4	414	✓
CL			3.0	418	✓
E.L.	In Orchard		3.1	417	✓

	+	π	−	
		44.82 ✓		
0+00 = S.L. of Martin Ave on the West.				
E.L. in Orchard.		2.9 (448)	49	✓
cb		3.3	415	✓
1/4		3.8	410	✓
+1		3.9	409	✓
+2		4.5	403	✓
℄		4.2	406	✓
1/2		4.2	406	✓
+8		4.4	404	✓
cb		3.9	409	✓
W.L.		4.1	407	✓
	0+25			
W.L.		5.3	395	✓
cb		5.3	395	✓
+1		5.3	395	✓
+3		5.7	391	✓
1/4		5.0	398	✓
℄		4.7	401	✓
+9		4.8	400	✓
1/4		4.4	404	✓
cb		3.8	410	✓
E.L.	On lawn.	3.4	414	✓
	0+50			
E.L.	On lawn.	4.4	404	✓
cb		4.7	401	✓
1/2		5.4	394	✓

	+	π	−	32nd St	35
		44.82			
				418	
℄			5.5	393	✓
1/4			5.7	391	✓
+7			6.2	386	✓
cb			6.0	388	✓
W.L.			5.9	389	✓
#	0.24	40.70 ✓	4.36	40.46 = South 9" Gatepost on the East side of 32nd St.	
0+69 = ℄ of single Garage: On West line: has concrete floor.					
			(407) 2.10	385	✓
e+69 On concrete floor.					
		0+75			
W.L.			2.2	385	✓
cb			2.1	386	✓
+2			2.1	386	✓
+3			2.5	387	✓
1/4			2.0	387	✓
℄			1.8	389	✓
+8			2.1	386	✓
1/4			1.9	388	✓
+2			1.5	392	✓
cb			1.0	397	✓
E.L.	In Soudan Grass		0.8	399	✓
		1+00			
E.L.	In Soudan Grass		1.7	390	✓
cb			2.0	387	✓
+7			2.3	384	✓
1/4			3.0	377	✓
℄			2.5	382	✓

	+	↑ 40.70 ✓	−		
			40.7		
1/4			2.9	378	✓
+6			3.6	371	✓
+8			3.0	372	✓
cb			2.8	374	✓
W.L.			2.8	374	✓
	1+75 ✓				
W.L.			4.0	367	✓
cb			4.1	366	✓
+2			4.3	364	✓
+4			4.8	359	✓
1/4			4.2	365	✓
℄			3.8	369	✓
1/4			4.6	361	✓
+3			3.7	370	✓
cb			3.7	375	✓
E.L.	In Soudan Grass		2.9	378	✓
	1+40 On the North = N.L. of Greely Ave on East			14' CLs 80' Wide	
E.L.	In Soudan Grass.		3.6	371	✓
cb			3.8	369	✓
+9			4.8	359	✓
1/4			5.0	357	✓
+1			5.3	354	✓
℄			4.7	360	✓
1/4			4.9	358	✓
cb			5.2	355	✓
W.L.			5.0	357	✓

	+	↑ 40.70	−	
			46.7	
	1+54 = N. Cb of Greely on the East.			
W.L.			5.7	350 ✓
cb			5.7	350 ✓
+4			6.3	346 ✓
1/4			5.8	349 ✓
℄			5.4	353 ✓
1/4			6.2	345 ✓
+2			5.6	351 ✓
cb			4.7	360 ✓
E.L.	In Soudan Grass		4.2	365 ✓
℄			4.64	36.06 RR. Spk Car Fence Post

Nte: this ends Donovan's field work: Office for me:

8/4/25 CROSS SECTION OF 20' wide

Moore ALLEY BLK. 463 C.C. SEAMAN SUB.

Sw Spike Penn. Eagle	7.79	↓62.69	254.90
	W L EAGLE = 0+00		
SL on ALLEY RETURN		7.44	255.25 ✓
C		7.70	255.0 ✓
W L ✓ / ✓		7.27	255.42 ✓
	5' W		
W L		5.7	257.0 ✓
+5		6.5	256.2 ✓
C		7.1	255.3 ✓
SL		7.5	255.2 ✓
	20' W		
SL		5.8	256.9 ✓
C		6.0	256.7 ✓
+5		5.0	257.7 ✓
W L		4.9	257.8 ✓
	35' W		
W L		4.8	257.9 ✓
+8		4.9	257.8 ✓
C		5.2	257.5 ✓
SL		5.1	257.6 ✓
	66' W		
-9.8 Garage Conc. Apron		4.36	258.31 ✓
SL		4.1	258.3 ✓
C		4.1	258.3 ✓
+5		3.8	258.9 ✓
W L		3.8	258.9 ✓

↓62.69

	107' W		
-3.2 Garage dirt floor		3.2 ✓	59.5 ✓
W L		3.2 ✓	59.5 ✓
+4		3.0	59.7 ✓
C		3.5	59.2 ✓
SL		3.6	59.1 ✓
	119' W		
SL Garage dirt floor		3.0	59.7 ✓ .6 IN ALLEY
+3		3.5	59.2 ✓
C		3.3	59.4 ✓
+3		3.2	59.5 ✓
+6		2.9	59.8 ✓
W L		3.1	59.6 ✓
	150' W		
W L		2.6	60.1 ✓
C		3.0	59.7 ✓
SL		3.1	59.6 ✓
	175' W		
SL		3.2 ✓	59.5 ✓
C		2.9	59.8 ✓
W L		2.4	60.3 ✓
	209' W		
W L twice .5 IN ALLEY		2.4	60.3 ✓
+5		2.4	60.3 ✓
C		2.8	59.9 ✓
+5		2.8	59.9 ✓

SL		3.0	259.7 ✓
+3.8 Garage dirt floor		2.8	59.9 ✓
	232' W		
−3.7 Garage ✓ ✓		2.9	59.8 ✓
SL		2.9	59.8 ✓
C		3.0	59.7 ✓
NL		2.9	59.8 ✓
TP 4.51	26415	3.05	259.64
	268' W		
−4.6 Double Garage Conc. floor		4.00	60.2 ✓
NL		4.0	60.2 ✓
C		4.6	59.6 ✓
SL		4.7	59.5 ✓
	286' W		
NL −7.3 Garage dirt		3.46	60.69 ✓
	293' W		
−3.7 Garage Conc. floor		4.66	59.49 ✓
SL		4.7	59.5 ✓
C		4.7	59.5 ✓
+4		4.5	59.7 ✓
NL		4.0	60.2 ✓
	325' W		
NL Fence 5 in Alley		4.0	60.2 ✓
+4		4.6	59.6 ✓
C		4.7	59.5 ✓
SL		4.8	59.4 ✓

	359' W			
SL		4.5	59.7 ✓	
C		4.2	60.0 ✓	
NL	Garage	3.6 W	60.53 ✓	on Line Conc. Apron
	378' W			
NL		3.6	60.6 ✓	
C		4.0	60.2 ✓	
SL		4.2	60.0 ✓	
+1 W.4	Double Garage	4.81	59.84 ✓	Conc. floor
	400' W			
SL		4.3	59.9 ✓	
C		4.2	60.0 ✓	
NL		3.8	60.4 ✓	
	425' W			
NL		4.9	59.3 ✓	
+4		4.9	59.3 ✓	
+7		3.9	60.3 ✓	
C		4.2	60.0 ✓	
SL		4.6	59.6 ✓	
	440' W			
SL		4.7	59.5 ✓	
+5		5.4	58.8 ✓	
C		5.3	58.9 ✓	
NL		5.5	58.7 ✓	
	465' W			
NL		6.6	57.6 ✓	

		264.15		
C			7.3	56.9 ✓
+6			7.4	56.8 ✓
SL			6.9	57.3 ✓
	479 W ✓			
SL			7.8	56.4 ✓
C			8.4	56.0 ✓
NL			7.5	56.7 ✓
TP	2.98	257.96	9.17	254.98
Check B.M. Sutter Goldfinch			0.94	257.02 256.99
T.P.	0.14	255.51	1.57	254.39
	480 W = EL Goldfinch = Reynard Way			
NL			0.8	244.7 ✓
C			1.7	243.8 ✓
SL			2.0	243.5 ✓
	490 W = EC6 Reynard Way			
SL on ab Concrete			3.83	241.68 ✓
NL ✓ ✓ ✓			2.21	243.30 ✓
N.B. Curbed across alley				
TP	0.51	233.86	1.16	233.35
TP	0.45	221.35	1.96	220.90
TP.			9.58	211.77

8/4/25 CROSS SECTION OF 20' WIDE
Moore ALLEY BIK 456 C.C. SEAMAN

264.50

Swisshelm PENN. EAGLE	960	264.50	254.90
	W.L. EAGLE = 0+00		
ALL ON ALLEY RETURN		9.1	254.79 ✓
C		9.2	255.3 ✓
SL ✓ ✓ ✓		9.4 ✓	255.08 ✓
	5' W		
SL		5.7	258.8 ✓
+8		5.7	258.8 ✓
C		8.0	56.5 ✓
+3		8.9	55.6 ✓
NL		8.7	55.8 ✓
	15' W		
NL		7.7	56.8 ✓
+3		8.2	56.3 ✓
+7		7.9	56.6 ✓
C		7.0	57.5 ✓
+2		4.8	59.7 ✓
SL		4.8	59.7 ✓
	35' W		
SL		4.5	60.0 ✓
C		5.3	59.2 ✓
+3		6.4	58.1 ✓
+7		6.5	58.0 ✓
NL		6.1	58.4 ✓
	50' W		
NL		5.8	58.7 ✓
C		5.6	58.9 ✓
+5		4.7	59.8 ✓
SL		4.7	59.8 ✓
	93' W		
SL		4.9	59.6 ✓
C		5.0	59.5 ✓
NL		5.2	59.3 ✓
+7 Garage Conc. floor		4.93	59.57 ✓
	107' W		
4.8' So/SL = Garage		4.52	59.78 ✓ Conc. floor
	150' W		
NL		5.0	59.5 ✓
+5		5.0	59.5 ✓
C		4.6	59.9 ✓
SL		4.8	59.7 ✓
	192' W		
SL		5.30	59.2 ✓
C on Sewer M.H.		5.15	59.0 ✓
NL		5.2	59.3 ✓
	212' W		
NL		5.2	59.3 ✓
C		4.9	59.6 ✓
SL		4.3	60.2 ✓
	250' W		
SL		5.4	59.1 ✓
C		5.4	59.1 ✓

264.50

NL		5.1	59.4 ✓
	275' W		
NL		5.8	58.7 ✓
C		5.7	58.8 ✓
SL		5.5	59.0 ✓
	312' W		
SL		6.4	58.1 ✓
C		6.3	58.2 ✓
NL - Garage dirt floor		6.40	58.1 ✓ Hon of NL
	350' W		
NL		7.7	56.8 ✓
C		7.4	57.1 ✓
SL		7.3	57.2 ✓
	380' W		
SL		8.3 ~~3.8~~	56.2
C		8.7	55.8 ✓
+5		8.9	55.6 ✓
NL		9.8	54.7 ✓
T.P.	0.28	W55.50	9.28 W55.22 ✓
	400' W		
NL		1.4	54.1 ✓
C 2"x2" P.O.T. plans	Note this hub on	0.3	55.2 ✓ Nothing else for Line
+9		0.0	55.5 ✓
SL		+0.6	56.1 ✓
	425' W		
SL		0.0	55.5 ✓

25550

+2	0.5	55.0 ✓
C	0.9	54.6 ✓
NL	2.0	53.5 ✓
#10	4.1	51.4 ✓
450' W		
-10	6.9	48.6 ✓
NL	3.5	52.0 ✓
+5	2.5	53.0 ✓
C	2.3	53.2 ✓
+6	2.4	53.1 ✓
SL	1.1	54.4 ✓
480' W = OLD EL of Gold Rock		
SL	3.7	51.8 ✓
C	4.1 W	51.3 ✓
+5	5.0	50.5 ✓
NL	7.3	48.2 ✓
+15	12.3	43.2 ✓
485' W		
-15	12.8	42.7 ✓
NL	8.6	46.9 ✓
+5	6.5	49.0 ✓
C	5.6	49.9 ✓
SL	4.7	50.8 ✓
500' W		
+10	13.0	42.5 ✓
SL	13.3	42.2 ✓

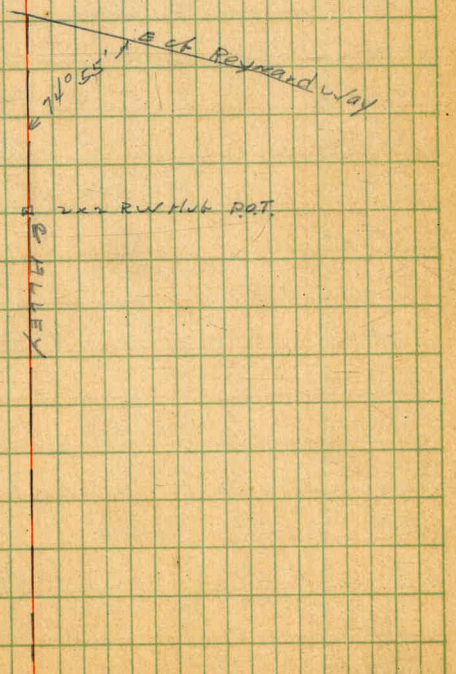
255.50

C			14.8	40.7 ✓
NL			14.5	41.0 ✓
+15			16.3	39.2 ✓
T.P.	0.37	242.87	13.00	244.50 ✓
	515' W			
-15			10.5	32.4 ✓
NL			9.1	33.8 ✓
C			8.6	34.3 ✓
SL			8.3	34.6 ✓
+6			7.9	35.0 ✓
+10			7.1	35.8 ✓
	523' W			
-10			8.3	34.6 ✓
SL			10.4	32.5 ✓
C			11.0	31.9 ✓
NL			11.9	31.0 ✓
+15			14.0	28.9 ✓
T.P.	1.9 ✓	233.11	11.68	231.19 ✓
	535' W			
-10			8.1	25.0 ✓
NL			7.4	25.7 ✓
C			6.9	26.2 ✓
SL			5.7	27.4 ✓
T.P.	0.18	220.88	13.01	220.10 ✓

220.85

538' W = EL REYNARD W/AY

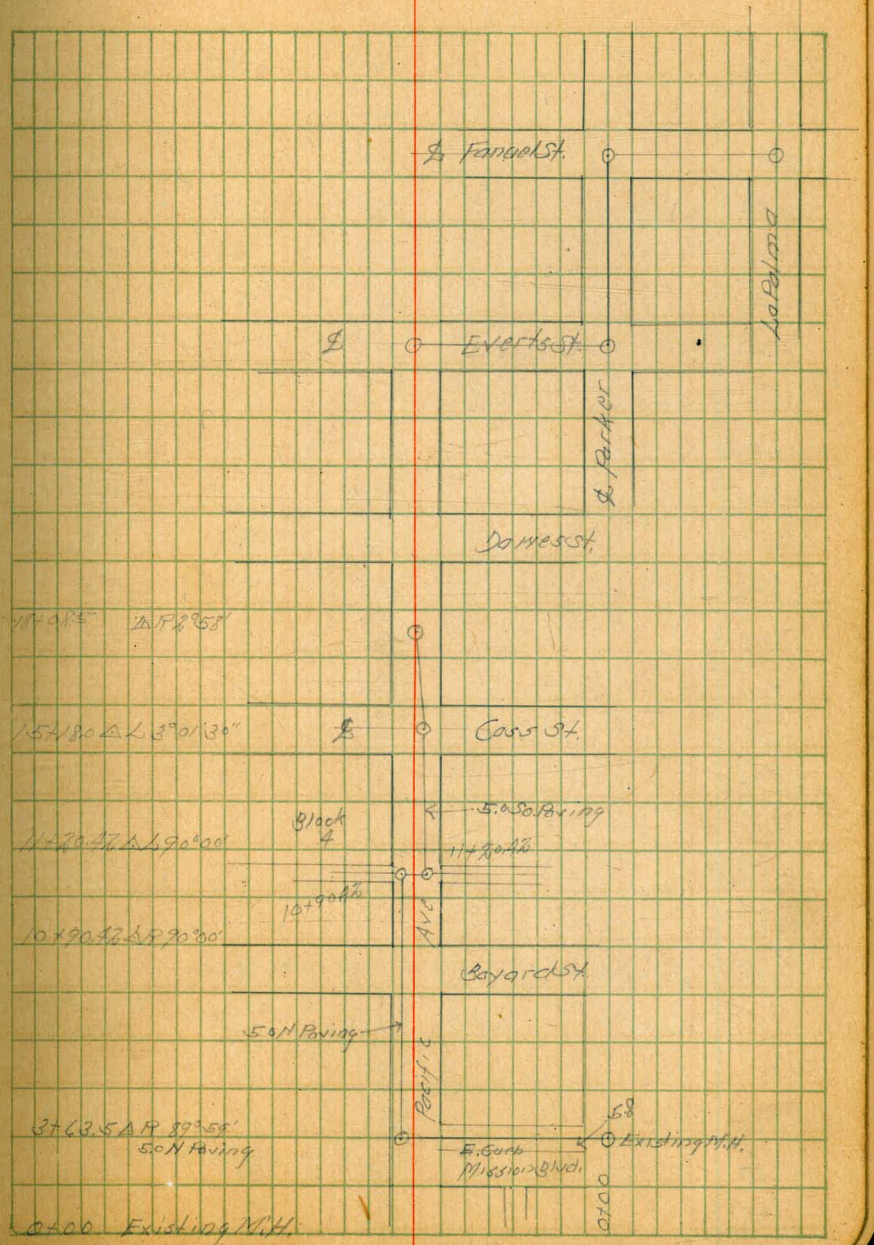
SL		10.1	210.8 ✓
C		9.4	211.5 ✓
NL		9.1	211.8 ✓
Approx 550' W = E ℄ REYNARD W/AY & MEASUREMENT			
NL ON CONC ℄S		8.7 ✓	212.14 ✓
SL		10.37	210.51 ✓
Check to T.P. page 39		9.11	211.77 ✓ 211.77



Sewer Levels Pacific Beach

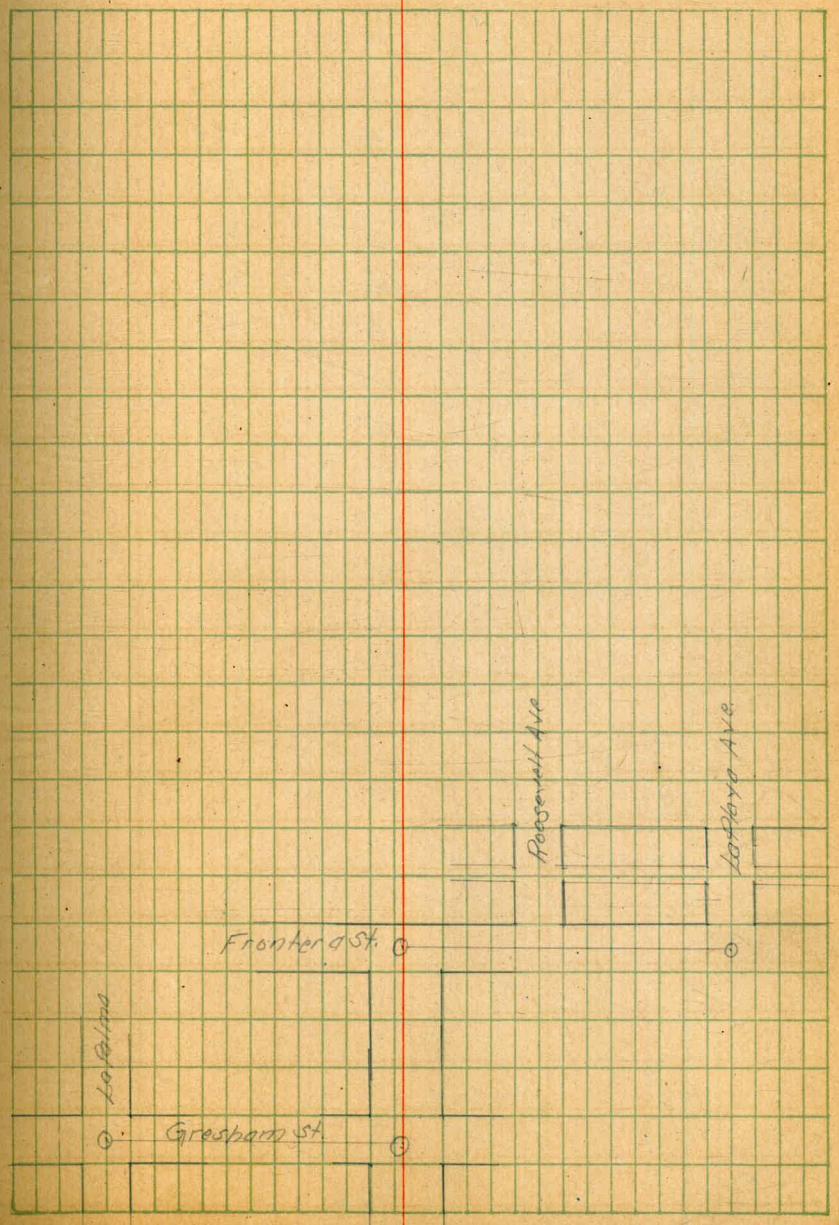
S.M. Interceptor From Existing M.H. Mission Blvd. to

B.M.	0.38	5.00		4.62	SE. Cor. Pacific & Bayard Top Hydrant
T.P.	3.77	7.58	6.19	-1.19	
0+00	Top M.H. Existing Sewer		4.48	-1.70	
	Flow Line		7.21	-4.63	
+07			4.4	-1.82	
+08			3.83	-1.175	Top Curb
+50			4.6	-2.08	
1+00			4.6	-2.08	
+50			4.8	-2.22	
2+00			4.6	-2.0	
+50			5.0	-2.4	
3+00			5.0	-2.4	
+045			4.56	-1.98	Top Curb
+05			4.97	-2.39	Top Paving
+30			4.3	-1.72	" "
+57.5			4.28	-1.70	N Edge
+63.5 ΔR 89°59'			4.42	-1.84	on Stub
4+00			4.6	-2.0	
+50			4.8	-2.2	
5+00			4.3	-2.7	
+50			4.2	-2.6	
T.P.	6.76	5.45	3.91	-1.313	
6+00			6.8	-1.4	
+50			6.5	-1.1	
7+00			6.0	-0.6	



SM Interceptor Cont

		5.43			
7+50			5.4	0.0	
8+00			5.0	0.4	
+50			4.4	1.0	
9+08.65 ℄ Bayard			3.6	1.8	
+50			4.0	1.4	
10+00			4.1	1.3	
+50			4.1	1.3	
T.P. +90.42 ΔR 90°00'	4.00	4.96 ✓	4.47	0.96 ✓	on St. ℄
11+05.42 ℄ Paving			3.91	1.05	
+20.42 Δ L 90°00			4.23	0.73	on St. ℄
+50			4.2	0.8	
12+00			4.3	0.7	
+50			4.4	0.6	
13+00			4.6	0.4	
+50			4.7	0.3	
14+00			4.6	0.4	
+50			4.0	1.0	
15+00			3.3	1.7	
+12			2.1	1.9	
+18.0 Δ 6.3°or℄ Cass St.			4.85	0.11	
T.P.	3.79	2.38 ✓	6.37	-1.41 ✓	Top Flange Water Main
+34			4.9	-2.0	
+50			4.7	-2.3	
16+00			5.2	-2.8	
+50			5.4	-3.0	



Sewer Levels
S.W. Interceptor Cont.

see book 1139-35

		2.38		
17+00		5.7	-3.3	
+50		5.9	-3.5	
18+00		5.8	-3.4	
+08.5	Δ P.I. 2°58'	5.63	-3.25	on Stub
+50		4.9	-2.5	
19+00		4.8	-2.0	
+50		4.2	-1.8	
20+00		3.8	-1.4	
+50		3.9	-1.5	
+74		3.7	-1.3	
+75		4.3	-1.9	
+98.5	℄ Durham St. & Pacific	3.5	-1.1	On N.W. Pop Hub Durham & Pacific
I.P.		3.50	-1.16	

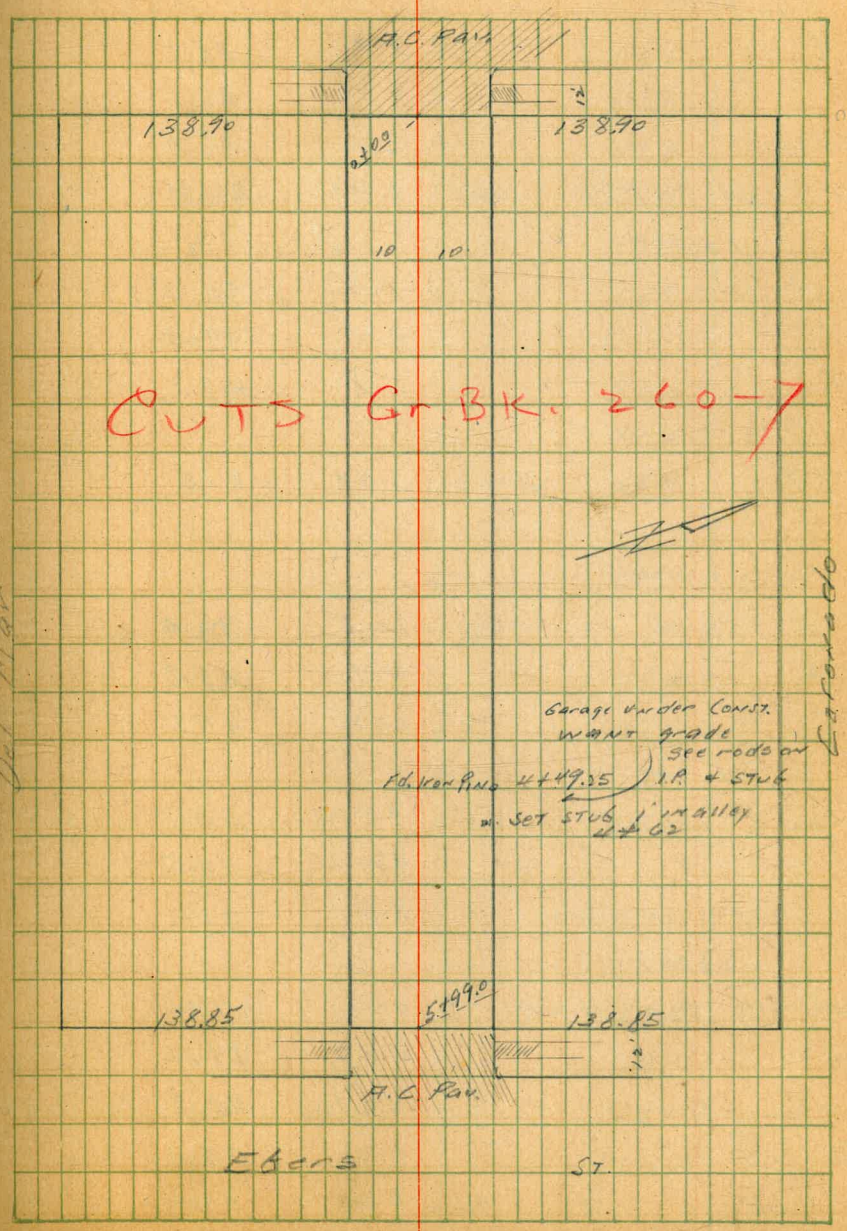
Indexed
C.S.K.

Moore
10-25-38.

Xsec of alley 20' wide
Blk 38 Ocean Beach

NWBP	12.83	49.0 ✓		36.19	Sunset Cliffs Del Mar
0-12 E c6 line Sunset Cliffs Blvd.					
S	Pav		4.44	42.38	
C	"		6.29	42.73	
N	"		5.78	43.24	
0+00 E.L. Sunset Cliffs Blvd					
W	c6		5.07	43.95	
N	Pav.		5.53	43.49	
C	"		4.08	42.94	
S	"		6.28	42.94	
S	c6		5.98	43.04	
0+15					
S			5.3	43.7	
C			5.4	43.6	
N			5.0	44.0	
0+44					
N	Top beg. cem. wall		3.31	45.71	
N			4.2	44.8	
C			4.5	44.5	
S			4.8	44.2	
45			5.7	43.3	

Sunset Cliffs Blvd.



49.02

0+80

S		2.9	46.1
C		2.7	46.3
N		2.2	46.8
N end Top cem. wall		1.71	47.31

1+00

N		0.7	48.3
C		1.6	47.4
S		1.8	47.2
T.P.	11.54	0.34	48.68

1+22

N Fence 1.2 in alley		10.8	49.4
C		11.4	48.8
S		11.5	48.7

1+50

S		9.5	50.7
C		9.7	50.5
N fence on line		8.3	51.9

2+00

+2.5 beg. Top Cem wall		2.28	57.94
N		4.8	55.4
+5		4.0	54.2
C		4.2	54.0
S		4.4	53.6

60.22

47

2+20

S		5.0	55.2
C		4.7	55.5
N		3.7	56.5
+1.3 Cem apron		3.40	56.82
+2.5 end Top cem wall		1.87	58.35
+3.5 Wedge Sw. gar.		3.35	56.87 Cem

2+36

-3.5 Cem walk		3.30	56.92 Edge gar
-1.3 " "		3.28	56.94
N		3.3	56.9
C		3.5	56.7
S		4.7	56.0

2+44

S		3.3	56.9
C		2.9	57.3
N		2.2	58.0
+1.0 Cem walk		1.94	58.26 2.5 wide

2+60

N		1.1	59.1
+3		1.7	58.5
C		1.8	58.4
S		2.1	58.1
+8 Sw. gar. Fl. d.		2.15	58.07
T.P.	1.54	1.31	0.45 59.77

71.31

3+00			
S		10.2	61.1
C Rim MH		10.13	61.18
+7		10.2	61.1
+8		8.7	62.6
N		8.7	62.6
3+30			
N		7.0	64.3
+4		8.2	63.1
C		8.4	62.9
S		8.3	63.0
3+59			
S		6.6	64.7
C		6.0	65.3
N		5.3	66.0
+4.5 E 19' gar. dirt fl.		4.7	66.6 Level
3+71			
3' Step in alley 1.5 on N		4.69	66.62
3+90			
N		2.7	68.6
C		3.9	67.4
S		3.8	67.5
+6 12' Sw. gar. cent		3.91	67.40 H. Level
4+24			
S		0.9	70.4
C		0.9	70.4

71.31

N			0.0	71.31
+15 11' Sw. gar.		dirt	0.0	71.31
12	13.01	83.83	0.49	70.82
4+49.25				
N Top iron Pin			9.63	74.20 gar. under CONST.
C			10.3	73.5
S			10.9	72.9
4+62				
S			8.9	74.9
C			8.9	74.9
+8			8.5	75.3
A9 on STUB			7.44	76.39
N			7.3	76.5
5+00				
N-5 Wedge dirt gar			1.4	82.4
N			1.7	82.1
+5			3.1	80.7
C			3.3	80.5
+7			3.4	80.4
S			2.7	81.1
5+18				
S			1.2	82.6
C			1.2	82.6
N			1.2	82.6

N+5 E edge gar. dirt		1.1	82.7	
T.P.	1.88	96.50	0.21	83.62
5+35				
N			11.2	85.3
+5			11.3	85.2
C			11.8	84.7
S			11.8	84.7
5+58				
−8 W edge Six gar			8.25	88.25 Cem't
S " " apron			7.97	88.53 "
C			8.5	88.0
+5			8.3	88.2
N			6.9	89.6
5+66				
N			6.1	90.4
+5			7.1	89.4
C			7.2	89.3
S cem't apron			7.60	88.90
+8 E edge gar			8.22	88.28 Cem't
5+90				
S			3.7	92.8
C			3.8	92.7
+7			2.7	93.8
N			1.4	95.1

5+99 W ℄ Ebers St.

N ck	1.56	94.94	
N Par	2.22	94.28	
C "	2.95	93.55	
S "	3.06	93.44	
S ck	2.97	93.53	
6+11 W ck N℄ Ebers St			
S Par.	3.70	92.80	
C "	3.00	93.50	
N "	2.27	94.23	
T.P. 12.71	109.12	0.09	96.41
Top ck. St. Coronado W. ck. Ebers	4.05	105.07	
SE Top Hyd Santa Cruz Ebers	11.15	97.97	99.60
SW Man Santa Cruz Ebers	13.69	95.43 ✓	
95.42 ✓			

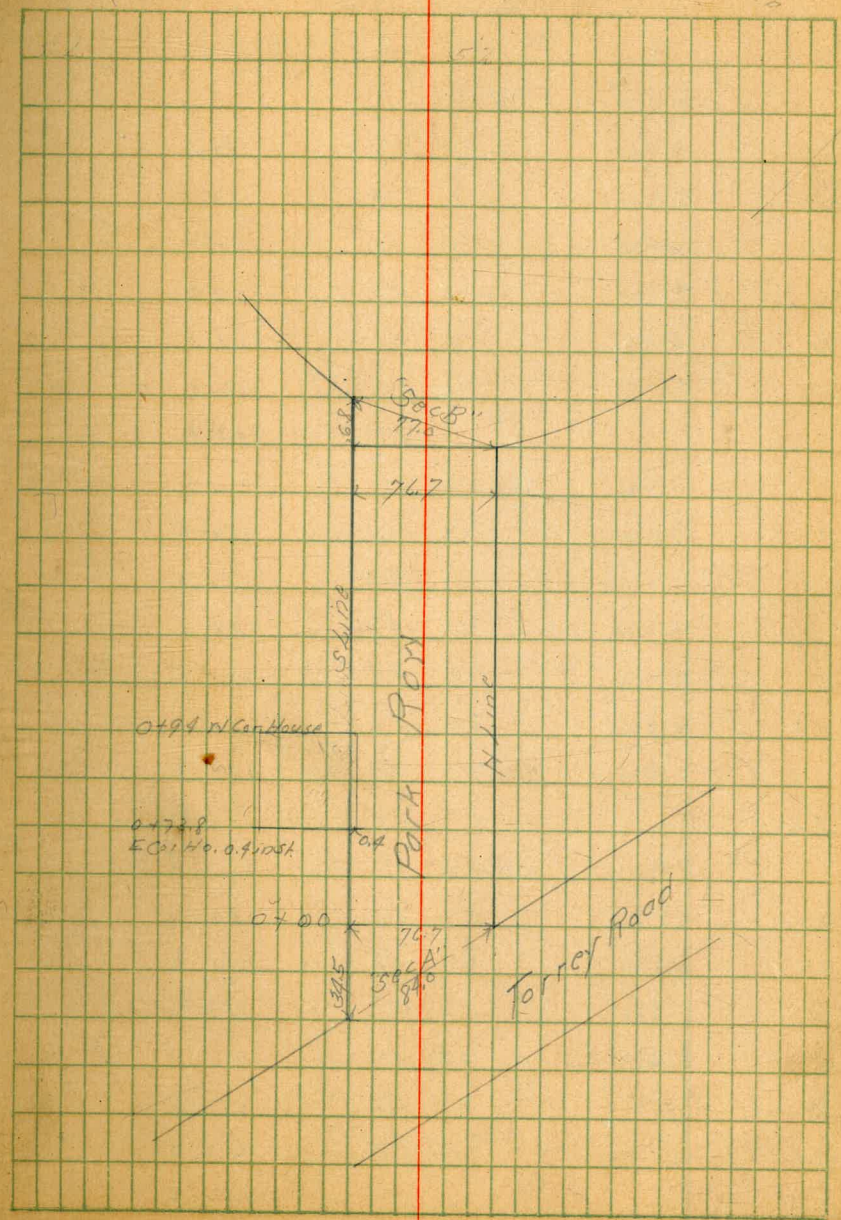
B.M. Hyd. Nail Ebers Lowered

Cross Section of Park Row

14' Cbs. 12.1750 Cbs. 76.7 wide

8-19-35 JJ
A Sisson
W Bliss
G Northern

B.M.	2.47	157.47		155.00	B.P. N.E. Cor Park Row
			See A. = N Line Tarrey Road		
NL			3.2	154.2	
NC			3.41	154.0	
Gutter			3.90	153.5	
℄			4.16	153.26	
Gutter			4.89	152.53	
SC			4.55	152.87	
S.L.			4.3	153.1	
		0+00			
S.L.			3.0	154.4	
CB			3.7	154.7	
¼			4.4	153.0	
℄			4.6	152.8	
¼			3.9	153.5	
CB			3.4	154.0	
NL			3.1	154.3	
		5' W			
NL			2.9	154.5	
CB			3.3	154.1	
¼			4.1	153.3	
℄			4.0	153.4	
¼			4.4	153.0	
CB			4.9	152.5	
¼			4.6	152.8	



157.98

	157.98		
SL		5.2	152.7
	37'N		
SL		5.6	151.8
CB		5.4	152.0
¼		4.9	152.5
C		4.8	152.6
¼		4.1	153.3
CB		3.8	153.6
NL		3.6	153.8
	54'N		
NL		4.2	153.2
CB		4.5	152.9
¼		4.7	152.7
C		4.9	152.5
¼		5.3	152.1
CB		5.5	151.9
SL		5.6	151.8
	100'N	6.	151.4
SL		6.2	151.2
CB		5.8	151.6
¼		5.6	151.8
C		5.0	152.4
¼		4.8	152.6
CB		4.5	152.9
NL		4.1	153.3

	157.98		
	140'N		
NL		3.7	153.7
CB		4.1	153.3
¼		4.7	152.7
C		5.3	152.1
¼		5.5	151.9
CB		5.7	151.7
SL		5.7	151.7
	175'N		
SL		4.9	152.7
CB		4.8	152.6
¼		4.7	152.7
C		4.9	152.5
¼		4.5	152.9
CB		4.2	153.2
NL		3.9	154.0
	200'N		
NL		3.1	154.3
CB		3.4	154.0
¼		3.8	153.6
C		3.7	153.7
¼		3.6	153.8
CB		3.7	153.7
SL		3.2	154.2

	1578		
	218N		
S.L.		3.2	154.1
C.B		2.7	154.7
1/4		3.1	154.3
C		3.2	154.1
1/4		3.3	154.1
Gutter		3.3	154.1
Top C.B.		2.95	154.47
N.L.		2.7	154.7
	Sec B	See Page 51	
N.L.		2.7	154.7
C.B. Top		2.95	154.47
Gutter		3.3	154.1
1/4		3.2	154.1
C		3.3	154.1
1/4		3.1	154.3
C.B		2.6	154.8
S.L.		2.5	154.9

X Section of Grape St. Between 5th & 6th St

14.0 Cbs 180 Qts 80' Incl

B.M	5.62	184.13	178.51	NW Cor 5th & Grape St
	0+00 = E Line 5th St.			
N.L		5.0	179.13	
Top Curb		5.95	178.18	
Gutter		6.5	177.63	
+04		5.4	178.73	
+05		6.3	177.83	
¼		6.9	177.13	
C		6.9	177.23	
¼		7.6	176.53	
+12		8.5	175.63	
Top Curb		8.10	176.03	
S.L.		7.4	176.73	
	25' E			
S.L. Door Garage Conc Floor		8.59	175.54	S Line
+01		7.4	176.63	
C.B. Top		7.85	176.28	
¼		7.4	176.73	
C		6.9	177.23	
¼		6.5	177.63	
+05		6.2	177.93	
+10		5.2	178.93	
C.B.		5.7	178.33	
N.L.		5.7	17843	

8-19-25 V-4
Sisson
Bliss
Northern

184.13

50' E

N.L.	5.1	179.03
C.B.	5.2	178.93
+03	5.1	179.03
+10	6.1	178.03
¼	6.3	177.83
C	6.6	177.53
¼	7.3	176.93
C.B.	7.3	176.83
S.L.	7.1	177.03
	75' E	
S.L.	6.8	177.33
C.B. Top	7.17	176.96
¼	6.6	177.53
C	6.5	177.63
¼	6.0	178.13
+03	5.7	178.43
+10	4.5	179.63
C.B.	4.9	179.23
+09	4.9	179.23
N.L.	3.8	180.33
	100' E	
N.L.	3.1	181.03
+05	4.6	179.53
C.B.	4.5	179.63
+02	4.7	179.43

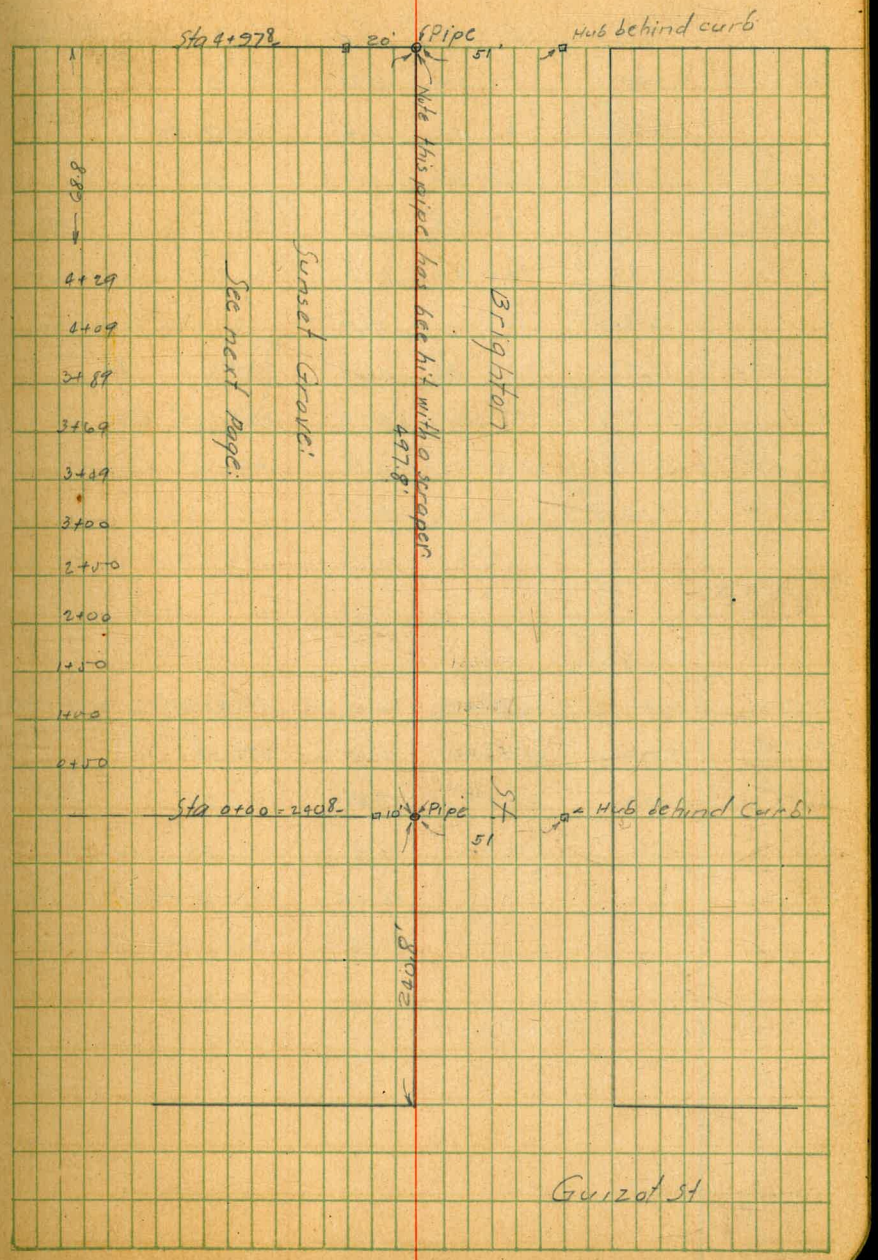
Grape St Cont

184.13

+04	3.9	180.23	
+07	5.0	179.10	
¼	5.6	178.53	
C	6.0	177.53	
¼	6.1	178.03	
C.B.	6.4	177.73	
S.L.	6.8	177.33	
	175E		
S.L. Door Garage Conc Floor	7.98	176.15	S Line
+07	6.7	177.33	
+08	6.7	177.43	
C.B	6.2	177.93	
+03	5.8	178.33	
¼	5.4	178.73	
C	5.1	179.03	
¼	4.8	179.33	
+07	4.3	179.83	
+11	3.3	180.83	
C.B	4.0	180.13	
+09	4.1	180.03	
N.L	2.6	181.93	
	155E		
N.L	2.8	181.33	
+03	3.4	180.53	
+07	3.7	180.93	

¼	3.0	181.13	
C.B	2.7	181.43	
+06	2.1	182.03	
+10	3.3	180.83	
¼	3.7	180.43	
C	4.0	180.13	
¼	4.4	179.73	
+10	4.5	179.63	
C.B.	6.0	178.13	
+04	6.4	177.73	
S.L.	7.0	177.13	
	166E = N Line 6th St.		
S.L.	5.1	179.03	
Top C.B.	5.07	179.06	
Gutter	5.6	178.53	
¼	4.4	179.73	
C	3.5	180.63	
¼	3.0	181.13	
Gutter	2.9	181.23	
Top C.B.	2.6	181.97	
N.L.	0.9	183.23	

Venice St.


Sta 4+978
20'
6" Pipe
51'
Hub behind curb
Note this pipe has been hit with a scraper
447.8'
Brighton
Sunset Grove
See next page
4+29
4+09
3+89
3+69
3+49
3+00
2+70
2+06
1+50
1+00
0+50
Sta 0+00 - 2408
10'
6" Pipe
51'
Hub behind Curb
310.72'
Guizot St

	+	H	−	
#	7.05	51.59		44.54 N.W. Cor Fraude & Voltaire.
#	8.09	56.47	3.21	48.38
#	11.29	67.76	0.00	56.47 No 1
#	12.92	80.24	0.44	67.32
#	12.86	91.99	1.11	79.13 C6 S.W. Cor Muir & Guizot.
#	12.97	104.83	0.13	91.86 C6 Long Branch & Guizot.
#	12.43	117.16	0.10	104.73 C6 Brighton
#	12.88	130.04	0.00	117.16 Sth.
#	12.77	142.57	0.24	129.80 On C6
#	12.33	155.74	0.16	142.41 On C6
#	9.10	160.33	3.51	151.23
#			3.76	156.57 = 156.72 B.P. S.W. Cor Cape May & Santa Barbara.
#	3.76	160.48		156.72 S.W. Cor Cape May & Santa Barbara
#	4.07	155.45	9.10	151.38
#	1.02	147.87	8.65	140.80
#	0.36	136.40	11.78	136.04
#			12.43	123.97 Pipe Cor of Tract.
#			6.40	130.00 = 129.80 See above

Grades of P.I.

58

2+40.8 = 00

0+50	136.40 / 27.47 / 8.93 / 7.54 / −0.61	124.12	136.40 / 124.12 / 12.28 / 12.03 / +0.25
1+00		127.47	
1+50		130.82	136.40 / 30.82 / 5.58 / 5.11 / +0.07
2+00	147.82 / 37.72 / 10.30 / 8.27 / +2.03	134.17	136.40 / 134.17 / 2.27 / 0.82 / +1.4
2+50		137.52	
3+00		140.87	147.82 / 40.97 / 6.94 / 5.00 / +1.94
3+10 Sub 6	147.82 / 44.88 / 2.94 / 0.15 / +2.79	144.22 / 144.88	
3+49		147.50	155.45 / 47.50 / 7.29 / 6.29 / +1.71
3+69		148.72	155.45 / 49.72 / 6.72 / 4.88 / +1.84
3+89		149.65	155.45 / 50.29 / 5.17 / 3.33 / +1.73
4+09		150.28	
4+29		150.61	155.45 / 50.29 / 5.17 / 3.33 / +1.73
4+578		151.25	155.45 / 51.25 / 4.20 / 2.06 / +2.14

155.45 / 47.50 / 7.95 / 6.29 / +1.71

155.45 / 49.76 / 6.72 / 4.83 / +1.89

155.80 / 49.76 / 6.36 / 4.83 / +1.53

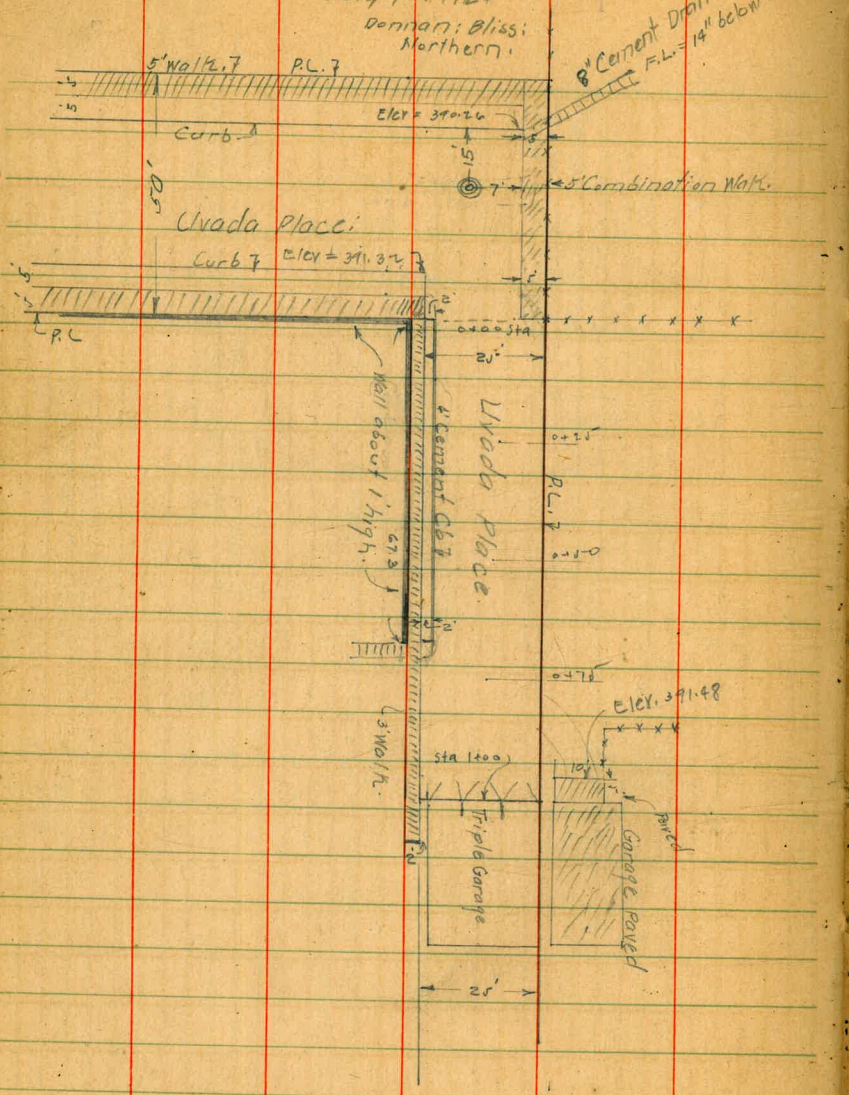
155.45 / 50.62 / 4.83 / 3.14 / +1.69

+ & − Stakes on 5 offset = Brighton in front of Sunset Tract.

July 13th 1905

Pomona Northern Bliss

Xsection of a Portion of Urada Place
July 9th 1924
Dennan; Bliss; Northern.



	6.99	391.90		384.91 S.E. Adams & Idaho B.P.
	3.93	395.13	0.30	391.60
	4.17	396.00	3.30	391.83
		0+00		
E.L.			4.62 On Sidewalk.	391.38
℄			4.7	391.3
W.L.			4.41 On sidewalk.	391.59
W.L.		0+25	4.08 " "	391.92
℄			4.4	391.6
E.L.			4.7	391.3
		0+50		
E.L.			4.8	391.2
℄			4.4	391.6
W.L.			4.11 On sidewalk.	391.89
		0+75		
W.L.			4.1	391.9
℄			4.6	391.4
E.L.			4.8	391.2
		1+00		
E.L.			4.7	391.3
℄			4.8	391.2
W			4.2	391.8
#	3.49	395.32	4.17	391.83
#	0.41	392.03	3.70	391.62
			7.10	384.93 = Initial BM.

all average of Garage driveways

KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

HOW TO USE KEITH'S TABLES.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20′ to the R. at Station 542 + 72.

Ext. in Tab. IV opposite 23° 20′ = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. IV opp. 23° 20′ = 1183.1
1183.1 ÷ 10 = 118.31.

Tab. V correction for A. 23° 20′ for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 20′ = 23.33° ÷ 10 = 2.3333 = L. C.

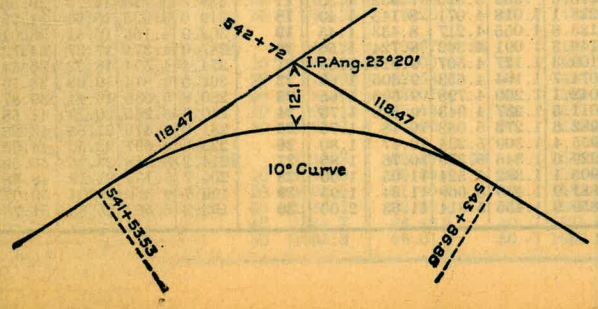
2° 19½′ = def. for sta.		542	I. P. = sta.		542 + 72
4° 49½′ = " " "		+ 50	Tan. =		1.18.47
7° 19½′ = " " "		543	B. C. = sta.		541 + 53.53
9° 49½′ = " " "		+ 50	L. C. =		2.33.33
11° 40′ = " " "		543 + 86.86	E. C. = Sta.		543 + 86.86

100 − 53.53 = 46.47 × 3′ (def. for 1 ft. of 10° Cur.) = 139.41′ = 2° 19½″ = def. for sta. 542.

Def. for 50 ft. = 2° 30′ for a 10° Curve.

Def. for 36.86 ft. = 1° 50½′ for a 10° Curve.

(These tables are published in Field Books of KEUFFEL & ESSER Co., New York, N. Y.)



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ 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.