

950

F.B. 950

LEVEL BOOK.

No. 410

IND

MICROFILMED

DEC 16 1964

Grades for Outfall sewer Ocean Beach
 from Sta 3+30³ Book 893 Page 81 North
 into False Bay

B.M. 3rd Mass. Pt. of the Vulture 2.47
 B.M. 4.36 6.83
 T.P. 4.35 5.94 5.24 1.59

0+0 = Sta 3+30 M.H. 1st 4.75 1.19 - 8.00
 1st 1.50 6.72 - 0.78 - 8.40
 1+0 11.30 - 5.36 - 8.80

7 = 0.5046
 $\frac{503}{6.62 \cdot 10}$

6.62 6.62
 $\frac{800}{14.62}$ $\frac{822}{14.844}$

0.6

9.2

7.6

3.4

Sewer line from M.H. 1 1/2 at outfall South
for 1919 to E Abbott Trance. 5 M E Abbott

STKS 3' W of E

+ Rod 5.74

- Rod

Elev.

Grade

Cut

040 M.H. 1 1/2
0.720

4.75

1.19

-8.00

9.2

6.41
5.06
1.35

6.41 6.41 6.41
8.00 -7.79 -7.90
14.41 14.37 14.31

5.2
1.4
6.6
8.3
1.7

2.47 2.47 2.47

4.07

6.54 H3.

4.56

1.48 TP Keel-Curb front
2.43

6.41-H3.

150

4.35

+59

-7.70

9.5

6.41
-7.79

1.98 Curb BM
5.18

7.16

7.16

7.16

7.16

1

4.4

1.5

-7.79

9.3

14.20

7.16 H3.

7.69

7.60

14.85

14.76

+50

4.3

1.6

-7.69

9.3

7.00 H3.

5.40 5.40 5.40
7.53 7.28 7.37

2.47

2.47

+91 E Abbott

4.44
1.34 0.26

6.41

3.97

1.97

-7.60

9.6

2.47
2.47
5.40 H3.
2.47

12.98 12.88 12.77

5.65

2.47

7.43

2

4.2

2.2

-7.58

9.8

2.47
2.47
3.13

13.13 13.08

6.57

6.57

6.57

+50

4.3

2.1

-7.48

9.6

12.92

2.47

7.27

13.63

13.52

3

4.4

2.0

-7.37

9.4

2.47
4.13

6.60
7.16

4.10

6.57 H3.

7.16

+30 M.H. 1 1/2

4.4

2.0

-7.31

9.3

2.47
4.02

6.49
6.85

2.47

6.13

3.46

5.93

+50

4.4

2.0

-7.27

9.3

6.49 H3.
3.1

3.66 6.85

6.13 H3.

12.95

12.67

4

4.4

2.0

-7.16

9.2

2.47
3.47

5.94
6.78

5.94

7.68

7.9

5.09

6.98

4.52

1.89

-7.06

9.5

2.47

6.72 6.72 6.72

2.47

3.57

+50

4.6

2.4

-7.06

9.5

2.47

6.92 H3.

6.04 H3.

+63 M.H. 1 1/2 Alley

4.5

2.5

-7.03

9.5

6.92 H3.

6.64
6.64

6.04

6.64

12.68

12.67

5

4.8

2.2

6.95

9.1

6.04

12.73

12.62

+50

4.5

2.2

6.85

9.1

6

4.7

2.3

6.74

9.0

+50

4.7

2.3

6.64

8.9

7

4.7

2.3

6.53

8.8

6.98

7.50		4.9	2.1	-6.43	
+58 ⁶	M.H. & Alley	4.8	2.2	6.41	
8		5.0	2.0	6.32	
+50		5.0	2.0	6.22	
+90 ⁷	M.H. & Muir	st 4.8	2.2	6.14	
9		4.9	2.1	-6.11	
+50		4.8	2.2	6.01	
10		4.6	2.4	5.90	
+25 ✓					
+50	9.61	12.15	4.44	2.54	5.80
11		9.8	2.4	5.69	
+25				5.64	
+50		9.1	3.1	5.59	
+55 ⁸	M.H. & Long Branch	st 8.9	3.3	5.58	
+75					
12		7.7	4.5	5.48	
+25 ✓					
+50		6.1	6.1	5.38	
+16 ✓					
+75	M.H. & Alley	4.8	7.4	5.30	
+98					
13		4.6	7.6	5.27	
+50		3.4	8.8	5.17	
14		2.3	9.9	5.06	
+25					
+50		2.2	10.0	4.96 ✓	
+21					
15		2.3	9.9	4.85	

6.09 6.43 12.52	6.09 6.43 12.47	2.47 3.62 6.09H.	6.09 6.32 12.41 12.46	6.09 6.22 12.31 12.36
8.5 ✓	1.94	B.M.N.W.	A.660H	8 MUIV
	4.03			
8.4	5.97H	5.97	5.97	1.94
	6.22	6.11	6.01	4.41
8.3 ✓	12.19	12.08	11.98	6.35H, 6.35
		12.13	12.03	5.80, 5.50, 5.69
				12.15, 12.04
8.2 ✓	1.94			6.35
	4.29	6.23		5.64
	6.23	5.90		11.99
9.3		12.13	12.08	
		12.18		
		12.23		
8.2 ✓	1.94			1.94
	5.22			4.92
	7.16H	7.16	7.16	1.94
		5.64	5.59	5.09
		12.80	12.75	7.03H, 5.43
				12.46
8.3 ✓	10.13			6.86
	11.00			5.88
	5.30			12.34
8.3 ✓	10.13	B.M.N.W.	B.R. A.660H	Brighton
	0.85			
	10.98H	10.98		10.13
		5.38		1.25
		16.36	12.08H.	12.08
				5.17
				17.25
				17.30
8.7 ✓	10.13			
	1.21	11.34		
	11.34H.	5.27		
		16.61		
8.9 ✓		16.66		
10.0 ✓	10.13			12.68
	2.85	12.68		5.17
	12.68H.	17.85		5.06
11.5 ✓		17.90		17.74
				17.79
12.7	10.13			
	3.72	10.13		
	13.83	3.90		
	5.01	14.03H.		10.13
	13.86	4.96		3.70
		18.94		13.83
				4.85
				18.68
14.0 ✓	10.13	14.03		
	3.70	4.96		
	14.03H.	18.94		
15.0 ✓				
15.0				
14.8 ✓				

15 ²² W	12.15			4.20	
15750		2.5	9.7	4.75	14.5
+75					
+95					
16		2.7	9.5	4.65	14.2
² 105 M.H. Alley	Not built?	2.83	9.32	4.64	14.0
+25	3.12	12.44			
150	16+40 ² see book 1035 page 14	3.2	9.2	4.54	13.7
17		3.5	8.9	4.43	13.3
150		3.6	8.5	4.33	13.1
18		3.6	8.8	4.22	13.0
150		4.1	8.3	4.12	12.4
19		4.6	7.8	4.01	11.8
150		5.2	7.2	3.91	11.1
+84 ⁷ M.H. Alley		5.7	6.7	3.84	10.5
20		5.8	6.6	3.80	10.4
150		6.3	6.1	3.70	9.8
21		6.8	5.6	3.59	9.2
150		7.1	5.3	3.49	8.8
22	3.95	9.19	7.20	3.38	8.6
150		4.0	5.2	3.27	8.5
23		4.0	5.2	3.17	8.4
150		4.1	5.1	3.06	8.2

10.13	13.63	13.70	18.32	13.64
3.96	4.25	4.75	3.50	3.50
74.09	18.38	184.5	.82	5
4.80				
18.89				
10.13	10.13			
3.50	3.57			
13.63 AM	13.70			
10.13	13.34	13.34		
3.21	4.70	4.68		
13.34	18.04	18.02		
8.89 B.M. brass of N.W. Cape May & Abbott.				
4.75	16+0	4.65		
13.64 AM	13.64	13.64		
4.63	4.65	4.60		
18.32	18.29	18.24		
8.89				
4.75	13.77			
13.77	4.54			
	18.31			

9.19

23+63⁸ M.H. Alley

4.1 5.1 3.03 8.1

24

4.1 5.1 2.96 8.1

+50

4.2 5.0 2.85 7.9

25

4.1 5.1 2.75 7.8

+50

3.8 5.4 2.69 8.0

26

3.8 5.4 2.59 7.9

+50

3.7 5.5 2.43 7.9

27

477 10.25

3.71 5.48 2.33 7.8

+43⁷ M.H. Alley

4.6 5.7 2.24 7.9

+50

4.7 5.6 2.22 7.8

28

4.6 5.7 2.12 7.8

+50

4.4 5.9 2.01 7.9

29

3.8 6.5 -1.91 8.4

+50

1.80

P.M. fig. 46.16 Newport II 47
4.97 E. side of

+68 = M.L. sea wall 23 m. of ~~land~~

5.34 6.13 -1.76

7.89 top of wall in Benbow's Bldg

+77 E. side

5.24 6.26 -1.74

8.00

M.H. ALLEY BIX 72 K - 015

Levels - Public Toilet foot of ^{7/19/} Dunkle
 Niagara St. 16 Shaw 7
 Bunker

B.M. brass pig Newport & Abbott, 6.50

4.61 11.11

T.P. 5.88 10.00 6.99 4.12

Elev. of floor
 Public Toilet foot
 of Niagara St

4.9 5.1

T.P. 5.96 10.08 5.88 4.12

bottom of pipe
 leaving public
 Toilet

6.78 3.30

Levels - w. curb line Abbott 20' walk
 B.M. 4.80 11.30 6.50

20' sq ft L. Newport
 concrete foundation 2.5' wide 14.0 -2.7

bottom of C.T. in wall 4.53 sq ft L. Newport 9.25 +2.0

hard pan foundation 135 sq ft L. Newport 15.7 -3.4

Abbott

Street

Santa Monica

Bacon

Street

Newport

curb line

5' 5" 20'
 1/2" 3" imp wall

wall 1 1/2" later to 1'
 to depth of 6'

Niagara

Senior West Pt Loria Blvd from M.H. 1 1/2 to

M.H. 2

B.M.	#	Vol	Size	P.R.	
		4.09		6.56	2.47
T.P.		4.81		5.96	4.91
					1.65

+0 = M.H. 1 1/2 -7.75

150 5.06 0.90 -7.65 8.6

1 5.28 0.68 -7.56 8.2

+35 = M.H. # 2 5.4 0.6 -7.50 8.1

3000 West of Loma Blvd from N.H. 2 to
 F.T. Sta 36+0
 1/2 Sample
 1/6 Show
 Rev.

596

0403 N.H. #2		5.4	0.6	-7.50	8.1
150		4.71	1.25	-6.87	8.1
1		4.42	1.54	6.24	7.8
150		3.8	2.2	5.61	7.8
2		3.1	2.9	4.98	7.9
T.P.	7.58	11.22	2.32	3.64	
150		7.3	3.9	4.35	8.3
156				4.27	
3		6.36	4.86	3.72	8.6
150		5.7	5.5	3.09	8.6
4		5.4	5.8	2.46	8.3
4+32 N.H. 4102 P		5.4	5.8	2.05	7.9
				-0.05	5.9
450		5.2	6.0	+0.09	5.9
5		4.83	6.39	0.51	5.9
150		4.86	6.36	-0.93	5.5
6		5.0	6.2	1.35	4.8
150		4.8	6.4	1.77	4.6
7		4.6	6.6	2.19	4.4
150		4.2	7.0	2.61	4.4
8		2.4	8.8	3.03	5.8
150	8.73	19.32	0.63	10.59	3.45
					7.2

Drop

6.4
 2.54
 6.77
 8.31
 1.26
 1.26
 7.56
 8.31 8.31 8.31 8.31
 4.27 3.72 3.09 2.46
 12.58 12.03 11.40 10.87

6.39
 4.32
 10.69
 2.05
 12.74
 10.69
 2.12
 8.50
 15.47
 15.47
 10.69 10.69 10.69 10.69 10.69 10.69
 2.05 0.09 0.51 0.93 1.35 1.77
 12.74 10.60 10.18 7.76 7.34 8.92
 10.69 10.69 10.69 10.69
 2.12 2.61 3.03 3.44
 8.50 8.08 7.66 7.24

9.13
 4.32
 4.81

9.13
 4.32
 4.81

9.	19.32	7.17	12.15	3.87	8.3 ✓
+13 M.H. L 53° 19'	#4	7.4	11.9	+4.00	7.9 ✓
+50		6.04	13.28	4.57	8.7 ✓
10		5.1	14.2	5.34	8.9 ✓
+50		4.7	14.6	6.12	8.5 ✓
11 Mark on curb A		3.1	16.2	6.89	9.3 ✓
+50		2.90	16.42	7.67	8.8 ✓
+21 M.H. 15° 42' L	#5 6.96 24.30	1.98	17.34	8.00	9.3 ✓
12		7.09	17.21	8.33	8.9 ✓
+50		6.43	17.87	8.90	9.0 ✓
13		5.8	18.15	9.47	9.0 ✓
+50		5.2	19.1	10.04	9.1 ✓
14		4.8	19.5	10.61	8.9 ✓
+50		4.42	19.88	11.18	8.7 ✓
15		3.87	20.43	11.75	8.7 ✓
+22 M.H. 17° 10'	#6	3.9	20.4	12.00	8.4 ✓
+50		3.7	20.6	12.28	8.3 ✓
16		3.2	21.1	12.77	8.3 ✓
+50		2.8	21.5	13.27	8.0 ✓

14.20	15.88	15.88	15.88	15.88	16.88	15.88
1.68	3.27	4.00	4.57	5.34	6.12	6.89
15.88	12.01	11.88	11.31	10.54	9.76	8.99
	15.88					10
	7.67					
	8.21					
17.21	21.23	21.23	21.23	21.23		8.0
4.02	8.00	8.33	8.90	9.47		
21.23	13.23	12.90	12.33	11.76		
20.43	23.92	23.92	23.92	23.92	23.92	23.92
3.49	10.04	10.61	11.18	11.75	12.00	12.00
13.92	13.88	13.31	12.74	12.17	11.92	11.92
13.92	23.92	23.92				
	12.28	12.77				
	11.64	11.15				
		27.15				
		13.27				
		13.88				
	34.07	34.07				9.5

Senior Castle Har & Alley in 6/18 27

B.M. Del Sta 3110			27.17	
B.M.	12.15	39.32		
040-M.H. Sta 30189 N.E. Loop Blvd Line			21.00	
+50		11.82	27.50	27.70
+40		9.5	29.8	24.40
+50		7.68	31.64	26.10
2		6.1	33.2	27.80
+35 ⁵ M.H. & Alley BIK 27		4.8	34.5	29.00
+50		4.9	34.4	29.32
3		2.4	36.9	30.41
+50		2.4	36.9	31.50
+95 M.H. Lot Line		2.2	37.1	32.50
	4.60	41.52	240	36.92
4		3.7	37.8	32.55
+50		3.1	38.4	32.07
+63 D.F.		3.2	38.3	33.20

27.50	35.10	35.10	35.10	35.10	35.10
7.60	22.70	34.40	26.10	27.80	29.00
35.10	12.40	10.70	9.00	7.30	6.10
	✓	✓	✓	✓	

29.00	40.73	40.73	40.73	40.73
11.73	29.32	30.41	31.50	32.50
40.73	11.71	10.32	9.23	8.23
	✓	✓	✓	

6.5				
4.8 ✓				
5.4 ✓				
5.5 ✓				
5.4 ✓				
5.5 ✓				
5.1 ✓				
6.5 ✓				
5.4 ✓				
4.6 ✓				
5.3				
5.3				
5.1				

13

39.5/5
23.5/5
5

Alley between Castellar & Parkspur from
M.H. Sta 28+93 to E. Seaside Ave

B.M.	10.45	37.62	27.17
#10			26.17
0+0 = M.H. 28+93			27.00
750		8.21	29.41 28.47
1+0		7.85	29.77 28.95
150		6.8	30.8 29.42
2		5.8	31.8 29.90
150		4.45	33.17 29.37
3		3.2	34.4 29.85
+40 M.H. #14	10.07	45.17	2.52 35.10 26.23
150		9.8	35.4 26.32
4		8.37	36.80 26.80
150		6.9	38.3 27.27
5		5.68	39.49 27.51 27.75
750		4.4	40.8 28.22
6		2.9	42.3 28.70
+32 M.H. E Seaside #15		3.5	41.7 29.00

29.41	34.67	34.67	34.67	34.67	34.67	14
5.26	23.47	23.95	24.42	24.90	25.37	
34.67 M.H.	11.30	10.72	10.25	9.77	9.30	
8.41 M.H.	36.80	39.10	39.10	39.10	39.10	
5.6	2.30	15.85	26.23	26.32	26.80	39.10 39.10
6.0	39.10	13.25	12.87	12.78	12.30	27.27 27.75
5.8	36.80	42.76	72.76			
6.4	5.76	28.22	28.70	48		46.63
6.9	42.76	14.54	14.06	24		15.80
7.8	40.80	38.80	36.80			34.83
8.6	4.64		4.07			8.50
8.9	45.44		40.87			26.33
checked 9/57	27.00		27.51			46.63
	16.44		13.36			11.80
			13.6			34.83
						3.50
						38.33
						9.90
						28.4
						2.3
						20.1

Alley between Greens Lotus from M.H. 5/2 1926
 W. Pt. Loma Blvd. Line to M.H. & Froude

B.M.	9.63	33.68	24.05			
0402 M.H. 5/2 1926				16.00	7.8	
0452 ⁶ M.H. #28		7.9	25.8	19.00	6.8 ✓	
+40		7.1	26.6	19.52	7.1 ✓	
+50		6.9	26.8	20.06	6.7 ✓	
2		6.40	27.28	20.61	6.7 ✓	
+50		5.9	27.8	21.16	6.6 ✓	
3		5.32	28.36	21.70	6.7 ✓	
+52 ⁶ M.H.		5.1	28.6	22.28	6.3 ✓	
4		4.6	29.1	22.79	6.3 ✓	
+50		3.6	30.1	23.34	6.7 ✓	
5	6.81	37.12	3.37	30.31	23.88	6.4 ✓
+50		6.1	31.0	24.43	6.6 ✓	
6		5.93	31.19	24.98	6.2 ✓	
+50		5.3	31.8	25.52	6.3 ✓	
+80 ⁵ M.H.		5.2	31.9	25.85	6.0 ✓	
7		6.0	31.1	26.07	5.0 ✓	
+50		5.06	32.06	26.62	5.4 ✓	
8		4.91	32.21	27.16	5.1 ✓	
+50		4.1	33.0	27.71	5.3 ✓	
9		3.4	33.9	28.25	5.5 ✓	

2728	3018	3018	3018	3018	3018	3018
290	1952	2006	2001	2116	2170	2228
3018	10.66	10.12	9.57	9.02	8.48	7.90
1900						
71.18						16

30.31	34.07	34.07	34.07	34.07	34.07	34.07
3.76	22.79	23.34	23.88	24.43	24.98	25.52
34.07 M.	11.28	10.73	10.19	9.64	9.09	8.55

34.07	34.07
25.85	16.07
8.22	8.00

32.06	32.01	32.01	32.01	32.01
5.95	26.62	27.16	27.71	28.25
38.01	11.39	10.85	10.30	9.76

d2k

37.12

9+50	10.58	45.33	21.37	34.75	28.80	6.0 ✓
10			9.5	35.8	29.35	6.4 ✓
+10 ⁵ M.H. #31			9.8	35.5	29.50	6.0 ✓
150			9.1	36.2	30.15	6.1 ✓
11			8.6	36.7	30.98	5.7 ✓
150			8.01	37.32	31.81	5.5 ✓
12			7.43	37.90	32.63	5.3 ✓
150			6.0	39.3	33.47	5.8 ✓
13			4.3	41.0	34.31	6.7 ✓
+40 M.H. #32			3.9	41.4	35.00	6.4

M.H.	38.01	38.01	38.01	38.01	43.07	43.07	43.07	43.07	43.07
	28.80	29.35	29.50	30.15	30.78	31.81	32.63	33.47	
	9.21	8.96	8.51	7.86	12.09	11.26	10.44	9.60	
	37.90	5.17	43.07 M.H.		32.01	5.8			
					43.07	43.07			
					34.31	3.80			
					8.76				

6.2

Alley between Lotus & Voltaire from N.H. &
 Hobart St to Ft. at 32 125 or 45 W of Florde.

B.M. Brass at Hobart & Voltaire 2.47
 at 0-M.H. 7.45 9.92 Prop -7.03
 -5.50

+40	7.1	2.8	-5.12	7.9
1	6.85	3.07	-4.74	7.8 ✓
+50	6.5	3.4	-4.36	7.8 ✓
2	6.03	3.89	-3.98	7.9 ✓
+50	5.52	4.10	-3.50	8.0 ✓
3	5.1	4.8	-3.22	8.0 ✓
+30 M.H. #41	4.9	5.0	-3.00	8.0 ✓
+50	4.42	5.50	-2.70	8.2 ✓
4	3.9	6.0	-1.95	8.0 ✓
+50	3.3	6.6	-1.19	7.9 ✓
5	2.5	7.4	-0.43	7.8 ✓
+50	1.96	7.96	+0.35	7.6 ✓
6	1.4	8.5	-1.95	7.4 ✓
+50	1.4	8.5	-1.83	6.7 ✓
+60 M.H. & Bacon #40	1.35	8.57	+2.00	6.6 ✓
7	9.34	17.91		7.93 9.98 7.24 7.7 ✓
+50	7.5	10.4	2.55	7.9 ✓
8	7.0	10.9	2.86	8.0 ✓

2.47	1450				M.H.		
5.87	8.34	8.34	8.34	8.34	8.34	8.34	8.34
8.34 M.	4.36	3.98	3.60	3.22	3.40	2.70	
4.74	2.70	12.32	11.94	11.56	11.34	11.04	
13.08	8.34	8.34	8.34				18
	1.95	1.14	0.43				
	10.29	9.53	8.77				

7.96	13.19	13.19	13.19	13.19	13.19	13.19	13.19
5.23	0.32	1.08	1.83	2.00	2.24	2.55	2.86
13.19	12.87	12.11	11.36	11.19	10.95	10.64	10.33
							10.03

				Grade		
	17.91					
8-50		6.53	11.38	3.16	8.2 ✓	
9		5.7	12.2	3.47	8.7 ✓	
+50		5.02	12.89	3.77	9.1 ✓	
+90 M.H.		4.3	13.6	+4.00	9.6 ✓	
10-0		4.3	13.6	4.12	9.5 ✓	
+50		3.8	14.1	4.72	9.4 ✓	
11		2.9	15.0	5.33	9.7 ✓	
+50		2.2	15.7	5.93	9.8 ✓	
12	10.03	26.47	14.5	16.46	6.54	9.9 ✓
+50			8.5	18.0	7.14	10.9 ✓
13			9.3	17.2	7.75	9.5 ✓
+20 M.H. & Cable			8.4	18.1	8.00	10.1 ✓
+50			7.82	18.67	8.32	9.8 ✓
14			7.02	19.47	10.18	9.3 ✓
+50			6.4	20.1	11.55	8.6 ✓
15			5.6	20.9	12.91	8.0 ✓
+50			4.80	21.69	14.28	7.4 ✓
16			3.5	23.0	15.64	7.4 ✓
+50 M.H.			3.1	23.4	17.00	6.4 ✓

13.19	13.19	13.19	12.87	17.93	17.53	17.83	
3.16	3.47	3.77	4.22				19
10.03	9.72	9.42	17.834				
			12.89	17.07	17.07	17.07	
			4.18	4.00	4.12	4.72	
			17.07	13.07	12.95	12.35	
16.46	18.74	18.74	18.74	18.74	18.74	18.74	M.H.
2.23	5.33	5.93	6.54	7.14	7.75	8.00	8.82
18.74	13.41	12.81	12.20	11.60	10.99	10.74	9.92
4.00							
14.74							
19.47	23.39	23.39	23.39	23.39	23.39	23.39	23.39
3.42	10.18	11.55	12.91	14.28	15.64	17.00	
23.39	13.21	11.84	10.49	9.11	7.75	6.37	
21.69							
7.40	29.09						
29.09	17.00						
	12.09						

26.49

17			2.19	24.30	17.30	7.0 ✓
+50			1.98	24.51	17.60	6.9 ✓
18			1.53	24.96	17.91	7.1 ✓
+50	8.00	33.19	1.30	25.19	18.21	7.0 ✓
19			7.7	25.55	18.52	7.0 ✓
+50			7.5	25.7	18.82	6.9 ✓
+80 M.H. St De Foc			7.8	25.4	19.00	6.4 ✓
20			8.0	25.2	19.18	6.0 ✓
+50			6.0	27.2	19.63	7.6 ✓
21			5.40	27.79	20.09	7.7 ✓
+50			6.00	27.19	20.54	6.6 ✓
22			5.6	27.6	21.00	6.6 ✓
+50			5.17	28.02	21.45	6.6 ✓
23			4.85	28.34	21.91	6.4 ✓
+100 M.H.			4.7	28.5	22.00	6.5 ✓
+50			4.4	28.8	22.36	6.4 ✓
24			3.9	29.3	22.81	6.5 ✓
+50			3.1	30.1	23.27	6.8 ✓
25			3.1	30.1	23.72	6.4 ✓

M.H.
 29.09 28.69 29.09 29.09 29.09 29.09 29.09 29.09 29.09 29.09
 17.30 17.60 17.91 18.21 18.52 18.82 19.00 19.18 19.63 20.09
 11.79 11.49 11.18 10.88 10.57 10.27 10.09 9.71 9.46 9.00
 ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

M.H.
 27.19 32.56 32.56 32.56 32.56 32.56 32.56 32.56 32.56 32.56
 20.54 21.00 21.45 21.91 22.00 22.36 22.81 23.27
 5.37 12.02 11.76 11.11 10.65 10.56 10.20 9.75 9.29
 32.56 M.H. ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

32.56 32.56 32.56
 23.72
 8.84

20

	33.19			
+50		2.5	30.7	24.17
26		1.93	31.26	24.63
+40 M.H. & Flocks		2.3	30.9	25.00
+50		2.42	30.77	25.15
27	12.20	44.13	1.26	31.93
+50		11.7	32.4	26.67
28		11.1	33.0	27.43
+50		10.6	33.5	28.19
29		9.84	34.29	28.95
+50		9.23	34.90	29.71
+70 M.H.		8.6	35.5	30.00
30		7.8	36.3	30.78
+50		6.67	37.46	32.08
31		5.5	38.6	33.38
+50		3.95	40.18	34.68
32		2.4	41.7	35.97
+25 E.T. 25 W of Flocks		1.9	42.2	36.60

32.56 32.56 32.56
 24.17 24.63 25.00
 8.39 7.93 7.56

21

30.77 36.29 36.29 36.29 36.29
 5.52 25.00 25.15 25.81 26.67
 36.29 H.I. 11.29 11.14 10.38 9.62

34.29
 5.82 40.11 40.11 40.11 40.11
 40.11 27.43 28.19 8.95 9.71 30.00 30.78 32.08 33.38
 12.68 11.94 11.16 10.90 10.11 9.33 8.03 6.73

40.18 47.07 47.07 47.07
 6.87 4.68 5.97 6.60
 47.07 12.39 11.10 10.47

5.8

Senex & Chamberlain Count from M.H.
 & Lotus st N. to D.E. for 160

	9.15				
2.102 mg. of Lotus		8.00	-2.00		
			-1.00		
750	2.91	6.24	0.69	6.9	
1	2.7	6.5	0.38	6.9	
750	2.6	6.6	0.07	6.7	
760 D.E.	2.7	6.5	0.00	6.5	

6.24
 3.80
 10.04

10.04 10.04 10.04
 0.69 0.38 0.00
 10.73 10.92 10.04

23

8.0
 7.0

Froude St from M.H. Alley bet Green.
 8 Lotus South for 365 To F.T.

	9.70	47.60	37.90	
0+0 = M.H. Alley		6.2	41.4	35.00
+50		5.58	42.02	35.48
1		5.3	42.3	35.96
+50		4.55	43.05	36.44
2		4.4	43.2	36.92
+50		4.01	43.59	37.40
3		3.5	44.1	37.88
+50		3.1	44.5	38.36
+65 = F.T.		3.1	44.5	38.50

47.07	47.07	47.07	47.07	47.07	47.07	47.07	47.07
<u>35.00</u>	<u>5.48</u>	<u>5.96</u>	<u>6.44</u>	<u>6.92</u>	<u>7.40</u>	<u>7.88</u>	<u>8.36</u>
12.07 ✓	11.59 ✓	11.11 ✓	10.63 ✓	10.15 ✓	9.67 ✓	9.19 ✓	8.71 ✓

47.07
8.50
 8.57 ✓

24

Alley between Voltair & Muir from N.H.H.
Abbott west for 270'

B.M. Voltair & Abbott.	4.65	7.12	2.47		
270 = M.H.				Diff - 6.41	
				Diff - 6.00	
+50	4.5	2.3	-5.78	8.1	
1	5.9	1.2	-5.56	6.8	
+50	5.4	1.7	-5.34	7.0	
2	5.2	1.9	-5.12	7.0	
+50	5.4	1.7	-4.90	6.6	
+70 = D.E	5.5	1.6	-4.80	6.4	

Alley between Voltaire & Muir from N.H. &
Abbott East to N.H. & Froude

B.M. Abbott & Voltaire

4.65 7.52

0+0 = N.H. & Abbott

2.47

Drop - 6.40
- 6.00

150		5.2	1.9	-5.55	7.5	
1		4.7	2.4	-5.09	7.5	
150		4.2	2.9	-4.64	7.5	
2	4.1	3.8	3.3	-4.19	7.5 ✓	
150		3.5	3.6	3.73	7.3 ✓	
3		3.3	3.8	3.27	7.1 ✓	
150 N.H.		3.1	4.0	-3.00	7.0 ✓	
150		3.0	4.1	-2.84	6.7 ✓	
4		2.4	4.7	1.73	6.4 ✓	
150	9.63	14.43	2.32	4.80	-0.82	5.6 ✓
5		8.8	5.6	+0.09	5.5 ✓	
150		8.20	6.23	1.90	5.2 ✓	
6		7.3	7.1	1.91	5.2 ✓	
150		6.4	8.0	2.82	5.2 ✓	
160 N.H. & Baccus		6.3	8.1	+3.00	5.1 ✓	
7		5.70	8.73	3.24	5.5 ✓	
150		4.83	9.60	3.55	6.0 ✓	

2.47	8.29	8.99	8.29	8.29	8.29	8.29	8.29	8.29
5.22	4.18	3.73	3.27	3.00	2.64	1.73	0.82	0.09
8.29	2.47	2.02	1.54	1.29	1.03	10.02	9.11	8.20
	2.47							7.29
								26
8.29	1.91	13.36	13.36	13.36	13.36	13.36	13.36	13.36
1.7	11.45	2.22	3.00	3.24	3.55			
6.38	13.36	10.54	70.36	10.12	9.81			

BS

H1

M1

M2

14.43

9.60
5.00
14.60

14.60 14.60 14.60
3.85 4.15 4.46
10.75 10.45 10.14

27

870			3.4	11.0	3.85	7.1 ✓	12.64	17.20	17.20	17.20	17.20	17.20
							4.56	4.76	5.00	5.12	5.72	6.33
+50			3.5	10.9	4.15	6.8 ✓	17.20	12.44	12.20	12.08	11.48	10.87
9			3.0	11.4	4.46	6.9 ✓	13.48	20.50	20.50	20.50	20.50	20.50
							7.02	6.93	7.54	8.14	8.75	9.00
+50			1.79	12.64	4.76	7.9 ✓	20.50	13.57	12.96	12.86	11.75	11.50
												10.87
+90 M.H.			2.0	12.4	5.00	7.4 ✓		20.50	20.50			
								10.69	11.75			
10+0			1.42	13.01	5.12	7.5 ✓		9.81	8.75			
+50	9.67	23.15	0.95	13.48	5.72	7.8 ✓	14.22	11.75	24.76	24.76	24.76	
								13.01	12.81	13.37	14.93	
11			9.1	14.1	6.33	7.8 ✓		24.76 M.H.	11.95	10.89	9.83	
+50			7.5	15.7	6.93	8.8 ✓						
12			6.5	16.7	7.54	9.2 ✓						
+50			6.3	16.9	8.14	8.7 ✓						
13			6.4	16.7	8.75	8.0 ✓						
+20 M.H. Cable			6.2	17.0	9.00	8.0 ✓						
+50			5.24	17.91	9.63	8.3 ✓						
14			4.7	18.5	10.69	7.5 ✓						
+50			3.93	19.22	11.75	7.5 ✓						
15			3.0	20.2	12.81	7.4 ✓						
+50			2.1	21.1	13.87	7.2 ✓						
16+0			1.5	21.7	14.93	6.8 ✓						

		23.15		Grd	F.L
16+50 M.H.	8.30	30.74	0.71	22.44	16.00
17			7.7	23.0	16.60
+50			6.8	23.9	17.21
18			6.3	24.4	17.81
+50			5.70	25.04	18.42
19			5.2	25.5	19.02
+50			4.8	25.9	19.63
+80 M.H. & De Fac			4.4	26.3	20.00
20+0			4.7	26.0	20.12
+50			4.00	26.74	20.92
21			3.96	26.78	20.73
+50			3.7	27.0	21.03
22			3.6	27.1	21.34
+50			3.3	27.4	21.64
23	8.50	36.38	3.16	27.58	21.94
+10 M.H.			8.6	27.8	22.00
+50			7.8	28.6	22.36
24			7.6	28.8	22.81
+50			6.9	29.5	23.27

M.H.	24.76	24.76	24.76	24.76					28
	16.00	16.60	17.21	17.81					
	8.76	8.16	7.55	6.95					
	15.150								
	25.04	30.25	30.25	30.25	30.25	30.25	30.25	30.25	
	5.21	18.42	19.02	19.63	20.00	20.12			
	30.25	11.83	11.23	10.62	10.25	10.13			
		30.25							
		20.22							
		9.83							
	26.78	32.31	32.31	32.31	32.31	32.31	32.31	32.31	
	5.52	20.73	1.03	1.34	1.64	1.94	22.00	2.36	2.81
	32.31 M.H.	11.58	11.28	10.97	10.67	10.37	10.31	9.95	9.50
		32.31	32.31	32.31					
		3.27							
		9.04							

		36.38					
25+0			6.3	30.1	23.72	6.4	✓
+50			5.78	30.69	24.78	6.4	✓
26			5.50	30.88	24.63	6.3	✓
+40 M.H. & Flats			5.0	31.4	25.00	6.4	✓
+50			5.40	30.88	25.15	5.8	✓
27			5.1	31.3	25.90	5.4	✓
+50			4.6	31.8	26.66	5.1	✓
28			3.9	32.5	27.41	5.1	✓
+50			3.0	33.4	28.17	5.2	✓
29	12.09	46.65	1.82	34.56	28.93	5.6	✓
+50			10.9	35.8	29.68	6.1	✓
+70 M.H.			10.3	36.4	30.00	6.4	✓
30+0			9.3	37.4	31.00	6.4	✓
+50			7.88	38.77	32.66	6.1	✓
31			5.5	41.2	34.33	6.9	✓
+50			3.8	42.9	36.00	6.9	✓
32	5.66	50.60	1.71	44.94	37.66	7.3	✓
+50			4.40	46.20	39.33	6.9	✓
33+0 M.H. & Froude			3.7	46.9	41.00	5.9	✓

32.31	32.31										
3.72	4.15										
8.59	8.13										
30.88	35.43	M.H.	35.43	35.43	35.43	35.43	35.43	35.43	35.43	35.43	35.43
4.50	4.63		25.00	25.15	5.90	6.66	7.41				
35.43 M.H.	10.30		10.43	10.28	9.53	8.77	8.02				
34.56	6.17										
40.73 M.H.	8.23		40.73	40.73	40.73	40.73	40.73	40.73	40.73	40.73	40.73
12.56	11.80		11.05	10.73	9.73	8.07	6.40				
34.33	12.73										
47.06 M.H.	36.00		11.06	9.40	7.73						
29.30	11.47										
50.77 M.H.	9.77		50.77	50.77							

29

5.71

4 Bacon St from Alley between
Yoltaire & Lotus North for 155' to D.E.

B.M. N.E. Yoltaire & Bacon	3.83	13.35	9.52	
0+0 = M.H.				2.00
+50		4.7	8.7	2.32
+10		4.9	8.5	2.64
+55 D.E.		5.0	8.4	3.00

4 Bacon St from Alley between Yoltaire
& Muir North for 80' & South for 90'

B.M.	3.53	13.05	9.52	
0+0 = M.H.				5.1
+50 North		4.2	8.9	3.62
+80 D.E.		4.4	8.7	4.00

0+0 = M.H.		5.0	8.1	3.00	5.1
+50 South		5.2	7.9	3.35	4.6
+70 D.E.		5.2	7.9	3.50	4.4

North & South from Alley bet Long Branch & Brighton

0+0 = M.H.	4.85	North 10 40	5.55	-2.00 -1.60 -1.23 -1.00	7.1 6.7
0+50			4.5	5.9	
0+80			4.7	5.7	
0+0 = M.H.		South		-2.00 -1.60	
0+50			4.8	5.6	6.8
0+80			5.0	5.4	6.4

9.52	13.06	13.06	13.06
3.54	2.32	2.64	3.00
13.06 M.	10.74	10.42	10.06

30

← Abandoned

Sewer & Muir St from Abbott to Pt Loma
 1314.

31

	3. M. 3rd St to Muir St Abbott,	1.94			
	4.60	6.54		Dist - 6.14	
0+0 = M.H. Abbott,				- 5.60	Dist. 5.4
450	4.6	1.9	-	5.50	7.4
1	4.7	1.8		5.39	7.2
450	4.8	1.7		5.29	7.0
2	4.9	1.6		5.18	6.8
450	5.1	1.4		5.08	6.5
460 M.H.	4.9	1.6		5.06	6.7
3	4.9	1.6		4.97	6.6
450	5.0	1.5		4.87	6.4
4	5.2	1.3		4.76	6.1
450	5.3	1.2		4.65	5.9
5	5.36	1.18		4.55	5.7
430	5.37	1.17		4.49	5.7
430				4.44	
465				4.40	

Server & Muir st from M.H. & Abbott st 15
 M.H. & Bacon st hence ^{put} west on Bacon st
 for 225 to M.H. to 513 8+72^{S.D.E}

B.M. Abbott & Muir			1.94		
	4.60	6.54			
M.H. & M.H. & Abbott st			Loop	-6.14	
				-5.60	
+50		4.2	2.3	5.06	
1		3.9	2.6	4.51	
+50		3.4	3.1	-3.97	
2		3.2	3.3	3.47	
+50		3.1	3.4	2.88	
3		2.9	3.6	2.33	
+30 M.H.		2.9	3.6	-2.00	
+50	7.10	11.12	2.52	4.02	-1.94
4		6.8	4.3	1.79	
+50		6.6	4.5	1.64	
5		6.2	4.9	-1.47	
+50		5.50	5.62	1.34	
6		4.61	6.51	1.19	
+50		4.1	7.0	1.04	
+60 M.H. & Bacon			3.9	7.2	-1.00
710	7.37	13.88	4.61	6.51	-0.87
			6.8	7.1	-0.70
+50			7.1	6.8	-0.60
+83 ^S M.H.			7.3	6.6	-0.48
8+0			7.3	6.6	-0.48
+50			7.6	6.3	-0.15
+72 ^S D.E			7.8	6.1	-0.0

194	7.52	7.52	7.52	M.H.	7.52	7.52
5.53	3.42	2.88	2.33	2.00	1.94	1.79
7.52 M.H.	10.94	10.40	9.85	9.52	9.46	9.31
	7.52	7.52	7.52	7.52	7.52	7.52
	1.49	1.34	1.19	1.04	1.00	1.64
	7.01	8.86	8.71			9.16
						32
Loop 0.54						
7.4	6.51	11.18	11.18	11.18		
	4.67	1.19	1.04	1.00		
	11.18 M.H.	12.37	12.22	12.18		
7.1						
7.1	194					
	5.31					
	7.25					
	3.97					
	11.22					
6.7						
6.3						
5.9						
5.6						
6.0						
6.1						
6.1						
6.4						
7.0						
7.7						
8.0						
8.2						
8.0						
7.8						
7.2						
7.1						
6.5						
6.1						

Survey of Hwy between Muir & Long Branch from
M.H. & Bacon E for 3533' to F.T.

	13.88				
+20 M.H. & Bacon		7.3	6.6	-0.60	
+50		5.7	8.2	-0.106	
1		5.14	8.74	+0.49	
+50		4.4	9.5	1.03	
2	8.45	18.62	3.71	10.17	1.58
+50		7.6	11.0	2.12	
3		7.4	11.2	2.67	
+30 M.H.		7.2	11.4	+3.00	
+50		6.82	11.80	3.24	
4		6.10	12.52	3.84	
+50		5.3	13.3	4.45	
5		4.5	14.1	5.05	
+50		4.02	14.60	5.66	
6		3.34	15.28	6.26	
+50		2.8	15.8	6.87	
+60 M.H. & Cable		2.5	16.1	7.00	
7		1.61	17.01	8.09	
+50	9.66	27.73	0.55	18.07	9.45

Revised from Bacon to Cable
See 966-70

8.74	12.82	12.82	12.82
4.08	0.06	0.49	1.03
<u>12.82</u>	12.88	12.33	11.79

10.17	14.87	14.87	14.87	14.87
4.70	1.58	2.12	2.67	3.22
<u>14.87</u>	13.29	12.75	12.20	11.65

7.2

11.80	15.39	15.39	15.39
3.59	2.67	3.00	3.24
<u>15.39</u>	12.72	12.39	12.15

8.3 ✓

8.3 ✓

12.52	16.39	16.39
3.87	3.34	4.45
<u>16.39</u>	12.55	11.94

8.5 ✓

8.6 ✓

14.60	18.78	18.78	18.78	18.78
4.13	5.66	6.26	6.87	7.00
<u>18.73</u>	13.12	12.52	11.91	11.75

8.9 ✓

8.5 ✓

17.01	20.96	20.96	17.01
3.95	8.69	9.45	3.33
<u>20.96</u>	12.24	11.51	2.034

8.4 ✓

8.6 ✓

8.7 ✓

8.9 ✓

9.0 ✓

8.9 ✓

9.0 ✓

8.9 ✓

9.1 ✓

8.9 ✓

8.6 ✓

2973

8+0	8.6	19.1	10.82
+150	7.7	20.0	12.18
9	6.5	20.9	13.55
+150	6.04	21.69	14.91
+90 M.H.	5.5	22.2	16.00
10	5.2	22.5	16.12
+150	4.6	23.1	16.72
11	4.0	23.7	17.33
+150	3.67	24.06	17.93
12	2.7	25.0	18.54
+150	2.11	25.62	19.14
13	2.01	25.72	19.75
+70 M.H. De Foe	1.15	26.55	20.00
+150	6.84	33.54	26.70
14	6.2	27.3	20.72
+150	6.1	27.4	21.16
15	5.85	27.69	21.81
+150	5.43	28.11	22.07
16	5.3	28.2	22.52

21.69 6.15 27.84M	27.84 16.00 11.84	27.84 16.72 11.12	27.84 17.33 10.51	27.84 17.93 9.91	27.84 18.54 9.30	27.84 19.14 8.70	27.84 19.75 8.09
	27.84 20.00 7.84	27.84 20.27 7.57	27.87 20.72 7.15				34
	27.69 5.93 33.62	33.62 21.16 12.46	33.62 22.07 11.55	33.62 22.52 11.10			
	20.96 10.82 10.14	20.96 12.15 8.78	21.69 2.71 24.40	24.40 12.18 12.22	24.40 13.55 10.85	24.40 14.91 9.49	

33.59

16x50 M.H.			5.0	28.5	22.98
17			4.6	28.9	23.43
+50			3.7	29.8	23.89
18	x		3.2	30.3	24.34
+50	x		2.93	30.61	24.80
19			2.3	31.2	25.25
+50			1.72	31.82	25.71
+80 M.H. & Flocks			1.13	32.41	26.00
20	12.27	45.54	0.97	32.57	26.48
+50			1.4	34.1	27.69
21			10.2	35.3	28.90
+50			9.3	36.2	30.11
22			8.27	37.27	31.32
+50			7.01	38.53	32.54
23			5.5	40.0	33.75
+10 M.H.			5.3	40.2	34.00
+50			4.1	41.4	34.96
24			3.11	42.43	36.18
+50	11.44	55.29	1.69	43.85	37.37

33.62	33.62	33.62	33.62	33.62	33.62	33.62	33.62
22.98	23.43	23.89	24.34	24.80	25.25	25.71	26.00
1064	10.19	9.73	9.28	8.82	8.37	7.91	7.62

5.5 ✓	32.57	32.29	32.29	32.29	32.29	32.29	32.29
	6.72	26.48	27.69	28.90	30.11	31.32	32.54
5.5 ✓	39.29	12.81	11.60	10.39	9.18	7.97	6.75
	38.53						
5.9 ✓	6.88	45.41	45.41	45.41	45.41	45.41	
	45.41	33.73	34.00	34.96	36.18	37.37	
6.9 ✓		11.66	11.41	10.45	9.23	8.04	

35

		55.79			
25			10.7	44.6	38.58
+50			9.9	45.4	39.79
26			8.47	46.32	41.01
+40 M.H. & Froude			6.8	48.5	42.00
+50			6.9	48.4	42.39
27			4.9	50.4	44.36
+50			3.10	52.19	46.33
28			1.95	53.34	48.30
+50	12.28	67.39	0.18	55.11	50.27
29			10.4	57.0	52.24
+50			8.0	59.4	54.21
+70 M.H.			6.8	60.6	55.00
30			5.1	62.3	56.85
+50			2.8	65.1	59.92
T.P.	12.17	79.46	0.10	67.29	
31 Greek			11.0	68.5	63.00
+50			6.1	73.4	67.42
32	12.33	90.32	1.47	77.99	71.85
+50			7.8	82.5	76.77
+92 M.H. & Guizot			3.7	86.6	80.00

45.41	53.00	53.00	53.00	53.00	53.00	53.00	
38.58	39.79	41.01	42.00	42.39	44.36	46.33	
6.83	13.21	11.99	11.00	10.61	8.64	6.67	36
46.82							
6.15							
53.00							
53.34	53.10	53.10	53.10	53.10	53.10	53.10	
4.76	49.30	50.27	52.24	54.21	56.21	58.21	
52.10	9.80	7.83	5.86				
55.11							
11.52	66.63	66.63	66.63	66.63	66.63	66.63	
66.63	54.21	55.00	56.85	59.92	63.00	66.63	
	12.42	11.63	9.78	6.71	3.63		
73.40	80.70	80.70	80.70				
7.20	67.42	71.55	76.37				
80.70	13.28	8.85	4.43				
86.60	92.37	92					
5.77	80.40						
92.37	12.37						

		90.32				
3370			3.8	81.5	80.81	
	12.39	100.81	1.90	88.42		
+50			9.5	91.3	85.90	
34	6.22K		3.9	96.9	91.00	
	T.P.	12.34	0.47	100.34		
+50	Pipe End Hole		9.4	103.3	98.14	
35	8.18	119.24	1.02	111.06	105.28	
+33	ET		4.0	115.2	110.00	

$$\begin{array}{r} 92.37 \\ 20.81 \\ \hline 115.6 \\ \checkmark \end{array}$$

$$\begin{array}{r} 92.37 \\ 85.90 \\ \hline 6.47 \\ \checkmark \end{array}$$

$$\begin{array}{r} 96.90 \\ 6.16 \\ \hline 103.06 \\ \checkmark \end{array}$$

$$\begin{array}{r} 103.06 \\ 91.00 \\ \hline 12.06 \\ \checkmark \end{array}$$

$$\begin{array}{r} 103.06 \\ 98.14 \\ \hline 4.92 \\ \checkmark \end{array}$$

37

5.7 ✓

5.4 ✓

5.9 ✓

5.2 ✓

5.8

5.2

Froude street

50.77

50.77

50.77

50.77

38

1.62

2.00

9.15

8.77

7.39

54.21

46.82

North & South from Alley bet Yellow & Muir

NORTH

0+0 = M.H. # 53

7.3

46.9

41.00

5.9

+50 North

7.8

46.4

41.62

4.8

+80 D.E.

8.8

45.4

42.00

3.4

SOUTH

0+0 = M.H. # 53

7.3

46.9

41.00

5.9

+50 South

6.79

47.42

41.62

5.8

+80 D.E.

6.62

47.59

42.00

5.6

North & South from Alley bet Muir & Long Branch

NORTH

0+0 = M.H. # 58

5.7

48.5

42.00

6.5

+50 North

6.41

47.60

42.62

5.0

+80 " D.E.

6.4

47.8

43.00

4.8

SOUTH

0+0 = M.H. # 58

5.7

48.5

42.00

6.5

+50 South

5.19

49.02

43.50

5.5

+70

4.17

50.04

45.00

5.0

+50

2.7

51.5

46.50

5.0

966-55

+20 D.E.

0.74

53.47

48.00

5.5

South from Alley bet Long Branch & Brighton

0+0 = M.H. # 50

6.15

61.15

56.1

50.00

6.1

+50

3.2

53.0

51.87

6.1 out

+80 D.E.

2.1

54.1

53.00

6.1 out

Alley between / Tests - Ocean Beach Sewage Pumps
 & Abbott West

Test

37.25" on rule

25.25" " "

13.25 " "

1.25 " "

Test

1.25?

Greenwell
 Smith
 Whitmore

2-4-19

P.M.

No 1
 (Pump No 1)

= Elev. - 8.13

= " - 9.13

= " - 10.13

= " - 11.13

" - 13.00

No 2 (Pump No 2)

= -11.0? 2ft.

= -13.0

Time
 hr. min. sec.

2:15:00

2:16:45

2:18:20

2:20:09

2:24:57

hr. min. sec. Interv.

3:23:20

3:27:3

Interv. Rate

1.75m. 462 g.p.m.

1.6m. 497 " " "

1.8m 435 " " "

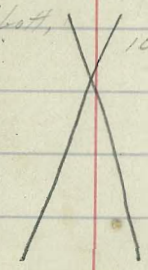
(?)

3:45 410 g.p.m.

3-43

Alley between Long Branch & Brighton from M.H.
 ♀ Abbott East for 4195' to F.T.

B.M. Brass 19 N.E. Long Branch & Abbott.	3.38				
B.M.			- 5.30		
0 to M.H. ♀ Abbott,			- 5.00		
729	10.67				
+50		7.6	3.1	- 4.78	
1		7.7	3.0	4.55	
+50		7.4	3.3	4.32	
2		7.63	3.04	4.09	
+50		7.5	3.2	3.87	
3		7.2	3.5	3.64	
+30 M.H.		7.91	3.26	3.50	
+50		7.7	3.0	3.41	
4		7.3	3.4	3.18	
+50		6.95	3.72	2.96	
5	7.67	11.86	6.98	4.19	- 2.73
+50			7.2	4.7	2.51
6			6.7	5.2	2.28
+45			6.7	5.2	2.05
+50			6.2	5.7	- 2.00
+60 M.H. ♀ Rowell			5.8	6.1	1.46
+90			5.0	6.9	0.78
7					
+50					



} 966-71

419	7.43	7.43	7.43	M.H. 7.43	7.43	7.43	7.43
3.74	4.09	3.87	3.64	3.50	3.41	3.18	2.96
7.43	11.52	11.30	11.07	10.93	10.84	10.61	10.39

	7.43	7.43	7.43
Drop 0.30	2.73	2.51	2.28
	10.16	9.94	9.71
8.05			
2.53	10.58	10.58	
10.58 M.H.	1.46	0.78	
	12.04	11.36	
	5.05		
	5.20		
	4.59		
	9.79		
	2.05		
	11.84		

(41)

		11.86				
8			3.21	8.05	-0.10	8.2 ✓
+50			2.82	9.04	+0.58	8.5 ✓
9			2.3	9.6	1.26	8.3 ✓
+50			2.0	9.9	1.94	8.0 ✓
+90 M.H.			1.14	10.72	2.50	8.2 ✓
10	8.51	19.35	1.02	10.84	2.64	8.2 ✓
+50			8.2	11.2	3.32	7.9 ✓
11			6.9	12.5	4.02	8.5 ✓
+50 Pipe ends 4' etc			6.5	12.9	4.70	8.2 ✓
12		966-57	5.86	13.49	5.38	8.1 ✓
+50			5.10	14.35	6.06	8.3 ✓
13			4.9	14.5	6.74	7.8 ✓
+20 M.H. Cable			4.4	15.0	7.00	8.0 ✓
+50			3.77	15.58	7.72	7.8 ✓
14		966-57	3.3	16.1	9.18	6.9 ✓
+50			2.0	17.4	10.55	6.9 ✓
15			1.44	17.91	11.91	6.0 ✓
+50	10.41		29.50	0.26	19.09	13.28
1.6			9.1	20.4	14.64	5.8 ✓

10.58 0.40 10.66	12.13 12.13 12.13 12.13 12.13	12.13 0.58 11.55	12.13 1.26 10.87	12.13 1.74 10.19	M.H. 12.13 2.50 9.63	12.13 2.64 9.49
8.05 4.08 12.13 M.H.	12.13 3.32 8.81					
13.44 2.75 16.24 M.H.	16.24 4.02 12.22	16.24 4.70 11.54	16.24 5.38 10.86			
17.91 6.14 24.05 M.H.	24.05 11.91 12.14	24.05 13.38 10.77	24.05 14.64 9.41			
14.35 4.92 19.27	19.27 6.06 13.21	19.27 6.74 12.53	M.H. 19.27 7.00 12.27	19.27 9.18 11.45	19.27 10.55 10.07	8.72
14.35 4.98 19.33	19.33 6.06 13.27	19.33 6.74 12.59	19.33 7.00 12.33	19.33 9.18 11.57	19.33 10.55 10.10	8.72

42

13.40
11.20
1.70

16+50 M.H.		8.1	21.4	16.00	
17		6.9	22.6	16.75	
+50		6.1	23.4	17.51	
18		5.30	24.20	18.27	
+50		4.62	24.88	19.02	
19		3.7	25.8	19.78	
+50		3.1	26.4	20.53	
+80 M.H. & De Foe		2.6	26.9	21.00	
20		2.83	26.67	21.12	
+50		1.89	27.61	21.42	
21	5.78	34.28	1.00	28.50	21.72
+50		5.3	29.0	22.04	
22		5.3	29.0	22.30	
+50		5.21	29.07	22.69	
23		5.2	29.1	22.94	
+10 M.H.		5.21	29.07	23.00	
+50		4.78	29.50	23.60	
24		4.8	29.5	24.35	
+50		4.20	30.08	25.11	

29.50

966-57

Pipe begins here

24.05 M.H.	24.05	24.05	24.05	24.05	
	16.00	16.75	17.51	18.27	
	8.05	7.30	6.54		
5.4 ✓	24.20	30.48	30.48	30.48	30.48
	6.28	18.27	19.02	19.78	20.53
	30.48	12.21	11.46	10.70	9.95
5.9 ✓		30.48	30.48	30.48	30.48
		21.42	21.72	22.01	22.32
		9.06	8.76	8.47	8.16
5.9 ✓	29.07	35.13	25.13	25.13	25.13
	6.06	22.94	23.00	3.60	4.35
	35.13	12.19	12.43	11.83	10.78
5.9 ✓		35.13	25.13	25.13	25.13
		22.94	23.00	3.60	4.35
		12.19	12.43	11.83	10.78
6.0 ✓					
5.9 ✓					
5.9 ✓					
5.6 ✓					
6.2 ✓					
6.3 ✓					
7.0 ✓					
6.7 ✓					
6.4 ✓					
6.2 ✓					
6.1 ✓					
5.9 ✓					
5.2 ✓					
5.0 ✓					

3425

25			3.1	31.2	25.86
+50			2.0	32.0	26.62
26	10.62	44.40	0.50	33.78	27.37
+40 M.H. & Ecks			9.6	34.8	28.00
+50			9.5	34.7	28.39
27			8.6	35.8	30.33
+50			7.5	36.9	32.27
28			6.0	38.4	34.21
+50			4.12	40.28	36.15
29	12.15	54.37	2.18	42.22	38.09
+50			9.4	45.0	40.03
+70 M.H.			8.5	45.9	40.30
30			6.5	47.9	41.96
+50			4.78	49.59	43.90
31			3.12	51.25	45.84
+30 Break 11.42	43.87		1.92	52.45	47.00
+50			10.7	53.2	47.35
32			9.5	54.4	48.23
+50			8.87	55.00	49.11
33 + 0 M.H. & Froude			7.8	56.1	50.00

35.134	35.13	35.13	35.13	35.13	35.13	35.13
25.86	26.62	27.37	28.00	28.39	30.33	
9.27	8.51	7.76	7.13	6.74	4.80	
✓	✓	✓	✓	✓	✓	
36.90						
5.64						
42.54	42.54	42.54	42.54			
32.27	34.21	36.15				
10.27	8.33	6.39				
✓	✓	✓				
42.22						
8.59						
50.81	50.81	50.81	50.81	50.81	50.81	
38.09	40.03	40.80	41.96	43.90		
12.72	10.78	10.01	8.55	6.91		
✓	✓	✓	✓	✓		
51.25	58.59	58.52	58.52	58.52	58.52	58.52
7.34	45.84	47.00	47.35	48.23	49.11	
38.59	12.75	11.52	11.17	10.29	7.41	
✓	✓	✓	✓	✓	✓	
55.00						
6.86						
61.86	61.56					
	50.00					
	11.56					
✓						
4.1						
✓						
4.1						
✓						
5.0						
✓						
5.1						
✓						
5.9						
✓						
5.7						
✓						
5.4						
✓						
5.5						
✓						
5.8						
✓						
6.2						
✓						
5.9						
✓						
6.1						
✓						

44

+45 End of pipe 63.87
 +48 = End of pipe
 +50

34

+50

+80 break

35

+50

36

+30 M.H.

+50

T.P.

37

+50

T.P.

38

+50

39

T.P.

+52 M.H. & Gizot

40

+50

+90 break

41

+50

+98 F.T.

25-996

6.2 57.7 51.66

4.9 59.0 53.33

3.0 60.9 55.00

11.2 62.27 56.00

12.51 75.54 0.84 63.03 57.07

10.3 65.2 59.74

2.4 68.1 62.41

4.7 70.8 64.00

2.8 72.7 65.86

0.63 74.91

3.0 78.1 70.52

3.6 83.5 75.18

0.00 87.11

11.8 87.9 79.84

9.7 92.0 84.50

4.2 95.5 89.16

0.11 99.56

12.3 99.8 94.00

8.9 103.2 97.84

4.7 107.4 101.84

0.80 111.28 105.00

11.6 114.9 106.08

5.9 117.6 111.47

1.1 122.4 116.00

6.04

5.7

5.9

6.3

6.0

5.5

5.7

6.8

6.8

7.6

8.3

8.1

7.5

6.3

5.8

5.4

5.6

6.3

5.8

6.1

6.4

21.86 M.H.

61.86

61.86

M.H.

57.66

55.00

10.20

8.86

63.03

69.75

6.72

57.07

69.75

12.68

71.70

85.23

12.73

65.86

88.23

74.37

72.70

80.15

12.73

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88.23

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80.15

12.73

72.70

88.23

7.45

71.70

80.15

12.73

70.52

88.23

14.71

45

M.H.

39.75

64.00

5.75

80.15

80.15

65.86

70.52

14.27

9.63

6.4

Long Branch Ave from M.H. & H. Abbott East for
515' to D.E.

B.M. Brass Ag N.E. Long Branch H. Abbott	3.38			
446			-5.58	
0+0 M.H. & Abbott	7.24		-5.20	
+50	5.2	2.6	-4.89	
1	4.7	3.1	4.58	
+50	4.6	3.2	4.27	
2	4.5	3.0	-3.96	
+50	4.51	3.33	3.65	
3	4.59	3.25	3.34	
125 M.H.	4.5	3.3	3.78	
+50	4.4	3.4	3.02	
4	4.3	3.5	2.71	
+50	3.8	4.0	2.40	
5	3.56	4.28	2.09	
+50	3.0	4.8	1.78	
+95 D.E.	2.79	5.55	-1.50	

3.38	7.09	7.09	7.09	7.09	7.09	M.H.	7.09	7.09	(40)
3.71	4.58	4.27	3.96	3.65	3.34	3.18	3.02		
7.09 M.	11.67	11.36	11.05	10.74	10.43	10.27	10.11		
	7.09	7.09	7.09	7.09	7.09				
0+0 3.38	2.71	2.40	2.09	1.78	1.50				
	9.80	9.49	9.18	8.87	8.59				

7

Sever & Alley between Brighton & Cape May
 from M.H. & Abbott East to M.H. & N. 85
 Alley BIK 91

0+0 = M.H. & Abbott st				-4.64					
				-4.50				Dwp 0.14	
+50				-4.28					
1				4.05					
+50				3.83					
2				3.60					
+50				3.37					
3				3.15					
+10 M.H.	6.54		4.19						
		10.73	5.5	5.2	3.10			2.3	
+50			7.1	3.6	2.92			6.5	
4			6.8	3.9	2.70			6.6	
+50			5.7	5.0	2.47			7.5	
5			5.2	5.5	2.25			7.8	
+50			3.5	7.2	2.02			9.3	
6			4.0	6.7	1.80			8.5	
+50			5.5	5.2	1.57			6.8	
+60 M.H. & Bacon st			5.1	5.6	-1.50			7.1	
7			4.67	6.06	1.05			7.1	
+50			3.72	7.01	0.55			7.6	

840	10.73	2.76	7.97	0.02	8.0	
+50		1.94	8.79	+0.51	8.3	
9		1.07	9.66	1.04	8.6	
+50	9.09	18.93	0.89	9.84	1.57	8.3
+90 M.H.		8.8	10.1	+2.00	8.1	
10		8.5	10.4	2.06	8.3	
+50		7.5	11.4	2.36	7.0	
11		7.3	11.6	2.66	8.9	
+50		6.49	12.44	2.96	9.4	
12		5.68	13.25	3.27	10.0	
+50		4.57	14.36	3.57	10.8	
13		5.9	13.0	3.87	9.1	
+20 M.H. Cable		5.1	13.8	4.00	9.8	
+50		4.5	14.4	4.82	9.6	
14		2.7	16.2	6.18	10.0	
+50		2.43	16.50	7.55	9.0	
15		1.8	17.1	8.91	8.2	
+50		1.21	17.72	10.25	7.5	
16	11.58	29.91	0.60	18.33	11.64	6.7

16+50 M.H.	24.91	10.6	14.3	13.00	6.3	
17		9.6	20.3	14.06	6.2	
+50		8.2	21.7	15.12	6.6	
18		7.26	22.65	16.18	6.5	
+50		6.0	23.9	17.24	6.7	
19		4.6	25.3	18.30	7.0	
+50		5.1	24.8	18.36	6.9	
+80 M.H. & De Foe		5.1	24.8	20.00	4.8	
20		5.2	24.7	20.16	4.5	
+50		2.50	27.41	20.56	6.9	
21		2.67	27.24	20.97	6.2	
+50		2.13	27.78	21.37	6.4	
22	10.35	38.50	1.76	28.15	21.78	6.4
+50			9.7	28.8	22.18	6.6
23			9.5	29.0	22.59	6.4
+50 M.H.			9.32	29.18	23.00	6.3
24			9.0	29.50	23.03	5.5
+50			8.7	29.8	23.07	4.7
25			7.64	30.86	26.10	4.8

25	150		38.50	6.5	32.0	27.14	4.9
26				5.0	33.5	28.18	5.3
+ 40 M.H. & Erers				3.5	35.0	29.00	6.0
27	+50	12.31	48.07	2.74	35.76	29.30	6.5
				9.9	38.2	30.78	7.4
	+50			7.2	40.9	32.27	8.6
28				5.15	42.92	33.75	9.2
	+50			2.65	45.92	35.24	10.2
29		11.69	58.25	1.51	46.56	36.72	9.9
	+50			8.7	49.6	38.21	11.4
30				6.2	52.1	39.68	12.4
+ 10 M.H.				5.6	52.7	40.00	12.7
150				3.1	55.2	42.90	12.3
T.P.	12.36	70.00		0.61	57.64		
31				11.4	58.6	46.52	12.1
150				7.7	62.3	50.14	12.2
32				4.4	65.6	53.76	11.8
150				1.89	68.11	57.35	10.7
T.P.	12.13	82.11		0.02	69.98		
33	M.H. & Floude			11.2	70.9	61.00	9.9
+50				9.1	73.0	64.33	8.7

		82.11					
34				6.07	76.04	67.67	8.4
T.R.	11.73	93.41	0.43	81.68			stake gone
+50			11.4	82.0	71.00		" "
35			9.02	84.39	74.33		10.1
+50			7.3	86.1	77.67		8.4
36			4.6	88.8	81.00		7.8
+30 M.H.			3.00	90.41	83.00		7.4
+50	12.30	103.24	2.47	90.94	84.33		6.6
37			9.3	93.9	87.66		6.3
+50			5.2	98.0	91.00		7.0
+80 break			3.55	99.69	93.00		6.7
38	12.57	113.95	1.86	101.38	95.22		6.2
+50			6.9	107.0	100.77		6.2
T.P.	12.57	126.09	0.43	113.52			
39			12.3	113.8	106.32		7.5
+50			6.57	119.52	111.88		7.6
+60 M.H. & Grizot			5.7	120.4	113.00		7.4
40			1.40	129.7	117.40		7.3
T.R.	12.47	138.24	0.32	125.77			
+50			8.5	129.4	122.90		6.5
41	12.25	149.10	1.39	136.85	128.40		8.5
+50			5.7	143.4	133.90		9.5
+60 M.H.			4.9	144.2	135.00		9.2

149.10

4210	9.26	155.99	2.37	146.73	135.62	11.1
+50			7.1	148.9	136.39	12.5
43			6.55	149.44	137.16	12.3
+50			6.71	149.28	137.93	11.4
44			6.2	149.8	138.70	11.1
+50			5.50	150.49	139.47	11.0
45			5.29	150.70	140.21	10.5
+50 M. H. & N. S. Alley			4.87	151.12	141.00	10.1
	10.74	161.86				

150.2

B.M.

5.09 156.77

sewer & N.B.S. Alley WK 91

Bet. Guizot and Santa Barbara

53

	North		151.12			
0+0=MH #83	8.85	159.97	8.9	151.1	141.00	10.1
+50 North	5.78	153.97	11.78	148.19	141.41	6.8
+40			7.02	146.95	141.83	5.1
+20 D.E.			7.4	146.6	142.00	4.6
	South					
0+0=MH #83			8.9		141.00 146.00	Drop 5.0
+50 South			6.4	153.6	148.30	5.3
+40			3.31	156.66	150.61	6.1
+30 F.T.			2.35	157.62	152.00	5.6

Survey of Alley between Cape May & Saratoga
from & Abbott St East to F.T.

54 Sta 710

0+0 M.H. & Abbott			- 3.84	
			- 3.60	Drop 0.24
+50			- 3.12	
1+0			2.63	
+50			2.15	
2			1.66	
+50			1.17	
3			0.67	
+30 M.H.			- 0.40	
+50			- 0.31	
4			0.09	
+50			+ 0.13	
5			- 0.35	
+50			0.57	
6			0.79	
+50			1.02	
	8.54	14.60	6.06	
+60 M.H. & Bacon	7.6	7.0	1.06	5.9
7	6.1	8.5	1.29	7.3
+50	5.31	9.29	1.46	7.8

8+0	14.60	5.34	9.26	1.68	7.6	
+50		5.0	9.6	1.91	7.7	
9		4.7	7.9	2.13	7.8	
+50		4.3	10.3	2.35	8.0	
+90 M.H		4.1	10.5	2.53	8.0	
10		4.17	10.43	2.57	7.9	
+50		3.2	11.4	2.80	8.6	
11		2.5	12.1	3.02	9.1	
+50	8.65	21.54	1.71	12.87	3.24	9.7
12		2.8	13.7	3.46	10.2	
+50		6.3	15.2	3.68	11.5	
13		7.9	13.6	3.91	9.7	
+20 M.H. & Cable		7.2	14.3	+4.00	10.3	
+50		6.4	15.1	4.80	10.3	
14		5.08	16.46	6.12	10.3	
+50		4.7	16.8	7.45	9.4	
15		4.2	17.3	8.77	8.5	
+50		3.60	17.94	10.40	7.8	
16		2.89	18.65	11.42	7.3	

16	150		2.1	19.4	12.75	6.7
	+60 M.H.		2.20	19.34	13.00	6.3
17		10.32 30.10	1.76	19.78	13.79	6.0
	+50		9.7	20.4	14.77	5.6
18			9.0	21.1	15.76	5.3
	+50		7.8	22.3	16.74	5.6
19			7.04	23.26	17.73	5.3
	+50		5.62	24.58	18.71	5.9
	+80 M.H. & De Fee		5.22	24.88	19.30	5.6
20			5.5	24.6	19.70	4.9
	+50		4.2	25.9	20.69	5.2
21			3.2	26.7	21.67	5.2
	+50		2.47	27.63	22.66	5.0
22		11.71 40.50	1.31	28.79	23.64	5.2
	+50		10.2	30.3	24.63	5.7
23			8.8	31.7	25.61	6.1
	+20 M.H.		7.7	32.8	26.00	6.8
	+50		6.86	33.64	26.84	6.8 <i>step out</i>
24			5.5	35.0	28.24	6.8

		40.50				
24+50			4.26	36.24	29.65	6.6
35			3.0	37.5	31.05	6.5
+50	11.76	49.95	2.31	38.19	32.46	5.7
26			10.2	39.7	33.87	5.8
+40M.H. & Ebers			9.3	40.6	35.00	5.6
+50			8.7	41.2	35.89	5.8
27			6.90	43.05	37.33	5.7
+50			5.4	44.5	39.38	5.2
28			2.91	47.04	41.22	5.8
+20 break 12.00	60.09	1.86	48.09	42.00		6.1
+50			10.4	49.7	43.88	5.8
29			8.3	51.8	47.00	4.8
+50			4.2	55.9	50.13	5.8
+80M.H.			2.1	58.0	57.00	6.0
30	12.43	71.94	0.58	59.51	54.19	5.3
+50			7.0	64.9	59.66	5.2
31			1.70	70.24	65.14	5.1
T.P.	12.13	83.83	0.24	71.70		
+50			8.0	75.8	72.61	5.2
+90 break			3.2	80.6	75.00	5.6

83.83

32+0			2.1	81.8	75.18	5.9
T.P.	12.08	95.57	0.34	83.49		
+50			9.8	85.8	76.07	9.7
33 M.H. & Floude			6.65	88.72	77.00	11.9
+50			7.0	88.6	80.75	7.9
34	12.46	106.74	1.29	94.28	84.50	9.8
+50			4.9	101.8	89.25	13.6
35 break			2.4	104.3	92.00	12.3
+50			3.8	102.9	93.15	9.8
36	12.23	117.17	1.80	104.94	94.31	10.6
+30 M.H.			10.6	106.6	95.00	11.6
+50			10.0	107.2	96.60	10.6
37			7.5	109.7	100.60	9.1
+30 break			3.15	114.82	103.00	11.0
+50	12.54	128.42	1.29	115.88	105.18	10.7
38			8.3	120.1	110.62	9.5
+50			2.23	126.17	116.06	10.1
T.P.	12.42	140.62	0.16	128.26		
39			9.6	131.0	121.50	9.5
+50			4.0	136.6	126.94	9.7
+60 M.H. & Guizot			2.92	137.70	128.00	9.7
T.P.	12.41	152.71	0.32	140.30		

55

87.5

	152.71					
40+0 break		9.4	143.3	132.00	14.3	
+20 break		5.8	146.9	142.00	4.9	
+50	12.49	164.31	0.89	151.82	146.33	5.5
41		5.91	158.4	153.55	4.9	
+10 break		4.9	159.4	155.00	4.4	
+50	12.21	175.08	1.44	162.87	156.08	6.8
42		8.3	166.8	157.43	9.4	
+50		5.66	169.42	158.78	10.7	
+80 MH		4.5	170.6	157.60	11.0	
43		4.40	172.65	157.68	11.0	
+50		4.40	172.68	159.88	10.8	
44		3.67	171.41	160.09	11.3	
+50		3.5	171.6	160.29	10.9	
45	9.94	180.69	4.33	170.75	160.50	10.2
+50		10.4	170.3	160.70	9.6	
46		14.2	166.5	160.91	5.6	
+20 M.N. @ Santa Barbara		13.8	166.9	161.00	5.9	166.5
+50		13.8	166.9	161.24	5.7	
47		12.1	168.6	161.64	7.0	
+50		11.90	168.79	162.04	6.8	
+95 F.T.		11.8	168.9	162.40	6.5	

4795
660
4135

59

sewer & Alley between Saratoga & Santa
Monica from M.H. & Abbott St E to Sta 49+70

61

0+0 = M.H. & Abbott

0+50

1

+50

2

+50

3

+30 M.H.

+50

4

+50

5

+50

6

+50

6.38

16.81

10.43

+60 M.H. & Bacon

8.5

8.3

+1.60

6.7

7

8.0

8.8

11.78

7.0

+50

7.4

9.9

2.00

7.4

16.81

62

870			7.38	9.43	12.23	7.2
+50			6.2	10.6	2.45	8.2
9			6.37	10.44	2.68	7.8
+50			5.8	11.0	2.90	8.1
+70 MH,			5.6	11.2	3.00	8.2 stake out
10			4.6	12.2	3.44	8.8
+50			3.7	13.1	4.17	8.9
11			3.21	13.60	4.91	8.7
+50			2.98	13.83	5.64	8.2 out
12			2.0	14.8	6.38	8.4
+50			1.73	15.08	7.11	8.0
13			1.7	15.1	7.85	7.3 out
+20 MH, & Cable			1.01	15.80	8.14	7.7 out
+50	9.26	25.40	0.67	16.14	8.58	7.6
14			8.7	16.7	9.32	7.4
+50			8.2	17.2	10.05	7.2
15			7.8	17.6	10.79	6.8
+50			7.1	18.3	11.52	6.8
16			6.70	18.70	12.26	6.4

	25.40					
16450 M.H.		6.1	19.3	13.00	6.3	
17		5.3	20.1	13.91	6.2	
+50		4.77	20.63	14.82	5.8	
18		3.75	21.65	15.73	5.9	
+50		2.7	22.7	16.64	6.1	
19		2.07	23.33	17.55	5.8 out	
+50	12.40	36.95	0.85	24.55	18.46	6.1
180 M.H. Φ De Eoe		12.1	24.5	19.00	5.8 out	
20		12.4	24.5	19.67	4.8	
+50		9.24	27.71	21.33	6.4	
21		8.4	28.5	23.00	5.5 out	
+50		7.0	29.9	24.66	5.3	
22		5.3	31.6	26.33	5.3	
+50		3.43	33.52	28.00	5.5	
23		1.04	35.91	29.33	6.6	
+10 M.H. 11.85	48.11	0.69	36.26	29.66	6.6	
+50		10.6	37.5	31.33	6.2	
24		8.7	39.4	33.00	6.4	
+50		6.7	41.4	34.66	6.7	

	48.11						
25			4.7	43.2	36.33	6.9	
+50			2.6	45.5	38.00	7.5	
26	12.09	59.57	0.61	47.50	38.66	8.8	
+40 M.H. & Ebers			11.3	48.3	41.00	7.3 out	48.6
+50			10.46	49.13	41.52	7.6	
27			8.86	50.73	44.10	6.6	
+50			7.0	52.6	46.67	5.9 out	
28			4.5	55.1	49.25	5.9	
+50	12.16	69.95	1.80	57.79	51.83	6.0	
29			9.40	60.55	54.40	6.2 out	
+50			6.7	63.2	56.98	6.2 out	
+70 M.H.			5.8	64.1	58.00	6.1	
30			4.3	65.6	60.45	5.2	
+50	12.26	81.81	0.40	69.55	64.54	5.0	
31			8.2	73.6	68.63	5.0	
+50	12.57	91.21	3.17	78.64	72.72	5.9	
32			8.2	83.0	76.81	6.2	
+50			4.3	86.9	80.90	6.0	
33 + 10 M.H. & Frowde			0.64	90.57	85.00	5.6	90.2
	12.63	103.20					

		103.20					
33450			8.1	95.1	88.79	6.3	
34			3.83	99.37	92.58	6.8	
T.P.	12.28	115.12	0.36	102.84			
+50			10.95	104.17	96.37	7.8	
35			7.5	107.6	100.16	7.4	
+50			5.5	109.6	103.95	5.6	
36	12.61	126.54	1.19	113.93	107.74	6.2	
+30 M.H.			10.1	116.4	110.00	6.4	
+50			8.14	118.40	111.58	6.8	
37			4.2	122.3	115.52	6.8	
+50	12.44	138.28	0.70	125.84	119.46	6.4	
38			9.0	129.3	123.40	5.9	
+50			5.0	133.3	127.34	6.0	
T.P.	12.42	150.59	0.11	138.17			
39			12.9	137.7	131.28	6.4	
+50			6.6	144.0	135.22	8.8	
+60 M.H. & Guizot			5.7	144.9	136.00	8.9	144.4
	12.34	162.82	0.81	150.48			
40			10.9	151.9	142.50	9.4	
+40 GLEEK			6.99	155.83	149.00	6.8	
+50			5.9	156.9	150.31	6.6	
41	12.52	174.72	0.62	162.20	156.87	5.3	

		174.72				
41+50			4.8	169.9	163.43	6.5
T.P.	12.43	186.95	0.20	174.52		
42+0 M.H.			11.5	175.4	170.00	5.4
+50			6.7	180.2	173.07	7.2
43	12.17	197.64	1.48	185.47	176.11	9.4
+50			9.8	187.8	179.16	8.6
+80 GHEAK			8.56	189.08	181.00	8.1
44			7.7	189.9	181.17	8.7
+50			5.78	191.86	181.60	10.3
45			4.1	193.5	182.02	11.5
+50			2.75	194.89	182.45	12.4
46	10.07	200.75	6.96	190.68	182.87	7.8
+20 M.H. @ Santa Barbara			9.46	191.39	183.04	8.3
+50			8.6	192.2	183.30	8.9
47			5.10	195.65	183.72	11.9
+50			5.97	194.78	184.14	10.6
48			7.6	193.2	184.57	8.6
+50			8.6	192.2	184.99	7.2
49			8.3	192.5	185.42	7.1
+50			8.2	192.6	185.84	8.8
+70 F.T.			8.4	192.4	186.00	6.4

191.20

Corner of Alley between Santa Monica & Newport
from of Abbott E to sta 51+70

See book 966 page 7 for change of
offset for top stakes

+0 M.H. of Abbott

+50

1

+50

2

+50

3

+30

+50

4

+50

5

+50

6

+50

7.52 17.00 9.93
+60 M.H. of Bacon 6.91 10.07 7 1.60

7

5.6 11.4 2.26

+50

4.8 12.2 3.08

W.H.

8.5

9.1

9.4

50

f

5

17.00

of 8 4.64 12.36 3.90

8.5

of +50 4.33 12.67 4.72

8.0

+ 9 3.47 13.53 5.54

8.0

1 +50 2.6 14.4 6.36

8.0

+5 +90 M.H. 2.3 14.7 7.00

7.7

2 10 2.1 14.9 7.09

7.8

+5 +50 1.6 15.4 7.54

7.9

3 11 6.98 22.97 1.01 15.99 8.00

8.0

+5 +50 6.5 16.5 8.45

8.1

+ 12 6.3 16.7 8.91

7.8

4 +50 5.56 17.41 9.36

8.1

+5 13 7.7 15.3 9.82

5.5 out

5 +20 M.H. & Cable 6.64 16.33 10.00

6.3

+ +50 6.0 17.0 10.41

6.6

6 14 4.32 15.65 11.09

7.6

+ +50 3.2 19.8 11.77

8.0

+ 15 2.9 20.1 12.45

7.6

7 +50 3.5 19.5 13.13

6.4

+ 16 2.9 20.1 13.81

6.3

		22.97			
16+50 M.H.			2.29	20.68	14.49
17			1.58	21.39	15.17
+50	10.61	32.98	1.10	21.87	15.85
18			10.1	22.4	16.53
+50			9.5	23.0	17.21
19			8.2	24.3	17.89
+50			8.00	24.48	18.57
+80 M.H. & De Fac			7.41	25.07	19.00
20			7.6	24.9	19.57
+50			5.88	26.60	21.00
21			4.6	27.9	22.43
+50			2.6	29.9	23.86
22			1.5	31.0	25.30
+50	12.58	44.89	0.17	32.31	26.73
23			11.1	33.8	28.16
+30 M.H.			10.1	44.8	29.00
+50			9.34	35.55	29.77
24			7.8	37.1	31.70
+50			5.4	39.5	33.64

6.2

6.2

6.0

5.9

5.8

6.4

5.9

6.1

5.3

5.6

5.5

6.0

5.7

5.6

5.6

5.8

5.8

5.4

5.9

44.89

71

2570			3.39	41.50	35.57	5.9
+50	12.30	56.43	0.76	44.13	37.51	6.6
26			9.7	46.7	39.94	7.3 out
+40 M.H. & F&KS			8.1	48.3	41.00	7.3
+50			7.51	48.92	41.64	7.3
27			4.4	52.0	44.82	7.2
+50	12.56	67.58	1.41	55.02	48.00	7.0
28			9.8	57.8	51.18	6.6
+50			6.3	61.3	54.36	6.9
29			3.30	64.28	57.54	6.7
+50	12.31	79.05	0.84	66.74	60.72	6.0
+70 M.H.			11.2	67.8	62.00	5.8
30			9.29	69.76	64.10	5.7
+50			5.2	73.8	67.60	6.2
+70 break			4.0	75.0	69.00	6.0
31	12.53	90.28	1.30	77.75	72.11	5.6:
+50			4.7	85.6	77.29	8.3
T.R	12.48	102.76	0.00	90.28		
32			11.3	91.5	82.47	9.0
+50			6.9	95.9	87.65	8.3

		102.76					
33	+0 M.H. ϕ Froude		4.11	98.65	92.83	5.8	
	T.P.	12.62	114.92	0.46	102.30		
	+50		10.7	104.2	98.01	6.2	
34			5.3	109.6	103.19	6.4	
	T.P.	12.41	127.09	0.33	114.59		
	+50		11.6	115.4	108.37	7.0	
35			6.6	120.4	113.55	6.9	
	+50	12.40	138.75	0.65	126.35	118.73	7.6
36			8.3	130.5	123.91	6.6	
	+30 M.H.		6.33	132.42	127.00	5.4	
	+50		4.6	134.2	128.15	6.1	
	T.P.	12.40	151.07	0.08	138.67		
	37		10.9	140.2	131.03	9.2	
	+50		6.3	144.8	133.91	10.9	
38			2.67	148.40	136.79	11.6	
	+50	12.18	162.84	0.41	150.66	139.67	11.0
39			10.5	152.3	142.55	9.8	
	+50		8.9	153.9	145.43	8.5	
	+60 M.H. ϕ Guizot		8.06	154.78	146.00	8.8	
40			4.4	158.4	150.26	8.1	
	+50	12.41	174.91	0.34	162.50	155.59	6.9
41			7.5	167.4	160.92	6.5	
	+10 by 20K		6.3	168.6	162.00	6.6	

174.91

73

41+50			3.59	171.32	164.89	6.4
42	12.32	186.99	0.24	174.67	168.50	6.2
+50			8.9	178.1	172.11	6.0
+90 M.H.			6.2	180.8	175.00	5.8
43			5.8	181.2	175.44	5.8
+50			3.4	183.6	177.66	5.9
44	11.54	197.83	0.70	186.29	179.88	6.4
+50			9.0	188.8	182.10	6.7
+70 break			8.14	189.69	183.00	6.7
45			7.6	190.2	184.00	6.2
+50			5.62	192.21	185.66	6.6
46			5.84	191.99	187.33	4.7
+20 M.H. & Santa Barbara			5.1	192.7	188.00	4.7
+50			4.0	193.8	189.78	4.0
T.P.	12.00	209.12	0.71	197.12		
47			7.72	201.90	192.74	8.7
+50			5.2	203.9	195.70	8.2
48	12.12	218.53	2.71	206.41	198.66	7.8
+50			9.6	208.9	201.62	7.3
+90 M.H.			7.52	211.01	204.00	7.0
49			7.0	211.5	204.36	7.1

218.53

74

49+50 4.2 214.3 206.14 8.2

50 10.06 226.48 2.11 216.72 207.93 8.5

+50 8.12 218.36 209.71 8.7

51 6.3 220.2 211.50 8.7

+50 5.09 221.39 213.28 8.1

+70 F.T. 5.02 221.46 214.00 7.5

Levels for proposed sewer - sketch opp. page

75

B.M. brass plug N.E. Newport & Abbott 6.50

B.M. 6.48 12.90

+0 = ϕ Newport & Allyn 5.0 7.9

+26 5.8 7.1

+50 3.9 9.0

+80 = $R 48^{\circ} 39' 30''$ 2.1 10.8

1 1.0 11.9

+17 0.4 12.5

+50 0.4 12.5

T.R. 3.77 16.97 0.20 12.70

+79 4.1 12.4

+83 9.6 6.9

2 9.4 7.1

+25 9.8 6.7

+46.5 = ϕ Lot Line 2.40 E. of Newport 11.6 4.9

+50 12.1 4.4

+56 11.8 4.7

3 11.5 5.0

+10 10.6 5.9

T.R. 1.43 5.02 12.88 3.59

Elev. bottom of sewer pipe leaving Benbough Blk - 1.23

+44 0.0 5.0

T.R. 6.40 10.43 0.99 4.03

+46 4.0 6.4

+50 4.0 6.4

4 4.2 6.2

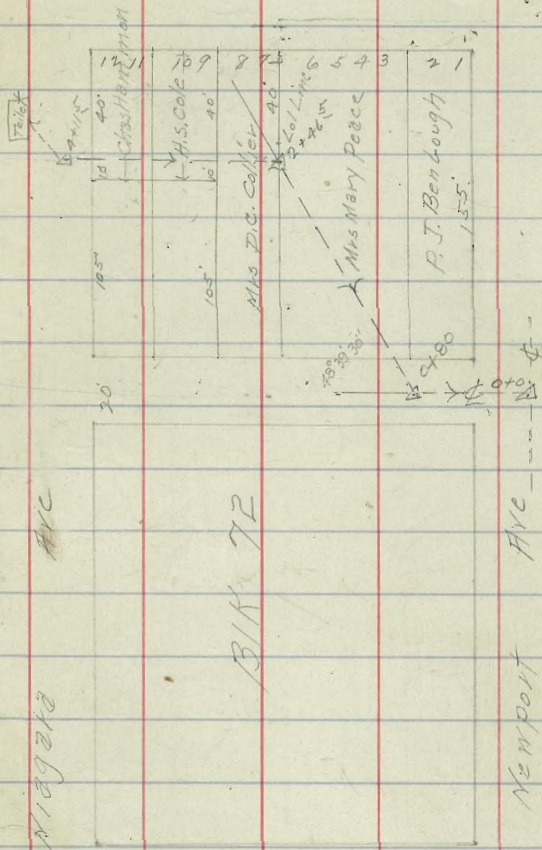
+08 4.2 6.2

+20 0.0 10.4

+40 approx = Toilet floor 5.3 5.1

Bottom pipe leaving Toilet 7.1 3.3

Abbott street



Bacon Street

Levels for proposed sewer & Froude from pt
52.5' N of & Muir to 80' S of M.H. & Alex bet
Muir & Yoltaire to & Muir

13.M. brass plg M.V. Froude & Yoltaire
8.95 53.49
0+0 = pt 52.5 N of & Muir 51.9 47.6
+52.5 = & Muir 5.8 47.7

11/4 Dunkle
Shaw
Bunker

77.92
5+50 7.5 70.4
6 7.3 75.6
+20 0.7 77.2
+31 0.6 77.3
+38 1.5 76.4

Levels for proposed sewer & Muir
from & Froude East for 823'

0+0 = & Froude or 0+52.5^{5.8} Above 47.7
+50 5.0 48.5
1 4.3 49.2
+15 3.4 50.1
+50 3.1 50.4
2 2.2 51.3
+50 1.2 52.0
T.P. 12.74 65.83 0.40 53.09
3 12.3 53.5
+50 10.9 54.9
4 8.0 57.8
+50 4.1 61.7
5 0.1 65.7
T.P. 12.29 77.92 0.20 65.63

+50 0.2 77.7
T.P. 12.81 90.54 0.17 77.73
+68 13.2 77.3
+78 12.0 78.5
+79 7.9 82.6
7 5.8 84.7
T.P. 12.80 103.02 0.32 90.22
+50 13.6 89.4
8 8.6 94.4
+50 3.0 100.0
T.P. 5.48 107.61 0.39 102.13
+83 3.6 104.0

Levels for proposed sewer & Seaside Ave from pt
35' N of N.L. Voltaire to pt 15' N of S.L. Voltaire

B.M. brass plg Freuder Voltaire 44.54
11.00 55.54

0+0 = pt 35' N of N.L. Voltaire 8.2 47.3

+50 7.0 48.5

+80 = pt 15' N of S.L. Voltaire 6.3 49.2

Levels Voltaire st (15' N of S. line) from &
Seaside Ave West for 100'

55.54

0+0 = & Seaside Ave 6.3 49.2

+50 7.8 47.7

1 8.7 46.8

Levels for proposed sewer Voltaire st 77
located 15' N of S.L. from & Seaside Ave
East for 636

Dunkle
Shaw
Bunker

55.54

0+0 = & Seaside 6.3 49.2

+50 4.5 51.0

1 T.P. 12.58 67.73 2.1 53.4
0.19 55.35

+50 12.1 55.8

2 9.0 59.0

+50 5.7 62.2

3 2.7 65.2

T.P. 12.29 79.88 0.34 67.59

+50 11.6 68.3

4 8.6 71.3

+50 6.0 73.9

5 3.2 76.7

+50 0.6 79.3

T.P. 6.50 86.15 0.23 79.65

6 4.3 81.9

+36 3.0 83.2

Levels for proposed sewer & Green.

St from & Etiwanda^{South} to & Sota

21 Don Mc
161 Shaw
47 Bunker

78.

B.M. cross pig voltaic & Froude 44.59

10.77 55.31

T.P. 7.57 50.60 12.28 49.03

+0.0 = & Etiwanda st. south. 9.8 40.8

+50 17.7 42.9

1 4.8 45.8

+50 1.2 49.4

T.P. 11.26 61.58 0.28 50.32

2 7.5 54.1

+50 3.8 57.8

+60 = & Sota st 2.9 58.7

98.75
20.00
120.75

79

West pt Lot 42

Tiehub 6' 6' Tie Hub
142131

2/19 Dunkle
1/17 Shaw
Bunker

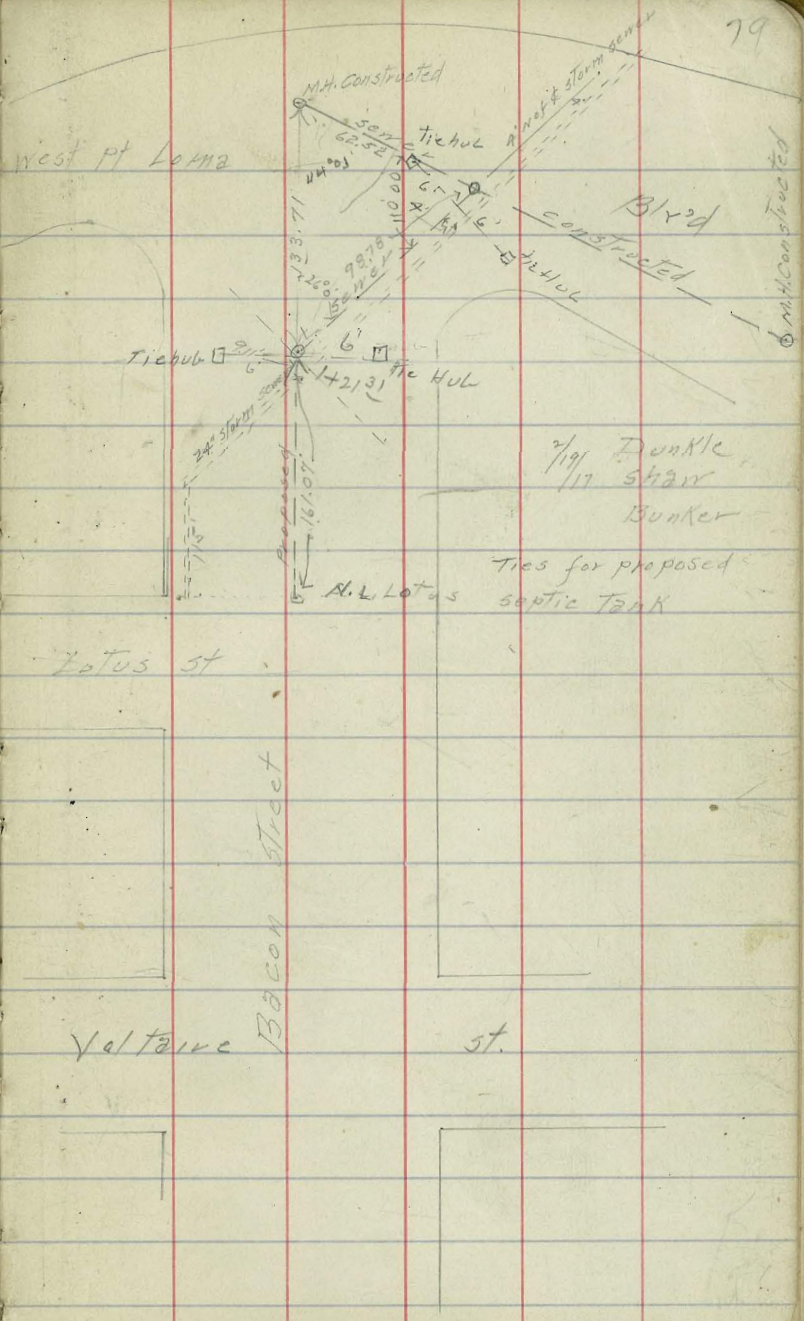
Ties for proposed
A.L. Lotus septic tank

Lotus St

Bacon Street

Voltaire

St.



2947.3
52.0
2907.3
52
2959.3

29407.3
40
29447.3
8.3
2955.6N.

2947.3
17.8
2965.15

2743.7
216.2
2959.7
8.3
1.1
2968.0

2959.7
17.8
2977.5

215
168
21
378

21
95
105
189
199.5

150
80
230

2743.7
230.0
2973.7

Levels for Sewer - Spauldings - Ocean Beach

(81)

B.M. = N.E. curb	2.50	27.50	19.00	
T.P.	9.66	36.71	0.45	27.05
T.P.	11.17	46.85	1.03	35.68
T.P.	2.36	45.57	3.64	43.21
T.P.			1.47	44.10
N.W.	3.46	5.40		1.94
	29.56	10.41	4.55	0.95
500 West			9.2	+ 1.6
5270 & SPRING			11.2	- 0.8
9 Long Branch			9.8	+ 0.6

350	522.5	350
20		30
370	L 175	10
1.20		390
2.50	R 75	
		L 190
		L 100
		R

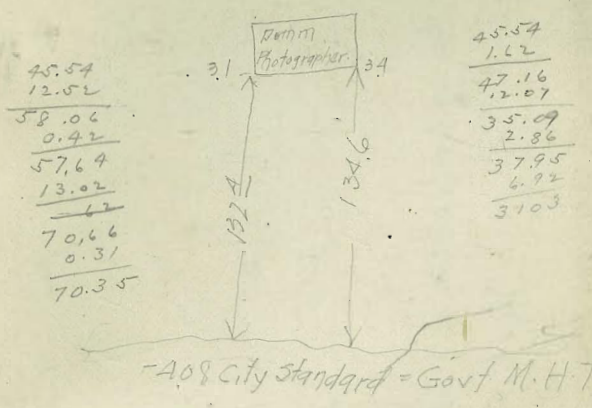
6.50 - 4.41
 2.21
 8.71
 4.08
 2.79 = NHT Rod

8.71
 56
 3.1

8.71
 53
 3.4

440
 45
 30
 7.5
 522.5

3. w. p. g 30.06



45.54
 12.02
 58.06
 0.42
 57.64
 13.02
 70.66
 0.31
 70.35

45.54
 1.12
 47.16
 12.07
 35.09
 2.86
 37.95
 6.92
 51.03

45.57
 8.32
 367.56

69.38
 0.31
 69.69
 13.02

83
 61
 33 | 220 | 6.66
 198
 220

50.67
 0.42
 57.09
 12.52
 44.57

7.89
 12
 178
 894
 10.68 7 10 2/3

- 8.00 M.H. ✓ 6.50
 - 8.50 M.H. ✓ 4.97
 11.47

B.M. Abbott St 5.65
 Newport - N.E. plg curb 6.509
 Santa Monica - N.W. " " 4.406
 Saratoga " " " " 5.052
 Cape May " " " " 8.890
 Brighton " " " " 10.134
 Long Branch - N.E. " " 3.383
 Muir " N.W. " " 1.942
 Yonkers S.W. " " 2.472

5.02
 6.25
 1.23

Santa Barbara St 1500
 Cape May N.W. grass plg 156.719
 Saratoga " " " " 176.205
 Santa Monica " " " " 194.239
 Newport " " " " 190.417
 Niagara " " " " 197.249
 Narragansett S.W. " " 218.688
 Del Monte N.E. " " 237.486
 Santa Cruz S.W. " " 255.497
 Coronado " " " " 240.170
 Del Mar " " " " 250.424
 Orchard N.W. " " 252.313

503 246.5 6.98 150
 662 155.0
 401.5
 4.00 408.5 1910' 155
 10.43 3.30
 5.05 5.1 501.21 157
 5.58 112.0 5

50.10.4 4.32
 23 3. 11.55
 46.63
 17.50
 29.13

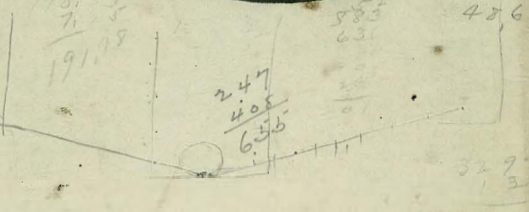
1750 5800 2
 5500

19 42 7.0
 2 42 25
 64 63 84 11
 582
 7.19 15

6.50
 2.21
 8.71
 4.08
 1.77
 18.35
 7.55
 191.19



45.54
 5.50
 51.10
 2.50
 48.60



2790
 1.40
 31.10
 247
 408
 6.55



180.69
 1.695
 176.04
 157.91
 8.85
 151.06
 159.91
 9.28
 150.63
 176.21
 465
 180.86
 13.09
 167.77
 1.41
 169.18
 12.47
 156.71
 3.2