

Job # 88

XIENNION

NAME Broadway Extension

Book # 8

Class _____ Course _____ Party _____

"A" Line

69

1966

FIELD NOTES

No. 403 P

ESPECIALLY ADAPTED

TO THE USE OF

ENGINEERING STUDENTS

EUGENE DIETZGEN Co.

MANUFACTURERS

DRAWING MATERIALS

MATHEMATICAL AND SURVEYING INSTRUMENTS

MEASURING TAPES

CHICAGO SAN FRANCISCO NEW YORK
NEW ORLEANS PITTSBURGH

BROADWAY EXTENSION

Massachusetts Ave.

Book # 8

MICROFILMED

DEC 30 1964

Property of
Watson, Valle & Gough
508 Spreckles Bldg.
San Diego -

- INDEX -

Survey of

MASSACHUSETTS AVE.
(Lemon Grove)

	Page
Alignment ^g Topog. 0-18	1-2
" " "	6
Preliminary Profile. 0-18	3-5
Cross Sections 0-18	7-14
Bench Levels	15-16

Sta.	Dist.	Angle		Ties -
		Azimuth	Deflection	

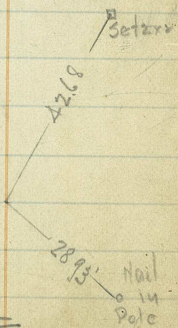
4+37.35 P.I.	↓	160° 10' 320° 20'	19° 50' Lt.	
-----------------	---	----------------------	-------------	--

5/21/36
Coote
Losey
Bell

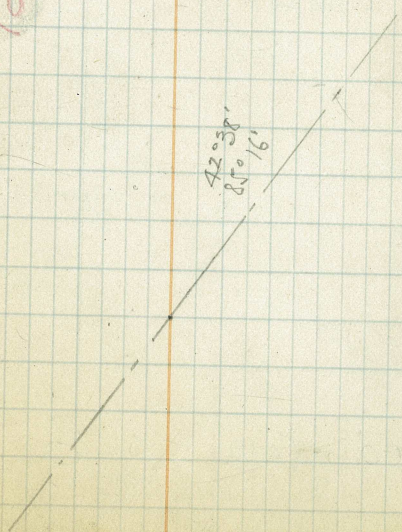
Field

Q+00 =
16+74.6 ±
R.D.I.# 21

MASSACHUSETTS AVE.
— Line Change —



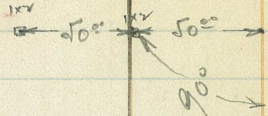
Adopted Field Alignment on P. 6



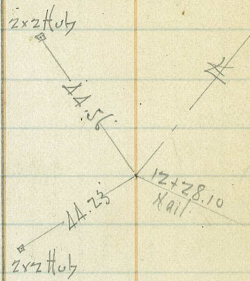
Sta. ↑ Dist. Angles- Azimuth Def. * Ties-

18+88.60
15+51.10 =

Equation



14+24.50
P.O.T.



12+28.10
P.I.

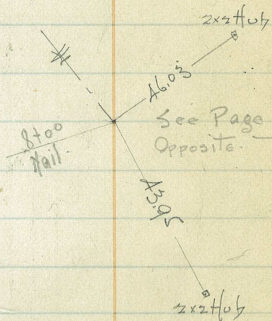
214° 18'
+ 68° 35' 34-16 RT

8+00
P.I.

690.40

134° 22'
268° 45'

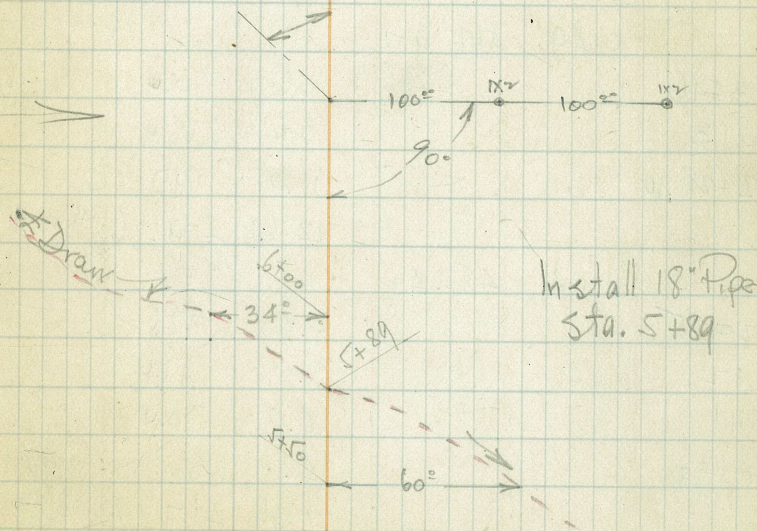
4538 LT



4+37.35

Continued from Pg 6

Contd in BK. # 7, Pg 3



Profile of Line Cng -

Bm#3 498.01

6.48 504.49

18+88.60
15+51.10 = 92 495.3

15 66 97.9

14+42 31 01.4

+24 50 99.5

14 77 96.8

13.01 491.48

0.49 491.97

13+16 16 90.4

13 36 88.4

12+28.10 11.3 80.7

12.61 479.36

1.04 480.40

12+15 2.9 77.5

12 30 77.4

11 10.0 70.4

10+78 14.1 66.3

12.96 467.44

0.54 467.98

Transit notes
Pgs. 1-2
This Book

Cut 8' ±

Handwritten red scribble

Handwritten red scribble

467.98

10

6.1 61.9

9

12.3 55.7

12.6 ✓ 455.36

1.20 456.62

8+51

2.4 54.2

B Tu

5.39 451.23

8

6.7 44.5

12.57 444.05

0.10 444.15

6+81

6.7 37.5

8.8 38.4

13.0 ✓ 431.13

0.58 431.71

6

16.6 15.1

5+89

18.7 13.0

+40

9.6 22.1

5

2.1 28.9

+68

1.0 30.7

0.98 430.73

0.90 431.63

L

Cent Hub 15 W. 8+00

Verd.

± Draw

431.63

4+37.85	2.6	29.0
A	5.5	26.1
3+50	7.5	24.1
	12.71	418.94

103	419.95		
3		3.0	16.4
2+90		5.1	14.9
+71		11.2	08.8
		12.68	407.27

6.21	413.68		
2		8.4	5.3
1+21		7.3	6.4
+17		10.0	3.7
1		9.9	4.8
0+98		7.3	6.4
+75		6.6	7.1
+64		9.4	4.3
+43		9.2	4.5
+32		4.9	8.8
0+00=		4.8	8.9

76+746			
RDI#21		3.41	410.27

6.80	417.07		
Blu#0		1.02	416.05 416.00

void

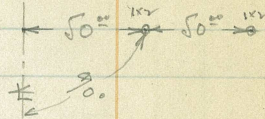
void

Bottom Draw (Sewer.)

Sta. Dist Angle
 Az. Def.

Cont'd on Pg. 2

A+57.12
 P.O.T.

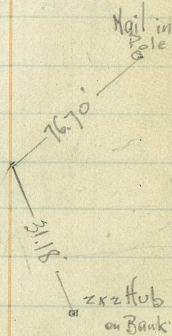


A+37.35
 3+33.75=
 P.O.T.

Equation -

690 ±

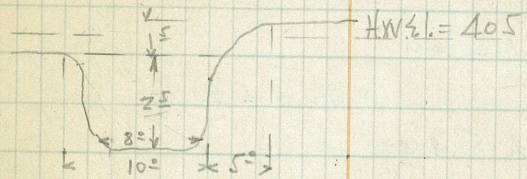
0+00



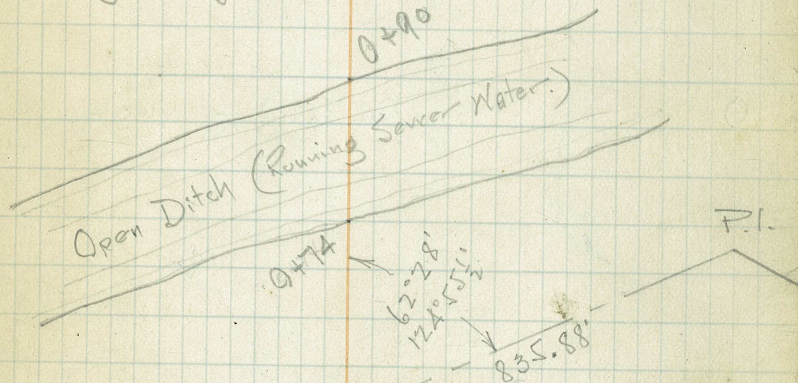
MASSACHUSETTS AVE.
 Change in Alignment

6

5/25/26
 Coote
 Losey
 Spansel



Cross Section of Ditch -



Survey RDI #21 0+00 Use R=200

Level notes
 Pg. 7 this Bk.

11-3-27

Blu

1.50 417.50

6.68 410.82

4.67 415.49

Blu

1.43 415.90

1.02 414.47

O+100

Along \mp RD1#21

O

On split of angle

+28

+50

416.00

See Notes for RD1#21
for description -

Rt.

7

5/28/26

Coote

Losey

Spanset

R.R. Spk. in Tel. Pole

H.I. = 415.90

8.4	8.2	7.7	7.9	6.9
<u>7.5</u>	<u>7.7</u>	<u>8.2</u>	<u>8.9</u>	<u>9.0</u>
100	50		50	100

26	4.6	8.5	8.6	7.5	7.7	7.4
<u>13.3</u>	<u>11.3</u>	<u>7.4</u>	<u>7.3</u>	<u>8.4</u>	<u>8.2</u>	<u>8.5</u>
29	44	34	24	21		31

3.0	5.8	6.4
<u>12.9</u>	<u>10.1</u>	<u>9.5</u>
66	74	94

6.0	5.1	2.8	2.7	6.0	8.7	8.0	7.3	6.3
<u>9.9</u>	<u>10.8</u>	<u>13.1</u>	<u>13.7</u>	<u>9.9</u>	<u>7.2</u>	<u>7.9</u>	<u>8.6</u>	<u>9.1</u>
70	53	46	28	17		20	21	50

5.1	3.3	3.2	5.1	5.6	3.4	2.8	3.5	6.4	7.1	8.1
<u>10.8</u>	<u>12.6</u>	<u>12.6</u>	<u>10.8</u>	<u>10.3</u>	<u>12.4</u>	<u>13.1</u>	<u>12.4</u>	<u>9.5</u>	<u>8.8</u>	<u>7.8</u>
65	50	46	36	14	5		10	20	34	34 x 40

0. +61 415.90

+74

10.75 405.35

+79

4.57 409.92

+88

H.W. Elev. = 404.9

+90

4.57 405.35

0. +73

6.18 411.33

± Wash in angle of same

+20

+66

2+

Rt

8

44	3.9	3.0	2.9	5.3	5.2	4.4	3.1	3.9	6.3	7.5
<u>11</u>	<u>12.0</u>	<u>12.9</u>	<u>13.0</u>	<u>10.6</u>	<u>10.6</u>	<u>11.5</u>	<u>12.8</u>	<u>12.0</u>	<u>9.6</u>	<u>8.4</u>
60	50	40	28	18		7	16	26	34	50

4.7	4.7	4.3	2.3	2.6	5.1	5.1	4.8	3.1
<u>11.2</u>	<u>11.2</u>	<u>11.6</u>	<u>13.6</u>	<u>13.3</u>	<u>10.5</u>	<u>10.8</u>	<u>11</u>	<u>12.5</u>
7.5	50	38	31	10		18	37	48

5.3	5.3	4.4	4.1	3.9	1.6	1.9	4.5	5.2	5.2	3.0
<u>4.4</u>	<u>4.4</u>	<u>5.3</u>	<u>5.6</u>	<u>5.5</u>	<u>7.9</u>	<u>7.8</u>	<u>5.2</u>	<u>4.5</u>	<u>4.5</u>	<u>6.7</u>
60	50	37	20	11	10		6	16	31	49

5.2	5.1	4.4	4.1	1.9	1.8	5.4	5.1
<u>4.5</u>	<u>4.6</u>	<u>5.3</u>	<u>5.6</u>	<u>7.8</u>	<u>7.9</u>	<u>4.3</u>	<u>4.6</u>
60	50	28	3		18	32	40

5.2	5.1	4.5	4.1	1.8	5.4	5.1
<u>4.5</u>	<u>4.6</u>	<u>5.2</u>	<u>5.6</u>	<u>7.9</u>	<u>4.3</u>	<u>4.6</u>
60	50	25		21	36	40

4.1	3.5	3.4	2.3	1.7	1.9	1.6	0.6
<u>7.2</u>	<u>7.8</u>	<u>7.9</u>	<u>9.0</u>	<u>9.6</u>	<u>9.4</u>	<u>9.7</u>	<u>10.7</u>
200	150	100	50		50	100	150

4.7	4.5	3.8	3.1	3.0	2.6
<u>6.6</u>	<u>6.8</u>	<u>7.5</u>	<u>8.2</u>	<u>8.3</u>	<u>8.7</u>
50	30		20	39	50

3.1	4.3	3.8	4.7	5.4	6.2	7.1
<u>6.2</u>	<u>7.9</u>	<u>9.5</u>	<u>6.6</u>	<u>5.5</u>	<u>5.1</u>	<u>1.2</u>
10	20	15	13	26	40	50

1+90 411.33

0.62 410.71

2

11.60 422.31

+23

+50

+56

0.87 421.44

+81

11.60 433.04

3+12

+3375=
4+37.35

9.4	7.9	5.7	4.7	3.4
<u>15</u>	<u>34</u>	<u>56</u>	<u>6.6</u>	<u>7.9</u>
40	20		20	40

13.9	13.3	11.3	10.2	7.5	5.5	4.7
<u>84</u>	<u>90</u>	<u>110</u>	<u>121</u>	<u>148</u>	<u>168</u>	<u>176</u>
40	36	25	17		20	40

19.1	15.0	15.6	16.3	15.7	15.5	8.8	6.2
<u>3.2</u>	<u>4.3</u>	<u>6.7</u>	<u>6.0</u>	<u>6.6</u>	<u>6.8</u>	<u>14.5</u>	<u>16.1</u>
40	35	21	9		1	27	40

26.4	26.0	23.8	21.7	19.1	16.4	13.6	10.9
<u>4.1</u>	<u>4.7</u>	<u>4.5</u>	<u>0.6</u>	<u>3.2</u>	<u>5.9</u>	<u>8.7</u>	<u>11.4</u>
40	35	21	7		15	30	40

25.6	24.8	23.4	22.4	20.7	18.9	16.8	15.6	13.6	11.3
<u>4.35</u>	<u>4.25</u>	<u>4.11</u>	<u>4.01</u>	<u>4.16</u>	<u>3.4</u>	<u>5.5</u>	<u>6.7</u>	<u>8.7</u>	<u>11.0</u>
40	32	22	10		2	14	23	34	40

28.6	27.2	26.1	24.8	23.8	22.6	20.6	19.6	16.5
<u>4.4</u>	<u>5.8</u>	<u>6.9</u>	<u>8.2</u>	<u>9.2</u>	<u>10.4</u>	<u>12.4</u>	<u>13.4</u>	<u>16.5</u>
40	33	23	13		8	20	29	40

32.8	31.6	29.4	28.4	25.7	24.5	23.6	21.6	20.8
<u>0.2</u>	<u>2.0</u>	<u>3.6</u>	<u>4.6</u>	<u>7.3</u>	<u>8.5</u>	<u>9.4</u>	<u>11.4</u>	<u>12.2</u>
40	29	20	14		12	24	36	40

34.0	30.9	28.9	26.0	24.9	22.3
<u>1.0</u>	<u>2.2</u>	<u>4.1</u>	<u>5.0</u>	<u>8.1</u>	<u>10.7</u>
40	19		7	24	40

4+70 433.04

3.26 429.78

5 0.60 - 430.38

+50

11.91 418.47

2.24 420.71

+63

+89

≠ Draw

+89

On Angle of Draw

6

+16

0.20 420.51

11.31 431.82

36.0	33.7	30.3	27.3	24.1
+3.0	+0.7	2.7	5.7	8.9
<u>4.0</u>	<u>2.0</u>		<u>2.0</u>	<u>4.0</u>

33.7	31.5	28.9	25.4	22.6	21.9
+3.3	+1.1	1.5	4.5	7.6	8.5
<u>4.0</u>	<u>2.0</u>		<u>1.9</u>	<u>3.8</u>	<u>4.0</u>

26.7	24.2	19.6	16.2	20.9
3.7	6.2	10.8	14.2	9.5
<u>4.0</u>	<u>2.0</u>		<u>2.0</u>	<u>4.0</u>

24.1	20.2	16.4	15.5	13.9	12.4	10.8	9.8	10.7
+3.4	0.5	4.3	5.2	6.8	8.3	9.9	11.9	16.0
<u>4.0</u>	<u>2.0</u>		<u>7.3</u>	<u>2.1</u>	<u>3.0</u>	<u>3.8</u>	<u>4.8</u>	<u>6.0</u>

Draw

15.9	14.7	14.0	11.6	12.0	12.5	13.6	Same Step
1.8	6.0	6.7	9.1	8.7	8.2	7.1	1.5
<u>4.0</u>	<u>3.1</u>	<u>2.0</u>		<u>1.1</u>	<u>2.2</u>	<u>4.0</u>	

11.0	15.5	13.4	11.6	9.0	6.3
2.7	5.2	7.3	9.1	11.7	14.4
<u>1.5</u>	<u>1.0</u>	<u>5.0</u>		<u>5.0</u>	<u>1.0</u>

14.8	14.4	12.4	14.1	13.8	13.8	16.1	Same Step
5.9	6.3	9.3	6.6	6.9	6.9	1.6	1.0
<u>5.0</u>	<u>4.4</u>	<u>4.0</u>	<u>2.5</u>		<u>2.0</u>	<u>4.0</u>	

17.0	16.9	11.3	16.9	16.8	17.6	14.3	14.2	16.1	14.2
3.7	3.8	4.4	3.8	3.9	3.1	1.4	1.5	2.6	1.5
<u>5.0</u>	<u>4.0</u>	<u>3.7</u>	<u>2.0</u>		<u>1.0</u>	<u>2.0</u>	<u>3.2</u>	<u>4.0</u>	<u>5.0</u>

6+50 431.82

26.3	25.4	26.3	26.6	26.3	26.0
<u>55</u>	<u>64</u>	<u>55</u>	<u>52</u>	<u>35</u>	<u>38</u>
40	28	18		22	40

+68 0.37 431.45

31.2	29.9	30.6	31.2	31.7	33.3	33.5
<u>06</u>	<u>19</u>	<u>10</u>	<u>06</u>	<u>01</u>	<u>15</u>	<u>17</u>
20	28	17		15	32	40

+79 12.11 443.56

33.7	33.3	35.4	35.6	34.6	35.4
<u>99</u>	<u>103</u>	<u>82</u>	<u>80</u>	<u>90</u>	<u>82</u>
40	18		11	23	40

7 37.2 36.8 37.4 37.4 37.9 37.7 38.4

6.2	6.8	6.2	6.2	5.7	5.9	5.2
<u>40</u>	<u>37</u>	<u>23</u>	<u>15</u>	<u>28</u>	<u>40</u>	

+20 X 1.02 442.54

40.2	40.6	40.7	39.5	40.2	40.7	41.0
<u>34</u>	<u>28</u>	<u>29</u>	<u>21</u>	<u>34</u>	<u>29</u>	<u>26</u>
50	40	33	21	21	40	

+46 11.61 454.35

43.9	43.4	43.1	43.0	44.8	44.0	44.7	44.6	44.4
<u>105</u>	<u>110</u>	<u>113</u>	<u>110</u>	<u>96</u>	<u>104</u>	<u>97</u>	<u>95</u>	<u>100</u>
60	50	45	40	50	12		14	30

8+00 On split of angle -

44.1	45.4	47.5	48.8	50.1	51.4
<u>10.3</u>	<u>9.0</u>	<u>6.9</u>	<u>5.6</u>	<u>4.3</u>	<u>3.0</u>
15	52	40	26		20

B.h. 2.96 451.29 451.23 On Hub 15' West 8+00 (See Pg. 4)

46.9	47.9	46.6	51.4	52.0	53.6	54.4	54.6	55.5	56.2
<u>75</u>	<u>65</u>	<u>58</u>	<u>30</u>	<u>24</u>	<u>08</u>	<u>00</u>	<u>104</u>	<u>11</u>	<u>128</u>
60	50	47	34	22	13		19	28	40

+50

454.35

0.33 454.02 ✓

11.14 465.16

9

52.3	53.4	55.9	55.9	56.7	58.0	58.8
12.9	11.4	9.3	9.3	8.5	7.2	6.4
<u>40</u>	<u>32</u>	<u>13</u>	<u>13</u>	<u>15</u>	<u>26</u>	<u>40</u>

+29

54.3	55.0	56.1	57.1	57.9	59.3	60.9	61.5	61.4
10.9	10.2	9.1	8.1	7.3	5.9	4.3	3.7	3.8
<u>40</u>	<u>34</u>	<u>27</u>	<u>10</u>	<u>14</u>	<u>24</u>	<u>37</u>	<u>40</u>	

+50

56.5	56.6	59.1	61.0	63.0
8.7	8.6	6.1	4.2	2.2
<u>40</u>	<u>27</u>	<u>26</u>	<u>40</u>	

10

0.70 464.46

10.95 475.41

+50

59.2	60.2	62.0	62.1	63.1	64.0	65.5
6.0	5.0	3.7	3.1	2.1	1.2	10.3
<u>40</u>	<u>28</u>	<u>16</u>	<u>31</u>	<u>21</u>	<u>35</u>	<u>40</u>

+75

61.8	63.2	64.9	65.6	66.2	67.9	68.4
13.6	12.3	10.5	9.8	9.2	7.5	7.0
<u>40</u>	<u>22</u>	<u>10</u>	<u>22</u>	<u>34</u>	<u>40</u>	

11

64.0	64.4	64.8	66.2	68.8	71.5	71.5
11.4	11.0	10.6	9.2	6.6	3.9	3.9
<u>40</u>	<u>38</u>	<u>16</u>	<u>22</u>	<u>37</u>	<u>40</u>	

64.8	65.7	67.5	70.4	71.9	74.1	74.9
10.6	9.7	9.9	5.0	3.5	1.3	0.5
<u>40</u>	<u>35</u>	<u>15</u>	<u>15</u>	<u>33</u>	<u>40</u>	

11+50

475.11

0.54 474.57

12

11.24 486.11

+28.10

On split of angle—

+56

0.47 485.64

T.P

10.31 495.95

1.29 494.66

9.00 500.66

13

+22

+70

13

68.4	69.8	71.5	72.2	73.7	74.2	77.1	78.1	79.2
<u>7.0</u>	<u>5.6</u>	<u>3.9</u>	<u>3.7</u>	<u>1.7</u>	<u>1.2</u>	<u>1.7</u>	<u>2.7</u>	<u>3.8</u>
40	30	23	16	—	3	14	32	40

73.0	73.4	75.0	76.6	78.5	80.4	81.7	82.6
<u>1.2</u>	<u>1.2</u>	<u>1.1</u>	<u>0.5</u>	<u>7.6</u>	<u>5.7</u>	<u>4.4</u>	<u>3.5</u>
40	31	9	—	9	23	35	50

77.8	80.4	80.8	74.9	80.7	82.5	83.3
<u>8.3</u>	<u>5.7</u>	<u>5.3</u>	<u>6.2</u>	<u>5.4</u>	<u>3.6</u>	<u>2.8</u>
28	12	—	13	26	50	60

82.9	83.5	83.1	83.8	83.8	84.7
<u>3.3</u>	<u>2.6</u>	<u>3.0</u>	<u>2.3</u>	<u>2.3</u>	<u>1.4</u>
40	24	—	22	43	50

On Rock 2' Lt. 13+20

88.4	88.4	88.4	88.7	89.9	88.5	88.1
<u>11.7</u>	<u>12.2</u>	<u>12.2</u>	<u>11.9</u>	<u>10.7</u>	<u>12.5</u>	<u>12.5</u>
40	20	—	5	21	34	40

90.7	91.0	91.1	90.3	91.1
<u>9.9</u>	<u>9.6</u>	<u>9.5</u>	<u>10.3</u>	<u>9.5</u>
40	20	—	20	40

94.8	93.7	93.6	94.2	94.1
<u>5.8</u>	<u>6.9</u>	<u>7.0</u>	<u>6.4</u>	<u>6.5</u>
40	20	—	20	40

11 14

500.66

1.20 199 46

5.87 505.33

+24

+54

+15

↑
+51.10 = Equation
18+88.60
↓

Btu#3

7.23 498.10 498.01 On 2x2 tub 11 Pt. Sta. 15+00

Cont'd in Bk 7, Pg. 17

14

95.7	96.3	96.4	97.0	98.0	97.9
4.9	4.3	3.8	3.6	2.4	2.7
<u>40</u>	<u>20</u>		<u>10</u>	<u>26</u>	<u>40</u>

97.7	98.3	99.5	99.7	00.2	1.1	0.8
7.6	7.0	5.8	5.6	5.1	4.2	4.5
<u>40</u>	<u>19</u>	<u>10</u>		<u>17</u>	<u>28</u>	<u>40</u>

99.0	99.6	0.8	2.1	1.5	0.7	1.2	0.8
6.3	5.7	4.5	3.2	3.8	4.6	4.1	4.5
<u>40</u>	<u>31</u>	<u>18</u>	<u>7</u>		<u>22</u>	<u>35</u>	<u>40</u>

99.1	98.2	98.0	97.9	97.2
6.2	7.1	7.3	7.4	8.1
<u>40</u>	<u>20</u>		<u>20</u>	<u>40</u>

98.4	97.0	95.2	94.5	93.0
6.9	8.3	10.1	10.8	12.3
<u>40</u>	<u>20</u>		<u>20</u>	<u>40</u>

+ H.I -

B.M. 2.82 417.29

414.47 RR. Spk in Tel. Pole -

T.P. 11.67 427.91 1.05 416.24

+ T.P. 11.59 439.11 0.39 427.52

+ T.P. 11.86 450.62 0.35 438.76

T.P. 9.84 460.29 0.17 450.45

5.88 454.41

Sta 8+00 P.I.

5.40 454.89

7

B.M. 7.95 463.62

455.67 Ref to Book #68. P. 12.

T.P. 1.41 456.88 8.15 455.47

T.P. 3.70 448.94 11.64 445.24

T.P. 10.22 455.99 3.17 445.77

B.M.

6.14 449.85

Sta 8+00 P.I.

5.65 450.34

B.M. on P.P. Hub. 100ft Rt Sta 8+00 P.I.

	+	H.I	-		
B.M	5.74	456.08		450.34	See Page 15
T.P	12.00	467.89	0.19	455.89	
T.P	11.52	479.22	0.19	467.70	
T.P	11.56	489.74	1.01	478.21	
T.P	10.05	498.22	1.60	488.17	
B.M	2.16	491.48	8.90	489.32	B.M. 100ft R. Sta 12+00
T.P	0.77	480.52	11.73	479.75	
T.P	0.27	469.28	11.71	468.81	
T.P	1.24	459.98	10.54	458.74	
B.M.			9.64	450.24	
				450.34	B.M. on R.P. Hub. 100' Pt. Sta 8+00

17

Check Levels on Grade Stakes -
MASSACHUSETTS AVE.

18

Lt.

Rt.

(44) - end Hub

B.Lv. + HI $\frac{L}{\text{on 5' offset hubs}}$ Pt.
2.78 453.19

450.34 On R.P. Hub 100' Rt. P.I. Sta 8+00

See Pg. 15

7+50 10.6 7.3

$D = \frac{0.31}{21.6}$
Out

F = 0.25

$D = \frac{0.41}{22}$
Out

F = 0.45

8 5.40
0.41 452.71

$D = \frac{0.34}{21.7}$

F = 0.34

$D = \frac{0.50}{22.5}$

F = 0.50

+50 10.63 463.34

12.1 8.8

$D = \frac{0.32}{21.5}$

F = 0.27

$D = \frac{0.50}{22.5}$

F = 0.50

9 8.1 452

$D = \frac{0.28}{21.7}$

F = 0.24

$D = \frac{0.50}{22.5}$ (44)

F = 0.50

+50 5.2
0.63 462.71

$D = \frac{0.03}{20.2}$

F = Grade

10.76 473.47

$\frac{0.37}{21.8}$ $\frac{0.24}{20.8}$
Set 10/23/24
M.S.

60

0.5

On 5' Offset Hubs

Lt.

Rt.

19

+

H.I.
473.47

Lt

Rt

10

11.8

9.8

$$D = \frac{C10}{20.5} \quad F = C03$$

$$D = \frac{C20}{21.0} \quad F = C21$$

+50

10.9

6.1

$$D = \frac{F33}{25} \quad F = F37$$

$$D = \frac{C10}{20.5} \quad F = C15$$

11

7.5

0.62

472.85

$$D = \frac{F38}{25.7} \quad F = F44$$

9.45 484.30

11

8.9

$$D = \frac{C40}{22.0} \quad F = C45$$

+50

10.0

4.2

$$D = \frac{F25}{23.7} \text{ (9.6)} \quad F = F28$$

$$D = \frac{C36}{21.2} \quad F = C41$$

12

6.4

0.7

0.69

481.61

$$D = \frac{F32}{24.8} \text{ (9.9)} \quad F = F32$$

$$D = \frac{C33}{21.7} \quad F = C33$$

11.43 493.04

Beh

3.73

489.31

489.32

+50

9.3

$$D = \frac{C03}{20.1} \quad F = C01$$

$$\frac{C16}{20.8} \quad \frac{C16}{21.8}$$

Set 10/23/26
U.S.

14.50

13 493.04 2.8
10.81 503.11 0.74 494.30

+34.14 10.3 10.8

14 7.3

+50 1.27 501.84
0.29 502.13

15 4.1 4.5

19 4.7
7.93 494.20
1.46 495.66
10.15 485.51
1.34 486.85
11.31 475.54

Lt. 20

$D = \frac{C 25}{21.3}$ $F = C 23$

$\frac{C 25}{21.3}$ $\frac{C 24}{26.3}$
Set 10/23/25

$D = \frac{C 20}{21.0}$ $F = C 3$ $D = \frac{C 20}{21}$ $F = C 20$

$D = \frac{C 24}{21}$ $F = C 21$

$\frac{C 35}{21.0}$

$\frac{C 38}{21.9}$ $\frac{C 38}{26.9}$
Set 10/23/26

$\frac{C 44}{22.2}$ $\frac{C 44}{27.2}$
Set 10/23/26

$D = \frac{C 24}{21.2}$ (4.2) $F = C 23$ $D = \frac{C 20}{21}$ (4.3) $F = C 18$

$D = \frac{C 33}{21.6}$ (5.1) $F = C 36$

475.54

1.00 476.54

7.57 468.97

1.37 470.34

Blw#4

6.31 464.03 464.09 Culfub 65' Pt. Sta. 26+50

10/22/26

Coote Notes

Cliffen \times Draner ϕ

D = Dauchy's Marking on Stake -

F = Foreman's " "

A number in a circle: $\textcircled{44}$ indicates
 a reading on Dauchy's original hub,
 most of which have been destroyed.

Mass. Ave. X - Sections

March 8-27 22
 O.S. Thompson

Note Well

0+00 = Intersection of Univ. Ave. & Mass.
 Stationing = & Chaining from Univ. Southerly
 and is continuous to 3+33.75 B.M. = 4+37.35 Fwd = Equation
 From Station 4+37.35 to Sta. 2+50 = Continuous without
 any other Station Equations - March 8-27 - O.S. Thompson

The Plane of the Finished Pav. = Datum for each Station = 0.0±

Station	Left			Right			Areas	
	Cut	Fill		Cut	Fill		Cut	Fill
1+94	0.0 25	0.1 15	0.0	0.1 15	1.0 22	5.8 31		
2+50	1.09 32	0.0 20	0.0 15	0.0	0.0 30	1.0 36		
2+60	1.0 31	0.0 18	0.0 15	0.0	0.0 25			
3+00	1.6 26	0.0 20	0.0 15	0.0	0.2 24	4.9 27		
3+33.75	13.5 30	0.0 21	0.0 15	0.0	0.0 22	5.3 28		
4+37.35	13.5 31	0.0 20	0.0 15	0.0	0.0 27	5.8 28		
5+00	8.6 29	0.0 20	0.0 15	0.0	0.0 15	2.3		
5+40	0.0 25	0.0 15	0.0	0.0 15	0.0 20	12.0 39		

From - 5+40 to 6+85 = Fill
 Sections not taken

Mass. Aro. x-sections

Areas

23

Sta.	Left						Right						Cut	Fill
6+85	-	50					00	00						
	30	20	00				00	00						
7+25		00	00				00	00					+2.5	
	20	15	00				15	20					27	
7+50	+0.6						00	00					+4.1	
	23	20	15				00	15	20				27	
8+00	+2.1						00	00					4.7	
	23	20	15				00	15	20				27	
8+50	+2.5						00	00					+4.5	
	22	20	15				00	15	20				26	
9+00	+1.4						0	0					+4.3	
	23	20	15				15	22					27	
9+50	+0.6						0	0					+2.9	
	21	19	15				0	15	21				25	
10+00		0	0				0	0					+0.9	
	20	15	00				15	20					22	
10+50	-3.8						0	0					+1.1	
	29	20	00				15	21					24	
11+00	-3.8						0	0					+3.1	
	29	21	15				00	15	20				22	
11+50	+2.1						0	0					+2.8	
	24	20	15				00	15	20				23	
12+00	-3.3						0	0					+2.3	
	24	20	15				00	15	19				23	

Mass. X-sections

Areas

24

Sta.	Left	+	Right
12+50	+1.0 20	0/0 17 15 00	0/0 15 20 +2.4 24
13+00	+2.2 24	0/0 20 15 00	0/0 15 20 +2.6 23
13+50	+1.1 23	0/0 20 15 00	0/0 15 21 +1.7 23
14+00	+2.0 27	0/0 23 15 00	0/0 15 23 +5.0 30
14+50	+2.3 25	0/0 20 15 00	0/0 15 21 +2.5 24
15+00	+1.7 22	0/0 19 15 00	0/0 15 30
15+50	+3.4 24	0/0 19 15 00	0/0 20
16+00	+4.6 24	0/0 19 15 00	0/0 20
16+50	+5.3 23	0/0 19 15 00	0/0 20
17+00	+5.3 25	0/0 19 15 00	0/0 15 20 -3.1 25
17+50	+3.8 24	0/0 19 15 00	0/0 15 19 -3.5 25
18+00	+1.1 21	0/0 19 15 00	0/0 15 19 -5.1 26

Cut Fill

Fill = Waste 40' out

Fill = " 20' out

Fill = Waste for 20' out

Mars. X-sections

25

Sta	Left	2	Right	Cut	Fill	
18+50	$\frac{0}{20}$	$\frac{0}{15}$	$\frac{00}{20}$	$\frac{0}{20}$	$\frac{-4.8}{28}$	
19+00	$\frac{+0.8}{22}$	$\frac{0}{19}$	$\frac{0}{15}$	$\frac{00}{15}$	$\frac{0}{19}$	$\frac{-2.3}{25}$
19+50	$\frac{+2.5}{21}$	$\frac{0}{19}$	$\frac{0}{15}$	$\frac{00}{20}$	$\frac{-1.2}{22}$	
20+00	$\frac{+3.0}{22}$	$\frac{0}{19}$	$\frac{0}{15}$	$\frac{00}{15}$	$\frac{0}{18}$	$\frac{-1.5}{24}$
20+50	$\frac{+2.0}{21}$	$\frac{0}{19}$	$\frac{0}{15}$	$\frac{00}{15}$	$\frac{0}{20}$	$\frac{-1.3}{26}$
21+00		$\frac{00}{21}$	$\frac{0}{15}$	$\frac{0}{15}$	$\frac{0}{18}$	$\frac{-1.7}{24}$
21+50	$\frac{-1.0}{21}$	$\frac{0}{19}$	$\frac{0}{15}$	$\frac{00}{15}$	$\frac{0}{19}$	$\frac{-1.5}{23}$

26

27

28

29

30

31

32

33

Hl. Grd Rod

Lt.

Rt.

34

$$\begin{array}{r} 216 \\ 4087 \\ \hline 4103 \end{array}$$

4.11.0 4.11.6

2+00

Lt. Lkd $\frac{116}{208}$ Set $\frac{229}{258}$

Set Rt. $\frac{F72}{308}$ $\frac{F85}{358}$

1+50

407.8 + 1.3

Gutter fr. Prof.

$$\begin{array}{r} 408.7 \\ 409.1 \end{array} \quad 409.7$$

$\frac{F57}{285}$ $\frac{F60}{335}$ Rt. $\frac{F62}{293}$ $\frac{F66}{343}$

1+00

0.0 408.0 408.6

$\frac{F49}{272}$ $\frac{F47}{322}$

1.2

B₄W

8.6 458.7

450.1

* Sta. 8+00 (P.I.)

8+00

13.4 445.30 446.30

$\frac{10.7}{21.7}$ Lkd $\frac{234}{234}$

$\frac{8.1}{25.3}$ Lkd $\frac{252}{252}$

+50

8.7 450.0 451.00

$\frac{7.2}{21.5}$ Lkd $\frac{232}{232}$

$\frac{3.8}{21.9}$ Lkd $\frac{250}{250}$

9

4.0 454.7 455.7

$\frac{3.2}{20.8}$ Lkd $\frac{214}{214}$

$\frac{40.6}{21.6}$ Lkd $\frac{251}{251}$

5' off Lt = C 90

Lt Sak Lukd @ 86

5' 00

Rod + 16

10.2
77
Lukd @ 25 e 4.5 Sdk on Rt.

5' 04 = C 19

3+33.75 = Lt Lukd @ 140 — 5' off = C 143

4+37.15 Hl = C 140

Rt. @ 72
23 1/2

77
5.5
e 5' 04

3+00 Lt Lukd @ 134 — 5' off @ 142

Rt @ 60
23 1/2

5' " @ 52

2+50 Rt Lukd @ 14

Hl = +12.0

Lt = C 90
24 1/2

5' off F 14

5' " @ 104
29 1/2

344+3 296.01

+0 116.00

409.7

4.8

404.9

76+74.6

167.3

75+07.3

123

3+33.75

3+53.52

19.77

4+37.35

4+57.14

333.75

362.65

696.40

8+00.00

4.37.35

362.65

18+88.60

18+07.98

80.62

4.5
1.5
3.0

96.5

94.8

grad = 1.7 higher

0.24

1.7

0.07

WATSON, VALLE & GOUGH