

KEUFFEL & ESSER CO.
DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1896, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
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.

A+ 46
48' wide

D. runway

0481

1405

18
106
2108

10.48

Page
Martin Hogan ----- 6
Jordan-Burdin Arm. #2
Batz Drain ----- 40
Mary A. Gibbs Tile ----- 50

2

B.M.#1

McCord Grading

	0.55	100.55			
0+00	8.50	8.70	7.25	9.95	8.80
0+50	9.32	9.45	6.41	9.36	8.01
0+81	9.93	8.00	7.56	2.68	1.50
1+05	10.76	11.08	7.23	7.03	3.50
T.P.2		HI 101.34	6.27	El. 95.07	
A	1.57	96.67			
1+50	8.04	8.66	3.85	3.77	1.15
2+00	9.22	10.40	10.22	3.50	4.28
2+50	10.03	11.15	11.05	3.95	3.50
3+00	10.40	11.20	10.90	3.70	3.70
T.P.			2.98	El. 86.66	
A	7.92	94.58			
3+50	8.00	8.45	8.72	1.53	1.80
4+00	7.50	8.13	7.86	1.55	1.64
0+00	9.93			10.76	
+12	8.00	8.72	8.62	6.72	
+37	7.56	6.79	6.85		
+41	7.03	6.94	6.30		
+46	3.50	6.28	5.67	6.06	
T.P.1			3.20	97.95	
A.1	3.99	HI 101.34		99.76	
1+15	0.25	1.20	1.96	0.01	
4+46	6.40	7.20	7.25	1.75	2.05

Hardscrabble - A.M. Goodwin

15" Maple Nail in base

	39'	49'	62'		
	2.30	2.43	0.80		
	8.60	2.34	0.50		
	54	66			
	4.96	3.38			
	61'				
	0.61	61'			
	3.20	3.30	99	106'	120'
	6.81	8.18	6.12	9.75	6.85
	11.90	12.15	6.70		
	49	56'	95		
	11.67	12.10	5.16		
	10.67	10.57	4.83		
	50	99			
	10.02	8.10			

6

Martin Hogan Ditch

Ditch to Ennis W. Line 395

" " " E. " 652

" " Cen Sec. 31 - 735

29+40 Hession S. Line

15' E. of Neaville E. Line

30+00

Martin Hogan (A) Ditch

32.15' to Batz Drain

7

7.85

7.70

7.10

6.80

6.35 1

6.60 2

7.85

8.15

8.20

8.85

8	+	π	-	BM
	5.65	105.65		100.0
0+0				
1+0				
2+0				
3+0				
3+0.9				
4+0				
4+0.8				
5+0				
6+0				
6+36		hole		
7+0				
7+25		hole		

Stk	Ord	Top	FL	T _i
E. C. C. of South Hudson				
99.35	99.45	96.05	94.50	
6.30	6.2	9.6	11.15	
98.55	7.10	9.3	97.35	
Washnut 99.15	98.15	95.35	94.25	
6.5	7.5	10.3	11.4	
2+50 Washnut				
99.50	98.55			
6.15	7.1			
W.O. 18' long	98.65	95.15		
no tile	7.0	10.5		
99.85		98.95		
5.8		6.7		
tile statement				95.35
				10.3
100.05	99.05	95.60		
5.6	6.6	10.05		
99.95	99.05			
5.7	6.6			
100.20	99.30			
5.45	6.35			
		95.95		
		9.70		

10

 $\bar{\Lambda}$
 105.65

870

8709 *hula*

8779

970

1070

1170

57K Gd

Top FL.
T T

11

100.23	99.05
5.42	6.6

96.35	95.35
9.30	10.30

100.65	99.55
5.0	6.1

101.00	99.99
4.65	5.71

100.75	99.74	97.04
4.90	5.91	8.61

12

Hogan Ditch

New pipe

786' x 12" Dr. Tile

40' x 6" Dr. Tile

1- 12" x 4" Tee

12' x 12" C.M.P.

13

- Cleanout -

~~20' - 12" - 0+0 to 1+15~~

20' - 12" - " to "

1+64 to 1+44

20' - 12" 0+0 to 0+20

20' - 12" 0+50 to 0+70

~~20' - 12"~~

14

+	∩
3.08	103.08

B.M
100.00

~~1+0~~

1+60

2+0

2+50

3+0

4+0

5+0

6+0

7+0

8+0

9+0

9+40

15

Fl.	New Grade
-----	--------------

94.04	
9.04	

94.04

94.11

94.20

94.29

94.38

94.47

94.56

94.65

94.74

94.83

94.92

95.01

95.10

95.19

95.28

95.37

95.46

95.49	←	→	95.46
9.59			

94.47
18
29

16

+	∩	B.M
4.76	104.76	100.00

4+0

4+25

4+50

4+75

5+0

5+25

5+50

5+75

6+0

17

Top stk W. side	Top stk E. side	Grde.	cut
99.30 5.46	5.46	94.47	4.83
99.61 5.15	5.15	94.52	5.09
99.72 5.04	5.04	94.58	5.14
99.61 5.15	5.15	94.61	5.00
99.47 5.29	5.29	94.65	4.82
99.56 5.20	5.20	94.69	4.87
99.43 5.33	5.33	94.74	4.69
99.58 5.18	5.18	94.78	4.80
99.65 5.11	5.11	94.83	4.82

18

Hogan
+ $\bar{\Lambda}$ B.M
4.23 104.23 100.00

4+0
4+25
+50
+75
5+0
+25
+50
+75
6+0

May 24, 1935

Top. Telo
check Gd.

95.59
8.65 94.47
95.56
8.67 94.52
95.53
8.70 94.58
95.54
8.59 94.61
95.71
8.52 94.65
95.73
8.50 94.69
95.84
8.39 94.74
95.86
8.37 94.78
95.84
8.39 94.83

10423 10473
852 859
95.91 96.4 19

10423
839
9584

9
9559
9447
9594
9558
26
1.11
9553
9458
95
9584
9483
1.01

95.84
1.08
94.76
9483
1.08
95.91
9584
.07

20

Hogen Ditch - May 24, 1935

+ π B.M.

423 10423 100.00

6+0 Fl. @ 94.74

6+25

+50

+75

7+00

+25

+50

+75

8+0

+25

+50

+75

9+0

+25

Old Tile Fl. Tile @ 9+25 - 95.63
8.60
$$\begin{array}{r} 10423 \\ 860 \\ \hline 95.63 \end{array}$$

Gd.

Trk. of sch. Cut

94.76

94.81

94.86

94.91

94.96

95.01

95.06

95.11

95.16

95.21

95.26

95.31

95.36

95.41

100.16
4.07100.05
4.15100.26
3.99100.18
4.05100.23
4.00100.28
3.95100.44
3.79100.44
3.79100.28
3.95100.51
3.72100.79
3.44100.93
3.50100.18
4.05

5.35

5.19

5.35

5.22

5.22

5.22

5.33

5.28

5.07

5.25

5.48

5.37

5.77

$$\begin{array}{r} 10423 \\ 832 \\ \hline 9591 \\ 105 \\ \hline 9696 \end{array}$$

$$\begin{array}{r} 10423 \\ 408 \\ \hline 10831 \end{array}$$

$$\begin{array}{r} 10423 \\ 395 \\ \hline 10818 \end{array}$$

21

$$\begin{array}{r} 10423 \\ 344 \\ \hline 10767 \end{array}$$

$$\begin{array}{r} 10423 \\ 377 \\ \hline 10800 \end{array}$$

$$\begin{array}{r} 10423 \\ 377 \\ \hline 10800 \end{array}$$

$$\begin{array}{r} 10423 \\ 395 \\ \hline 10818 \end{array}$$

22

Dr. Walsh.

B.M. on Window sill of
basement window - W. side house

10.00

Fl. Tile in basement El. 5.00

At Ground over ditch in
fence line El. 9.80

① El. 6.75

Fl. Tile at outlet El. 4.40

El. in Field El. 5.25

El. Fl. Culvert. 4.60

23

$$\begin{array}{r} 10.00 \\ 9.80 \\ \hline 500 \\ \hline 4.80 \end{array}$$

$$\begin{array}{r} 5.25 \\ 4.40 \\ \hline .85 \end{array}$$

$$\begin{array}{r} 10.00 \\ 4.40 \\ \hline 5.60 \end{array}$$

40

Jordan - Burdin Arm #2 - Batz Drain

0+00 Mouth at Batz Drain
 2+50 E & W Fence
 2+88 S. Abt of Culvert.
 3+10 N. " " "
 3+50 End Ditch for repair

+	π	-	B.M
2.74	102.74		100.00 on W

0-25 Flow line Batz

0+00

1+00

1+40

2+00

2+86

2+88

3+00

41

end of N Hdwlk in E & W. Road.

90.51
12.2392.97
Top 12"
9.7794.97
7.77 Gd.96.84
3pk.
5.998.44
2.6
4.3098.04
4.7 Gd.

92.49

9.25 Top Tile

98.63
Fill 5pk97.99
4.75 Gd.98.26
4.48 5pk97.94
4.8 Gd97.13 F.I.C.M.P
5.61100.09
2.65 Gd.100.49
2.25 Gd.

42

+

K

-

BM

102.74

3+10

3+15

3+50

3+34

43

99.39

3.35 Gd.

97.66

5.08 Gd.

98.11

4.63 Sta

96.73

6.01 Gd.

94.27

8.47 Top tile. 12"

97.10

5.64 Fl. G.M.P. ^{24"}

$$\begin{array}{r}
 94.27 \\
 92.97 \\
 \hline
 350 \overline{) 1.30.00}
 \end{array}$$

44

+	π	B.M
4.20	104.20	100.00

0+0
0+25
0+50
1+0
1+50

+	π	B.M
2.77	102.77	100.00

0+0
0+25
0+50
0+65
1+0
1+50

2+0
2+50
2+85

Top 11.25

45

Top Stk.	New Grade	Cut below Stk.
96.78 7.42	91.47	5.31
98.20 6.00	91.53	6.67
98.58 5.62	91.59	6.99
98.92 5.28	91.72	7.20
98.73 5.47	91.85	6.88

9211	9263
9159	108
52	9155

Check Top tile

92.63	91.55
10.14	
93.05	91.97
9.72	
93.19	92.11
9.58	
93.22	
9.55	

Top tile 9.25

Top tile
2+00
8.80
93.97

5.94
4.55
4.16
3.81

4.04

w. Stk

E Stk

4.29
4.66
4.55

4.29
4.66
4.55

46

+

T

BM

2.77

102.77

100.00

0+65

1+0

1+50

2+0

2+50

2+65

2+85

$$\begin{array}{r} 102.77 \\ - 100.00 \\ \hline 2.77 \end{array}$$

(9.48)

New
Grade

Tch. Hk

cut

47

92.14

92.21

92.32

92.42

92.53

92.56

92.58

98.96

3.81

98.73

4.04

98.48

4.29

98.11

4.66

98.22

4.55

6.75'

6.41

6.06

5.58

5.64

50

Mary A. Gibbs Tile

at Rd. 10' x 16"
lower holes 54' x 16"
" 18' x 16"
outlet 16' x 16"

51

52

+

x

-

B.M

3.77

103.77

100.00

15' S. of tile

outlet of tile

⊙

5.55

106.04

3.28

100.49

W end

20' NE'

40' NE'

W end

middle

E end

(2nd hole)

B.M. on NW cor. of E. end of NE
377 wing of bridge

53

at outlet of ditch

Fl. tile 8.43

98.67	9'n.	6'n.	4'n.	E	4's	12's	15's
5.10	96.77	95.87	95.37	75.68	96.09	97.69	
	7.00	7.90	8.40	8.09	7.69	6.08	

5'n.	2'n.	4'n.	2's	5's
98.88	95.82	95.32	95.77	98.07
5.19	7.95	8.45	8.00	5.70

95.27

8.55

E 75' SW.

Beg. SW. end.

5'n	2'	E	5's	8'
100.86	99.69	Fl	99.58	101.09
5.18	6.35	97.84	6.46	4.95
		8.20		
12'n.	6'		5'	11'
101.29	99.12	98.48	98.89	99.81
4.95	6.92	7.56	7.15	6.23
				17'
				101.49
				4.55
11'	4'	97.97	3'	6'
101.39	99.78	Fl.	99.79	101.04
4.65	6.26	8.07	6.25	5.00
				12'
				101.39
				4.65

2'	2'		5'	6'	11'
100.54	98.89	98.04	99.19	100.72	101.44
5.50	7.15	8.00	6.85	5.32	4.60
4'	3'	2 1/2'	3'	6 1/2'	6'
100.99	100.74	98.26	98.40	99.54	101.04
5.05	5.30	7.18	7.64	6.70	5.00
				7'	11'
4'	1 1/2'		2'	6 1/2'	7'
101.17	100.62	98.49	98.87	99.99	100.82
4.89	5.42	7.55	7.17	6.05	5.22
					12'
					101.59
					4.45

54

Oreen A. Stout Ditch
Liberty Twp.

55

60

$$\begin{array}{r} 700 \\ 554 \\ \hline 1.46 \end{array}$$

$$\begin{array}{r} 148 \\ 66 \\ \hline 898 \\ 888 \\ \hline 9868 \end{array}$$

$$\begin{array}{r} 29-60 \\ 65-41 \\ \hline 24-19 \end{array}$$

$$\begin{array}{r} 3.59 \\ 412 \\ \hline 718 \\ 14359 \\ \hline 1,47908 \\ 1.48 \text{ links} \end{array}$$

$$\begin{array}{r} 65.41 \\ 40 \\ \hline 65.81 \\ 60 \\ \hline 66.21 \end{array}$$

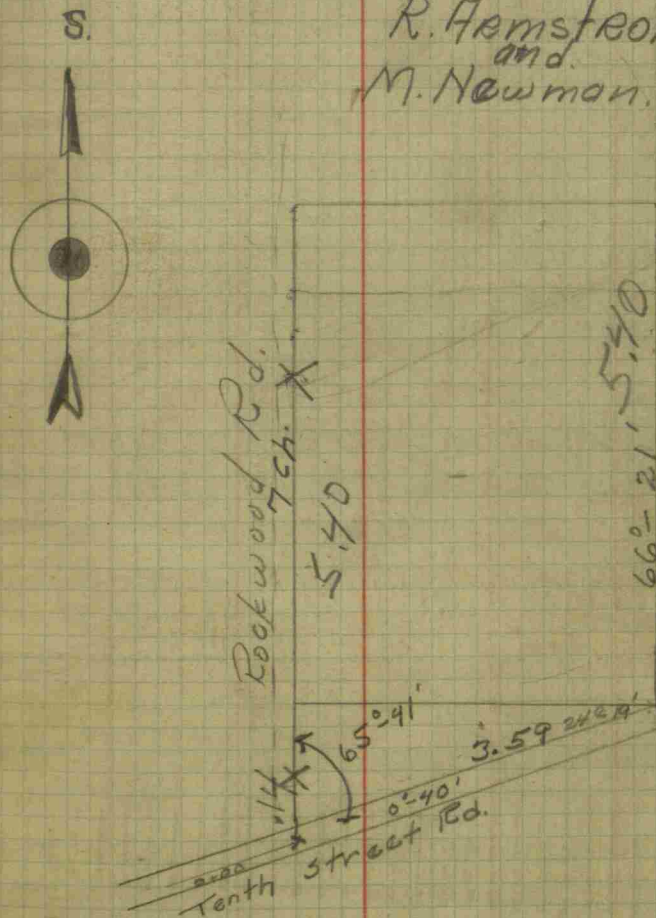
$$\sin 24^{\circ}19' = \frac{x}{3.59}$$

$$x = 3.59 \times .412$$

$$x =$$

PARSON'S SURVEY' 61

Mar. 18, 1938

R. Hemstrom
and
M. Newman.

76

El. W. side ditch	6.99	stake
" E Road "	6.20	5.48
B. Side of Road	7.32	
	6.98	

$$\begin{array}{r} 20 \\ 26 \\ \hline 1.20 \\ 6.5 \\ 1.90 \\ \hline 1.95 \end{array}$$

77

$$\begin{array}{r} 6.50 \\ 1.20 \\ 1.95 \\ \hline 9.65 \end{array}$$

El.

78

$$\begin{array}{r}
 1799 \\
 \underline{1140} \\
 71960 \\
 1799 \\
 \underline{1799} \\
 43560 \overline{) 2050860} \quad 48 \\
 \underline{64240} \\
 408260 \\
 \underline{548480} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1140 \\
 \underline{220} \\
 920
 \end{array}$$

$$\begin{array}{r}
 1140.1 \\
 \underline{220} \\
 920.1
 \end{array}$$

$$\begin{array}{r}
 1139.5 \\
 \underline{220} \\
 919.5
 \end{array}$$

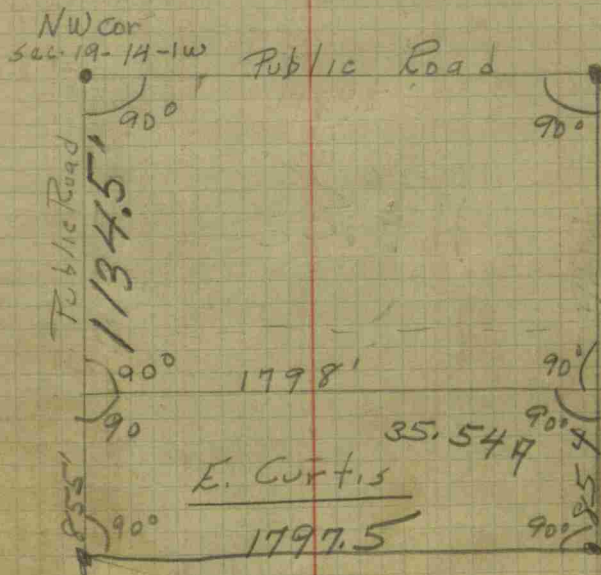
$$\begin{array}{r}
 1798 \\
 \underline{855} \\
 8990 \\
 8990 \\
 \underline{14384} \\
 43560 \overline{) 1587290} \quad 35.54 \\
 \underline{129680} \\
 240490 \\
 \underline{217800} \\
 236900
 \end{array}$$

$$\begin{array}{r}
 1799 \\
 \underline{920} \\
 35980 \\
 151810 \\
 43560 \overline{) 1554080} \quad 35.90 \\
 \underline{129680} \\
 257280 \\
 \underline{217800} \\
 394800 \\
 \underline{392040} \\
 27600
 \end{array}$$

$$\begin{array}{r}
 236900 \\
 \underline{217800} \\
 191000
 \end{array}$$

Survey for
Ethel B. Curtis
fractional section

79



3-80' Lots on west side
to river

465' from N. side of Add on
West.

5-80' Lots skipping
run

82

$$\begin{array}{r} 2645 \\ 1323 \\ \hline 7935 \\ 5290 \\ \hline 7935 \\ 2645 \\ \hline 3499335 \end{array}$$

$$\begin{array}{r} 66 \\ 80 \\ \hline 5280 \\ 660 \\ 66 \\ \hline 3960 \\ 3960 \\ \hline 43560 \end{array}$$

$$\begin{array}{r} 1323 \\ 1339 \\ \hline 11907 \\ 3969 \\ \hline 3969 \\ 1323 \\ \hline 197497 \end{array}$$

$$\begin{array}{r} 20 \\ 40.66 \rightarrow 39.66 \\ 1320 \\ 16.5 \\ \hline 1336.5 \end{array}$$

$$\begin{array}{r} 174240 \\ 290970 \\ \hline 261360 \\ 29610 \\ \hline 1322.5 \\ 2 \overline{) 2645} \end{array}$$

$$\begin{array}{r} 1322.5 \\ 2 \overline{) 2645} \end{array}$$

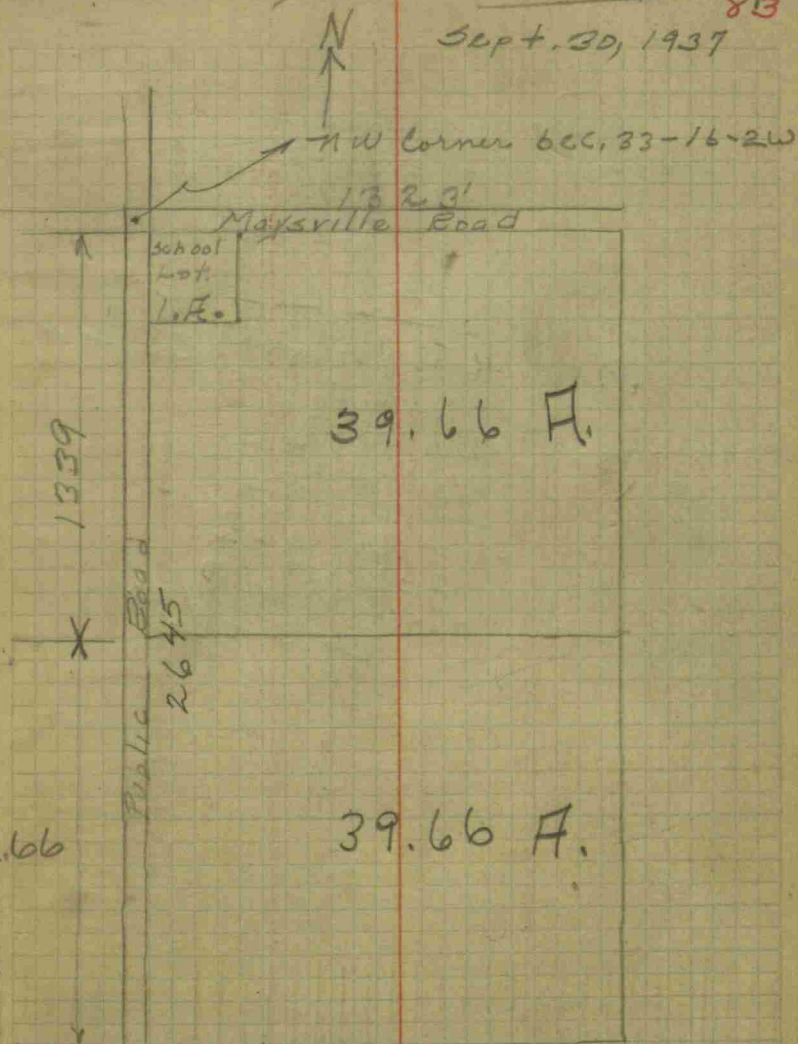
1339.0

$$\begin{array}{r} 2645 \\ 1323 \\ \hline 1306 \\ 1323 \\ \hline 3918 \end{array}$$

$$\begin{array}{r} 2612 \\ 3918 \\ 1306 \end{array}$$

$$\begin{array}{r} 43560 \overline{) 1927838} \\ \underline{130680} \\ 421038 \\ \underline{392040} \\ 289980 \end{array}$$

Survey for Mrs. ~~H.H. Hays~~ 83
Sept. 30, 1937



7/25

712,5

25625

14250

7125

64125

$$\begin{array}{r}
 43560 \quad | \quad 650 \quad | \quad 5625 \quad | \quad 15.16 \\
 \hline
 43560 \\
 224556 \\
 \hline
 217800
 \end{array}$$

67562

43560

240000

136

130

57

86

87

3499335

88

4 hrs. @ 75¢ = 4.50
 Field 6 hrs. @ 1.50 = 9.00
 25.0 mi @ 10¢ = 2.50

5 hr office 1.00

16.05
 5.00
 21.05

40

21.45

11.5

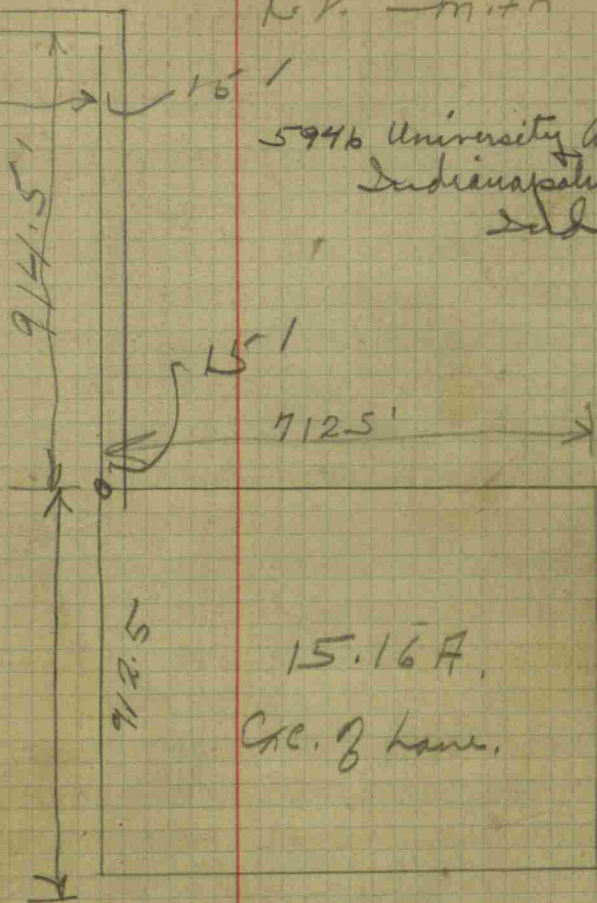
21.45

11.50

Stone

R.P. Smith 89

5946 University Ave
 Indianapolis
 Ind.



15.16 A.
 CAC. of Lane.

92

Plainfield Grade School
Survey

April, 4, 1938

R.W. Armstrong

M. Newman

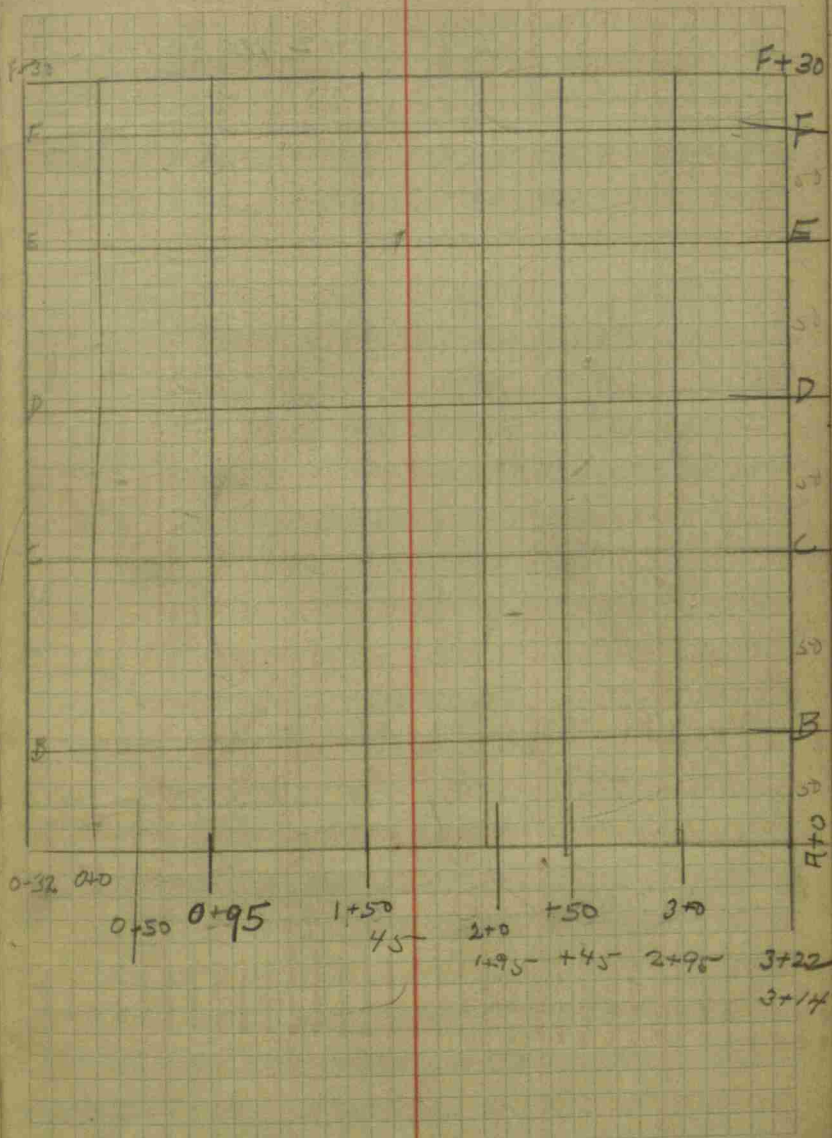
N



3+22

3+22

93



94

Plainfield Grade School

-	+	BM
112.42	12.42	100.00

1.87

110.55

110.96 0.41

#4 BM on SE. Cor. Sidewalk at alley
into School

95

#1

111.44

0.98 Elev. on SE. Cor.
Coping of stairs to Basement of Grade
School South Side

110.55

1.87

#2

on sidewalk at
NW. Cor. of School house

101.55

9.39

#3
Elev. on top of
Screw Valve of Fire Hydrant at NW
Corner of School Lot

96

B

97

0-105.85

50-109.24

110

Private Ditch
Glen Nav. Boone Co.

+	+	-	BM	Notes
2.97	102.97		100.00	at head of ditch

0+0

1+0

3+0

4+0

6+0

7+0

8+0

7.58 108.30 2.25 100.72

9+0

10+0

11+0

12+0

13+0

5+K

Ground III

Fl. Ditch = $\frac{99.67}{9.30}$

99.07

3.90

99.72

3.25

99.47

3.50

100.02

2.95

100.22

2.75

100.72

2.25

101.25

7.05

102.05

6.25

102.20

6.10

102.22

6.08

103.00

3.30

Bank Ditch = $\frac{99.67}{3.35}$

98.65

4.26

98.52

4.45

99.17

3.80

99.67

3.80

100.07

2.90

100.30

8.00

101.06

7.24

101.28

7.02

101.40

6.90

102.05

6.25

112	+	π	-	BM
		10830		
1410				
1510				
1610				
1710				
1810				
	5.53	111.51	2.32	105.98
1910				
2010				
2110				
2210				
2410				
2610				

5+K	Ground	113
104.00	103.20	
4.30	5.10	
105.50	104.40	
2.80	3.90	
105.98	104.99	
2.32	3.31	
105.60	104.65	
2.70	3.65	
105.98	105.10	
2.32	3.20	
106.41	105.51	
5.10	6.00	
106.61	105.46	
4.90	5.85	
106.96	106.16	
4.55	5.35	
107.71	106.71	
3.80	4.80	
109.61	108.56	
1.90	2.95	
	107.96	
	3.55	

114

+	∩	-	BM	off str
5.22	118.22		103.00	#13

Ground

115

10 1.47

6.75

10 1.82

6.40

116

117

10076

9491

535

10018

9496

522

10023

9501

522

10028

9506

522

10028

9506

522

10016

9481

535

10005

9486

519

10044

9511

522

10044

9516

528

9563

9476

87

$$\begin{array}{r}
 325 \overline{) 87.00} \\
 \underline{650} \\
 2200 \\
 \underline{1950} \\
 3500
 \end{array}$$

118

$$\begin{array}{r} 9322 \\ 108 \\ \hline 9414 \end{array}$$

$$\begin{array}{r} 9256 \\ 9214 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 10277 \\ 429 \\ \hline 9848 \end{array}$$

$$\begin{array}{r} .21 \\ .35 \\ \hline .56 \\ .63 \\ \hline 1.19 \end{array}$$

$$\begin{array}{r} 32 \times 15 = 160 \\ 36 \times 23 = 828 \\ \hline 372 \end{array}$$

14

$$\begin{array}{r} 9811 \\ 9253 \\ \hline 558 \end{array}$$

$$\begin{array}{r} 9822 \\ 9258 \\ \hline 564 \end{array}$$

$$\begin{array}{r} 11277 \\ 381 \\ \hline 98.96 \end{array}$$

$$\begin{array}{r} 9221 \\ 6.75 \\ \hline 98.11 \end{array}$$

$$\begin{array}{r} 10277 \\ 402 \\ \hline 9873 \\ 92.32 \\ \hline 641 \end{array}$$

$$\begin{array}{r} 10277 \\ 4.66 \\ \hline 98.11 \end{array}$$

$$\begin{array}{r} 10277 \\ 4.55 \\ \hline 98.11 \end{array}$$

121

$$\begin{array}{r} 10476 \\ 529 \\ \hline 9947 \end{array}$$

$$\begin{array}{r} 10476 \\ 5.46 \\ \hline 9930 \end{array}$$

$$\begin{array}{r} 10476 \\ 520 \\ \hline 9956 \end{array}$$

$$\begin{array}{r} 10476 \\ 533 \\ \hline 9961 \end{array}$$

$$\begin{array}{r} 10476 \\ 518 \\ \hline 9972 \end{array}$$

$$\begin{array}{r} 10476 \\ 511 \\ \hline 9961 \end{array}$$

$$\begin{array}{r} 9961 \\ 4452 \\ \hline 509 \end{array}$$

$$\begin{array}{r} 9972 \\ 9458 \\ \hline 514 \end{array}$$

$$\begin{array}{r} 9956 \\ 9469 \\ \hline 487 \end{array}$$

$$\begin{array}{r} 9319 \\ 9263 \\ \hline .56 \end{array}$$

$$\begin{array}{r} 91.85 \\ 25 \\ \hline 92.10 \end{array}$$

$$\begin{array}{r} 9947 \\ 9474 \\ \hline 469 \end{array}$$

$$\begin{array}{r} 10277 \\ 880 \\ \hline 93.97 \end{array}$$

$$\begin{array}{r} 93.97 \\ 91 \\ \hline 93.06 \end{array}$$

$$\begin{array}{r} 93.06 \\ 58 \\ \hline 92.56 \end{array}$$

$$\begin{array}{r} 92.56 \\ 46 \\ \hline 92.10 \end{array}$$

$$\begin{array}{r} 92.10 \\ 46 \\ \hline 91.64 \end{array}$$

$$\begin{array}{r} 9958 \\ 9478 \\ \hline 480 \end{array}$$

$$\begin{array}{r} .83 \\ .08 \\ \hline .91 \end{array}$$

$$\begin{array}{r} 9965 \\ 9482 \\ \hline 483 \end{array}$$

$$\begin{array}{r} 9848 \\ 9242 \\ \hline 606 \end{array}$$

$$\begin{array}{r} 10277 \\ 1014 \\ \hline 92.63 \end{array}$$

$$\begin{array}{r} 10277 \\ 972 \\ \hline 93.05 \end{array}$$

$$\begin{array}{r} 10277 \\ 758 \\ \hline 93.19 \end{array}$$

$$\begin{array}{r} 10277 \\ 955 \\ \hline 9322 \end{array}$$

$$\begin{array}{r} 10277 \\ 880 \\ \hline 9397 \end{array}$$

$$\begin{array}{r} 9397 \\ 91 \\ \hline 9306 \end{array}$$

$$\begin{array}{r} 9306 \\ 50 \\ \hline 9256 \end{array}$$

124

SPEEDWAY TERRACE

BS HI FS EI

108.21

20+00		4.25	103.96
21+00		3.95	104.26
22+00		3.56	104.65
23+00		3.29	104.92
T	3.72	108.64	
23+30		3.72	104.92
24+00		3.60	105.04
25+00		3.65	104.99
26+00		3.63	105.01
27+00		3.80	104.84
28+00		4.00	104.64
29+00		4.45	104.19
30+00		5.07	103.57
31+00		6.30	102.34
32+00		6.68	101.96
33+00		7.22	101.42
34+00		6.95	101.69
35+00		6.15	102.49
36+00		4.65	103.99
		3.30	105.34

104.92

98.59

6.33

18.6"

125

126

SPEEDWAY TERRACE
B5 H1 F5 E1

B.M. #8

			103.38
1.10	104.48		98.35
	104.39	6.13	110.61
6.04	104.65		
1+00		5.80	98.59
2+00		5.68	98.71
3+00		5.70	98.69
4+00		5.45	98.94
5+00		5.00	99.39
6+00		4.42	99.97
7+00		3.95	100.44
8+00		3.55	100.84
9+00		3.15	101.24
10+00		2.90	101.49
11+00		2.63	101.76
π	6.45	108.21	
12+00		6.15	102.06
13+00		5.95	102.26
14+00		5.65	102.56
15+00		5.45	102.76
16+00		5.18	103.13
17+00		4.95	103.26
18+00	v	4.70	103.51
19+00		4.50	103.71

Cont: P. 124

back

127

M.H 0+00 14.5' to F.L.

128

Allison Street Levels

Sta #	BS	HI	FS	LI
B.M. 12				107.42
π	0.90	108.32		
			3.50	104.82
0+00			4.30	104.02
0+00			4.10	104.22
1+00			3.91	104.41
2+00			4.25	104.07
3+00			4.00	104.32
4+00			3.90	104.42
5+00			3.60	104.72
5+00			3.55	104.77
6+00			3.72	104.60
7+00			3.50	104.82
π	4.70	109.52		
8+00			4.45	105.07
9+00			4.90	104.62
10+00			4.70	104.82
10+00			4.32	105.20
11+00			4.80	104.72
11+41			4.65	104.87

129

E. 16th & Allison

E. Sidewalk

E. Sidewalk

E. Sidewalk

104.02
79.60
-4.62

130

Winton Street Levels
North From 16th St

Sta	BS	HI	FS	EI
BM #11				106.19
π	2.73	108.92		
			4.10	104.82
0+00			5.50	103.42
0+00			5.20	103.72
1+00			5.33	103.59
2+00			5.04	103.88
3+00			4.90	104.02
4+00			4.76	104.16
5+00			4.47	104.45
5+00			4.27	104.65
6+00			4.54	104.38
π	5.10	109.48		
7+00			5.06	104.42
8+00			5.05	104.43
9+00			5.30	104.18
9+78			4.06	105.42

131

E 16th & Winton

E. Sidewalk

E. Sidewalk

103.42
79.60
23.82

132

Presto Street Levels

Sta #	BS	HI	FS	El
BM 10				105.17
π	3.13	108.30		
			3.85	104.45
0+00			5.16	103.14
0+00			4.83	103.47
1+00			4.91	103.39
2+00			5.05	103.25
3+00			5.00	103.30
4+00			5.05	103.25
5+00			4.70	103.60
5+00			4.46	103.84
6+00			4.83	103.47
7+00			4.65	103.65
8+00			5.00	103.30
8+34			5.30	103.00

133

E 16th & Presto

E. Sidewalk

E. Sidewalk

103.
 79.60
 23.40

134

Fisher Street Levels
North From 16th St.

Sta	BS	HI	FS	EL
BM #10				105.17
7	2.55	107.72		
			3.95	103.77
0+00			5.00	102.72
0+00			4.65	103.07
1+00			5.10	102.62
2+00			5.10	102.62
3+00			4.82	102.90
4+00			4.63	103.09
5+00			4.85	102.87
5+00			4.32	103.40
6+00			5.10	102.62
6+89			4.28	103.44

135

E 16th & Fisher

E. Sidewalk

E. Sidewalk

10262
7960
23 02

136

W-16th Street Levels

Sta #	BS	HI	FS	EI
BM #6				101.54
π	2.60	104.14		
BM #8			0.76	103.38
π	2.51	105.89		
0+00			5.10	100.79
1+00			3.81	102.08
2+00			3.75	102.14
3+00			3.58	102.31
4+00			3.35	102.54
5+00			3.52	102.37
5+00			4.70	101.19
6+00			3.67	102.22
7+00			3.44	102.45
π	4.95	107.40		
8+00			4.54	102.86
BM #9			2.87	104.53
9+00			4.47	102.93
10+00			3.84	103.56
10+00			4.81	102.59
11+00			3.61	103.79
12+00			3.70	103.70
13+00			3.66	103.74
π	4.25	107.99		
BM #10			2.82	105.17

137

S.W. Cor Main & 16th - Top Fire Plug

S. Edge Curb

Top Fire Plug Cor 16th & Auburn St.

S. Edge Curb

Top Fire Plug 13+00

138

W-16th Street Levels

Sta	BS	HI	FS	El
		107.99		
14+00			3.95	104.04
15+00			3.31	104.68
15+00			4.78	103.21
16+00			3.45	104.54
17+00			3.65	104.34
π	5.00	109.34		
BM 11			3.15	106.19
18+00			4.50	104.84
19+00			3.97	105.37
20+00			3.88	105.46
20+00			5.18	104.16
21+00			4.64	104.70
22+00			4.56	104.78
BM 12			1.92	107.42
23+00			4.55	104.79
24+00			4.44	104.90
25+00			3.67	105.67
26+00			3.32	106.02
26+47.7			3.21	106.13
25+00			4.65	104.69
	1.74	105.12		103.38
			5.17	99.95

139

S. Edge Curb Sidewalk

SE Cor Winton & 16th Top Fire Plug

S. Sidewalk

Top Fire Plug 22+00

S. Sidewalk

E. Side of Ring of Manhole
SE Cor 16th & Main

100.79
99.60
21.19

140

Auburn Street Levels
North off 16th St.

Sta	BS	HI	FS	EI
BM #9				104.53
π	2.54	107.07		
			4.14	102.93
0+00			5.35	101.72
0+00			4.78	102.29
1+00			5.61	101.66
2+00			5.45	101.62
3+00	x		5.13	101.94
4+00			5.10	101.97
5+00			4.84	102.23
5+63.5			4.50	102.57

141

☒ Auburn & 16th

W. Sidewalk

R.R. Right of Way

$$\begin{array}{r} 101.72 \\ 79.60 \\ \hline 22.12 \end{array}$$

142

W-15th Street Levels

Sta	BS	HI	FS	EI
B.M. #3				101.07
π	2.54	103.61		
B.M. #6			2.07	101.54
π	2.90	104.44		
0+00			5.60	98.84
0+00			5.85	98.59
1+00			5.05	99.39
2+00			4.80	99.64
3+00			4.63	99.81
4+00			4.41	100.03
5+00			4.12	100.32
5+00			4.62	99.82
6+00			4.00	100.44
7+00			3.71	100.73
8+00			3.48	100.96
π	5.33	106.29		
9+00			5.00	101.29
10+00			4.77	101.52
10+00			5.07	101.22
11+00			4.60	101.69
12+00			4.15	102.14
13+00			3.85	102.44
14+00			3.56	102.79
15+00			3.30	102.99
15+00			3.64	102.65

143

Top Fire Plug Main & 15th

S. Edge Curb

S. Edge Curb

S. Edge Curb

S. Edge Curb

98.59
 79.60
 15.99

144

W-15th Street Levels

Sta	BS	HI	FS	EL
		106.29		
16+00			2.97	103.32
	4.10	107.42		
17+00			3.90	103.52
18+00			4.21	103.21
19+00			4.25	103.17
20+00			4.45	102.97
20+00			4.66	102.76
21+00			4.48	102.94
22+00			4.52	102.90
23+00			4.55	102.87
24+00			4.75	102.67
25+00			4.88	102.54
25+00			5.07	102.35
26+00			5.15	102.27
26+50.7			5.25	102.17
B.M. #7			1.82	105.60

145

S. Edge Curb

S. Edge Curb

Top Fire Plug 26+50.7

102.17
 79.60
 22.57

146 W. 14th Street Levels
West From Winton St.

Sta.	B.S.	H.I.	F.S.	EI
				101.54
π	5.72	107.26		
B.M.#4			2.71	104.55
0+00			4.65	102.61
1+00			4.90	102.36
1+00			4.65	102.61
2+00			4.61	102.65
3+00			4.35	102.91
4+00			4.25	103.01
5+00			4.23	103.03
5+00			3.90	103.36
π	2.01	105.37		
6+00			3.45	101.92
7+00			6.32	99.05
8+00			7.53	97.84
9+00			8.10	97.27
10+00			8.71	96.66
10+00			9.05	96.32
11+00			9.40	95.97
11+26			9.46	95.91
		103.61		
B.M.#5			2.60	101.01

Speedway City

147

S. Edge Curb - Winton & 13 St.

Top Fire Plug SE Cor. Winton & 14th

S. Edge Sidewalk

S. Edge Sidewalk

S. Edge Sidewalk

Top Fire Plug Main & 14th

95.91
79.60
16.31

148

Sta.

B.M.#1

TI

0+00

1+00

2+00

3+00

4+00

5+00

6+00

7+00

8+00

9+00

10+00

10+16

Ford Street Levels

B.S. H.I. F.S. E.I.

3.42 103.42

5.18 98.24

4.81 98.61

4.55 98.87

4.36 99.06

4.15 99.27

3.70 99.72

3.58 99.84

4.18 99.24

6.06 97.36

5.76 97.66

7.00 96.42

6.95 96.47

3.30 103.30

23.70 79.60

✓100.00

✓

Speedway City

149

Top Fire Plug Cor. Ford & Main Streets.

El. Present Sewer Running East And
Originating Between 11th & 12th In Main St.
F.I.

96.42
79.60
16.82

150

West 11th St. Levels

Sta	BS	HI	FS	EL
BM [#]				100.00
Xi	4.03	104.03		
0+00			3.80	100.23
0+94.5				
1+00			4.40	99.63
2+00			4.81	99.42
3+00			4.48	99.55
4+00			4.17	99.86
5+00			4.10	99.93
6+00			3.90	100.13
7+00			3.87	100.16
8+00			3.60	100.43
8+30.5			3.40	100.63

103.42

4.70

99.72

151

West Cor. Top Catch Basin

23.70

19.50

4.20

79.60

19.50

99.10

103.42

4.20

99.22

152

W. 11th Street Levels

Sta	B.S.	H.I.	F.S.	El
B.M. #1				100.00
A.	2.52	102.52		
0+00			3.65	98.87
0+94.5			4.26	98.26
1+00			4.26	98.26
2+00			4.50	98.02
3+00			4.35	98.17
4+00			4.05	98.47
5+00			4.00	98.52
6+00			3.80	98.72
7+00			3.75	98.77
8+00			3.40	99.12
8+30.5			3.20	99.30
8+30.5			3.65	98.87
8+30.5			3.60	
5+00			4.35	
5+00			4.40	
			3.90	98.62

Speedway City

153

Top Fire Plug Cor Ford & Main

Curve In Street

S.E. Cor Curb

N.E. Cor Curb

N. Edge Curb

S. Edge Curb

Manhole Cover

$$\begin{array}{r} 98.02 \\ 79.60 \\ \hline 18.42 \end{array}$$

154 W. 12th Street Levels

Sta	BS	HI	FS	EL
				99.10
	4.86	103.96		
BM #2			2.45	101.51
0+00			5.05	98.91
0+00			4.83	99.13
1+00			4.51	99.45
2+00			4.10	99.86
3+00			4.00	99.96
π	4.73	104.69		
4+00			4.60	100.09
5+00			4.72	99.97
5+00			4.43	100.26
6+00			4.46	100.23
7+00			4.51	100.18
8+00			4.66	100.03
9+00			4.89	99.80
10+00			4.52	100.17
10+00			4.50	100.19
11+00			4.21	100.48
12+00			3.82	100.87
13+00			2.52	102.17
13+36.5			2.50	102.19

1.26

Speedway City

155

99.10 Top Outside Rim Manhole No. C.H. & D.P.P.

101.51 Top Fire Plug Cor Main & 12th Sts.
S. Edge Curb

S. Edge Sidewalk

S. Edge Sidewalk

98.91
79.60
19.31

156

W 13th Street Levels

Sta	B.S.	H.I.	F.S.	El.
0+00		103.96	5.70	98.26
π	5.76	104.02		
B.M. #3			2.95	101.07
1+00			5.42	98.60
2+00			5.14	98.88
3+00			4.87	99.15
4+00			4.84	99.18
			6.05	97.97
5+00			4.44	99.58
6+00			4.15	99.87
7+00			3.92	100.10
π	5.35	105.45		
8+00			5.30	100.15
9+00			5.10	100.35
10+00			4.91	100.54
10+00			5.00	100.45
11+00			4.83	100.62
12+00			4.25	101.20
13+00			4.18	101.27
14+00			4.01	101.04
15+00			3.80	101.65
15+00			3.88	101.57
16+00			3.55	101.90
π	0.90	102.80		
17+00			0.64	102.16

Speedway City

157

N. Edge Curb 0+00

Top Fire Plug 0+15

S. Edge Curb

S. Edge Curb

158

W. 13th Street Levels

Sta	BS	HI	FS	EI
		102.80		
18+00			0.63	102.17
19+00			2.83	99.97
20+00			4.67	98.13
20+00			4.80	98.00
21+00			5.40	97.40
22+00			5.90	96.90
23+00			6.25	96.55
24+00			6.70	96.10
25+00			7.21	95.59
25+00			7.50	95.30
26+00			7.75	95.05
27+47.7			8.15	94.65

Speedway City

159

S. Edge Curb

$$\begin{array}{r}
 2750 \\
 \underline{\quad .2} \\
 5500 - .2 \text{ Grade} \\
 7.00 - \text{Sewer Depth} \\
 \hline
 12.50 \text{ Total}
 \end{array}$$

$$\begin{array}{r}
 \text{Low } 94.65 \\
 \text{Fl} - 79.60 \\
 \hline
 15.05 \\
 18.50 \\
 \hline
 2.55
 \end{array}
 \quad
 \begin{array}{r}
 100 \\
 94.65 \\
 \hline
 5.35
 \end{array}$$

$$\begin{array}{r} 104.76 \\ 9.30 \\ \hline 95.46 \\ 1.08 \\ \hline 94.38 \end{array}$$

$$\begin{array}{r} 104.76 \\ 94.47 \\ \hline 10.29 \\ .01 \end{array}$$

$$\begin{array}{r} 9.30 \\ 1.01 \\ \hline 8.29 \end{array}$$

$$\begin{array}{r} 3.75 \\ 14.64 \\ \hline 18.39 \\ 2.15 \end{array}$$

$$\begin{array}{r} 4.00 \\ 1.64 \\ \hline 2.36 \\ 2.40 \end{array}$$

$$\begin{array}{r} 104.76 \\ 95.56 \\ \hline 9.20 \end{array}$$

$$\begin{array}{r} 104.76 \\ 94.47 \\ \hline 10.29 \\ .01 \end{array}$$

$$\begin{array}{r} 94.38 \\ 9.30 \\ \hline 103.68 \end{array}$$

$$\begin{array}{r} 94.38 \\ 1.08 \\ \hline 95.46 \end{array}$$

$$\begin{array}{r} 9.30 \\ 9.24 \\ \hline .06 \end{array}$$

$$\begin{array}{r} 104.76 \\ 94.47 \\ \hline 10.29 \\ .01 \end{array}$$

$$\begin{array}{r} 104.76 \\ 94.47 \\ \hline 10.29 \\ .01 \end{array}$$

$$\begin{array}{r} 104.76 \\ 94.47 \\ \hline 10.29 \\ .01 \end{array}$$

C.M.P.

Cop. steel. (16 Gauge)
 12" - 64¢
 15" - 78¢
 18" - 90¢
 21" - 1.05

9892
 91.72
 7.20

$$\begin{array}{r} 104.20 \\ 5.28 \\ \hline 98.92 \end{array}$$

$$\begin{array}{r} 104.20 \\ 5.62 \\ \hline 98.58 \end{array}$$

$$\begin{array}{r} 104.20 \\ 7.42 \\ \hline 96.78 \end{array}$$

$$\begin{array}{r} 104.20 \\ 5.47 \\ \hline 98.73 \end{array}$$

$$\begin{array}{r} 12 \\ 6 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 9858 \\ 91.59 \\ \hline 6.99 \end{array}$$

$$\begin{array}{r} 9820 \\ 9153 \\ \hline 6.67 \end{array}$$

$$\begin{array}{r} 10315 \\ 9429 \\ \hline 8.86 \end{array}$$

$$\begin{array}{r} 9873 \\ 91.85 \\ \hline 6.88 \end{array}$$

72
 23
 49
 9678
 9147
 531
 5 + 63.5
 26 + 47.7
 549
 10308
 9435
 8.73
 10308
 904
 94.04
 18
 40
 0720
 Allison - Allison 13 - 5.87
 103108 10279
 93.29
 9.49
 4560
 3215
 1345
 10308
 9407
 901
 9240
 1460
 7180
 10308
 759
 95.49
 94.04
 1.45
 10420
 11.25
 92.95
 91.47
 1.48
 282
 858
 9221
 108
 7329
 282 1.45
 780
 6700
 5240
 460

16.5
14
660
145
2312

100.21
0.02

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.
FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.5	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.

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