1095

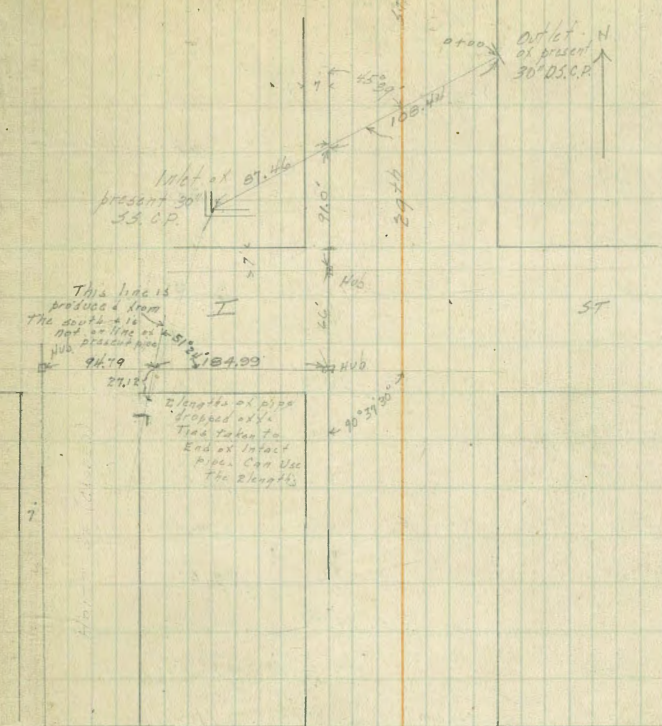
FIELD BOOK

385

1/27/22 Gregory Moore Miller Shaw — Survey & Levels Culvert at 29th bet Market & I Sts.

		11.47	125.30		113.83	B.P. SW 30th & I
		4.67	129.18	0.79	124.51	
		0.15	116.41	12.92	116.26	
		1.16	106.47 -HI	11.10	105.31	
0+00 = Outlet				6.28	~~99~~ 100.19	Flow line at outlet
0+00	Culvert is full of sand			5.1	101.4	on grade
0+50				4.9	101.6	
1+00				5.7	100.8	
+50				6.0	100.5	
+90				6.6	99.9	
+95.40 = Inlet of pipe under I St				7.69	98.78	Flow Line

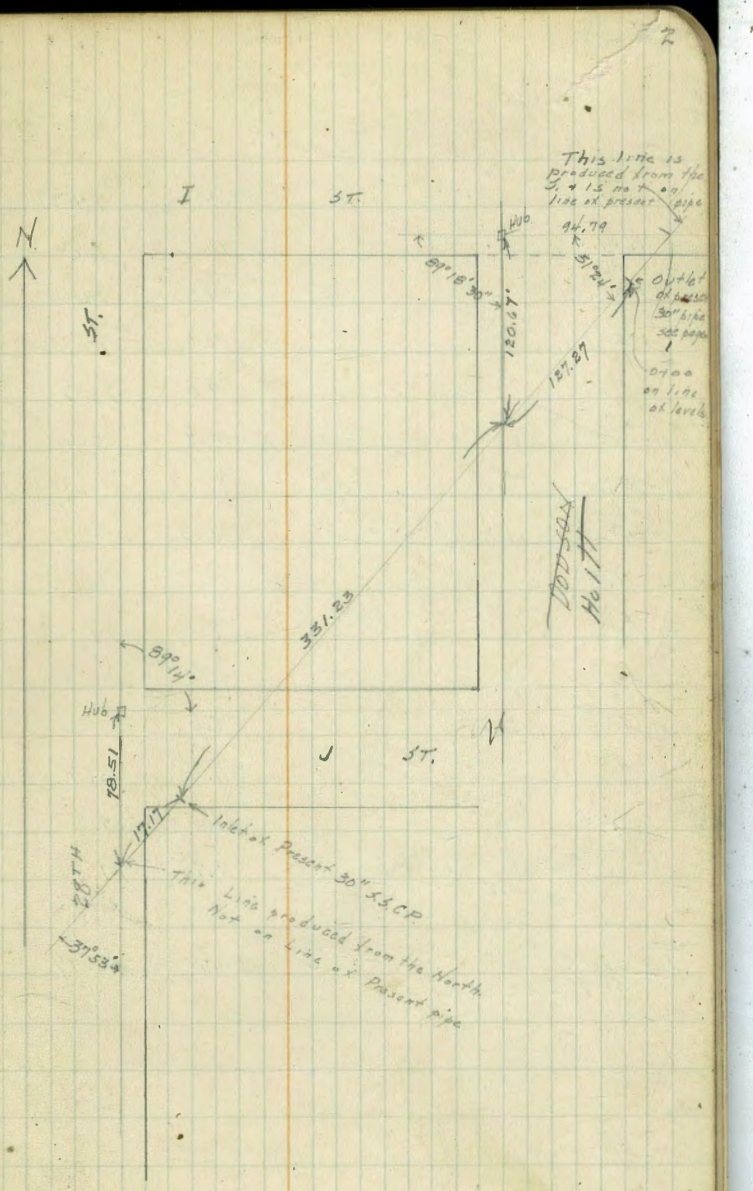
10386 T.P.



4/27/12 — Gregory, Mootz, Miller, Shaw

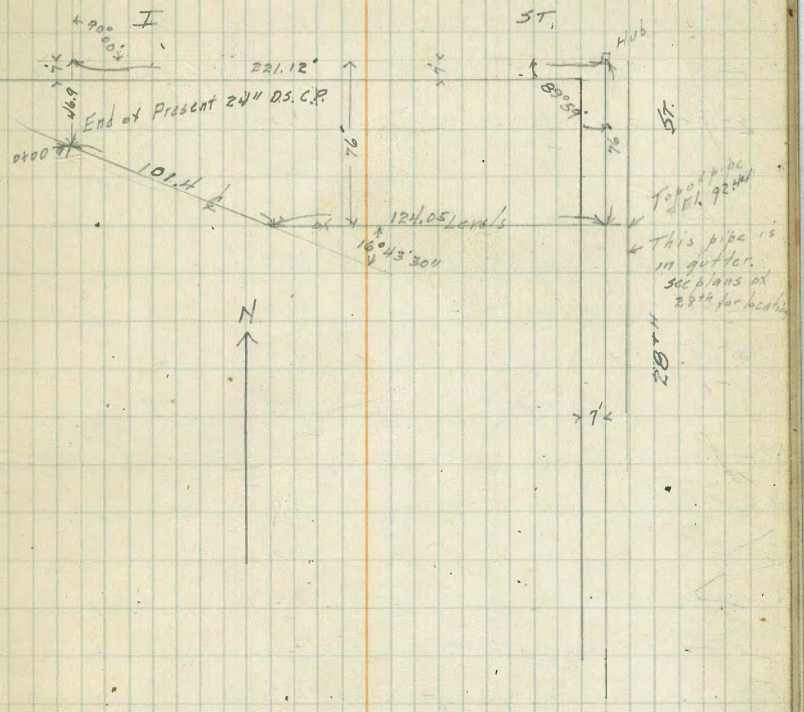
Survey + Levels Culvert

		From End of Present 30" pipe at I + Hoitt Sts	To End of present pipe on 28th + J Sts	
on T.P.	0.11	103.97		103.86
0+00			9.0	94.95 Flow Line
0+09.0			9.6	93.4
0+10.0			12.0	92.0
0+36			12.7	91.3
+40			9.3	94.7
+57			10.3	93.7
+61			12.0	92.0
+90			13.4	90.6
+94			11.4	92.6
I			11.4	92.6
+75			11.7	92.3
+50			12.3	91.7
TP	4.76	94.02	12.76	91.26
2			3.6	90.4
+50			4.2	89.8
3			4.5	89.5
+50			5.4	88.6
+90			6.4	87.6
4+02.0			5.0	89.0
4+20			4.8	89.2
+45			6.2	87.8
+58.5 =	Inlet	Present 30" pipe at 28th	9.77	84.25 Flow Line



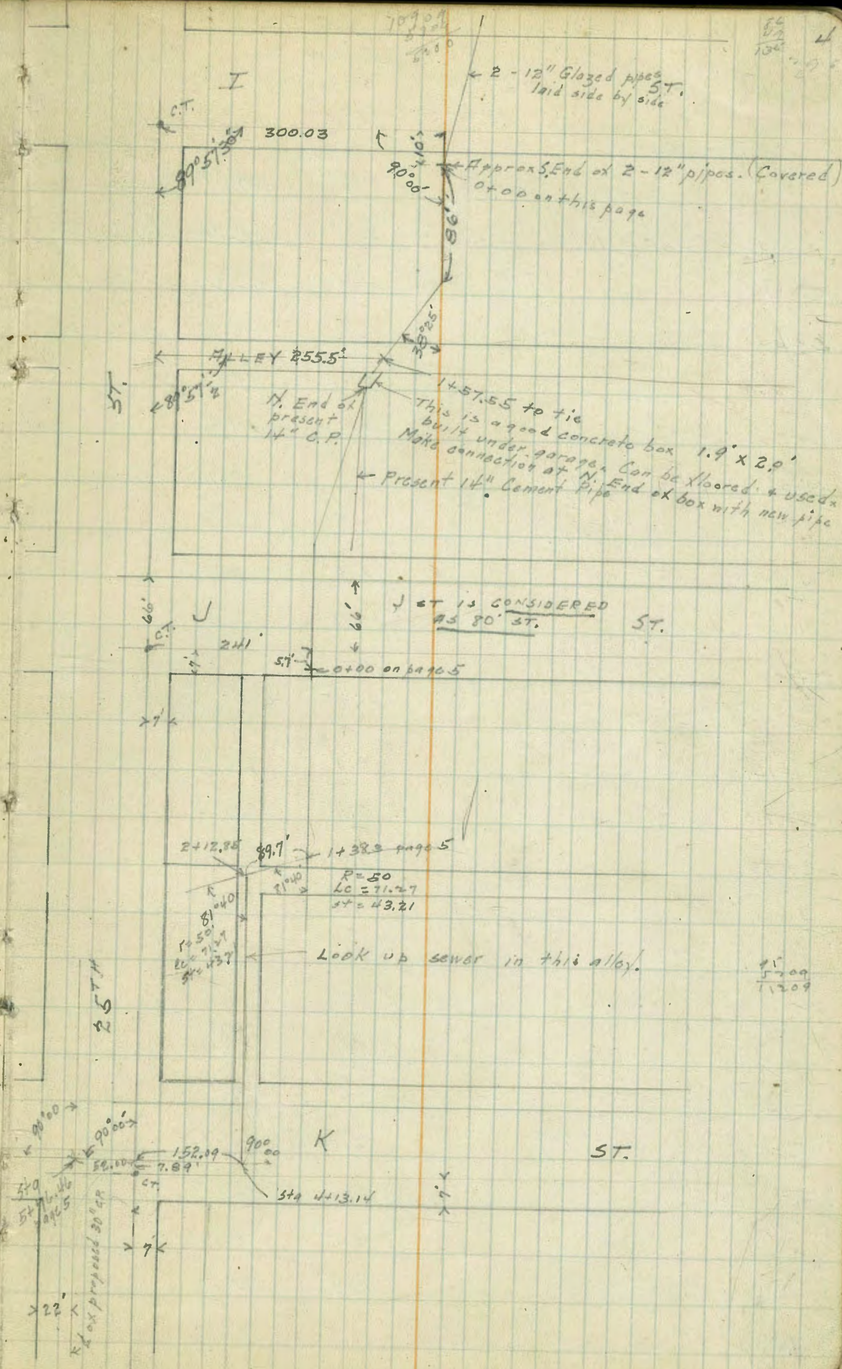
1/27/26 Gregory Moore Miller Shaw — Survey + Levels Culvert at 28th + I sts.

	0.67	103.34		102.67	Mon SE 28th + I.
0+00			9.08	94.26	Flow Line
+ 01.0			11.1	92.2	
+ 20.0			9.3	94.0	
+ 50.0			9.6	93.7	
+ 75.0			9.6	93.7	
+ 80.0			10.7	92.6	
+ 89.0			11.1	92.2	
+ 90.	In garden		10.3	93.6	
1+ 01.4			10.1	93.2	
+ 50			9.3	94.0	
2+ 00			8.5	94.8	
+ 18.45 = W.L. 28th			8.0	95.3	
+ 20			7.4	95.9	
+ 25.45			7.5	95.8	
Flow Line of Pipe C.B. S.W. 28th + I.			11.95	91.39	
Top of Pipe at a point 76'S of S. 7' Line of I St.			10.90	92.44	



2/1/22 Gregory, Moore, Miller, Shaw — Survey & Levels for Drain bet 25th & 26th Sts from I St S.

on B.M.		0.34	131.01		130.67	BP NE 25th & I
		0.86	118.96	12.91	118.10	
		0.84	107.12	12.68	106.28	
0+00	= Approx. Flow Line of 2-12" pipes.			9.00		
0+00	= Ground.			3.00		
+14				4.9		
+38				7.7		
+60				8.9		
+62				9.9		
+86	Δ 38°25' R — IN GARDEN			10.2		
+90	KEEP AS			9.4		
1	LOW AS POSSIBLE			9.6		
+35				10.3		
+55				11.2		
+73.55	= N. End of Conc. box			13.1		Flow Line
+78.00	= Inlet of 14" pipe under garage			13.3		



2/1/22 Gregory, Moore, Miller, Shaw

Survey + Levels for Drain from J ST S + W To 25th + K STS

see sketch page 4

B.M.	2.00	101.87			99.87	B.P. SE. 25th + J.
0+00 = Outlet of 16" pipe on J ST.	2.14	91.39		12.62	89.25	Flow Line of 16" pipe
0+3				3.0	88.4	
0+35				2.7	88.7	
0+65				3.4	88.0	
+95.09 = P.C.				3.9	87.5	
(1+38.3) = P.I.	Δ = 81°40, r = 50, st = 43.21, lc = 71.27					
1+50				4.9	86.5	
+66.36 = E.C.				5.1	86.3	
+69.64 = P.C.				5.1	86.3	
2+00			✓	6.7	84.7	
2+09.0 P.T.	1.01	Δ = 81°40	85.53	6.87	84.52 ✓	
(2+12.85) = P.I.		r = 50, st = 43.21, lc = 71.27		1.3		
2+14				0.1	85.4	
2+40.91 E.C.				0.9	84.6	
2+90				3.2	82.3	
3				5.0	80.5	
+18.14 P.C.				5.0	80.5	
+43				3.7	81.8	
+50				5.5	80.0	
+55				6.9	78.6	
+66				7.6	77.9	
4+00				8.0	77.5	
(4+13.14) P.I.	Δ = 90°, r = 95', st = 95', lc = 149.23					
4+50				9.4	76.1	
4+67.37 PRC				9.8	75.7	
5+00				9.5	76.0	
+40				11.3	74.2	
+45				10.5	75.0	

138.3
43.21
95.09
71.27
166.36

85.53

5+50		10.4	75.1
(5+76.46) = PT	Δ = 90°, r = 109.09, st = 109.09, lc = 171.36		
6+00		12.0	73.5
+38.73 = E.C. = 2' E of W.cb		13.6	71.9
chk B.M.		8.58	76.95 = 76.93

11/12

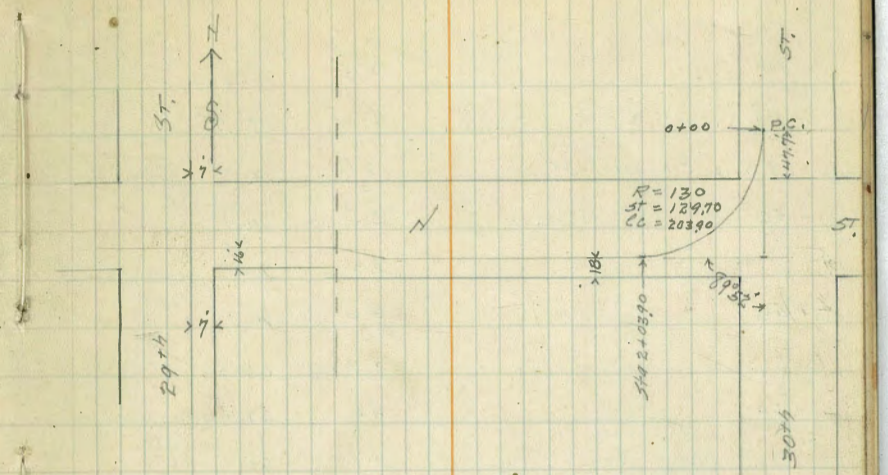
Gregory
Moore
Miller
Shaw

Levels from Drain NW of 30th N. along N ST as shown on sketch

B.M.	1.84	76.81		74.97
0+00	= P.C. on sketch		4.9	71.9
+20			5.1	71.7
+25	on curb.		4.5	72.3
+50	on cement ret.		4.6	72.2
+75			4.1	72.8
+82			4.1	72.7
+86			6.1	70.7
1+00	= Top of Ties		5.0	71.8
TP.	4.03	75.96	4.88	71.93
+25			4.3	71.7
+50			4.3	71.7
+75			3.8	72.2
2+03.9	= E.C.		4.1	71.9
+50			4.1	71.9
3			4.2	71.8
+50			4.3	71.7
4			4.5	71.5
+50			4.6	71.4
5			4.9	71.1
+50	△		4.7	71.3
6			4.9	71.1
+50			5.0	71.0
7	△		4.8	71.2
+50			5.2	70.8

Levels from here taken 16' from St. N ST.

BP NW 30th Imp.



		75.96		
8+00			5.5	70.5
T P	5.56	73.54	4.98	70.98
+12.5 = E.L. 29th St.			2.6	70.9
+50			2.7	70.8
9			3.2	70.3
+50			3.5	70.0
10			4.0	69.5
+50			4.4	69.1
11			4.7	68.8
+50			5.0	68.5
12			5.3	68.2
+50			5.4	68.1
13			6.0	67.5
+50			6.8	66.7
14			7.2	66.3
+50			7.9	65.6
15			8.1	65.4
+50			8.0	65.5
+63.7 = E.L. of Original 80' Hensley			8.4	
16				65.1
+50			8.1	65.4
17			8.1	65.4
+50			8.6	64.9

2/12/22 Gregory Moore Miller Shaw

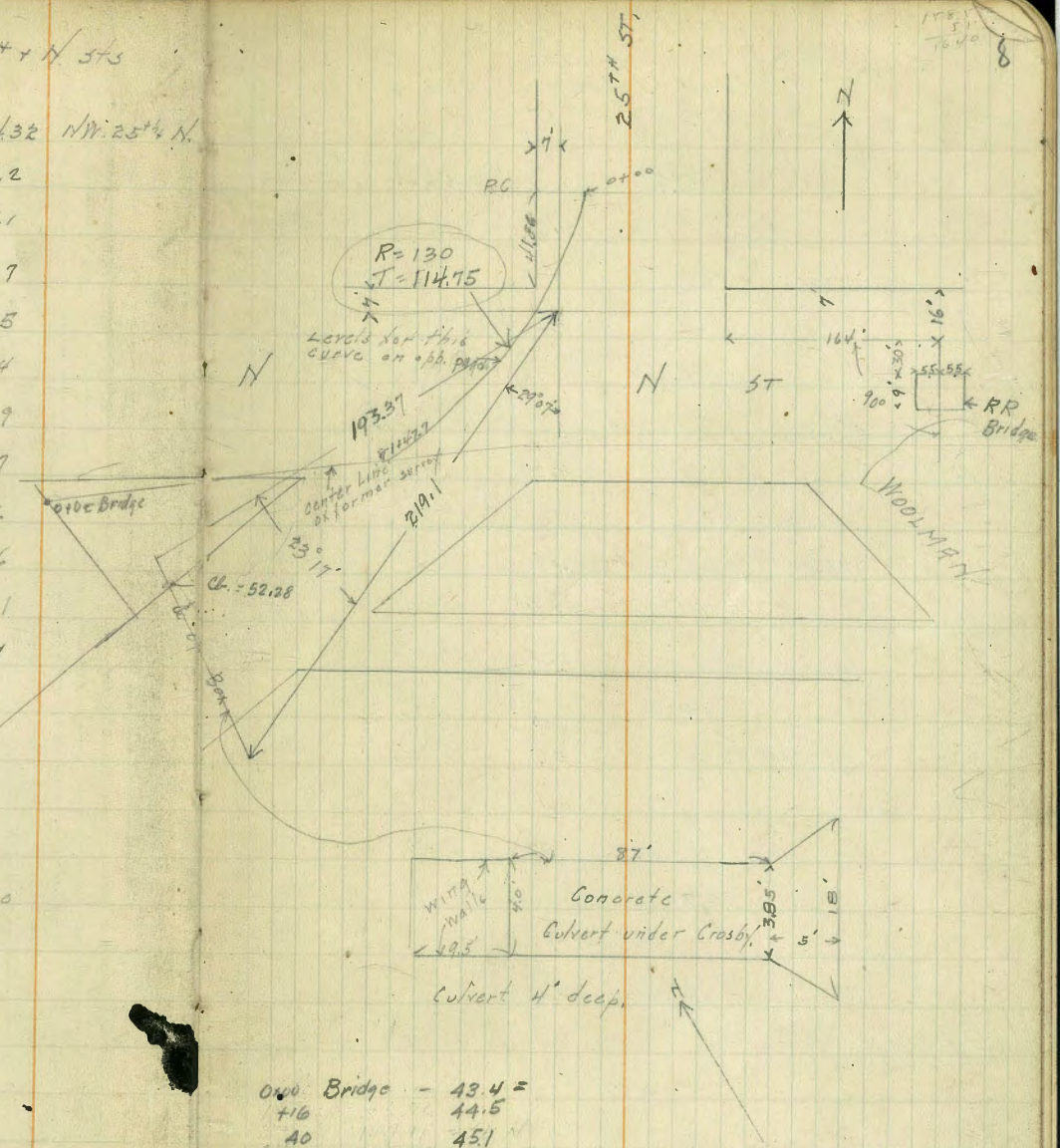
Survey & Levels for Drain etc at 25th & N 5ts

	4.23	58.55		54.32 NW. 25th & N.
0+00			4.4	54.2
+20			4.5	54.1
+25	on curb.		3.9	54.7
+50			4.1	54.5
+67.5			4.2	54.4
+68			4.7	53.9
+75			4.9	53.7
1			5.0	53.6
+17.5	= Track		5.0	53.6
+25			5.4	53.1
+47.7			5.8	52.8

Levels under R.R Bridge

58.55

N. curb Line 164' E of 25th	4.1
120' S	5.9
22' "	4.9
30' " = N. end of Ties	6.2
39' " = S. " " "	5.8
66' " of N. Curb	6.1



Ob. Bridge	43.4 =
+16	44.5
40	45.1
45	47.0
80	47.6
100	48.9
115	47.4
140	44.2
150	44.0
200	51.7
250	52.2
300	52.4

2/11/22

Gregory
Moore
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Shaw

Levels on gutters etc.
22nd ST
from IMPERIAL AVE
To N ST

	0.84	57.28	56.44

W. Imperial + 22nd

S.L. Imperial

W. in gutter	2.5
E " "	2.0
50' S	
E in gutter	3.7
W " "	4.2
100' S	
W in gutter	4.8
W Top of cement platform	3.57
E	4.8
150' S	
E in gutter	5.7
W " "	6.1
W Top of cement plat.	4.47
200' S	
W in gutter	7.1
W Top of cement platform	5.13
E in gutter	6.4
220' S	
E in gutter	7.9
250' S	
E in gutter	8.1
W " "	8.3
W Top of Cement plat.	5.77

281.4' S

W Top of cement	6.1 ~ 8.8
W in gutter	291' S of SL Imperial = End of platform
W Top of platform	8.6
300' S = NL N ST	
W in gutter	9.8
E " "	9.0

Levels on Track on N. ST.

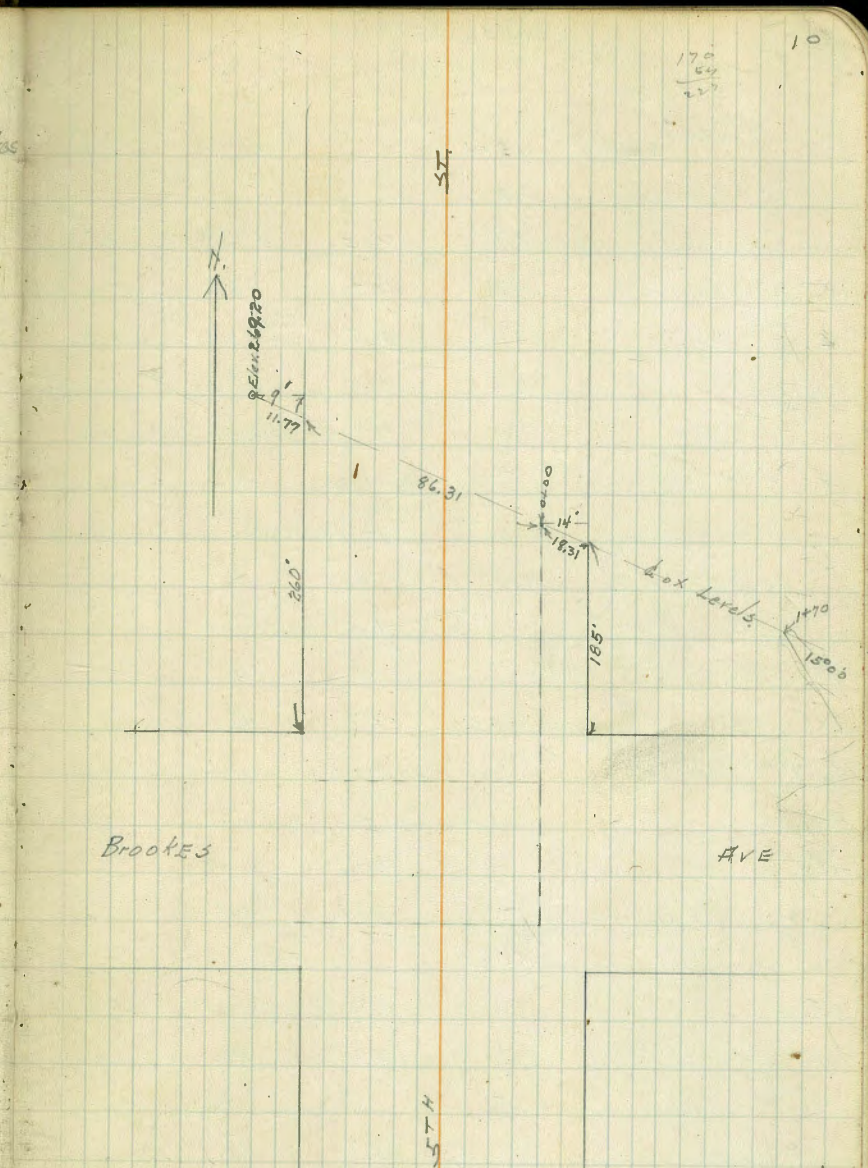
	5.37	51.90	10.75	46.53

150' W of W.L. 22nd	8.24
100 " " " "	7.38
50 " " " "	6.54
W.L. 22nd	5.62
W c/b Line	5.37
center	5.00
E.L.	4.50
50' E of E.L.	4.16
100' " " "	3.90
150' " " "	3.67

3/27/22 Gregory Moore Miller Shaw

Levels on Proposed Drain N. of 5th St Brookes and Anderson Pl.

	3.28	283.19		279.91	BP NW 5th & Brookes
0+00 = gutter on E side 5th			4.06	279.13	on para
0+00 = curb			3.65	279.54	= curb
0+17			3.7	279.5	
0+28			11.6	271.6	
T.P.	0.05	270.91	1.33	270.86	
0+42			7.7	263.2	
0+58			12.7	258.2	
T.P.	0.05	258.04	12.2	257.99	
+80			2.7	255.3	
1+10			8.0	250.0	
1+31			12.2	245.8	
T.P.	1.55	247.15	1.44	245.60	
1+70 △ pt. 15°00 R.			3.3	243.9	
1+77			4.1	242.5	
1+68			6.7	240.5	
2+95 = under westrail of Bridge			10.3	236.9	



4/18/22 Gregory Moore Miller Shaw

All distances on sections taken from W.L of Rosecrans

CROSS SECTION OF Rosecrans St from S.L. Dumas to N.L. Canon Rd for paving

4.14	48.47	44.33	SW Curtis

S.L. Dumas.

55.65' E of W.L Rosecrans = W Rail	2.85	45.62
48' ✓	2.7	45.8
33 ✓	2.5	46.0
22 ✓	2.9	45.6
16' ✓	3.7	44.8
8' ✓	1.7	46.8
W.L.	1.4	47.1

40' S. of Dumas.

W.L.	1.3	47.2
3' E	1.8	46.7
16 E	2.7	45.8
19' ✓	3.9	44.6
33' ✓	3.4	45.1
48' ✓	3.5	45.0
55.65' E = W rail	3.60	44.87

60' S

55.65' E	3.93	44.54
48' E	3.6	44.9
33' ✓	3.6	44.9
19' ✓	4.7	43.8
16 ✓	2.9	45.6
10' ✓	2.2	46.3
W.L	1.4	47.4

100' S

W.L.	2.5	46.0
16' E	3.8	44.7
20' ✓	5.1	43.4
33' ✓	4.1	44.4
48' ✓	4.1	44.4
55.65' E = W rail	4.57	43.90

200' S = N.L. Curtis

55.65' E = W rail	6.40	42.07
48' ✓	6.1	42.4
33 ✓	6.0	42.5
21' ✓	7.0	41.5
16' ✓	5.3	43.2
W.L.	4.3	44.2

N. of Curtis

W.L.	5.4	43.1
16' E	6.2	42.3
21 ✓	7.0	41.5
33' ✓	6.3	42.2
48' ✓	6.4	42.1
55.65' E	6.70	41.77

℄ of Curtis

55.65' E	6.95	41.52
48' ✓	6.8	41.7
33 ✓	6.7	41.8
24' ✓	7.3	41.2

	48.47		
16' E		6.3	42.2
W.L		5.2	43.3
	S.L. of Curtis		
W.L.		5.6	42.9
16' E		6.7	41.8
20' "		8.6	39.9
33' "		7.4	41.1
48' "		7.3	41.2
55.65' "		7.55	40.92
	75' S. of Curtis		
55.65' E		9.34	39.13
48' E		9.2	39.3
33' "		8.9	39.6
24' "		9.0	39.5
19' "		10.2	38.3
16' "		8.3	40.2
3' "		7.1	41.4
W.L		5.2	43.3
	100' S.		
W.L		5.3	43.2
5' E		8.0	40.5
10' "		8.7	39.8
12' "		11.7	36.8
16' "		12.5	36.0
20' "		12.1	36.4
23' "		9.8	38.7

33' E		9.6	38.9
48' "		9.8	38.7
55.65' E		9.97	38.50
	125' S.		
55.65' E		10.56	37.91
48' "		10.4	38.1
33' "		10.1	38.4
17' "		10.6	37.9
16' "		12.6	35.9
8' "		12.8	35.7
W.L.		7.0	41.5
	150' S.		
W.L.		8.8	39.7
6' E		11.2	37.3
7' "		13.3	35.2
13' "		13.0	35.5
16' "		11.0	37.5
33' "		10.7	37.8
48' "		11.0	37.5
55.65' E		11.17	37.30
	200' S. = W.L. Browning		
T.P. 374	39.24	12.47	36.00
55.65' E.		3.24	36.0
48' "		3.1	36.1
33' "		2.8	36.4
18' "		2.7	36.5

39.24

16' E		5.0	34.2
10' ~		4.8	34.4
9' ~		2.8	36.4
W.L.		0.4	38.8
	40' S. of W.L.		
W.L.		2.8	36.4
7' E		3.0	36.2
10' ~		5.9	33.3
16' ~		5.9	33.3
34' ~		5.6	33.6
37' ~		4.0	35.2
33' ~		4.0	35.2
48' ~		4.1	35.1
55.65' ~		4.23	35.01
	S.L. of Browning		
55.65' E		5.08	34.16
48' ~		4.8	34.4
33' ~		4.7	34.5
21' ~		5.2	34.0
20' ~		6.6	32.6
16' ~		6.8	32.4
14' ~		4.0	35.2
2' ~		2.9	36.3
W.L.		1.4	37.8
	100' S. of Browning		
W.L.		4.1	35.1

2' E		5.3	34.9
16' ~		6.5	32.7
19' ~		8.0	31.2
23' ~		8.4	30.8
34' ~		7.2	32.0
33' ~		6.8	32.4
48' ~		7.0	32.2
55.65' E		7.44	31.80
	200' S. of N.L. Alcott		
55.65' E		9.50	29.74
48' ~		9.1	30.1
33' ~		9.1	30.1
21' ~		9.0	30.2
20' ~		10.1	29.1
17' ~		10.1	29.1
16' ~		8.8	30.4
W.L.		7.3	31.9
	45' S. of W.L. Alcott		
W.L.		7.3	31.9
15' E		9.7	29.5
16' ~		11.0	28.2
20' ~		10.9	28.3
21' ~		9.9	29.3
28' ~		10.6	28.7
33' ~		10.3	28.9
48' ~		10.2	29.0
55.65' ~		10.40	28.8

	39.24		
	50 S		
55.65 E	10.49	28.75	
48 E	10.3	28.9	
33	10.4	28.8	
28	10.6	28.6	
21	10.9	28.3	
20	10.6	28.6	
16	11.0	28.2	
W.L	10.9	28.3	
	59 S		
W.L	10.2	29.0	
16 E	11.2	28.0	
20	11.5	27.7	
22	11.0	28.2	
27	10.8	28.4	
33 E	10.5	28.7	
48	10.6	28.6	
5565	10.65	28.59	
	63 S		
5565 E	10.72	28.52	
48	10.7	28.5	
33	10.6	28.6	
23	10.2	29.0	
22	11.1	28.1	
17	11.6	27.7	
16 E	11.3	27.9	

Rosecrans. 15 14

15 E		10.1	29.1
W.L.		8.4	30.8
S.L. Alcott			
W.L.		7.8	31.4
2 E		9.1	30.1
16 E		10.2	29.0
17 E		11.4	27.8
22		11.3	27.9
23		10.3	28.9
33		10.7	28.5
48		10.9	28.3
55.65		10.85	28.39
	100 S		
55.65 E		12.67	26.57
48		12.5	26.7
33		12.4	26.8
22		11.9	27.3
20		13.0	26.2
17		12.8	26.4
16		11.9	27.3
2		10.6	28.6
W.L.		9.6	29.6
T.P. 2.14	29.03	12.35	26.89
	200 S. WL Touch		
W.L.		0.7	28.3
3 E		1.9	27.1

	29.03		
16' E		2.7	26.3
18' ✓		4.2	24.8
20' ✓		3.0	26.0
33' ✓		3.3	25.7
48' ✓		3.5	25.5
55.65 ✓		3.65	25.38
	35' S of N.L.		
55.65 E		3.67	25.36
48' ✓		3.6	25.4
33' ✓		3.4	25.6
16' ✓		3.0	26.0
W.L.		1.8	27.2
	S.L. Touch		
W.L.		2.2	26.8
14' E		3.1	25.9
16' ✓		3.7	25.3
33' ✓		3.7	25.3
48' ✓		3.6	25.4
55.65' ✓		3.74	25.29
	100' S		
55.65 E		5.00	24.03
48' ✓		4.9	24.1
33' ✓		4.6	24.4
23' ✓		4.4	24.6
22' ✓		5.0	24.0
16' ✓		4.1	24.9
2' ✓		2.9	26.1

36
51
30

W.L.		1.7	27.3
	300'.5 = W.L. Yonge		
W.L.		3.7	25.3
2' E		4.5	24.5
16' ✓		4.9	24.1
17' ✓		5.8	23.2
33' ✓		5.8	23.2
48' ✓		6.0	23.0
55.65 E		6.35	22.68
	S.L. Yonge		
55.65' E		7.17	21.86
48' ✓		6.9	22.1
33' ✓		6.9	22.1
25' ✓		7.4	21.6
17' ✓		6.2	22.8
16' ✓		5.4	23.6
W.L.		4.4	24.6
chk BM		2.10	26.93
	100' S.		
W.L.		5.3	23.7
1' E		6.1	22.9
16' ✓		7.0	22.0
23' ✓		9.0	20.0
26' ✓		8.2	20.8
33' ✓		8.1	20.9
48' ✓		8.2	20.8

55.65' E		8.73	20.27
	200'S = N.L Xenophon		
55.65' E		10.36	18.67
48' ~		10.5	18.5
33' ~		10.3	18.7
19 ~		10.6	18.4
16' ~		8.7	20.3
3' ~		8.6	20.4
W.L		7.0	22.0
	15'S of N.L		
W.L		9.0	20.0
16' E		10.8	18.2
20' ~		10.6	18.4
33' ~		10.7	18.3
48' ~		10.9	18.1
55.65' ~		10.77	18.26
	35'S. of N.L.		
55.65' E		11.35	17.68
48' ~		11.3	17.7
33' ~		11.2	17.8
20' ~		11.2	17.8
16' ~		10.7	18.3
W.L.		9.7	19.3
	SL Xenophon		
W.L.		10.8	18.2
16' E = cement curb		11.00	18.0

16' E = gutter	9" Rd gutter (3' wide)	12.2	16.8
33' ~	cement Curb from W to X-on West Side	12.0	17.0
48' ~		12.1	16.9
55.65' E 0.46	17.23	12.26	16.77
	200'S = N.L Whittier		
55.65' E		5.24	11.99
48' ~		4.7	12.5
33' ~		4.6	12.8
25' ~		4.8	12.4
16' ~ = gutter		6.2	11.0
16' ~ = cement curb		5.26	11.97
W.L		5.0	12.2
	7'S. of N.L.		
W.L		3.7	14.5
16' E		4.9	12.3
33' ~		4.5	12.7
48' ~		4.8	12.4
55.65' E		5.35	11.88
	SL Whittier		
55.65' E		5.65	11.58
48' ~		5.2	12.0
33' ~		4.9	12.3
16' ~		4.1	13.1
W.L.		3.9	13.3
5' W		3.9	13.3

100' S.

W.L.	4.1	13.1
16' E	4.5	12.7
33' "	4.6	12.6
48' "	5.0	12.2
55.65' E	5.32	11.91

200' S = N.L. Voltaire

55.65' E	4.90	12.33
48' "	4.8	12.4
33 "	4.3	12.9
16 "	4.0	13.2
2' "	3.6	13.6
W.L.	3.6	14.6

S.L. Voltaire

W.L.	1.6	15.6
2' E	2.7	14.5
16' "	3.7	13.5
33' "	3.8	13.4
48' "	4.1	13.1
55.65' "	4.67	12.56

100' S

55.65' E	5.07	12.16
48' "	4.4	12.8
33' "	4.2	13.0
24' "	4.5	12.7
16' "	4.5	14.7

17.23

3' E	1.7	15.5
W.L.	0.8	16.4

150' S.

W.L.	0.9	16.3
3' E	2.4	14.8
16' "	3.4	13.8
18' "	4.6	12.6
33' "	4.8	12.4
48' "	5.0	12.2
55.65' E	5.50	11.73
chk B.M. SW 7 Mon Udal	5.16	12.07

For sections from N.L. Udal to S.L. Russell see book 1036-70

B.M. SW Mon Russell 4.49 9.70 5.23

100' S. of S.L. Russell

55.65' E	5.37	4.33
48' "	4.7	5.0
33' "	4.5	5.2
16' "	4.2	5.5
W.L.	33	6.4

200' S = N.L. Quimby

W.L.	3.7	6.0
16' E	4.1	5.6
18' "	4.7	5.0
33' "	4.5	5.2
48' "	4.4	5.3

9.70

55.65' E	5.13	4.57
S.L. Quimby		
55.65' E	5.25	4.45
48' ~	4.7	5.0
33' ~	4.6	5.2
18' ~	4.7	5.0
16' ~	4.3	5.4
W.L	3.8	5.9
100' S		
W.L.	3.9	5.8
16' E	4.2	5.5
33' ~	4.6	5.1
48' ~	4.8	4.9
55.65' ~	5.50	4.20
200' S = N.L. Poe		
55.65' E	5.63	4.07
48' ~	5.3	4.4
33' ~	4.8	4.9
16' ~	4.0	5.7
W.L.	3.7	6.0
S.L. Poe		
W.L.	4.1	5.6
16' E	4.1	5.6
33' ~	4.7	5.0
48' ~	5.0	4.7
55.65' ~	5.56	4.14

9.70

100' S

55.65' E	5.10	4.60
48' ~	4.3	5.4
33' ~	4.2	5.5
16' ~	3.7	6.0
W.L	3.1	6.6
200' S = N.L. Oliphant		
W.L.	2.5	7.2
16' E	3.3	6.4
33' ~	3.7	6.0
48' ~	3.8	5.9
55.65' ~	4.60	5.10
S.L. Oliphant		
55.65' E	4.23	5.47
48' ~	3.7	6.0
33' ~	3.5	6.2
16' ~	3.1	6.6
W.L.	2.6	7.1
100' S		
W.L	1.7	8.0
16' E	2.1	7.6
33' ~	3.0	6.7
48' ~	2.9	6.8
55.65' E	3.47	6.23
400' S = N.L. Newell		
55.65 E 6.73	13.93'	8.50 7.20

48' E		6.3	7.6
33' "		6.1	7.8
16' "		5.8	8.1
W.L		5.3	8.6
	S.L. Newell.		
W.L		4.1	9.8
16' E		5.2	8.7
33' "		5.4	8.5
48' "		5.3	8.6
55.65' "		5.97	7.96
	200' S. - N.L Macaulay		
chk BM. on l.f.		5.42	8.51 = 8.53
55.65' E		4.20	9.73
48' "		4.1	9.8
42' "	= rail of curve.	3.80	10.13
36 "	" " "	4.04	9.89
33' "		3.8	10.1
16' "		4.4	9.5
14' "		2.7	11.2
W.L		2.5	11.4
	5' S.		
W.L		3.8	10.1
16' E		4.4	9.5
33		3.8	10.1
48		4.1	9.8
55.65' E		4.22	9.71

13.93

	S.L. Macaulay		
55.65' E		4.26	9.67
48 "		4.0	9.9
33 "		3.9	10.0
16 "		3.6	10.3
W.L.		3.4	10.5
	200' S. - N.L Lowell		
W.L		4.4	9.5
16' E.		5.2	8.7
33' "		5.2	8.7
48' "		5.1	8.8
55.65' E		5.16	8.77
	S.L Lowell		
55.65' E		5.88	8.05
48' "		5.5	8.4
33' "		5.7	8.2
16' "		5.2	8.7
W.L		4.7	9.2
	200' S. N.L. Keats		
W.L.		6.7	7.2
16' E		7.0	6.9
33' "		7.2	6.7
48' "		7.1	6.8
55.65' E		6.93	7.00
	S.L. Keats		
55.65' E		7.65	6.28

1393

48' E			7.6	6.3
33' ✓			7.7	6.2
16' ✓			7.7	6.2
W.L			7.0	6.9
		200' S = NL Jarvis		
W.L.			8.6	5.3
16' E			9.0	4.9
33' ✓			9.3	4.6
48' ✓			9.1	4.8
55.65' E	3.74	8.80	8.89	5.04
		SL Jarvis		
55.65' E			4.52	4.28
48' E			5.0	3.8
33' ✓			4.8	4.0
16' ✓			4.4	4.2
W.L.			4.0	4.8
		200' S = NL Inglow		
W.L			5.2	3.6
16' E			5.4	3.4
33' ✓			6.1	2.7
45' ✓			6.4	2.4
48' ✓			5.5	3.3
55.65' E			6.63	2.17
		SL Inglow		
55.65' E			6.80	2.00
48' ✓			6.2	2.6
45' ✓			6.7	2.1
33' ✓			6.3	2.5
28' ✓			6.1	2.7

8.80

16' E	6.0	2.8
W.L.	6.1	2.7
200' S = NL Hugo.		
W.L	6.6	2.2
16' E	6.7	2.1
33' ✓	7.3	1.5
48' ✓	7.3	1.5
55.65' E	7.20	1.60
SL Hugo		
55.65' E	7.20	1.60
48' ✓	7.1	1.7
33' ✓	7.3	1.5
16' ✓	7.2	1.6
2' ✓	7.0	1.8
W.L	6.3	2.5
200' S = NL Garrison		
W.L.	7.2	1.6
16' E	7.1	1.7
33' ✓	7.6	1.2
48' ✓	7.5	1.3
55.65' E	7.55	1.25
SL Garrison		
55.65' E	7.57	1.23
48' ✓	7.4	1.4
33' ✓	7.5	1.3
16' ✓	6.9	1.9
W.L	7.1	1.7

8.80

200' S = NL Fenelon

W.L.			6.2	7.6
16' E			6.7	7.1
33' ✓			6.7	7.1
48' ✓			6.3	7.5
55.65' ✓	11.33	12.73	7.40	1.40

SL Fenelon

55.65' E			11.04	1.69
48' ✓			9.3	3.4
43' ✓			10.1	2.6
33' ✓			10.1	2.6
16' ✓			9.8	2.9
W.L.			8.8	3.9

200' S = NL Emerson

W.L			7.6	5.1
16' E			8.4	4.3
20' ✓			9.5	3.2
33' ✓			8.6	4.1
43' ✓			8.6	4.1
48' ✓			8.0	4.7
55.65 ✓			8.78	3.95

SL Emerson

55.65' E			7.80	4.93
48' ✓			7.6	5.1
33' ✓			8.1	4.6
21' ✓			8.2	4.5

12.73

16' E			7.2	5.5
W.L			7.0	5.7

200' S = NL Dickens

W.L			3.8	8.9
16' E			3.9	8.8
18' ✓			5.2	7.5
33' ✓			4.7	8.0
48' ✓			4.9	7.8
55.65' ✓			4.20	8.53

SL Dickens

5565' E			4.95	9.78
48' ✓			3.7	9.0
33' ✓			3.2	9.5
17' ✓			4.1	8.6
16' ✓			3.0	9.7
W.L			2.4	10.3
T.P.	10.64	22.74	063	12.10

200' S = NL Carleton

W.L.			9.0	13.7
16' E			10.4	12.3
33' ✓			10.1	12.6
48' ✓			9.8	12.9
55.65' ✓			9.75	12.99

SL Carleton

55.65' E			8.57	14.17
48' ✓			8.8	13.9

22.74

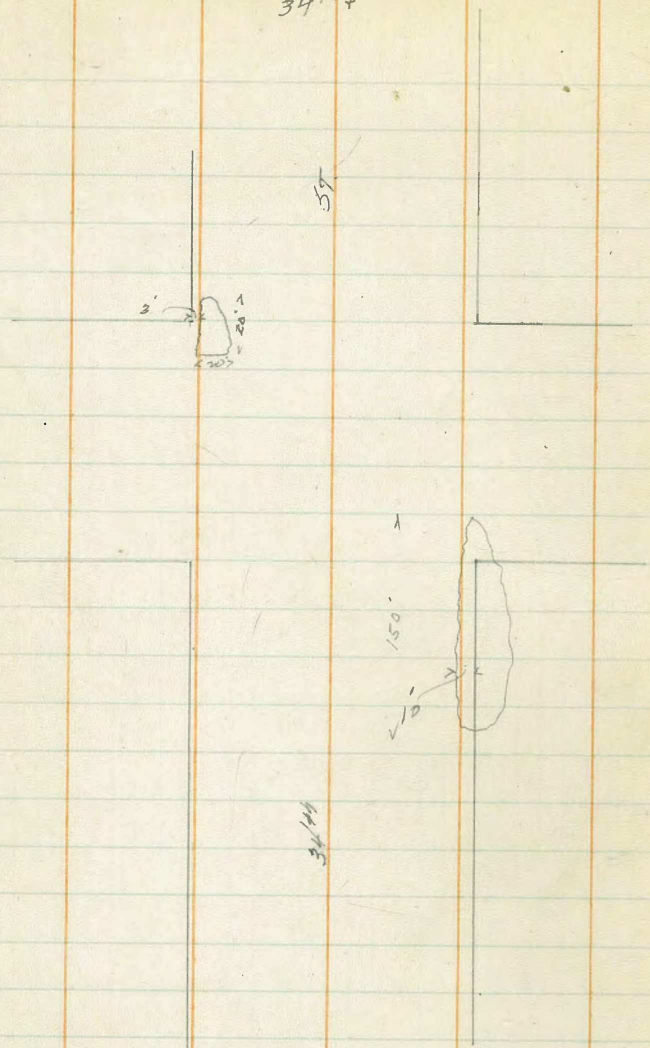
33' E		8.4	14.3
17' "		9.0	13.7
16' "		8.1	14.6
W.L		7.8	14.9
	300' S = N.L. Byron		
W.L.		4.6	18.2
16' E		5.3	17.X
17' "		5.5	17.7
33' "		5.4	17.3
48' "		5.4	17.3
55.65' "		5.33	17.41
	S.L. Byron		
55.65' E		4.58	18.16
48' "		4.8	17.9
33' "		4.6	18.1
18' "		4.8	17.9
16' "		4.0	18.7
W.L.		3.7	19.0
	300' S = N.L. Addison		
W.L		2.8	19.9
16' E		3.1	19.6
33' "		3.2	19.5
48' "		3.5	19.2
55.65' E		3.50'	19.2X
	S.L Addison		
55'65'E		3.X8	19.4[illegible]

22.74

48' E	3.2	19.5
33' "	3.1	19.6
16' "	2.8	19.9
W.L	2.6	20.2
	S = N.L Canon Rd	
W.L	2.2	20.5
16' E	2.3	20.4
33' "	2.6	20.1
48' "	2.9	19.8
56' " roil	2.80	19.9[illegible]
chk B.M.	2.08	20.66 = 20.67

8/14/22 Gregory

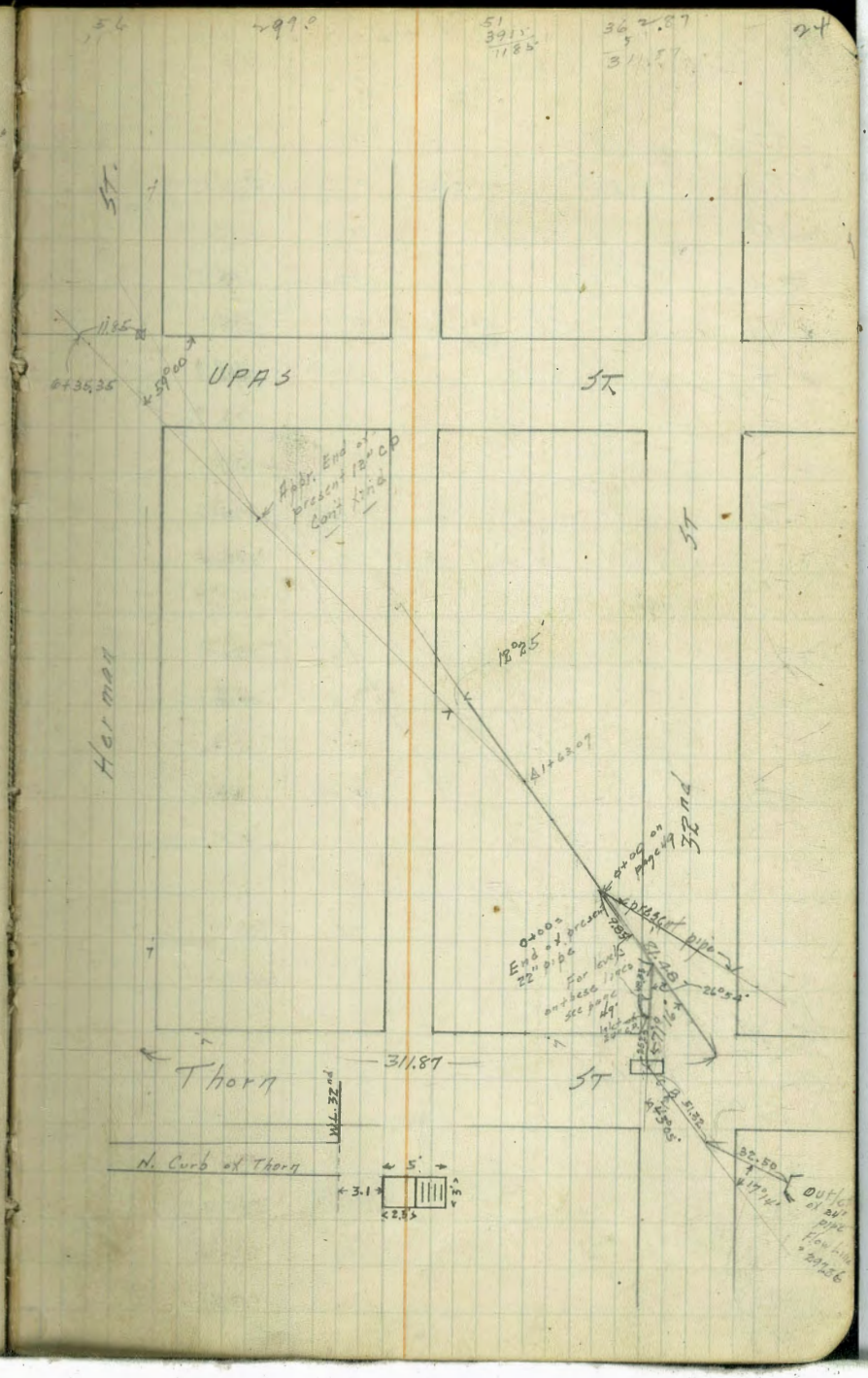
Gravel Pits
34th +



6/16/22 Gregory Moore Ellis Shaw

Location & Levels for Drain from Herman & Upas to 32nd & Thorn

	0.73	307.99		307.26	Top Nut SE Manh = 32"
0+00 = End of present 22" pipe			16.6	291.4	= Flow Line
+35			14.7	293.3	
+50			11.1	296.9	
+75			12.9	294.1	
+85			12.9	295.1	
			10.3	297.7	
+10			8.3	299.7	
+20			10.7	297.3	
+60			8.4	299.6	
+63.07 △	12°25' L		8.72	299.27	on stub
+75			9.3	298.7	
+90			8.1	299.9	
+91			7.3	300.7	
			7.2	300.8	
+95			6.6	301.4	
TP	10.90	315.63	3.96	304.73	
+97			12.2	303.4	
+36			12.0	303.6	
+38			8.8	306.8	
+43			8.9	306.7	
+45			6.8	308.8	
+65.75 PBT.			3.69	311.97	on stub
+75			3.7	311.9	
			7.2	308.6	
+93			6.0	309.6	



		315.63		
+55			2.4	313.2
T.P	11.69	325.02	2.30	313.33
+85			10.5	314.5
4			11.6	313.4
+20			11.4	313.6
+35			9.1	315.9
+58			8.5	316.5
+65			11.0	314.0
+80			9.3	315.7
5+25 = App. End of 12" pipe			7.5	317.5
Cant find. Filled with rubbish				
+35			4.6	320.4
6+00			3.9	321.1
+25 = E. gutr. Herman			4.7	320.3
chk B.M.			11.66	32236

6/22/22 Location + Levels

Gregory Water Main Dwight + Ray

4.96	337.42	332.46	BP NE Ray - Dwight
Top of 30" Main NL Dwight (E of Ray)			
+ 15 E. of NL Ray.	7.12	330.30	
Top of 30" Main SL Dwight (W. of Ray)			
& 15.4 E of NL Ray.	6.23	331.19	

1/20/23 Gregory Moore Miller Shaw

Sewer Construction

Montecito Way.

from M.H. 60' E. of Ingalls

grade

	7.73	277.73		275.50	- 5% Incline
0+00 = M.H. 60' E. of EL Ingalls.			12.73		265.0
+50			7.35	270.38	265.13
1 Δ	169	271.74	7.68	270.05	265.27
+50 - curb.			2.08	269.66	265.40
+63 Δ = 6' N. of SL			2.46	269.28	265.44
2+00			3.97	267.77	265.54
+32 Δ = 6' N. of SL			5.20	266.54	265.63 0.91
+58					265.70

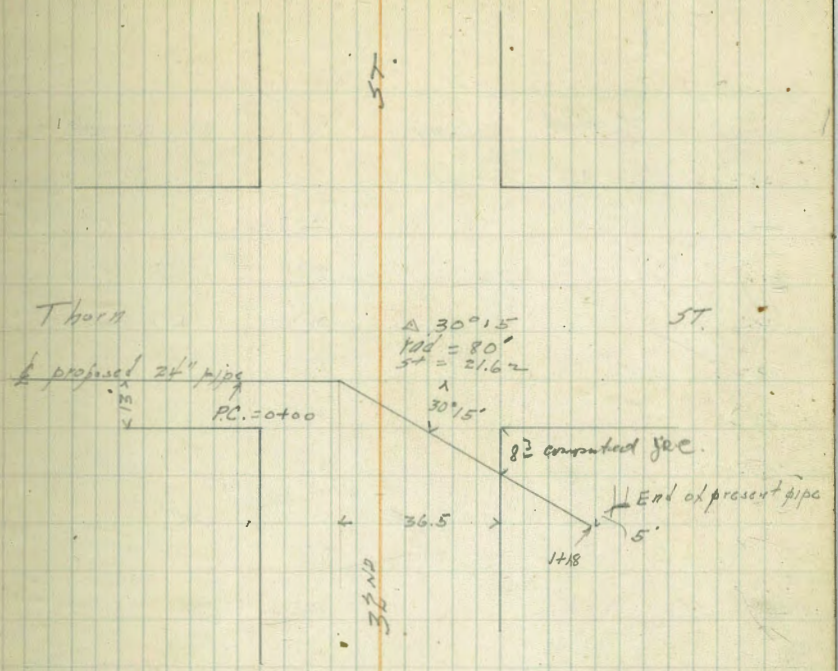
6/22/22

Location + Levels

Gregory 24" Drain 32nd & Thorn

Ellis

		0.77	308.03		307.26 Top Hyd. 32nd & Thorn
29+26.68					
0+00 = P.C. of Curve } 58.18' W of EL 32nd 13' N of SL of Thorn }				2.0	306.0
0+18	29+44.7			2.9	5.1
0+21	29+47.7			2.3	5.7
0+32	29+58.7			2.6	5.4
0+35	29+61.7			3.7	4.3
0+42.24 = EC	29+68.92			3.7	4.3
0+61.0	29+87.7			3.2	4.8
0+64.0	29+90.7			4.2	3.8
0+70	29+96.7			5.6	2.4
0+78	30+04.7			9.3	298.7
+84	30+10.7			10.5	297.5
TP		5.09	301.18	11.94	~~296.09~~
+95	30+21.7			7.4	293.8
1	30+26.7			8.6	292.6
+3.0	30+29.7			10.0	291.2
+11.0	30+37.7			13.6	287.5
+18.0	bottom draw. 30+44.7			16.2	285.0



1/19/23 Gregory, Moore, Miller, Shaw

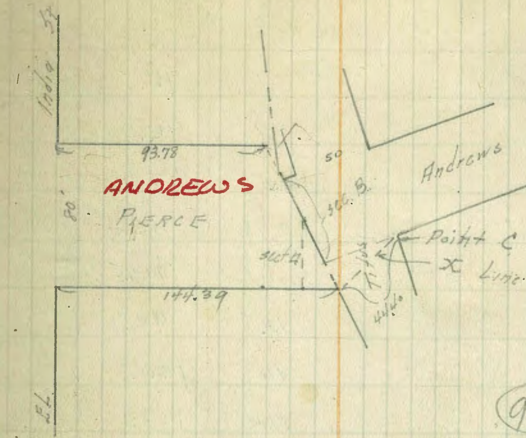
CROSS SECTION OF
PIERCE ST 80' wide 14' cbs
from E.L. India to E.L. Middletown

	13.04	90.04 ✓		77.00	BP. S.W. India + Winter
		E.L. India		(90.0) ✓	
S			9.6	80.4 ✓	
cb			9.98	80.0 ✓	on cement
1/4			9.6	80.4 ✓	
C			9.6	80.4 ✓	
1/4			9.6	80.4 ✓	
cb			10.01	80.0 ✓	on cement
N			9.6	80.4 ✓	
		5' E			
N			9.3	80.7 ✓	
cb			9.3	80.7 ✓	
1/4			9.3	80.7 ✓	
+5			7.2	82.8 ✓	
C			5.5	84.5 ✓	
1/4			4.3	85.7 ✓	
cb			3.2	86.8 ✓	
S			2.0	88.0 ✓	
		15' E			
S			0.5	89.5 ✓	
cb			2.0	88.0 ✓	
1/4			2.8	87.2 ✓	
C			3.8	86.2 ✓	
~~1/4~~ +8			4.5	85.5 ✓	
1/4			7.2	82.8 ✓	

119.08
25.30

96.34
2.56
93.78

28 144.39
93.78
50.61
25.30



				(90.0)	
+1			7.8	82.2 ✓	
cb			7.7	82.3 ✓	
N			8.7	81.3 ✓	
		55' E			
N			3.0	87.0 ✓	
cb			2.3	87.7 ✓	
1/4			1.7	88.3 ✓	
T.P.	12.54	102.18 ✓	0.40	89.64 ✓ (102.2) ✓	
C			11.3	90.9 ✓	
1/4			10.1	92.1 ✓	
cb			8.6	93.6 ✓	
S			7.2	95.0 ✓	
		93.78 E			
S			2.7	99.5 ✓	
cb			3.7	98.5 ✓	
1/4			5.0	97.2 ✓	
C			6.5	95.7 ✓	

10218

102.2

+1			6.8	95.4	✓
1/4			7.7	96.5	✓
cb			8.0	96.2	✓
N			9.5	97.7	✓
T.P.	11.68	113.45	0.41	101.77	✓
		119.08 E	= Sect A	(113.5)	✓
C			13.8	99.7	✓
5 1/4			12.8	100.7	
+3			11.4	102.1	✓
5 cb			11.1	102.4	✓
5			10.8	102.7	✓
	93.78 E on N				
	144.39 ~ 5		= Middletown Line		
5			8.6	104.9	✓
cb			8.9	104.6	✓
1/4			10.7	102.8	✓
+2			12.3	101.2	✓
C			13.8	99.7	✓
1/4			14.8	98.7	✓
+1			16.4	97.1	✓
cb			18.5	95.0	✗
N			20.8	92.7	✓

1/19/43 Gregory Moore Miller Shaw

CROSS SECTION OF ANDREWS ST 50' wide 10' cbs
from Middletown Line to 100' E of Linwood
113.4/5 from previous page.

Middletown Line for ANDREWS St. (113.5)

N.		19.3	94.2 ✓
cb		17.7	95.8 ✓
1/4		16.8	96.7 ✓
+2		16.4	97.1 ✓
+3		14.8	98.7 ✓
C.		14.1	99.4 ✓
1/4		14.0	99.5 ✓
cb		13.5	100.0 ✓
+8		12.3	101.2 ✓
S.		10.7	102.8 ✓

W. cb Titus St. Titus = 50' wide

S. ↑		10.7	102.8 ✓
+2		12.3	101.2 ✓
+10 = cb		13.1	100.4 ✓
1/4		13.1	100.4 ✓
C.	50'	13.5	100.0 ✓
+3		13.6	99.9 ✓
+4		15.2	98.3 ✓
1/4		15.4	98.1 ✓
cb		16.4	97.1 ✓
N. ↓		17.9	95.6 ✓

W. 1/4 Titus

N		16.9	96.6 ✓
cb		15.1	98.4 ✓

(113.5)

1/4		14.2	99.3 ✓
+6		13.7	99.8 ✓
C.		12.4	101.1 ✓
1/4		12.3	101.2 ✓
cb		12.4	101.1 ✓
+7		11.8	101.7 ✓
S.		10.0	103.5 ✓

Center Titus

S. ↑		8.9	104.6 ✓
+4		11.1	102.4 ✓
+10 = cb		11.8	101.7 ✓
1/4		11.3	102.2 ✓
C.	50'	12.4	101.1 ✓
1/4		13.0	100.5 ✓
cb		14.2	99.3 ✓
N. ↓		16.0	97.5 ✓

E. 1/4 Titus

N. ↑		15.8	97.7 ✓
cb		13.7	99.8 ✓
1/4		12.2	101.3 ✓
C.		11.4	102.1 ✓
1/4	50'	10.7	102.8 ✓
cb		10.9	102.6 ✓
+5		10.5	103.0 ✓
S. ↓		8.3	105.2 ✓

113.45

(113.5)

E. Curb Titus

S	7.4	106.1 ✓
+5	9.8	103.7 ✓
cb	10.2	103.3 ✓
1/4	9.9	103.6 ✓
C	10.3	103.2 ✓
1/4	11.0	102.5 ✓
cb	13.0	100.5 ✓
N	14.7	98.8 ✓

E.L. Titus

N	14.4	99.1 ✓
cb	12.0	101.5 ✓
1/4	10.1	103.4 ✓
C	9.5	104.0 ✓
1/4	9.1	104.4 ✓
cb	8.9	104.6 ✓
+6	8.3	105.2 ✓
S	6.4	107.1 ✓

Levels on X Line

15' from point C	6.5	107.0 ✓
30' ✓ " ✓	7.4	106.1 ✓

25' E

S	4.7	108.8 ✓
+7	6.8	106.7 ✓
cb	6.7	106.8 ✓
1/4	7.0	106.5 ✓
C	7.4	106.1 ✓
1/4	8.2	105.3 ✓
+2	9.7	103.8 ✓
cb	10.4	103.1 ✓
N	12.1	101.4 ✓
+15	15.8	97.7 ✓

58' E

-15	15.5	98.0 ✓
N	10.9	102.6 ✓
cb	7.8	105.7 ✓
1/4	5.4	108.1 ✓
C	4.5	109.0 ✓
1/4	4.4	109.1 ✓
cb	4.4	109.1 ✓
+3	3.8	109.7 ✓
S	1.7	111.8 ✓

65' E

+5	1.1	112.4 ✓
cb	3.1	110.4 ✓
1/4	3.6	109.9 ✓
+2	3.9	109.6 ✓
C	3.8	109.7 ✓
+3	1.4	112.1 ✓
1/4	1.6	111.9 ✓
cb	5.3	108.2 ✓
	7.5	106.0

		113.45		(113.5)
N			11.4	102.1 ✓
15' N			16.2	97.3 ✓
		85' E ✓		
-20			17.0	96.5 ✓
N			10.7	102.8 ✓
cb			3.2	110.3 ✓
+5			0.0	113.5 ✓
1/4			0.0	113.5 ✓
c			0.5	113.0 ✓
+3			2.0	111.5 ✓
1/4			2.3	111.2 ✓
cb			1.8	111.7 ✓
T.P	12.62	126.02 ✓	0.05	113.40 (126.0) ✓
+8			11.9	114.1 ✓
5			11.5	114.5 ✓
		102' E ✓		
5			10.8	115.2 ✓
cb			12.8	113.2 ✓
1/4			13.2	112.8 ✓
c			12.3	113.7 ✓
+5			12.3	113.7 ✓
1/4			14.3	111.7 ✓
cb			18.8	107.2 ✓
N			23.0	103.0 ✓
+15			25.5	100.5 ✓

			(126.0)
	115' E ✓		
-15		23.8	102.2 ✓
N		23.1	102.9 ✓
cb		17.6	108.4 ✓
1/4		13.0	113.0 ✓
c		12.4	113.6 ✓
1/4		12.3	113.7 ✓
cb		11.9	114.1 ✓
+5		11.1	114.9 ✓
5		8.9	117.1 ✓ on lawn
	127' E ✓		
5		8.1	117.9 ✓ on lawn
+5		10.0	116.0 ✓
cb		10.6	115.4 ✓
1/4		11.6	114.4 ✓
c		12.1	113.9 ✓
1/4		13.1	112.9 ✓
cb		14.7	111.3 ✓
N		17.8	108.2 ✓
+15		22.3	103.7 ✓
	129' E		
-15		17.3	108.7 ✓
N		16.6	109.4 ✓ on drive
cb		14.6	111.4 ✓

		12602			
				(176.0)	
		145' E ✓			
-10			17.2	108.8	✓
N			16.2	109.8	✓ on dirt drive
+1			15.0	111.0	✓
cb			12.0	114.0	✓
1/4			10.3	115.7	✓
c			10.1	115.9	✓
1/4			10.0	116.0	✓
cb			9.0	117.0	✓
+4			8.6	117.4	✓
+7			6.5	119.5	✓
S			5.9	120.1	✓
		165' E ✓			
S			4.1	121.9	✓
cb			6.7	119.3	✓
1/4			7.2	118.8	✓
c			7.2	118.8	✓
+2			6.2	119.8	✓
1/4			6.4	119.6	✓
cb			7.5	118.5	✓
+5			11.2	114.8	✓
N			12.0	114.0	✓
+1			15.6	110.4	✓ on drive
+10			15.7	110.3	✓ on drive
	rods 168'E use this; S 4.2; cb 6.3	✓			
		200' E = W.L. Linwood 50' wide 10 rds			
-1			14.7	111.3	✓

			12880		
				(176.0)	
N			8.0	118.0	✓
+3			7.2	118.8	✓
cb			3.3	122.7	✓
1/4			3.4	122.6	✓
c			3.9	122.1	✓
1/4			3.3	122.7	✓
cb			2.1	123.9	✓
S			0.1	125.9	✓
T.P.	6.26	131.96 ✓	0.32	125.70	
		W cb ✓		(132.0)	✓
S			5.1	126.9	✓
cb			7.3	124.7	✓
1/4			8.0	124.0	✓
c			8.0	124.0	✓
1/4			7.8	124.2	✓
cb			8.5	123.5	✓
N			11.8	120.2	✓
		W 1/4 ✓			
N			11.0	121.0	✓
cb			7.7	124.3	✓
1/4			7.0	125.0	✓
c			6.8	125.2	✓
1/4			6.8	125.2	✓
cb			6.2	125.8	✓
S			4.3	127.7	✓
			3.13	128.83 = 128.80 ok	spk SW Andrews & Linwood

131.96

1370

Center Linwood ✓

S	3.0	129.0	✓
cb	4.6	127.4	✓
1/4	5.4	126.6	✓
C	5.7	126.3	✓
1/4	6.6	125.4	✓
cb	7.3	124.7	✓
N	10.2	121.8	✓

E 1/4 ✓

N	8.7	123.3	✓
+5	7.0	125.0	✓
cb	6.6	125.4	✓
1/4	5.6	126.4	✓
C	5.1	126.9	✓
1/4	4.5	127.5	✓
cb	3.7	128.3	✓
S	2.1	129.9	✓

E cb Linwood ✓

S	0.9	131.1	✓
cb	2.5	129.5	✓
1/4	4.0	128.0	✓
C	4.5	127.5	✓
1/4	5.1	126.9	✓
cb	6.7	125.3	✓
N	8.3	123.7	✓

1370

E 1/4 Linwood ✓

N	8.0	124.0	✓
cb	6.0	126.0	✓
1/4	4.2	127.8	✓
C	3.9	129.1	✓
1/4	2.0	130.0	✓
cb	0.6	131.4	✓
S	+0.5	132.5	✓
T.P.	1.58	131.42 ✓	131.84 ✓

50 E. of Linwood (1444) ✓

S	2.1	142.3	✓
+3	3.9	140.5	✓
cb	5.2	139.2	✓
1/4	6.7	137.7	✓
C	7.0	137.4	✓
1/4	8.0	136.4	✓
cb	10.2	134.2	✓
N	14.9	129.5	✓

100 E

N	6.2	138.2	✓
cb	2.8	141.6	✓
T.P.	8.20	151.90 ✓	143.70 ✓
1/4	7.4	(1514) 144.5	✓
C	6.3	145.6	✓
1/4	5.4	146.5	✓
cb	4.0	147.9	✓
S	1.7	150.2	✓

CROSS SECTION OF LINWOOD ST 50' wide 10' cbs

Xfrom 15' N. of ANDREWS TO NL of FREMONT

131.96 (132.10)

15' N. of NL of ANDREWS

E		11.2	120.8	✓
cb		12.6	119.4	✓
1/4		14.0	118.0	✓
C		15.3	116.7	✓
1/4		16.5	115.5	✓
cb		18.0	114.0	✓
+9		18.3	113.7	✓
W		21.8	110.2	✓
	12.75 141.05 ✓		128.80	BM SW Linwood + Andrews

7' S. of SL of Andrews ✓ (141.0) ✓

W		13.2	127.8	✓
cb		12.3	128.7	✓
1/4		12.3	128.7	✓
C		11.5	129.5	✓
1/4		10.2	130.8	✓
cb		8.9	132.1	✓
+2		7.4	133.6	✓
E		5.8	135.2	✓
	35' S. ✓			
E		1.9	139.1	✓
cb		3.7	137.3	✓
+2		5.3	135.7	✓
1/4		6.2	134.8	✓
C		7.2	133.8	✓

(141.0) Linwood

1/4	7.9	133.1	✓
cb	8.4	132.6	✓
+4	8.9	132.1	✓
+6	10.2	130.8	✓
W	10.5	130.5	✓
+10	11.0	130.0	✓
50' S ✓			
-10	10.5	130.5	✓
W	9.8	131.2	✓
+4	9.3	131.7	✓
+5	8.0	133.0	✓
cb	7.2	133.8	✓
-1/5	7.1	133.9	✓
C	6.2	134.8	✓
1/4	5.1	135.9	✓
cb	3.6	137.4	✓
+2	2.2	138.8	✓
E	0.7	140.3	✓
56' S ✓			
E	2.0	139.0	✓
cb	3.2	137.8	✓
+2	4.1	136.9	✓
1/4	5.1	135.9	✓
C	6.0	135.0	✓
1/4	6.9	134.1	✓
cb	6.9	134.1	✓

	141.05		
			(141.0)
W		8.3	132.7 ✓
	75' S ✓		
W		7.6	133.4 ✓
cb		6.2	134.8 ✓
1/4		5.7	135.3 ✓
C		5.1	135.9 ✓
1/4		4.2	136.8 ✓
cb		3.5	137.5 ✓
E		1.4	139.6 ✓
	100' S ✓		
E		0.1	140.9 ✓
+9		1.8	139.2 ✓
cb		3.0	136.0 ✓
+2		4.0	137.0 ✓
1/4		4.5	136.5 ✓
C		5.1	135.9 ✓
1/4		5.6	135.4 ✓
cb		5.9	135.1 ✓
W		6.6	134.4 ✓
	133' S ✓		
-5		7.9	133.1 ✓
W		7.1	133.9 ✓
cb		6.3	134.7 ✓
1/4		5.8	135.2 ✓
C		5.0	136.0 ✓
1/4		4.3	136.7 ✓

			(141.0)
+5.5		3.8	137.2 ✓
cb		2.9	138.1 ✓
+1		1.7	139.3 ✓
E		0.4	140.6 ✓
	135' S ✓		
E		3.6	137.4 ✓ = front of garage
cb		3.9	137.1 ✓
1/4		4.4	136.6 ✓
C		5.1	135.9 ✓
	148' S ✓		
E		3.4	137.6 ✓ = front of garage
cb		3.8	137.2 ✓
1/4		4.4	136.6 ✓
C		5.3	135.7 ✓
	150' S ✓		
E		0.5	140.5 ✓
cb		2.5	138.5 ✓
+5.5		4.3	136.7 ✓
1/4		4.4	136.6 ✓
C		5.3	135.7 ✓
1/4		6.2	134.8 ✓
cb		6.5	134.5 ✓
W		7.2	133.8 ✓
+5		8.3	132.7 ✓
	175' S ✓		
-3		8.9	132.1 ✓

	141.05		(141.0)	
W		8.0	133.0	✓
cb		7.3	133.7	✓
1/4		6.8	134.2	✓
C		6.3	134.7	✓
1/4		5.4	135.6	✓
+3.5		5.2	135.8	✓
cb		3.7	137.3	✓
E		0.3	140.7	✓
	200'5 ✓			
E		1.6	139.4	✓
cb		6.0	135.0	✓
1/4		7.0	134.0	✓
C		7.4	133.6	✓
1/4		7.7	133.3	✓
cb		8.7	132.3	✓
W		9.4	131.6	✓
+5		10.0	131.0	✓
	203'5			
E		4.1	136.9	✓
cb		6.2	134.8	✓
	219'5 ✓			
-5		10.5	130.5	✓
W		9.8	131.2	✓
cb		9.4	131.6	✓
1/4		8.5	132.5	✓
C		8.1	132.9	✓

	(141.0)		
1/4	7.7	133.3	✓
cb	6.8	134.2	✓
E	4.2	136.8	✓
229'5 ✓			
-8	8.8	132.2	✓
E	9.6	131.4	✓
cb	7.5	133.5	✓
1/4	8.3	132.7	✓
C	8.6	132.4	✓
1/4	8.8	132.2	✓
cb	10.3	130.7	✓
W	13.2	127.8	✓
+1.5	16.0	125.0	✓
240'5 ✓ culvert necessary here			
-15	16.0	125.0	✓
W	14.0	127.0	✓
cb	12.8	128.2	✓
+4	12.0	129.0	✓
1/4	10.5	130.5	✓
+2.5	8.8	132.2	✓
C	8.7	132.3	✓
1/4	8.5	132.5	✓
+4.5	8.1	132.9	✓
cb	9.7	131.3	✓
E	10.0	131.0	✓
+10	9.9	131.1	✓

141.05

(141.0)

250' S ✓

-10	9.8	131.2	✓
E	9.4	131.6	✓
cb	8.5	132.5	✓
1/4	8.4	132.6	✓
c	8.4	132.6	✓
+4.5	8.7	132.3	✓
1/4	10.6	130.4	✓
cb	12.4	128.6	✓
W	13.6	127.4	✓
+15	15.4	125.6	✓
725' S			
-0.2 = Top of wall + on lawn	3.8	137.2	✓
E	7.2	133.8	✓
cb	8.1	132.9	✓
770' S ✓			
-15	15.3	125.7	✓
W	13.8	127.2	✓
cb	10.0	131.0	✓
+6	8.0	133.0	✓
1/4	8.0	133.0	✓
c	7.3	133.7	✓
1/4	6.7	134.3	✓
cb	6.6	134.4	✓
E	6.0	135.0	✓
+0.2 = Top of wall + lawn	3.5	137.5	✓

LINWOOD 38

(141.0)

285' S ✓

-0.2 = Top of wall	3.0	138.0	✓
E	4.3	136.7	✓
cb	4.8	136.2	✓
1/4	5.3	135.7	✓
c	6.0	135.0	✓
1/4	7.5	133.5	✓
cb	7.6	133.4	✓
W	10.2	130.8	✓
+10	11.6	129.4	✓
See page 1/4 for intersection			
T.P.	2.45	138.60	✓
T.P. 12.76 153.60 ✓	0.21	140.84	✓
✓ 11.5 ox 5.L Wellborn		(153.6)	✓
+30	14.8	138.8	
W	9.5	144.1	
cb	7.9	145.7	
1/4	7.4	146.2	
c	7.0	146.6	
1/4	6.6	147.0	
cb	7.1	146.5	
+9 = Front of garage	7.0	146.6	
✓ 15'S			
E	+1.8	155.4	
+3	2.1	151.5	
cb	3.4	150.2	

		153.60		(153.6)
+7.5			5.9	147.7
1/4			5.9	147.7
C			6.4	147.2
1/4			7.1	146.5
CB			7.6	146.0
W			9.2	144.4
+10			11.1	142.5
+30			14.6	139.0
		✓ 40'S		
-20			10.2	143.4
W			6.7	146.9
CB			5.2	148.4
1/4			4.4	149.2
C			3.8	149.8
1/4			3.4	150.2
+4.5			3.3	150.3
CB			+0.4	154.0
+7			+0.6	154.2
E			+4.6	158.1
		✓ 60'S		
E			+5.0	158.6
+1			+3.1	156.7
CB			+2.7	156.3
+3.5			1.6	151.0
1/4			1.5	151.1
C			1.8	151.8

				(153.6)
1/4			1.8	151.8
CB			2.3	151.3
+5			3.2	150.4
W			5.0	148.6
+10			7.1	146.5
		✓ 70'S		
-10			5.8	147.8
W			4.0	149.6
CB			1.5	152.1
1/4			1.1	152.5
C			0.5	153.1
1/4			0.2	153.4
+4			0.0	153.6
TP	1265	166.1 ✓	0.1	153.46 (166.1) ✓ 166.4
CB			9.7	
E			7.8	158.3
		✓ 87'S		
E			7.0	159.1
+6			7.8	158.3
CB			10.2	155.9
1/4			10.8	155.3
C			11.2	154.9
1/4			11.5	154.6
CB			11.8	154.3
+4			11.8	154.3
W			14.3	151.8
+10			16.0	150.1

	166.11		
			(166.1)
	88'5		
E = front of garage		9.8	156.3
cb = driveway		10.4	155.7
	98'5		
E = front of garage		9.8	156.3
cb = driveway		9.5	156.6
	✓ 99'5		
-10		15.0	151.1
W		13.0	153.1
+3		12.4	153.7
+7		10.7	155.4
cb		10.5	155.6
1/4		10.4	155.7
c		10.0	156.1
1/4		9.7	156.4
cb		9.4	156.7
+2		9.4	156.7
+5		6.4	159.7
E		5.5	160.6
	✓ 109'5		
E		4.8	161.3
cb		7.2	158.9
1/4		8.7	157.4
c		9.2	156.9
1/4		9.5	156.6
cb		9.8	156.3

			(166.1)
W		12.4	153.7
+10		14.3	151.8
	✓ 131'5		
-10		12.6	153.5
W		10.8	155.3
+5		9.4	156.7
cb		7.4	158.7
1/4		7.1	159.0
c		7.0	159.1
1/4		6.4	159.7
cb		6.2	159.9
+6		3.0	163.1
E		2.9	163.2
	132'5		
E = front of garage		5.8	160.3
cb		6.1	160.0
	✓ 143'5		
E = front of garage		5.7	160.3
cb		5.1	161.0
1/4		5.0	161.1
c		5.5	160.6
1/4		6.0	160.1
cb		6.1	160.0
W		9.0	157.1
+10		11.0	155.1

16611

(166.1)

144' S

E	1.0	165.1
+4	1.5	164.6
+7	5.2	160.9
cb	5.0	161.1

✓ 147'S

-10	10.9	155.2
W	8.5	157.6
cb	5.7	160.4
1/4	5.5	160.6
C	5.0	161.1
1/4	4.4	161.7
+4.5	4.3	161.8
+6	2.5	163.6
cb	2.3	163.8
E	0.8	165.3

✓ 154'S

E	0.0	166.1
cb	2.5	163.6
1/4	3.8	162.3
C	4.3	161.8
1/4	5.2	160.9
cb	5.4	160.7
W	8.5	157.6
+10	10.2	155.9

✓ 155'S

-10	10.1	156.0
W	8.5	157.6

LINWOOD

(166.1)

#1

cb	5.3	160.8
1/4	5.2	160.9
C	4.3	161.8
1/4	3.8	162.3
cb	3.8	162.3
E = front of garage	3.7	162.4

✓ 163'S

E = front of garage	3.7	162.4
cb	3.2	162.9
1/4	3.2	162.9
C	3.6	162.5
1/4	4.4	161.7
cb	5.2	160.9
W	7.4	158.7
+10	9.1	157.0

✓ 166'S

-10	9.0	157.1
W	7.1	159.0
cb	4.9	161.2
1/4	4.2	161.9
C	3.6	162.6
1/4	3.2	162.9
cb	1.5	164.6
TP 545 169.49 ✓	1.07	164.04
+5	2.4	167.1
E	1.8	167.7

		169.49		(169.5)
	✓	180'S	1	
E			1.3	168.2
+5			1.7	167.8
cb			3.0	166.5
+5			4.6	164.9
1/4			4.9	164.6
C			5.6	163.9
1/4			6.8	162.7
cb			7.8	161.7
W			8.9	160.6
	✓	200'S		
W			7.7	161.8
cb			7.1	162.4
1/4			5.9	163.6
C			4.8	164.7
1/4			3.9	165.6
cb			2.5	167.0
+5			1.3	168.2
E			0.6	168.9
	✓	225'S		
E			1.3	168.2
cb			3.1	166.4
1/4			4.3	165.2
C			5.4	164.1
1/4			6.3	163.2
cb			7.1	162.4

				(169.5)
W			7.9	161.6
	✓	250'S		
-19			11.1	158.4
W			10.3	159.2
cb			8.8	160.7
1/4			8.2	161.3
C			7.8	161.7
1/4			6.2	163.3
cb			4.9	164.6
E			3.6	165.9
	✓	265'S		
E			4.8	164.7
cb			7.0	162.5
1/4			8.3	161.2
C			9.2	160.3
1/4			9.3	160.2
cb			11.1	158.4
W			11.9	157.6
+10			12.6	156.9
	✓	288'S		
-10			13.3	156.2
W			12.6	156.9
cb			11.3	158.2
1/4			9.9	159.6
C			9.3	160.2
1/4			8.4	161.1
cb			7.3	162.2
E			6.1	163.4

169.5

√ 290'5

E	9.1	160.4
cb	9.9	159.6
1/4	10.9	158.6
C	14.0	155.5
1/4	14.4	155.1
cb	15.4	154.1
+5	14.6	154.9
W	14.5	155.0
+8 = front of porch	14.7	154.8
300'5 = N.L Fremont		
-8	16.2	153.3
W	17.7	151.8
cb	18.0	151.5
1/4	17.5	152.0
C	15.7	153.8
1/4	15.0	154.5
+3	14.8	154.7
cb	12.2	157.3
+5	10.0	159.5
E	9.4	160.1

CROSS SECTION OF
WELLBORN ST 50' wide
from E.L. Linwood
To Middletown Line

	6.92	147.76 ✓	140.84
		E.L. Linwood ✓	(147.8)
S		1.0	146.8 ✓
+5		0.0	147.8 ✓
cb		0.9	146.9 ✓
¼		2.1	145.7 ✓
C		3.5	144.3 ✓
+2		8.4	139.4 ✓
¼		8.6	139.2 ✓
cb		8.8	139.0 ✓
N		9.9	137.9 ✓
	E. Curb ✓		
N		10.2	137.6 ✓
cb		9.2	138.6 ✓
¼		8.4	139.4 ✓
+3		8.0	139.8 ✓
C		6.3	141.5 ✓
+2		4.8	143.0 ✓
¼		4.0	143.8 ✓
cb		2.4	145.4 ✓
S		1.5	146.3 ✓
	E ¼ ✓		
S		1.6	146.2 ✓
cb		3.5	144.3 ✓
¼		5.4	142.4 ✓
C		6.8	141.0 ✓

			(147.8)
¼		8.2	139.6 ✓
cb		9.4	138.4 ✓
N		10.5	137.3 ✓
	Center ✓		
N		11.1	136.7 ✓
cb		10.2	137.6 ✓
¼		8.8	139.0 ✓
C		7.3	140.5 ✓
¼		5.4	142.4 ✓
cb		4.0	143.8 ✓
+5		2.1	145.7 ✓
S		1.9	145.9 ✓
	W ¼ ✓		
S		3.3	144.5 ✓
cb		3.8	144.0 ✓
¼		3.4	144.4 ✓
¼		6.3	141.5 ✓
C		8.1	139.7 ✓
¼		10.0	137.8 ✓
cb		10.8	137.0 ✓
N		11.6	136.2 ✓
	W curb ✓		
N		12.6	135.2 ✓
cb		11.9	135.9 ✓
¼		10.3	137.5 ✓
C		9.0	138.8 ✓

14776

				147.8	
+5			8.0	139.8	✓
1/4			6.3	141.5	✓
+2			5.3	142.5	✓
cb			5.2	142.6	✓
5			5.0	142.8	✓
			Elmwood	✓	
		W. L. Hellborn.			
5			5.0	142.8	✓
+5			6.7	141.1	✓
cb			7.0	140.8	✓
1/4			7.3	140.5	✓
+3.5			9.7	138.1	✓
C			10.2	137.6	✓
1/4			12.4	135.4	✓
cb			13.1	134.7	✓
N			13.6	134.2	✓
		15' W ✓			
-15			20.0	127.8	✓
N			16.9	130.9	✓
+3			16.8	131.0	✓
+8			14.5	133.3	✓
cb			14.3	133.5	✓
1/4			14.1	133.7	✓
+5			13.8	134.0	✓
C			12.7	135.1	✓
1/4			11.4	136.4	✓
+2			9.8	138.0	✓

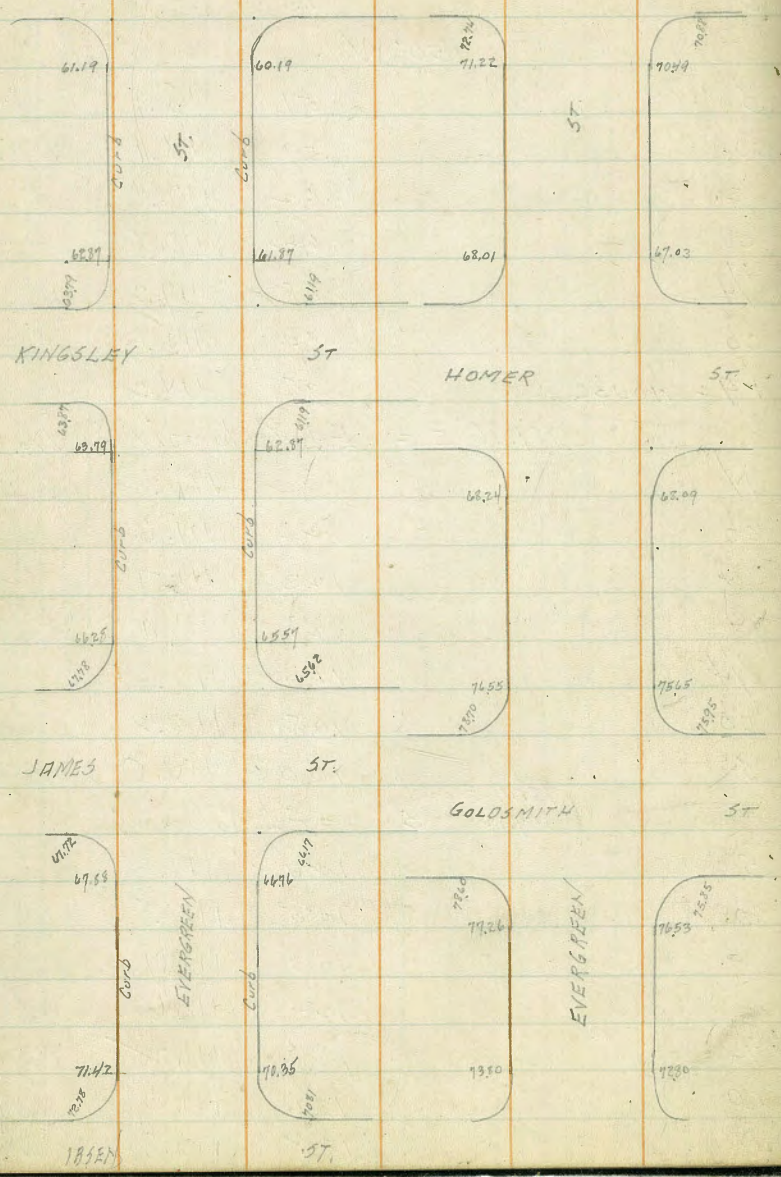
				147.8	
cb			9.6	138.2	✓
+6			9.6	138.2	✓
+7			7.8	140.0	✓
6			7.4	140.4	✓
		30' W. ✓			
5			9.8	138.0	✓
+2			10.0	137.8	✓
+3			12.2	135.6	✓
cb			12.3	135.5	✓
T.P.	0.30	135.48 ✓	12.58	135.18	✓
+3			0.0	135.5	✓
1/4			1.8	133.7	✓
+4			2.5	133.0	✓
C			4.0	131.5	✓
1/4			4.0	131.5	✓
+4			3.9	131.6	✓
cb			5.1	130.4	✓
+3			6.2	129.3	✓
N			6.4	129.1	✓
+15			10.8	124.7	✓
		65' W ✓			
-15			13.7	121.8	✓
N			11.7	123.8	✓
cb			10.2	125.3	✓
1/4			8.6	126.9	✓
+3			8.2	127.3	✓

		13548		(135.5)		
c			8.8	126.7	✓	
1/4			7.9	127.6	✓	
+4.5			6.2	129.3	✓	
cb			6.3	129.2	✓	
+8			6.2	129.3	✓	
+9			4.4	131.1	✓	
S			4.4	131.1	✓	
		100' W ✓				
S			11.4	124.1	✓	
cb			11.4	124.1	✓	
+4			11.7	123.8	✓	
1/4		123.03 ✓	12.6	122.9	✓	
TP	0.57	(~~12[illegible].03~~ 31)	13.02	122.6 ✓		(123.0)
c			0.3	123.7	✓	122.7
1/4			0.7	123.3	✓	122.3
cb			1.7	122.3	✓	121.3
N			2.7	121.3	✓	120.3
+10			4.0	120.0	✓	119.0
		125' W ✓				
-10			7.2	116.8	✓	115.8
N			7.1	116.9	✓	115.9
+5			5.7	118.3	✓	117.3
cb			4.2	119.8	✓	118.8
1/4			3.4	120.6	✓	119.6
c			2.7	121.3	✓	120.3
1/4			2.8	121.2	✓	120.2

			(124.0)	
cb		2.8	121.2	✓ 120.2
+6		1.5	122.5	✓ 121.5
S		1.5	122.5	✓ 121.5
	150' W			
S		5.1	118.9	✓ 117.9
cb		5.9	118.1	✓ 117.1
1/4		6.2	117.8	✓ 116.8
c		6.2	117.8	✓ 116.8
1/4		6.8	117.2	✓ 116.2
cb		8.4	115.6	✓ 114.6
+9 = house		9.8	114.2	✓ 113.2
	181.16' E =	E.L. Columbia on No.		
N		12.2	111.8	✓ 110.8
cb		12.4	111.6	✓ 110.6
1/4		12.3	111.7	✓ 110.7
c		12.1	111.9	✓ 110.9
1/4		11.4	112.6	✓ 111.6
cb		10.8	113.2	✓ 112.2
S		10.0	114.0	✓ 113.0
	181.16 E on N 197.12 " S	= E L Columbia		
S		12.4	111.6	✓ 110.6
cb		12.5	111.5	✓ 110.5
1/4		12.3	111.7	✓ 110.7
c		12.4	111.6	✓ 110.6
1/4		12.8	111.2 ✓	110.2
cb		12.6	111.4	✓ 110.4
N		12.2	111.8	110.8

1/30/23 Gregory Minore Shaw

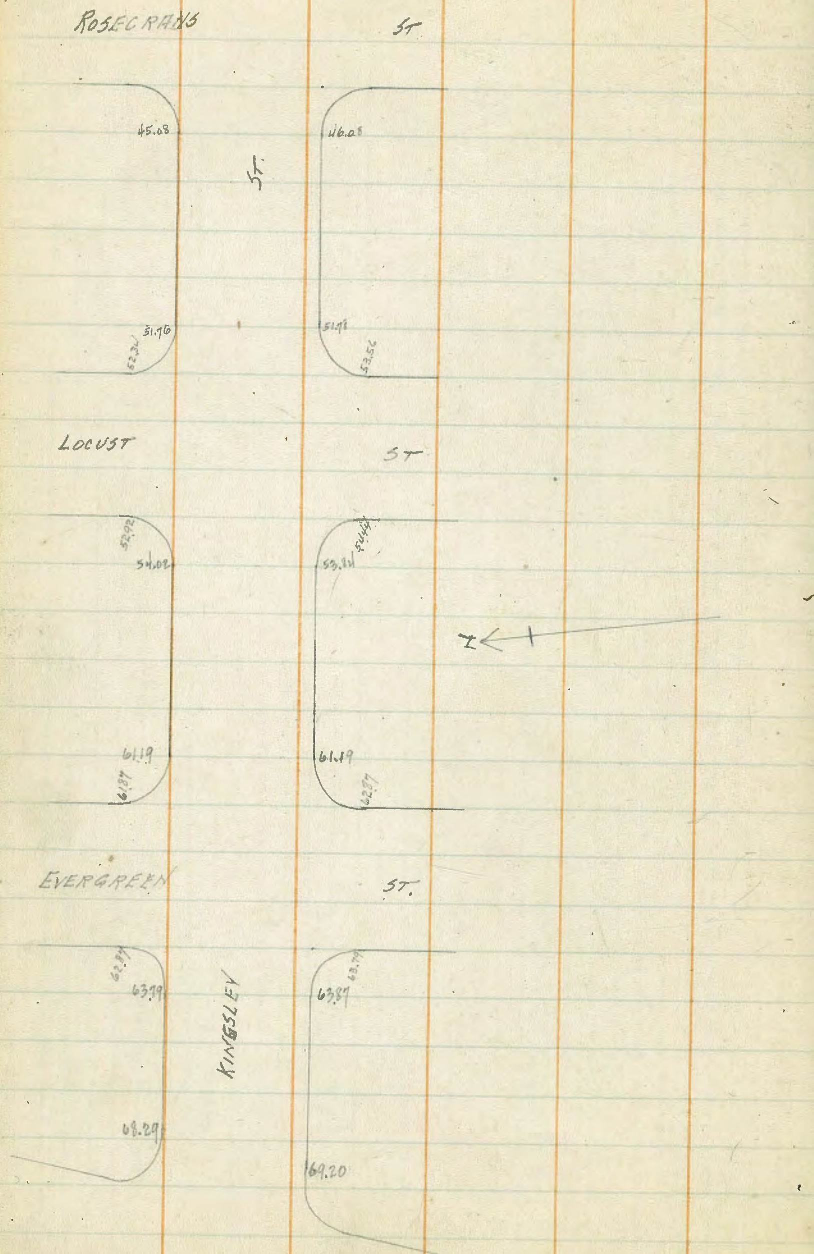
Curb Elevations EVERGREEN ST.



6116 B.M. B.P. SW Evergreen & Lytton 7.64

47

1/30/23 Gregory / Moore / Shaw Curb Elevations on KINGSLEY ST



6116

720.4

1085 / 61.19 917 / 62.87 784 / 69.20

1085 / 61.19 817 / 63.87 875 / 63.79 375 / 68.29

63.67 / .92 / 64.59

1088 / 53.71 / 2.55 / 56.26

1057 / 54.02 1167 / 53.92 1075 / 53.84 183 / 54.43 270 / 53.56 392 / 52.34 450 / 51.76 445 / 51.78

1015 / 51.08

3/23 Gregor / Moore / Miller / Shaw

Levels for Drain 32nd & Thorn
see sketch page 24

0.30	307.56		307.26	
0+00 = End of 22" p.pc		16.17	291.39	Flow Line
0+9.85 = Δ 26°54' R.		13.7	293.9	
+25		13.1	294.5	
+43		8.3	299.3	
+48.33 = Inlet of 24" c.p.		8.18	299.38	= Flow Line
+73.56 = center of C.B.		8.60	298.96	= Lower ↓
		5.87	301.69	= Flow Line ex Thorn St Drain

48.33

49

8/2/23 Gregory / Moore / ~~Miller~~

X Section of ORCHARD ST
from 135' W. of Bacon to the Beach
80' wide 20' cbs. 10' 1/4's

5.96 — on B.P. NE Orchard & Bacon

135' W. of Bacon

N.	1.7
cb on cement	2.07
gutr.	2.8
1/4	2.3
c	2.4
1/4	2.9
gutter	2.7
S cb on cement	2.08
S	2.0

138' W. = end of cement cb on S.

S	2.1
cb on cement	2.00
gutter	3.0

140' W. = end of cement cb on N.

S	3.7
+12	2.7
cb.	4.7
+2	5.1
+5	8.6
1/4	8.4
c	7.8
+7	7.6
1/4	2.9
+5	2.1
+7	4.1

gutter	3.3
cb on cement	1.97
N	1.7

143' W

N	1.6
+16	1.7
cb	3.2
+2	5.5
1/4	7.8
c	9.8
1/4	11.3

8/2/23 Gregory X Section on McCALL ST from W.L San Fernando to E.L Gorgonio 50' St 10' Cbs

				No B.M. Top of Curb SE McCall & San Fernando
	12.62	113.62	101.00	
Top Cb. N.E. McCall & San Fernando.		11.66	101.96	
W.L. San Fernando.				
N.		8.6	105.0	
+10 = N. cb. on cement.		9.61	104.01	
gutter		10.35	103.27	
1/4		9.86	103.76	
C		9.80	103.82	
1/4		10.35	103.27	
S gutter		11.30	102.32	
+ curb		10.62	103.00	
S		9.7	103.9	
2' W				
S		7.3	106.3	
+4		7.9	105.7	
+6		9.2	104.4	
cb		10.4	103.2	
1/4		10.6	103.0	
C		9.9	103.7	
1/4		9.7	103.9	
cb		9.7	103.9	
N		7.0	106.6	
25' W				
N		3.1	110.5	
cb		5.4	108.2	

57

+4		8.3	105.3	
1/4		8.5	105.1	
C		9.3	104.3	
1/4		9.2	104.4	
cb		8.1	105.5	
+3		7.3	106.3	
+7		5.9	107.7	
S		3.3	110.3	
50' W				
S		0.3	113.3	
+1		0.6	113.0	
+3		2.8	110.8	
+8		4.9	108.7	
cb		5.2	108.4	
1/4		6.9	106.7	
C		6.3	107.3	
1/4		5.6	108.0	
+3.5		2.7	110.9	
cb		2.2	111.4	
+6		1.1	112.5	
T.P.	12.29	125.75	0.16	113.46
N		11.8	114.0	
75' W				
N		8.2	117.6	
+4		10.4	115.4	
cb		11.3	114.5	

		125.75'							
1/4			14.2	111.6 ✓	+8			53	120.5 ✓
C			15.3	110.5 ✓	S			46	121.2 ✓
1/4			15.2	110.6 ✓			150' W		
CB			13.7	112.1 ✓	S			1.4	124.4 ✓
+7			11.9	113.9 ✓	CB			3.6	122.4 ✓
S			10.6	115.2 ✓	1/4			4.4	121.4 ✓
		100' W			C			3.6	122.2 ✓
S			8.2	117.6 ✓	1/4			3.2	122.6 ✓
+3			9.1	116.7 ✓	+3			3.1	122.7 ✓
CB			10.5	115.3 ✓	CB			1.5	124.3 ✓
1/4			11.9	113.9 ✓	+6			1.1	124.7 ✓
C			11.2	114.6 ✓	T.P.	13.13	138.85'	0.03	125.72 ✓
1/4			10.1	115.7 ✓	N			11.9	127.0
+3.5			9.6	116.2 ✓			175' W		
CB			8.1	117.7 ✓	N			8.1	130.8 ✓
+6			6.9	118.9 ✓	+4			10.4	128.5 ✓
N			4.1	121.7 ✓	CB			11.3	127.6 ✓
		125' W			1/4			12.3	126.6 ✓
N			1.6	124.2 ✓	C			12.4	126.5 ✓
+4			4.4	121.4 ✓	1/4			12.9	126.0 ✓
CB			4.7	121.1 ✓	CB			12.5	126.4 ✓
+4			6.5	119.3 ✓	S			11.3	127.6 ✓
1/4			7.1	118.7 ✓			200' W		
C			7.2	118.4 ✓	S			8.4	130.5 ✓
1/4			7.8	118.0 ✓	CB			9.0	129.9 ✓
CB			6.7	119.1 ✓	1/4			9.1	129.8 ✓

	138.85		
C		9.3	129.6
1/4		8.2	130.7
CB		7.9	131.0
+6		6.7	132.2
N		4.6	134.3
	215' W		
N		2.8	136.1
+4		4.8	134.1
CB		6.1	132.8
1/4		8.0	130.9
C		8.0	130.9
1/4		7.6	131.3
CB		6.8	132.1
+7		7.6	131.3
S		9.4	129.5
+2		11.0	127.9
+10		11.4	127.5
	217' W		
-20		18.7	120.2
S		12.9	126.0
+5		7.2	131.7
CB		6.6	132.3
	230' W		
S CB		5.4	133.5
+6		6.3	132.6
+8		11.3	127.6

S.L.			13.0	125.9
+5			13.6	125.3
+10			14.2	124.7
+20			16.0	122.9
2' N. of SL	232' W 233' W		10.75	= outlet 8x12" C.P. 128.10
-15			12.7	126.2
-5			11.1	127.8
S			7.4	131.5
+5			5.7	133.2
CB			5.1	133.8
1/4			5.6	133.3
C			5.5	133.4
1/4			5.2	133.7
CB			3.6	135.3
+6			1.9	137.0
N			0.6	138.3
T.P.	854	14645	0.94	137.91
		250' W		
N			3.3	143.2
+5			7.1	139.4
CB			9.2	137.3
1/4			10.4	136.1
C			10.9	135.7
1/4			11.1	135.4
CB			10.8	135.7
S			12.3	134.2
+5			14.0	132.5

275' W

-5	10.4	136 .1
-1	9.1	137 .4
S	8.2	138 .3
cb	7.7	138 .8
1/4	7.3	139 .2
C	6.7	139 .8
1/4	6.4	140 .1
cb	6.4	140 .1
+6	5.2	141 .3
N	3.8	143 .7

300' W = EL San Gorgonio

N	1.6	144 .9
cb	2.0	144 .5
1/4	2.4	144 .1
C	3.2	143 .3
1/4	3.5	143 .0
cb	4.2	142 .3
S	4.7	141 .8
+5	6.6	139 .9

X Sec Alley in Blk 38, La Jolla Park Silverado to Prospect Bet Fay & Girard
9/6/23 mills c.w. mill

B.M.	8.22	107.74 ✓		99.52	N.W. Fay + Silverado
	0.0 = N. Line Silverado				
W			4.81	102.93 ✓	on c.b.
W			4.98	102.76 ✓	on paving
C			5.02	102.72 ✓	
E			4.70	103.04 ✓	" "
E			4.56	103.18 ✓	" cb
	35' N				
E			4.6	103.1 ✓	
E			5.1	102.6 ✓	
W			5.0	102.7 ✓	
28.5' N. to 36.0' N Shed on W 1.5' in Alley					
		46.0' N Garage on E. Dirt on line			
W			5.2	102.5 ✓	
C			5.1	102.6 ✓	
E			5.2	102.5 ✓	
	95' N Garage on W. cement 3' Back				
W-3			5.0	102.7 ✓	on Floor
	100' N				
E			5.0	102.7 ✓	
C			5.3	102.4 ✓	
W			5.3	102.4 ✓	
	112' N Garage on W cement 3' Back				
W-3			5.3	102.4 ✓	on cement floor
W-1.5			5.4	102.3 ✓	" " Apron

		107.74		
		150N		
W			5.9	101.8
C			5.9	101.8
E			5.8	101.9
		200'N		
E			6.1	101.6
C			5.9	101.8
W			6.1	101.6
		250'N		
W			6.0	101.7
C			5.9	101.8
E			6.1	101.6
		300W		
E			6.1	101.6
C			5.7	102.0
W			5.9	101.8
TP	1.50	103.44	5.80	101.84
312'N Garage on E Dirt 7' Back				
E			1.5	101.9
		350'N		
W			2.3	101.1
C			2.1	101.3
E			2.10	101.4
365'N Garage on W Dirt 1.5 Back				
W-1.5			2.8	100.6

	103.44		
	400.' N		
E		3.0	100.4 ✓
e		3.4	100.0 ✓
w		3.7	99.7 ✓
	425' N. Garage on E. Dirt 4.0' Back		
W		4.4	99.0 ✓
e		4.4	99.0 ✓
E		3.8	99.6 ✓
+4.		3.4	100.0 ✓
	440 N Garage on E. Dirt 8.5 Back		
	4.50 N		
E		4.2	99.2 ✓
C		5.1	98.3 ✓
W		5.1	98.3 ✓
	493 N = Garage on W Dirt 4.0' Back		
W-4		6.7	96.7 ✓
W		6.7	96.7 ✓
C		6.8	96.6 ✓
E		6.4	97.0 ✓
	540 N		
E		7.7	95.7 ✓
e		8.7	94.7 ✓
w		7.8	95.6 ✓
	558 N		
w		8.8	94.6 ✓
C		9.8	93.6 ✓
E		8.4	95.0 ✓

40
58
61.0 H W
70 on E

		103.44			
561' N. approximate on W + 570. N. on E = S Line Prospect					
E			10.45	92.99 ✓	on Alley return
C			10.65	92.79 ✓	
W			10.50	92.84 ✓	" " "
T.P.	4.53	97.45	10.52	92.92 ✓	
T.P.			5.43	92.02	BM. Fay + Prospect

10/30/23 Gregory

CROSS SECTION OF
A PORTION OF
ORIZABA + COUTS

12.93	273.95	261.02	BM NE 5.5 [illegible]

SEC. A

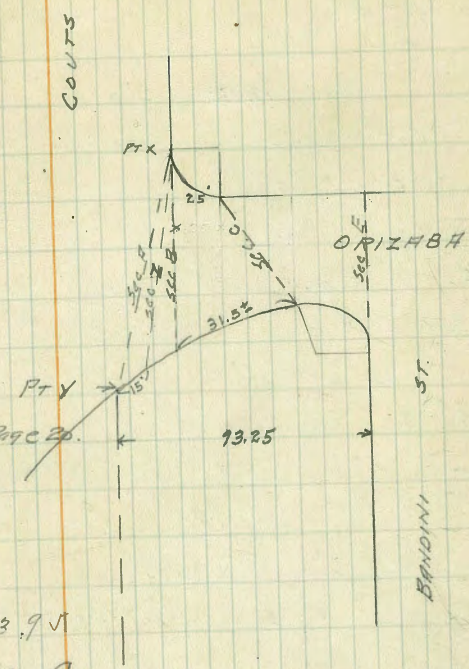
18' S.o.x PT X	5.20	268.8	= on cement [illegible]
18.1 " " " "	6.1	267.9	
37.7 " " " " = N. cb line prod. W.	6.2	267.8	
59 " " "	6.8	267.2	
80 " " "	8.0	266.0	
82 " " "	6.5	267.5	
90 " " "	8.0	266.0	
106.1± " " " = Pt Y	10.3	263.7	

Sec. Z =

99± " Pt X = S.L. Orizaba	5.3	268.7
80 " " "	6.3	267.7
76 " " "	7.2	266.8
50 " " "	6.2	267.8
36.2 " " " = N. cb line prod.	6.2	267.8
20.1 " " "	6.1	267.9

Sec. B.

25' S.o.x Pt X	6.2	267.8
35 " " "	6.0	268.0
50 " " "	5.8	268.2
70 " " "	6.4	267.6
75 " " "	6.8	267.2
78 " " "	5.9	268.1
95 " " "	5.4	268.6



See Book 1075 Page 26.

273.9

Sec. C.

63.5± S.o.x N.L. Orizaba = S.L. Orizaba	4.7	269.3
54 " " " " "	5.0	269.0
52 " " " " "	5.6	268.4
30 " " " " "	4.9	269.1
10' " " " " " = N. Gutter.	5.7	269.3

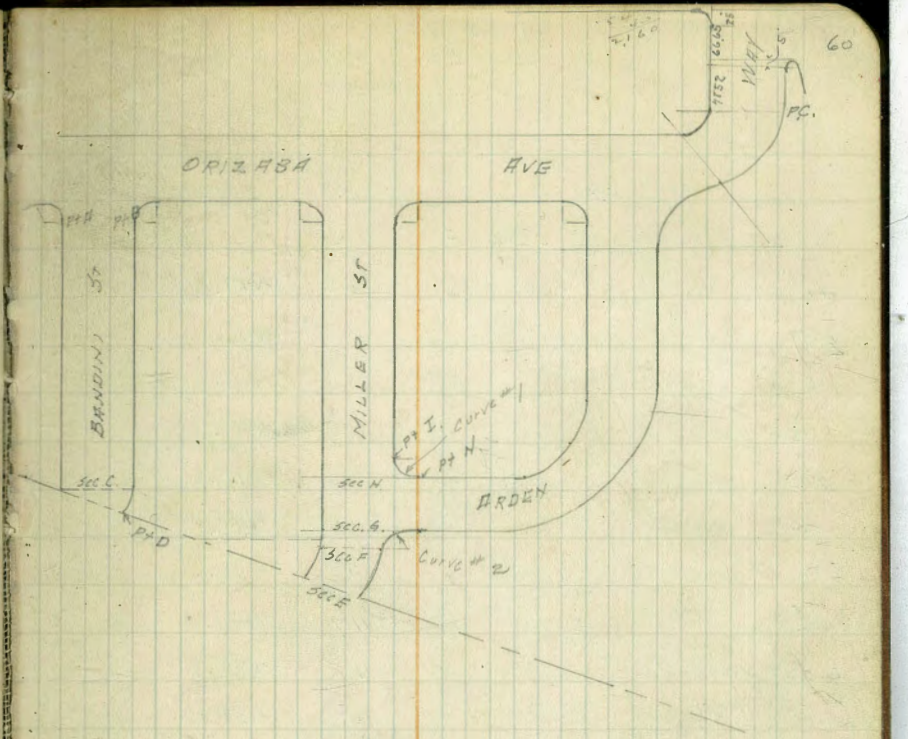
10/30/23 Gregory

LEVELS ON BANDINI ST from ORIZABA TO INSPIRATION

Dist curbs

	12.93	273.95		26102
PT A = W. cb			4.6	269.4
" B = E. "			4.0	270.0
25' S. of PT A E cb			5.5	268.5
rt angles to last above		W cb	5.7	268.3
50' S. of last above		W cb	8.3	265.7
rt angles across		E cb	8.2	265.8
50' S. of last above		E. Cb	11.1	262.9
rt angles to "		W ob	11.2	262.8
T.P.	0.74	262.27	12.42	261.53
50' S. of last one above		W cb	2.3	260.0
rt angles to one above		E cb	2.1	260.2
50' S. of last "		E cb	5.0	257.3
rt angles to " "		W cb	5.0	257.3
Sec. C		" " = Mid. Odd Line	7.5	254.8
" "		E cb = P.C.	6.9	255.4
PT D		" " = Mid. Odd Line	7.9	254.4

NE Vista 15.5



10/30/23

CROSS SECTION LEVELS ON DIRT + CURBS
MILLER ST

	263.27		
0.60		9.71	252.56
	SEC. E		
	253.16		
W.		6.2	247.0
+5		6.5	246.7
+6		8.3	244.9
✓ +10 = W 0		7.8	245.4
+17.5		7.4	245.8
+25		7.1	246.1
+27		7.2	246.0
+32.5		11.9	241.3
(10' 3.0x above for slope)		11.8	241.4
✓ +40 = E 0		17.4	235.8
(15' 3.0x last above for slope)		17.6	235.6
+50 = EL.		22.6	230.6
(25' 3.0x above for slope)		23.1	230.1
15' E 0x EL.		31.9	221.3
(25' 3.0x above for slope)		30.2	223.0
30' E. 0x EL.		43.3	209.9
40' " " "		42.5	210.7
50' " " "		44.2	209.0
65' " " "		44.6	208.6
(22' 3.0x above for slope) 11.96 H. on W 19.59 " " E		56.0	197.2
40' E 0x EL.		29.2	224.0
30' " " "		27.3	225.9

253.16

EL		17.9	235.3
✓ 10' W = E 0		12.8	240.4
17.5 "		8.8	244.4
22.5 "		6.6	246.6
25' W		6.3	246.9
32.5 "		6.6	246.6
✓ 40' "		6.8	246.4
43' "		7.2	246.0
44' "		5.8	247.4
50' W = W L		5.6	247.4
	23.92 H. on W 39.78 " " E		
W L		5.2	248.0
5' E. 0x W. L		5.6	247.6
✓ 10' " " "		6.4	246.8
17.5 " " "		5.8	247.4
25' " " "		5.6	247.6
32.5 " " "		6.0	247.2
✓ 40' " " "		5.8	247.4
50' " " " = EL		5.8	247.4
	SEC F		
EL		4.3	248.9
✓ 10' W		4.9	248.3
17.5 W		4.8	248.4
21'		4.7	248.5
32.5'		4.8	248.4
✓ 40'		5.2	248.0

		~~262.27~~ 253.16		
43' W			4.7	W48.5
50' W			4.7	W48.5
	Sec. G.			
✓ W. Cb.			3.0	W50.7
T.P.	1286	265.63 ~~274.44~~	0.39	252.77 ~~261.88~~
✓ Sec H. on W Cb			12.5	W53.1
✓ Pt I on E Cb			10.9	W54.7
100' N. ex last above		E Cb	3.7	W61.9
rt angles to ↑		W Cb	3.7	W61.9
T.P.	1260	277.53 ~~286.62~~	0.70	264.93 ~~273.92~~
100' N. ex last on		W. Cb	8.5	W69.0
rt angles to above		E ✓	8.4	W69.1
✓ 80' N. ex last ✓		✓ = PC. 259	2.8	W74.7
✓ rt angles to above			2.8	W75.7

11/6/73

CROSS SECTION OF ARDEN WAY
From S.L. Sunset to Orizaba
50' wide 10' cbs

on BM	1.61	270.05		268.44	BP NW SS + Arg.
	4.07	265.32	8.80	261.21	

S.L. Sunset

✓ W cb Line of Arden Way	1.33	263.99	on paving
1/4	1.43	263.89	– –
C	1.53	263.79	– –
1/4	1.92	263.60	– –
✓ cb	2.06	263.26	– –
E	2.48	262.84	– –

25' S of S.L. Sunset.

-10	5.2	260.1
E	4.7	260.6
✓ cb	4.0	261.3
1/4	3.8	261.5
C	3.8	261.5
1/4	3.3	262.0
gutter	3.7	261.6
✓ W curb (on cement)	3.28	262.04

50' S.

✓ W. curb (on cement)	4.73	260.59
gutter	5.4	259.9
1/4	5.3	260.0
C	5.5	259.8
1/4	5.7	259.6
✓ cb	6.0	259.3
E	6.2	259.1
+3	8.2	257.1
+10	9.1	256.2

265.32

75' S.

E	7.1	258.2
✓ cb	7.0	258.3
1/4	7.0	258.3
C	6.8	258.5
1/4	6.8	258.5
gutter	6.4	258.9
✓ W cb (on cement)	5.88	259.44

96.7' S of S

✓ W cb (on cement)	6.72	258.60
gutter	7.2	258.1
1/4	7.4	257.9
C	7.7	257.6
1/4	7.9	257.4
✓ cb	7.7	257.6
E	7.8	257.5

144.7 S of Sunset

E	9.3	256.0
✓ cb	9.1	256.2
1/4	9.0	256.3
C	8.6	256.7
1/4	8.7	256.6
+ 9	8.8	256.5
✓ cb	8.1	257.2
+5	7.4	257.9
W.	7.2	258.1

Elev of cement cb 100' S. of Sunset = 258.50

26532

175 S. of Sunset = PC.

W	7.4	257.9
✓ cb	8.2	257.1
+2	8.5	256.8
1/4	8.6	256.7
c	8.6	256.7
1/4	8.8	256.5
✓ cb	9.4	255.9
E	9.1	256.2

41.62 S. of PC.

E	7.8	257.5
+6	7.8	257.5
✓ cb	8.4	256.9
1/4	8.3	257.0
c	7.9	257.4
1/4	7.7	257.6
gutter	8.0	257.3
✓ cb	7.6	257.7
W	7.0	258.3

83.25 S. of PC. = PRC.

center	6.0	259.3
1/4	6.1	259.2
✓ E cb	6.3	259.0
+3	6.4	258.9
+4 this is top of dirt curb	5.9	259.4
E	5.9	259.4

From here on the st. is graded x 6' curbs

These distances all on East side of St.

4696 ... 21.64
17.41

358.57

69

17.41 on Prop. Line S. of P.R.C.

E Curb	4.8	260.5

34.82 on ditto S.

" "	4.2	261.1

52.23 on ditto S.

" "	4.3	261.0

69.64 on ditto S = EC.

" "	4.8	260.5
W cb	4.8	260.5

50' S. of EC.

W cb	6.1	259.2
E "	5.8	259.5

100' S. of EC

E cb	7.0	258.3
W "	7.2	258.1

150' S. of EC

W cb	8.4	256.9
E "	8.4	256.9

189.77 S. of EC = P.C

E cb	9.4	255.9
W "	9.3	256.0

50.45 S. of PC.

W cb	10.2	255.1
E "	10.4	254.9

100.90 S. of PC.

E cb	11.5	253.8
W "	11.3	254.0

These distances all on E side of St.

	350	256.99	11.73	253.59
		151.3	5.0 x PC.	
W cb			3.4	7 53.6
E ✓			4.0	7 53.0
		201.78	5.0 x PC. = EC.	
S on E cb			4.4	7 57.6
N - W -			4.0	7 53.0
		50 W.		
N cb			4.4	7 57.6
S ✓		80.08	4.9	7 57.1
		75 W =	PC. ox Cb. on N	
S cb			5.2	7 51.8 -
N ✓			4.7	7 52.3 +
.25 ground Curve #1			4.4	7 57.6
.50 ✓ ✓ #1			3.7	7 53.3
.75 ✓ ✓ #1			3.0	7 54.0
PC. ox Curve #2			53	7 51.7 -
.5 ground ✓ #2 ✓			6.8	7 50.2
EC. ox ✓ #2 ✓			83	7 48.7

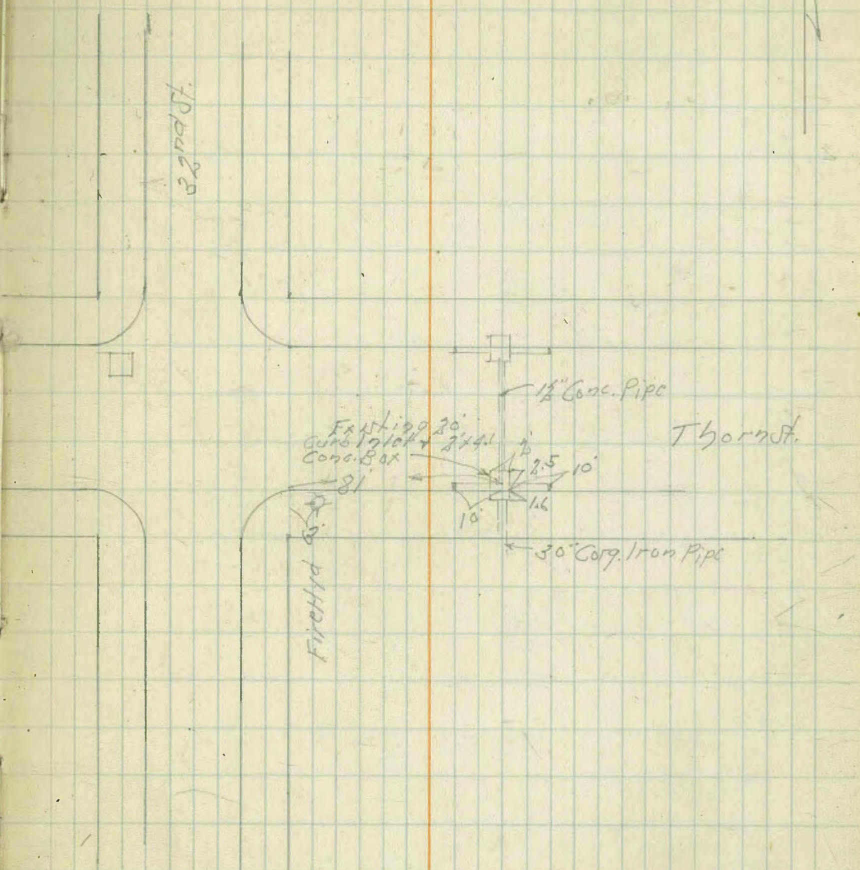
all sketched

Curb Levels South Side of Thorn St.
East of 32nd St.

BM	1.78	316.58		314.80	SW BP Thorn & 32nd
	3.54	309.92	10.20	306.38	
B.M.			2.70	307.22	SE Top FH Thorn & 32 307.26
	E.L. 32nd St.				
Top Curb			5.12	304.80	
Gutter			5.59	304.33	
	40' E of E.L. 32nd				
Top Curb			6.30	303.62	
Go			6.69	303.23	
	81' E of E.L. 32nd St.	℄ 20' Curb Inlet			
Top Curb			6.88	303.04	
Gutter on Grating			7.96	301.96	
Bottom Box			14.49	295.43	
Flow Line 12" Conc. Pipe to North			10.50	299.42	

Indexed
e.s.k.

Nov. 30-44
Sisson
Blin
Osborne
Hazard



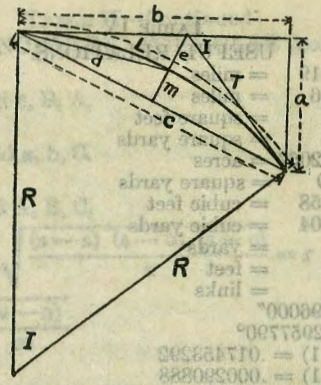


TABLE V

CURVE FORMULAE FOR SIMPLE CURVES

COMPILED BY J. CALVIN LOCKE, C.E.

(1) $c = \sqrt{2Ra}$ (2) $c = \sqrt{a^2+b^2}$

(3) $c = \sqrt{2R\,(R-\sqrt{(R+b)\,(R-b)}} = \sqrt{2R(R-\sqrt{R^2-b^2})}$

(4) $c = 2\sqrt{m\,(2R-m)}$

(5) $c = 2R \sin \frac{1}{2} I$ (6) $c = 2T \cos \frac{1}{2} I$

(7) $e = R \operatorname{exsec} \frac{1}{2} I$

(8) $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$ (9) $e = T \tan \frac{1}{4} I$

(10) $b = \sqrt{a\,(2R-a)}$

(11) $b = \sqrt{\left(c+\frac{c^2}{2R}\right)\left(c-\frac{c^2}{2R}\right)} = \sqrt{c^2-\frac{c^4}{4R^2}}$

(12) $b = R \sin I$ (13) $b = a \cot \frac{1}{2} I$

(14) $R = \frac{a^2+b^2}{2a} = \frac{c^2}{2a}$ (15) $R = \frac{d^2}{2m} = \frac{c^2+4m^2}{8m}$

(16) $d = \sqrt{R\,(2R-\sqrt{(2R+c)\,(2R-c)}} = \sqrt{R(2R-\sqrt{4R^2-c^2})}$

(17) $d = \sqrt{2Rm}$ (18) $d = 2R \sin \frac{1}{4} I$ (19) $m = \frac{d^2}{2R}$

(20) $m = R \mp \sqrt{\left(R+\frac{c}{2}\right)\left(R-\frac{c}{2}\right)} = R \mp \sqrt{R^2-\frac{c^2}{4}}$

(21) $m = R \operatorname{vers} \frac{1}{2} I$ (22) $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$ (23) $m = \frac{1}{2} c \tan \frac{1}{4} I$

(24) $a = \frac{c^2}{2R}$ (25) $a = R - \sqrt{(R+b)\,(R-b)} = R - \sqrt{R^2-b^2}$

(26) $a = 2\,R\,(\sin^2 \frac{1}{2} I)^2$ (27) $a = R \operatorname{vers} I$ (28) $a = R \sin I \tan \frac{1}{2}$

(29) $a = b \tan \frac{1}{2} I$ (30) $a = T \sin I$ (31) $T = R \tan \frac{1}{2} I$

(32) $I = \frac{L}{R} \times 57.295780$ (33) $R = \frac{L}{I} \times 57.295780$

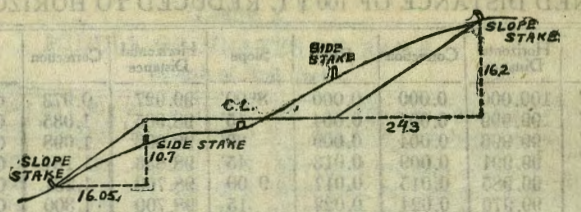
(34) $L = IR \times 0.01745329$ (35) $L = \frac{8d-c}{3}$

(36) Area Seg. $= \frac{LR - R^2 \operatorname{Sin} I}{2} = \frac{LR - Rb}{2}$

TABLE VI

SINES, COSINES, TANGENTS, COTANGENTS

deg.	sin 0′	tan 0′	sin 10′	tan 10′	sin 20′	tan 20′	sin 30′	tan 30′	sin 40′	tan 40′	sin 50′	tan 50′	deg.
0	0000	0000	0029	0029	0058	0058	0087	0087	0116	0116	0145	0145	89
1	175	0175	0204	0204	0233	0233	0262	262	291	291	320	320	88
2	349	349	378	378	407	407	436	437	465	466	494	495	87
3	523	524	552	553	581	582	610	612	640	641	669	670	86
4	698	699	727	729	756	758	785	787	814	816	843	846	85
5	872	875	901	904	929	934	958	963	987	992	1016	1022	84
6	1045	1051	1074	1080	1103	1110	1132	1139	1161	1169	190	198	83
7	219	228	248	257	279	287	305	317	334	346	363	376	82
8	392	405	421	435	449	465	478	495	507	524	536	554	81
9	564	584	593	614	622	644	650	673	679	703	708	733	80
10	736	763	765	793	794	823	822	853	851	883	880	914	79
11	908	944	937	974	965	2004	994	2035	2022	2065	2051	2095	78
12	2079	2126	2108	2156	2136	186	2164	217	193	247	221	278	77
13	250	309	278	339	306	370	334	401	363	432	391	462	76
14	419	493	447	524	476	555	504	586	532	617	560	648	75
15	588	679	616	711	644	742	672	773	700	805	728	836	74
16	756	867	784	899	812	931	840	962	868	994	896	3026	73
17	924	3057	952	3089	939	3121	3007	3153	3035	3185	3062	217	72
18	3090	249	3118	281	3145	314	173	346	201	378	228	411	71
19	256	443	283	476	311	508	338	541	365	574	393	607	70
20	420	640	448	673	475	706	502	739	529	772	557	805	69
21	584	839	611	872	638	906	665	939	692	973	719	4006	68
22	746	4040	773	4074	800	4108	827	4142	854	4176	881	210	67
23	907	245	934	279	961	314	987	348	4014	383	4041	417	66
24	4067	452	4094	487	4120	522	4147	557	173	592	200	628	65
25	226	663	253	699	279	734	305	770	331	806	358	841	64
26	384	877	410	913	436	950	4462	986	488	5022	514	5059	63
27	540	5095	566	5132	592	5169	617	5206	643	243	669	280	62
28	695	317	720	354	746	392	772	430	797	467	823	505	61
29	848	543	874	581	899	619	924	658	950	696	975	735	60
30	5000	774	5025	5812	5050	851	5075	890	5100	930	5125	969	59
31	150	6009	175	6048	200	6088	225	6128	250	6168	275	6208	58
32	299	249	324	289	348	330	5373	371	398	412	422	453	57
33	446	494	471	536	495	577	519	619	544	661	568	703	56
34	592	745	616	787	640	830	664	873	688	916	712	959	55
35	736	7002	760	7046	783	7089	807	7133	831	7177	854	7221	54
36	878	265	901	310	925	355	948	400	972	445	995	490	53
37	6018	536	6041	581	6065	627	6088	673	6111	720	6134	766	52
38	157	813	180	860	202	907	225	954	248	8002	271	8050	51
39	293	8098	316	8146	338	8195	361	8243	383	292	406	342	50
40	428	391	450	441	472	491	494	541	517	591	539	642	49
41	561	693	583	744	604	796	626	847	648	899	670	952	48
42	691	9004	713	9057	734	9110	756	9163	777	9217	799	9271	47
43	820	325	841	380	862	435	884	490	905	545	926	601	46
44	947	657	967	713	988	770	7009	827	7030	884	7050	942	45
45	7071	1.0000	7092	1.0058	7112	1.0117	133	1.0176	153	1.0235	173	1.0295	44
deg.	60′ cos	60′ cot	50′ cos	50′ cot	40′ cos	40′ cot	30′ cos	30′ cot	20′ cos	20 cot	10′ cos	10′ cot	deg.



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1 65	1 80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3 45	3.60	3 75	3.90	4.05	4.20	4 35	2
3	4.50	4 65	4.80	4.95	5 10	5 25	5 40	5.55	5.70	5.85	3
4	6.00	6 15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7 50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9 00	9 15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10 65	10.80	10.95	11.10	11.25	11.40	11.55	11 70	11.85	7
8	12.00	12 15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13 50	13.65	13 80	13 95	14.10	14.25	14.40	14 55	14.70	14.85	9
10	15.00	15 15	15 30	15.45	15.60	15.75	15.90	16.05	16.20	16 35	10
11	16 50	16 65	16 80	16.95	17 10	17.25	17.40	17.55	17.70	17.85	11
12	18 00	18.15	18.30	18 45	18.60	18 75	18.90	19.05	19.20	19 35	12
13	19 50	19 65	19.80	19.95	20.10	20.25	20 40	20.55	20.70	20.85	13
14	21.00	21 15	21.30	21.45	21 60	21.75	21.90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24 15	24 30	24 45	24.60	24.75	24 90	25 05	25.20	25.35	16
17	25.50	25 65	25.80	25 95	26.10	26 25	26 40	26.55	26.70	26.85	17
18	27.00	27 15	27.30	27 45	27.60	27.75	27.90	28.05	28 20	28.35	18
19	28 50	28 65	28 80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30 00	30 15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31 50	31 65	31.80	31.95	32 10	32 25	32.40	32.55	32 70	32 85	21
22	33 00	33.15	33 30	33 45	33.60	33 75	33.90	34.05	34.20	34.35	22
23	34 50	34 65	34.80	34.95	35.10	35 25	35 40	35.55	35.70	35 85	23
24	36.00	36 15	36.30	36 45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37 80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39 00	39 15	39.30	39 45	39 60	39.75	39.90	40.05	40.20	40.35	26
27	40 50	40 65	40 80	40.95	41.10	41.25	41 40	41.55	41.70	41.85	27
28	42 00	42 15	42.30	42.45	42.60	42 75	42.90	43.05	43.20	43.35	28
29	43 50	43 65	43.80	43 95	44.10	44 25	44 40	44.55	44.70	44 85	29
30	45 00	45 15	45.30	45 45	45.60	45.75	45.90	46.05	46 20	46.35	30
31	46.50	46.65	46.80	46 95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48 00	48.15	48.30	48 45	48.60	48 75	48.90	49.05	49 20	49.35	32
33	49.50	49 65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51 00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52 50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54 00	54.15	54.30	54 45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55 50	55 65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57 45	57.60	57 75	57.90	58.05	58.20	58 35	38
39	58 50	58.65	58 80	58.95	59.10	59 25	59.40	59 55	59.70	59.85	39
40	60 00	60.15	60 30	60 45	60 60	60.75	60 90	61.05	61 20	61.35	40
41	61.50	61 65	61.80	61 95	62 10	62 25	62.40	62 55	62 70	62.85	41
42	63 00	63.15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64.35	42
43	64.50	64 65	64 80	64.95	65.10	65 25	65 40	65.55	65.70	65.85	43
44	66 00	66 15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67 50	67 65	67 80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69 00	69 15	69 30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70 50	70 65	70 80	70 95	71.10	71.25	71 40	71.55	71.70	71.85	47
48	72.00	72 15	72.30	72.45	72.60	72.75	72.90	73 05	73.20	73 35	48
49	73 50	73 65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

Computed by L. Leland Locke.