

Water Pipes.

- No 1 -

2

LEVEL

F.B.20

20

*Return to City Engineers Office  
City Hall, San Diego, Cal.*

MICROFILMED

DEC 2 1964

DEC

20

*Return to City Engineers Office  
City Hall, San Diego, Cal.*

DEC 2 1964

DEC

Water pipe line from Union ave  
to cross Blind 6-17

S.B.W. Co. Haydon St and Union  
ave ————— 20

Water pipe in Blind — 22-25

30th St sketch of Street 26-27

Hensley Survey 191 28-33

Crescent & Jennings 191 28-33

Water pipe B. St. line 35-37

B. line for water pipe from  
 Univ. Bld, South by Stadia


Hambro  
 Hemsley

July 14 1891

2

Sta	Course	Asc	Vert Angle	Stadia	Dist	Elev
49+91		S 11° 10' E	- 0° 24'	4.02	4.03	335.0
40+26		S 16° 0' E	- 0° 27'	9.64	9.64	342.5
32+67			- 0° 56'	7.58	7.59	355.4
27+07		S 15° 0' E	- 0° 25'	4.99	5.00	339.0
24+70		N 86° 20' E	- 0° 10'	2.92	2.93	359.9
21+06			- 0° 45'	3.66	3.64	364.7
14+33			- 0° 23'	6.73	6.74	369.2
6+03		V	- 0° 15'	8.28	8.29	372.4
0		S 14° 20' E	+ 0° 50'	6.02	6.03	367.0

= Pipe laid on Univ Ave and Melrose Ave

Δ 12'  Mound of Rock

Sta	course	Dist.	<sup>Vert</sup> Angle	Stadia	Dist	Elev
Sta B		337° 50' W	+23° 05'	0.74		
Set up in bottom of canon right to Sta A						
		364° 30' W	-0° 43'	2.63	264	313.3
A		525° 50' W	-1° 10'	1.88	189	(312.7)
		West	+0° 40'	1.77	178	314.6
		362° W	-2° 30'	.65	65	314.0
		<del>369° E</del>	<del>-4° 30'</del>	.70		
		N 17° 50' E	+0° 50'	.37	38	313.0
		N 11° 30' E	+1° 0'	1.66	167	313.0
		East	-0° 45'	8.0	81	316.0
		S 30° 30' E	-1° 50'	1.17	118	313.0
		S 37° 15' E	-0° 40'	2.56	259	314.0
64+27						316.6
63+17.8			-1° 15'	1.09	110	319.0
59+93			-1° 04'	3.24	324.8	325.0
53+94		S 14° 15' E	-0° 41'	6.98	599	332.2

} South Side

Set up on this point to  
get correction.

} North side of Canon (From Sta 64+27)

W line of Wallace 30'  
East of Stake marker  
Blk 35 A

Sta	course	M.C.	Vert	Stadia	Hist	Elev
	S 29° 35' W	- 9° 55'	2.07	2.02	240.5	
	N 46° 15' W	+ 3° 33'	2.94	2.93	284.0	
	N 63° W	- 7° 25'	1.43	1.43	257.6 (275.8)	
	N 65° 30' W	- 0° 15'	.64	.65	296.3	
	S 46° E	- 4° 50'	1.80	1.79	284.0	
(C)	S 17° E	- 8° 28'	2.07	2.03	(275.8)	
77+10.5					299.1	
74+59		- 2° 28'	2.51	2.51.5	309.9	
73+18		- 1° 10'	1.40	1.41	312.8	
69+26		- 0° 20'	3.91	3.92	315.1	
64+27	S 14° 15' E	- 0° 10'	4.98	4.99	316.6	
	S 39° 36' E	2° 40'	2.60	3.60		
	S 46° 30' E	- 2° 15'	2.90	2.90		
	S 72° 0' E	- 2° 10'	.16	.17		
	N 70° W	+ 1° 50'	1.96	1.96		

P.B. motor truck  
 At Sta C.  
 top corner  
 bottom corner  
 Sta C

set up on this point (Sta C S 17° E from 77+10)

set up on Sta 64+27

Sta	x	HD	-	Elw		
	4.7	293.6		288.9	Sta 95+53	
B.M.			4.1	289.5	Biddle & Pasford	
95+53				288.9	= Sta 111+19 on A line	
92+12		314° 31' E	-0° 57'	3.40	3.41	294.6
		(N 4° 30' E	-0° 20'	2.82	2.83	292.0
		S 57° E	0.0	3.04	3.05	293.7
		N 55° W	-1° 10'	1.71		290.0
86+31			+0° 05'	5.80	5.81	293.7
77+10.5		59° 30' W	-0° 20'	9.21	9.22	299.1
	Set up at Sta 77+10.5					
		518° 30' W	-8° 37'	4.73	4.65	206.8
		99° 30' W	-10° 45'	3.92	3.90	206.4
		321° 20' E	-15° 40'	2.58	2.22	213.5
		521° 45' W	-18° 40'	1.80	1.63	221.0
		515° 15' E	-17° 42'	1.10	1.01	240.8

← head of lateral canon

top of Bank

Sta 86+31 on Bank

} growth of lateral canon  
Bottom of Switzer canon

On Sta C

B. line for water pipe line from  
Univ Bld South

6

Sta	Def.	Course	M.C.
17			
16			
15			
14			
13			
12			
11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			
0			

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

0

$30^{\circ} 45' E$   $14^{\circ} 35' E$

Sta 0 is the point where a line 10' East of the  
center of China Ave intersects a line 10'  
South of center of University Boulevard



Blume for water pipe  
 South from Union Ave

Sta. Ref. course M.C.

32			
31			
+80			
+43			
30			
+45			
29			
28			
27			
+94			
+12.5			
+13.9	89° 35' N	80° 20' E	914° 15' E
26			
25			
+99.6	90° 0' R	889° 15' W	875° 20' W
24			
23			
22			
21			
20			
19			
+02			
18			

Seaf stake to NE cor of Robinson & Wightman 22.6

9.5 Intersections at and old stake marked 18 Ave.

Benson St.

212.0 Stake marked  
 10' Ward of Rock the S  
 S.W. cor of E 1/2 of 1127

Point 22.5 west of the east line of Robinson St.

24+39.6 north line of Stillman 44 and 27' from east line of Union St.

center of R.R.

Blind for water pipe south  
from Union Ave

8

Sta	Ref	course	br.C.
+ 61			
+ 26			
48			
47			
46			
45			
+ 81			
44			
43			
42			
41			
40			
39			
+ 12			
38			
37			
+ 63			
36			
35			
+ 27			
34			
+ 45			
33			

+ 61

+ 26

48

47

46

45

+ 81

44

43

42

41

40

39

+ 12

38

37

+ 63

36

35

+ 27

34

+ 45

33

4.6 [ ] scarp stake

5.5 [ ]

6.3 [ ] scarp stake ✓

8.0 [ ] old stake marked ✓

7.5 [ ] scarp stake West St. ✓

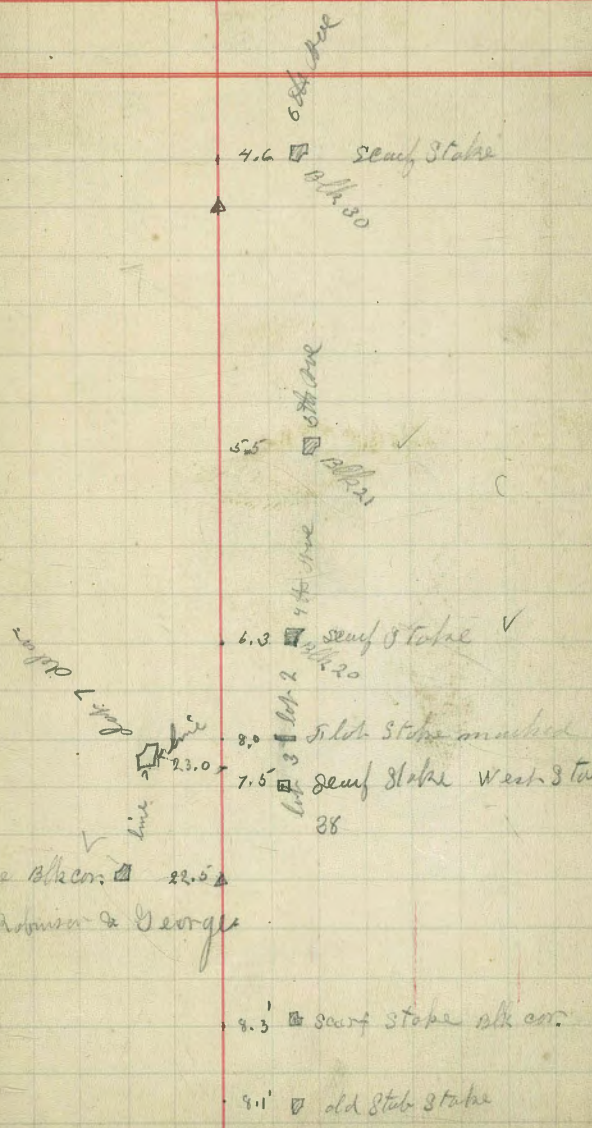
38

scarp stake blk cor. [ ] 22.5

SF cor. of Robinson & George

9.3 [ ] scarp stake blk cor.

9.1 [ ] old stake stake



Blind for water pipe South  
from Union ave

9

Sta. Ref. course D.C.

+45		
63		
+20		
62		
61		
60		
+92		
+53	0° 34' W	S 14° 15' E
59		
58		
57		
56		
55		
54		
53		
+92	0° 22' W	
+42		
52		
51		
50		
49		



3.0 3/8" Mound of Rock

Stake marked 35.7 ft  
3' West

3.0 West

1 1/2" x 1/2" stake 10" high at  
NE  
374.30 ft  
329.8 ft

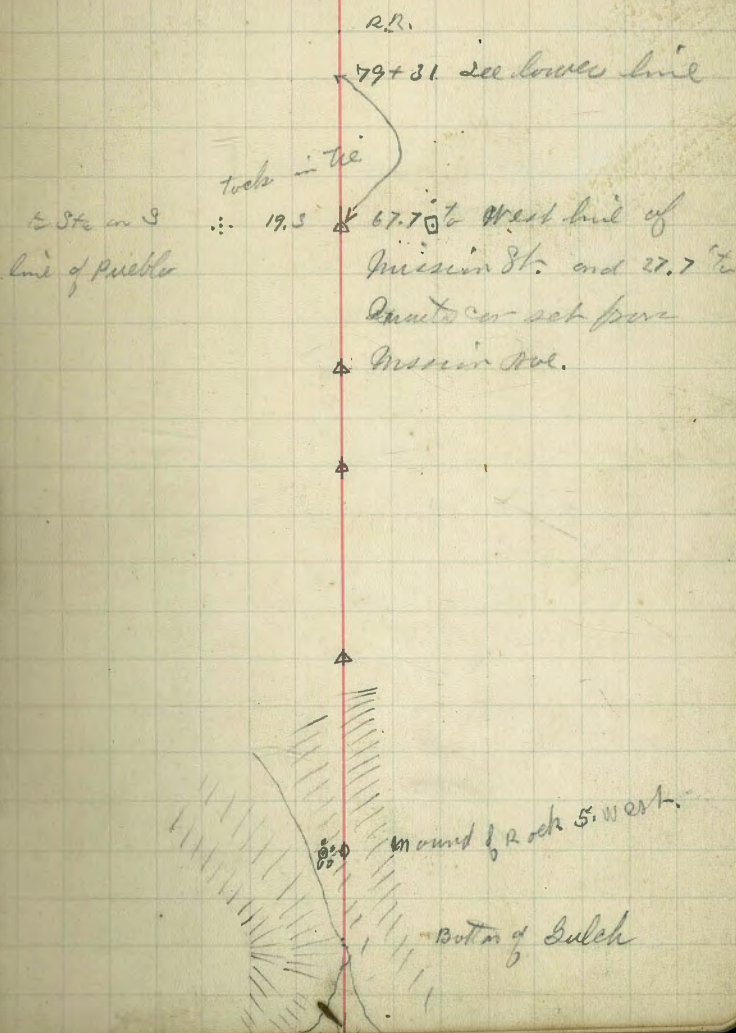
1 1/2" x 1/2" stake old  
corner of lot 1 & 2  
of Wall area Old

Line for water pipe South  
from Union ave

10

Sta Ref course MC.

+37.7		
+31	3° 35' R	S10° 45' E
79		
78		
+20		
77		
76		
+60		
75		
74		
73		
72		
71		
70		
69		
68		
67		
+57		
66		
65		
+25		
64		



Line for water pipe South  
from Union Rd

11

Sta	Def	course	M.B.
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

+60 = Sta 111 + 20 m of line

99

93

+60.4 3° 37' N 319° 30' E

92

91

+45

90

89

88

+45

87

86

+71

85

85

83

82

81

80

1120  
5450  
1660

▲

▲ north line of W & B's add

NW cor of Union Mission Sta  
45.6  
N 78° E 22.0

SW cor of Mission and Tufts St  
52.0  
N 78° 15' E

▲

Blind for Water pipe South  
from Union ave

12

Oberlin St

Tufts St

Union St

Plg. 52.0

Plg. 46.5

137.0  
25  
41.5

Sta 92+60.4

Levels on Blinn (Backlog up from  
Sta 111+20 on A line

Hamlin level  
Hensley rod

13

Sta	+	HO	-	Elev
B.M.	9.86	293.21		285.35
94+60 = 111+20			10.5	284.7
94			10.7	284.5
93			6.6	288.6
92+60.4			5.3	289.7
92			4.8	290.4
91			4.4	290.8
90			5.0	290.3
89			4.3	290.7
88			4.0	291.2
87			5.20	290.0
#	2.06	292.17	5.10	290.11
86			1.4	290.8
85+71			1.5	290.7
B.M.			1.14	291.03
86+31 on Stadium line			2.6	289.6
85			4.9	287.3
#	0.08	280.26	11.99	290.18
#	1.87	270.43	11.70	268.56
#	0.24	259.10	11.57	258.86
84			4.9	254.2

Biddle and Shepard St  
111+20 on A line

5' left of Sta 85+71

Sta	+	H <sub>2</sub>	-	Elev.
		259.10		
#	0.54	247.69	11.95	247.15
#	0.80	236.74	11.75	235.94
#	6.96	232.09	11.61	225.13
83			11.4	220.7
82+35			3.4	228.7
82+27			3.2	228.9
82			7.0	225.1
#	0.58	220.95	11.72	220.37
#	1.84	211.34	11.45	209.50
81			5.0	206.3
80+72			5.7	205.6
80+60			5.9	205.4
80+55			8.6	202.7
80+50			6.6	205.7
#	10.48	221.55	0.27	211.07
#	10.76	231.63	0.68	220.87
80			8.0	223.6
79+55			4.1	227.5
#	11.54	242.60	0.57	231.06
B.M.			5.74	236.56

Trail in Switzell corner

Bottom of gulch

Foot of embankment of RR.

Top of drift bank on inside of Bridge (at  
one from East end)



Sta	+	HO	-	Elev.
		242.60	.	
79+42			6.4	236.2
79+34			5.8	236.8
79+31			7.3	235.3
79+24			10.4	232.2
79			4.2	238.4
#	11.62	253.73	0.49	242.11
78+75			8.3	245.4
78+26			0.6	253.1
78			2.5	251.2
77+88			7.2	246.5
#	11.69	264.89	0.53	253.20
#	11.21	275.58	0.52	264.37
77+31			1.0	274.7
#	11.67	286.80	0.45	275.13
77+20			11.0	275.8
77			8.8	278.0
#	11.41	297.25	0.96	285.84
76			3.5	293.8
#	11.47	308.66	0.06	297.19
75+60			11.2	297.5

} top of R.R. embankment

South line of Wallace's field  
Foot of embankment

Bottom of gulch.

Sta	+	HD	-	Obs.
75		308.66		
75			8.9	299.8
74			3.8	304.8
B.M.			3.82	304.84
<del>73</del>			<del>2.1</del>	<del>306.6</del>
#	8.86	315.37	2.15	306.51
73			8.0	307.4
72			6.0	309.4
71			4.8	310.6
70			3.8	311.6
69			3.6	311.8
#	4.06	316.03	3.40	311.97
68			4.6	312.4
B.M.			4.23	311.80
67			9.4	306.6
#	0.36	304.79	11.60	304.43
#	1.07	294.49	11.37	293.42
66			3.3	291.2
#	4.08	288.54	10.03	284.46
65			11.1	277.4
64+25			5.7	282.8

5' left of Sta 74 Adj.

5' left of Sta 68

Bottom of corner  
mouth of lateral corner

Sta	+	H <sub>2</sub>	-	Elev.
		288.54		
#	12.11	300.35	0.30	288.24
64			4.6	295.8
#	11.84	311.77	0.42	299.93
63+65			4.3	307.5
63+45			1.0	310.8
#	12.00	323.11	0.66	311.11
63			8.7	314.4
62			6.1	317.6
61			4.9	318.2
60			3.7	319.4
B.P.M.				

Shift of Sta 60

329.0  
 7.7  
 ---  
 321.3

Sta	+	40	-	Elev
-----	---	----	---	------

18

18

F

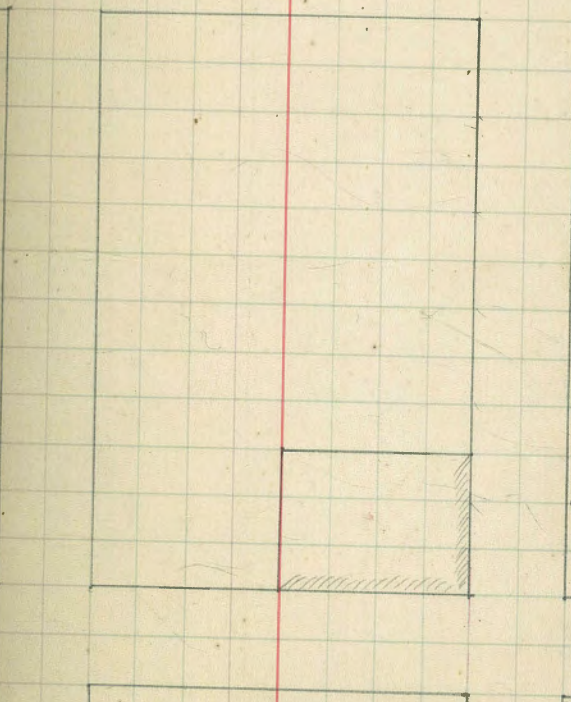
St

B

St

4+4

5+4



Sta	+	H <sub>2</sub>	-	Elev
-----	---	----------------	---	------

B.M.				2857.35
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Riddle and Shepard Sts

Sketch showing location of  
Hydrant SW cor. of 6th & Univ

Sept 18 1891

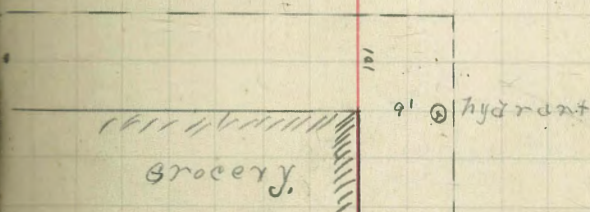
Hessman  
Williams  
Hemaley

20

Sta	+	W	-	Elev.		
B 7m	3.45	289.70		286.25		
B 9m			4.15	286.66		
			2.94	287.26	284.0	3.26
			5.47	284.23		Elev of

6th & Univ  
7th & Univ  
= 3' 3" on top of porch in front of  
truck at Grocery Store  
Great property line of 6th St

Univ Ave



6th St

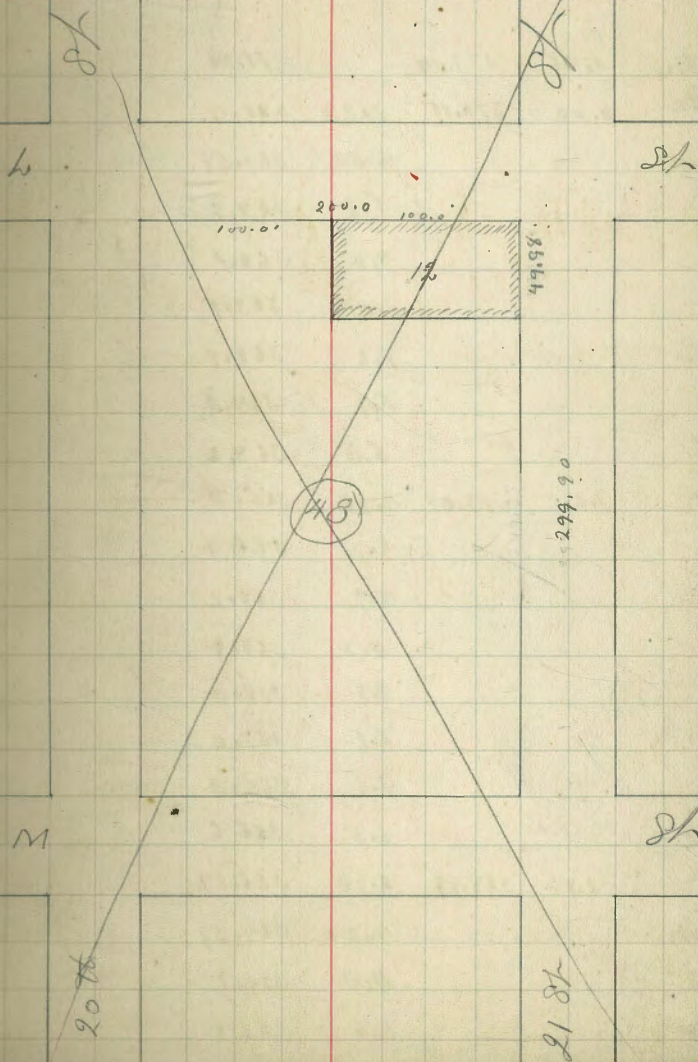
Sept 22 1891

Hamlin  
Williams  
Hemlock.

21

Survey of Lot 12 blk 48 in  
Sherburne Block

copied into Book 25 Page 13



Levels on B line for water pipe  
from Univ. & Ohio South to Sta. 60.

July 18 1891

copied from old bench  
Book *Clinton* 22  
William level

Sta	+	H <sub>2</sub>	-	Elev.
B.M.	1.58	373.84		371.96
#	4.00	370.11	7.23	366.11
B.M.			6.52	368.59
0			5.2	364.9 ✓
1			4.0	366.1
2			7.0	363.1
3			7.2	362.9
4			5.9	364.2
5			5.5	364.6
#	7.69	373.07	4.73	365.38
6			6.7	366.4
7			4.9	368.2
8			4.7	368.4
9			4.8	368.3
10			6.1	367.0
11			7.8	365.3
12			6.5	366.6
#	2.85	368.99	6.93	366.14
B.M.			4.20	364.79
13			4.3	363.7
14			4.0	363.0

Univ and Iowa

Ohio SW. cor on Plug.

Ohio and Polk SW. on Plug.



Sta.	+	HD	-	Elev.
		368.89		
15			4.9	363.1
16			4.4	363.6
17			5.6	362.4
18			5.8	362.2
+02			5.8	362.2
B.M.	0.11	365.09	4.01	364.98
19			2.6	362.5
20			4.1	360.0
21			5.4	359.7
22			7.4	357.7
23			8.6	356.5
24			9.3	355.8
+99			9.4	355.7 ✓
26			9.7	355.4
+13.9			9.9	355.2 ✗
27			10.0	355.1
#	3.63	358.50	9.92	358.57
28			4.1	354.4
29			4.4	354.4
30			6.4	352.4

Ohio and Taylor SE on Plug.

Sta	+	HO	-	Alen
		358.80		
31			7.6	351.3
32			9.9	348.9
#	1.74	349.71	10.83	347.27
33			3.7	346.0
34			5.3	344.4
35			5.7	344.0
36			7.7	342.0
B.M.	2.90	344.42	8.19	341.52
36+63			3.6	340.9
37			4.0	340.4
38			4.5	339.9
39			4.5	339.9
40			6.5	337.9
41			9.5	334.9
42			11.6	332.4
B.M.	4.43	338.81	10.04	334.38
43			8.2	330.8
44			7.4	331.4
45			7.6	331.8
46			7.1	331.7

On top of Witness Stake opposite Sta 36+63

top of White Stake marked with 21 near  
Sta 41+80

Sta	+	HC	-	Blv
		338.81		
47			5.8	333.0
#	4.87	337.99	5.69	333.12
48			4.8	332.3
B.M.			3.98	334.06
49			5.5	331.6
50			6.2	330.9
51			8.3	328.8
#	4.42	334.15	8.26	329.73
52			4.9	329.3
+ 92			5.4	328.8
53			5.6	328.6
B.M.			5.00	329.15
54			7.4	326.8
55			8.8	325.4
56			9.6	324.6
#	4.6	329.05	9.60	324.55
57			5.7	328.4
58			6.8	322.3
59			8.3	320.8
60			9.9	319.1
B.M.			9.60	319.45

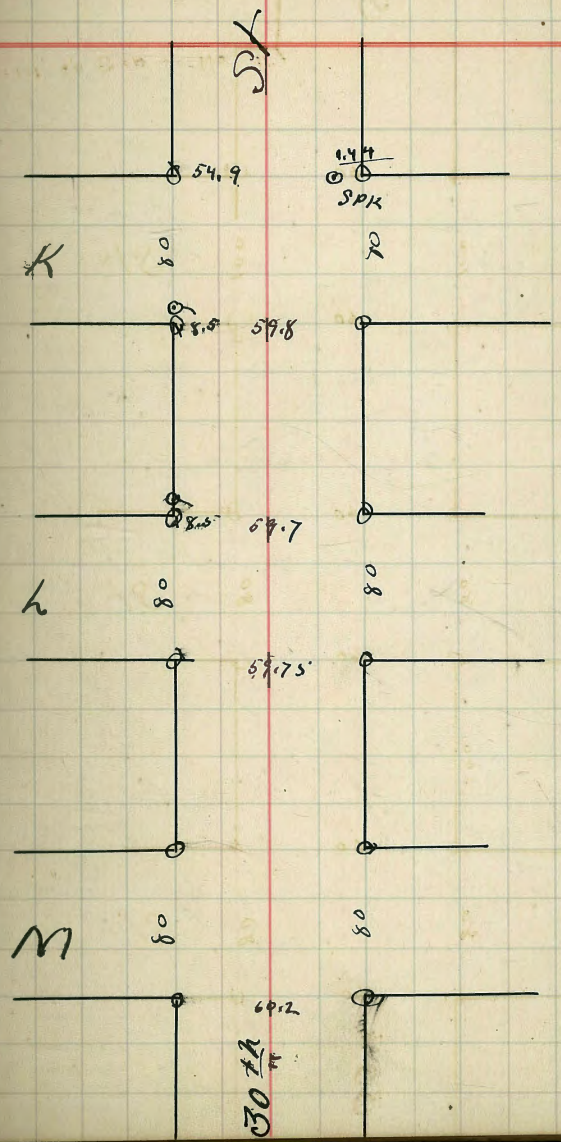
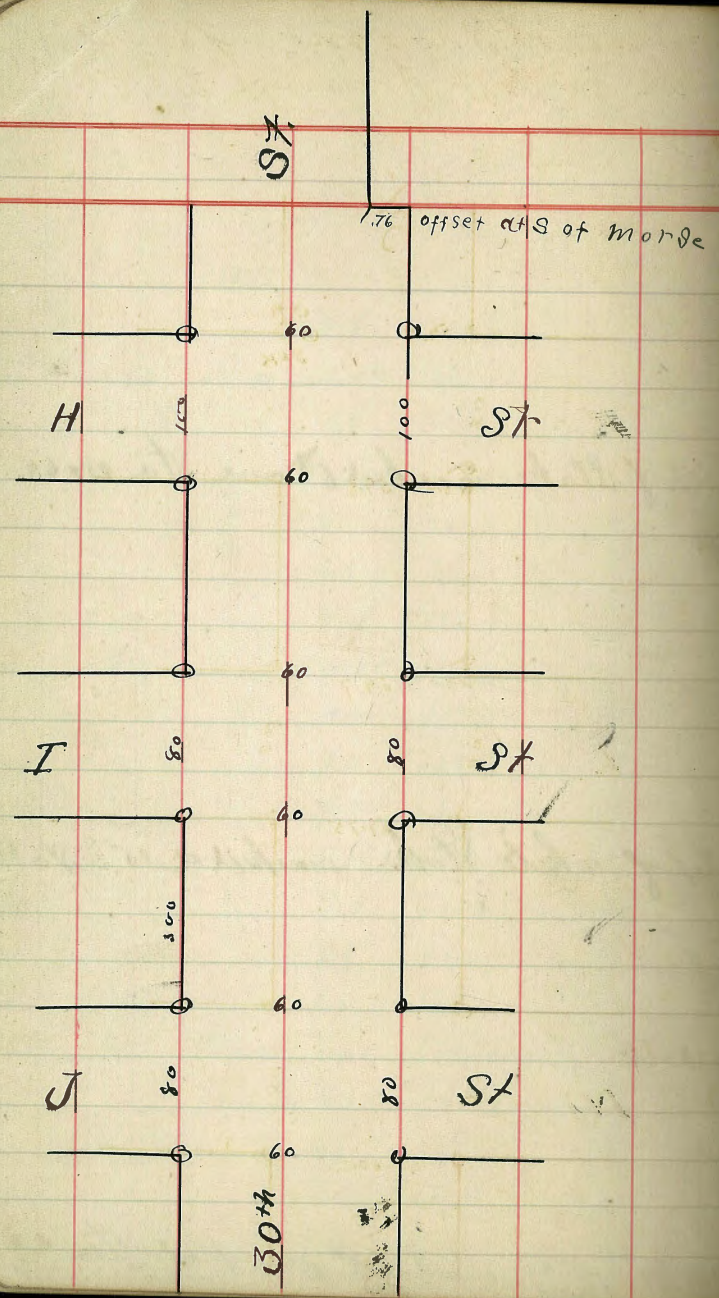
top of Stake marked 6<sup>th</sup> ave Sta 48x60

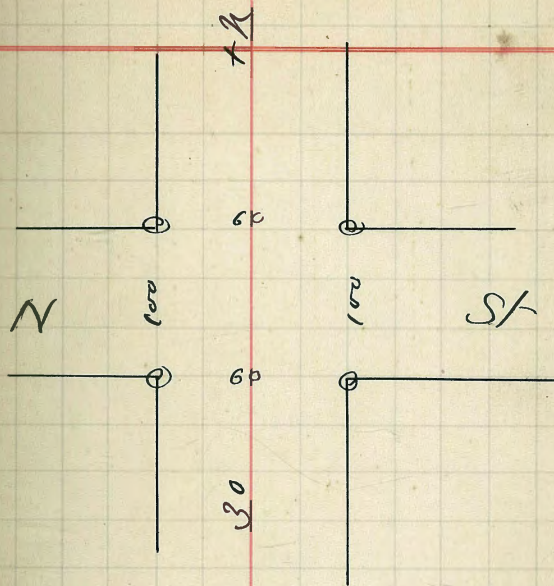
top of white Stake marked a 35 Sta 56

note from Sta 60 south see  
page 17 in this book

B.M. Pinwood S<sup>th</sup> west of Sta 60

Sketch showing joints  
on 30th St from H to N 26





			130.0	
G	-7° 0'	1.31'		To a corner ahead.
F	-6° 50'	2.31	229.0	
D	-4° 30'	2.25	224.6	
C	+3° 0'	2.43	240.3	
B	+4° 0'	3.26	325.4	
A0	+0° 50'	3.00	299.8	

N 67° 45' W 219'

Set up on end of 1197, 191 B9. to end of

14752.1 □ Stake end of 191 & 192

Stake

□ 1.4 □ 15+22.1

1457

▲ 10+98.1

870

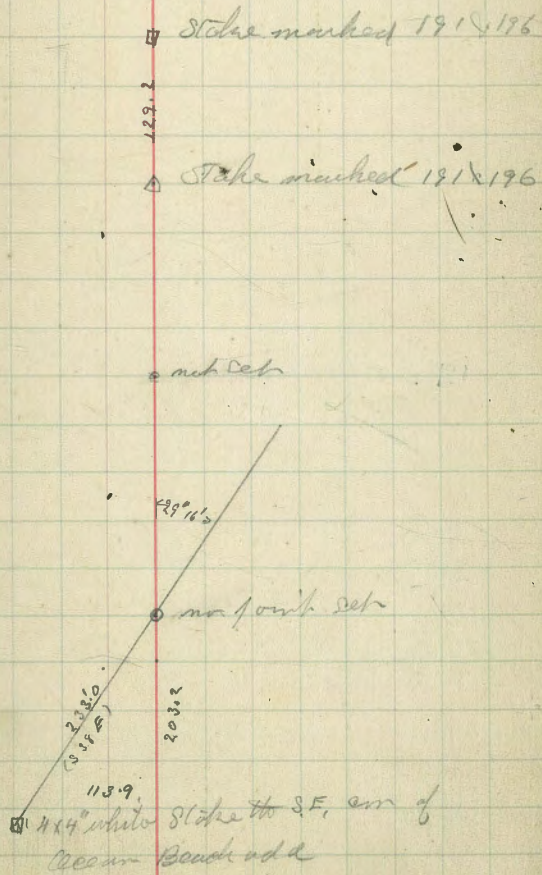
▲ 8+68.5

▲ 625.2

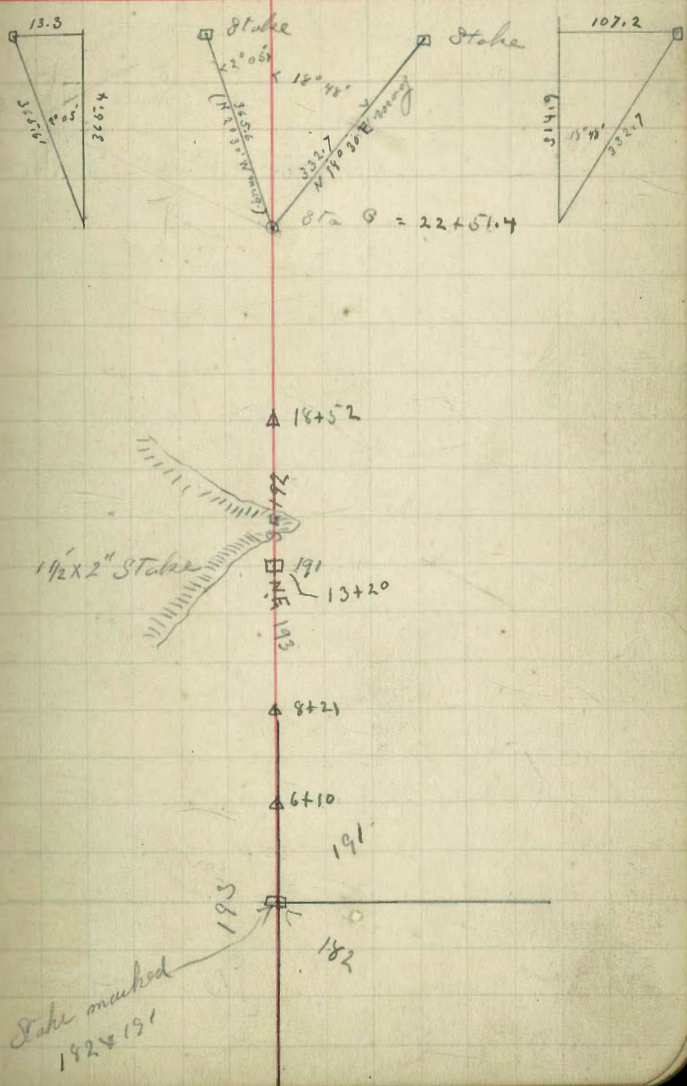
▲ 299.8

● Sta A

Sta	1866	course	alt angle	Stadia	
			+ 7° 30'	4.77	470.0
C			+ 7° 0'	3.45	340.8
B	29° 16' W		+ 5° 0'	5.55	557.6
A 0	(S 38° E)		+ 6° 30'	2.35	233.0



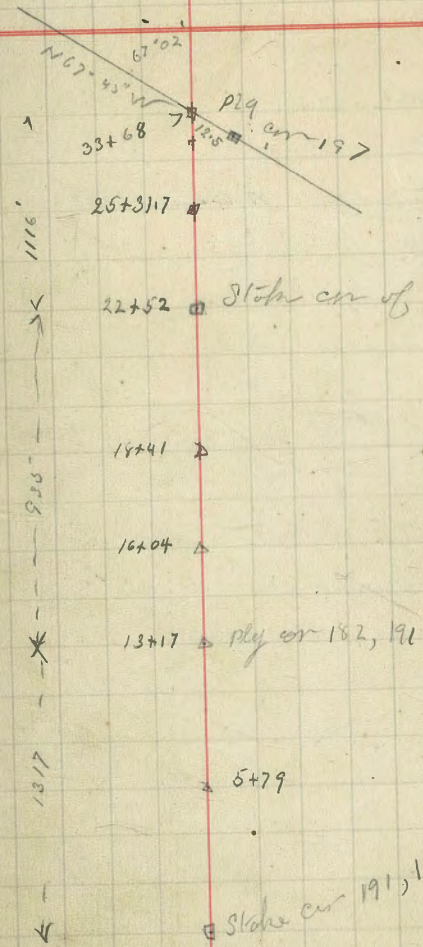
Sta	Def	Course	Vert Angle	Stadia	
					332.7
					to Stake
G	18° 44' R		-3° 40'	3.33	
	2° 05' L		-6° 10'	2.69	to Stake
					305.6
F			-0° 40'	4.00	399.4
E			+0° 30'	5.31	532.0 ✓
D			-1° 10'	4.98	499.0
C			+0° 20'	2.16	211.0
A			+1° 0'	6.09	610.0





H.	67° 02' W			
G.		M. miscel about 20'	8.36'	836.2
F.		-1° 20'	2.79	279.7
E.		-0° 10'	4.10	411.0
D.	(N 0° 00' W)	0.0	2.36	237.0
C.	90° 0' W	+1° 0'	2.86	287.0
B.	N 88° 00' E	-3° 40'	7.40	738.0
A=0		+1° 50'	5.78	579.0

824  
279  
1003



Course	Dist.	Latitude		Departure	
		N	S	E	W
N67°45'W	1439.6	544.8			1331.8
S1°20'E	1297.0		1296.7	28.3	
S0°45'E	1320.0		1319.8	17.3	
N49°30'E	1317.0	11.5		1317.0	
N0°30'W	2051.0	2051.0			17.8
		2607.3	2616.5	1362.6	1349.6
			2607.3	1349.6	
			9.2	13.0	

Corrected

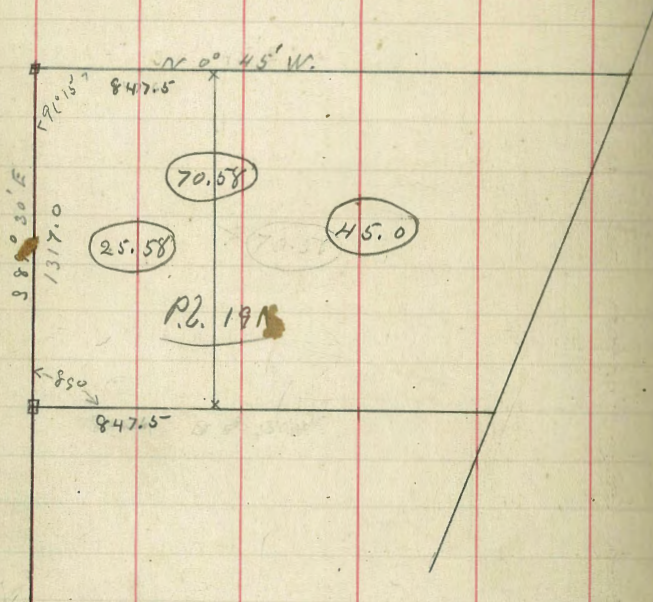
Course	Dist.	Latitude		Departure		
		N	S	E	W	
N67°45'	1439.6	545.8			1338.2	A
S1°20'E	1297.0		1294.8	28.2		+ B
S0°45'E	1320.0		1317.4	17.2		C
N49°30'E	1317.0	11.5		1310.7		D
N0°30'W	2051.0	2054.7			17.9	E
		2611.9	2611.9	1356.1	1356.1	

Diff of Lat 20.926

	+	-
+ 545.8	+ 1338.2	730389.6
+ - 1294.5	+ 28.2	36504.9
- 1317.4	+ 73.6	96960.6
+ 11.5	+ 1401.5	16117.3
+ 2054.7	+ 2694.3	5535978.2
		6282485.1
		133465.5
43560	6149019.6	141.163 ÷ 2

70.58 A

1452 : 1.8 : 820 : 7



Levels for water pipe on B St  
from 25th to 30th

Put Nov 7 1881 Hamlin Book 34  
Williams level  
Shaw Rod  
Van Hook Stake

Sta	+	- H <sub>0</sub>	-	Elev
B.M.	9.68	228.94		215.26
6+40			4.06	219.88
6			6.27	217.67
5			4.68	219.26
4			6.00	217.94
3			10.01	213.63
#	0.70	212.78	11.86	212.08
2			6.21	206.57
1+50			11.28	201.0
#	0.12	201.07	11.83	200.95
1+30			7.0	194.0
1			8.89	192.19
0 #	1.12	190.44	11.75	189.32
0+0			4.43	186.01
B.M.			11.49	179.76
5+60 #	0.05	178.46	12.08	178.41
5+30			7.46	171.00
#	7.60	174.96	11.10	167.36
5+10			12.40	162.56
5			14.00	160.96
4+60			9.14	166.56

30th and B St.  
Pipe line on 30th St  
West line of 30th St

East line of 29th St  
Pipe line on 30th St  
29th and B St.  
West line of 29th St

Bottom of gulch

Sta	+	H <sub>2</sub>	-	Elev.
		174.96		
#	11.55	186.42	0.09	174.87
4 #	11.98	196.23	2.17	184.25
3+70			4.67	191.56
#	10.76	206.78	0.21	196.02
3			7.90	198.88
2			4.51	202.27
1			2.77	204.01
0			7.04	199.74
B.M.			5.67	201.11
<del>7.50</del> #	0.31	196.49	10.60	196.18
6			4.83	191.66
#	0.94	185.78	11.65	184.84
5	1.52	175.33	11.97	173.81
4+65			7.4	167.9
#	4.60	169.52	10.41	164.92
4+40			10.2	159.3
+30			11.7	157.8
4			9.22	160.30
#	11.38	180.48	0.42	169.10
3+70			10.0	170.5

East line of 28th St.  
 28th & B St.  
 Pipe line on 28th St.  
 West line 28th St.

Bottom of gully

Sta	+	AD	-	Elev.
		180.48		
#	11.34	191.66	0.16	180.32
3			4.72	186.94
#	12.10	203.53	0.23	191.43
2#	4.10	207.58	0.05	203.48
1			0.57	207.01
0			6.11	201.47
6+40			7.34	200.24
6			8.94	198.64
5			7.50	200.08
4			9.70	197.89
3 #	4.33	201.87	10.04	197.54
3			6.35	195.52
2			4.04	197.83
1			6.05	195.82
0			9.62	192.25
6+0			11.23	190.63
5+60			9.57	192.30
5			2.52	199.35
#	9.10	210.09	0.88	200.99
4			0.44	209.65

East line of 27th St.  
 Pipe line on 27th St.  
 West line of 27th St.

East line 26th St.  
 Pipe line on 26th St.  
 West line of 26th St.

Sta	+	H <sub>0</sub>	-	Elev
-----	---	----------------	---	------

		210.09		
--	--	--------	--	--

3			4.60	205.49
---	--	--	------	--------

2			7.22	202.87
---	--	--	------	--------

1 #	2.78	202.50	10.37	199.72
-----	------	--------	-------	--------

0			6.55	195.95
---	--	--	------	--------

B.M.			7.38	196.12
------	--	--	------	--------

6+40			7.45	195.85
------	--	--	------	--------

25th and B. St.

Sta	Ref	Course	Needle	True Course	
+03.4	N line	1st ave	Blk. cor	6.5 West	
29	Δ	line			
20+83.5	N line	of Robt's Wright man			
+82					
25+76	60° 20' N	514° 05' W	514° 05' W		
25+32-B					
24+22.5	50° 47' N	532° 17' W	536° 15' E		
18+42					
18+12					
18+0					
17+42					
11+62					
11+32					
10+82					
+81.4					
+51.4					
7+01.8					
+65					
0	0.0	514° 30' E	514° 30' E	30° 30' E	

25.3 East to cor of Robinson's Fullinore  
 south line of Fullinore ave. 7.5 West to 1/4 cor  
 6' N of S line of Fullinore  
 Branch for Fullinore ave  
 10' N of N line Fullinore ave  
 South line  
 Branch on  
 tick in the  
 North line  
 South line  
 Branch on  
 North line  
 South line of Harrison St.  
 Branch on Harrison St.  
 North line of Harrison St.  
 South line of Wm. Ave  
 Pipe line on Wm. Ave.



+78  
 +30  
 51+41 B.C. 1.63' curve Right angle  $1^{\circ}37'$   
 52+41.5 Struck 0.2 East of lot 1 in volume  
 49+00.5 Branch east for St.  
 48+52.5 Branch west from 6th ave  
 47.0  
 44+72.5 Branch west for 5th ave  
 44+22.4 North line of 5th ave  
 42+43.6 Branch east for St.  
 40+93 Branch East for 4th ave.  
 40+43 North line, 4th ave.  
 39+0  $\Delta$  line point  
 37+11.5 Branch west for 3rd ave.  
 35+83.6 Branch for George ave East  
 35+43.6 North line of George St.  
 33+34.9  
 32+74.4 North line of 2nd ave & 2nd  
 31  $\Delta$  line point  
 +63.4  
 29+23.5

add.

Branch west for 2nd ave.  
 5th West to 10th cor.

Branch west 18th ave  
 Branch for Williamson St

Transect notes of located line  
for water pipe south from W. side  
to Ohio

40

8th Ref. course

74  $\Delta$

73  $\Delta$  line

+14. - White Stake 9 West marked lot - 16 NE corner face

71  $\Delta$  line

69  $\Delta$  line

68+95 Pile of Rock 2' West of line

62+10  $\Delta$  line

59+36 Pile of Rock 6' East of line

58+98.7  $\Delta$  line

+41 EC  $814^{\circ}25'E$

+25

53

+75

+50

+41 P.R.C. left  $1.7^{\circ}$  curve angle  $1^{\circ}43'$

+25

52

104+95.6 ✓ W line North ave

101+65 ✓ Branch E &amp; W

101+15

97+85 ✓ Branch E &amp; W

97+35 - W line St

94+045 ✓ Branch E &amp; W Middle ave

93+54.5 ✓ W line Middle ave

92+13.6  $\Delta$   $2^{\circ}02'W$   $319^{\circ}05'W$   $23'$  West of St line

90+35

86+55

84.45 A line

82+79.5

82+10 ✓ Bottom of Trench canyon

80+50 ✓ Drain down canyon

80+17 ✓ Bottom of gulch

77+42  $\Delta$  ✓

+91 Center of R.R. bridge

79+73.7  $11^{\circ}33'W$   $512^{\circ}06'E$   $34'$  East of west line of Mission St and  $30.8'$  West of 1/4 cor77+40  $\Delta$   $13^{\circ}46'W$   $50^{\circ}30'E$ 76+60  $\Delta$ 

South line of alley in Block 8 W &amp; Bradd and

39' East of W line of Mission St in P.A.

Branch west Oberlin St

Branch west Taft St

Branch W Oberlin St

133,64.7  
3 80  
137+44.7

42

145075 Branch " 18 St

14126.5 Branch for C St ✓

138 Δ

137+48.0 Branch W for B St

133+64.7 Branch west for A St ✓

133+14.7

132+94 45° 45' W 314° 40' E

132+23 12.5 west to west line of Fern St

131+73.5 45° 02' R 531° 10' W

129.0 Δ line

128+71 Branch E & W

127. Δ line

124+91 Branch E & W

121+11 Branch E & W

✓ 117+32 Branch E & W

✓ 113+52 Branch West

110 Δ

109+71 Branch east W

106+21 52° 56' N 913° 50' E

105.700 Branch E & W from Nutt ave.

104+55 52° 43' W 366° 45' E ✓

<del>185+11.8</del>		T
<del>191+82.0</del>		J
178+53	Branch for	Woolman
194+71.8	" "	Sargent
190.92	" "	Clay
187+11	" "	Webster
183+40.6	" "	N
179+50.4	" "	m
175+69.3	" "	h
171+89	" "	K
168+0.9	" "	J
164+25	" "	I
160.42.3	Branch for	H St
<del>159+42</del>	<del>Branch for</del>	<del>H St</del>
156+46.0	Branch for	G St ←
156+96.5	N line of	G St
153	Δ line	
152+66.5	Branch for	F St ←
152+16.5	N of	F St
148.87.3	T from	F St ←
146.00	Δ	←

198+54 Branch for R. St.

198+48 8° 15'  $\downarrow$

198

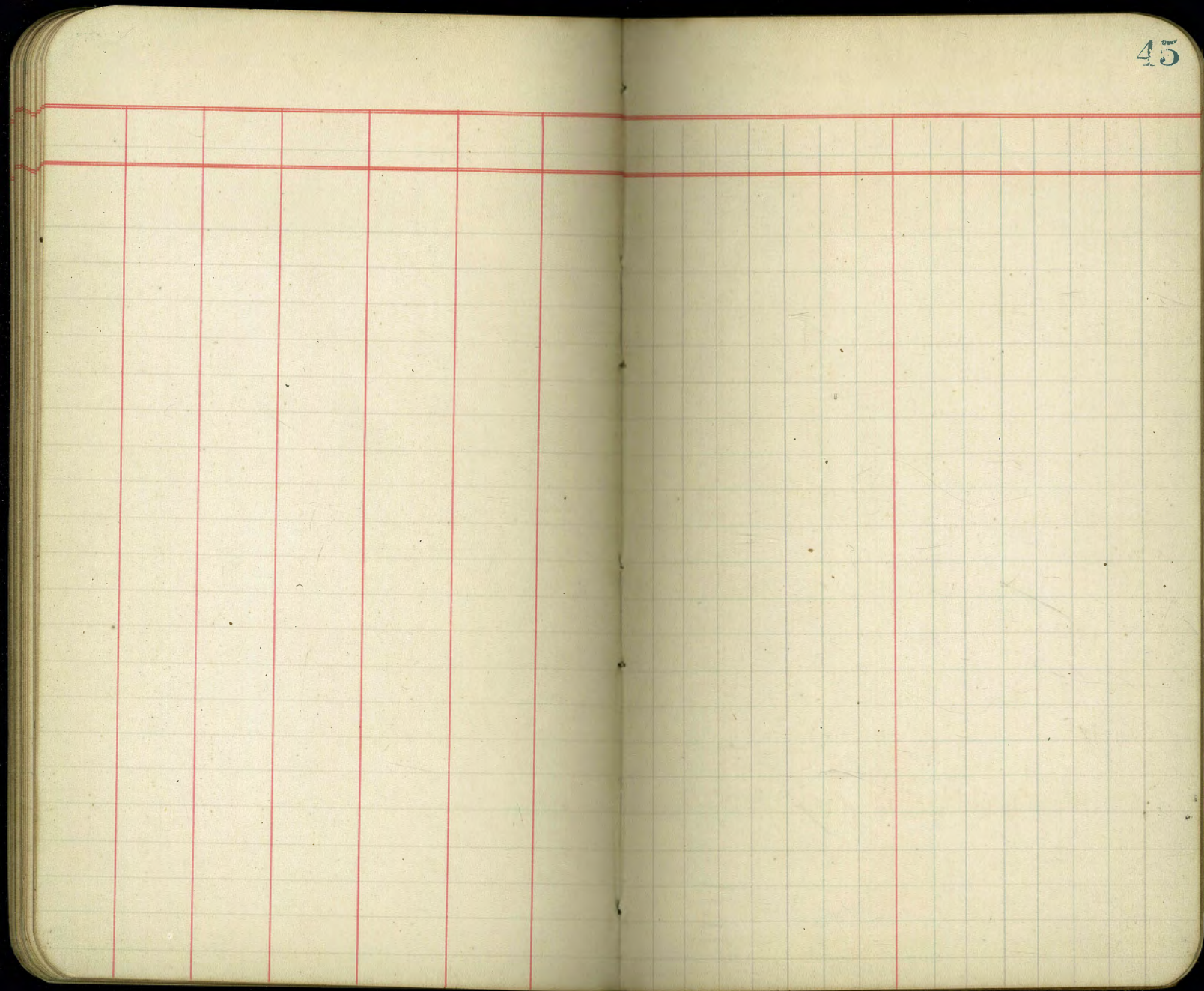
197+78 8° 14'  $\downarrow$

25' N of N line of R. St.

~~196+54 / orat~~

~~192+72 alve~~

~~188+91.7 U~~



The image shows an open notebook with two pages. The pages are cream-colored and feature light blue horizontal ruling. The right page is numbered '16' in the top right corner. The notebook is bound in the center, and the pages are slightly aged. There are some faint, illegible markings on the right page, possibly from a previous page or bleed-through.



11.5" to top in the

19.3

47

3

23.3

11.5

11.8

11.5"

23.3

11.5

11.8

10' N of N. h. fill's

8' N of St " "

Picked up West line of Massena  
St. Intersected line of alley South  
Side measured 39' to pipe line <sup>under</sup>  
on Sheep and ave.

Levels on Franklin ave  
for water pipe

Sta	+	#	-	Elev.
B.M.	0.54	87.79		87.25
0			3.67	84.12
1			5.61	82.18
2			8.61	79.18
3 #	0.54	78.12	10.21	77.59
4			2.45	75.67
5			3.10	75.02
6			6.18	71.94
+ 20			5.60	72.52
0			5.15	72.97
B.M.			<u>3.17</u>	<u>74.95</u>
1			5.49	72.63
2			7.70	70.42
3 #	1.73	69.25	10.62	67.50
4			6.77	62.49
+ 30			7.40	61.85
#	1.21	61.86	6.60	60.65
#	10.90	66.18	6.57	55.29
#	11.90	76.14	1.95	64.24
B.M.			0.57	75.67

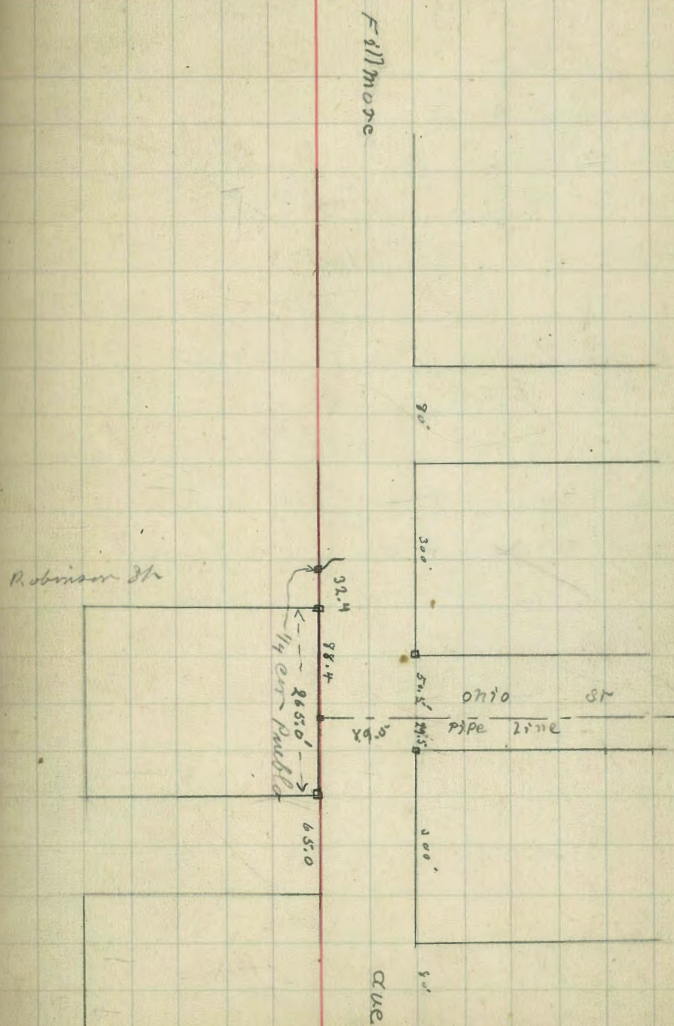
826 St & Franklin  
West line of 826th St

East line of 825th St  
Branch for 825th St  
West line of 825th St

Sketch showing intersection  
of Tillmore, Ohio and Robinson

49

Sta	+	H <sub>2</sub>	-	Elev
BM 2 on 30th St				
A	226.03	Iron Pin in ground	6" NW cor	
B	215.26	Nail in stone	9" NW SW cor	
C	189.05	Iron Pin	6" NE of SW cor	
D	194.04	" "	6" N SW cor	
E	187.89	" "	5" SE NW cor	
F	171.53	" "	5" S NW cor	



217+54 Pipe line on road 50  
located

Set up at the N.E. cor of the Park  
Run N. 76° E <sup>or East</sup> magnetic, at 500'  
set line at 662 to cor post on line  
396' to stake .6 north line, on the  
north line of Wallace.

1326.7 to point opposite white stake  
.5' N of line, (marked 35A) and 4.5'  
north to old stake)

thence continued line east at  
661 found scarf stake marked  
35A 660 on SW face .5' South of line  
1312' intersected fence line 20' South  
of cor.

$$\begin{array}{r} 33 \overline{) 1516} \\ 99 \\ \hline 526 \\ 1516 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 57 \overline{) 9785} \\ 1140 \\ \hline 8385 \\ 9785 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 21 \overline{) 445} \\ 42 \\ \hline 25 \\ 445 \\ \hline 0 \end{array}$$



$$\begin{array}{r} 54 \\ \hline 108 \end{array}$$

109

$$\begin{array}{r} 10.21 \\ 3.17 \\ \hline 13.38 \\ 11.08 \\ \hline 2.30 \end{array}$$

$$\begin{array}{r} 74.85 \\ 2.30 \\ \hline 87.25 \end{array}$$

138<sup>th</sup> Bore

B.M.

- 195.02 S.E. cor - sph in Ply. (25<sup>th</sup>)  
 198.71 N.W. copper tack top fence Post (26<sup>th</sup>)  
 203.13 27<sup>th</sup> cup tack in ply 23' NE of  
 N.E. cor  
 201.12 cup tack in ply 8' NE of N.E. cor post  
 on 28<sup>th</sup> & B of SF  
 17880 27<sup>th</sup> & B cup tack in ply 6' S.E. cor?  
 215.26 nail in stake 9' N of S.W. cor post

215' from water sec

1070

213  
43  
170

79.81  
53.81  
26.00

2631

13745.7

13364.7  
380  
13744.7

Moved point set for Berlin  
on 20<sup>th</sup> & 8<sup>th</sup> 35' South  
on N of lot 17 South

Angle of elev. to top of stand  
tape from a point 286' west  
of N.E. cor of 18<sup>th</sup>

1.175' of rod + 0° 22' to top.

Elev. to <sup>per</sup> + 0 .02 on good descent  
to bottom ground

412

821

662. to cor. line

996 to stake marked 1 x 2 N line  
Wallace .6 N of line  
1326.7 to stake

13745.0

Br. Jourd & Univ 372. 14

Illini 4. 10d 365. 19

Ref 4. 10d 365. 91

Return to City Engineers Office  
City Hall, San Diego, Cal.

Red d & Ref 283. 35 NW on ply

1185  
22.5  
63  
30.8  
4 1/2  
824  
248.5  
288.4  
1320  
174.62

3 29.8  
- 10' to point 9.98

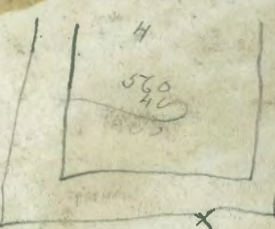
99.6  
20.15  
11.30  
20.45  
5.30  
20.2  
20.2  
7.05  
14.15  
5.30  
45.33  
60.57  
59.92  
66.5

2.36  
32.2  
66.0  
59.5.2  
41.0.14  
26.17  
20.24  
26.4  
2.5  
20.17  
73.17  
66.57  
59.53  
69.4  
66.57  
66.0  
73.17  
17  
2440

Course dist. Latitude

Return to City Engineers Office  
City Hall, San Diego, Cal.

420 45 W 365.6  
353 47.7  
208 187.1  
461 27.7



10 43 93.34  
14 45 94.64.5  
72 50 91.04.5  
251.25  
255.90  
98  
5  
660  
660  
152

133.65  
137.45  
329.25  
40  
299.25  
49.89  
49.89  
679.987  
279.2  
279.2

625.8  
444.4  
49.92  
296