

F.B. 33

2

LEVEL

33

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

MICROFILMED
DEC 4 1964

33

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

Book NO 33

NAME

DATE

Location of Orange Hill water

Main transit notes	3-22
Extension of 13th St	23 ✓
Extension of 15th St	24 ✓
Extension of 19th St	25 ✓
Extension of 22nd St	26 ✓
Extension of Irving ave	27 ✓
Extension of Dodge ave	28 ✓
Extension of Oliver ave	29 ✓
" of 21st St	30 ✓
Extension of I ave	31 ✓
" of 11th St	32 ✓
P.L. 1178	34-37
S.H. Elec. St. R.R.	38 ✓
" " " " "	40-43 ✓
Water paper Orange Hill levels S of B. St.	44-48

30th Street pipe line
water main
located

2

Sta	Def.	Course	Needle
-----	------	--------	--------

6			
5	+ 56.8 + 57.8		S. line of Harrison Branch
4	+ 06.8		N. line of Harrison

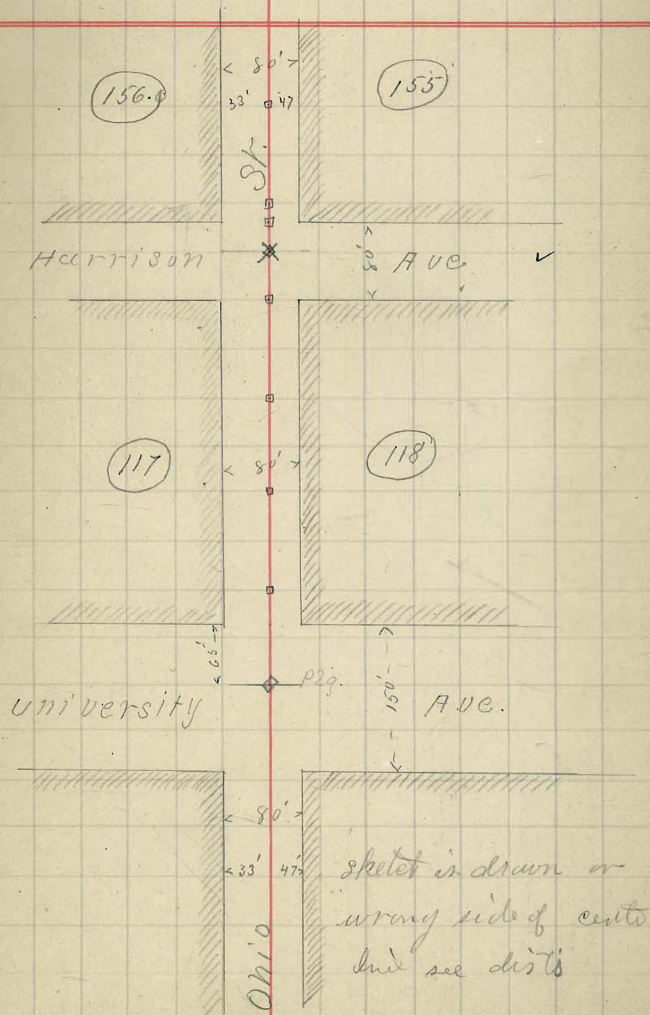
3

2

1

0	0.0	S14°33'E	S14°30'E
---	-----	----------	----------

This line is 3' west or south of
pipe line as laid.
all bearings in this survey are
magnetic, Sta 0' is a point on
Univ Ave pipe line 65.0 north of
the South line of Univ Ave and 47'
East of West line of Ohio St.



30th Street crossing Hill
 Water Main Located.

Sta	Def	calcd course	Needle
-----	-----	--------------	--------

16

15

14

13

12

+62.

+32.

11

+82.

10

9

8

7

South line Polk St.
 Branch
 N. line Polk St

POLK

AVE

air Valve Sta 8

(165)

(164)

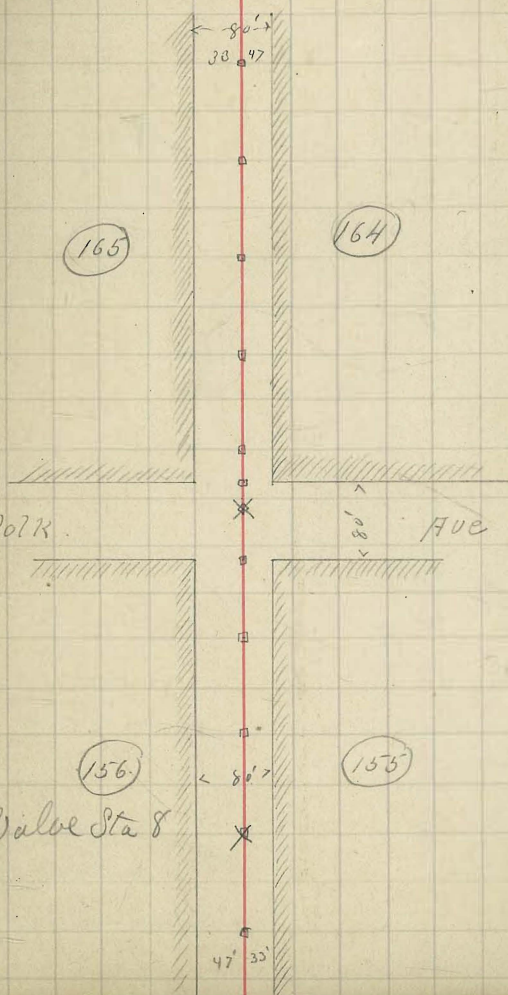
(156)

(155)

← 80' 7"
 38 47

← 80' 7"

47' 35"



30th Street *Apex of Little*
 water main located

Sta	Dep.	Course	Needle
-----	------	--------	--------

27

26

+82 south line of Fillmore ave
 +76. 50° 20' 6" S 14° 05' W 314° 05' W

+29.5 80° 17' R 336° 17' W 336° 15' E

23

22

21

20

19

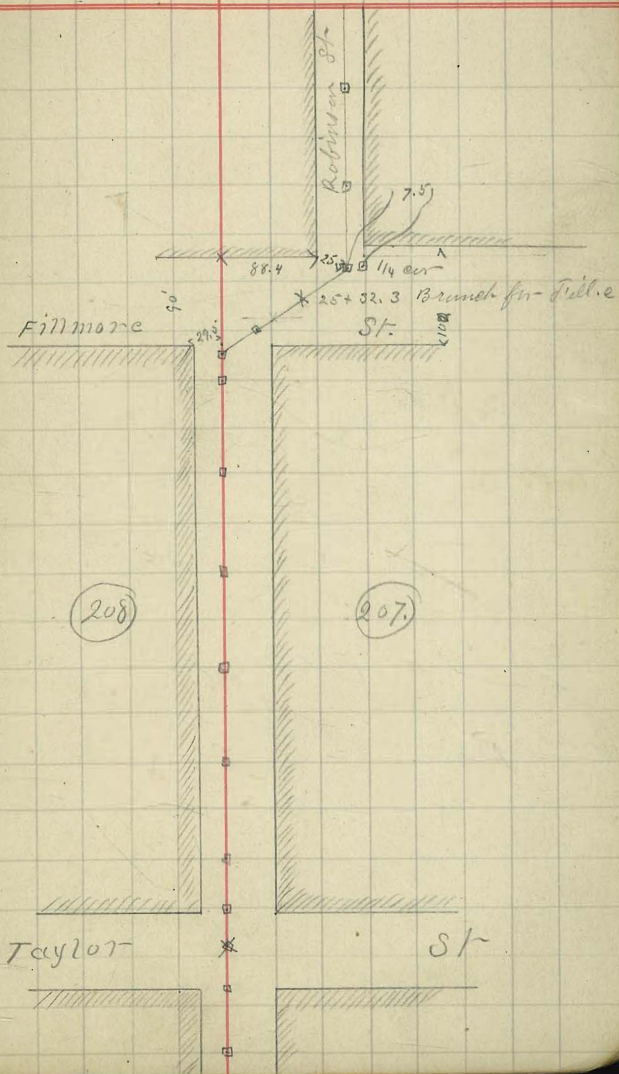
+42
 18 + 12

+62.0

17

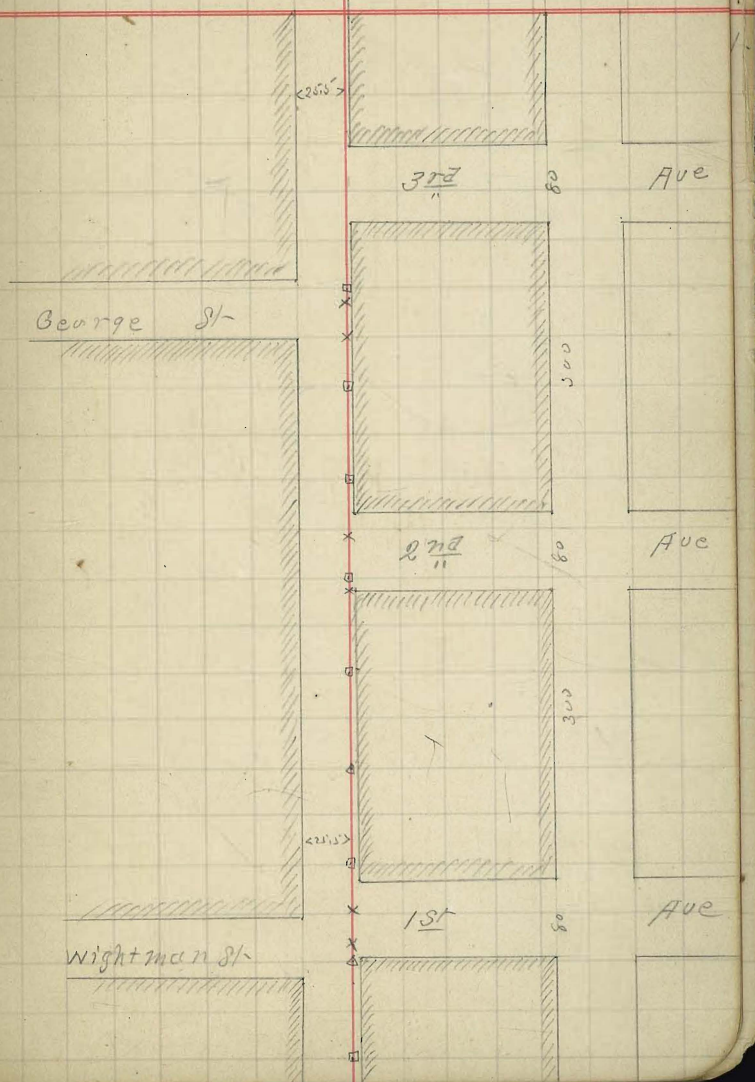
N. line of Taylor
 Branch

S. line of Taylor



30th Street & 1st Ave
 water main Located

Sta	Def	called	needle
38			
+11.5	Branch west for 3rd ave		
37			
+61.5	North line of 3rd ave		
36			
+83.6	Branch East for George St.		
+43.6	North line of George St.		
35			
34			
+34.4	Branch west for second ave		
33			
+84.4	North line of second ave		
32			
31			
30			
+53.4	Branch for 1st ave west.		
+23.5	Branch on Nighthawk St East		
+03.4	N line 1st ave 6.5 West of line		
29			
+83.5	N line of Nighthawk St 25.5 East of line		
28			
		314° 05' E	



30th Street pipe line
water main located

Sta	Dep	Course	Needle
-----	-----	--------	--------

49	+03.5	Branch East for coal St	
	+63.5	N line of coal St.	
	+52.5	Branch west for 6th ave	
48	+02.5	N line of 6th ave	

47

46

45

	+72.5	Branch west for 5th ave.	
44	+22.4	N line of 5th ave	

43

42	+43.6	Branch east for Dwight St	
----	-------	---------------------------	--

41

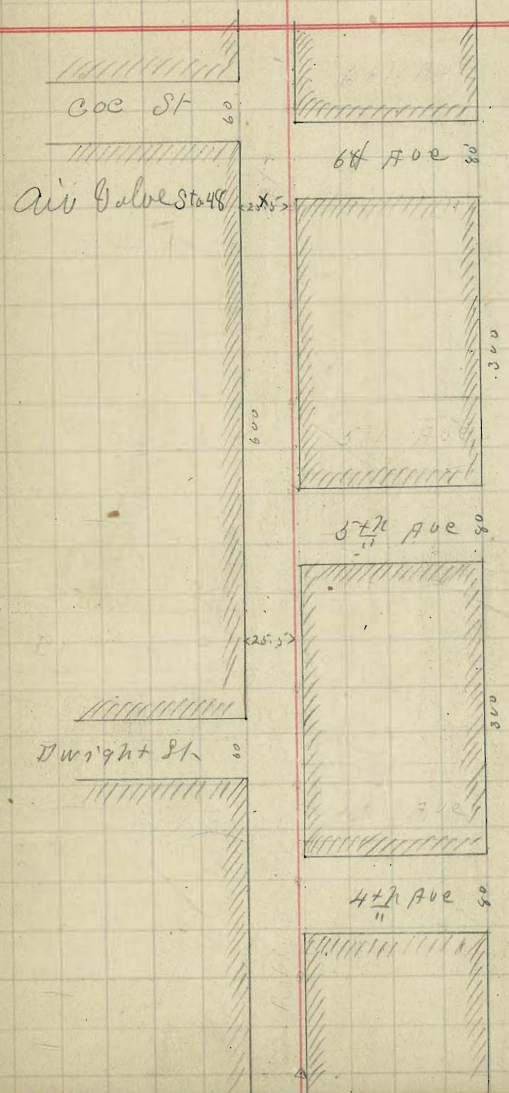
	+93	Branch west for 4th ave	
--	-----	-------------------------	--

40

	+43	N line of 4th ave	
--	-----	-------------------	--

39

S14°03'E



30th St pipe line located
water main

Sta	Dep	Course	Needle
-----	-----	--------	--------

60

+36
59

+98.7
58

57

56

55

54

+41 E.C. of $1^{\circ}37'$ curve, thence South $3'$ west of
53 East line Wallace add

+41 P.R.C. $1^{\circ}37'$ curve Left angle $1^{\circ}43'$ left

52

+41 R.C. $1^{\circ}37'$ curve Right angle $1^{\circ}37'$ Right

51 on account of securing rights of way
the pipe was laid $2'$ West of line
50 in stead of $3'$ East beginning at Sta

52+41

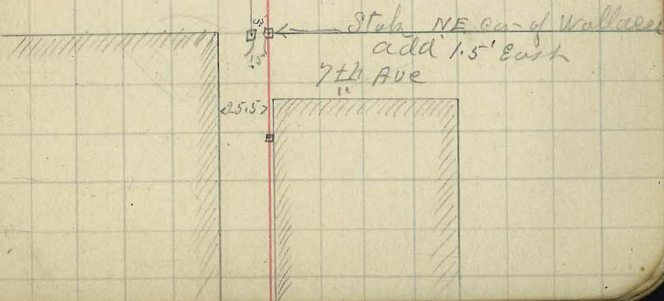
pile of rock

6

Branch East & West

(8)

(1)



39th Street Cap pipe hole
water main located

Sta	Dep	Course	Needle
-----	-----	--------	--------

71

70

69

68

67

66

+95

45615

65

64

63

62

61

along East line of Wallace add 3' East

9

air Valve

Pile of Rocks 2' west of line
search west for bet
lots 9-16 Wallace

8

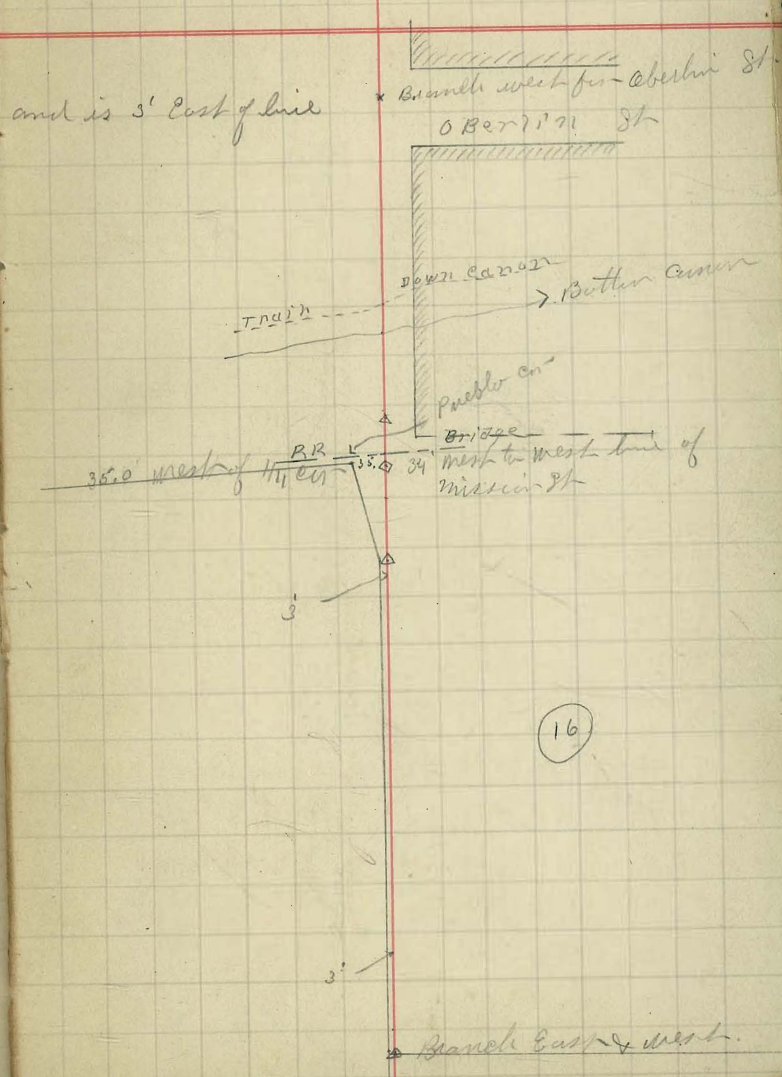
30th Street pipe hole
water main sealed

9

Sta	Def	Course	Needle
+74.5			
82			
81			
+17			
80			
+42			
79			
+73.7	11° 33' L	S 11° 53' E	S 12° 05' E
78			
+40	13° 45' R	S 0° 20' E	S 0° 30' E
77			
76			
75			
74			
73			
+14			
72			

pipe corner bet sta 78 & 79
angle in pipe 9° 30'

pipe corner bet sta 76 & 77
angle in pipe 11° 45'



30th Street up to Hill
 Water Main Located

Sta	Def	Course	Needle
-----	-----	--------	--------

92	+13.6	2° 02' N	813° 55' E	814° 05' E
----	-------	----------	------------	------------

91

90
 +35

89

88

87

86
 +55

85

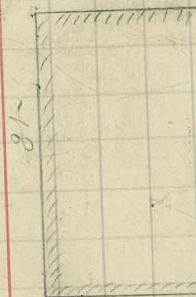
84
 +45

83

23' East to East line
 of Shepard Ave.

Alley near north line of
 13 add. West line of
 Mission St - 39' West

Branch E & W for
 Union St 2x2"



Branch west for - Tuft St.
 6x6"

air Valve

30th Street pipe line
 location of change pipe
 Water main located

Sta	Def.	course	Needle
-----	------	--------	--------

103

102

+63"

+15"

101

100

99

98

+85"

+35"

97

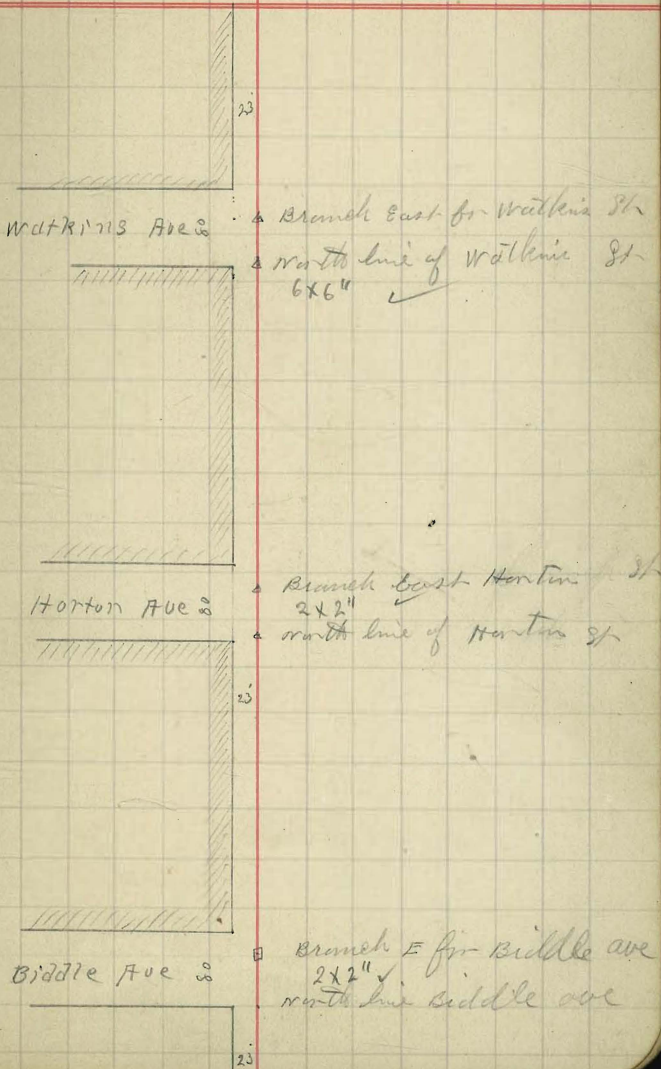
96

95

94 +04.5"

+54.5"

93



30th Street pipe line
Water main located

12

Sta	Def.	calcd course	needle
-----	------	-----------------	--------

114

+52

113

112

111

110

+71

109

108

107

+21

106

+73.5

105

+95.5

104

52° 56' 19" S 113° 42' E 813° 50' E

52° 43' 16" S 66° 38' E 366° 45' E

Branch E & W for
Choate St 6x6" ✓

24

ave

Branch E & W Van Ness ave
2x2" ✓

15

ellw

Branch E & W for
ave. 2x2" ✓

n line of north ave



30th Street pipe line
 Water main Located

Sta	Def	edied Course	Needle
-----	-----	-----------------	--------

125

791

124

123

122

+11

121

120

119

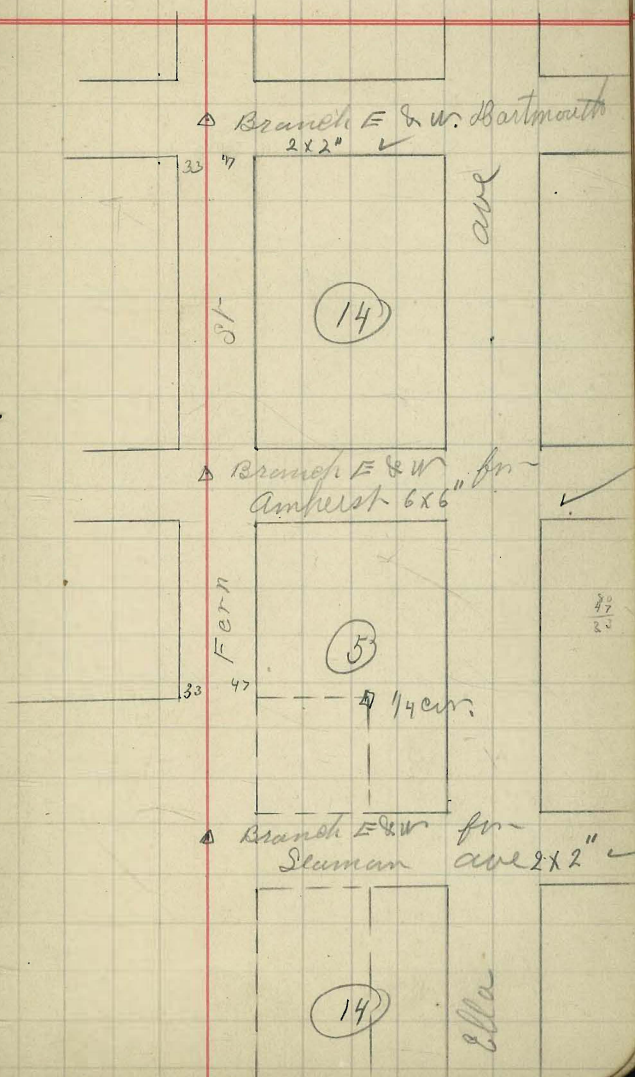
118

732

117

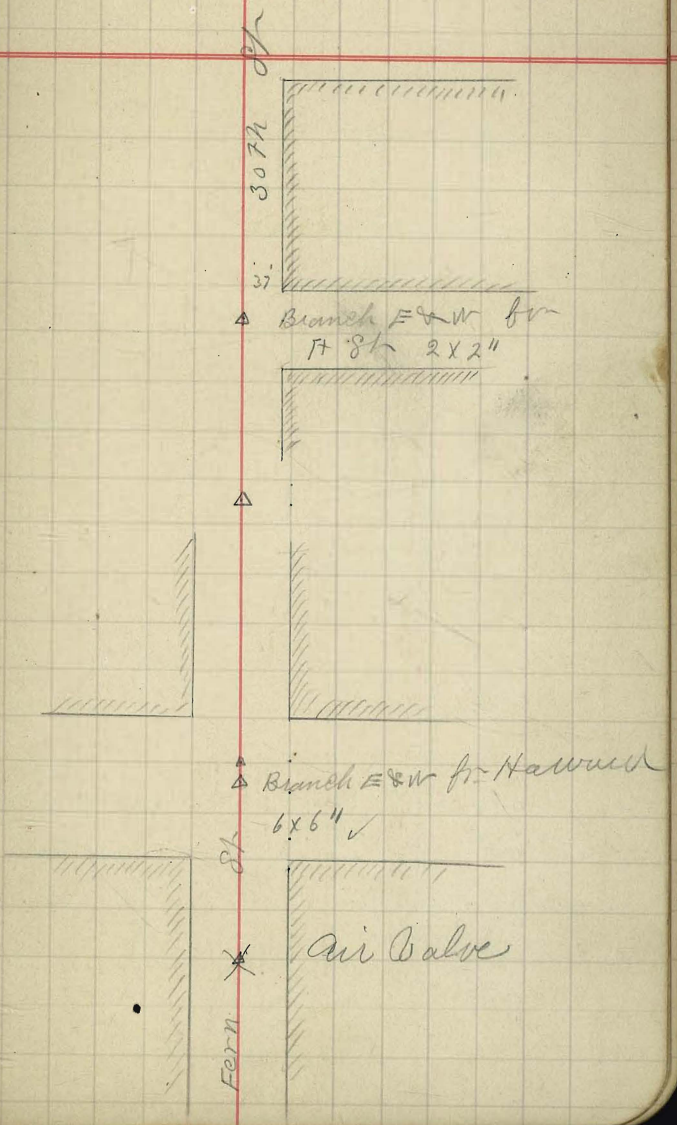
116

115



30th Street pipe line
 Water main located

135
 134
 +64.7
 133
 +794 45°45'N 814°38'E 314°40'E
 132
 +73.5 45°02'N 831°07'W 831°10'W ✓
 131
 130
 129
 +71
 128
 127
 126



30th Street Pipe Line
located in

15

+07.5 12" x 6" ✓
145

144 ✓

143 ✓

142 ✓

+26.5 12" x 2"
141 ✓

140 ✓

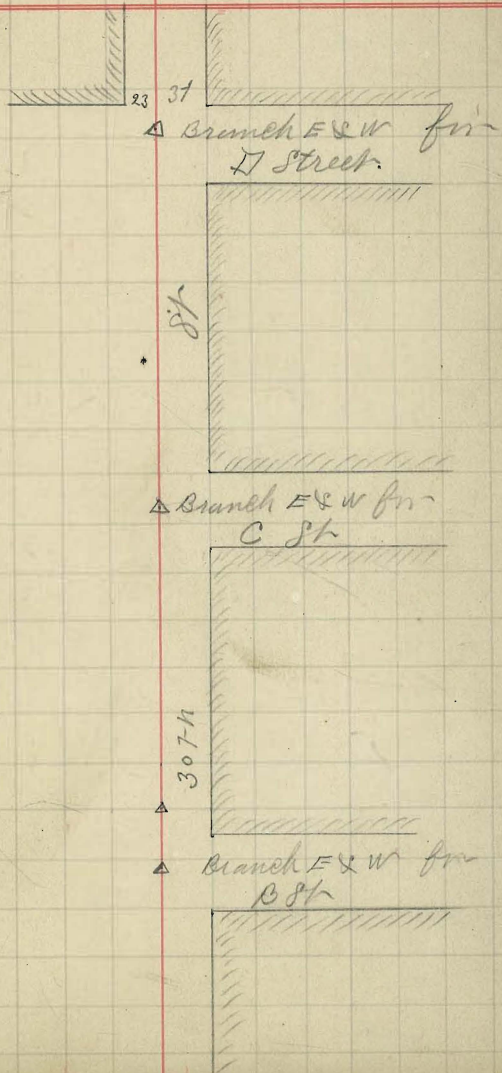
139 ✓

138 ✓

+45.5 15" x 8" ✓
137

136 ✓

136 ✓



30th St steel pipe line
water main located

+46.5 12" x 6"
156

155

154

153

+66.5 12" x 2" ✓
152 +10.5 N line of F St

151

150

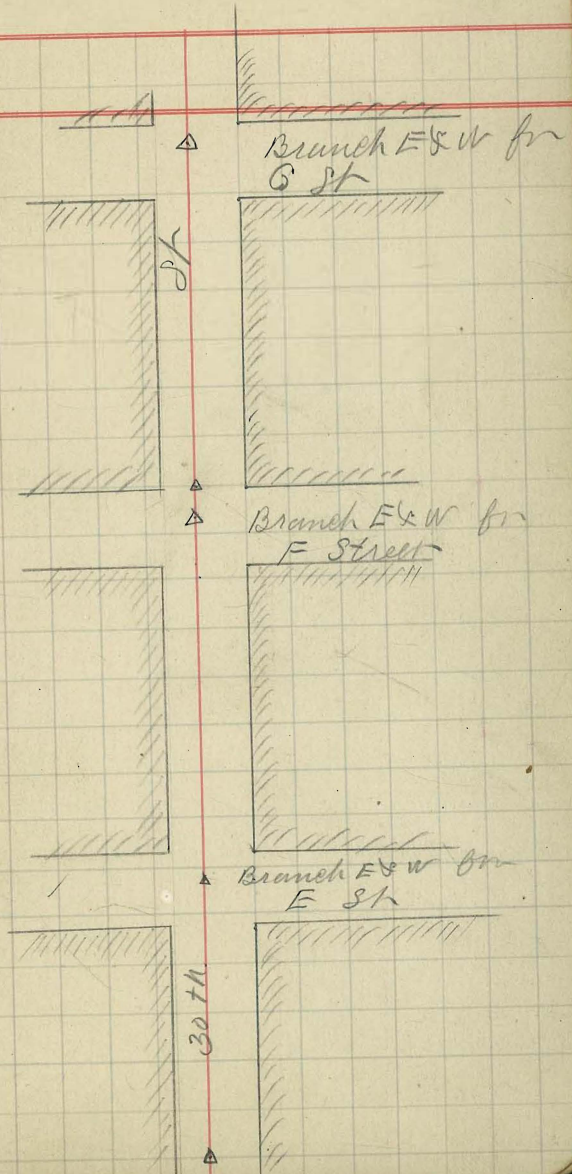
149 ✓

+87.3 12" x 6"

148 ✓

147 ✓

146 ✓



30th Street pipe and water
main located

16042.8

13745.5

2296.8

17

167 ✓

166 ✓

165 ✓

+29 10" x 2" 10" x 6"

164

163 ✓

162 ✓

161

+42.5 12" x 6"

160

159

air Valve

158

157 ✓

△ Branch for - I St

△ Branch for - 1st St

30th Street pipe of Mitchell
water main located

178 ✓

177 ✓

176 ✓

+69.3
175 10" x 2" ✓
air Valve at Sta 175 ✓

174 ✓

173 ✓

172 ✓

+89
171 10" x 6" ✓

170 ✓

169 ✓

+09
168 10" x 2" ✓

△ Branch for W St

△ Branch for K St

△ Branch for J St

30th Street pipe line
branch full
located
water main

19

189 ✓ Air Valve Sta 189

188 ✓

+11 10" X 2" ✓

187 ✓

186 ✓

185 ✓

184 ✓

+40.6 10" X 2" ✓

183 ✓

182

181 ✓

180 ✓

+50.4 10" X 6" ✓

179 Air Valve Sta 179

△ Branch for Webster

△ Branch for M St

△ Branch for M St

30 thousand feet pipe still
water main located

200 ✓

199 ✓

+54 ✓
+48 ✓ 8° 15' left → 10" x 8" x 6"

198 ✓

+78 ✓ 8° 14' right air valve at angle
197 ✓

196 ✓

195 ✓

+71.8 ✓ 10" x 2"

194 ✓

193 ✓

192 ✓

191 ✓

+92 ✓ 10" x 6" ✓

190 ✓

20

△ Branch for R. St.

△ Branch for Sargent

△ Branch for Clary

30th Street Pipe Line
water main located

21

+54 End of line main on wall & cut

217

216 ✓

215 ✓

214 ✓

+74.5 10" x 2"

213

212

211

210

+92.4 10" x 6" ✓

209

208 ✓ Air Valve

207 ✓

+12.5 10" x 2" ✓

206

205 ✓

204 ✓

203 ✓

+33 10" x 2" ✓

202

201 ✓

△ Branch for Olive

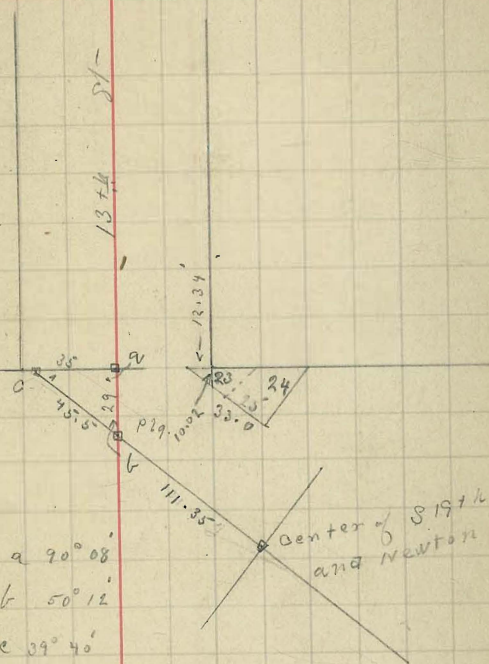
△ Branch for Union

△ Branch for T St

△ Branch for S St

Sketch showing extension of 13th St
to Newton Ave

area necessary to enclose
in lot 23 blk ^{W. numbers} Cleveland
add 61.82 sq. ft.



Interior angle a $90^{\circ} 08'$
Int " b $50^{\circ} 12'$
" " c $39^{\circ} 40'$

Sketch showing extension of
15th St. to Fulton ave

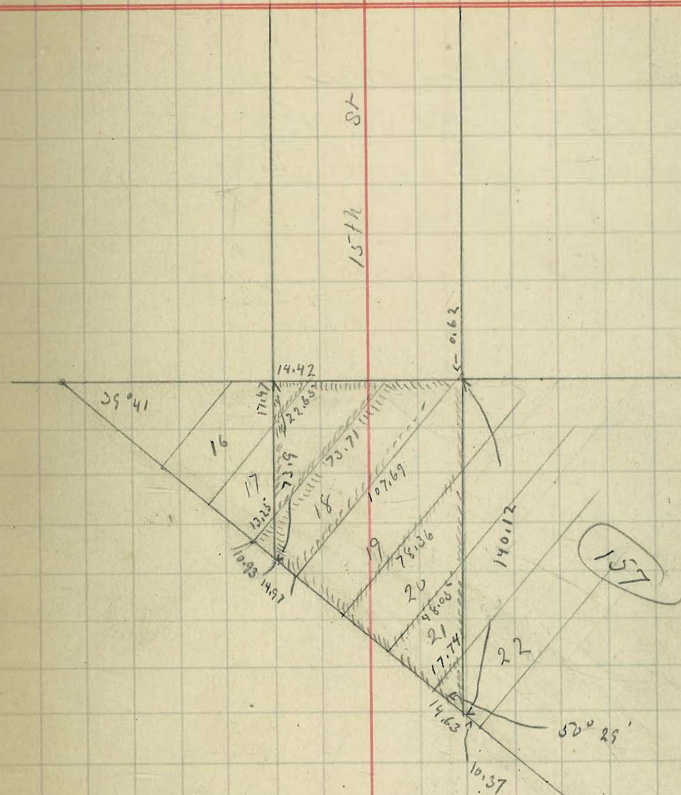
Jan 10 1892.

Humboldt

23

Area to be condemned in
blk 157 M & S. add

Lot 16	125.96
" 17	1204.50
" 18	2360.84
" 19	2337.51
" 20	1580.13
" 21	822.25
" 22	129.77
	<hr/>
	8560.96



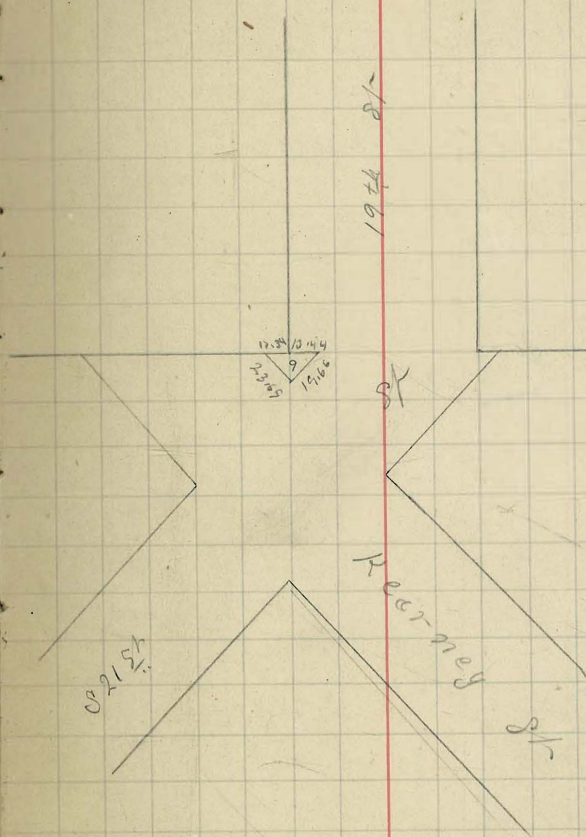
Sketch showing extension of
19th St to S 21st St

Jan 11 1892

Hamilton

24

area of triangular piece at
the intersection of 19th & S 21st
St (marked a in sketch is
232.9' sq ft.

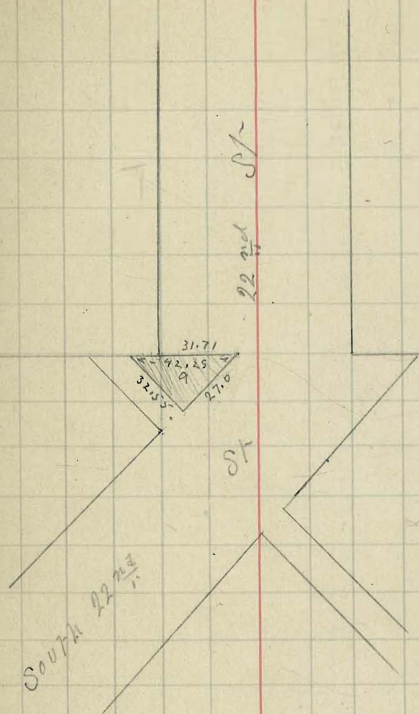


Sketch showing extension of 22nd
St to S 22nd St

25

area of triangular shaped
piece marked a in sketch is
439.43 sq ft.

in 13th 228 m. & S Add



Sketch showing extension of Irving
ave to N Street

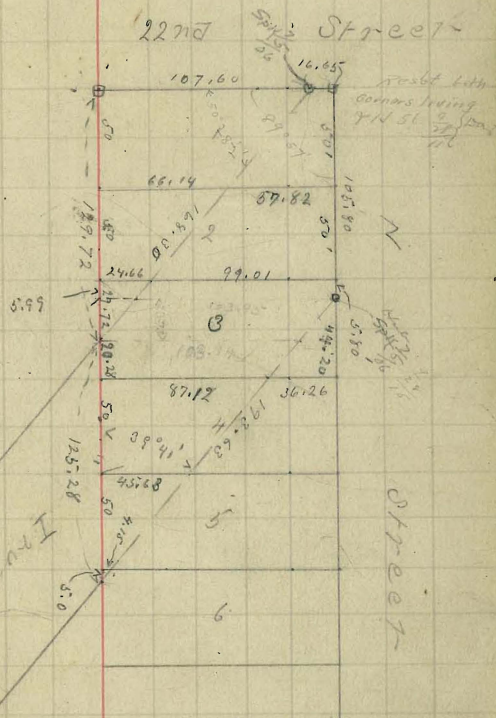
Jan 12. 1892 Hamlin

26

107.60
16.65
124.25

areas necessary to be condemned
in blk 64 Sherman's Add for
the opening of Irving ave to
N Street

lot 1.	1861.75	24 ft.
" 2	3920.75	" "
" 3	5258.45	" "
" 4	3068.25	" "
" 5	1244.00	" "
" 6	10.37	" "
	<u>15363.57</u>	24 ft.



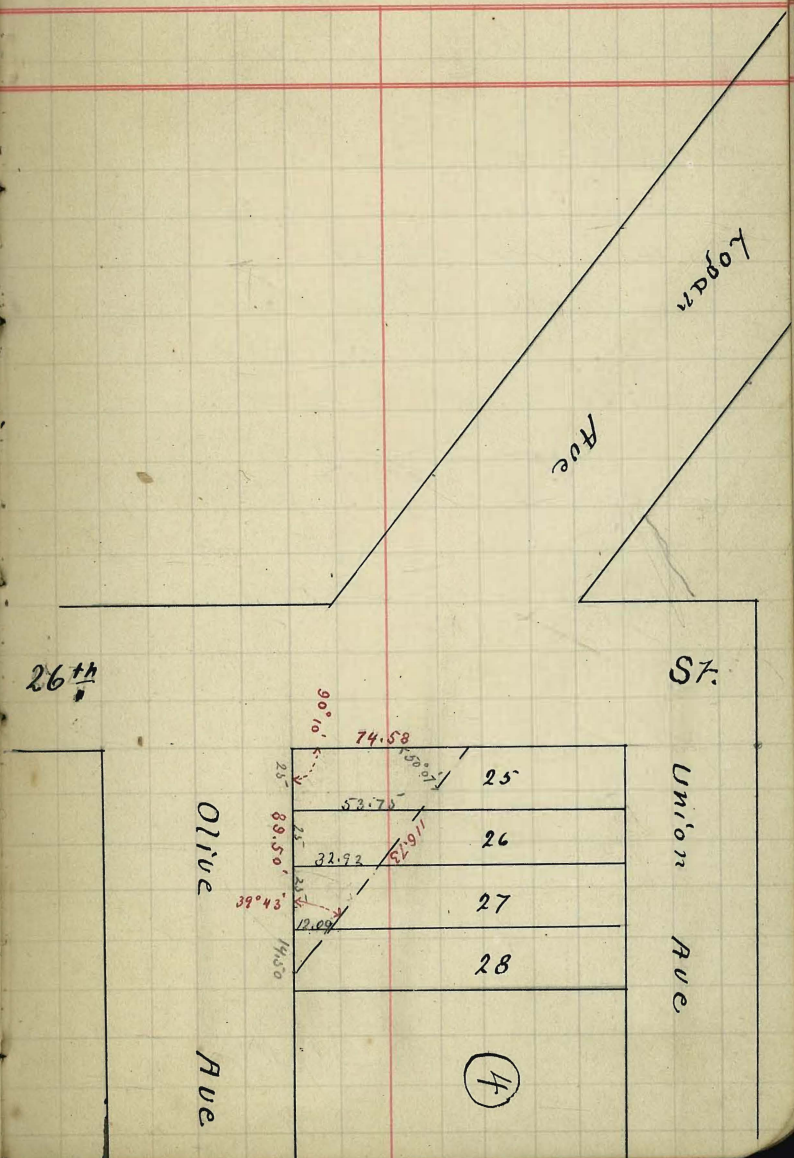
Sketch showing extension of
Logan Ave to Olive St

Jan 13 1892 Hamlin & Pat 27

amount of land necessary to
condemn in order to open
Logan Ave to Olive St

Blk 4 Reed & Hubble added

Sub	25	1604.13
"	26	1088.38
"	27	562.62
"	28	<u>87.65</u>
		3387.77 ✓



26th

St.

Olive

Ave

Union Ave

4

amount of land necessary
to enclose in the opening
of Olive St through Blk.
20 Reed & Hubbler add

Lot	25	2393.75	sq ft
"	26	1872.37	"
"	27	1354.13	"
"	28	829.88	"
"	29	308.61	"
"	30	2.22	"
"		<u>6757.96</u>	sq ft

26thSouth 28th St

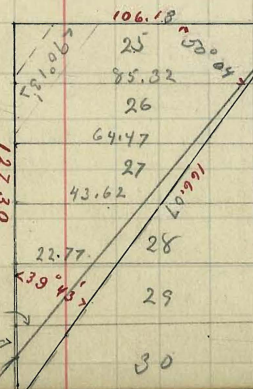
Olive

Ave
(Main St)

St

Tapeka

Ave

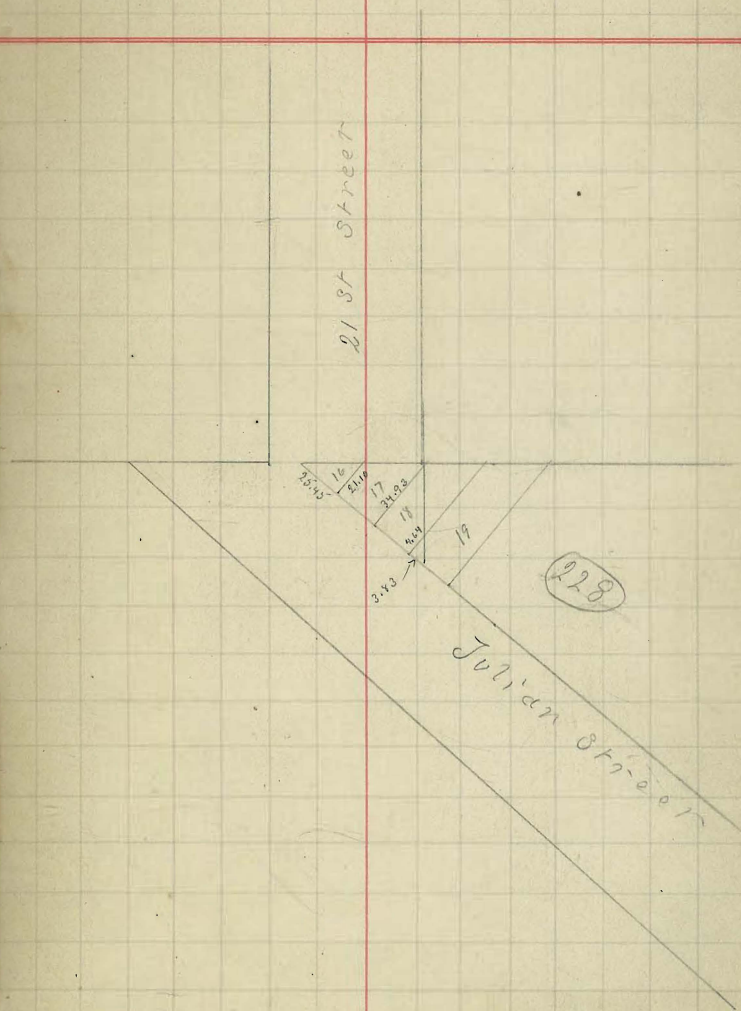


Jun 11 1892

29

Sketch showing amount of
land necessary to condemn
in the opening of 21st St. to
Julian ave.

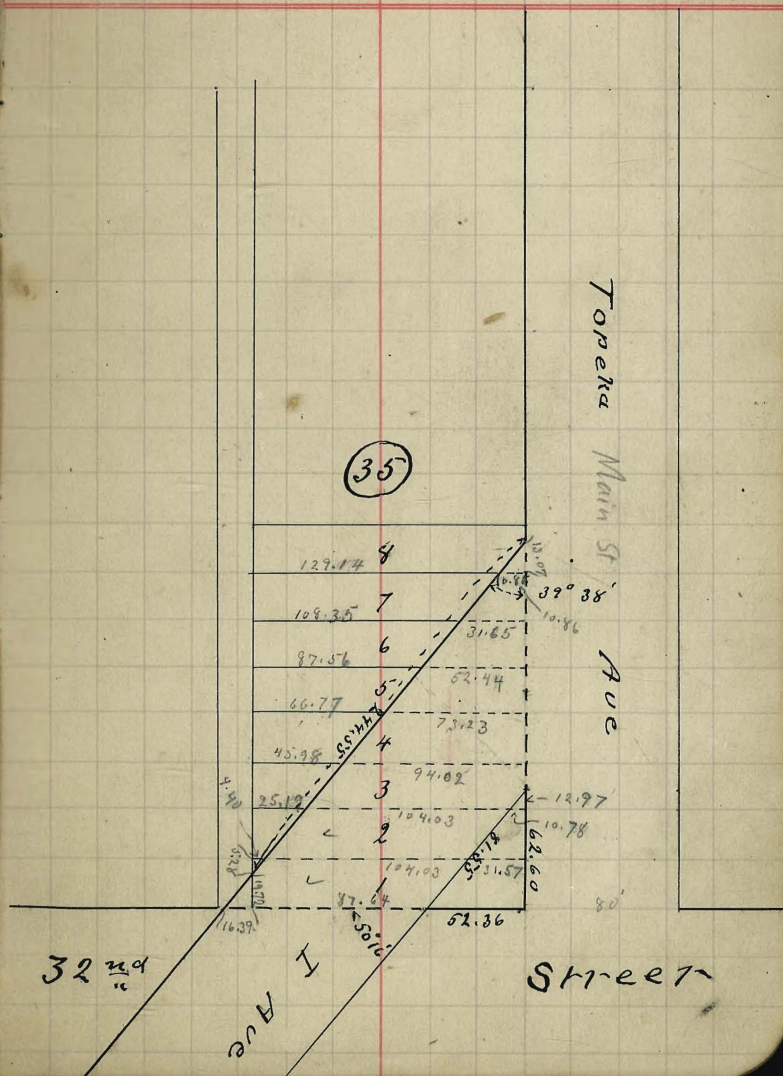
Inch	228	M & O	Add
Set	16	268.50	89 ft
"	17	774.89	" "
"	18	494.62	" "
"	19	8.88	" "
		<u>1546.89</u>	



Sketch showing amount of land
necessary to condemn in 13th

33 of Whitney's add for the
opening of I Ave.

Lot 1	2434.31	sq ft.
" 2	2600.75	" "
" 3	2540.38	" "
" 4	2090.62	" "
" 5	1570.88	" "
" 6	1051.13	" "
" 7	531.28	" "
" 8	70.97	" "
	<u>12890.32</u>	sq ft.



Beginning of a stake

marked 1192 on N 255 on West
255 on South and 1178 on East
ran east on a random line
Mag Course N 76° 0' E

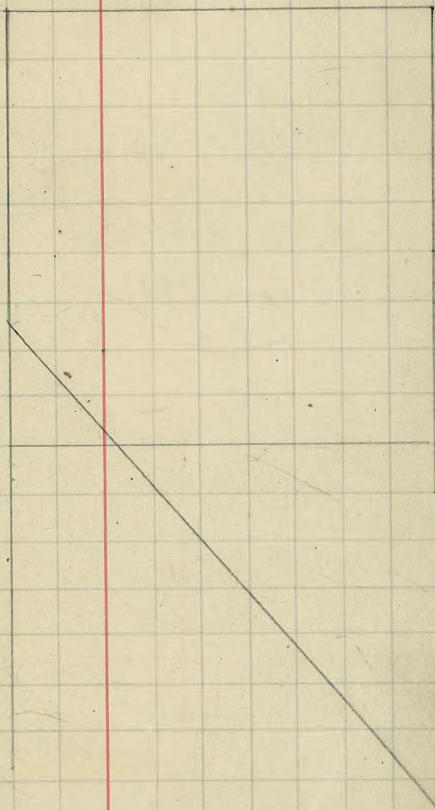
13 + 09 point top of hill

18 + 0 point top of hill

29 + 00 Point turned 7° 15' R

N 82° 0' E Sta 31 + 73.5 Stake

SW^{1/4} of 1191 on East SE. cor of
1192 on west face and (1178?) on
South



Survey of North & East lines
of 1178

33

1

31+73.5 = 6° 38' L S 89° 23' E N 76° 15' E L

29

7° 15' R S 82° 45' E N 92° 0' E + some local attracts
at this point

29

19+35

Bottom of canyon

14+0

Point on top of hill

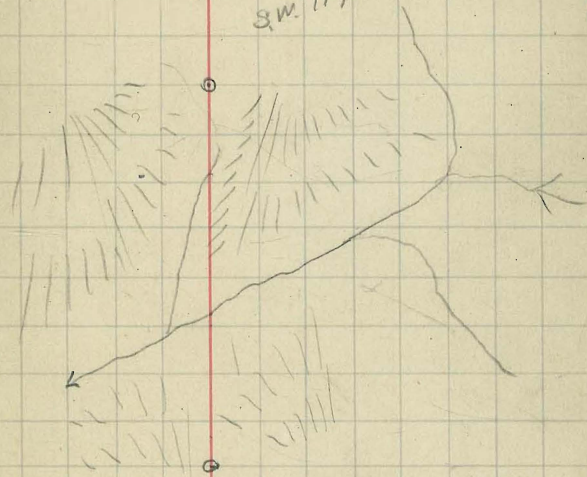
13+09

point on top of hill

0

Begun

2x1" white stake marked
SW 1191 E, SE 1192 W
1178 South



Sta	Ref	Course	M.C.
-----	-----	--------	------

400

0 S 0° 37' W

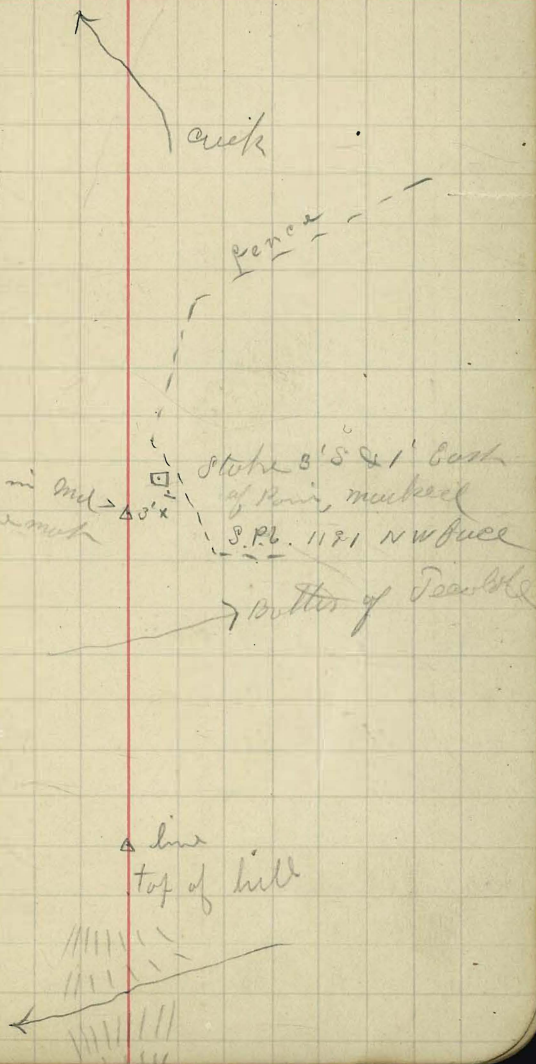
26 + 28° 90° 0' R S 0° 37' W

25 + 0

+ 70

17 + 0

6 + 40



13+0 Stair

10+80 top of bank

10+40 foot of bank

4+50 creek

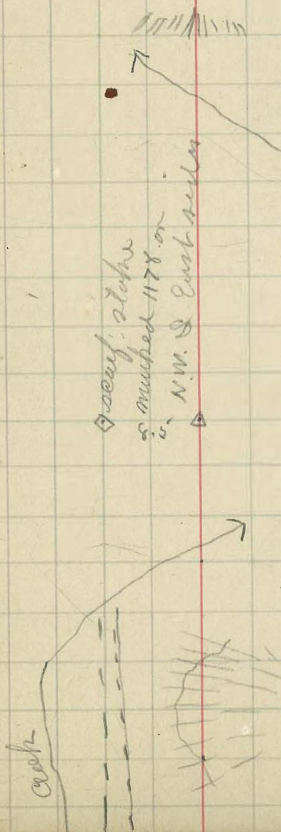
0 N89°20'W

26+52.5 = 90° R. N89°20'W

17

12+75

10+50



Lines for Electric R.R. on Soybean
ave from N St. to South 22 St.
South
West track.

Feb 1 1892

Humber
Williams
Shaw
Van Hook

37

Sta	Dist	Ref	Index	Tang.
19110	5° 13'			
181.3	5° 0'			
18.3	5° 0'			
18.3	5° 0'			
18.3	5° 0'			
740				
0				

Both p.c.'s tied out 21' each way.

P.C. left 105' radius

P.C. left back 105'
Center of N St

Intersect angle

50° 26' left

open dist 49.45

length of curve

on chord 92.3

Sta 0 is a point on the north line of N St
5' west of the center line

Walk over South track of electric STRR
from N. line of N St to West line 21st

Sta	+	-	HD	Elv
B.M.	1.74		14.69	12.95
0			3.13	11.86
			3.45	11.24
+40			3.43	11.26
			3.57	11.12
0+60.6			3.74	10.95
+78.9			4.22	10.47
+97.2			4.50	10.19
1+15.5			4.71	9.98
+33.8			4.44	9.85
+52.9			4.54	10.15
+98.4			4.64	10.05
2+48.4			4.89	9.81
+98.4			4.75	9.94
3+48.4			4.40	10.29
+98.4			4.27	10.42
4+48.4			3.33	11.36
+98.4 #	10.11	22.52	2.28	12.41
5+48.4			4.33	14.19
+98.4			5.69	16.83 ✓
6+48.4 #	10.21	30.57	2.76	19.76 ✓

Scott & Logan
North line of N & 16th St
Rail - C & E R R
Center of N St
1/4 mile across RR
B.C. kept 105' Rodline

E.C.

11.24
10.75

.49

Sta	+	179	-	Elev	
6+98.4		30.57	7.91	22.66	
7+48.4			4.93	25.64	
7+98.4 #	5.11	33.32	2.36	28.21	
B.M. #	8.56	40.35	1.54	31.78	31.79
8+28.4			11.31	29.04	
0			10.62	29.73	
+50			9.10	31.25	
1			7.50	32.85	
+50			5.96	34.39	
2			4.43	35.92	
+50			3.65	36.70	
3			2.78	37.57	
+50			2.44	37.91	
4			1.82	38.53	
+50 #	6.21	45.26	1.30	39.05	
5			5.57	39.69	
+50			4.79	40.47	
6			4.30	40.93	
+30			4.06	41.20	
0			4.24	41.02	
B.M.			3.60	41.66	41.70

West line of S 21st St
 began S 21st St
 S 21st St
 East line of S 21st St

W of S 22nd

E of S 22nd
 driven in 22nd began

Sta	+	2.0	-	Elev	Grade
0+50		45.26	4.14	41.12	
1			3.96	41.30	
+50			3.87	41.39	
2			3.73	41.53	
+50			3.71	41.55	
3 #	5.06	46.79	3.53	41.73	
+50			4.74	42.05	
4			4.82	41.97	
+50			4.74	42.05	
5			4.64	42.75	
+50			4.20	42.59	
6			3.70	43.09	
+30			3.64	43.10	
0			3.74	43.05	
B.M.			2.26	44.53	
+50			3.50	43.29	
1			3.24	43.55	
+50			2.76	44.03	
2 #	6.67	51.17	2.29	44.50	
+50			5.97	45.20	
3			5.73	45.44	

South 22nd St.

Logan & 22nd St.

Sta	+	HO	-	Elev
3+50		51.17	51.14	46.03
4			41.53	46.62
+50			41.09	47.08
5			31.64	47.53
+50			31.27	47.90
6			2.76	48.41
B.M.			11.31	39.86 39.86

West of S 24th St
 Miller & S 24th St

Levels on Orange Hill pipe line
South of 10 Street

43

Sta	+	H ₂	-	Elev	Grade	Out
B.M.	3.36	218.62		215.26		
138			0.17	218.45	215.00	3.45
139			3.58	215.04	212.00	3.04
#	0.87	207.52	11.97	206.65		
140			2.01	205.51	203.00	2.51
#	0.90	196.40	12.02	195.50		
141			6.17	190.23	187.00	3.23
#	1.85	187.56	10.73	185.65		
+20			3.4	184.1		
+90			8.8	178.7		
142			11.07	176.43	175.00	1.43
143			5.45	182.05	179.00	3.05
144	11.93	197.60	1.83	185.67	183.00	2.67
145			7.45	190.15	187.75	2.40
146			0.87	196.73	192.50	4.23
147			4.38	193.22	189.25	3.97
148			8.54	189.06	186.00	3.06
B.M.			9.72	187.88		
#	0.02	185.76	11.86	185.74		
149			1.05	184.71		
150			4.82	180.94		

B.M. 307 & B 87

3' 6" -

3' 1" -

2' 6" -

2' 3" -

1' 5" -
Bottom of canon

3' 1" -

2' 8" -

2' 5" -

4' 3" top of hill

4' 0" -

3' 1" -

Sta	+	HO	-	Elev		
		18576				
151			9.63	176.13		
#	0.34	174.34	11.74	174.00		
152			2.0	172.38		
B.M.			2.25	171.53	171.53	171.53
153			7.05	167.33		
#	1.34	163.94	11.74	162.50	162.50	
154			2.38	161.60		
155			7.10	156.88		
156			7.48	156.50		
157			10.60	153.32		
#	5.37	162.55	6.80	157.18		
158			2.14	160.37		
159			3.39	159.16		
#	0.19	151.41	11.33	151.22		
			1.92	149.49	149.49	149.5
161			4.10	147.31		
#	0.01	139.64	11.76	139.65		
#	0.07	127.23	12.0	127.66		
162			4.50	123.23		
#	0.61	116.35	11.99	115.74		

top Hill

B.M. 30 and K. H.

Sta	+	AD	-	Elev			
		116.35					
103			9.46	106.89	✓		
#	0.47	104.87	11.95	104.40			
144			9.77	95.10			
#	1.48	95.07	11.28	93.59			
165			8.30	84.77			
#	0.87	83.94	12.0	83.07		+	
166			3.35	80.69			
167			8.11	75.53			
168			9.6	74.34			
169			10.07	73.87			
#	4.34	77.62	10.66	73.28			
170			4.48	72.94			
171			5.44	72.18			
172			5.52	71.80			
173			4.94	72.66			
174			4.33	73.29			
175			4.64	72.98			
176			4.70	72.92	72.92	72.94	
177			4.80	72.82			
#	6.62	80.45	3.79	73.83			

B M 30 and L St

Sta	+	H ₂	-	Elev
		80.45		
179			4.74	75.71
180			5.41	75.04
181			6.14	74.31
182			7.89	72.56
183			7.96	72.59
184			5.93	71.52
# 185	6.25	78.85	7.65	72.60
186			7.3	71.55
187			6.74	72.91
188			6.1	72.75
189			4.35	74.50
190			7.83	74.02
191			5.95	72.70
# 192	11.38	86.98	9.25	75.60
193			7.03	79.95
194			3.45	85.50
195			3.73	83.25
196			3.26	83.72
# 197	6.95	93.13	0.80	86.18
			5.77	87.36

Sta	+	HO	-	Elev	check
		93.13			
198			4.80	88.33	
			6.10	87.03	87.47
159	3.32	163.49		163.37	
160			4.53	158.16	
160+42			6.41	157.28	
162	0.22	123.45		123.23	
	0.54	112.52	11.47	111.98	
163			5.61	106.91	
	0.98	101.84	11.84	100.88	
164			6.74	95.10	
165	2.88	89.65		86.77	
165+50			6.55	82.80	
166			9.08	80.57	
189	4.49	76.99		74.50	
189+51			5.74	73.23	
190+60			9.0	69.99	
190+78			5.4	73.59	
193	6.48	80.43		79.95	
193+44		2	2.58	83.85	
194			2.93	83.50	

Bell. cor 30 and R Plug in ground surface

Brake of Hill N st

check on sta 143

Road foot of Hill

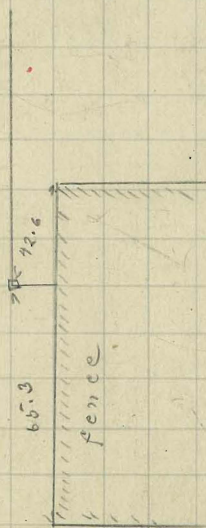
Sta	+	HO	-	Elev
Logan	21 st			N. long. of rd 31.79
"	22 nd			Optic Tel pole S.E. cor 41.70
"	23 rd			fence post NW 44.61
"	24			copper tank in plug 2 NE of N.E. cor 44.30

2' mesh	Sta 78+73.7	.5' lower
2 "	" 77+40	1.5' lower
	77	0.5' "

From B.St. to Natl ave 8020'
on the natural slope
From Sta 62 to B.St 7569' on the
natural slope.

25 th Street	Plot K	3448.5
H "	22 nd to 25 th	1128.0
J "	24 th to 26 th	660.0
K "	22 nd to 24 th	447.0
K "	24 th to 25 th	687.0
24 th " Alley		1008.0

22nd S.E. cor.
of S18th & alley



2' 137+45
 2' 137+78
 Dist on slope from 106+21 to 137+78
 is 3122 feet gain less 2'

Dist from Sta 85 to 137+45 = 5245
 on slope 5240

Dist Sta 62 to 137+45
 on slope 7569

from concrete bridge 25' to line
 from B St to Natl ave 8020.0
 on slope.

~~23746~~
~~11421~~
 125

34
 46
 8

13745
 8820
 5245

13

13746
 10621
 3125

13745

13745
 62
 7543

13745
 10621
 3124

34.0

8020

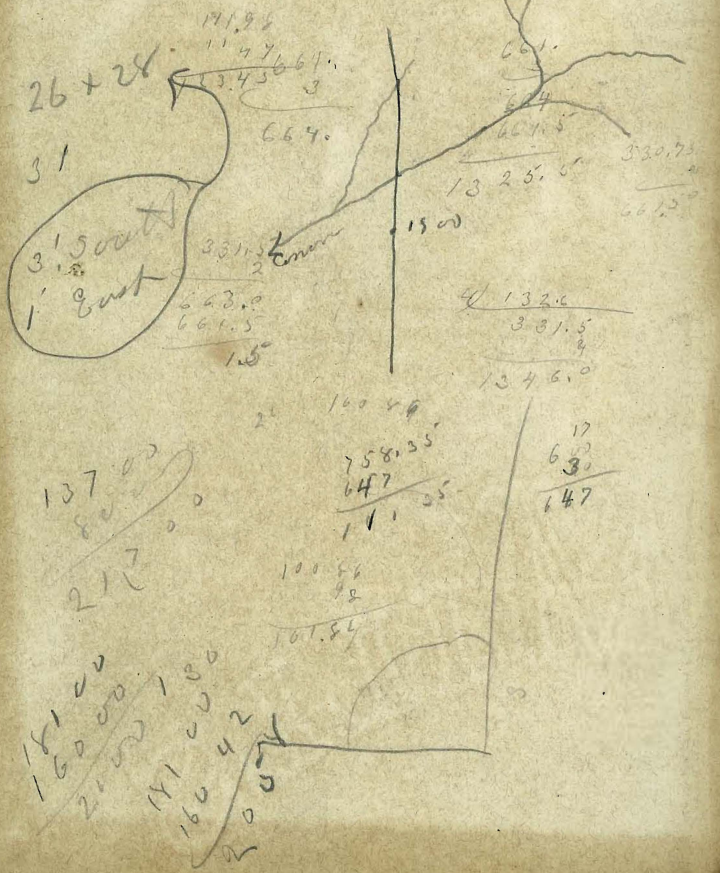
7569
 45
 24
 5
 30

|||||

|||||

845 from 114 cur to line of
 along.
 Return to City Engineers Office
 City Hall, San Diego, Cal.

63.40 from N.E. cur of 318th St
 to Pueblo line south



724
 Return to City Engineers Office
 City Hall, San Diego, Cal.

13173.5
 13207.5
 12471
 26.5
 60

