

1351
SEWER -

FIELD BOOK

No. 3857

MICROFILMED

DEC 23 1964

78858
18
3148
8858
158.192 8

99514
28
796112
199028
272637 22
9.25
279.59

49570
281
99570
776560
199140
277.79170

78858
16
593748
78858
158.170 8
115.88
40.91
271.91

2-20
97892
225
299460
299676
199784
234.74620

99961
111.4
399584
99961
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99961
577748
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377.85
88748
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184828044

78858
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3148
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2-30
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78858
18
3148
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28674
8500
383.4
230.35
153.39

280
175-50-30
87-59-45

24
213.58
71
240
301
226.79

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book), which can be furnished at a somewhat lower price.

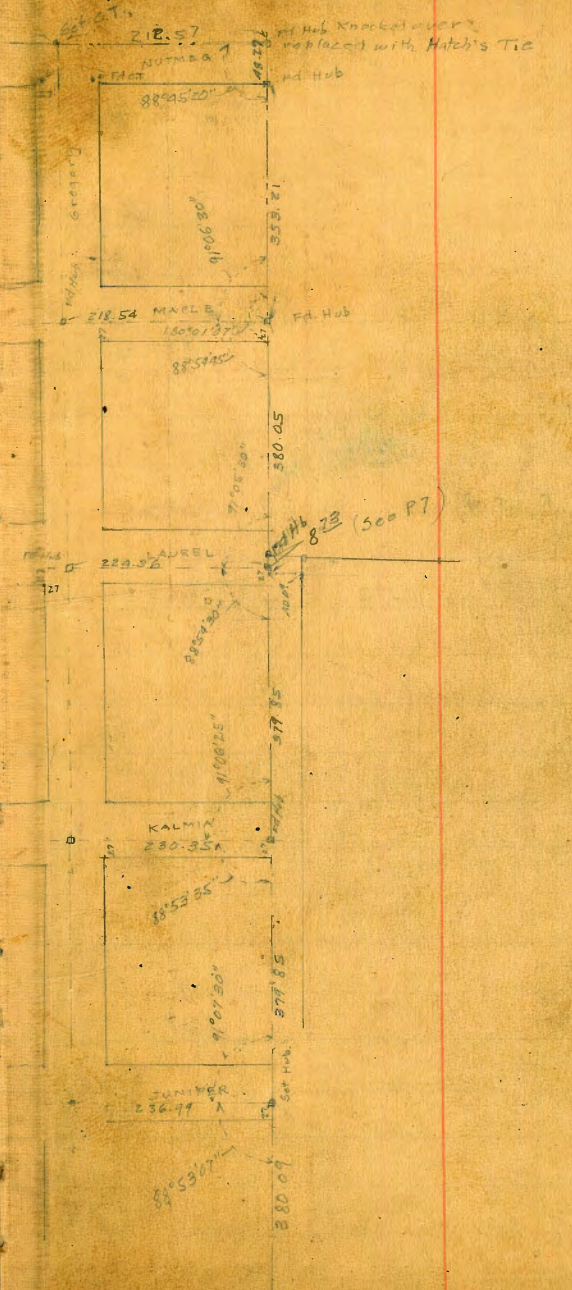
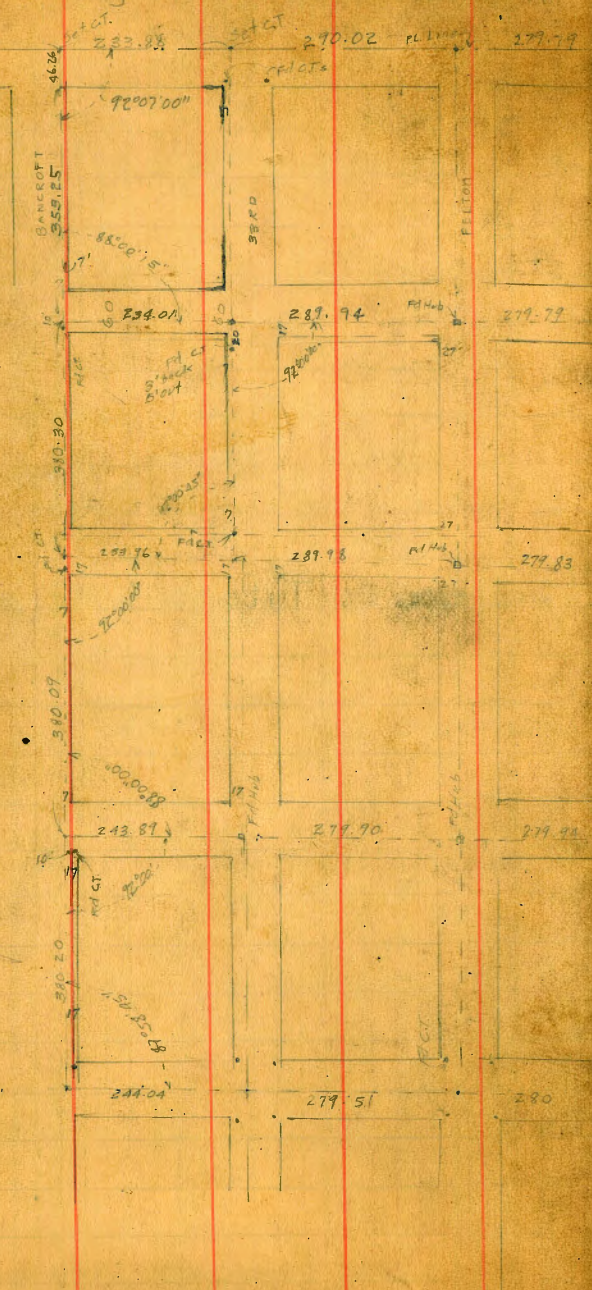
In ordering Fabri-Hide covered books, add the letter "F" to catalog number.

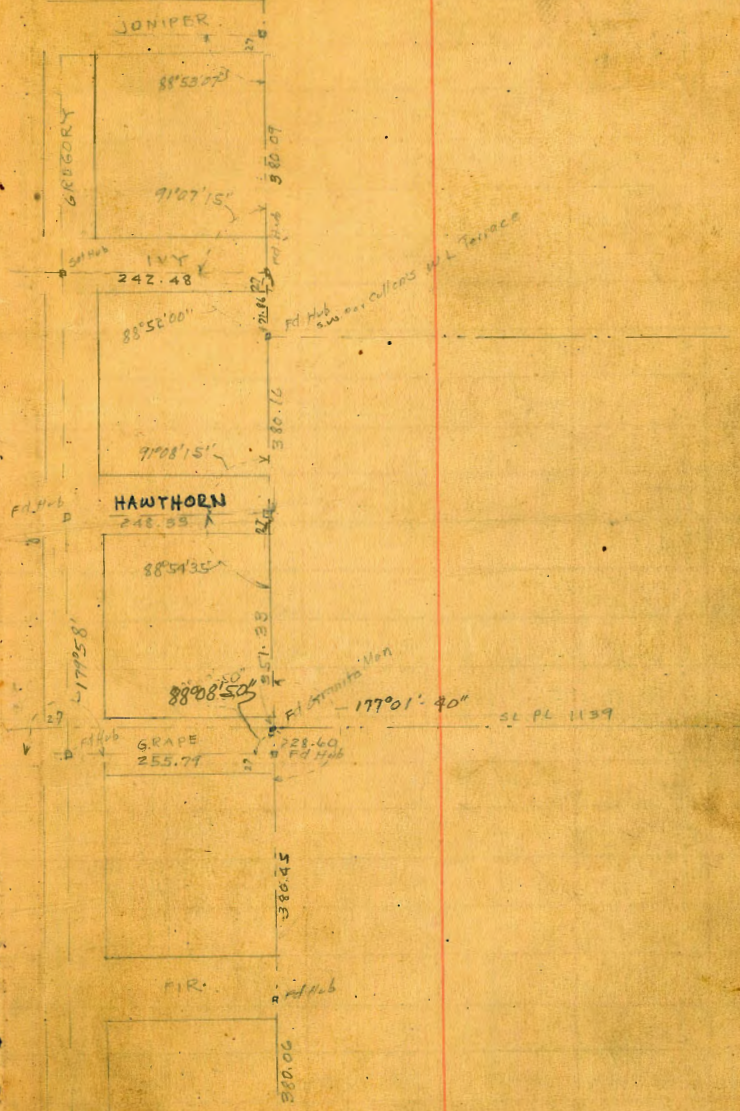
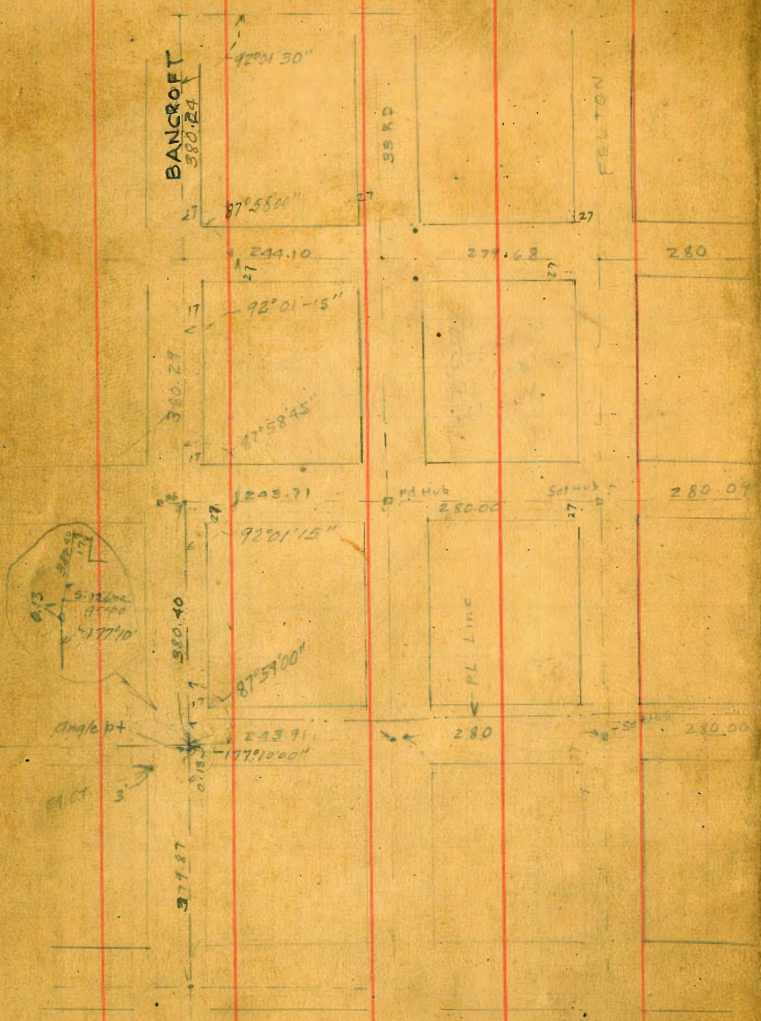
THE FREDERICK POST CO.
 ENGINEERING and DRAFTING SUPPLIES
 IRVING PARK STATION
 CHICAGO, ILL.

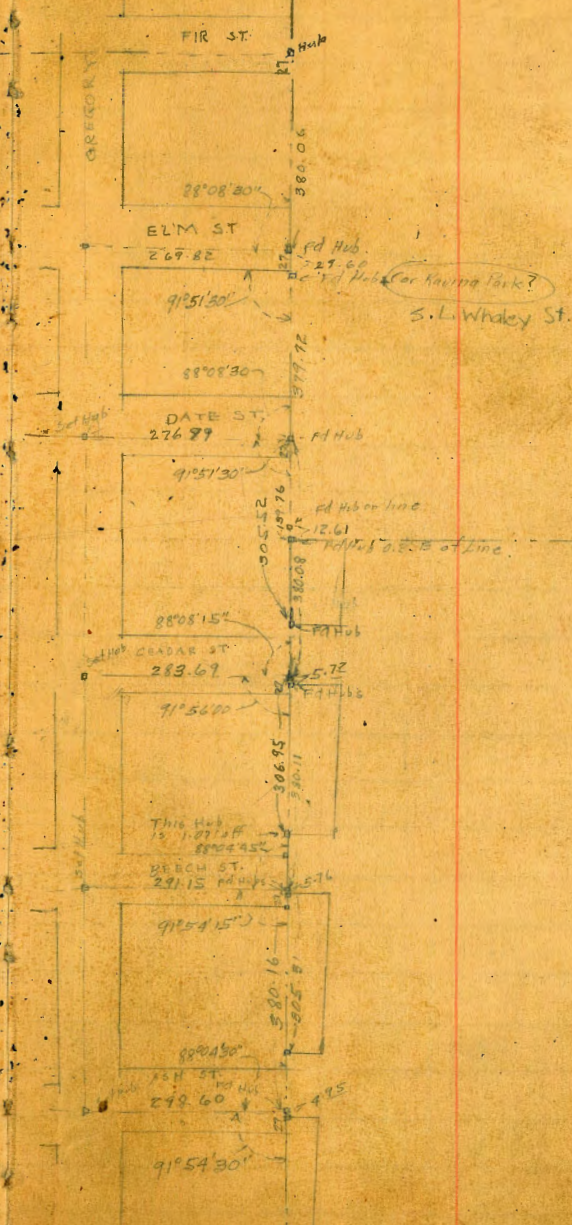
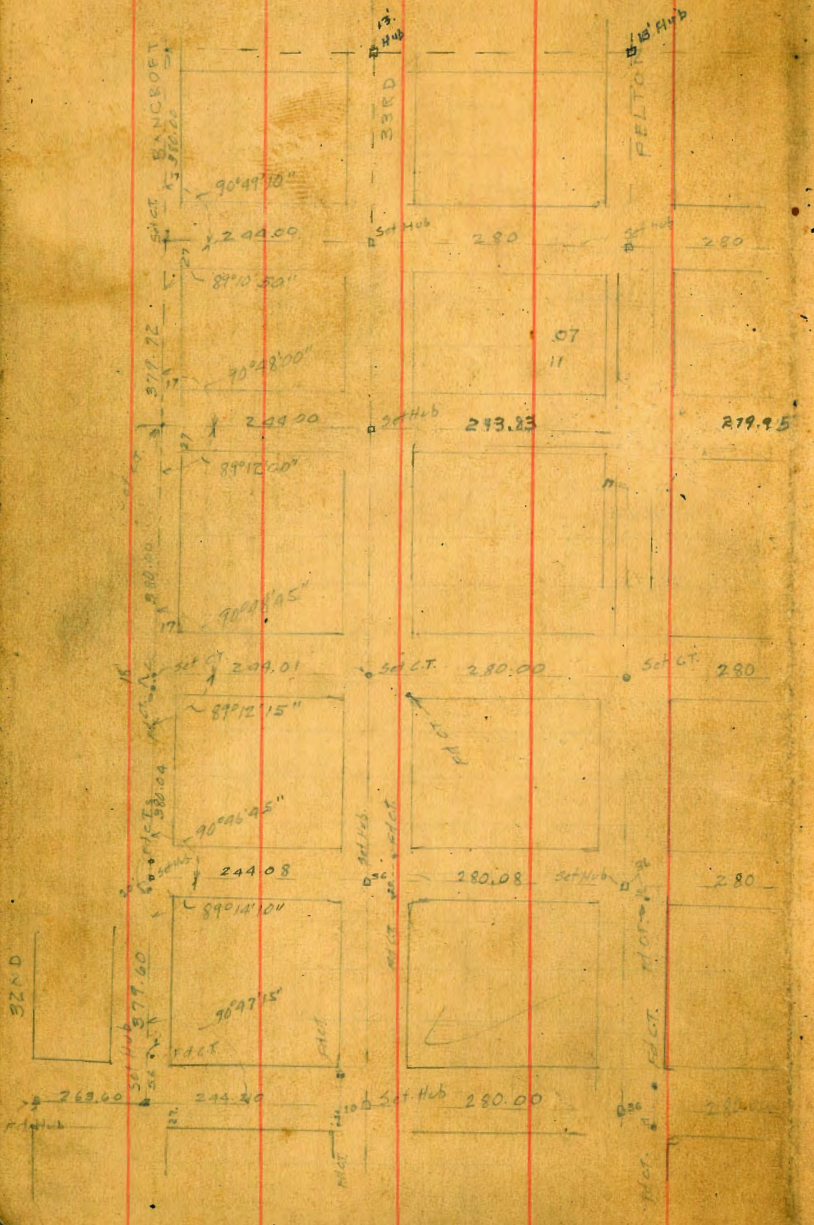
X Sec. Pepper Dr, Tuberosse to Azalea Park 53

Survey for Sewers in Eastern 4th

5/10/29
Location
set by
54' from
Hitch's
Ties.
E.P.L.S.T.



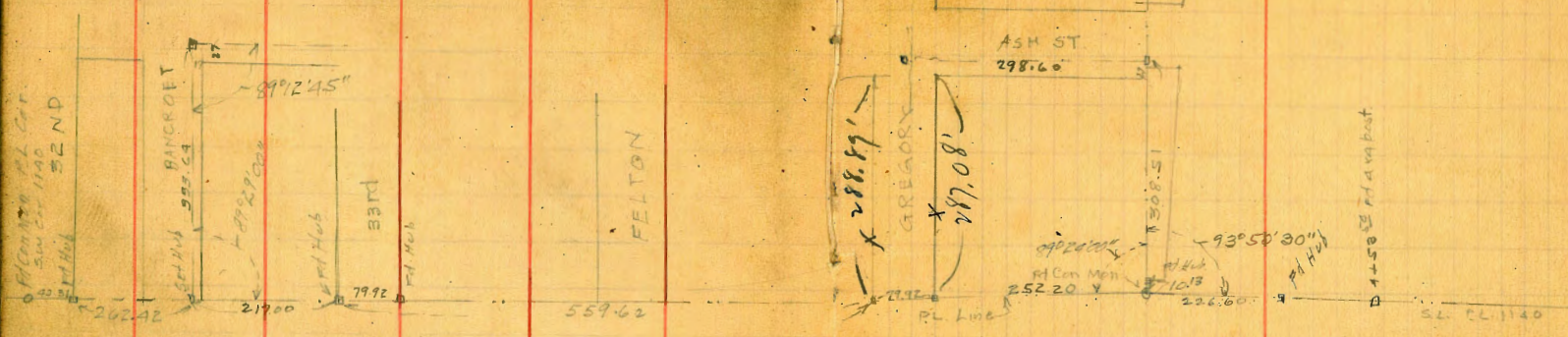




Car Washing Tank?
S.L. Whaley St.

Ed Hub on line
12.61
M.P. 1.0.5.5 of line

This Hub is 1.07.18
88°45'

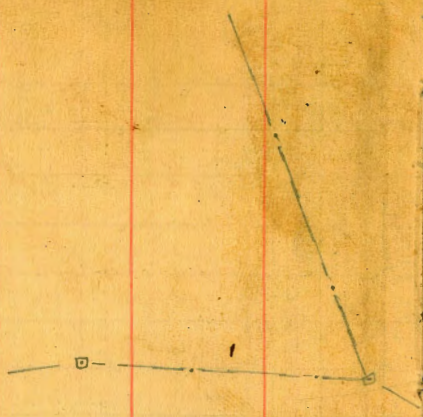
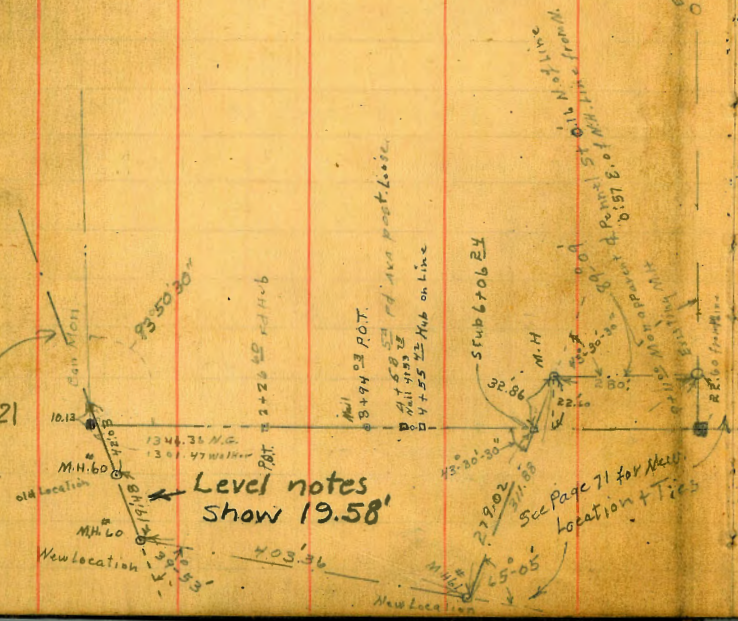


417.00
 559.62
 79.52
 252.20
 1108.74

333.6
 308.57
 251.13

$25.13; 1108.74 = X : 245.60 \quad X = 5.57$
 $25.13; 1108.74 = X : 325.60 \quad X = 7.38$

See Page 21



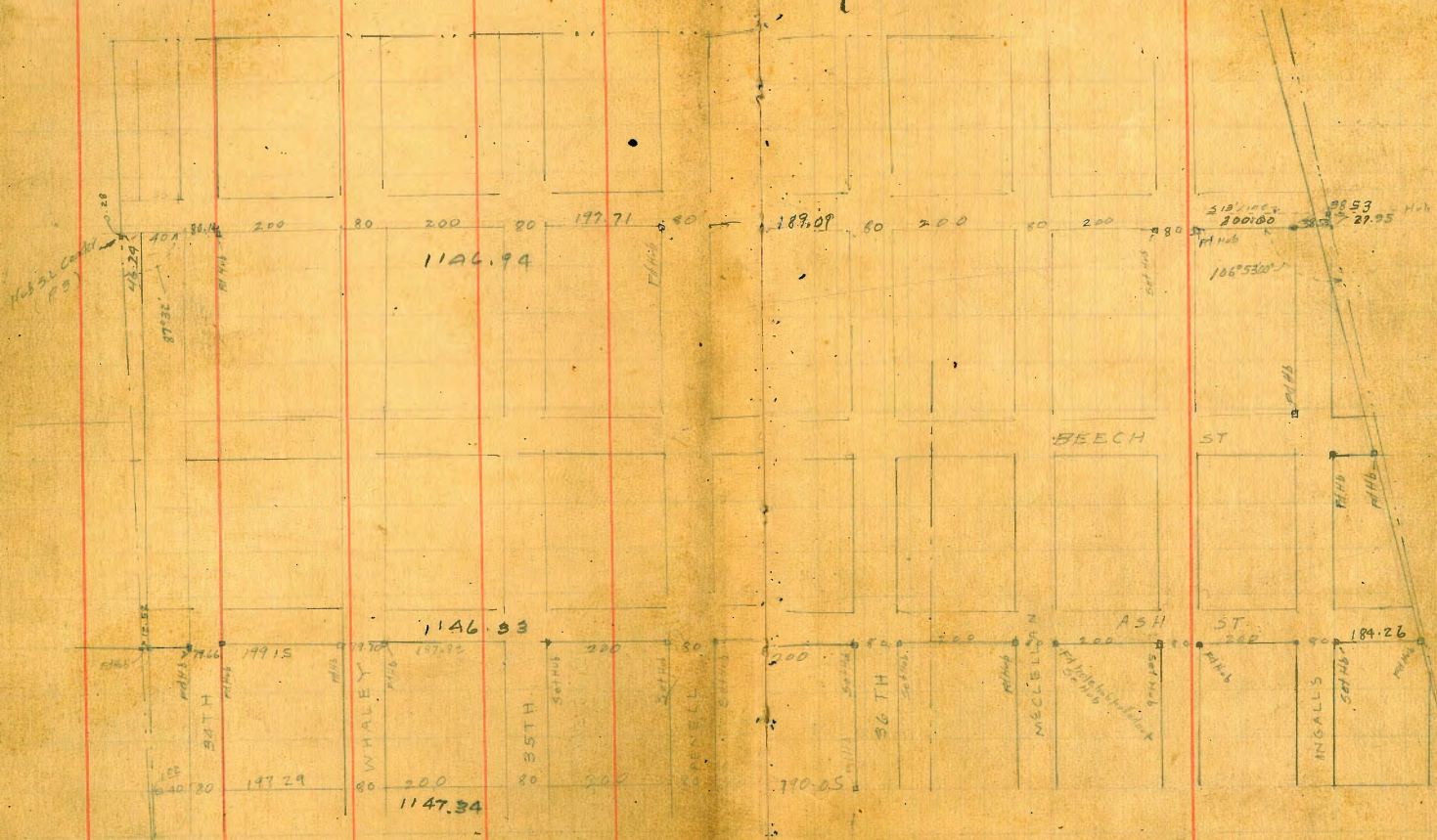
114 99.5 (Hub) marked 8.85

58 Car EL 1140
175.50.15'

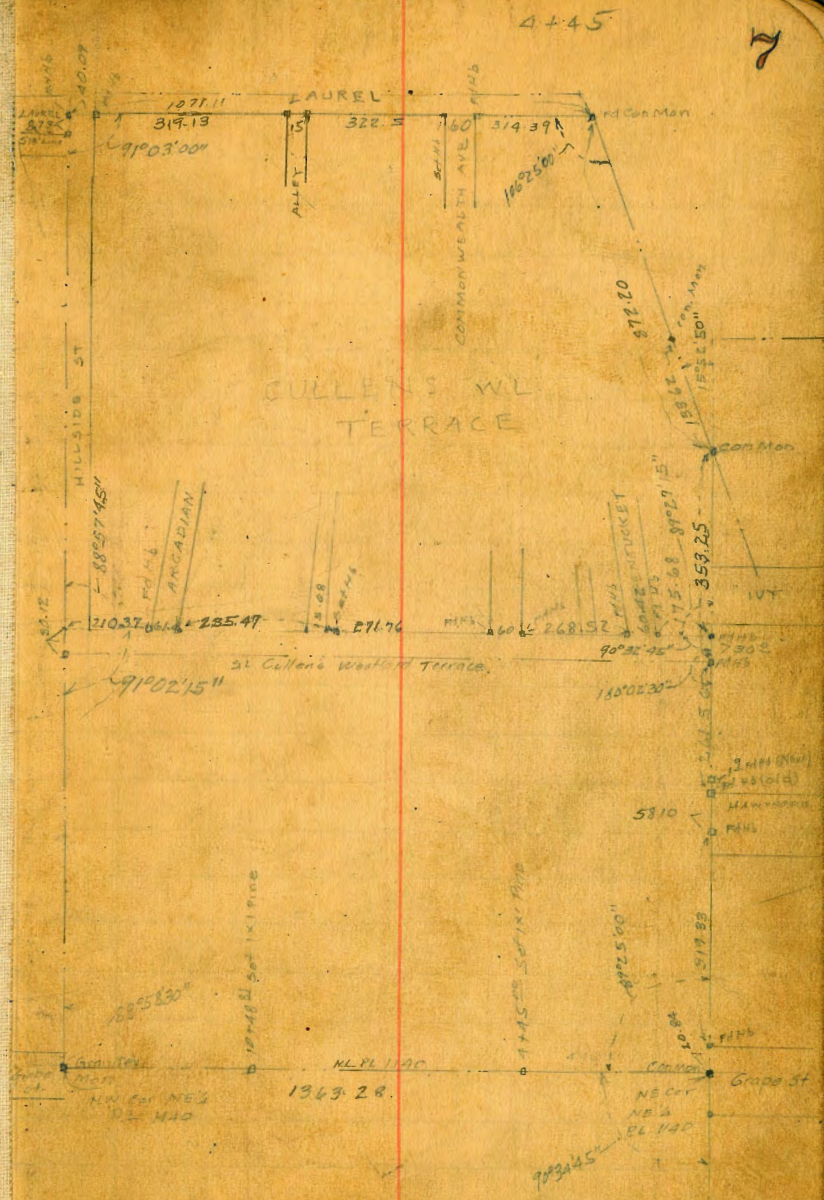
3494 23 ROT.
 1346.31 N.C.
 301.47
 175.50.15'

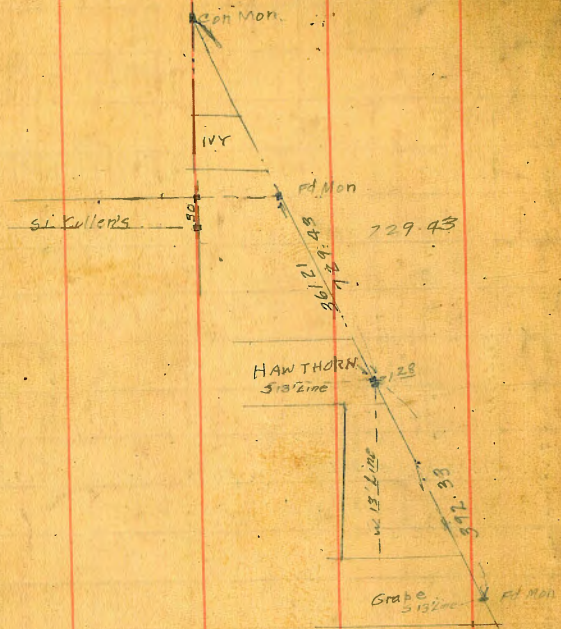
1042.56

58 Car
9.4.1948



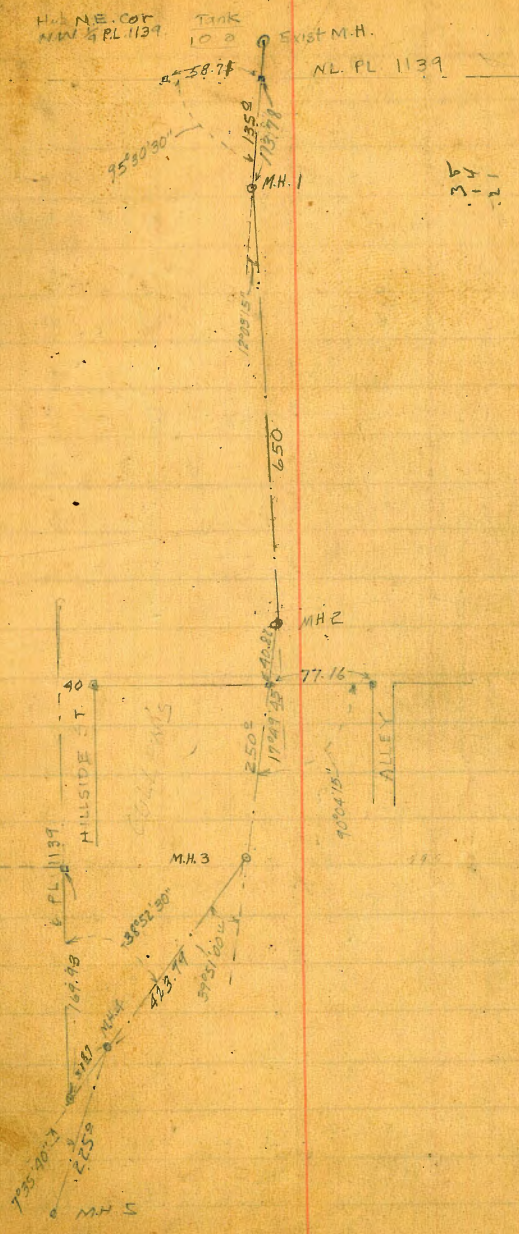
CHDATES ADD

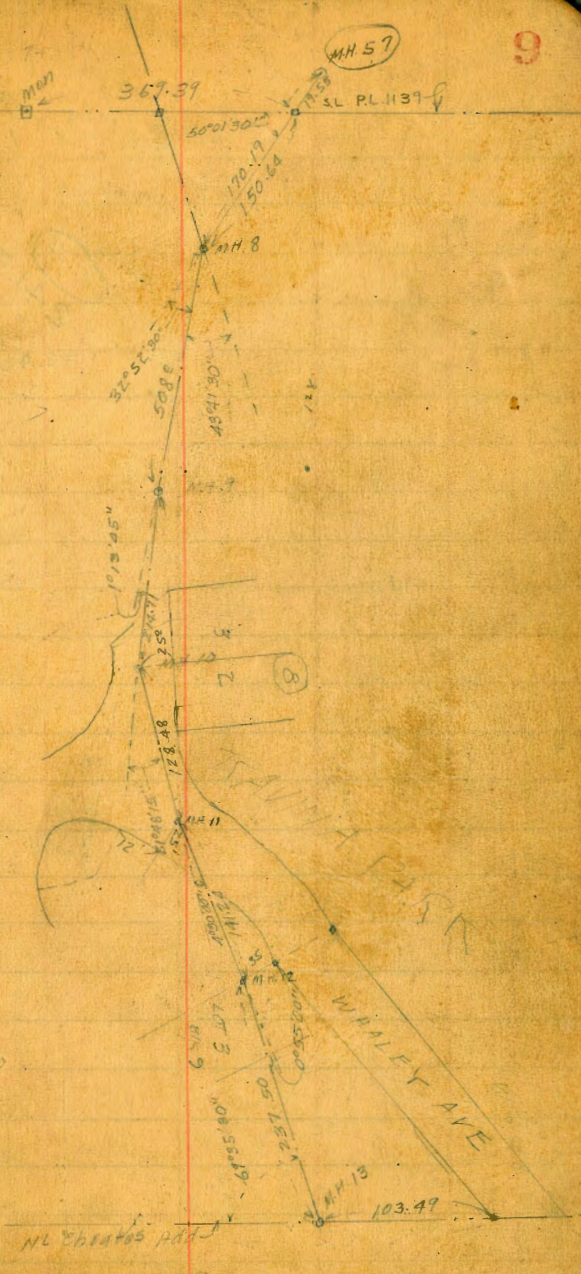
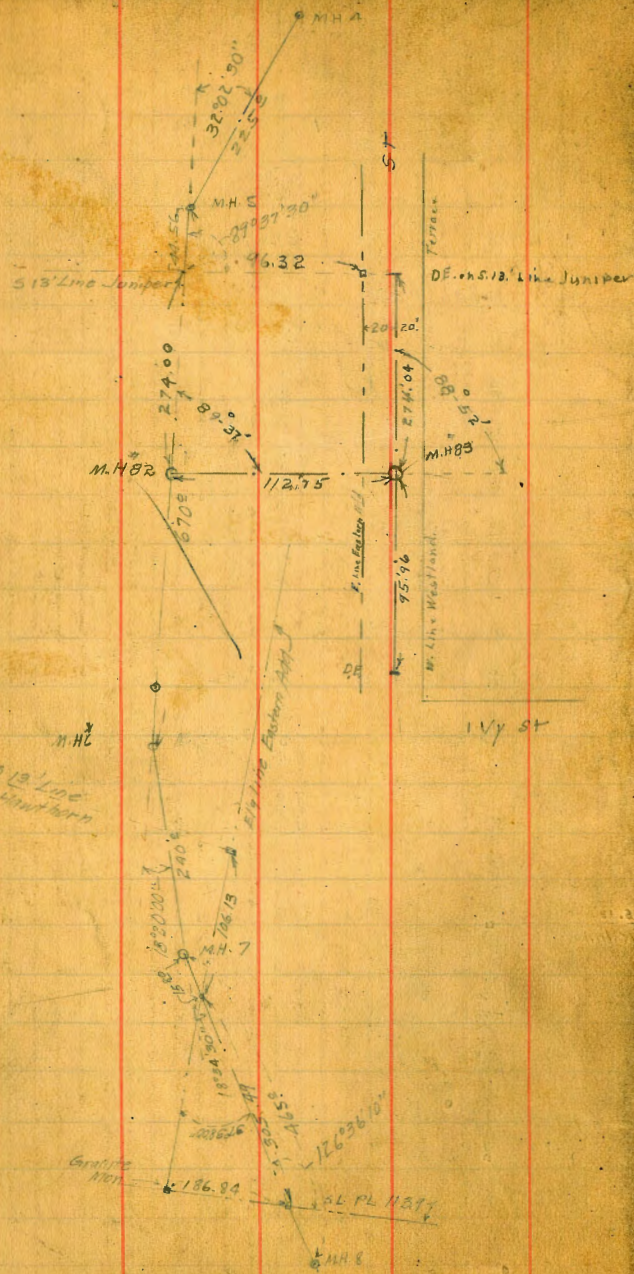


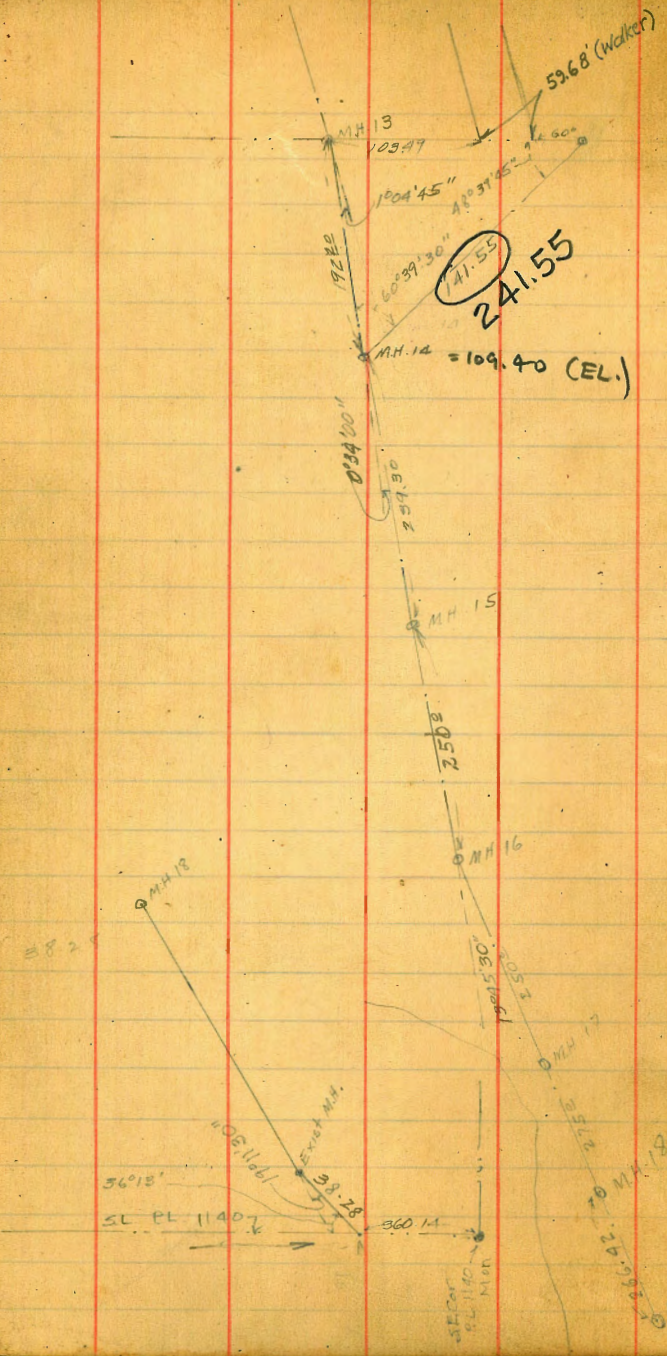


H. & N.E. COR
NW 1/4 PL 1139
TINK
10 2
EXIST M.H.
NL. PL 1139

8







58 BP Station
Reference Number

Profile of Trunk line down Cañon
From Tank on Nutmeg East of Gregory
to M.H. at Palo Alto & Pennel.

B.M.	6.70	262.18	255.48
T.P.	12.90	274.55	0.53 261.65
T.P.	1.55	264.39	11.71 262.84
T.P.	6.41	258.54	12.26 252.13
0+00 = M.H. at Seltic Tank			
top M.H.		0.28	258.36
0+00 grad.		1.1	257.4
0+11		+0.5	259.0
0+25		2.6	255.9
0+38		4.8	253.7
0+50		4.9	253.6
0+68		5.1	253.4
0+77 channel		8.7	249.8
0+97 "		10.7	247.8
1+06 "		12.0	246.5
1+26		11.4	247.1
1+35 M.H. 1		11.9	246.75
M.H. 1 to M.H. 2 0+00 = M.H. 1			
0+19		12.1	246.4
T.P.	2.14	248.12	12.56 245.98
0+39 channel		5.6	242.5
0+50		4.2	243.9
0+61		4.8	243.3
0+74		6.2	241.9
0+84 channel		8.3	239.8
0+93		8.1	240.0
1+09		8.0	240.1

Alignment on P 8

7/11/29 London.

	248.12	
1+34	10.7	237.4
1+39	10.2	237.9
1+50	10.0	238.1
1+76 channel	12.4	235.7
1+86	11.7	236.4
2+00	12.6	235.5
T.P. 1.26	237.56	11.82 236.30
2+09	2.9	234.7
2+17 channel	5.0	232.6
2+23	4.0	233.6
2+50	2.3	235.3
2+84	6.0	231.6
3+00 channel	8.8	228.8
3+10 "	8.6	229.0
3+36 "	9.6	228.0
3+45 channel	11.3	226.3
3+55	10.8	226.8
3+78	10.8	226.8
4+00	11.7	225.9
4+35	13.9	223.7
T.P. 0.58	225.16	12.98 224.58
4+50 channel	3.5	221.7
4+63 "	3.5	221.7
4+73	2.7	222.5
5+00	2.6	222.6

225.16

5+13		2.7	222.5
5+50		4.9	220.3
5+60 channel		6.6	218.6
5+70 "		6.8	218.4
5+72		5.7	219.5
5+85		5.6	219.6
6+00		7.4	217.8
6+21 channel		8.9	216.3
6+50 = MH 2		8.62	216.54

MH 2 to MH 3 0+00 = MH 2

0+12		9.2	216.0
0+22 channel		11.2	214.0
0+29 channel		11.3	213.9
0+36		10.0	215.2
0+50		10.6	214.6
0+88		12.9	212.3
T.P. 208	215.94	11.30	213.86
0+90		4.6	211.3
1+00 channel		4.6	211.3
1+10		3.9	212.0
1+19		3.8	212.1
1+50		4.9	211.0
1+87		5.4	210.5
2+00		6.1	209.8
2+50	1.38 = MH 3	7.66	208.28

209.66

MH 3 to MH 4 0+00 = MH 3

0+24		1.5	208.2
0+50		3.2	206.5
0+63		4.5	205.2
0+73 channel		6.2	203.5
0+81		5.4	204.3
1+00		5.1	204.6
1+18		4.8	204.9
1+50		5.5	204.2
2+00		8.6	201.1
2+29		11.1	198.6
2+34 channel		11.8	197.9
2+38		11.3	198.4
2+50		11.2	198.5
2+76 channel		13.0	196.7
2+83		12.1	197.6
3+00		12.6	197.1
T.P. 208	198.95	12.79	196.87
3+13		2.3	196.6
3+35 channel		4.3	194.6
3+55 channel		4.5	194.4
3+61		3.5	195.4
4+00		6.2	192.7
4+08 channel		7.6	191.3
4+13 channel		7.4	191.5
4+19		5.2	193.7
4+23 ^{II} = MH 4		5.51	193.42

MH 4 to MH 5 0+00 = MH 4

198.95

0+31			7.0	191.9
0+46	channel		8.7	190.2
0+59	channel		9.5	189.4
0+64	"		8.6	190.3
1+00	"		9.2	189.7
1+40	"		9.9	189.0
1+50	"		9.3	189.6
1+76	"		9.4	189.5
1+84			10.2	188.7
1+92			9.1	189.8
2+00			10.1	188.8
2+13			7.1	191.8
2+25	=MH. 5		2.24	196.71
1+95	- 16' Lt. N end Culvert under Juniper	36" Conc Pipe -		
F.L.			10.9.9	187.96
top pipe			7.49	191.46
MH 5	12.69	209.40		196.71
T.P.	12.50	221.21	0.69	208.71
T.P.	12.86	233.81	0.26	220.95
T.P.	12.89	246.60	0.10	233.71
T.P.	11.12	259.40	0.32	246.28
B.M.			1.91	255.49 (255.48)

MH 5 to MH 6 0+00 = MH. 5

13

MH 5 10.67

207.38

196.71

0+12

2.9

204.5

0+20 = N. end Juniper

2.78

204.65

0+20 gut

3.49

203.89

0+35 ± Rdway

2.83

204.55

0+49⁵⁰ gutter

3.25

204.13

0+49⁵⁰ = S. end Juniper

2.25

205.13

0+61

3.4

204.0

0+80

14.8

182.6

T.P. 0.65

195.10

12.93

194.45

0+85

31' Lt. S. end culvert under Juniper (F.L.)

11.07

184.03

top of Pipe

7.50

187.60

1+00

4.0

191.1

1+18

5.5

189.6

1+75

14.1

181.0

T.P. 0.79

182.83

13.06

182.04

2+00

3.2

179.6

2+23

4.5

178.3

2+37 channel

6.6

176.2

2+50 "

6.3

176.5

2+76 channel

7.2

175.6

2+87

5.6

177.2

3+00

6.0

176.8

3+32

6.6

176.2

3+50

7.6

175.2

4+00

10.2

172.6

182.83

4+20		11.6	171.2
4+31	channel	13.4	169.4
4+38	channel	13.3	169.5
4+43		11.0	171.8
4+50		11.1	171.7
4+80		9.5	173.3
5+00		9.9	172.9
5+50		13.2	169.6
T.P.	125	170.65	170.40
5+87		4.2	166.4
6+00	channel	7.5	163.1
6+50	"	8.1	162.5
6+70	= M.H. 6 channel	7.94	162.71
M.H. 6 to M.H. 7 0+00 = M.H. 6			
0+10		7.1	163.5
0+40		6.8	163.8
0+50	channel	9.8	160.8
T.P.	H42	164.91	160.47
0+93	channel	5.5	159.4
1+00		2.9	162.0
1+11		3.2	161.7
1+22	channel	6.1	158.8
1+50	"	7.1	157.8
2+00	"	8.3	156.6
2+07		6.3	158.6
2+40	= M.H. 7	4.88	160.03

164.91

14

M.H. 7 to M.H. 8 0+00 = M.H. 7			
0+50		7.4	157.5
0+82		9.0	155.9
0+84	channel	10.7	154.2
0+86	"	11.1	153.8
0+88		8.8	156.1
1+00		8.8	156.1
1+50		9.4	155.5
1+63		7.9	157.0
1+76		8.1	156.8
2+00		9.8	155.1
2+50		13.9	151.0
T.P.	163	153.57	152.97
2+57		3.2	150.4
2+67	channel	5.4	148.2
2+73	channel	5.6	148.0
2+84		3.2	150.4
3+00		3.2	150.4
3+50		4.2	149.4
4+00		5.4	148.2
4+65	¹⁸⁶ = M.H. 8	147.52	7.91
M.H. 8 to M.H. 9 0+00 = M.H. 8			
0+06		2.4	145.1
0+12	channel	4.2	143.3
0+17	channel	1.3	143.2
0+24		3.3	144.2

147.52

0+31	channel	49	142.6
0+41	"	54	142.1
0+43		33	144.2
0+59		30	144.5
1+00		56	141.9
1+06		62	141.3
1+10	channel	79	139.6
1+15	channel	81	139.4
1+19		61	141.4
1+32		5.1	142.4
1+50		5.4	142.1
1+91		7.7	139.8
2+08	channel	10.6	136.9
2+16	channel	10.7	136.8
2+25		7.9	139.6
2+50		8.3	139.2
3+00		10.5	137.0
3+29		12.0	135.5
3+32	channel	13.7	133.8
3+37	"	13.8	133.7
3+40		11.9	135.6
3+61		11.3	136.2
4+00		13.3	134.2
T.P.	11.14	146.18	135.01
4+30		13.2	133.0

146.18

15

4+81		15.7	130.5
4+85 channel		17.7	128.5
4+94 channel		18.3	127.9
4+97		14.2	132.0
5+08 = MH 9		13.08	133.10
MH 9 to MH 10 0+00 = MH 9			
0+15		11.8	134.4
0+50		11.6	134.6
0+73		10.9	135.3
1+00		11.9	134.3
1+10		11.3	134.9
1+30		7.4	138.8
1+60		4.8	141.4
2+14.2 = MH 10		6.27	139.91
MH 10 to MH 11 0+00 = MH 10			
0+50		9.1	137.1
0+63		9.2	137.0
1+00		11.8	134.4
1+10		12.6	133.6
1+16		16.3	129.9
1+18		14.2	132.0
T.P. 0.66	133.83	18.01	133.17
1+28 ²⁸ = MH 11		1.19	132.70

MH 11 to MH 12 0+00 = MH 11

133.83

0+35		3.3	130.5	
0+48		5.4	128.4	
0+59		5.8	128.0	
0+72		7.3	126.5	
0+90		13.8	120.0	
T.P.	270	124.75	11.78	122.05
1+08		6.0	118.8	
1+10	channel	7.8	117.0	
1+16	"	7.8	117.0	
1+18		4.4	120.4	
1+41 ²⁴	= MH.12	5.02	119.73	

MH 12 to MH 13 0+00 = MH 12

0+22		5.0	119.8	
0+33		6.2	118.6	
0+50	channel	9.1	115.7	
0+61	"	9.2	115.6	
0+62		8.0	116.8	
1+00		9.2	115.6	
1+27		9.7	115.1	
1+30	channel	11.6	113.2	
1+50	"	13.0	111.8	
1+67	"	13.3	111.5	
1+70		10.6	114.2	
2+00		10.2	114.6	
2+20		9.0	115.8	
2+37 ⁵⁰	MH.13	116.59	9.87	114.88

MH 13 to MH 14 0+00 = MH 13

16

116.59

0+45		6.0	110.6
0+57	channel	9.2	107.4
0+60	"	7.5	107.1
0+62	"	6.0	110.6
1+00		6.5	110.1
1+24		5.3	111.3
1+50		5.0	111.6
1+61		5.0	111.6
1+92 ²⁰	= MH.14	7.19	109.40

MH 14 to MH 15 0+00 = MH 15

0+50		10.4	106.2
T.P. 211	105.90	14.80	103.79
1+00		3.5	102.4
1+04	channel	6.3	99.6
1+22	channel	6.8	99.1
1+23		3.7	102.2
1+50		4.0	101.9
1+68		4.8	101.1
1+78	channel	8.2	97.7
1+90	channel	8.3	97.6
2+00		5.4	100.5
2+39 ⁵⁰	= MH.15	6.01	99.99

MH 15 to MH 16 0+00 = MH 15

0+50		7.9	98.0
0+71		8.8	97.1

15-1C

10590

0+73	channel	11.3	94.6
0+82	channel	10.8	95.1
0+85		8.8	97.1
1+00		8.2	97.7
1+50		10.8	95.6
1+79		11.8	94.1
1+82	channel	14.5	91.4
2+07	"	14.4	91.5
2+12		12.7	93.2
2+50	MH 16	95.65	12.49
	MH 16 to MH 17 0+00 = MH 16		93.41
0+50		3.1	92.5
1+00		5.0	90.6
1+35		7.1	88.5
1+37	channel	10.3	85.3
1+45	channel	9.7	85.9
1+53	channel	10.7	84.9
1+57		8.0	87.6
1+70		9.5	86.1
2+00		9.9	85.7
2+41		10.9	84.7
2+50	MH 17	10.65	85.05

MH 17 to MH 18 0+00 = MH 17

17

9565

0+08		9.8	85.8
0+42		11.1	84.5
0+46		12.8	82.8
0+78		13.5	82.1
0+82		12.1	83.5
1+00		12.9	82.7
T.P. 328	86.51	12.42	83.23
1+08		3.9	82.6
1+17		5.6	80.9
1+37		6.3	80.2
1+50		4.2	82.3
1+63		3.6	82.9
2+00		5.4	81.1
2+06		4.6	81.9
2+16		5.2	81.3
2+35		8.4	78.1
2+44		8.7	77.8
2+53	channel	12.5	74.0
2+75	MH 18	12.31	74.20
	MH 18 to Existing MH 0+00 = MH 18		
0+50		13.0	73.5
T.P. 304	77.03	12.52	73.99
1+00	channel	4.1	72.9
1+50	"	4.5	72.5
1+80	"	6.0	71.0
2+00	"	5.2	71.8

50-55
25-27-30

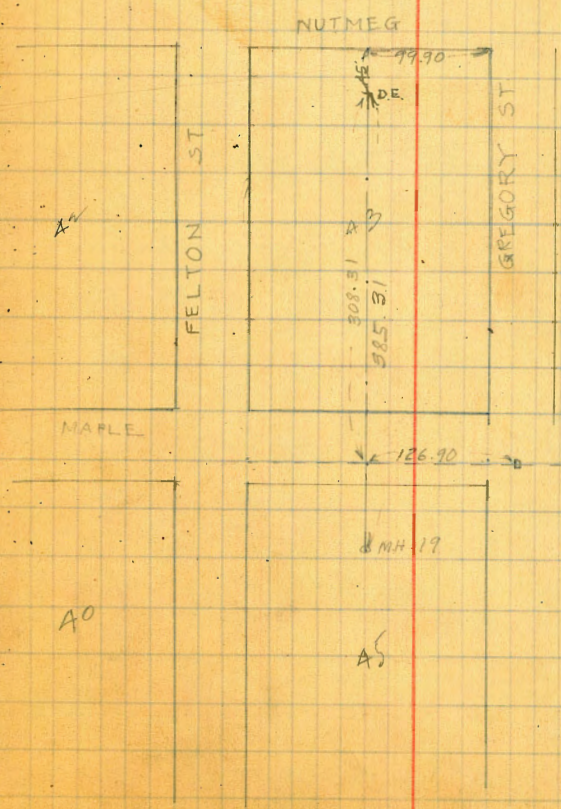
77.03

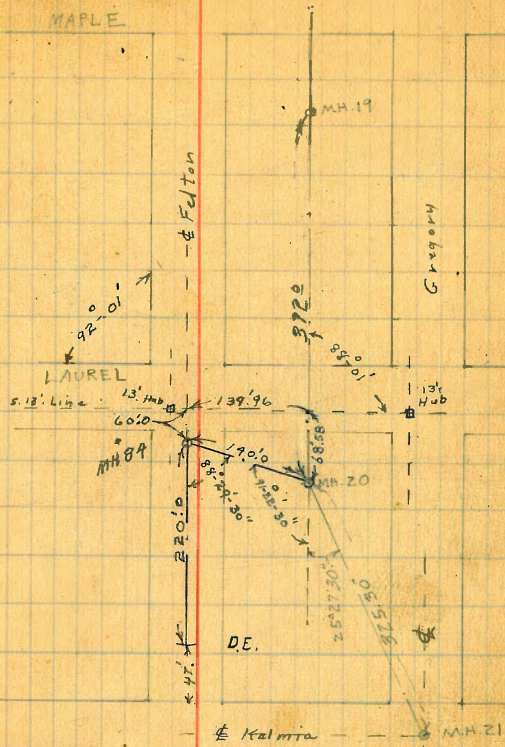
2+30 channel		5.2	71.8
2+66 th - Exist MH top		5.26	71.77 (solid)
T.P.	8.56	79.70	5.89 71.14
T.P.	0.38	71.48	8.60 71.10
T.P.	1.36	66.76	6.08 65.40
T.P.	3.22	61.10	8.88 57.88
T.P.	4.66	57.39	8.37 52.73
B.M.		5.27	52.12

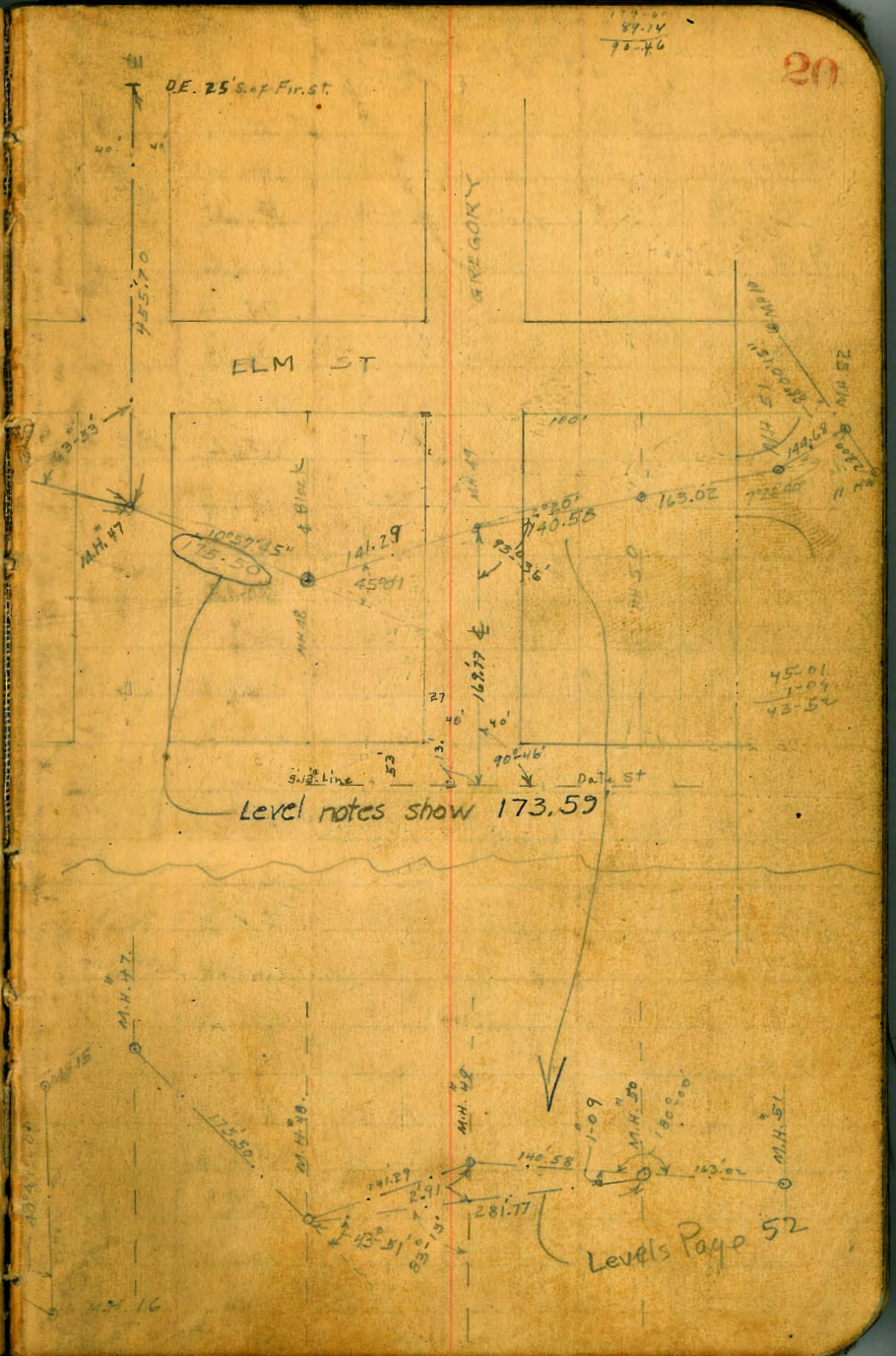
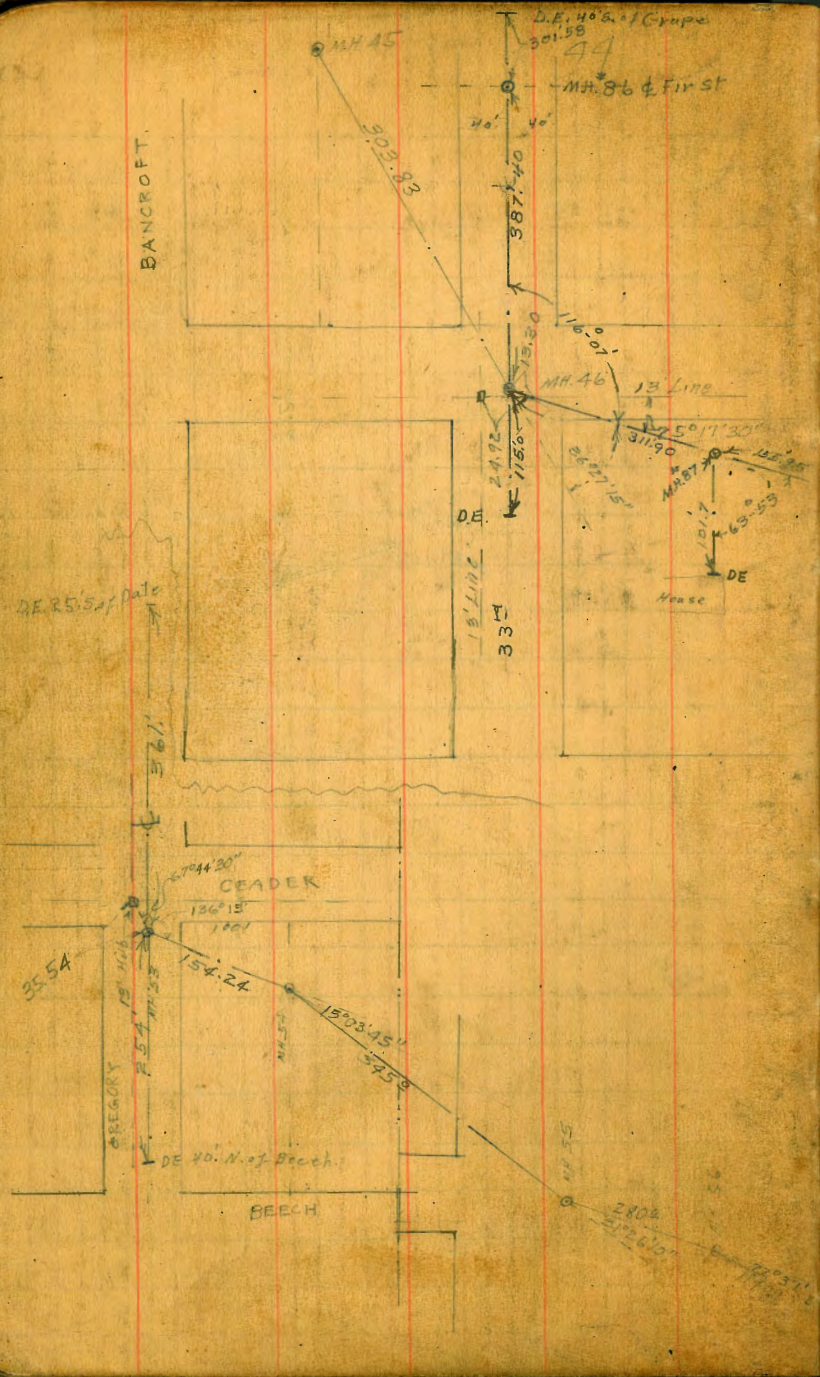
Lenon Grid
5.85th

PLOTTED TO HERZ

Grade 65° - 16" pipe







From Exist. M.H. below #18 to M.H. 61.
Sewer line Profiles (1921)

Exist. M.H.	8.78	80.55	71.77
5+92 ²⁴ = Exist. M.H.			
5+45 chl.		9.4	71.2
5+25 "		10.4	70.2
4+95 "		9.5	71.1
4+89		6.5	74.1
4+50		6.7	73.9
4+00		5.2	75.4
3+50		4.9	75.7
3+00		3.6	77.0
3+50		2.0	78.6
2+12		0.0	80.6
T.P.	12.59	93.11	80.52
2+00		9.5	84.6
1+90		8.3	84.8
1+50		7.5	85.6
1+30		5.9	87.2
1+25		4.8	88.3
1+00		1.7	91.4
T.P.	13.00	105.28	92.28
0+80		11.9	93.4
0+50		12.0	93.3
0+12 chl.		10.9	94.4
0+00 = M.H. 61		10.0	95.3

M.H. 61. to M.H. 60

105.28

22

3+65 = M.H. 61

3+10		6.3	99.0
2+60		3.3	102.0
2+40		0.7	104.6
T.P. 13.07	118.20	0.15	105.13
2+20		10.3	107.9
2+10		9.7	108.5
1+60		6.5	111.7
1+20		8.7	109.5
0+90 chl.		9.1	109.1
0+81		3.7	114.5
0+50		5.4	112.8
0+14		4.5	113.7
0+00 = M.H. 60	127.2	128.19	115.47
	M.H. 60 to M.H. 59		
3+90 ⁵² = M.H. 60			
3+58		7.3	120.9
3+44		7.2	121.0
3+30 chl.		9.1	119.1
3+00 chl.		6.3	121.9
2+50 chl.		3.4	124.8
T.P. 12.93	140.40	0.72	127.47
2+00 chl.		11.3	129.1
1+50 chl.		7.9	132.5
1+00 chl.		4.5	135.9
T.P. 12.35	152.65	0.10	140.30
0+50		11.4	141.2

60-59

152.65

0+30		9.4	143.2
0+00 = MH 59		7.41	145.24
MH 59 to MH 58			
1+78 ⁷⁹ = MH 59			145.24
1+50		7.0	145.6
1+25		3.4	149.2
1+00		1.9	150.7
T.P. 12.38	163.89	1.14	151.51
0+90		12.9	152.0
0+65		10.0	154.9
0+50		8.6	156.3
0+30		5.9	159.0
0+00 = MH 58	174.30	0.66	163.23
MH 58 to MH 57			
1+43 ⁴² = MH 58			163.23
1+23		8.6	165.7
1+00		8.5	165.8
0+80		7.5	166.8
0+50		0.7	173.6
T.P. 12.20	186.30	0.20	174.10
0+37		10.6	175.7
0+30		10.0	176.3
0+12		10.9	175.4
0+00 = MH 57		7.96	178.34
T.P. 12.95	199.13	0.12	186.18

23

197.13

T.P. 12.27	211.70	0.30	198.83
T.P. 10.71	220.67	1.14	209.76
T.P. 0.87	208.43	13.09	207.58
T.P. 0.16	195.97	12.64	195.81
T.P. 0.35	183.62	12.70	183.27
T.P. 0.26	170.92	12.96	170.66
MH 53 to MH 54 (P. 20)			
0+00 = MH 53		1.20	169.72
+11		1.8	169.1
+22		2.7	168.2
+34		3.4	167.5
+45		6.5	164.4
+75		13.2	157.7
T.P. 0.93	158.97	12.88	158.04
0+87		7.2	151.8
+97		3.6	155.4
1+12		3.0	156.0
1+25		4.0	155.0
1+54 ²⁴		8.12	150.85
MH 54 to MH 55			
0+00 = MH 54			
0+05		10.9	1459.24 148.1
+15		10.7	1469.24 148.3
+20		10.9	1479.24 148.1
+35		13.1	1489.24 145.9
T.P. 0.25	146.53	12.71	146.28

54-55

146.53

0+45			3.6	142.9	1+99.24
+56			6.0	140.5	2+10
+62	chl.		9.7	136.8	2+16
+68			7.9	138.6	2+22
+85			8.6	137.9	2+39
+91			8.6	137.9	2+45
+97	chl.		12.3	134.2	2+51
1+05	chl.		12.8	133.7	2+59
+07			11.0	135.5	2+61
+35			11.0	135.5	2+89
T.P.	0.24	134.01	12.76	133.77	
1+75			3.2	130.8	3+29
+76	chl		5.8	128.2	3+30
2+01	chl.		8.4	125.6	3+55
2+03			5.8	128.2	3+57
+14			6.5	127.5	3+68
+25			8.1	125.9	3+79
+32			10.0	124.0	3+86
+75			6.4	127.6	4+29
3+15			10.0	124.0	4+69
T.P.	0.23	121.99	12.25	121.76	
3+45	=MH55		3.84	118.15	4+99.24

MH 55 to MH 56

121.99

24

0+00	=MH55				
0+25				3.7	118.3
+50				6.3	115.7
+63				7.5	114.5
+80				7.3	114.7
1+00				10.9	111.1
+23				13.3	108.7
+40				13.2	108.8
+45				11.3	110.7
+50				11.4	110.6
+60				13.9	108.1
T.P.	0.30	109.91	12.38	12.38	109.61
1+73				5.2	104.7
+79	chl			8.6	101.3
+88	11			7.0	100.9
+92				6.5	103.4
2+00				7.2	102.7
+25				8.3	101.6
+50				9.8	100.1
MH56=2+80	335	100.98	12.28		97.63
MH 56 to MH 16					
0+00	=MH56				
0+50				4.9	96.1
1+19 ⁰⁹	=MH16			7.56	93.42

MH 10	0.75	140.66	139.91
MH 52 to MH 51	(P 20)		
1+ MH 52 = MH 52		6.3	134.4
1+36		5.6	135.1
1+32		9.4	131.3
1+21		6.8	133.9
0+00 = MH 51	150.35	2.38	138.28
1+ 63 = MH 51		10.9	139.5
1+13		11.2	139.2
1+00		10.4	140.0
0+65		8.8	141.6
0+50		10.6	139.8
0+15		12.4	138.0
0+00 = MH 50		11.62	138.73
MH 50 to MH 49			
1+40 ⁵⁸ = MH 50			138.73
1+01		13.4	137.0
0+94		15.6	134.8
0+90		13.6	136.8
0+70		14.5	135.9
0+62		11.8	138.6
0+54		11.6	138.8
0+50		13.3	137.1
0+46		11.1	139.3
0+40		10.3	140.1
0+15		4.9	145.5
0+00 = MH 49		5.29	145.06

150.35

25

MH 49 to MH 48			
1+41 ²⁹ = MH 49			145.06
1+00		2.8	147.6
T.P 12 42	162.26	1.01	149.34
0+66		10.9	151.4
0+50		12.0	150.3
0+25		9.7	152.6
0+06		11.5	150.8
0+00 = MH 48		10.81	151.47
MH 48 to MH 47			
1+73 ⁵⁹ = MH 48			151.47
1+70		12.0	150.3
1+15		7.0	155.3
1+00		7.6	154.7
0+87 chl.		7.5	154.8
T.P 12 31	173.99	0.58	161.68
0+65		18.8	155.2
0+50		16.1	157.9
0+20		16.3	157.7
0+00 = MH 47		13.17	160.82
MH 47 to MH 46			
3+11 ⁹² = MH 47			160.82
2+85		11.9	162.1
2+50		6.5	167.5
2+35		5.4	168.6
2+00		3.4	170.6
1+00		4.3	169.7

47 - 46

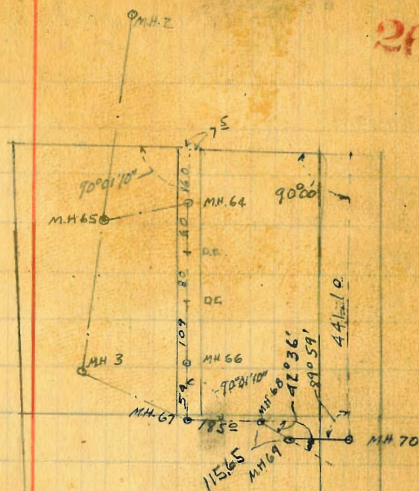
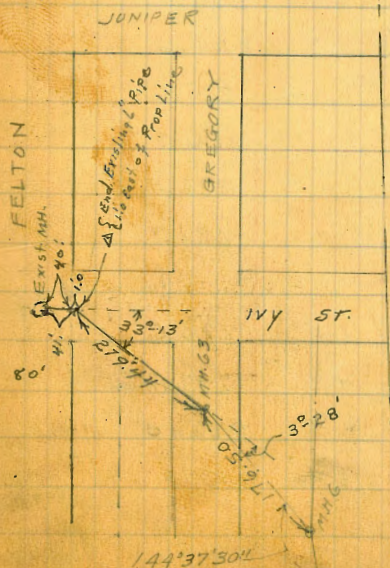
173.99

1+20			2.2	171.8
T.P.	12.80	186.71	0.08	173.91
1+07			12.3	174.4
0+90			9.7	177.0
0+70			4.1	182.6
T.P.	12.32	198.69	0.34	186.37
0+50			10.5	188.2
0+00	MH 46		7.22	191.47
T.P.	12.37	211.01	0.05	198.64
T.P.	11.76	222.64	0.13	210.88
T.P.	11.49	234.04	0.09	222.55
B.M.			7.41	226.63
T.P.	12.61	246.52	0.13	233.71
T.P.	13.08	259.57	0.03	246.49
T.P.	13.04	272.50	0.11	259.46
T.P.	7.84	278.77	1.55	270.95
T.P.	0.79	279.38	0.20	278.59
T.P.	0.63	267.02	12.99	266.39
T.P.	0.62	254.62	13.02	254.00
T.P.	0.25	242.31	12.56	242.06

See Book 1316 P 37

PLOTTED TO HERE

B.R.N.W.
Barroff & Fritz

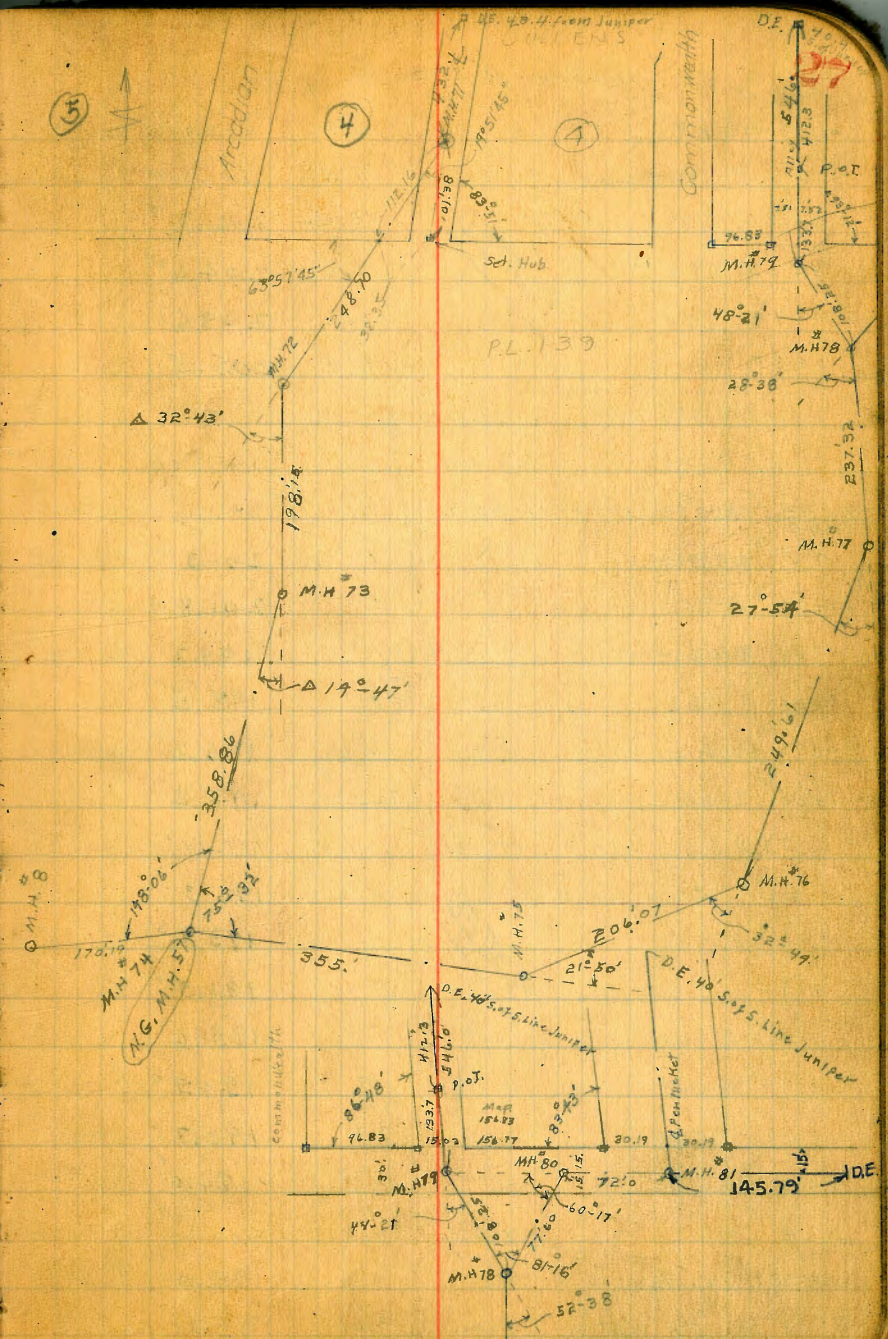


Prelim. Sewers: Alley BIR 4
 Callens Westland Terrace S. of Juniper

11. - 29
 miles
 NE Juniper
 + Commonwealth
 SW Juniper
 + Commonwealth

BM. Bglin Pole	2.24	272.74	270.50	
Set BM-B.P.		6.31	266.43	
T.P.	0.43	241.15	12.02	260.72
00-DE. 40.45. of S Line Juniper		3.97	257.18	on slab
0+40		9.3	251.9	
0+70		13.2	248.0	
T.P.	0.17	248.15	13.17	247.98
1+00		4.1	244.0	
+50		10.3	237.9	
+75		15.4	232.8	Wash
2+00		17.2	234.0	
T.P.	0.23	235.28	13.10	235.05
12'E of 2+00 - Bottom Wash.		10.6	224.7	
2+35		4.0	231.3	
+60		4.7	230.6	
+80		9.4	225.9	
3+00		9.0	226.3	
+20		8.5	226.8	
+42		13.4	221.9	
T.P.	0.23	222.39	13.12	222.16
+65		1.8	220.6	
+80		4.7	217.7	
4+00		6.4	216.0	
T.P.	0.64	210.59	12.44	209.95

PLOTTED



Line from M.H. 72[#] S. on & Alley
222.39

4132 = 00 = M.H. 71		18.97	203.42	✓
0 + 4. bottom Wash.		20.9	201.5	✓
0 + 25		16.2	206.2	✓
0 + 35		17.8	204.6	✓
0 + 70		12.8	209.6	✓
0 + 85		16.9	205.5	✓

PLOTTED

210.59

4 + 32 = M.H. 71 Δ 19° 51' 45" Rt. 0 + 00		7.17	203.42	on stub
0 + 8 bottom Wash		9.3	201.3	✓
0 + 25		8.8	201.8	✓
0 + 35 Bottom wash		11.4	199.2	✓
0 + 60		12.1	198.5	✓
0 + 75 bottom wash.		16.4	194.2	✓
1 + 00		12.2	198.4	✓
T.P. 1.10	198.61	13.08	197.51	✓
1 + 22 bottom wash		8.3	190.3	✓
1 + 42		4.7	193.9	✓
1 + 50		7.1	191.5	✓
1 + 56		5.0	193.6	✓
1 + 70		7.7	190.9	✓
1 + 85		7.9	190.7	✓
2 + 10 Wash		14.6	184.0	✓
T.P. 0.11	186.15	12.57	186.04	✓
2 + 38 Wash.		4.2	182.0	✓
2 + 48 = M.H. 72 Δ 32° 43' Lt. = 0 + 00		2.44	183.71	on stub

PLOTTED

186.15

28

0 + 30 Wash		6.4	179.8	✓
0 + 50		4.9	181.3	✓
0 + 67		3.2	183.0	✓
1 + 00		8.8	177.4	✓
1 + 30 Wash		11.0	175.2	✓
T.P. 0.52	175.74	10.93	175.22	✓
1 + 57		1.0	174.7	✓
1 + 76 Wash		3.8	171.9	✓
1 + 85		1.9	173.8	✓
0 + 00 = 1 + 98 ¹⁵ M.H. 73 Δ 14° 47' Rt.		2.37	173.37	✓
0 + 17 Wash		7.1	168.6	✓
0 + 26		5.4	170.3	✓
0 + 48		5.9	169.8	✓
0 + 82 Wash		10.5	165.2	✓
0 + 95		9.0	166.7	✓
1 + 34 Wash		12.3	163.4	✓
1 + 60		9.6	166.1	✓
2 + 00		12.3	163.4	✓
T.P. 0.75	163.70	12.79	162.95	✓
7 E. of 2 + 00 Wash		2.5	161.2	✓
2 + 30		3.0	160.7	✓
3 + 00		5.8	157.9	✓
10 E. of 3 + 00 Wash		7.7	156.0	✓
3 + 20		7.1	156.6	✓
3 + 58 = M.H. 74		10.03	153.67	✓
T.P.		10.03	153.67	✓

PLOTTED

M.H. 74 + 0 M.H. #8

176.40

29

T.P. Page 28	2.35	156.02	153.67
000 = M.H. 74			2.35 153.67 on slab
0 + 17			3.7 152.3
0 + 23 Wash			5.9 150.1
0 + 25			4.0 152.0
0 + 50			4.4 151.6
1 + 00			5.8 150.2
1 + 40			8.4 147.6
1 + 50 Wash			11.8 144.2
1 + 60			9.9 146.1
1 + 70 M.H. #8			10.36 145.66 = 145.66 Page 14
M.H. 74 to 75			
T.P. Page 28	12.65	166.32	153.67
000 = M.H. 74			12.65 153.67 on slab
0 + 7 Wash			14.4 151.9
0 + 13			12.6 153.7
0 + 53			10.3 156.0
0 + 64 Wash			11.9 154.4
0 + 72			10.1 156.2
1 + 00			8.0 158.3
1 + 50			3.8 162.5
1 + 80			3.6 162.7
3 S. of 1 + 80 = Wash			4.8 161.5
2 + 00			0.7 165.6
T.P.	10.15	176.40	0.07 166.25

PLOTTED

2 + 35	8.3	168.1
2 + 86 Wash	9.6	166.8
3 + 00 Wash	7.1	167.3
3 + 35 Wash	7.0	169.4
3 + 55 M.H. #75 A 21-50 Lt.	4.58	171.82 on slab
0400		
0 + 30 Wash	5.9	170.5
0 + 60	1.9	174.5
0 + 80 Wash	3.2	173.2
1 + 00	0.9	175.5
1 + 10 Wash	2.5	173.9
T.P.	11.46	187.81
1 + 50	6.8	181.0
1 + 72 Wash	8.5	179.3
2 + 06 M.H. #76 A 32-44 Lt. = 0400	5.03	182.78 on slab
0 + 15 Wash	6.8	181.0
0 + 25	4.6	183.2
0 + 38 Wash	6.5	181.3
0 + 60	1.7	186.1
0 + 90 Wash	3.6	184.2
1 + 10	2.1	185.7
T.P.	13.15	200.43
1 + 50	7.5	192.9
1 + 60	10.0	190.4
1 + 73 Wash	10.0	190.4
2 + 00	9.6	190.8
2 + 17	4.2	196.2

PLOTTED

200.43

2+30	5.9	194.5 ✓
2 W. of 2+30 Wash.	7.7	192.7 ✓
2+49 ^{1/2} M.H. 77 A 27°-54' L ₁ = 0100	2.64	197.75 ✓
0+20	4.2	196.2 ✓
2 W. of 0+20 Wash	5.2	195.2 ✓
0+35	2.4	198.0 ✓
0+44 Wash	4.2	196.2 ✓
T.P. 12.48 212.74	0.17	200.26 ✓
0+75	9.9	202.8 ✓
1+00	11.2	201.5 ✓
3 E. of 1+00 Wash	12.3	200.4 ✓
1+18 "	10.8	201.9 ✓
1+23	8.4	204.3 ✓
1+50 Wash	7.2	205.5 ✓
1+80	5.6	207.1 ✓
2+00 Wash	6.0	206.7 ✓
2+10 "	5.7	207.0 ✓
2+37 ^{3/4} M.H. 78 A 52°-38' L ₁ = 0100	1.24	211.50 ✓ on stub
T.P. 12.36 223.86	1.24	211.50 ✓ " "
0+5 Wash to NE	14.0	209.9 ✓
0+10	12.0	211.9 ✓
0+30 Wash	13.2	210.7 ✓
0+50	8.8	215.1 ✓
2 W. of 0+50 Wash	10.8	213.1 ✓
0+65 "	8.6	215.3 ✓
0+90	3.5	220.4 ✓

PLOTTED

223.86

0+95	4.7	219.2 ✓ ³⁰
1+08 ^{5/8} M.H. 79 A 71°-12' L ₁ = 0100 N. on 2/11/24	2.34	221.52 ✓ stub
0+08 Wash	5.8	218.1 ✓
0+16 "	5.2	218.7 ✓
T.P. 12.59 236.45	0.00	223.86 ✓
0+55	2.2	234.2 ✓
T.P. 12.39 248.70	0.14	236.31 ✓
0+75	7.2	241.5 ✓
0+93	4.0	244.7 ✓
T.P. 12.90 261.28	0.32	244.38 ✓
1+33 ²⁹ P.O.T.	5.62	255.66 ✓ stub
1+60	6.1	255.2 ✓
1+70	3.2	258.1 ✓
2+00	1.8	259.5 ✓
T.P. 12.94 274.11	0.11	261.17 ✓
2+15	12.6	261.5 ✓
2+50	11.0	263.1 ✓
3+00	9.3	264.8 ✓
3+50	8.0	266.1 ✓
4+00	6.6	267.5 ✓
4+50	4.6	269.5 ✓
5+10	1.5	272.6 ✓
5+46 D.E. 40.4 S. of Juniper	1.86	272.75 ✓ stub
T.P. 2.78 273.30	3.59	270.52 ✓ S.W. Juniper + Commonwealth
CHK B.M. B.P.	6.86	266.44 = 266.43

PLOTTED

274.11 H.F. Page 30

T.P.	0.92	270.95	4.08	270.03	
0+00 = 40' S. of Juniper		4+12.4	7.5	263.5	2+92.4
0+20		4+2.4	6.0	265.0	3+12.4
0+30		4+2.4	7.0	264.0	4+2.4
0+40		4+2.4	6.1	264.9	4+32.4
0+70		4+2.4	5.2	265.8	4+62.4
1+00		5+12.4	3.7	267.3	4+92.4
1+50		4+2.4	1.5	269.5	4+42.4
2+00		6+12.4	0.8	270.2	4+92.4
2+50		4+2.4	0.9	270.1	5+42.4
3+00	7+12.4		2.2	268.8	4+92.4
3+50	4+2.4		4.4	266.6	6+42.4
4+00		8+12.4	7.8	263.2	4+92.4
4+50		4+2.4	11.4	259.6	7+42.4
5+00		9+12.4	13.3	257.7	4+92.4
T.P.	0.09	257.87	13.17	257.78	8+41.4
5+49 M.H. #1		461.4	1.24	256.59	on stub
		114' S. of 114' to M.H. #80.			896' 17' Rt.
0+7			1.6	256.3	+48.4
0+20	Wash		9.0	248.9	+61.4
0+35			12.8	245.1	+76.4
1' S. of 0+35	Wash		15.3	242.6	
T.P.	0.16	245.30	12.73	245.14	
0+46	Wash		6.1	239.2	+87.4
0+48	"		9.6	235.7	+89.4
0+53	"		13.0	232.3	+94.4
0+55			11.22	234.1	+96.4

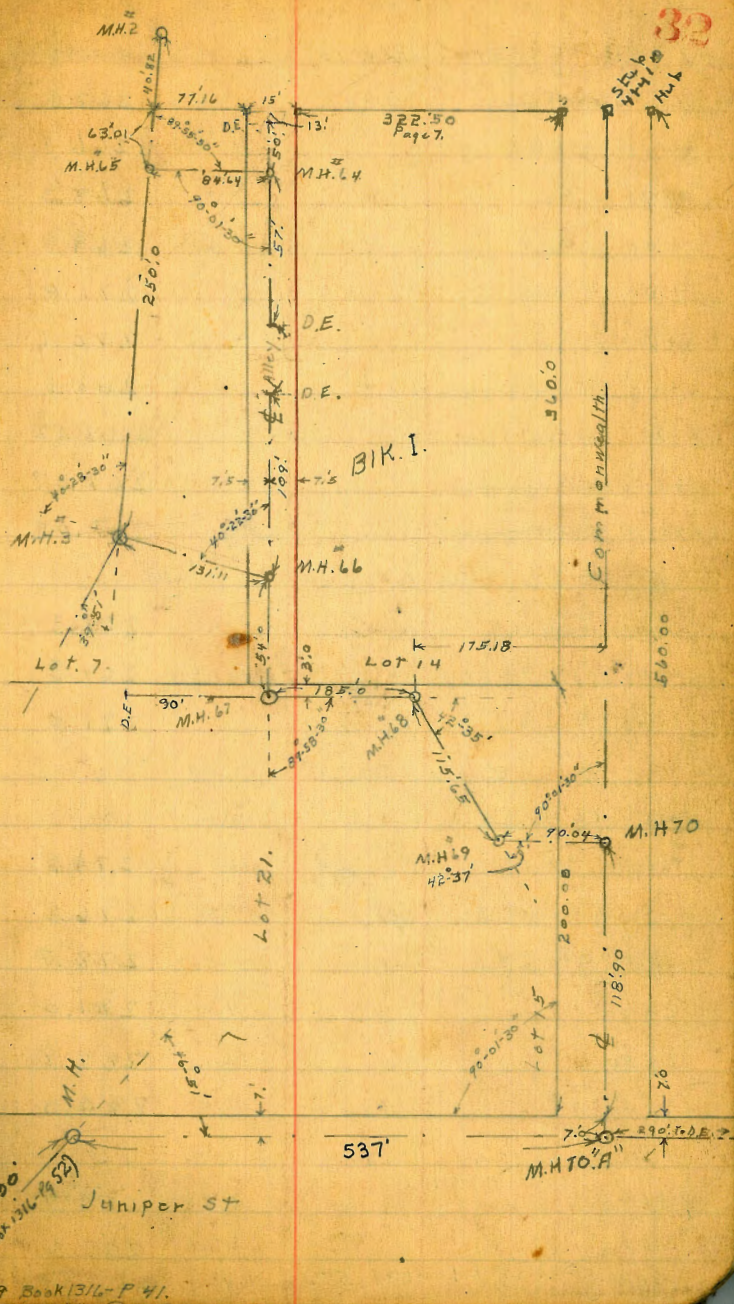
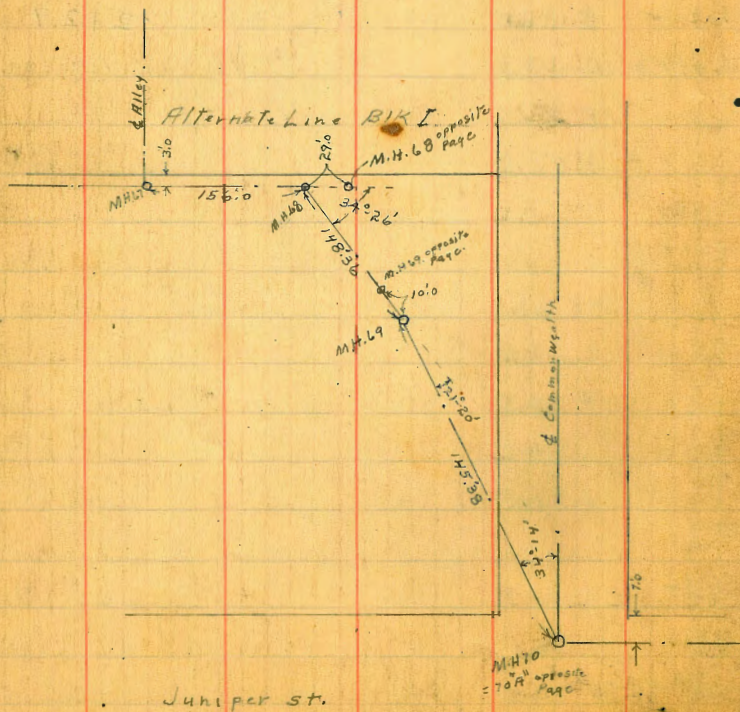
PLOTTED

T.P.	0.16	232.80	12.66	232.64	9+13.4
0+72 = M.H. #80 A 60°-17' Lt. = 0+00		8.80	8.80	224.00	11' Wash on stub
0+12		9.6	9.6	223.2	9+25.4
0+16		8.5	8.5	224.3	+29.4
0+29 Wash		13.8	13.8	219.0	+42.4
T.P.	0.86	221.01	12.65	220.15	
0+49		5.2	5.2	215.8	+62.4
1' N.W. of 0+49 = Wash		6.2	6.2	214.8	
0+58		5.2	5.2	215.8	+71.4
2' N.W. of 0+58 = Wash		7.0	7.0	214.0	
0+75		8.1	8.1	212.9	+98.4
0+77.5 = M.H. #78		9.51	9.51	211.50 = 211.50	(Page 30) 9+91.0

PLOTTED

Prelim Sewers BIK I
Cullens Westland Terrace

11-22-29
Miller



269.90
(Book 1316 Page 7)
M.H. 89 Book 1316 Page 41.

Sowers Blk. 1, Cullens Westland Terrace

Nov 29
Mills

Line 7.5 N. line Juniper

Alternate Line Blk I
272.13

33

BM 290' E. of M.H. 70A	5.70	272.13	266.43	S.W. Juniper
00 = D.E. 7.5 N. Line Juniper				
0+40	9.7	262.4	2+90	
0+70	6.0	266.1	2+50	
1+00	3.8	268.3	2+20	
1+50	2.2	269.9	1+90	
2+00	1.1	271.0	1+40	
2+40 = E. line Commonwealth	2.0	270.1	0+90	
2+67' emb. ret. return	4.0	268.1	0+30	
2+67' gutter pavmt.	4.01	268.12	0+22.9	
2+90 = M.H. 70A pavmt. = 0+00	4.76	267.37	0+22.9	
	5.04	267.09	0+00	
			9+35	
			Sub 11/6/52	
N. of Commonwealth				
0+7 N. line Juniper on pavmt.				
0+50	4.8	267.3	9+28	
1+00	2.6	269.5	+85	
T.P.	0.3	271.8	8+35	
1+25 = M.H. 70 = 0+00	0.19	271.94	8+09.1	
0+50	11.99	272.97	in stub	
1+00	10.1	274.9	+59.1	
1+50	8.2	276.8	7+09.1	
2+00	6.3	278.7	+59.1	
2+50	4.0	281.0	6+09.1	
3+00	2.2	282.8	+59.1	
T.P.	1.0	284.0	5+09.1	
3+50	0.96	284.00		
4+00	5.0	284.7	+59.1	
4+41' S. line Laurel St. W. line Cullens Westland Terrace	4.4	285.3	4+09.1	
	3.74	285.93	3+58.0	
			Stub	

PLOTTED

0+00 = M.H. 70 = M.H. 70A Main Line	5.04	267.09	
0+32' N. line Juniper pavmt	5.01	267.12	
0+30	4.1	268.0	
0+40	2.9	269.2	
0+85	2.5	269.6	
1+00	3.3	268.8	
1+41	4.9	267.2	
1+42	6.6	265.5	
1+45 = M.H. 69 = 0+00	7.00	265.13	
T.P.	10.17	261.96	
0+21	1.5	260.8	
0+32	2.9	259.4	
0+55	9.6	252.7	
T.P.	12.95	249.39	
0+65	2.7	246.8	
1+18	12.1	237.4	
1+20	13.0	236.5	
T.P.	13.05	236.48	
1+30	7.3	236.6	
1+48 = M.H. 68 (5' S. of M.H. 67)	10.96	232.90	Stub

PLOTTED

Main Line BIKI.

243.86

34

0+00 = # M.H. 70 $\frac{1}{2}$ Compensated 7th	R.O.I	274.98 [✓]	272.97 [✓]	stab
0+30 Wash		2.1	272.9	
0+31		4.5	270.5	
0+55		6.2	268.8	
0+57		7.3	267.7	
0+70		8.1	266.9	
0+75		9.3	265.7	
0+85		10.0	265.0	
0+87		11.1	263.9	
0+90 ²⁴ = M.H. 69 = 0+00		11.36	263.62	
0+9		13.8	261.2	
T.P.	0.38	262.34 [✓]	13.02	261.96 [✓]
0+20		2.6	259.7	
0+35		7.5	254.8	
0+45		11.9	250.4	
0+58 ent. wall		13.3	249.0	
T.P.	0.14	249.53 [✓]	12.95	247.39 [✓]
0+60		3.5	246.0	
0+68		4.2	245.3	
0+78		3.1	246.4	
0+90		5.1	244.4	
1+15 ⁶⁵ M.H. 68 = 0+00		11.29	238.24	on stab
T.P.	7.38	243.86	13.05	236.48
0+6		8.8	235.1	
0+29 = M.H. 64 Alternate line		10.96	232.90	
0+55		6.5	237.4	

PLOTTED

1+00	6.4	237.5
1+35	6.1	237.8
1+60	7.5	236.4
1+85 M.H. 67 = 0+00 Line W. from M.H. 67	6.34	237.52
0+40	+ 0.5	244.4
0+65	+ 1.5	245.4
0+90 = D.E. W. of M.H. 67	1.0	242.9
T.P.	0.23	231.62 [✓]
	12.47	231.39 [✓]
Line North from M.H. 67 = 0+00		
0+30	7.4	224.2
T.P.	0.48	219.47 [✓]
	12.63	218.99 [✓]
0+54 M.H. 66 = 0+00	3.56	215.91 on stab
0+10 Wash	5.9	213.6
0+28	6.0	213.5
0+50	7.7	211.8
0+77	6.2	213.3
1+00	11.6	207.9
1+12 Wash	13.5	206.0
1+31 ⁶⁶ = M.H. 3	11.24	208.23 = 204.28
T.P.	7.66	223.91 [✓]
	3.22	216.25 [✓]
Line from M.H. 65 to 64		
00 = M.H. 65	12.43	211.48
0+2 Wash	13.0	210.9
0+15	10.2	213.7
0+45	9.1	214.8
0+65 Wash	7.0	216.9
0+84 ⁶⁴ M.H. 64	2.97	220.94 [✓]

PLOTTED

223.91

T.P.	12.80	236.59	0.12	223.79
Line 1h Alley BIK I.				
00 S.D.E. 50' North of M.H. #64			0.3	223.6
0+14			6.7	217.2
0+30			10.9	213.0
0+45 Wash.			16.5	207.4
0+50 = M.H. #64 = 0+00			15.65	220.94
0+18 S			10.0	213.9
0+50 S			0.2	223.7
T.P.	7.94	244.45	0.10	236.49
0+57 D.E. Stub.			7.38	237.07
0+80 S			6.8	237.6
1+00 S			6.2	238.2
1+37 S. D.E. Stub 109 N. of M.H. #66 = 0+00			7.05	237.40
0+25			7.5	236.9
T.P.	0.72	232.37	12.40	231.65
0+60			6.1	226.3
0+80			10.2	222.2
T.P.	1.17	221.31	12.23	220.14
1+03 Wash.			6.5	214.8
1+9 = M.H. #66			5.40	215.91

PLOTTED

Prelim. Sewer in BIK 66 Eastern Hill
 + Hillside St. See Plat Page 9 Left hand page.

Nov 29
 Miller

193.95

36

B.M. M.H. #	11.40	208.11	196.71	stub
24.4 N. of 0+00 = 3. cent. of Juniper	1.86	206.25		
10' N. " 0+00	2.0	206.1		
5' N. " 0+00	3.8	204.3		
- DE 5' Hillside St 0+00 = (S. 13. line of Juniper	1.2	206.9	17+46.11	
0+15	2.0	206.1	17+61	
0+47	2.9	200.2	17+93	
0+80	10.0	198.1	18+26	
1+10	11.3	196.8	18+56	
1+55	2.4	205.7	19+01	
1+70	5.4	202.7	19+16	
1+85	6.2	201.9	19+31	
2+15	9.1	199.0	19+61	
2+60 Wash.	13.3	194.8	20+06	
2+74 M.H. #83	10.68	197.43	20+20.15	
T.P.	9.33	206.76	10.64	197.43 stub
3+00	7.2	199.6	20+46.11	
3+30	5.2	201.6	+76.11	
3+50	5.1	201.7	+86.11	
3+70 DE	2.74	204.02	21+16.11	stub

PLOTTED

Line from M.H. #83 N. to M.H. #82

0+00 = M.H. #83	9.33	197.43	
T.P.	0.38	193.95	13.19 193.57
0+20	4.0	190.0	
0+37	12.5	191.5	

0+48	15.3	178.7	
T.P.	0.90	181.97	12.88 181.07
0+52 E. Edge Wash	8.9	173.1	
0+58 W. " "	8.9	173.1	
0+60	7.6	174.4	
0+85	6.8	175.2	
1+12.5 M.H. #82	5.50	176.47	stub
T.P.	0.63	173.64	8.96 173.01
chk M.H. #6, stub	10.92	162.72	= 162.71 P.M.

PLOTTED

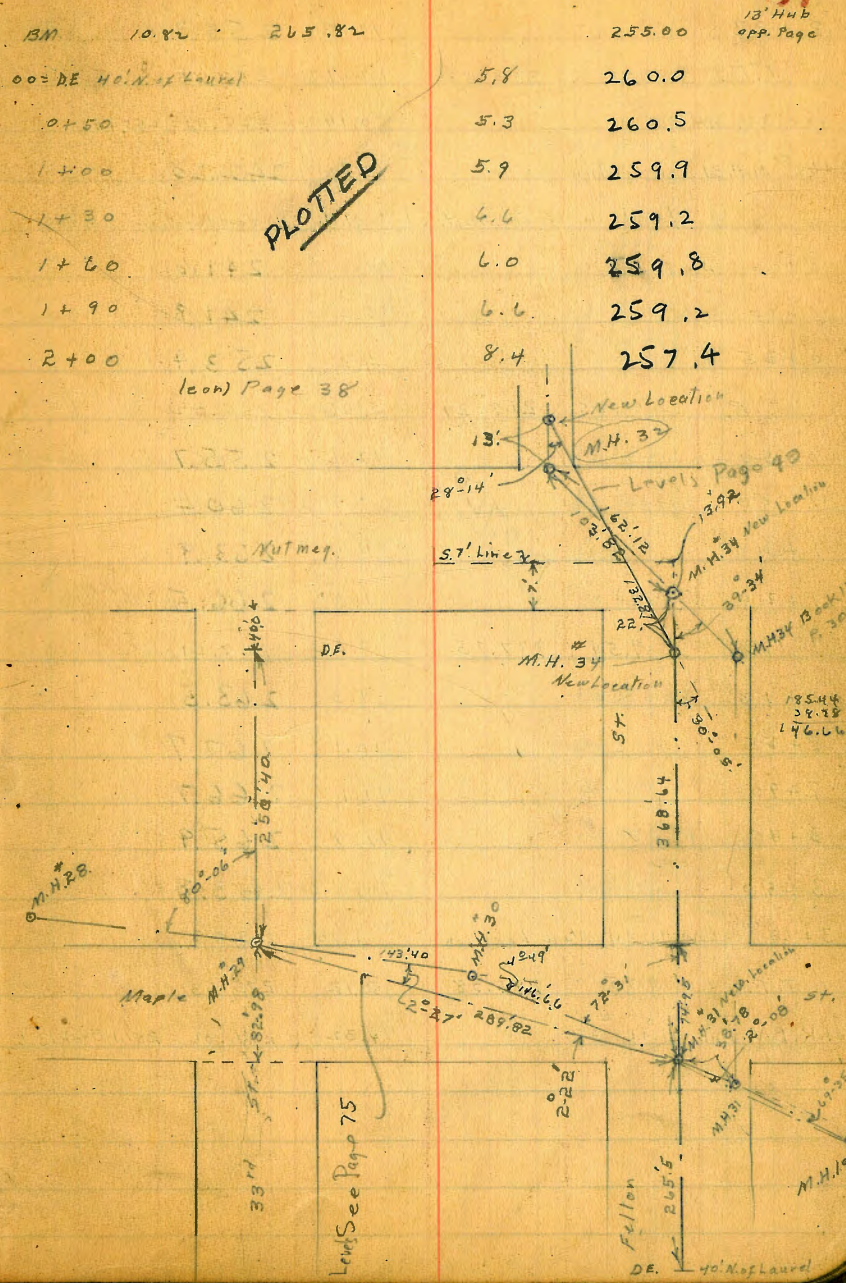
Prelim. Sewers from M.H. 20 to M.H. 84
 Plat Page 19

12-7-29
 muller

Line of Felton St

0+00 = } B.M. Hub	12.52	234.21	221.69	M.H. 20
0+25		12.5	221.7	
0+29 Wash		14.9	219.3	
0+35		11.9	222.3	
0+52		10.2	224.0	
1/4 N. of 0+52 Wash		11.1	223.1	
0+75		5.3	228.9	
1+00		2.0	232.2	
T.P.	12.08	245.61	233.53	
1+40 M.H. 84		7.54	238.07	stub
Line from M.H. 84 South.				
T. N. of M.H. 84 = Wash		9.1	236.5	
0+00 = M.H. 48		7.54	238.07	stub
T.P.	11.66	256.95	245.29	
0+20		11.2	245.8	
Set B.M. 8 W. 13' Hub Felton + Laurel		1.95	255.00	
0+34		7.1	249.9	
0+60		1.7	255.3	
T.P.	13.23	269.58	256.35	
0+72		12.5	257.1	
1+00		10.3	259.3	
1+06		8.8	260.8	
1+30		6.6	263.0	
1+50		5.7	263.9	
1+75		2.4	267.2	
2+00		0.7	268.9	
2+20 D.E. N. of Kalonia		0.2	269.4	

PLOTTED



PLOTTED

See Page 75

£ Felton St (Con)

265.82

R+R3			12.5	253.3
T.P.	R.73	255.58	12.97	252.85
chk B.M. M.H. 30			0.14	255.44 = 5544
2+65 ³⁰	M.H. 31 New Location	= 0100	13.38	242.20
	£ Felton from M.H. 31 to M.H. 34 New Location			
	+95.26			
0+03	Wash.		14.0	241.6
0+10	+88.26		13.8	241.8
0+35	32+63.26		2.2	253.4
T.P.	13.25	268.27	0.56	255.02
0+50	+48.26		12.6	255.7
1+00	31+98.26		7.9	260.4
1+40	+58.26		4.4	263.9
1+70	+28.26		1.8	266.5
T.P.	9.54	277.75	0.04	268.21
2+13	30+85.26		9.3	268.5
2+65	+33.26		10.1	267.7
2+90	+08.26		11.1	266.7
3+40	29+58.26		11.9	265.9
3+50	29+51.62		14.0	263.8
3+68 ¹⁴	= M.H. 34 New Location		1.80	275.95
T.P.	9.75	285.38	2.12	275.63
chk B.M. Hub M.H. 32			4.32	281.06 = 281.1 Book 1316

PLOTTED

Line £ 33rd St Maple to Watney

M.H. 29 to DE.

38

B.M.	10.54	304.62		294.08
00=DE	40.5	75. Line Watney St	4.8	299.8
0+50			6.2	298.4
1+00			8.4	296.2
1+50			12.4	292.2
T.P.	0.60	292.64	12.58	292.04
2+00			8.5	284.1
2+30			13.2	279.4
T.P.	0.23	279.69	13.18	279.46
2+50 ⁴⁰	= M.H. 29		12.1	267.6 = 267.6

PLOTTED

Prelim Sewers, oldline
 & 33rd St. from D.E. 40's to Grape to M.H. 86 & Fir St
 Plat Page 20.

12-12-29
 miles

203.66

191.47

39

S.W. 32nd
 + Grape

BM.	1.75	278.71		276.96
T.P.	1.76	247.90	12.57	266.14
D.E. 40' s. oldline Grape			1.0	266.9
0+50			0.9	267.0
1+00			2.7	265.2
1+50			6.5	261.4
2+00			11.9	256.0
T.P.	0.20	254.92	13.18	254.72
2+50			4.9	250.0
2+85			8.1	246.8
301.58 M.H. 86 & Fir St. = 0+00			8.60	246.32
				stab.
0+15			9.2	245.7
0+35			14.0	240.9
T.P.	0.10	242.04	12.98	241.94
0+55			10.4	231.2
0+85			15.1	226.9
T.P.	0.03	228.91	13.16	228.88
1+10			13.8	215.1
1+50			17.0	209.9
1+70			12.6	216.5
2+00			10.2	218.7
2+26			12.7	216.2
T.P.	0.72	216.41	13.22	215.69
2+65			8.9	207.5
2+95			13.1	203.3
T.P.	0.34	203.64	13.09	203.32
3+55			12.2	191.5

PLOTTED

3+70 Wash	18.5	184.2
3+87 ⁴⁰ = M.H. 46	12.18	191.48 = 191.47
M.H. 46 S. to D.E.		
0+27	13.3	190.4
0+30 Wash	18.0	185.7
0+35 Wash	18.0	185.7
0+60	9.8	193.9
0+92	2.0	201.7
T.P.	18.09	216.41
0.34		203.32
1+15 D.E.	7.3	209.1

PLOTTED

Line from M.H. 87 S. to D.E.

Plat Page 20.

BM. Hub

M.H. 47

13.13

173.95

160.82

00 = M.H. 87

4.33

169.62

T.P.

12.56

186.10

0.41

173.54

0+25

9.4

176.7

0+50

1.8

184.3

T.P.

13.17

198.89

0.38

185.72

0+75

3.9

195.0

T.P.

12.86

211.40

0.35

198.54

1+01.7 ground at House

4.9

206.5

1+01.2 F.L. outlet Pipe from House

1.7

209.7

PLOTTED

Prelim Sewers

Line of Felton from M.H. 47 N to D.E.
25' S. of Fir St. Plat Page 20

12-12-29
mills

Plat Page 20

Prelim. Sewers

on Gregory from M.H. 53 North
To D.E. 25' S. of S. Line Date

12-13-29
mills

40

B.M. M.H. 47	13.13	173.95		160.82
4+55 ²⁵ =M.H. 47			13.13	160.82
4+30			11.1	162.9
T.P.	12.56	186.10	0.41	173.54
4+00			10.1	176.0
3+57			7.1	179.0
3+42			9.3	176.8
T.P.	13.17	198.89	0.38	185.72
3+35			7.3	191.6
T.P.	12.86	211.40	0.35	198.54
3+15			12.4	199.0
T.P.	12.62	223.95	0.07	211.33
2+85			11.5	212.5
2+60			6.3	217.7
T.P.	12.82	236.73	0.04	223.91
2+00			12.3	224.4
1+50			6.9	229.8
1+00			4.6	232.1
0+50			3.6	233.1
0+00 = D.E. 25' S. S. line Fir St.			3.8	232.9
chk B.M. Mon S.W. Felton + Fir St			1.33	235.40 = 235.38

PLOTTED

Plat Page 20

Prelim. Sewers

on Gregory from M.H. 53 North
To D.E. 25' S. of S. Line Date

12-13-29
mills

40

0+00 = M.H. 53	12.65	182.37		149.72 Page 28
T.P.	12.96	195.00	0.13	182.21
0+32 ²⁵ = S. 13' line Cedar			11.8	183.2
0+44			6.3	188.7
0+60			3.9	191.1
1+00			0.8	194.2
T.P.	12.741	206.86	0.55	194.45
1+30			9.5	197.4
1+40			12.6	194.3
1+75			1.3	205.6
T.P.	13.13	219.73	0.26	206.60
2+10			10.4	209.3
2+65			2.4	217.3
T.P.	12.07	231.67	0.13	219.60
3+20			7.4	224.3
3+35			6.3	225.4
3+61 DE 25' S. of Date St			7.2	224.5
T.P.	1.28	220.43	12.52	219.15
chk B.M. Mon N.W. Felton + Date			7.00	213.43 = 213.34

PLOTTED

Prelim Sewers

12-13-29
Miller

Gregory St. From M.H. 53 S. to DE 40' N. of Beech
Plat Page 20.

0+00 = M.H. 53	12.65	182.37	169.72	Page 20
0+9 Wash.		19.7	162.7	
0+13		14.8	167.6	
0+23		10.5	171.9	
0+45		5.1	177.3	
T.P.	12.76	195.00	0.13	182.24
0+85		3.2	191.8	
T.P.	12.41	206.86	0.55	194.45
1+25		7.7	199.2	
1+75		0.9	206.0	
T.P.	13.13	219.73	0.26	206.60
2+20		7.8	211.9	
2+54 = D.E. 40' N. of Beech St.		5.2	214.5	

PLOTTED

Prelim Sewers

12-17-29
Miller

BIA 55 From M.H. 57 N. to DE
40' South of Cedar
Plat Page 21

B.M. Mon 10.28	212.27	201.99	3M. Fall 41 + Ash.
00 = D.E. 40' S. of Cedar	6.7	205.6	
0+30	11.3	201.0	
T.P.	0.00	199.40	12.87 199.40
0+62	14.6	184.8	
T.P.	0.12	186.53	12.99 186.41
0+95 Wash.	6.3	180.2	
1+35	2.9	183.6	
1+50	5.4	181.1	
1+58 = M.H. 57	8.30	178.23 = 178.34	London

PLOTTED

178.34

Prelim Sewers

12-17-29
Mills

Gregory from M.H. 58 S. to D.E.
Plat Page 21

Louden,
Page 23

BM 0+00 = M.H. 58	12.95	176.18		143.23
0+10 Wash			16.9	159.3
0+35			8.5	167.7
T.P.	13.00	188.76	0.42	175.76
0+70			10.7	178.1
1+00			5.5	183.3
1+22.3 = 5.13' line of Ash St.			2.0	186.8
T.P.	9.48	197.90	0.34	188.42
1+73			5.5	192.4
2+00			5.3	192.6
2+50			3.3	194.6
2+80			2.5	195.4
3+00			3.4	194.5
3+30			5.5	192.4
3+60 = D.E.			8.9	189.0
T.P.	8.40	205.99	0.31	197.59

PLOTTED

ch K. on B.M. S.N. Felton's Ash

3.89 207.10 = 201.99 -
Louden's line is 0.11
above this B.M.

Plat Page 21

Prelim Sewers

12-20-29
Mills

on line 100 E. of E. line Gregory St
from M.H. 59 N. to D.E. Ho's. of Beech St.

42
STUB

0+00				145.24
BM. M.H. 59	12.83	158.07		
0+40			1.3	156.8
T.P.	13.20	171.11	0.16	157.91
0+60			8.1	163.0
T.P.	13.07	184.18	0.00	171.11
1+00			7.6	176.6
1+20			3.3	180.9
T.P.	12.96	197.09	0.05	184.13
1+40			9.8	187.3
2+00			5.0	192.1
2+50			0.0	197.1
T.P.	11.25	207.56	0.78	196.31
2+99 ²⁰ D.E. 40' S. of Beech			6.5	201.1
T.P.			0.91	206.65

NOT USED

Prelim. Sewers

12-20-29
mills.

Gregory St. from M.H. 58 N. to
D.E. 40' S. of Beech St. Plat Page 21.

PLOTTED

0+00 = M.H. 58 BM.	13.24	176.47		163.23
0+5			10.4	166.1
T.P.	12.43	188.76	0.14	176.33
0+35			11.8	177.0
0+60			2.0	186.8
T.P.	12.51	201.17	0.10	188.66
1+00			6.2	195.0
1+25			0.5	200.7
T.P.	12.77	213.93	0.01	201.16
1+70			3.3	210.6
1+90 ³¹ D.E. 40' S. of Beech St.			0.8	213.1
ch 15 T.P. Page 42			7.29	206.64 = 206.65

Prelim Sewers. From M.H. #12 to M.H. #13 20-29 miles

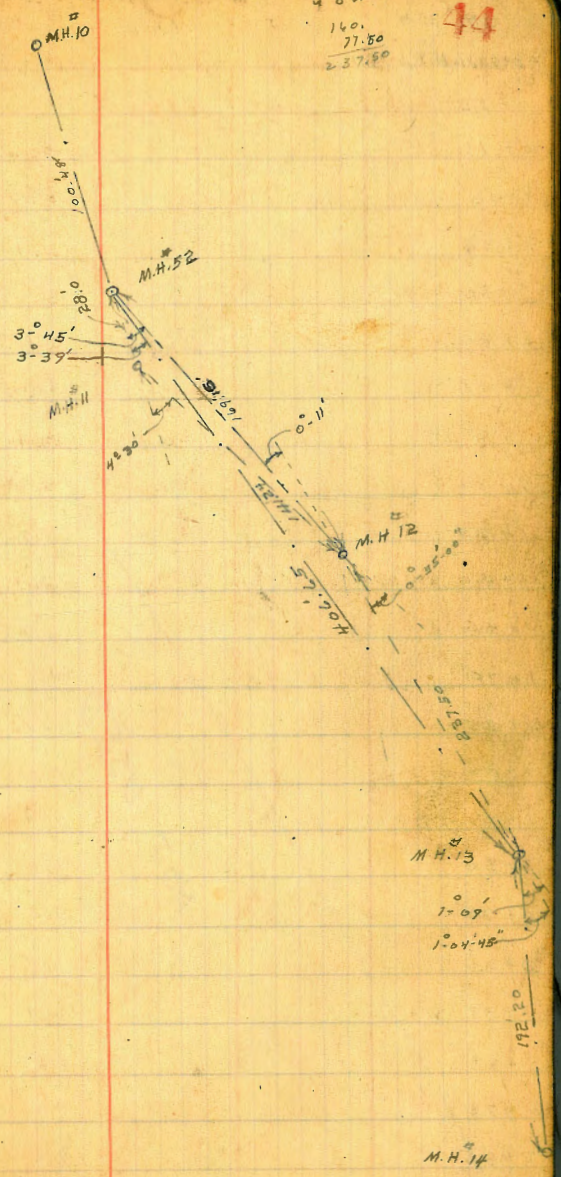
B.M. M.H. #	1.96	134.66	132.70
00 M.H. 52 BM.			0.29 134.37
0+12			1.1 133.6
0+16			5.6 129.1
0+18			2.8 131.9
0+30			2.1 132.6
0+50			3.1 131.6
0+80			6.6 128.1
1+00			8.2 126.5
T.P.	1.68	123.88	12.46 122.20
1+17			3.8 120.1
1+35			4.8 119.1
1+40 Wash			6.9 117.0
1+45			4.3 119.6
1+69 ¹⁶ M.H. #12			4.12 119.76 = 119.73

PLOTTED

Notes from M.H. #52 to M.H. #13 Page 45

169.15
237.50
406.65
140.
77.50
237.50

44



Prelim Sewers from
52 to M.H. 13

12-20-29
miles

45

BM. M.H. #	196	134.66	132.70
0+00 M.H. 52			0.29 133.37
0+12			1.1 133.6
0+16			5.6 129.1
0+18			2.8 131.9
0+30			2.1 132.6
0+50			3.1 131.6
0+80			6.6 128.1
1+00			8.2 126.5
T.P.	1.68	123.84	13.46 122.20
1+17			3.8 120.1
1+25			4.8 119.1
1+40 Wash			6.9 117.0
1+45			4.3 119.6
1+70			4.1 119.8
1+85			4.4 119.5
2+20			8.5 115.4
1.5 W. of 2+20 Wash.			9.3 114.6
2+30			7.1 116.8
2+95			9.0 114.9
3+00			10.8 113.1
3+35 Wash			12.4 111.5
3+37			9.5 114.4
3+70			9.2 114.7
3+85			7.8 116.1
4+06 [#] 65 - M.H. 13			8.99 114.89 = 114.88

NOT USED

Prelim Sewers from Existing M.H. ¹⁻²⁻³⁰ miller
 & Felton + Ivy to M.H. 63 thence to
 M.H. 6 Plat Page 26

181.63

46

B.M. B.P. Wall	0.21	255.69		255.48	S.O. Felton + Ivy Sts
T.P.	0.04	242.50	13.23	242.46	
Existing M.H. & Felton + Ivy Sts			17.59	224.91	
T.P.	0.15	229.99	12.46	229.84	
(S.E. End Existing 6" C.I. Pipe 400' W.E. of C. Mine Felton St.)			7.11	222.88	outlet Flowline
0+00			8.0	222.00	Filled ground
T.P.	0.36	217.36	4.99	217.00	
0+17			3.2	214.2	Filled ground
T.P.	0.33	214.6	13.01	204.35	
0+40			5.3	199.4	Natural ground
0+55			5.3	199.2	" "
0+95			13.5	191.2	Wash.
T.P.	2.14	194.24	12.58	192.10	
1+25			6.3	187.9	Wash.
1+55			2.3	191.9	
2+00			4.2	190.0	
2+45			6.8	187.4	
2+79 ⁴⁴ = 0+00 M.H. 63 T.P.	0.02	181.63	12.63	181.61	stub
0+25			4.9	176.7	
0+32			6.4	175.2	Wash
0+34			5.2	176.4	
0+45			6.3	175.3	
0+50			10.4	171.2	Wash
0+60			7.5	174.1	
0+95			9.6	172.0	

ABANDONED
LINE IN STREET

1+35		14.6	167.0
T.P.	1.37	169.98	13.02
1+57		4.9	165.1
1+70		7.9	162.1
1+76 ⁵⁰ M.H. 6		7.31	162.67 = 162.71

Wash

1-18-30 Prelim Sewers
 Main Line from M.H. 14 N.E. to S. line Ravenna Park.
 Plat Page

0+00	M.H. 14 B/M. 6.81	116.21		109.40
0+25			8.3	107.9
0+50			7.9	108.3
0+75			8.3	107.9
0+80	Wash		11.3	104.9
0+90			9.7	106.5
1+50			4.9	111.3
1+72			3.8	112.4
1+73	Wash		6.1	110.1
T.P.	7.90	117.17	4.94	111.27
1+88	Wash		8.6	110.6
1+90			6.0	113.2
2+20			3.5	115.7
2+41	Stub S. line Ravenna Park		3.17	116.00
T.P.	4.59	115.78	7.98	111.19
chk M.H. 14			6.38	109.40

PLOTTED

Prelim Sewers
 Line from M.H. 60 to M.H. 61 New Location to M.H. 61
 New Location to M.H. 61 To Ex M.H. & Pennell St.
 Plat Page 5.

1-24-30
 mlls.

81.26

48

# 00-M.H. 60 B.M. 0+05 Wash 0+19 ^{EX} M.H. 60 New Location = 0+00	1.88	117.35	2.9	115.47	
sketch shows 19.48'			0.80	116.55	Δ 39° 53' Lt
0+30			4.4	113.0	
0+65			5.8	111.6	
1+10 Wash			9.3	108.1	
1+60			7.6	109.8	
2+15			10.9	106.5	
T.P.	2.01	104.50	12.86	104.49	
2+35			1.5	103.0	
2+85			4.1	100.4	
3+50			10.4	94.1	
# 4+03 ³⁰ M.H. 61 New Location = 0+00			10.00	94.50	Δ 65° 05' Lt
T.P.	0.13	91.67	12.96	91.54	
0+15 Wash			1.6	90.1	
0+70			1.7	90.0	
1+15			5.3	86.4	
1+33			4.4	87.3	
1+60			8.7	83.0	
2+00			10.4	81.3	
2+50			13.0	78.7	
T.P.	2.82	81.26	13.23	78.44	
2+79 ³⁰ stub on N. line PL 1151			3.41	77.85	
3+11 ²⁸ M.H.	22.60 N of PL = 0+00		3.70	77.56	Δ 42° 30' 30" Rt
0+50			4.2	77.1	
1+00			4.7	76.6	

1+40	5.5	75.8
1+55	2.1	74.2
1+95	7.3	74.0
2+05 W. side RIVER	10.1	71.2
2+23	10.9	70.4
2+30	9.9	71.4
2+86 Existing M.H. ground	10.2	71.1
2+80 " " T.P. on rim	9.53	71.73 = 71.77 Page 22.

PLOTTED

Prelim Sewers
 Bet. M.H. #32 & M.H. #34 New Location
 at Nalmey & Felton.
 Plat Page 37.

2-28-30
 Miller

Preliminary Sewer Levels
 & Ivy east of Pentucket

Miller
 3-19-30

49

	N. Side				old location
R.M. M.H. 32 Nalmey	0.95	282.01		281.06	old location
0+00 = M.H. 32 New Location	28+18.75		10.07	271.94	13' N. of M.H. 32 old location
0+17	+35.75		1.0	281.0	
	+58.35				
0+39 ⁶ N. of Nalmey			2.07	279.94	
0+39 ⁷ gutter "			2.9	279.1	
0+65	+83.75		3.3	278.7	
0+85	29+03.75		5.2	276.8	
1+00	+18.75		4.4	277.6	
T.P.	4.31	275.09	11.23	270.78	
1+32 ⁸⁷ M.H. 34 New Location & Felton	29+51.62		11.00	264.09	22' S. of M.H. 34 old location

PLOTTED

	+	π	-	Elev.
0+00	11.28	267.87		256.59 B.M.
0+21			11.0	256.9
0+31			8.0	259.9
0+70			4.3	263.6
1+00			2.7	265.2
1+25			2.2	265.7
1+45 ⁷⁹ Dead End			2.8	265.1

PLOTTED

Copied by H.C.M.
 check + double check G.R.H. 3/20/30

Prelim Sewers

from M.H. 60 West to $\frac{1}{2}$ Gregory Produced South
Thence North Plat Page 21.

8-6-30
Miller
Sommermayor
Pierce

177.55

50

Station	Description	Station	Description	Station	Description	Station	Description
00=M.H. 60	New location	BM 13.25	129.80	116.55	Page 48.	0+45	5.3 172.3
0+15			10.1 119.7			0+75	1.5 176.1
0+45			5.3 124.5			T.P.	13.27 190.86 0.16 177.39
10' N. of 0+45	In wash		11.2 118.6			1+00	11.3 179.6
0+75	" "		5.2 124.6			1+35	7.1 183.8
0+82	" "		7.4 125.4			1+65	4.1 186.8
T.P.	12.83	142.17	0.46 129.34			1+80	1.9 189.0 ✓
0+96			14.3 127.9			{ Gregory D.E. } 210' S. of Ash St Page 42	
2' S. of 0+96	In wash		15.5 126.7				
1+31			6.6 135.6				
T.P.	13.27	152.92	2.52 139.65				
1+65			11.3 141.6				
7' S. of 1+65	In wash		14.4 138.5				
1+95	M.H. zero		8.70 144.22		on Hub		
5' S. of Ctr M.H.	In wash		11.4 141.5				
0+11	Wash.		8.4 144.5				
0+25			5.0 147.9				
0+40	Wash.		4.5 148.4				
T.P.	12.48	164.77	1.03 151.89				
0+65			10.2 154.6				
5' N. of 0+65	In wash		13.5 151.3				
0+88	" "		7.6 157.2				
T.P.	13.16	177.55	0.34 164.39				
1+10			12.4 165.2				
00=1+33	M.H. $\frac{1}{2}$ Ast $\frac{1}{2}$ Gregory Produced		7.43 170.12				
0+15			7.4 170.2				

Prelim Sewers
 A St. from M.H. & Gregory West
 Plat Page 21

8-7-30
 Mills
 Sommerhäuser
 Pierce

Prelim. Sewers.
 34th St from M.H. N. of A St. to DE
 Plat Page 21

51

B.M. M.H. ^(A St.) _(Gregory)	12.29	182.40	170.12
0+35		6.7	175.7
0+70		2.3	180.1
T.P.	12.73	194.95	0.18 182.22
1+00		10.0	185.0
1+55		4.7	190.3
2+00		5.4	189.6
2+35		8.6	186.4
2+90 = Existing M.H. & Felton		14.0	181.0 ground

Page 50

B.M. M.H. 60	12.70	129.25	116.55 New Location
T.P.	13.11	142.29	0.07 129.18
00: Hub M.H. 101.16 W. of M.H. 60		13.19	129.10
0+03. Inwash		15.1	127.2
0+14.20 N. Line A St.		8.0	134.3
T.P.	12.21	154.39	0.11 142.18
0+34.20 A St.		3.23	151.16 on Hub
T.P.	12.85	167.17	0.07 154.32
0+94.20 = S. Line A St.		2.7	164.5
T.P.	12.61	179.51	0.27 166.90
1+25		9.3	170.2
1+50		5.2	174.3
1+75		2.1	177.4
Chk M.H. & S. of Gregory		9.38	170.13 = 170.12
T.P.	9.90	188.77	0.64 178.87
2+10		8.0	180.8
2+44.20 A St. & W. Alley		4.5	184.3
3+00		3.4	185.4
3+35		6.0	182.8

Relocation Preling Sewer Line #
 M.H. #48 to M.H. #50 Eliminating M.H. #49
 Page 20.

8-31
 Miller
 Walker
 Bliss

52

T.P. stub M.H. #48 = 0.00 4.65 156.12 151.47

07.05	Wash		6.1	
07.20			3.3	
07.50			5.2	
07.65			4.7	
07.87			6.3	
1+00			7.6	
1+25			9.8	
1+50			9.4	
1+65			11.1	
1+75			13.3	
F.P.	3.66	147.27	12.51	143.61
1+88			8.1	
1+92	Wash.		10.0	
2+12	u		11.3	
2+16			9.6	
2+25			9.8	
2+35			10.7	
2+37	Wash		13.0	
2+41			11.2	
2+50			10.5	
2+63			9.2	
2+75			9.7	
2+81.77 stub M.H. #50			8.52	138.75 = 138.13 Page 25.

50 inside
10' chs
7.5' 1/2 Tuberoso to Alkalu Park

Pepper Drive X Sec. 10-30-30

Miller

BM. S.W. P.C. Hub 9.95 288.63 278.68 violet & Pepper

W. Line Tuberoso on curve

N. at N.W. cor	5.4	283.2
ch	5.1	283.5
+1	5.4	283.2
1/4	5.5	283.1
⊕	5.0	283.6
+2	4.8	283.8
3/4	5.4	283.2
ch	4.8	283.8
S. at S.W. cor	4.8	283.8

26' W. on N. = 90° 00' from S.W. cor

S. at S.W. cor	4.8	283.8
ch	4.5	284.1
+5	5.0	283.6
1/4	4.6	284.0
⊕	4.3	284.3
3/4	4.8	283.8
+5	3.8	284.8
ch	3.6	285.0
N.	3.5	285.1

Plotted 11/5-1930 GBH

0+25 W

N	2.8	285.8
ch	3.2	285.4
+2	3.2	285.2
+4	4.1	284.5

288.63

53

1/4	3.9	284.8
⊕	3.4	285.2
1/4	4.1	284.5
+2	4.2	284.4
+4	3.5	285.1
ch	3.6	285.0
S	3.6	285.0

0+50 W

S	3.0	285.6
ch	2.7	285.9
+3	2.7	285.9
+4	3.6	285.0
1/4	3.5	285.1
⊕	3.0	285.6
1/4	3.4	285.2
+5	2.4	286.2
ch	2.1	286.5
N	2.0	286.6

0+75 W

N	2.3	286.3
ch	2.3	286.3
+2	2.4	286.2
1/4	3.4	285.2
⊕	2.9	285.7
1/4	3.3	285.3
+3	3.1	285.5

288.63

0+75 W (con)

+4	1.8	2868
cb	2.0	2866
S	2.4	2862

1+00 W

S	2.2	2864
cb	2.3	2863
+3	2.3	2863
+4	3.3	2853
14	3.4	2852
±	2.8	2858
14	3.3	2853
cb	2.5	2861
N	2.2	2864

1+03A

N. on ± mt walk	2.2	2864
-----------------	-----	------

1+25 W

N.	2.7	2859
cb	2.8	2858
14	3.2	2854
±	2.9	2857
14	3.4	2852
+3	3.3	2853
+5	2.3	2863
cb	2.4	2862
S.	2.3	2863

288.63

Pepper Dr.

1+50 W

S	2.4	285.8
d	2.7	2859
+2	2.7	2859
+4	3.8	2848
14	3.8	2848
±	3.3	2853
14	3.7	2849
+4	3.7	2849
cb	3.0	2856
N	3.0	2856

1+75 W

N	3.5	2851
cb	3.8	2848
14	4.2	2844
±	3.7	2849
14	4.3	2843
+3	4.3	2843
+5	3.5	285.1
cb	3.5	2851
S	3.6	285.0

2+06 W

S	3.7	284.9
cb	3.6	285.0
+3	3.7	284.9
+5	4.7	283.9
15	4.7	283.9

54

288.63

2+06 W

4	4.2	284.4
1.4	4.2	284.4
+3	4.8	283.8
cl	3.9	284.7
N	3.8	284.8
2+12 & cont. drive on S		
N	4.8	283.8
cl	4.9	283.7
1.4	5.0	283.6
4	4.3	284.3
1.4	4.8	283.8
cl	4.3	284.3
S	4.2	284.4
S + 0.4 = N. end drive	4.20	284.43
2+40		
S	4.4	284.2
+2	4.9	283.7
cl	4.9	283.7
F 4	5.6	283.0
1.4	5.4	283.2
4	4.9	283.7
4.4	5.4	283.2
+3	5.5	283.1
+6	4.5	284.1
cl	4.5	284.1
N	4.6	284.0

288.63

Pepper Dr

2+55

55

N	5.2	283.4
d.	5.3	283.3
+3	5.4	283.2
+5	5.8	282.8
1.4	5.7	282.9
4	5.2	283.4
1.4	5.7	282.9
+4	5.8	282.8
+5	5.5	283.1
cl	5.4	283.2
S	5.4	283.2
2+75 W		
S	4.9	283.7
cl	5.2	283.4
+2	5.3	283.3
+3	6.1	282.5
1.4	4.9	283.7
4	5.4	283.2
4.4	6.0	282.6
+4	6.0	282.6
+5	5.6	283.0
cl	5.5	283.1
N	5.4	283.2

2+96.5

Acacia Tree 4" diam 8.5 S. of N. Line

288.63
3+00 W

N.	5.3	2833
cl.	5.4	2832
+2	5.4	2832
+5	6.4	2822
"4	6.3	2823
♀	5.8	2828
"4	6.4	2822
+3	6.5	2821
+5	6.1	2825
cl	6.2	2824
S.	6.0	2826

3+07.5 W

Acacia Tree 4" Diam 8.5 S. of N. line

3+20 W

Acacia Tree 3" Diam 8.5 S. of N. Line

3+50 W

S	7.0	2816
cl	6.9	2817
+5	7.3	2813
"4	7.1	2815
♀	6.5	2821
"4	7.0	2816
+3	6.9	2817
+5	6.3	2823
cl	6.1	2825
N.	6.0	2826

288.63
3+75 W

Pepper Dr

N.	6.5	282.56
cl	6.6	2820
+3	6.7	2819
+5	7.2	2814
"4	7.2	2814
♀	6.8	2818
"4	7.3	2818
+3	7.4	2812
+5	6.8	2818
S.	6.9	2811

4+08.64 = E. Line Violet.

S.	7.9	2807
cl	7.9	2807
"4	8.3	2803
♀	7.6	2810
"4	7.7	2809
cl	7.3	2813
N.	7.0	2816

T.P. 2.68 281.36 9.95 278.68

W. Line Violet

S. on P.C. 20' Rad curve	2.7	278.7
21.78 N. = P.I. 20' Rad curve	1.7	279.7 = 9. Line Pepper
S+5	1.7	279.7
S+6	2.7	278.7
S. cl.	2.7	278.7
"4	2.5	278.9

281.36

±	2.3	279.1
N. 1/4	2.2	279.2
N. of Line Produced	2.4	279.0
N. Line = P.I. 50' Rad Curve	2.6	278.8
R 2.95 N	1.9	279.5
45.90 N = R.C. 50' Rad. Curve	1.9	279.5
21.78 W. on S. Line = P.C. 20' Rad Curve on S. Sec at 90°00		
4.1 N. of N. Line Produced East	2.5	278.9 on 50' Rad Curve
N. Line Produced	2.7	278.7
±	2.8	278.6
+2	3.4	278.0
1/4	3.0	278.4
±	2.8	278.6
1/4	3.3	278.1
+5	3.5	277.9
±	2.9	278.5
S. on E. C. 20' Rad. Curve	2.9	278.5
0+00 = 19.86 W. = P.C. 50' Rad Curve on N		
S.	3.0	278.4
±	2.5	278.9
+2	2.5	278.9
+4	3.7	277.7
1/4	3.4	278.0
±	3.3	278.1
1/4	3.5	277.9
+3	3.8	277.6
+5	3.2	278.2

281.36

Pepper Dr

±	3.2	278.2 ⁵⁷
N. on P.C. 50' Rad Curve	3.4	278.0
0+25 W		
N	4.4	277.0
±	3.8	277.6
+3	4.1	277.3
+5	4.4	277.0
1/4	4.1	277.3
±	3.8	277.6
1/4	4.2	277.2
±	4.1	277.3
S	4.1	277.3
0+50 W		
S.	4.5	276.9
±	4.4	277.0
+2	4.4	277.0
+3	4.8	276.6
1/4	4.6	276.8
±	4.3	277.1
1/4	5.0	276.4
+3	4.4	277.0
±	4.4	277.0
N.	5.0	276.4

281.36

1+00 W.

N.	5.8	2756
cb	5.6	2758
+5	5.8	2756
1/4	6.3	275.1
±	5.5	2759
1/4	5.7	275.7
+4	6.1	2753
+5	5.3	2761
cb	5.0	2764
S.	5.1	2763
1+40 ⁶⁵ W. = P.C. N.L.A. R12.74 } 4-Parts		
S.	6.4	275.0
cb	6.3	2750
+2	6.5	2749
+4	7.3	2741
1/4	7.0	2744
±	6.8	2746
1/4	7.5	273.9
+3	7.1	2743
cb	7.1	274.3
N.	7.5	2739
Sec 1 Δ 7-43-45"		
N-5	9.4	2720
N.	9.0	2724
cb.	8.5	2729
+6	8.2	273.2

281.36

Pepper Dr

58

1/4	8.8	2726
±	8.4	2730
1/4	8.3	273.1
+4	8.6	2728
+5	7.9	273.5
cb	7.9	273.5
S.	7.7	273.7
Sec 2 Δ 15-27-30"		
S	8.9	272.5
cb	10.0	271.4
+2	9.1	272.3
+3	8.9	271.5
1/4	9.6	271.8
±	9.7	271.7
+5	10.2	271.2
1/4	9.9	271.5
cb	10.3	271.1
N	10.8	270.6
+5	11.2	270.2
Sec 3 Δ = 23°-11'-15"		
-5	12.1	269.3
N	11.7	269.7
cb	11.3	270.1
1/4	11.1	270.3
±	10.8	270.6
+3	10.6	270.8

281.36
Sec #3 (con)

S. 14		10.9	270.5
+3		11.1	270.3
+4		10.5	270.9
ch		10.3	270.1
S.		10.3	270.1
0+00 = Sec #4 = P.C.C. $\Delta 30^{\circ} 55'$			
S.		11.4	270.0
ch		11.6	269.8
14		11.6	269.8
ch		11.5	269.9
14		11.9	269.5
+5		11.7	269.7
ch		12.0	269.4
N		12.6	268.8
+5		12.9	268.5
T.P.	3.62 272.30	12.64 268.68	P.T. Hub N. line
This Curve divided 6 Parts N. line $R=3000'$ $\Delta 6^{\circ} 01'$			
	Sec #1 $\Delta 1^{\circ} 00'$		
N-5		3.7	268.6
N		3.6	268.7
ch		3.5	268.8
+3		3.4	268.9
14		3.6	268.7
ch		3.4	268.9
14		3.3	269.0
ch		2.6	269.7

272.30

Pepper Dr

59

S		2.7	269.6
	Sec #2 $\Delta 2^{\circ} 00'$		
S		3.6	268.7
ch		3.7	268.6
14		3.8	268.5
+3		4.1	268.2
ch		3.7	268.6
14		3.7	268.6
+4		4.1	268.2
ch		3.4	268.9
N		3.5	268.8
+5		3.7	268.6
	Sec #3 $\Delta 3^{\circ} 00' - 30''$		
-5		5.3	267.0
N		5.1	267.2
ch		4.9	267.4
+2		5.4	266.9
14		4.9	267.4
+4		4.7	267.6
ch		5.0	267.3
14		4.9	267.4
ch		4.7	267.6
S		5.0	267.3

272.30

Sec 4

Δ 4°-00'-30"

S	6.2	266.1
cl	6.5	265.8
1/4	6.4	265.9
ϕ	6.4	265.9
+3	6.1	266.2
1/4	6.5	265.8
+4	6.8	265.5
+6	6.3	266.0
cl	6.3	266.0
N	6.9	265.4
+5	7.2	265.1

Sec 5

Δ 5°-01'

-5	9.1	263.2
N	8.6	263.7
cl	7.8	264.5
+1	7.6	264.7
+3	8.0	264.3
1/4	7.3	265.0
+5	7.1	265.2
ϕ	7.3	265.0
1/4	7.3	265.0
cl	7.5	264.8
S.	7.5	264.8

272.30

Pepper Dr

Sec 6 Δ 6°-01' - Azalea Park on N. Line

60

S	7.4	264.9
cl	7.6	264.7
+6	7.7	264.6
1/4	8.0	264.3
ϕ	7.6	264.7
1/4	8.1	264.2
+5	8.4	263.9
+6	8.2	264.1
cl	8.5	263.8
N	9.2	263.1
N+5	9.5	262.8

Sec 7 Δ 6°-15' - Azalea Park on S. Line

-5	9.4	262.9
N	8.9	263.4
cl	8.1	264.2
+2	8.2	264.1
1/4	8.0	264.3
ϕ	7.7	264.6
1/4	8.0	264.3
+3	7.4	264.9
cl	7.4	264.9
S.	7.0	265.3

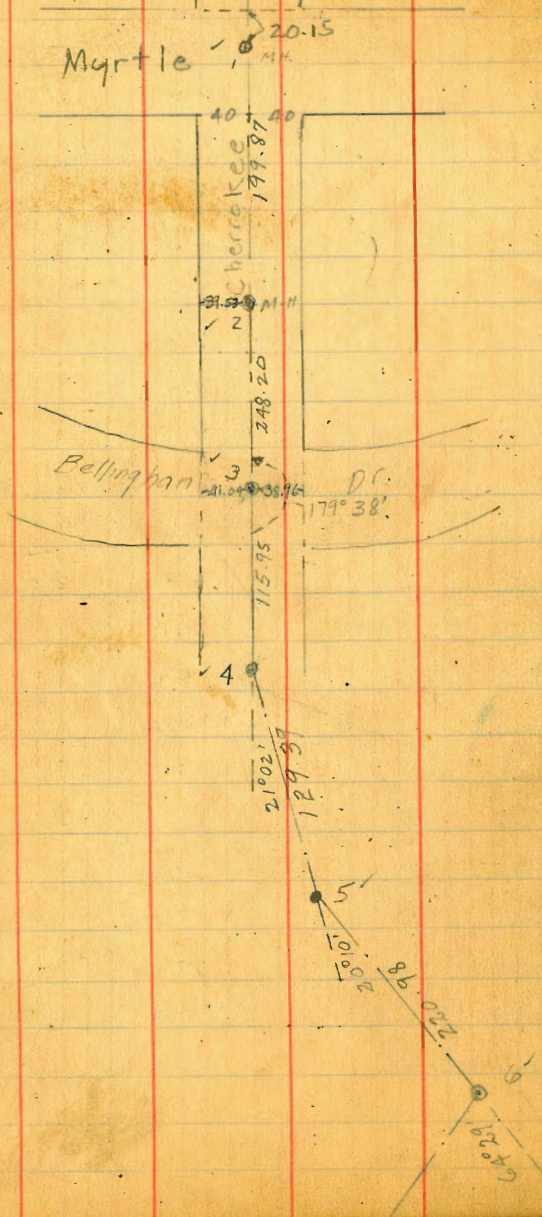
T.P. 10.58 281.01

1.87 270.43

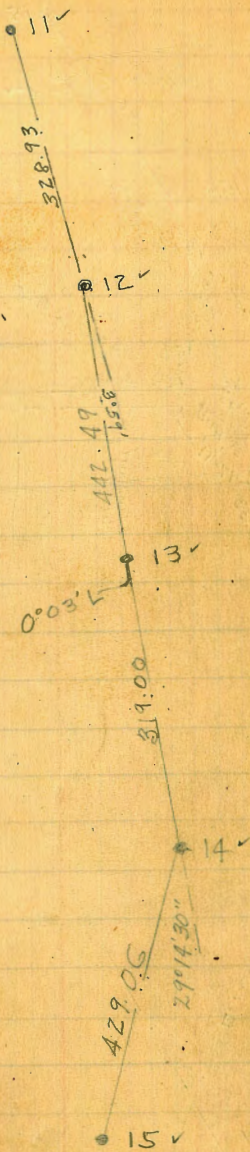
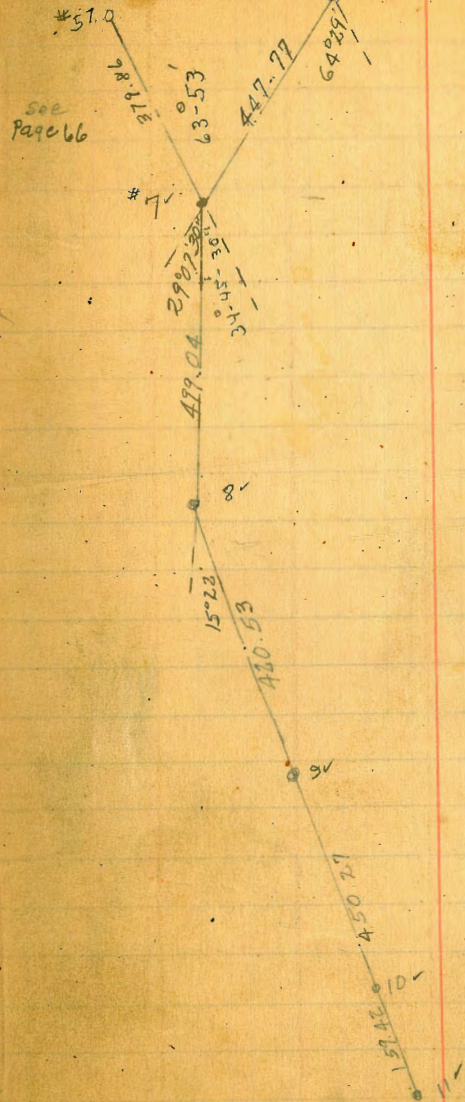
chk B.M. SW. pc. Violet & Pepper.

2.33 278.68 ✓

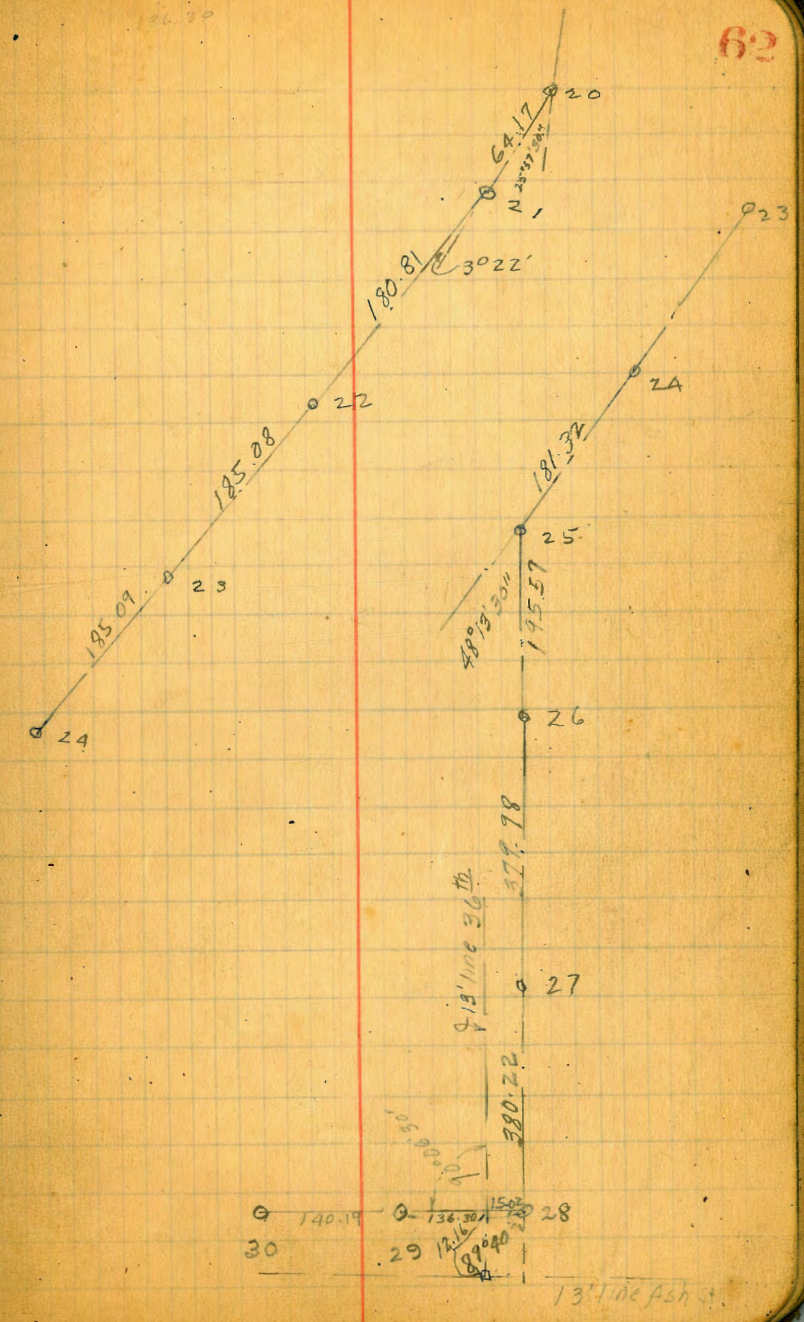
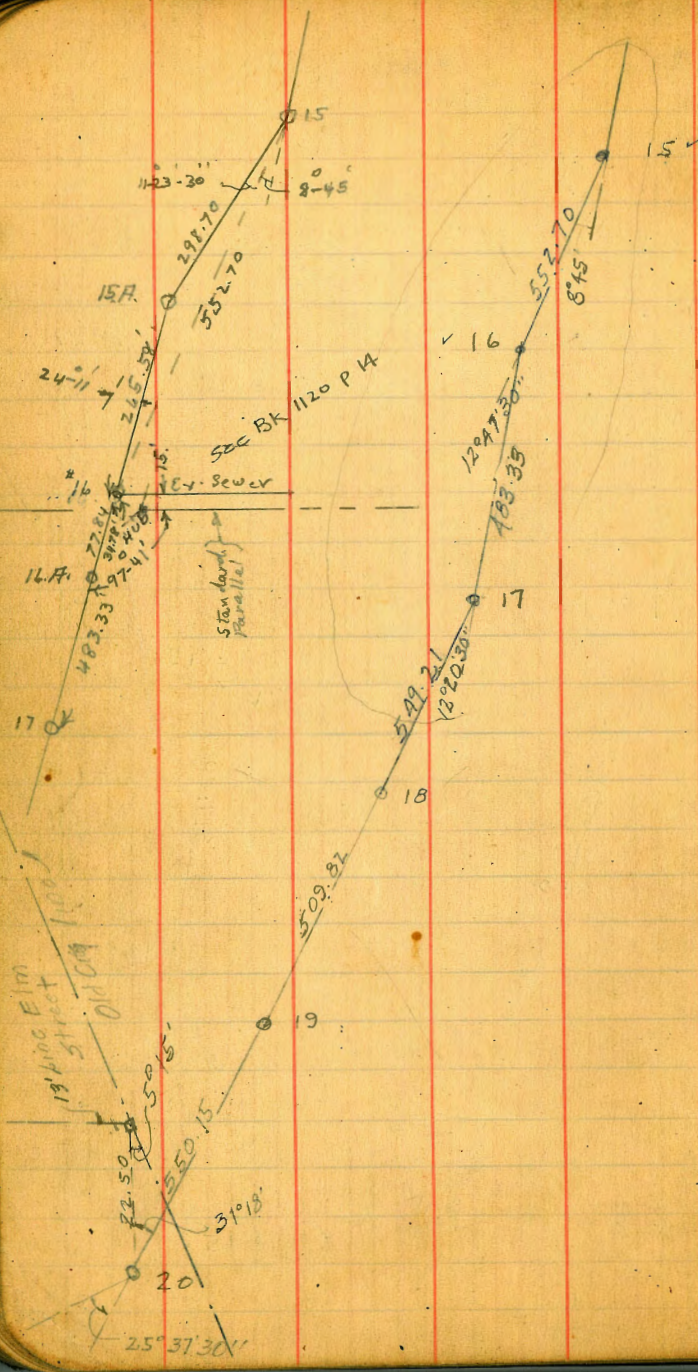
Location of Existing Sewer Manholes in
Wabash Canyon etc.

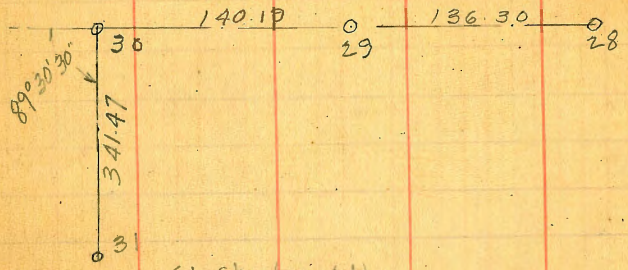


2/9/31
London



61

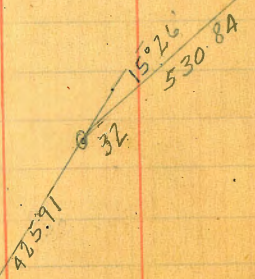
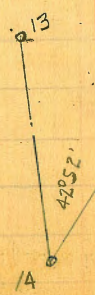




S.L. Choates Add.

20 4 5

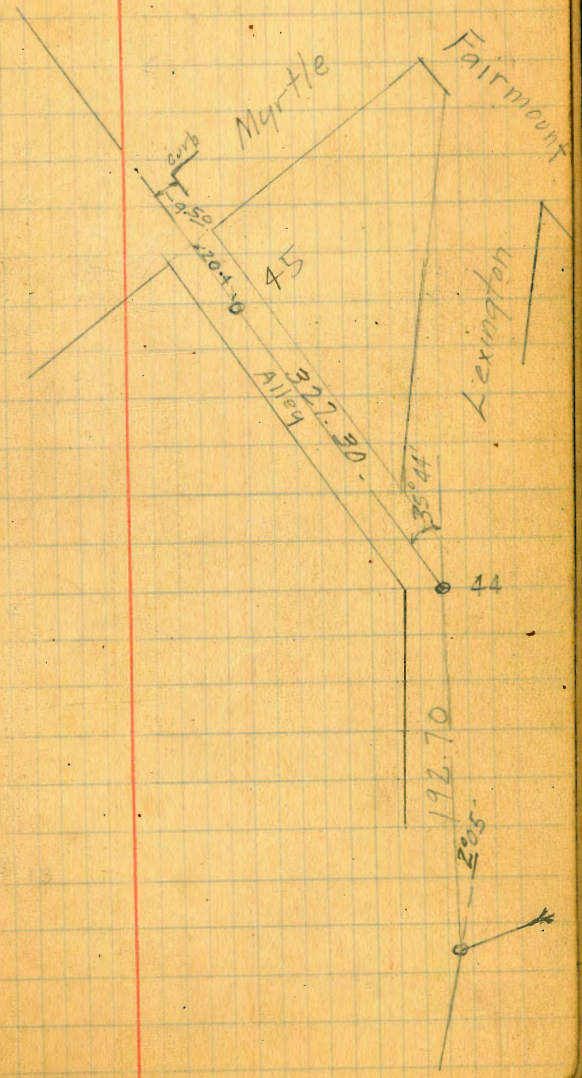
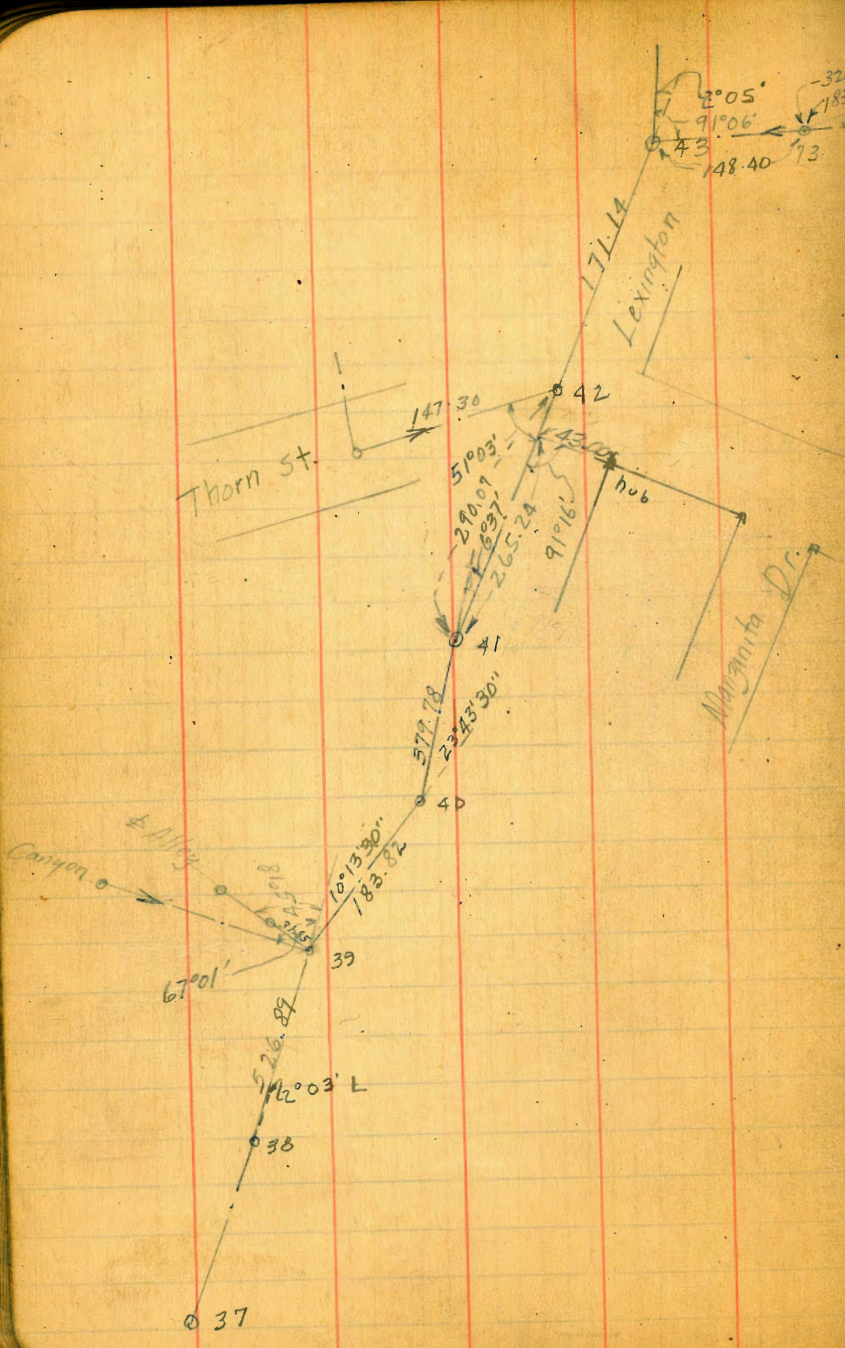
2. 8 5

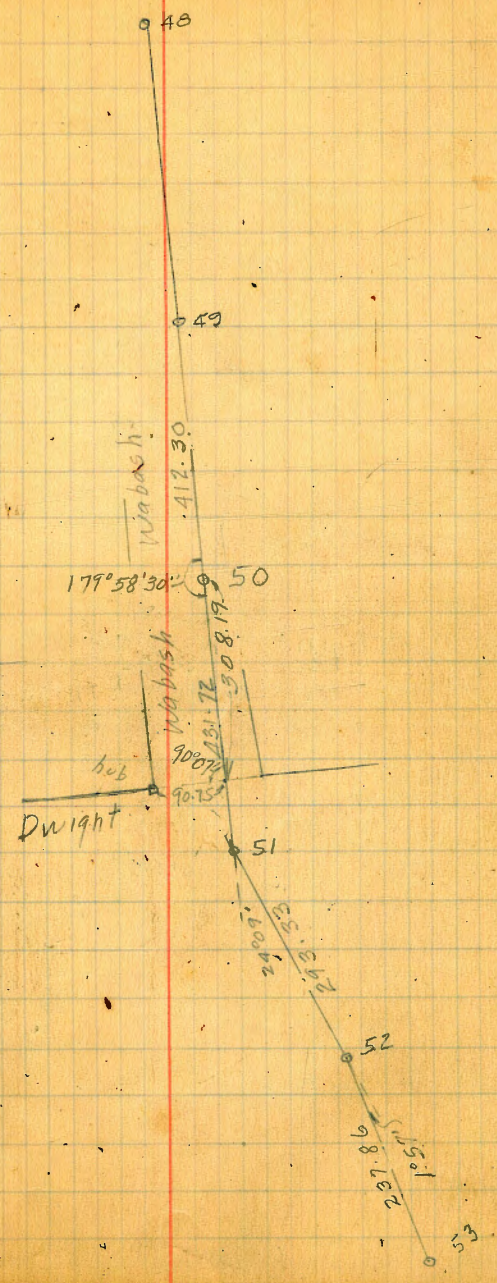
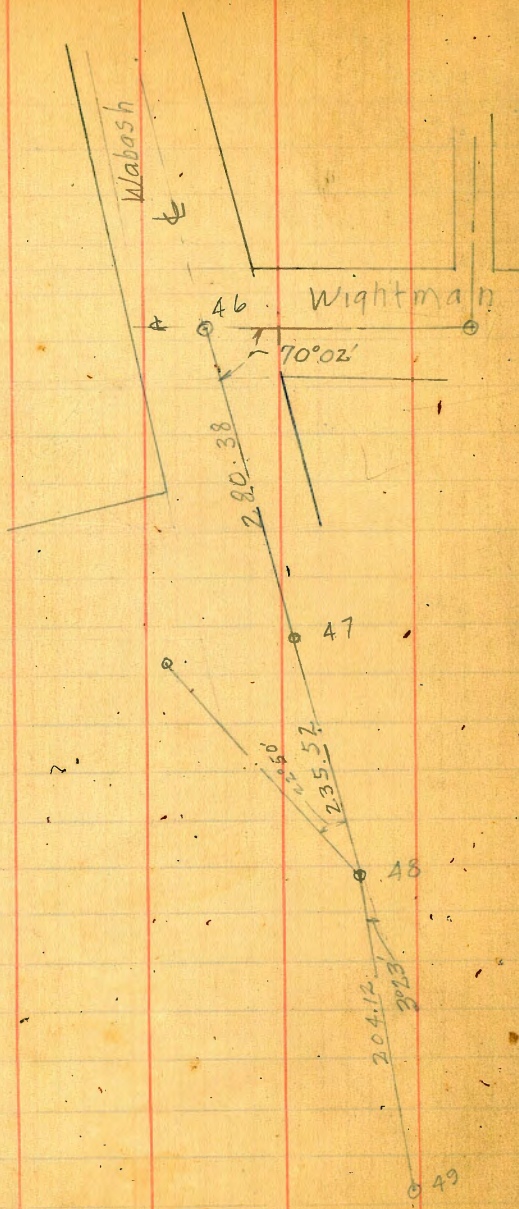


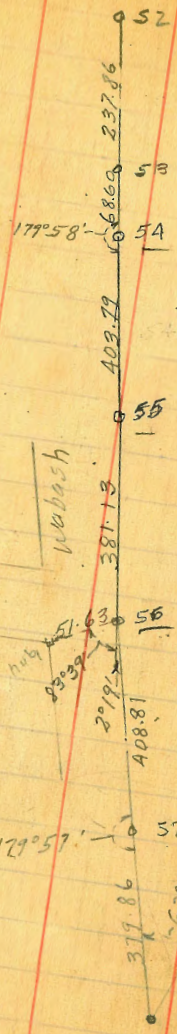
Central

Lexington

Markborough



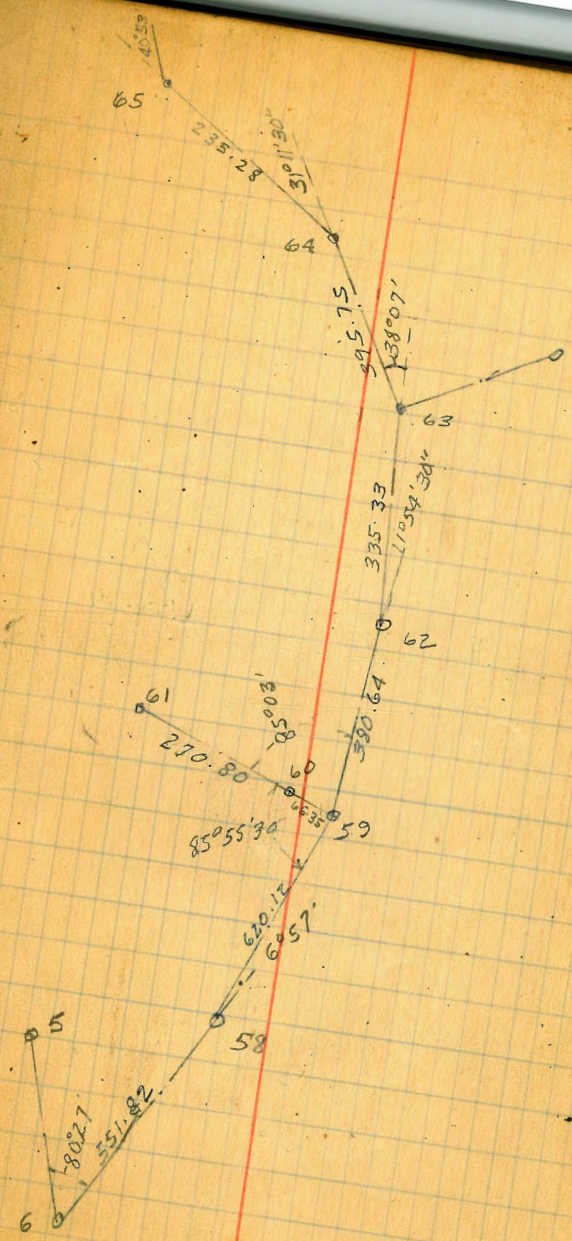


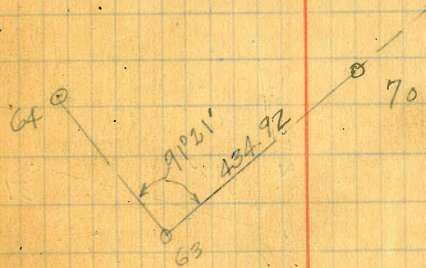
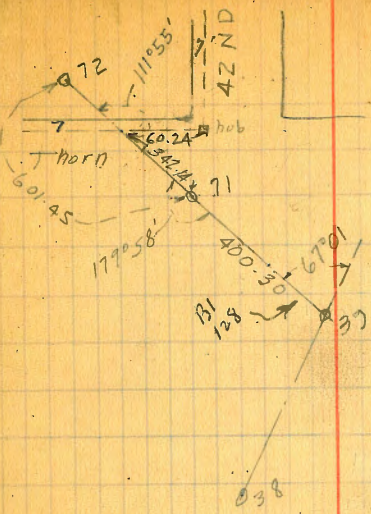
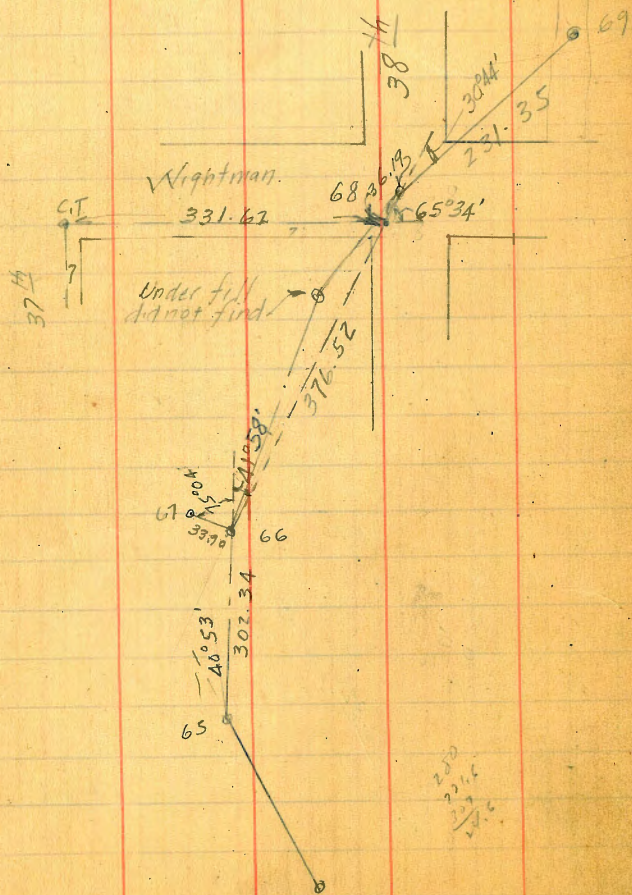


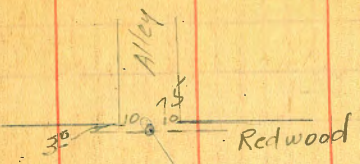
Thorn.

Wabash

see Page 61







2

20.23

74

265.54

31°06'30"

73

272.85

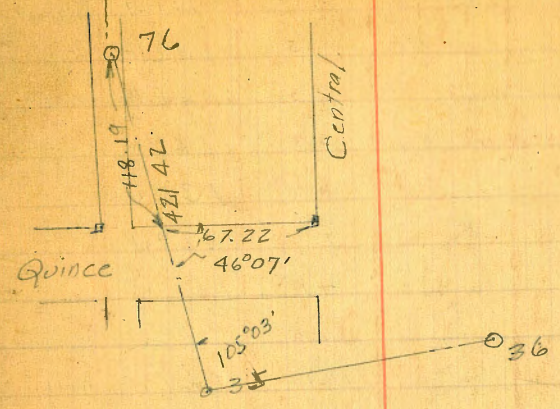
B1.135

69°30'30"

36

37

307
524



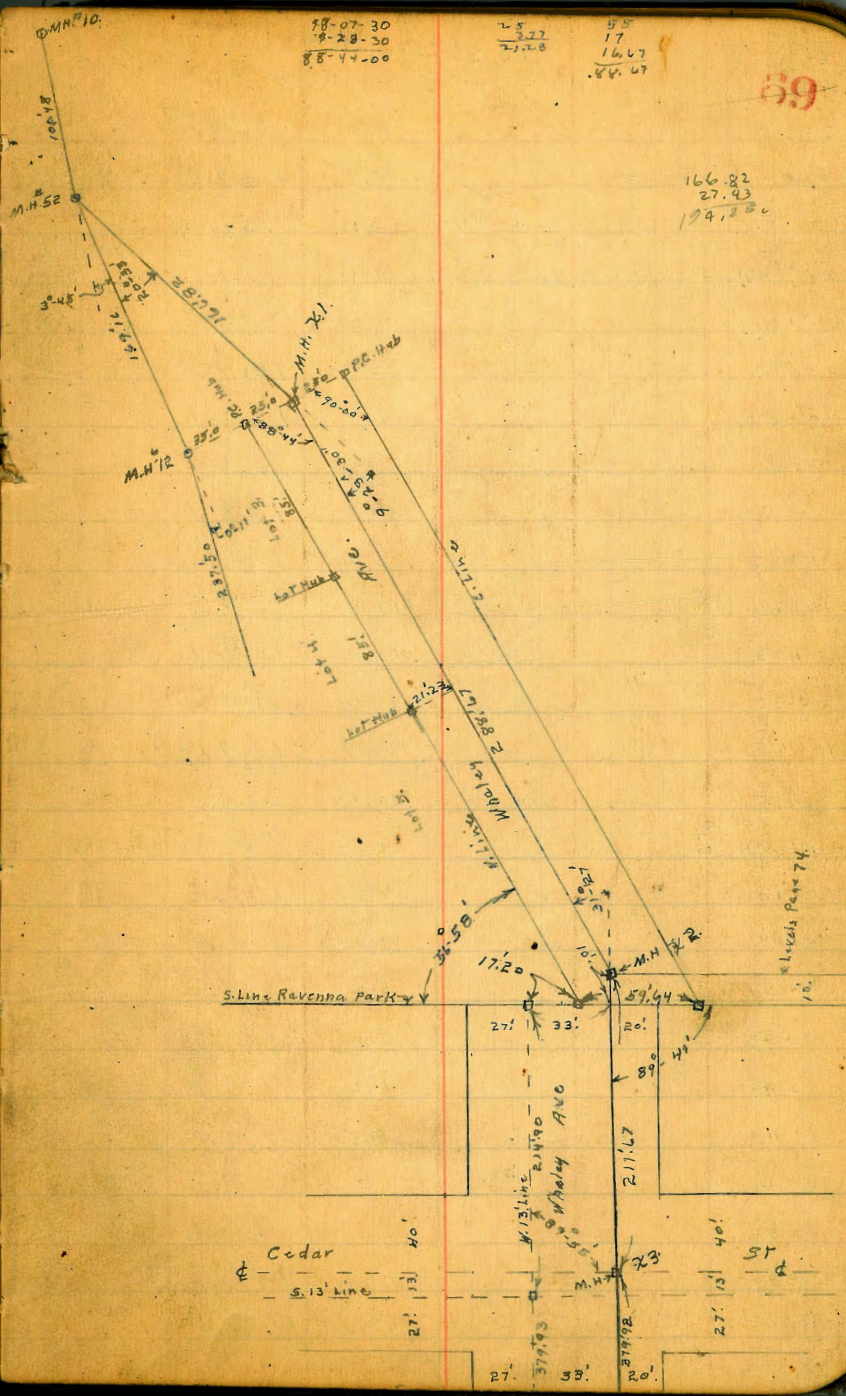
Relocation Main line
from M.H. 52 south.

0+00=M.H. 52 BM.	0.68	133.05		134.37	
0+24			2.5	132.6	
0+29			9.3	125.8	Wash
0+32			5.5	129.6	
0+45			4.4	130.7	
0+80			7.7	127.4	
1+07			11.1	124.0	
1+13			16.0	119.1	wash.
1+26			16.1	119.0	wash.
1+28			12.0	125.1	
X.1.					
1+66.82=M.H. 72 & Whaley at PC. →			6.67	128.38	on Hub
0+40			1.5	134.6	
T.P.	12.37	147.13	0.49	134.56	
0+80			9.0	138.1	
20' W. of 0+80			17.6	129.5	
1+20			4.1	143.0	
20' W. of 1+20			11.0	136.1	
1+60			1.0	146.1	
20' W. of 1+60			8.9	138.2	
1+85			1.2	145.9	
20' W. of 1+85			9.3	137.8	
2+10			0.2	146.9	
20' W. of 2+10			6.9	140.2	
2+25			3.3	143.8	
20' W. of 2+25			6.7	140.4	

Plotted

5-7-31.
Miller
Schmiedmeyer
Osborne.

Page 44



18-07-30
18-28-30
88-44-00

25
3.27
2.28

55
17
16.67
84.67

69

166.82
27.43
194.25

Leads Page 74

147.13

2+55		7.4	139.7
20' W. of 2+55		10.1	137.0
T.P. 0.34	134.36	13.11	134.02
x2	10' W. of S. Line Ravenna Park		
2+88	0.77 M.H. 30' E. of Whaley In Choats Fold	2.11	132.25
0+10		4.6	129.8
T.P. 0.05	121.91	12.50	121.86
0+50		1.8	126.1
0+80		7.5	114.4
1+00		13.2	108.7
1+23		15.4	106.5
1+26		17.2	104.7
1+33		17.3	104.6
1+37		14.0	107.9
1+65		14.7	107.2
T.P. 0.18	109.81	12.28	109.13
x3	10' Cedar St		
2+117	0.16 M.H. 20' E. of Whaley	4.22	105.59
0+40		4.8	103.0
0+44		9.4	100.4
0+51		9.2	100.6
0+53		7.0	102.8
0+90		6.6	103.2
1+40		8.8	101.0
1+44		12.5	97.3
1+53		11.7	98.1
1+59		9.1	100.7
1+85		4.7	105.1

Plotted

Δ 31027' Rt. on Hub.

Wash.

Wash

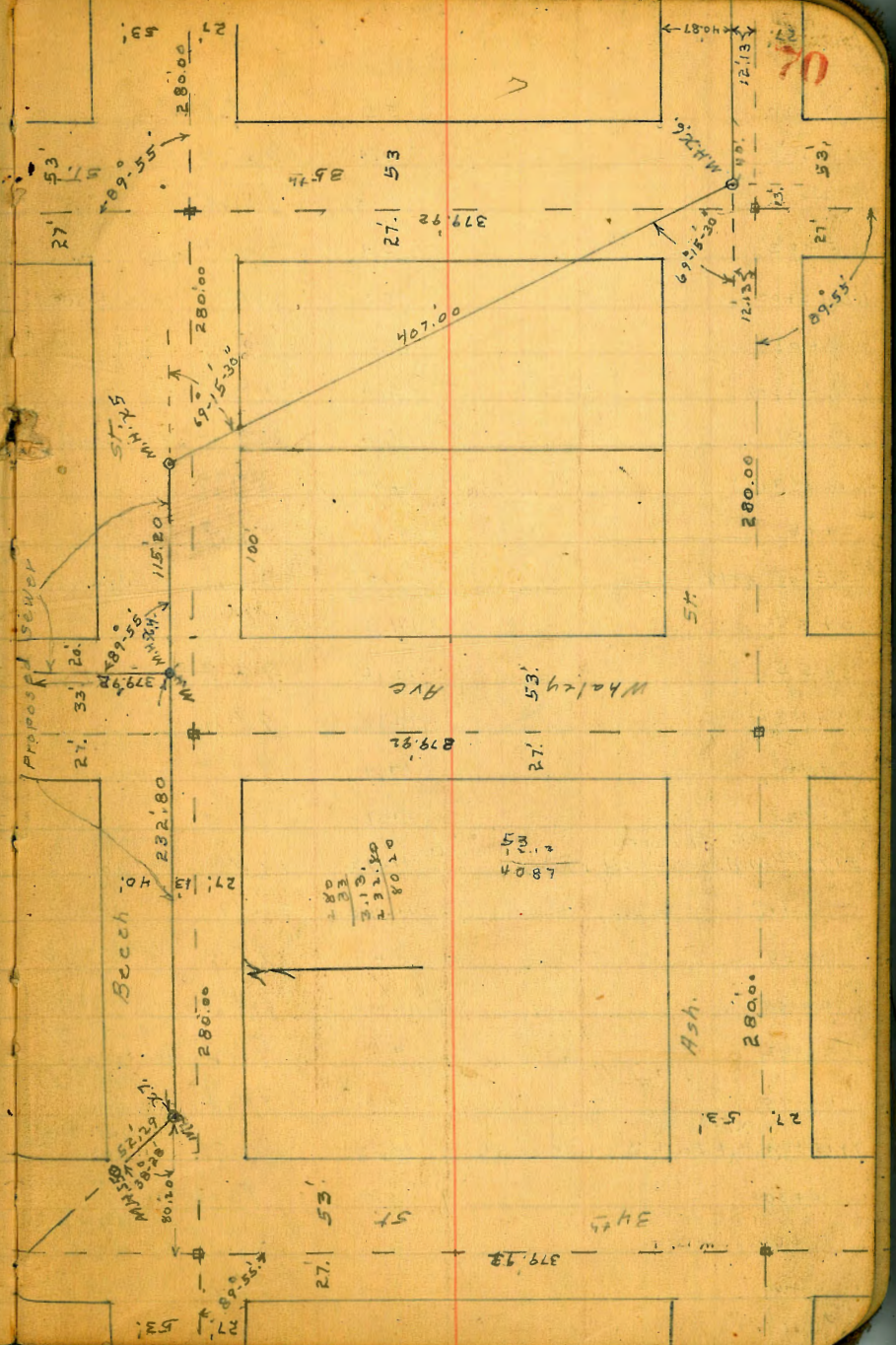
on Hub

Wash.

Wash

Wash

Wash



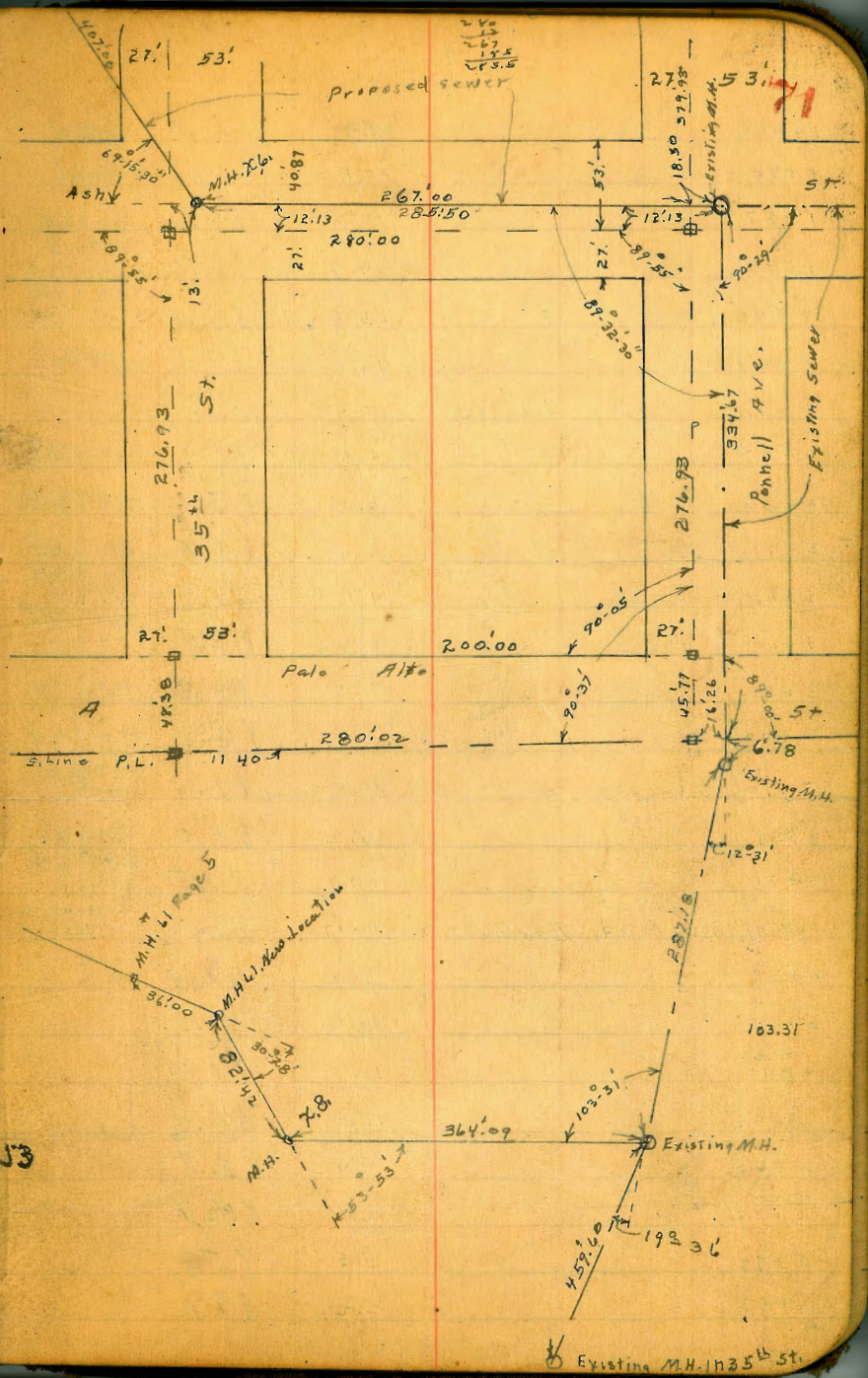
1.80	1.00
2.13	1.00
2.30	1.00
80.10	1.00

10

109.81

2+10		5.5	104.3	
2+35		9.4	100.4	
2+70		11.8	98.0	
3+03		13.4	96.4	
1. E. of 3+03		15.7	94.1	W. edge wash
3+05		15.7	94.1	" " "
1. W. of 3+05		13.5	96.3	
3+15		15.8	94.0	W. edge wash
1. W. of 3+15		14.1	95.7	
3+18		14.1	95.7	
5. E. of 3+18		16.0	93.8	W. edge wash
3+35		14.3	95.5	
3+55		12.6	97.2	
3+67		12.8	97.0	
3+70		14.4	95.4	W. wash
3+72		12.7	97.1	
3+79	X.H. Beech M.H. 20' x 2.0' & Whaley	11.92	97.89	7+84.33 on Hub.
T.P.	2.90 100.79	11.92	97.89	
0+34		5.4	95.4	8+18.3
0+40		7.0	93.8	8+24.3
0+42		9.1	91.7	8+26.3 W. edge wash
0+85		10.0	90.8	8+69.3 in wash
1+15.20	X.S. M.H. & Beech Δ 19-15-30" RT.	10.73	90.06	8+99.53 in wash on Hub
0+30		10.8	90.0	9+29.5 in wash
0+68		12.1	88.7	9+67.5 S. edge wash
0+69		8.8	92.0	9+68.5

Plotted Hoop



100.79

1+00		9.0	91.8	9+90.5
1+50		10.5	90.3	10+49.5
1+87		12.2	88.6	10+86.5
1+90		14.8	86.0	10+89.5
2+07		15.8	85.0	N. edge wash 11+06.53
2+09		14.0	86.8	S " "
T.P.	2.87	91.23	12.43	88.36
2+45		5.5	85.7	11+44.5
2+80		6.1	85.1	11+79.53
2+91		2.8	84.4	11+90.5
2+98		9.4	81.8	11+97.5
3+10		8.8	82.4	Wash 12+09.5
3+12		7.3	83.9	"
3+40		7.9	83.3	12+39.5
Z.E. of 3+40		10.0	81.2	12+39.5 Wash
3+69		8.2	83.0	12+68.5
3+76		10.7	80.5	12+75.5
4+07	26. (35+55) M.H. 87 S. of Ash Δ 69-15-30 Lt.	11.17	80.06	Wash on Hub 1 h wash
0+07		9.2	82.0	
0+25		10.0	81.2	
0+40		11.0	80.2	
0+62		10.8	80.4	
0+65		8.4	82.8	
0+75		6.8	84.4	
0+92		5.5	85.7	
1+06		2.2	89.0	

Plotted Hoop

707.00

91.23

85.05

72

1+27		13.0	78.2	
T.P.	4.66	83.23	12.46	78.57
1+51		4.4	78.8	
1+53		7.8	75.4	Wash.
1+95		6.8	76.4	Wash.
2+27		8.7	74.5	Wash
2+30		4.9	76.3	
2+45		5.6	77.6	
2+85 ⁵⁰	Ex. M.H. 18.502 " & Pennell	6.0	77.2	ground.
2+85 ⁵⁰	Ex M.H.	4.43	78.80	Top M.H.
2+85 ⁵⁰	Ex M.H.	12.02	71.21	F.L. M.H.
T.P.	10.48	89.17	4.54	78.69
chk. M.H. 17, Page 17.		4.12	85.05	✓

13+06.53

Sewer Line on Beech from M.H. X.4.
 20' E. of Whaley W. to New M.H. X.7. to
 M.H. #55

52.69

118.15

See page 71

73

0+00 = ⁴					4 Beech 20'		
B.M. M.H. Hub	12.25	110.64		97.89	E. of Whaley	7+84.33	✓
0+40			8.1	102.5		7+40.33	
0+80			4.8	105.8		7+04.33	
1+06			3.6	107.0		6+78.33	
5' N. of 1+06			9.8	100.8	Wash.		
1+18			8.0	102.6	Wash.	5+66.33	
1+30			3.5	107.1		6+54.3	
4' N. of 1+30			7.3	103.3	Wash.		
1+45			0.7	109.9		6+39.3	
T.P.	12.13	122.66	0.11	110.53			
1+70			8.8	113.9		6+14.3	
1+90			8.3	114.4		5+94.3	
2+20			3.2	119.5		5+64.3	
0+00							
2+32 ³⁰ M.H. #7	A 38°-28'	RT.	3.45	119.21	on Hub.	5+51.53	✓
0+15			6.9	115.8		5+36.5	
4' N. of 0+15			11.4	111.3			
0+27			7.3	115.4		5+24.5	
0+29			10.2	112.5	Wash.	5+22.5	
0+33			7.1	115.6		5+18.5	
0+52 ²⁹ M.H. #55			4.51	118.15	on Hub	4+99.24	✓

Plotted. Hough.

Prelim Sewers from M.H. 61
 Page 5. To Existing M.H.
 Plat Page 71.

BM, M.H. 61	1.53	96.03	94.50	New Location Page 5
0+15			1.6	94.4
10 N. of 0+15			5.5	90.5
0+36 M.H. Δ 30-28 RE 0.500			4.28	91.75
3' N. of 0+36			8.0	88.0
0+25			6.9	89.1
8' E. of 0+25			10.7	85.3
0+50			9.1	86.9
T.P.	0.45	088.86	12.62	83.41
0+82 ^{1/2} M.H. Δ 52-53 Lt. 0.000			1.23	82.63
0+50			3.8	80.1
1+00			6.0	77.9
1+50			8.5	75.4
2+00			11.5	72.4
T.P.	2.87	74.93	11.80	72.04
2+50			3.6	71.3
2+83			5.0	69.9
2+86			7.2	67.7
3+10			7.4	67.5
3+30			7.5	67.4
3+58			7.9	67.0
3+64 ground.			9.0	65.9
3+64 ⁰² Existing M.H.			8.25	66.68

Plotted Hough.

Top of M.H.
Cover Tared in

Prelim Sewers M.H. X.R. East on line 10' N. of
 S. line Ravenna Park Plat Page 69.

5-15-31
 Miller
 Osborn
 Sanborn-Meyer

00=Hub BM, M.H. X.R.	0.69	132.94	132.25
0+30			5.1
0+55			8.8
T.P.	4.21	125.30	11.85
0+85			7.5
0+98			9.4
1+00			13.0
1+02			9.2
1+20			4.3

Plotted Hough

74

Prelim Sewers
Relocation Line bet M.H. 29 & 31 Page 37.

5-29-31
mills

00=BM.MHR9	2.52	270.12	267.6	14 Wash ✓
0+17 Wash.			1.3	268.8 ✓
0+45			5.9	264.2 ✓
2' S. of 0+45 Wash			6.2	263.9 -
0+90 Wash.			10.5	259.6 ✓
1+13 "			12.3	257.8 ✓
1+45			12.4	257.7 ✓
T.P. ✓	0.94	258.52	12.44	257.68 -
12' N. of 1+45 Wash.			4.7	253.8 ✓
1+85			3.7	255.3 ✓
2+22			6.9	251.6 ✓
10' N. of 2+22 Wash			12.5	246.0 ✓
2+55			13.0	245.5 ✓
T.P. ✓	4.01	250.12	12.41	246.11 -
3' N. of 2+55 Wash			6.8	243.3 ✓
2+72			4.6	245.5 ✓
2+89 [#] M.H. 31 Page 37.			7.92	242.20 242.20
2' N. of M.H. 31 Wash			8.4	241.7

Plotted
6-2-31
L.B.H.

75

For Tie M.H. 49 & Gregory bet Dale + Elm

See Page 20

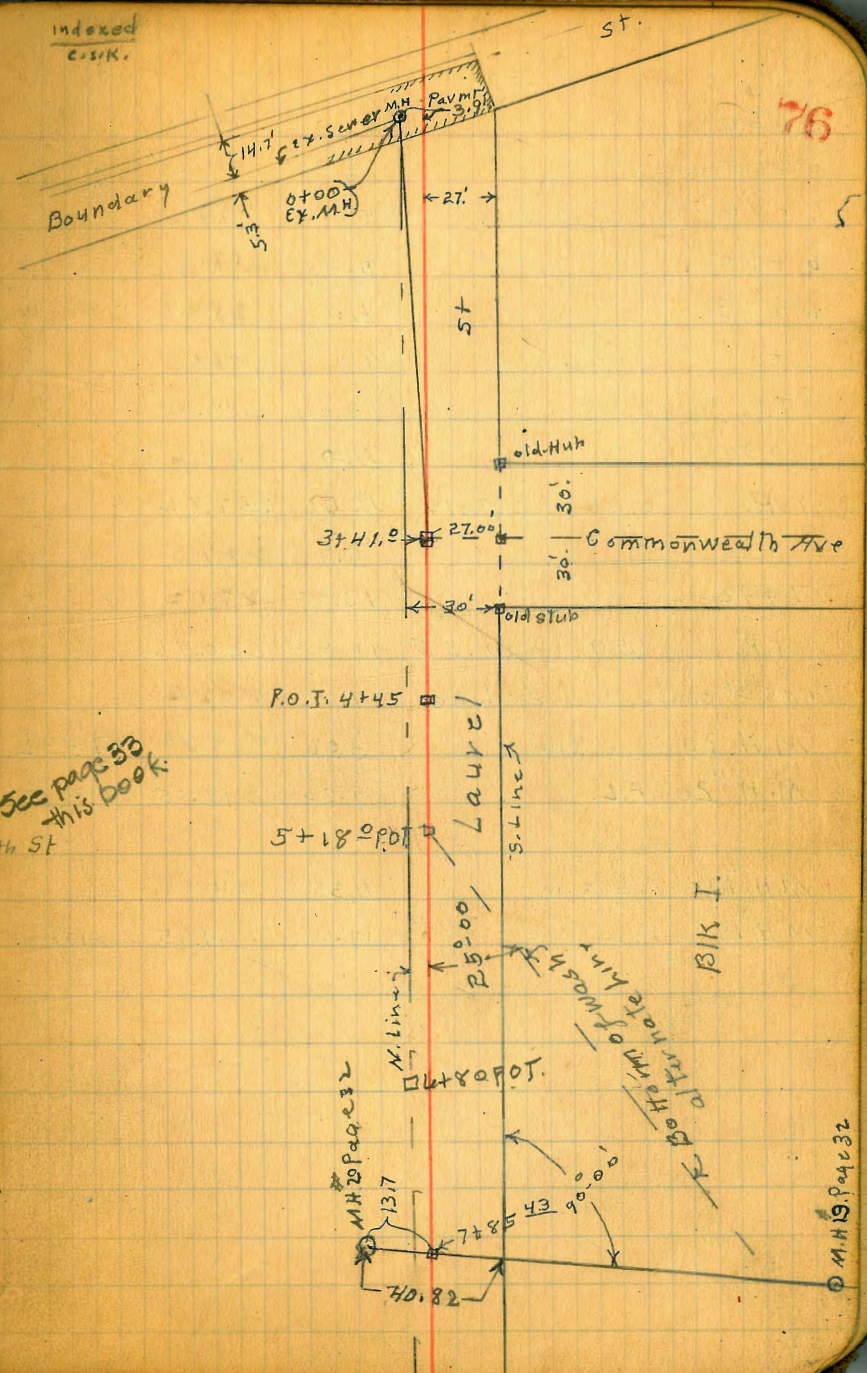
7-9-36
Miller
Walker
Bliss

Prelim Sewer Laurel
from Ex M.H. in Boundary St
W. to Connection with Ex Trunk Sewer
See Page 32-33 etc for
Sewers in BIK I.

BM. Stab	7.48	293.41	285.93	Sta. 4+41.10 Page 33
0+00 Ex M.H. in Boundary St	4.20	289.2	285.93	Top Rim
0+00 " " " " " "	9.80	283.61	283.61	F.L.
0+5.3 W. edge Pav	3.93	289.58	289.58	
0+30	3.0	290.4	290.4	
0+40	2.0	291.4	291.4	
0+50	2.0	291.4	291.4	
1+00	3.7	289.7	289.7	
1+50	5.4	288.0	288.0	
2+00	6.3	287.1	287.1	
2+50	5.0	288.4	288.4	
3+00	5.8	287.6	287.6	
3+41. stub & Commonwealth	7.46	285.95	285.95	
27' S. of 3+41 = S. Line Laurel	7.48	285.93	285.93	stub & Commonwealth St
4+00	11.8	281.6	281.6	
4+12	12.4	280.6	280.6	
T.P.	0.00	280.43	280.43	
4+40	3.7	276.6	276.6	
4+71	12.0	268.4	268.4	
T.P.	0.40	268.65	268.05	
4+80	7.8	260.9	260.9	
T.P.	2.61	257.84	255.83	
5+65	10.0	247.8	247.8	
5+18.	2.8	249.0	249.0	

Indexed
C.S.K.

76



See page 33
this book.

M.H. 19 Page 32

257.84

5+50			12.3	245.5	
5+65			12.3	245.5	
6+00			5.8	252.0	
6+50			5.0	252.8	
6+93			7.0	250.8	
7+00			9.7	248.1	
T.P.	0.78	245.58	13.04	244.80	
7+30			11.0	234.6	
T.P.	0.36	233.18	12.76	232.82	
7+60			5.7	227.5	
7+72			13.0	220.2	
T.P.	1.59	222.35	12.42	220.76	
7+85 ⁴³	connection ex line.		7.2	215.2	
M.H. 20	Top. Rim		3.06	219.29	4753L
M.H. 20	F.L.		9.30	213.05	=212.95 Book 1389-16
M.H. 19	Top. Rim		11.35	211.00	
M.H. 19	F.L.		17.60	204.75	=204.78 Book 1389-16

77

melex
c. & K

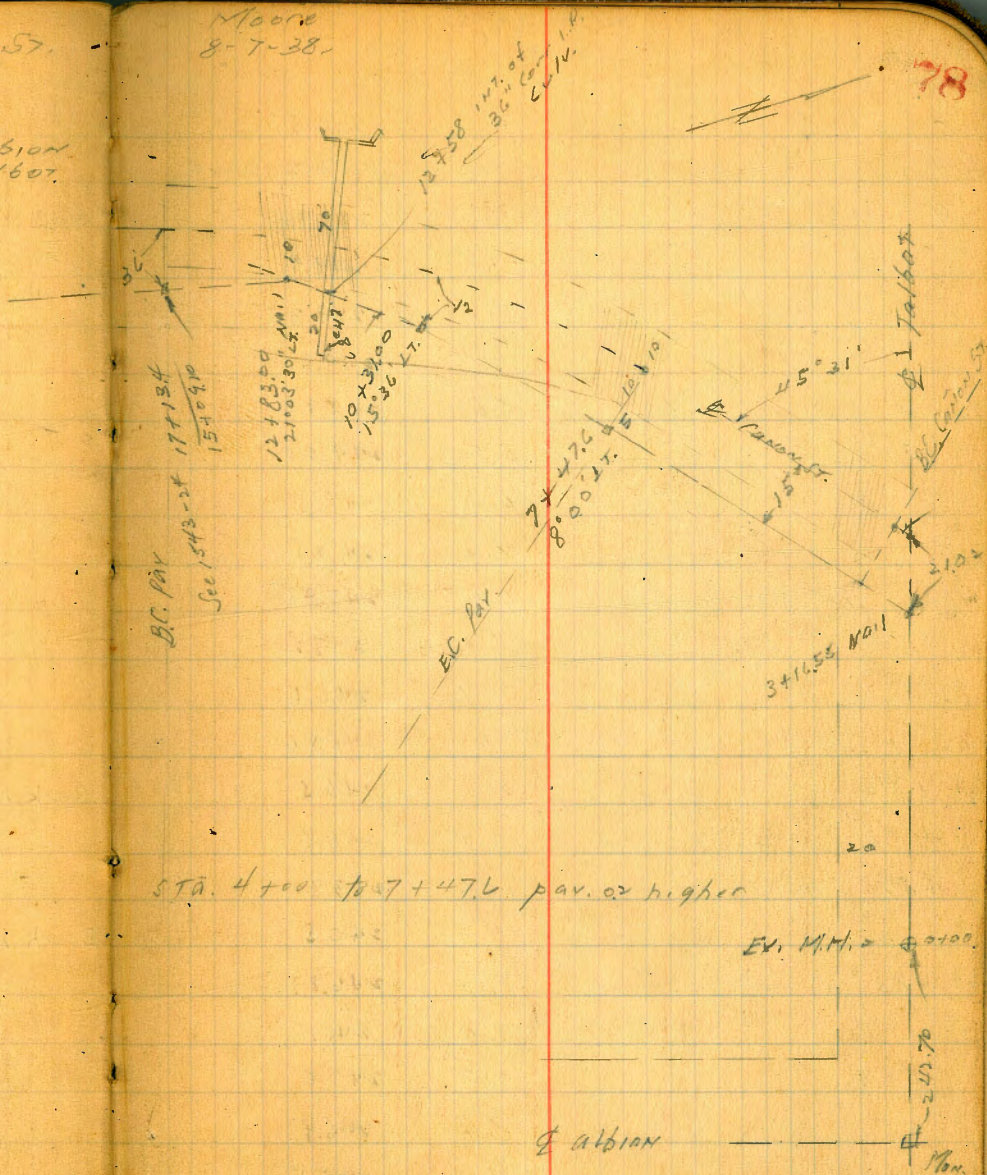
Proposed Sewer line on Talbot St.
Via Cañon St. to Catalina Blvd.

Moore
8-7-38.

78

BM. & Mon	8.25	225.28		217.03
0+00				
RIM EX. M.H.			13.60	211.68
FL " "			20.80	204.48
0+50			10.8	214.5
1			7.8	217.5
+50			3.8	221.5
T.P.	12.46	237.04	0.30	224.98
2			10.8	226.6
+25			8.5	228.9
+57 PAV.			5.94	231.50
3 +16.55 " Δ 45° 31' 27"			4.53	232.91
+45 "			3.14	234.30
4 5' 8" of Pav.			0.2	237.0
T.P.	13.08	250.19	0.33	237.11
+50			10.4	239.8
5			7.9	242.3
+50			5.4	244.6
6			3.7	246.5
+50			2.1	248.1
7			0.9	249.3
+47.6 Δ 8° 00' 21" STUB			0.04	250.15
T.P.	7.35	254.50	0.04	250.15
8			4.0	250.5
8 10.5 RT = PAV.			3.67	250.83

ALBION
TA1607



STA. 4+00 to 7+47.6 pav. or higher

EV. M.H. = 20100

& albion

20100
20170
Mon.

254.50

8+50		4.0	250.5
9		4.3	250.2
9	13.5 RT pav	3.54	250.96
	+50	4.6	249.9
10		5.2	249.3
10	7' RT "	4.84	249.66
	+31 Δ 15°36' LT.	5.60	248.90
	+31 2 RT "	5.50	249.00
	+50	6.0	248.5
11		7.0	247.5
11	8 RT "	6.65	247.85
	+50	7.3	247.2
12		7.9	246.6
12	75 RT "	7.64	246.86
	+50	8.0	246.5
	+58 INT. CULV grd.	7.9	246.6
	+58 70' RT " FL.	10.67	243.88
	+58 20 LT " FL.	14.00	240.5
12	483 Δ 21°02'30" LT.	7.73	246.77
13		7.8	246.7
	+25	7.5	247.0
	+50	8.6	245.9
	+60	9.0	245.5
14		7.9	246.6
	+50	5.9	248.6
	+75	5.9	248.6

254.50

15
 15+09.10 = 17+13.4 grd. 3.8 350.7
 3.7 250.80 250.70

189-61-80
89-32-30
90-29-30

4.46
3.85
0.61

280
18.5
261.5
23535
13075
754285
1213
1228

DIRECTOR USE OF

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body

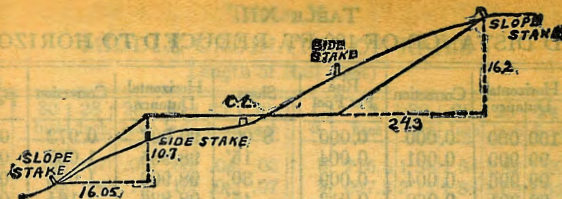
IMPROVED TABLES AND INFORMATION

TABLE No. 2.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given tangency be found by dividing tangent (or external), opposite by given tangent (or external). The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

80

124.37
0.64
135.05
0.49
134.56
12.57
147.13
13.11
134.02
0.34
134.36
12.50
121.82



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

SLOPE 1 1/2 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.

SOLE

Handwritten calculations and notes on the right page, including:

- Arithmetic: $103.83 + 40.83 = 144.66$, $144.66 - 13.00 = 131.66$, $131.66 - 49.9 = 81.76$, $81.76 - 15.0 = 66.76$, $66.76 - 24.9 = 41.86$.
- Another set: $82.12 + 118.9 = 201.02$, $201.02 - 202.0 = -0.98$.
- Large numbers: $75433 - 300 = 75133$, $28629900 - 17940 = 28611960$.
- Other calculations: $179.40 - 34.14 = 145.26$, $145.26 - 145.84 = -0.58$, $291.20 - 21.20 = 270.00$, $270.00 - 90 = 180.00$, $180.00 - 300 = -120.00$.
- Small numbers: $358 - 83.1 = 274.9$, $44.17 - 163 = -118.83$, $160 - 87 = 73$, $73 - 360 = -287$.
- More calculations: $11.55 - 13.25 = -1.70$, $129.80 - 0.40 = 129.40$, $129.40 - 12.43 = 116.97$, $142.17 - 2.52 = 139.65$, $139.65 - 13.27 = 126.38$, $126.38 - 1.03 = 125.35$, $151.84 - 12.84 = 139.00$, $139.00 - 1.03 = 137.97$, $164.77 - 0.38 = 164.39$, $164.39 - 13.16 = 151.23$, $151.23 - 7.43 = 143.80$, $143.80 - 170.12 = -26.32$.
- Other: $275 - 53 = 222$, $328 - 33 = 295$, $361 - 254 = 107$, $40 - 25 = 15$, $680 - 8.07 = 671.93$, $142.29 - 0.21 = 142.08$, $142.08 - 142.14 = -0.06$, $0.21 + 0.25 = 0.46$, $0.46 + 55.27 = 55.73$.
- Final calculations: $266.45 - 5.73 = 260.72$, $260.72 - 12.02 = 248.70$, $248.70 - 272.74 = -24.04$, $-24.04 - 270.52 = -294.56$, $-294.56 - 2.44 = -297.00$, $-297.00 - 6.31 = -303.31$, $-303.31 - 266.43 = -569.74$.
- Other notes: 74 , $15-14$, $22-37$, $81-38$, $40-47$, $65-45$, $32-52-30$, 3.76 , 255.48 , 259.24 , 0.95 , 258.29 , 8.16 , 266.45 , 5.73 , 260.72 , 12.02 , 272.74 , 270.52 , 2.44 , 6.31 , 266.43 .
- Bottom right calculations: $75397 - 46985 = 28412$, $28412 - 298745 = -270333$, $3336 - 46680 = -43344$, $43344 - 809560 = -766216$.

$$\begin{array}{r} 99703 \\ 300 \\ \hline 299.10920 \\ 299.11 - 4 \\ 244.56 \\ 563.67 \\ 1.19 \\ \hline 542.48 \end{array}$$

$$\begin{array}{r} 249.11 - 4 \\ 244.56 \\ 563.67 \\ 1.19 \\ \hline 542.48 \end{array}$$

$$\begin{array}{r} 249.11 - 4 \\ 244.56 \\ 563.67 \\ 1.19 \\ \hline 542.48 \end{array}$$

$$\begin{array}{r} 249.11 - 4 \\ 244.56 \\ 563.67 \\ 1.19 \\ \hline 542.48 \end{array}$$

$$\begin{array}{r} 215.10 \\ 75 \\ \hline 290.10 \\ 46 \\ \hline 244.10 \end{array}$$

$$\begin{array}{r} 290.10 \\ 46 \\ \hline 244.10 \end{array}$$

$$\begin{array}{r} 290.10 \\ 46 \\ \hline 244.10 \end{array}$$

$$\begin{array}{r} 290.10 \\ 46 \\ \hline 244.10 \end{array}$$

$$\begin{array}{r} 98996 \\ 127 \\ \hline 689472 \\ 196992 \\ 98496 \\ \hline 12508992 \\ 152 \\ \hline 28009 \end{array}$$

$$\begin{array}{r} 98996 \\ 127 \\ \hline 689472 \\ 196992 \\ 98496 \\ \hline 12508992 \\ 152 \\ \hline 28009 \end{array}$$

$$\begin{array}{r} 98996 \\ 127 \\ \hline 689472 \\ 196992 \\ 98496 \\ \hline 12508992 \\ 152 \\ \hline 28009 \end{array}$$

$$\begin{array}{r} 98996 \\ 127 \\ \hline 689472 \\ 196992 \\ 98496 \\ \hline 12508992 \\ 152 \\ \hline 28009 \end{array}$$

$$\begin{array}{r} 287.51 \\ 277.51 \\ 77803 \\ 300 \\ \hline 27758900 \\ 145.66 \end{array}$$

$$\begin{array}{r} 140 \\ 160 \\ \hline 320 \\ 174-46-30 \\ 87-28-15 \\ 91-07-20 \\ \hline 174-30-45 \end{array}$$

$$\begin{array}{r} 140 \\ 160 \\ \hline 320 \\ 174-46-30 \\ 87-28-15 \\ 91-07-20 \\ \hline 174-30-45 \end{array}$$

$$\begin{array}{r} 140 \\ 160 \\ \hline 320 \\ 174-46-30 \\ 87-28-15 \\ 91-07-20 \\ \hline 174-30-45 \end{array}$$

$$\begin{array}{r} 179-46-15 \\ 89-53-07 \\ 91-07-30 \\ \hline 180-00-37 \end{array}$$

$$\begin{array}{r} 86.48 \\ 48.22 \\ \hline 38.26 \end{array}$$

$$\begin{array}{r} 86.48 \\ 48.22 \\ \hline 38.26 \end{array}$$

$$\begin{array}{r} 86.48 \\ 48.22 \\ \hline 38.26 \end{array}$$

$$\begin{array}{r} 98741 \\ 2312 \\ \hline 197482 \\ 98741 \\ \hline 296223 \\ 197482 \\ \hline 228299192 \end{array}$$

$$\begin{array}{r} 98741 \\ 2312 \\ \hline 197482 \\ 98741 \\ \hline 296223 \\ 197482 \\ \hline 228299192 \end{array}$$

$$\begin{array}{r} 98741 \\ 2312 \\ \hline 197482 \\ 98741 \\ \hline 296223 \\ 197482 \\ \hline 228299192 \end{array}$$

$$\begin{array}{r} 98741 \\ 2312 \\ \hline 197482 \\ 98741 \\ \hline 296223 \\ 197482 \\ \hline 228299192 \end{array}$$