1561

CHOLLAS VALLEY

SEWERS

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

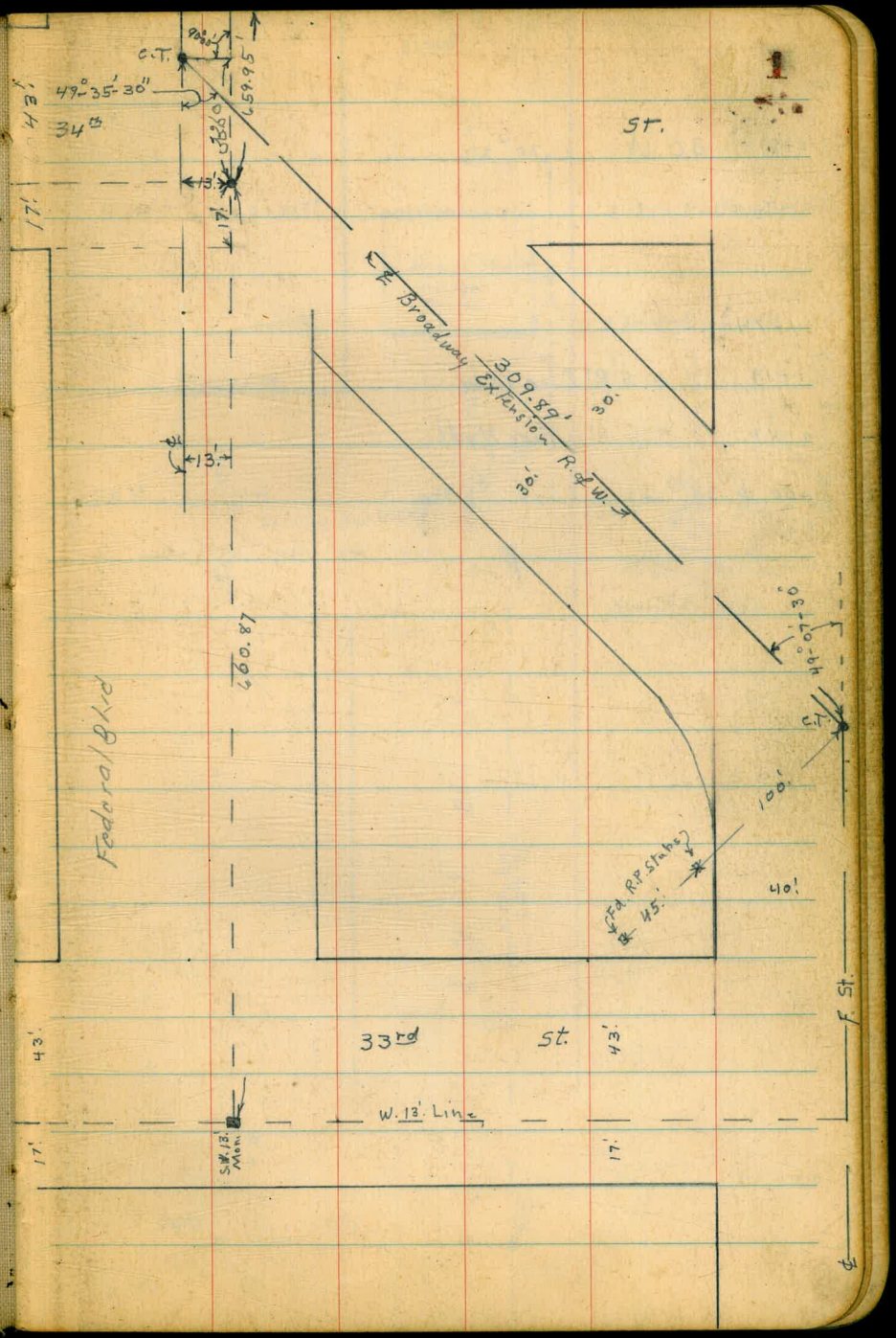
Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

Prelim. Sewers. from 35th & Lemon Grove Ave N. Ely to Home Ave thence N. Ely in Home Ave.



2+89.93 B.C. Lt. ∠ 30°-30'

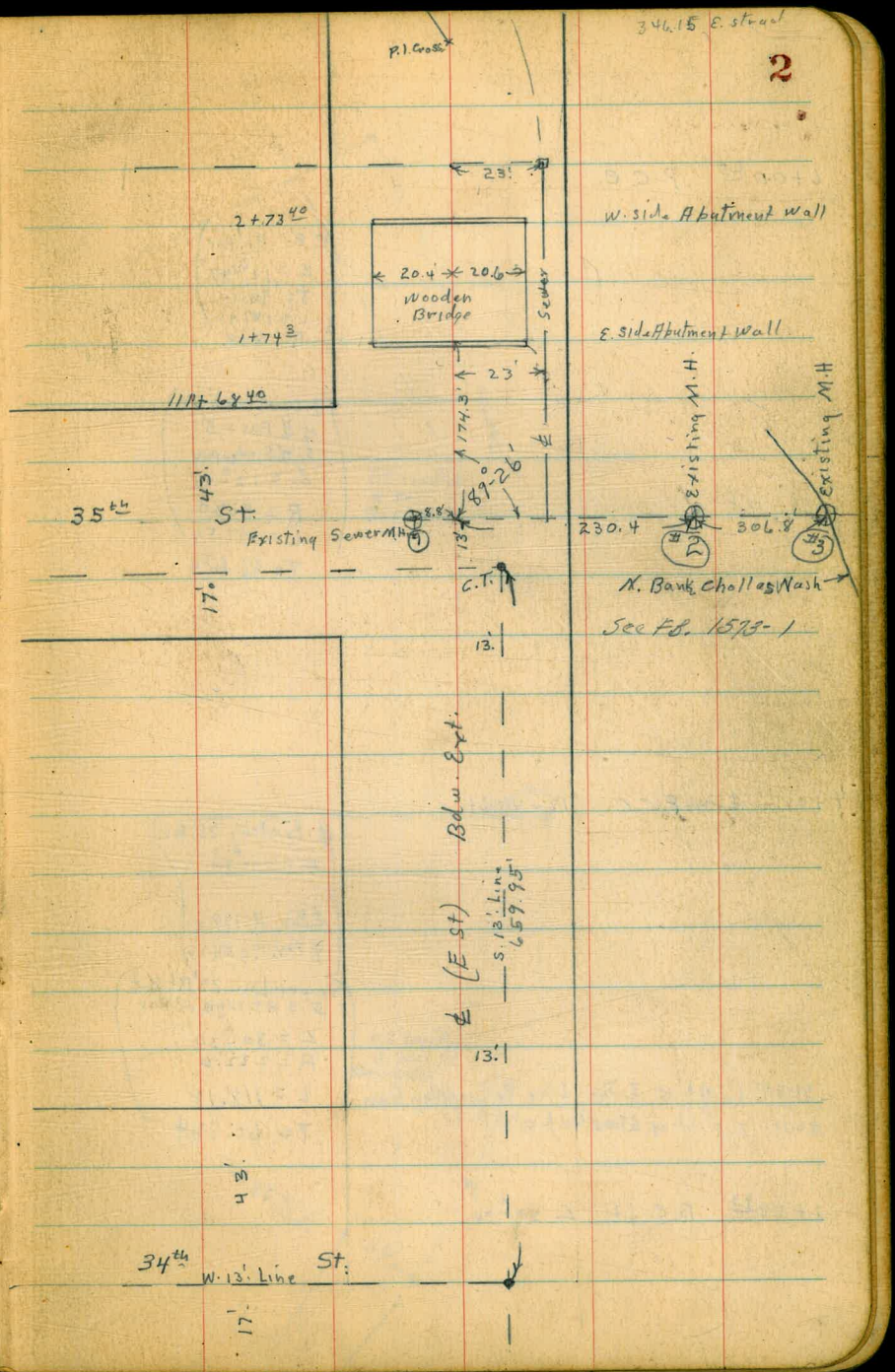
2+73.40

1+74.3

1+19 4.5' Rt. Elec Pole

0+40 3.5' Rt = Fire Hydt.

0+00 ℄ 35th St



6+00 65 P.C.C.

℄ E-1 36' Pav
∠ = 12° 47'
T = 94.10
L = 187.40
R = 840'

℄ Sewer 23' Rt.
of ℄ Pav = 5'
S. of S. edge pav
∠ = 12° 47'
R = 863.0
L = 192.54
T = 96.674

4+08.11 ℄ Sewer P.C.C. 12° 47' Lt.

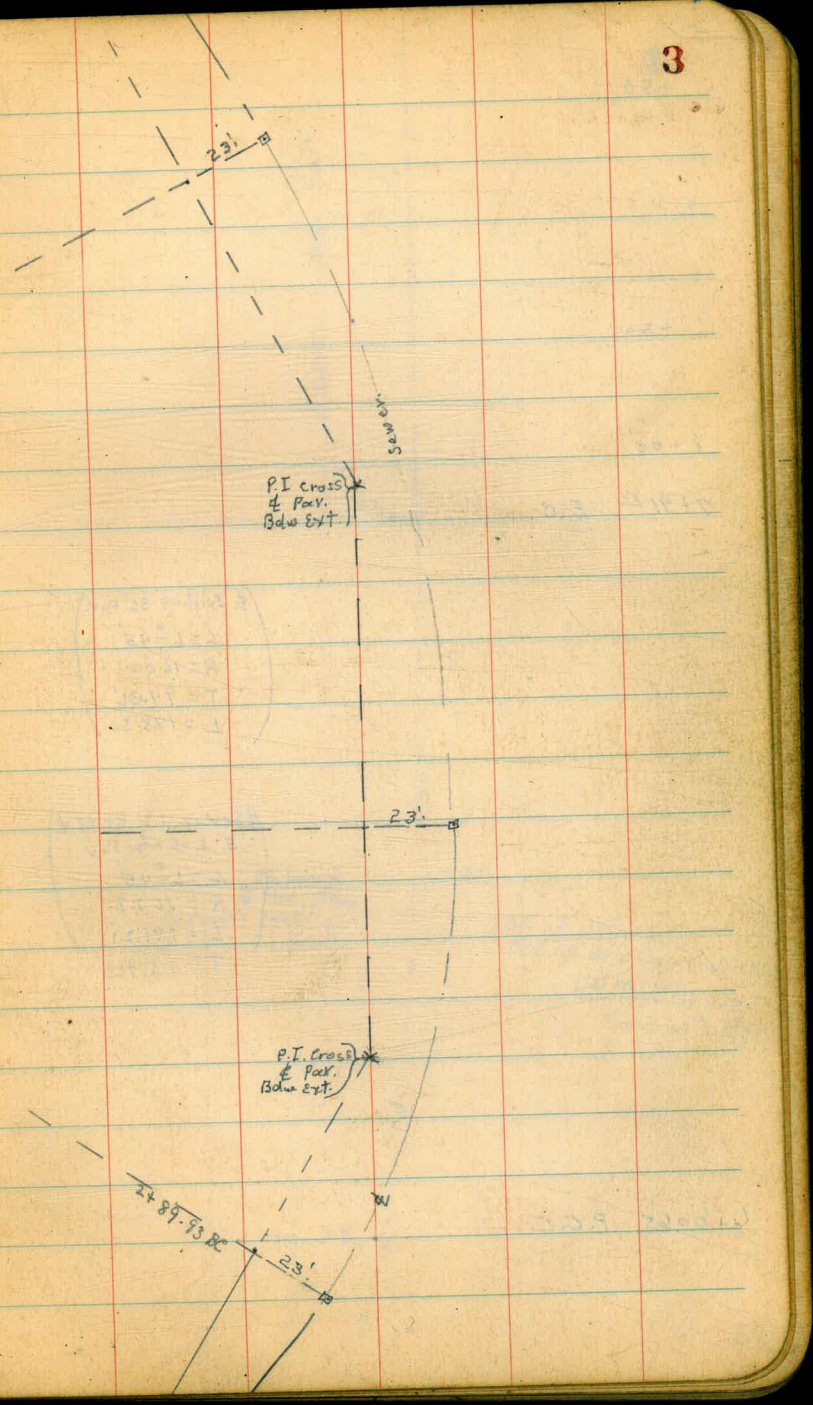
℄ Existing 36' Pav.
∠ = 30° 30'

℄ Pav. R = 199.00
℄ Pav. T = 54.26

Sewer Line 23' Rt of ℄
= 5' S. of S. edge of Pav
∠ = 30° 30'
R = 222.0
L = 118.18
T = 60.524

3+35 1' Rt of S. Tan Elec Bo Dead Man Guy.
3+11 3.5' Rt of S. Tan Elec Light Pole

2+89.23 B.C. Lt. ∠ 30° 30'



+50

9

+50

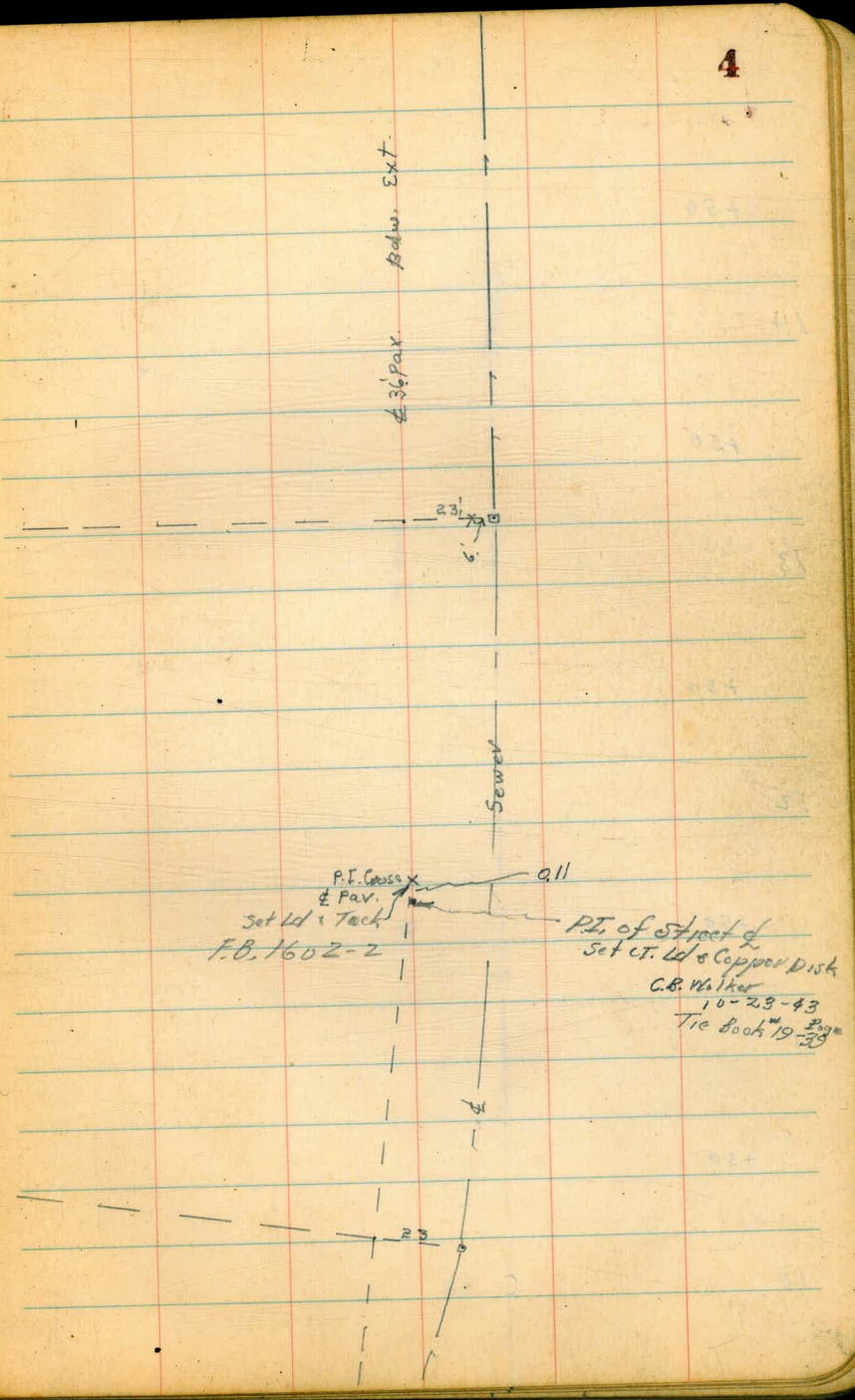
8+00

7+91.86 E.C.

(℄ Existing 36' Pav.
L = 6°-45'
R = 1600'
T = 94.36'
L = 188.50)

(℄ Sewer 23' Rt. of ℄
= 5' S. of edge Pav.
L = 6°-45'
R = 1623'
L = 191.21'
T = 95.713)

L+00.65 P.C.C.



+50

14

+50

13

+50

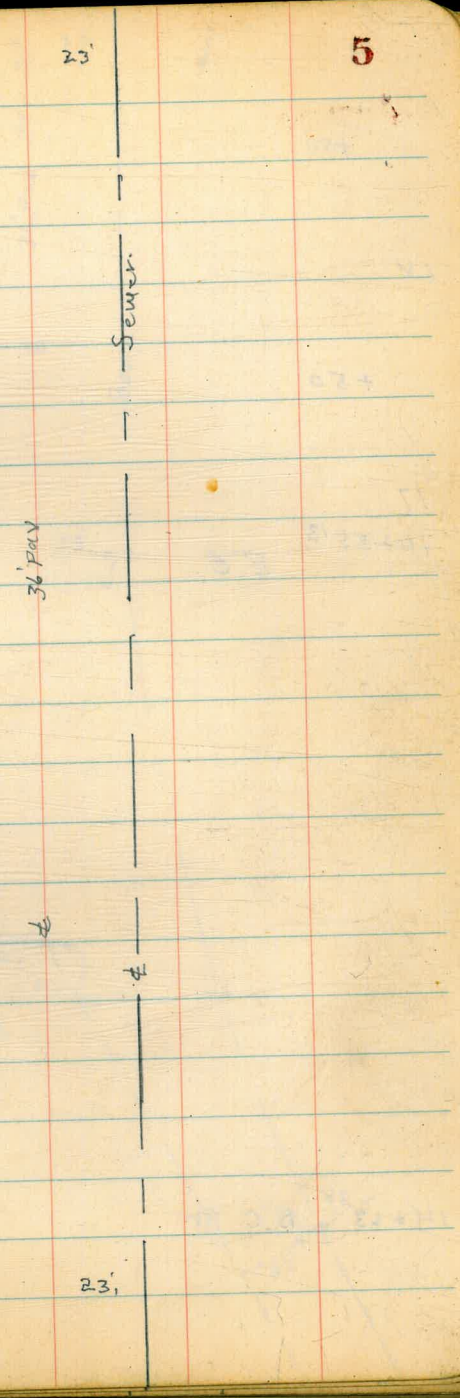
12

+50

11

+50

10



+50

18

+50

17

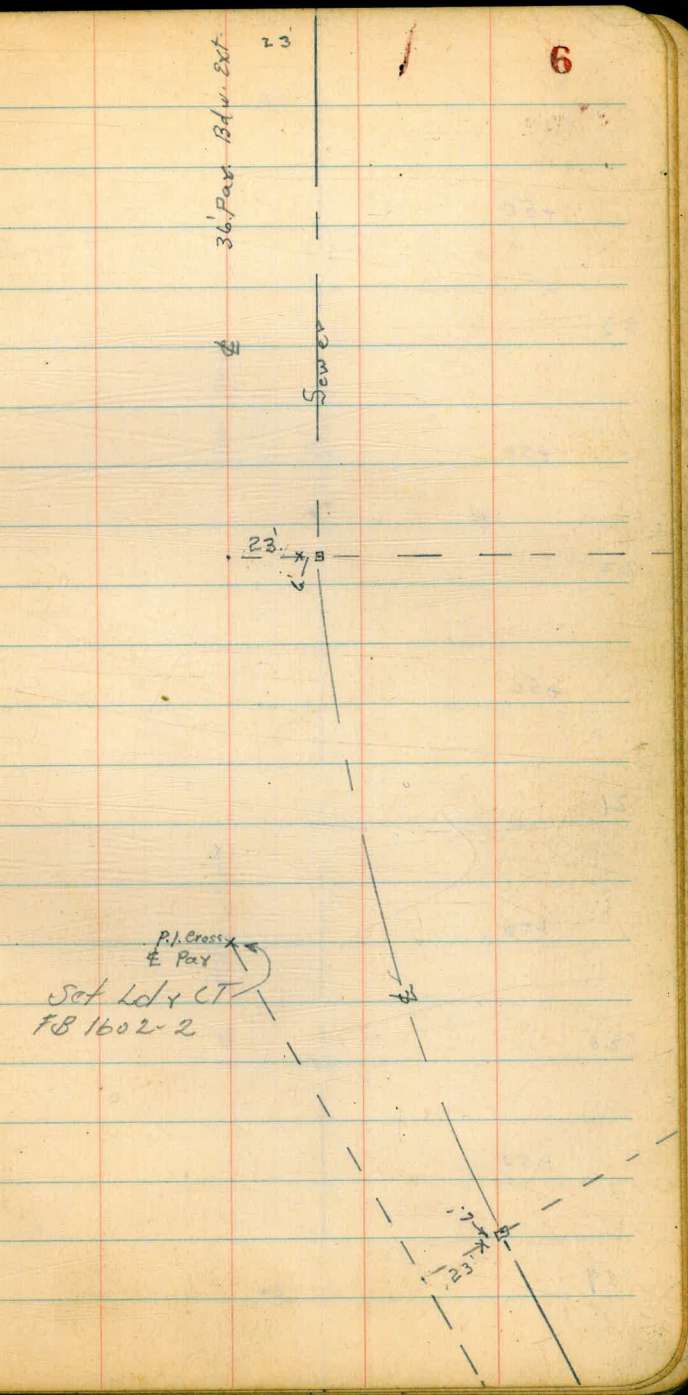
16+55.13 E.C.

(Imp. Map
$\angle = 20°16'47"$)

(℄ Ex. 36' Pav
$\angle = 20°21'$
$R = 562.43$
$T = 101.03$
$L = 199.93$)

(℄ Sewer 23' Rt.
of ℄ Pav = 5'
Rt. of E. Edge
$\angle = 20°-22'$
$R = 539.43'$
$L = 191.75$
$T = 96.897$)

14+63.38 B.C. Rt



+50

23

+50

22

+50

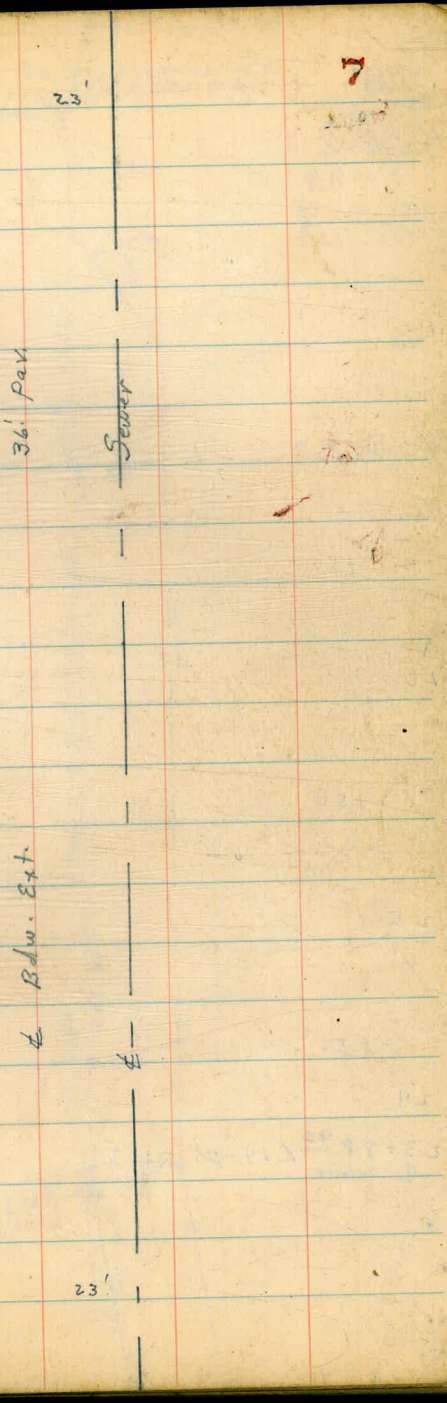
21

+50

20

+50

19



+50

26

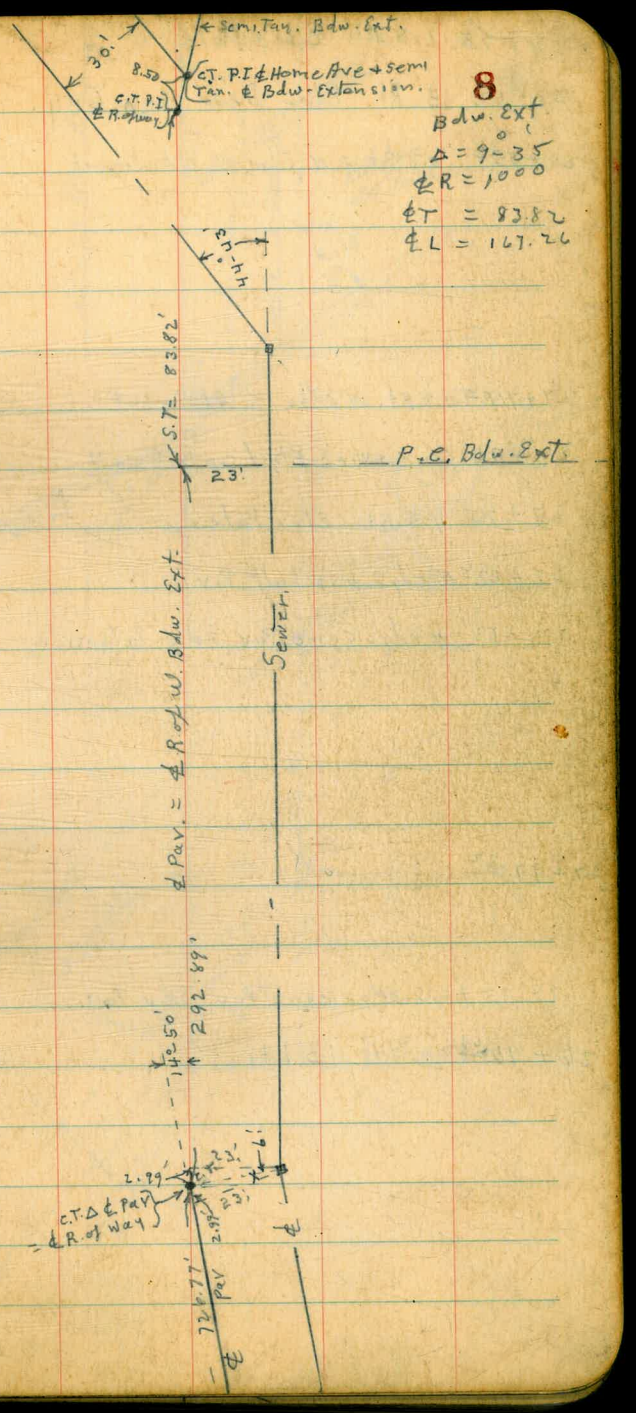
+50

25

+50

24

23+78.90 ℄ Sewer ∠ 14°-50' Rt.



28+75 2.5 Rt. Elec Pole

28+62 3' Rt. Elec Dead Man. Guy.

28+55½ 0.8' Rt = N. Edge N. Abutment

27+79½ 0.8' Rt. N. edge S. Abutment.

27+76 Conc. & Wire Flood control Wall

27+75 4.5' Rt. Elec Pole

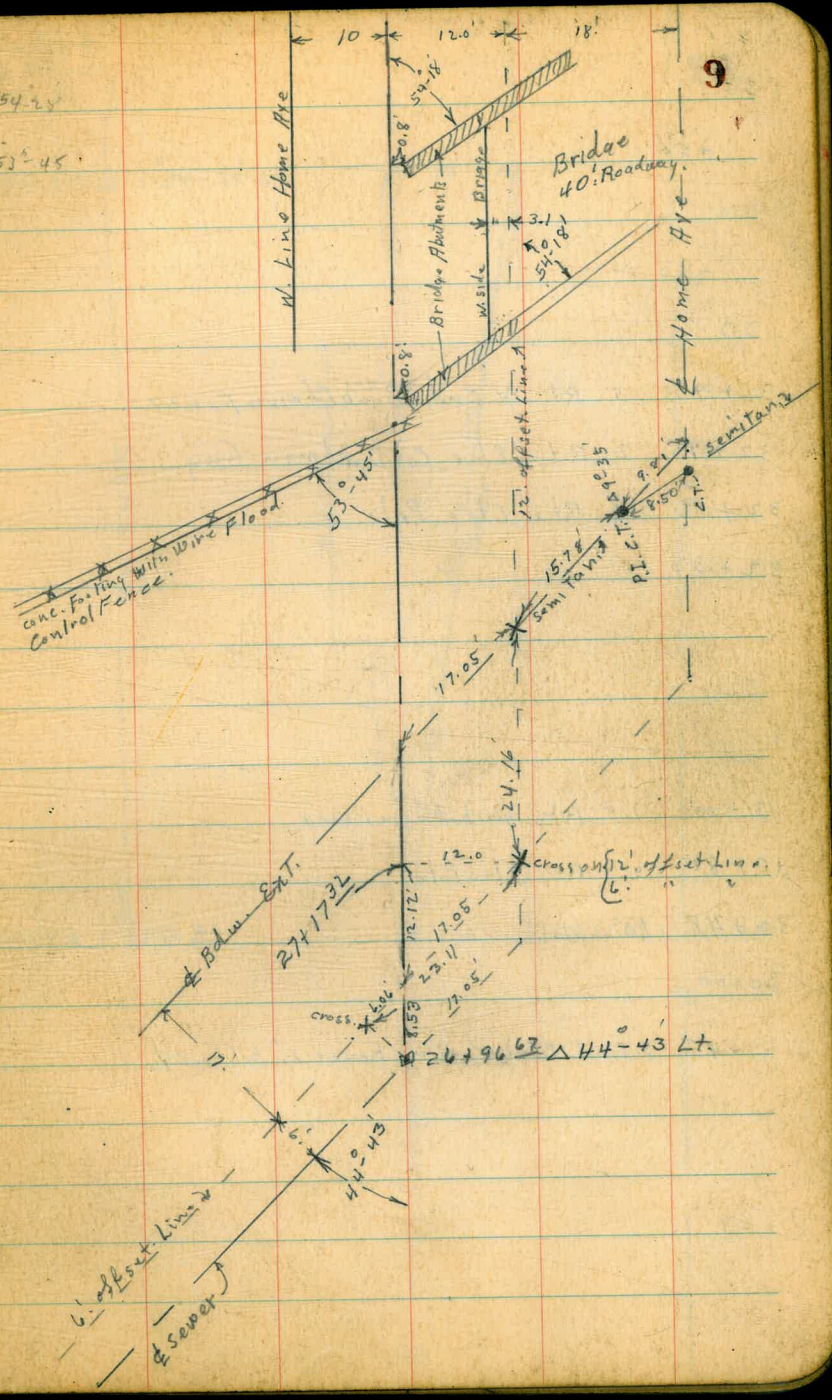
27+62½ N. edge asphalt. Pav

27+53 N edge Conc. Pav Bdw. Extension

27+17.32

27+03 ℄ = S. edge conc Pav. Bdw. Ext.

26+96.67 △ 44° 43' Lt.



35

+50

34

+50

33

32+95 5' Rt. N End. Barbed wire Fence

32+95 2' Rt Elec Co Deadman Guy

32+86 2' Rt. Elec Pole

32+50

32

31+00 1.5' Rt. Barbed wire Fence

30+80 2.5 Rt. Elec Pole

30+28 Pot. stub

30+00

29+45 S. End. Barbed Wire Fence 1.' to Lt. of ℄

+50

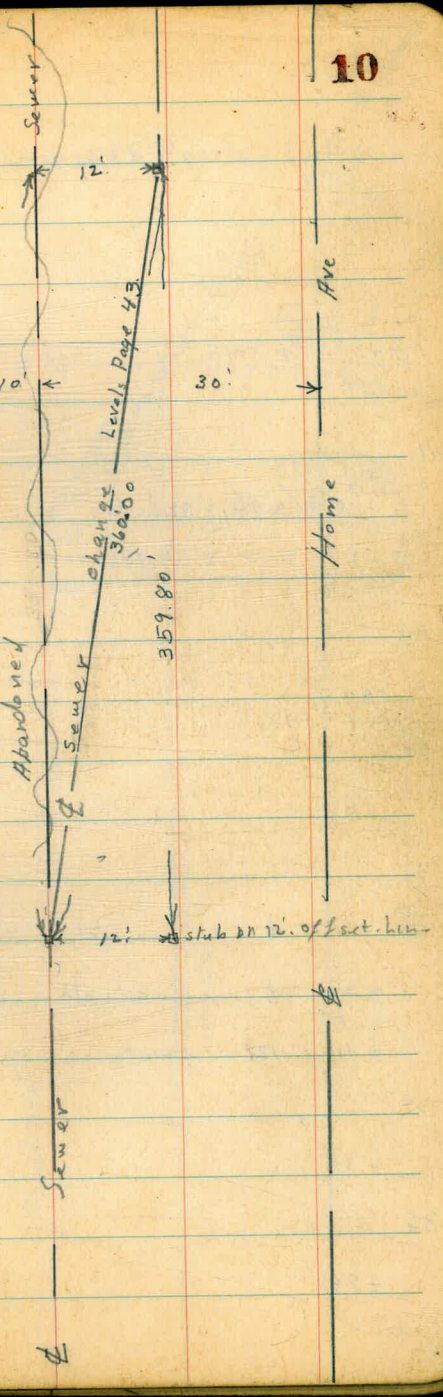
29

change

Change
In ℄ Sewer
11-16-38

34+08 △ 1°-54'-30" Lt.

30+48 △ 1°-54'-30" Rt



42+56 26 ℄ = 79+60 72 ℄ E.C. Home Ave.

42

+43.62 O.K.
+43 88 ℄ Stub

41

Ok. +68.70
N.G. +48 96 Δ 9°-13' Rt.

{+48.96 stub 12' Rt. of ℄ Sewer
original line}

40

50

39

50

38

+39 ℄ Eucalyptus 30" Diam.

+34 ℄ Eucalyptus 18" Diam.

+11 12' Lt Eucalyptus 30" Diam.

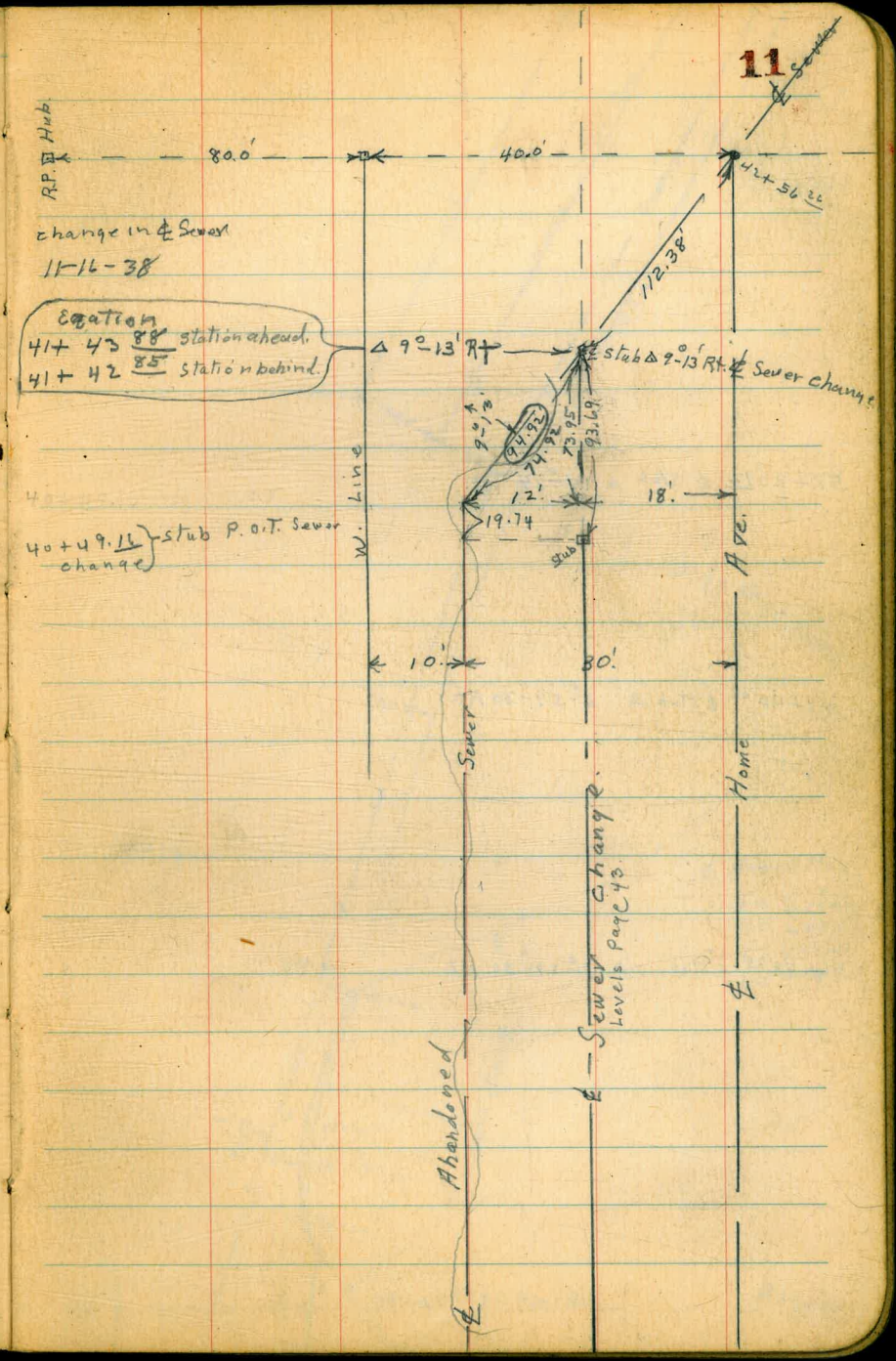
37

+50

36

+50

Change

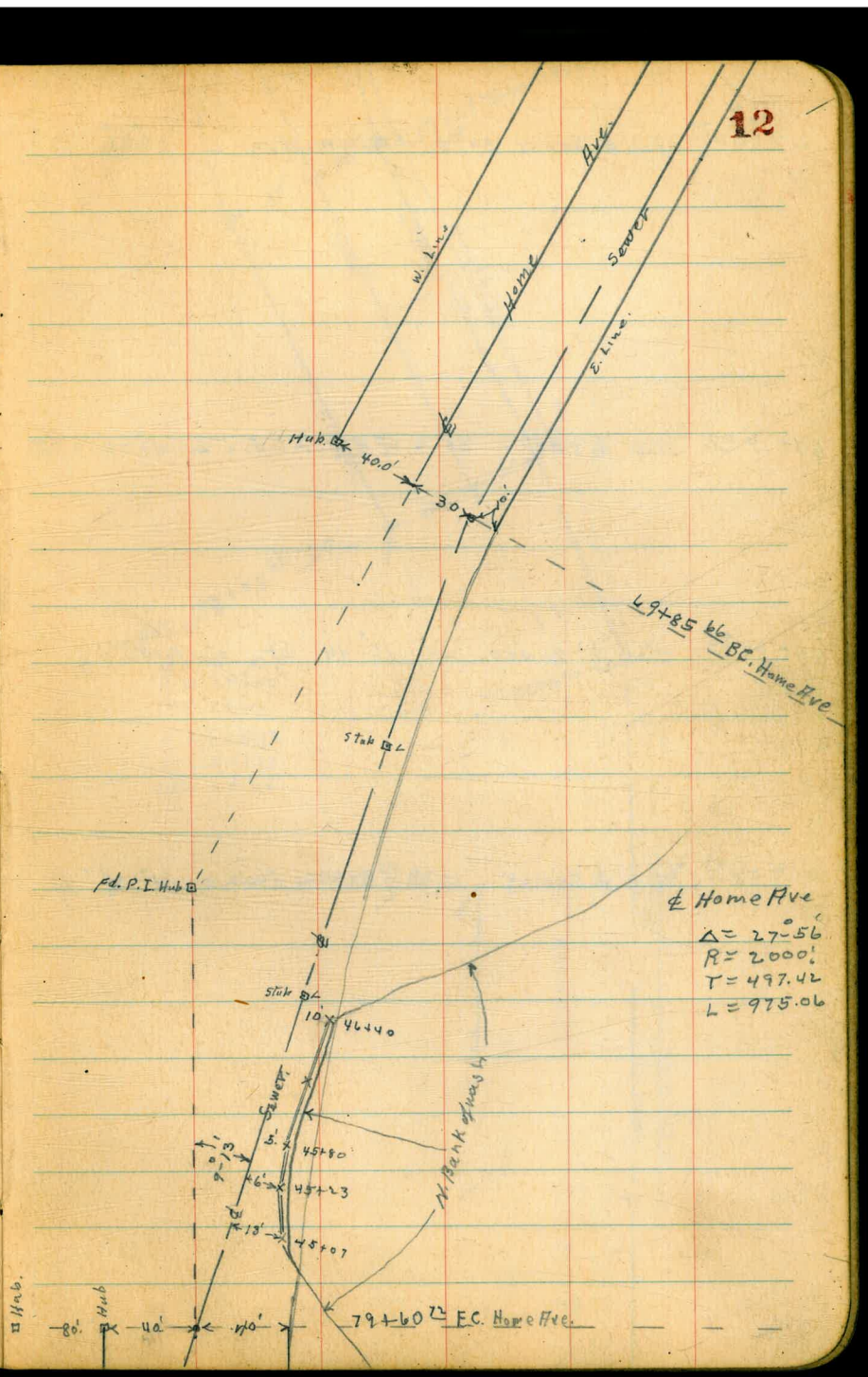


52+20.92 ℄ Stub △ 4°-14' Rt.

49+40.06 ℄ Stub △ 6°-59'-30" Rt.

46+48.24 ℄ Stub. △ 7°-29'-30" Rt

42+56.26

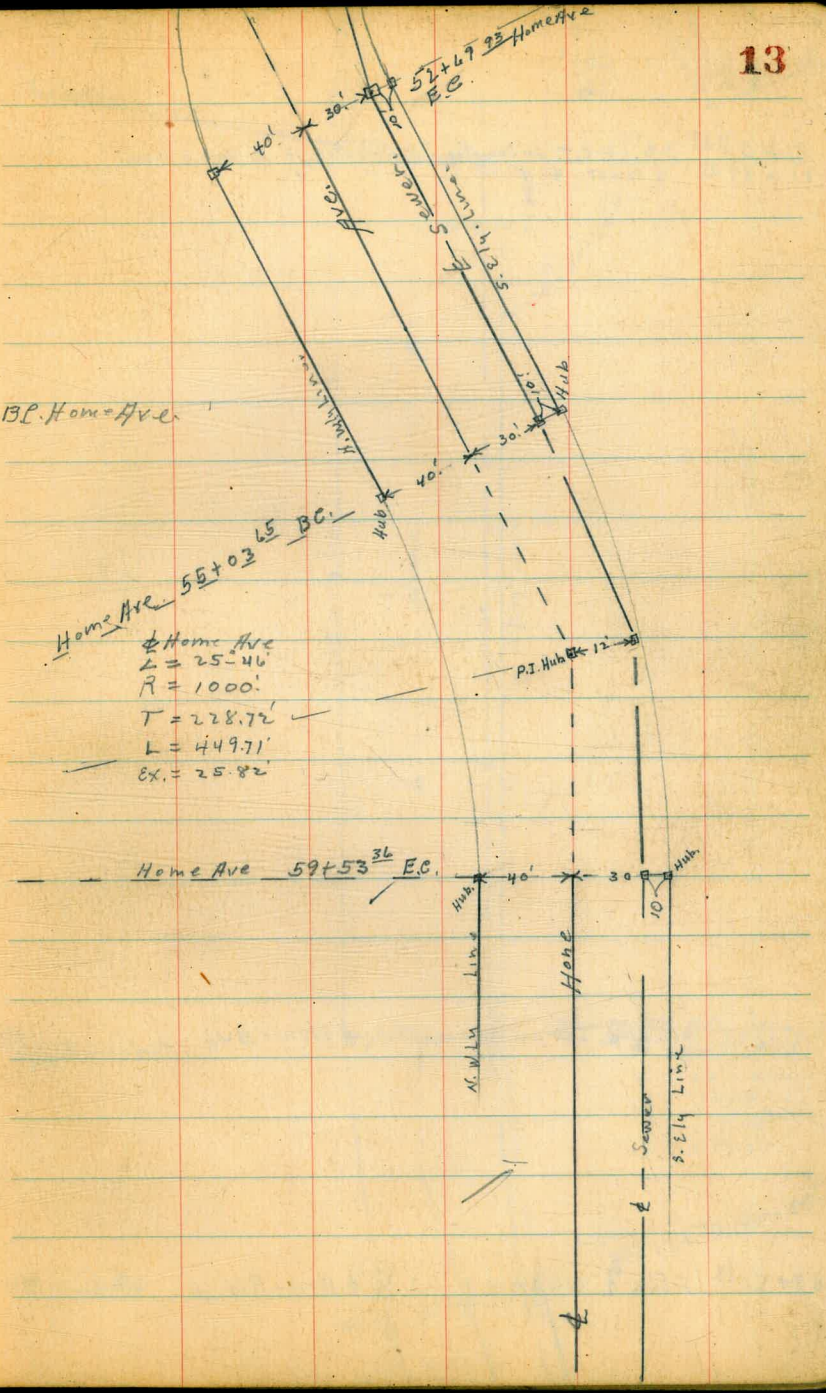


69+50.79 stub & Sewer 30' S. of ℄ Home Ave ∠ 6°-41' Rt.

67+17.07 stub & Sewer 30' S. of ℄ Home Ave ∠ 4°-31' Lt.

64+84.95 stub & Sewer ∠ 16°-44' Lt. ctr Curve

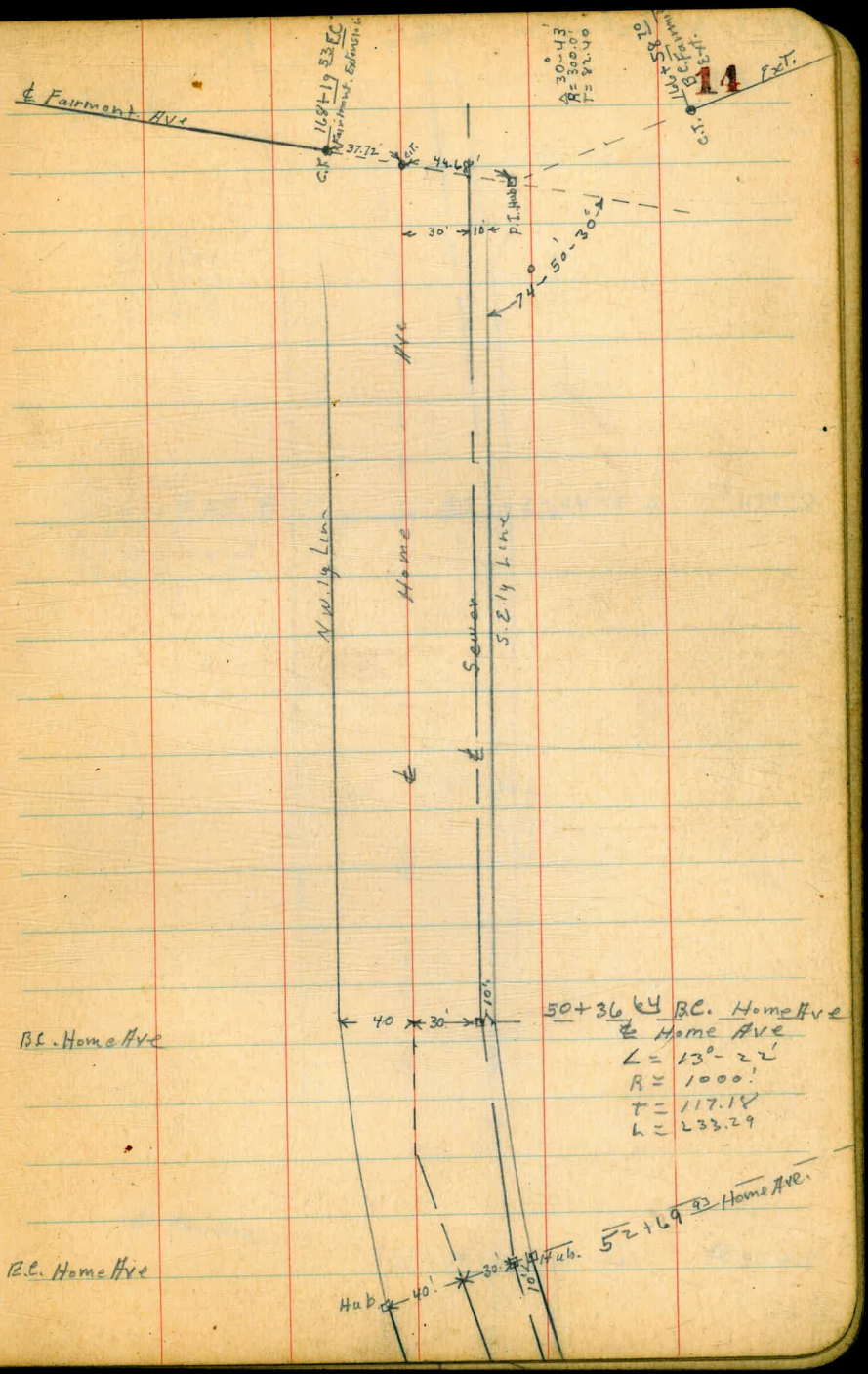
62+52.83 stub & Sewer 30' S. of ℄ Home Ave ∠ 4°-31' Lt



81+57 35 30'. Lt. C.T. on Semitan. Fairmont Ext & Home Ave
81+49 22 & Sewer. & " " " " "

71+76 57 Stub & Sewer 30'. S.E.ly & Home Ave ∠ 6°-41' Rt. B.C. Home Ave

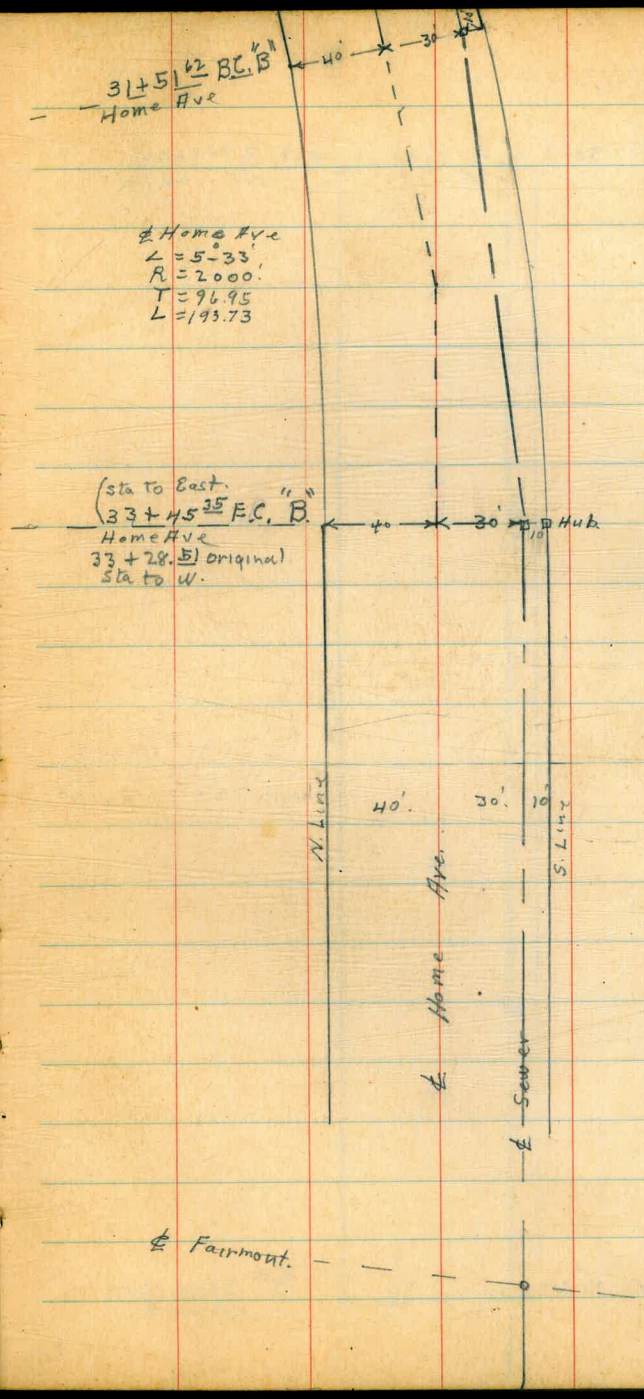
69+50 79 Stub & sewer 30' S.E.ly & Home Ave ∠ 6°-41' Rt B.C. Home Ave



90+81 24 ∠2°-46'-30" Lt.

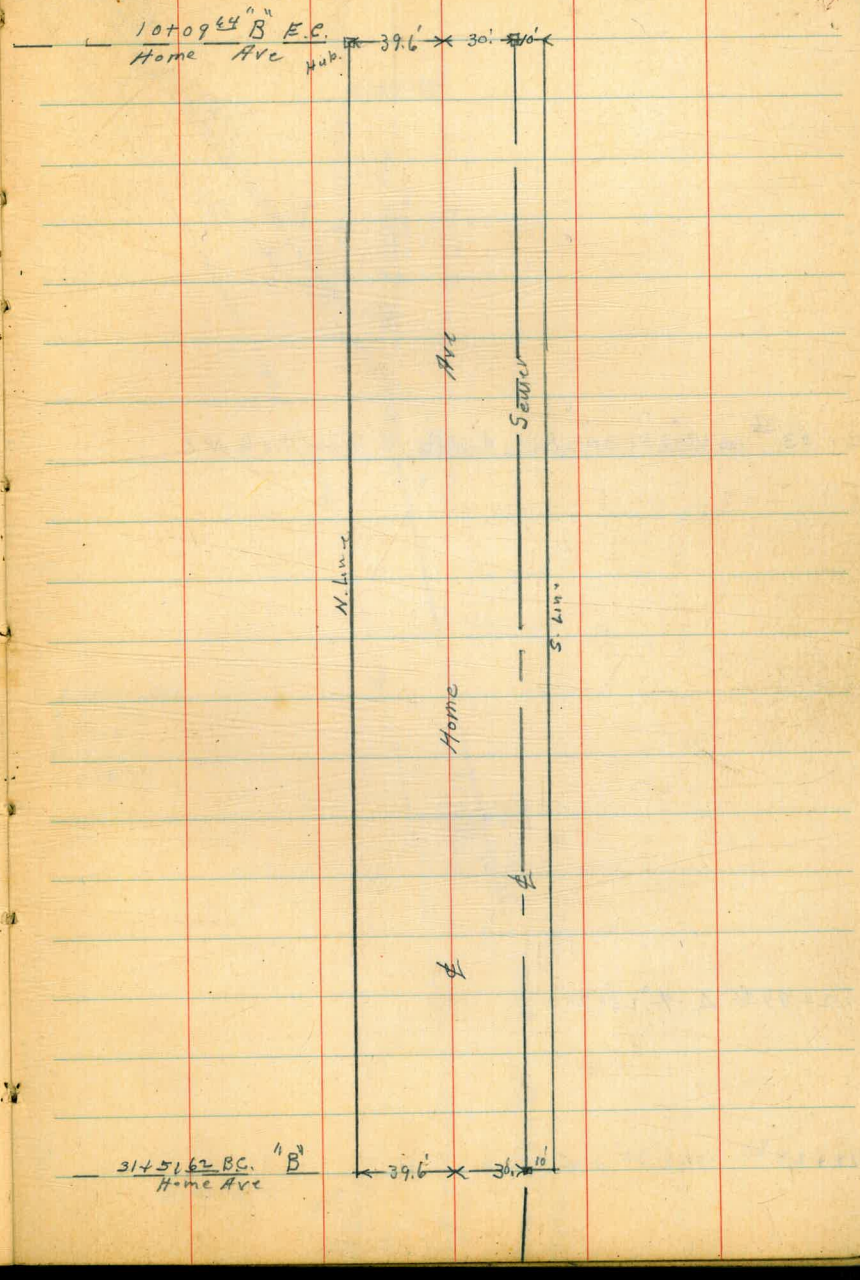
88+84 70 ∠ 2°-46'-30" Lt.

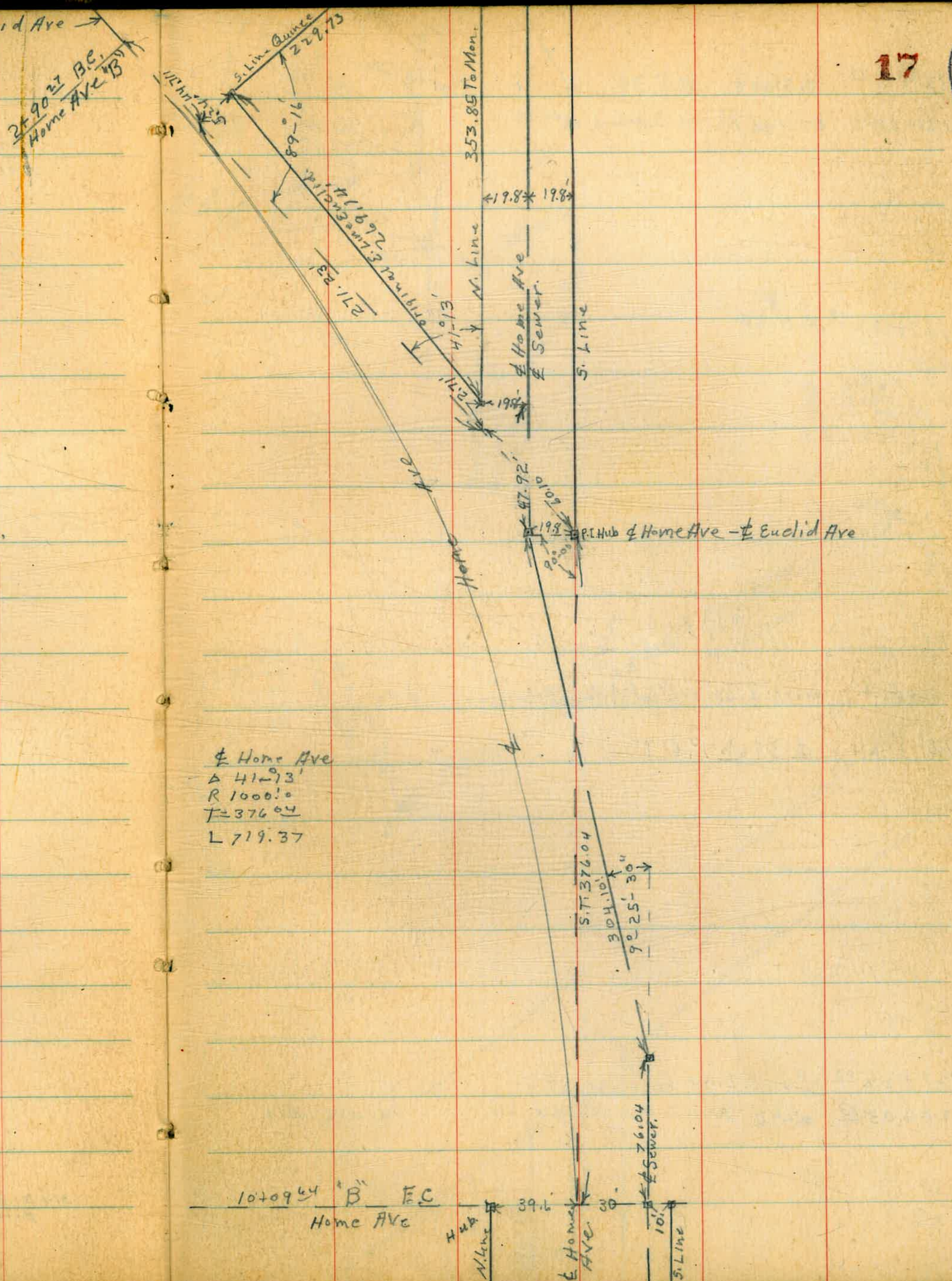
81+49 32 S. Tan. Fairmont Ave Est.



112+23.22 30' S. of ℄ Home Ave

90+81.24 ∠ 2°-46'-30" Lt.





116+03.36 ∠ 9°-25'-30" Rt. ℄ stub ℄ Home Ave to N. E.

112+99.26 Δ 9°-25'-30" Lt.

112+23.22 stub 30' S. of ℄ Home Ave

131+35.14 △ stub ℄ MH.39

131+25.12 417'Lt. of ℄ Fd. spk. Rumseys. △

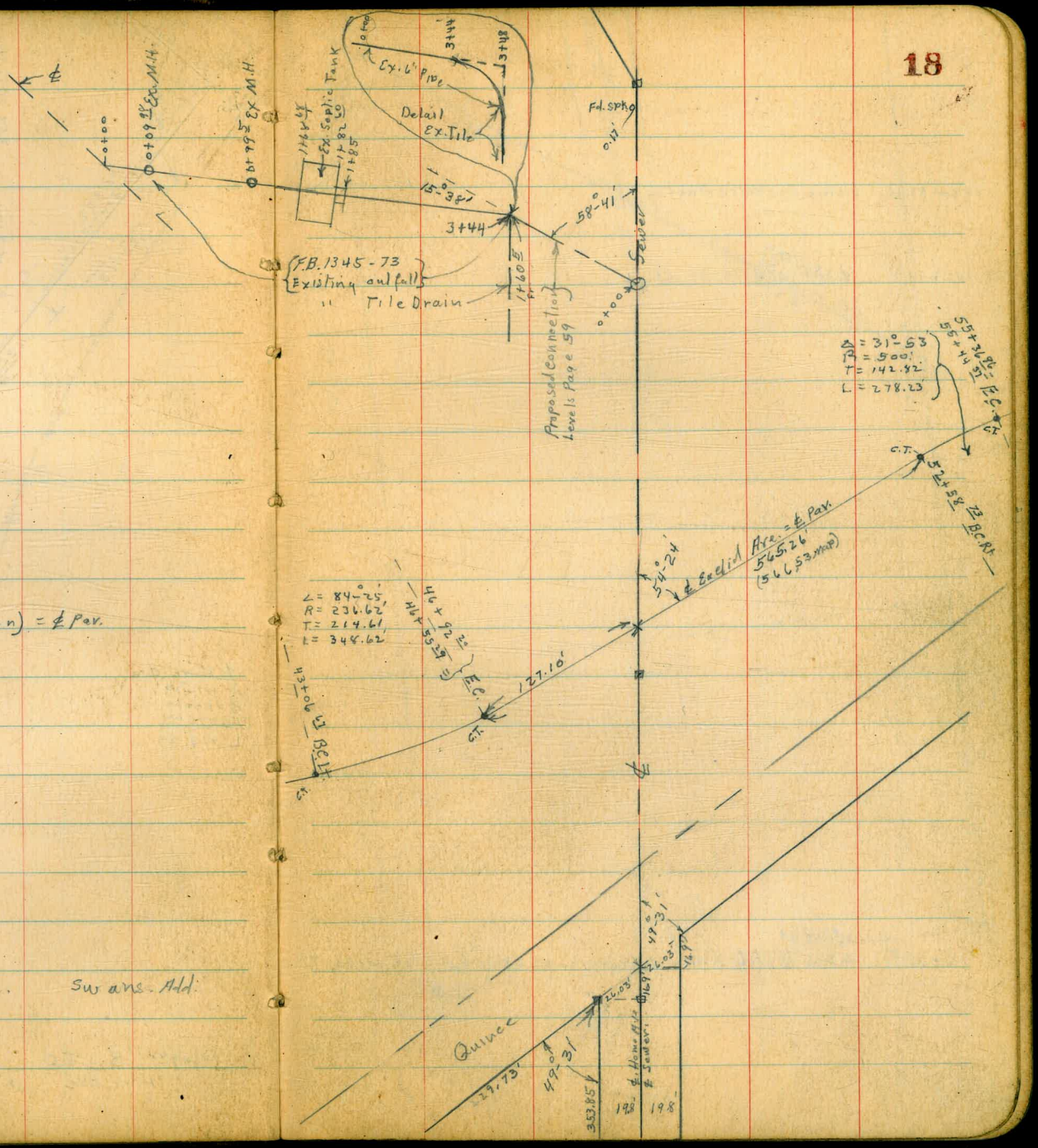
127+52.18 M.H.38

121+42.16 cross ℄ 60'. St (Euclid Ave Extension) = ℄ Pav.

121+24 ℄ stub P.O.T.

120+22.03 P.I. S. Line Quince st.

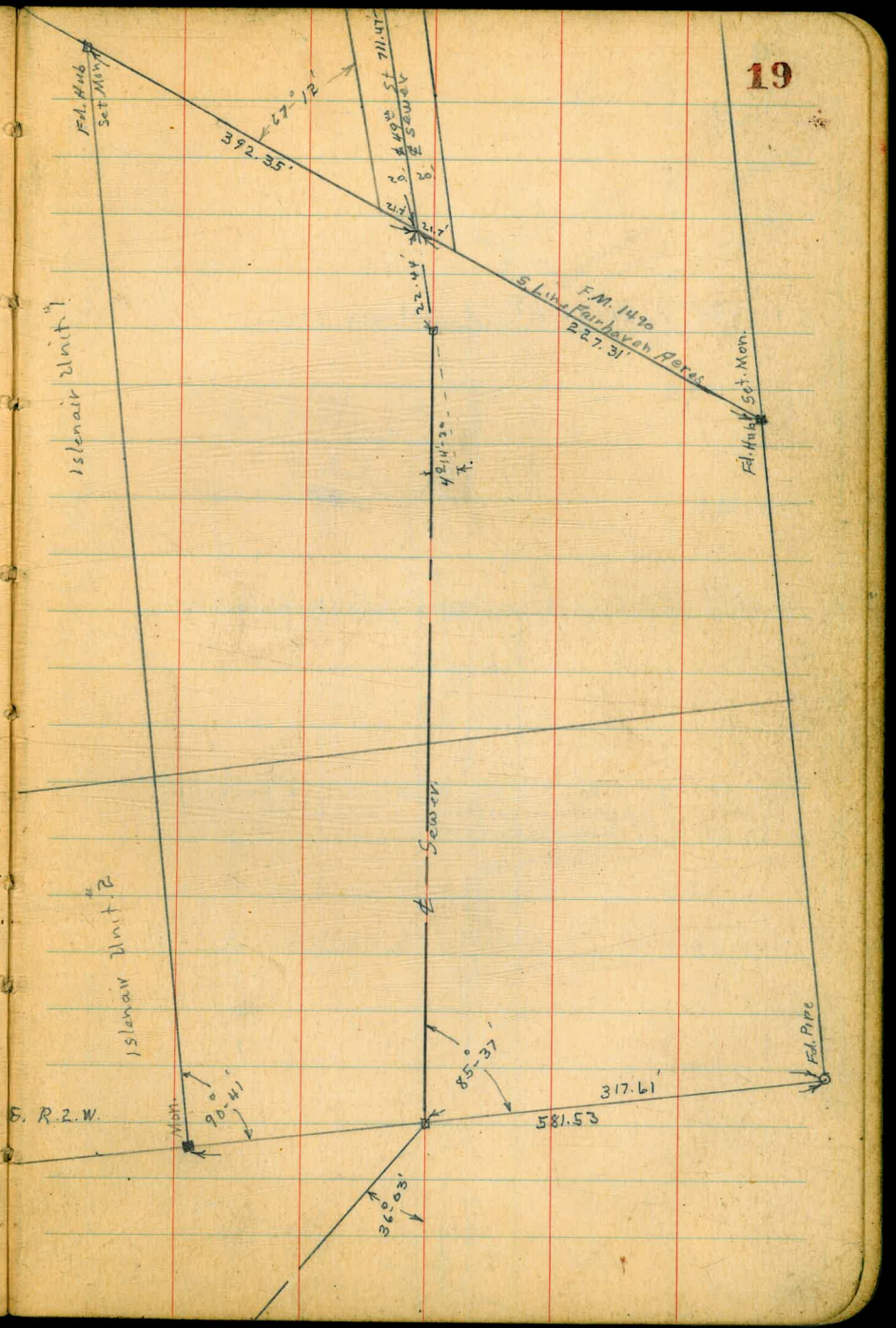
120+05.13 stub ℄ Rt. ℄ to Mon N.E. cor Blk. Swans Add.



142+37.10 S. Line Fairhaven Acres.

142+14.66 ℄ stub ∠ 4°-14'-30" Lt

131+35.14 31°-03' Lt.
△ stub ℄. P.I. S. Line N. 15 Acres. of S.W. ¼ of N.E. ¼ of Sec 33, T.16 S, R.2.W.



155+12 83

151+62 71 ∠ 37°-47' Rt. ℄ Ontario St.

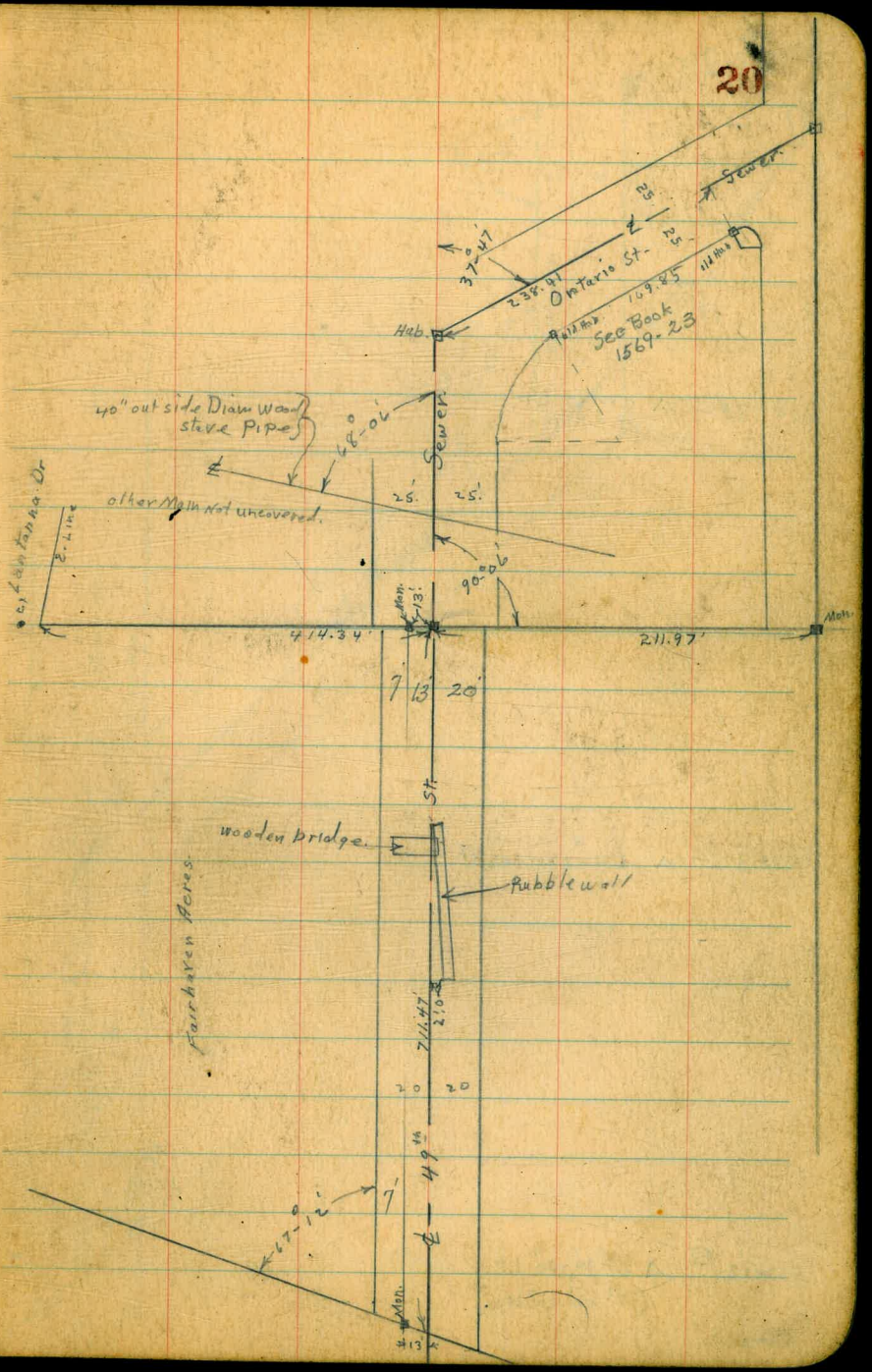
150+58 5

149+48 57 P.O.T. N. Line Fairhaven Acres.

145+38 ℄ = W. Face N. End Rubble wall ε Bank of wash
145+31 N side wooden bridge
145+23 S side wooden bridge

144+54 ε Rt. = S. End. Rubble wall ε bank of wash

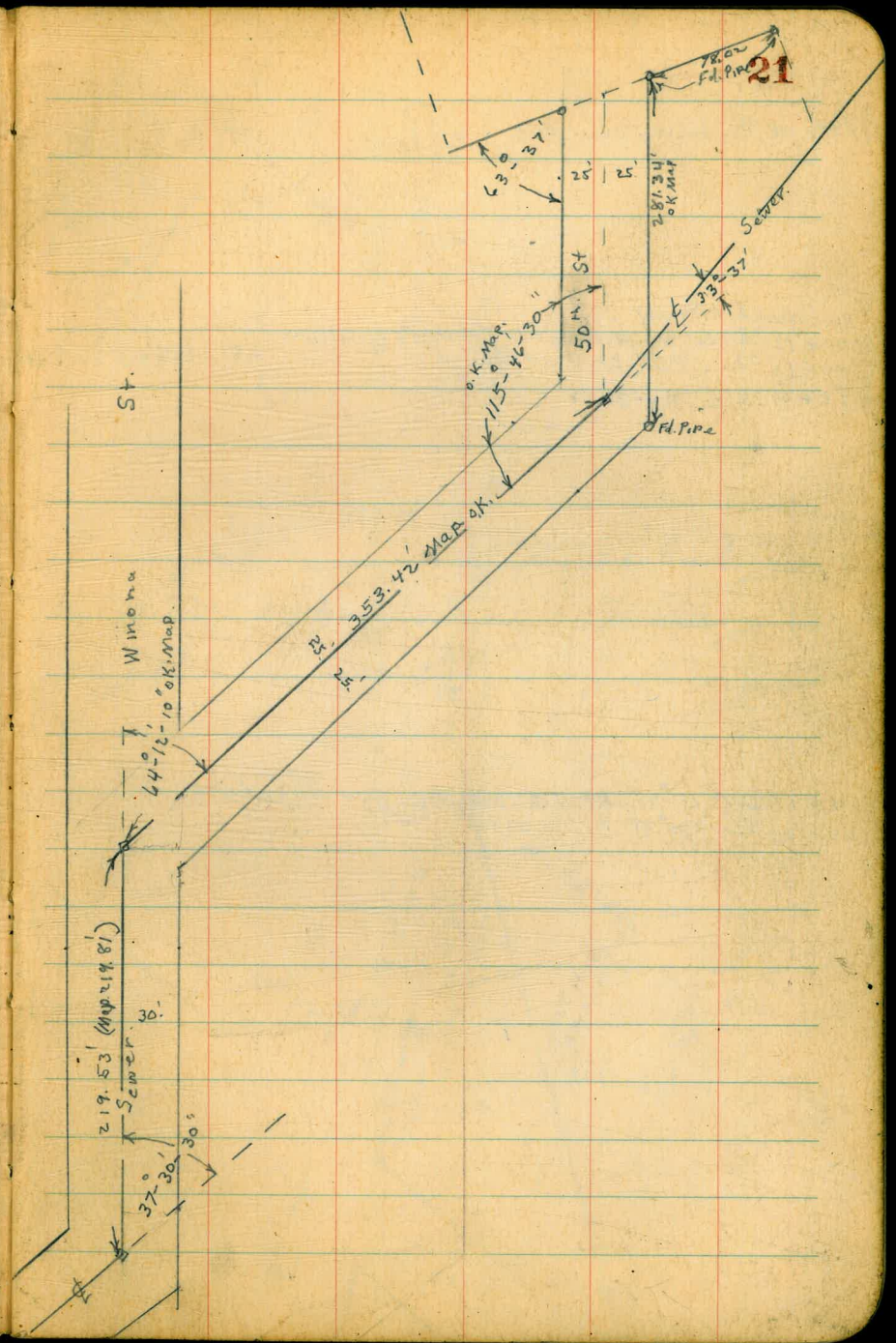
142+37 10



160+85.78 △ 33°-37' Lt
O.K. Plans.

157+32.36 △ 64°-12'-10" Rt

155+12.83 △ 37°-30'-30" Lt.
(37°-29'-40" Map)

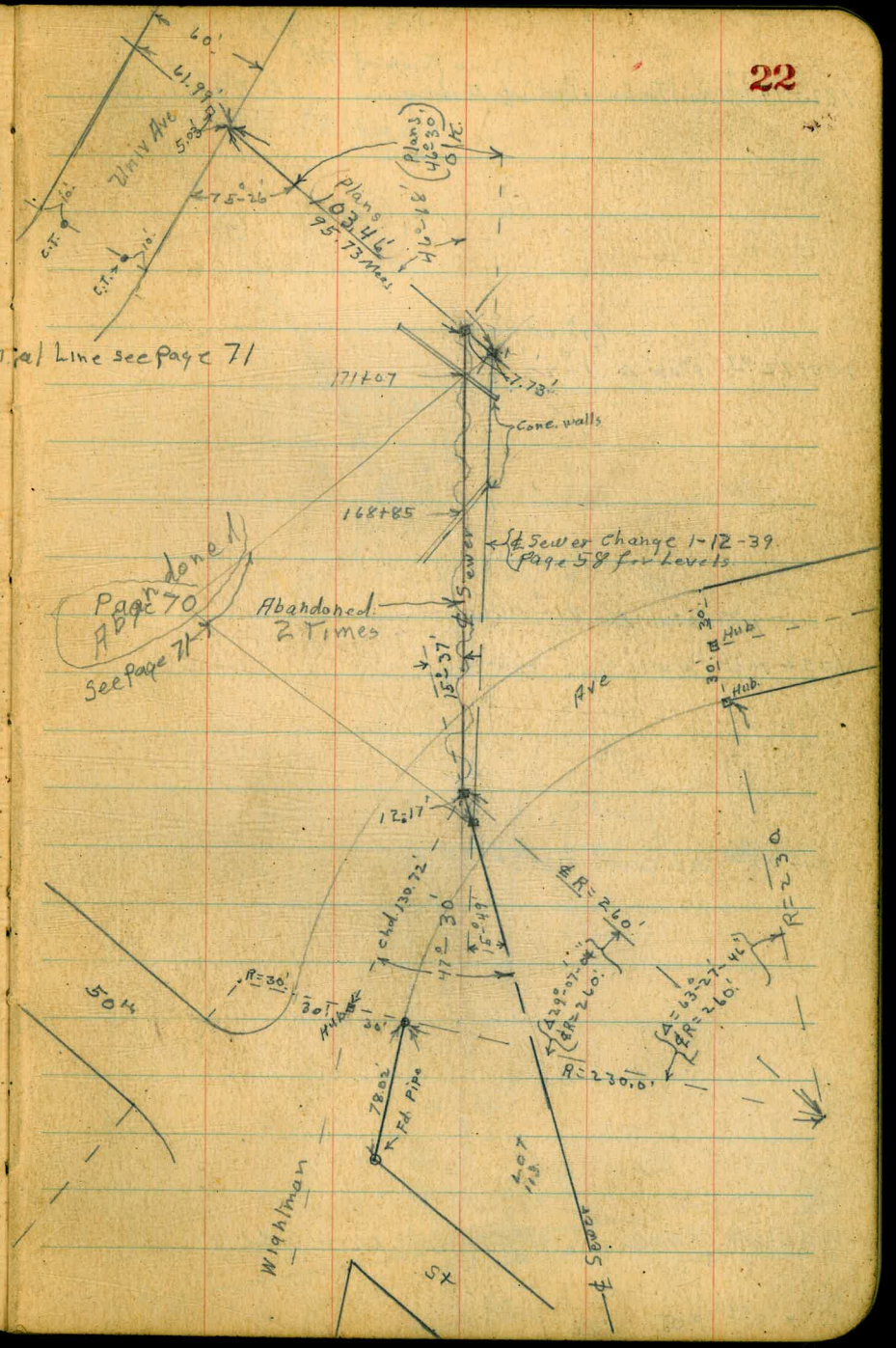


172+08 ℄ s. line Univ. Ave

Use ahead. Original,
171+12.98 Δ 46-18 Lt = P.O.T. change } Equation
171+15.09 P.O.T. change
171+07.36 Δ 46-30 Lt. ——

} = 171+16.13 Final Line see page 71

164+97. Stub Δ 15°-37' Rt. ℄ Wightman Ave Abandoned.
164+84.83 Δ 15°-49' Rt change



182+94.39 Nail Top Fence Post { S. Line Fairmont Add & Alley } Δ 59°-17' Rt

(1°-25' Plan)

180+72.09 stub Δ 1°-23' Lt.

(41°-08' Plan)

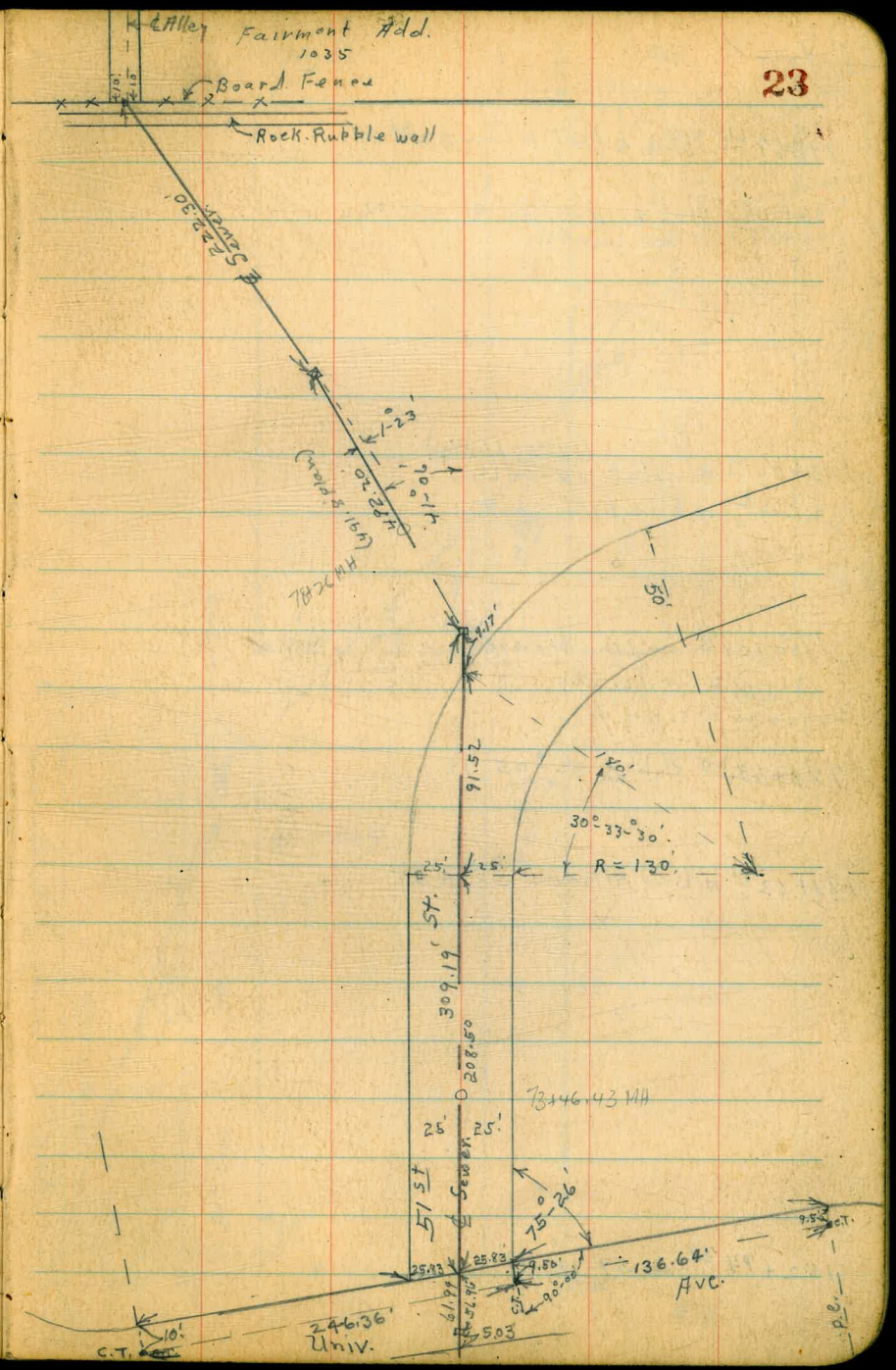
175+79.89 stub Δ 41°-06' Lt.

175+70.22 N.W'ly Line 51st St.

174+79.20 B.C. Curve 51st St.

172+70.70 N. Line Univ. Ave P.O.T. Cross. in Pav.

172+13.74 P.O.T. stub



197+69.66 stub ℄ P.O.T. W. Line 52nd St.

196+28.27 stub ℄ ∠ 41°-55' Rt. o K. Plan
196+08.74 stub W. Line Alley

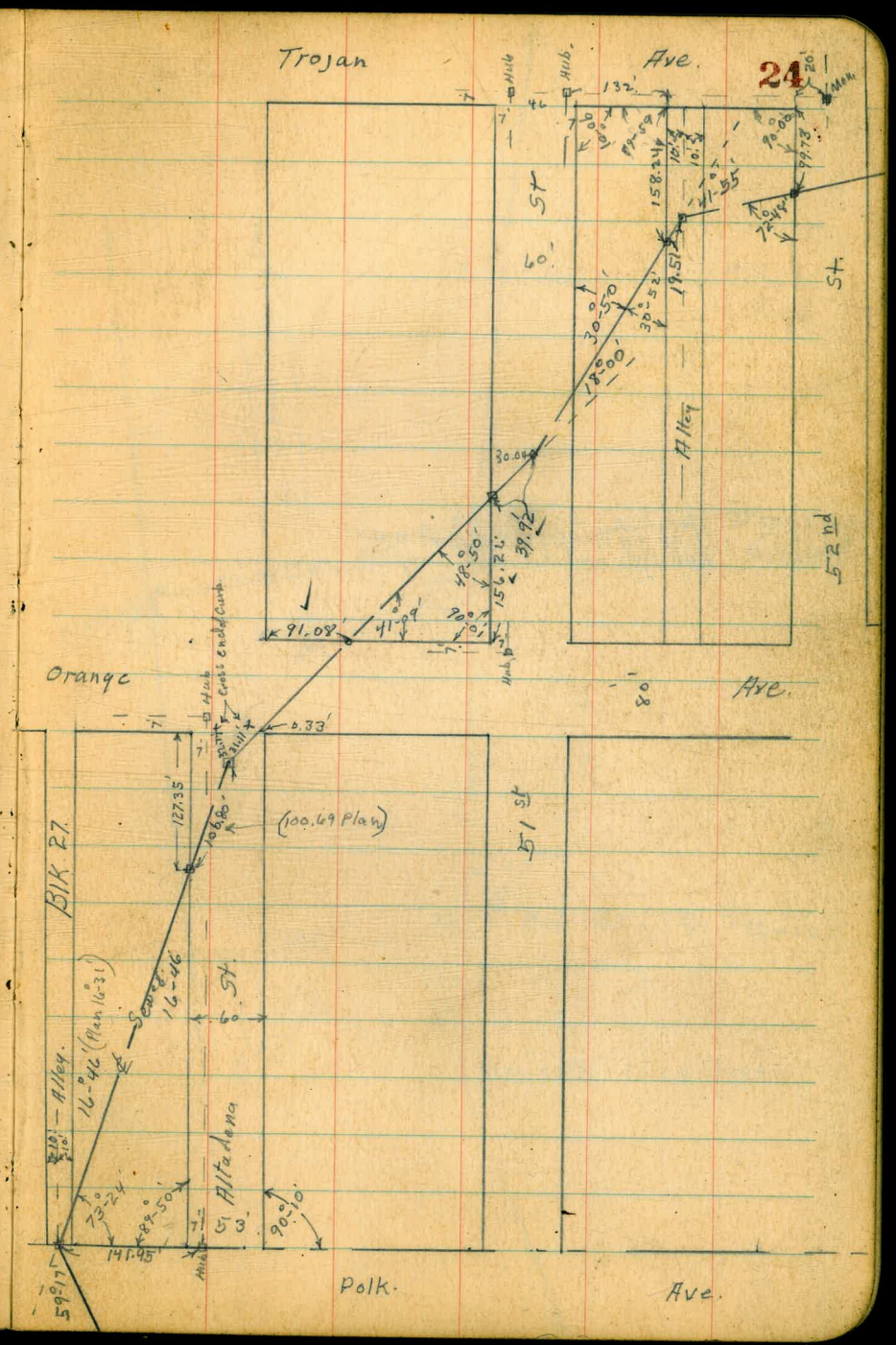
193+06.59 ℄ stub 14°-00' Lt. (17°-50' Lt Plan)
192+66.67 W. Line 51st

190+29.44 = N. Line Orange Ave
190+06.74 N. conc el
189+30.32 S. conc el.

188+69.40 stub △ 32°-05' Rt. o K. Plan

187+62.40 W. Line Altadena St. P.O.T.

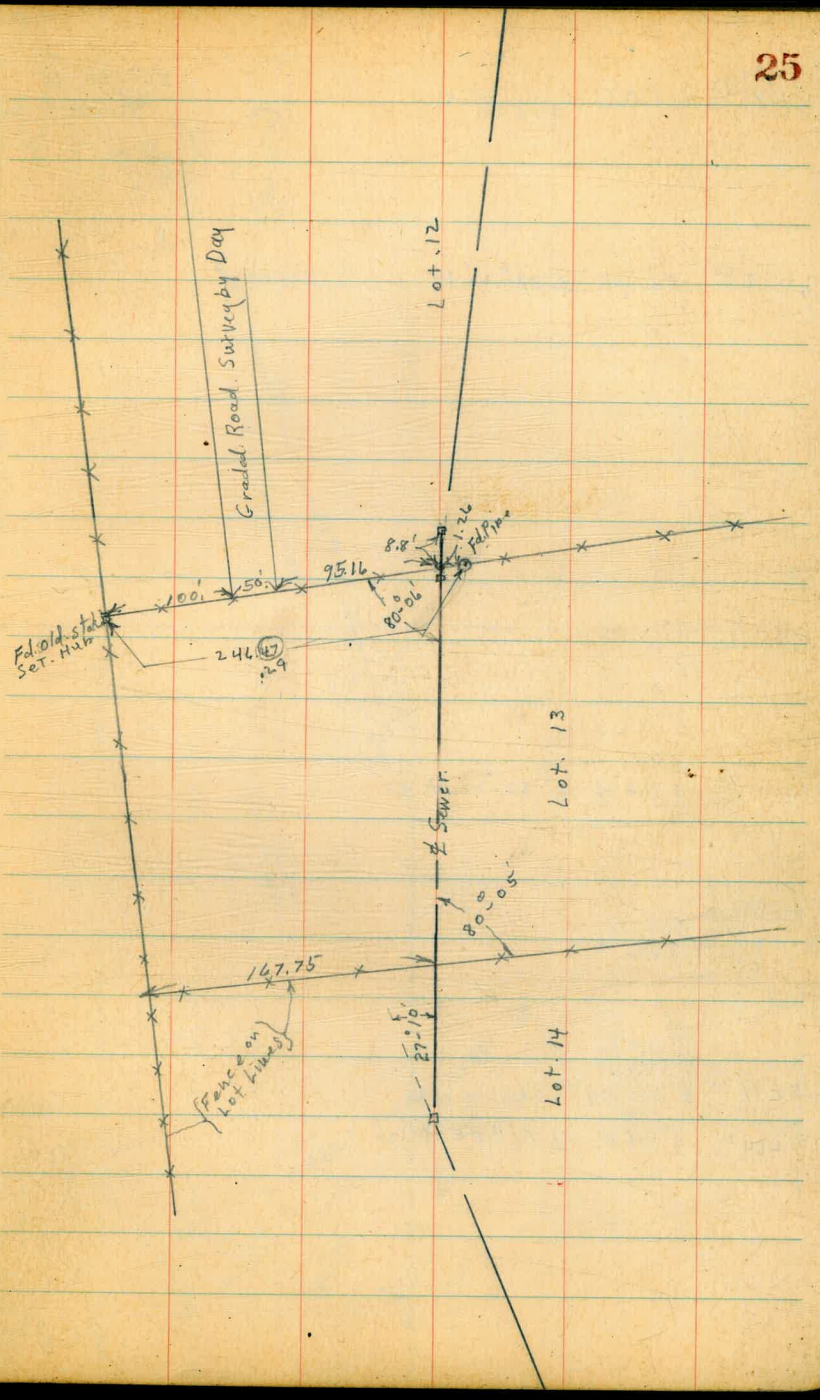
182+94.39 △ 59°-17' Rt. o K. Plan.



207+42.96 Hub. ∠ 5° 30' Rt.
207+37 1.1' Rt = N. side Cypress Tree 30" Diam
207+34.16 Hub-Pot. on Lot Line

202+72.57 Lot Line bet. Lots 14 & 13

201+83.57 ℄ Stub ∠ 27° 10' Rt



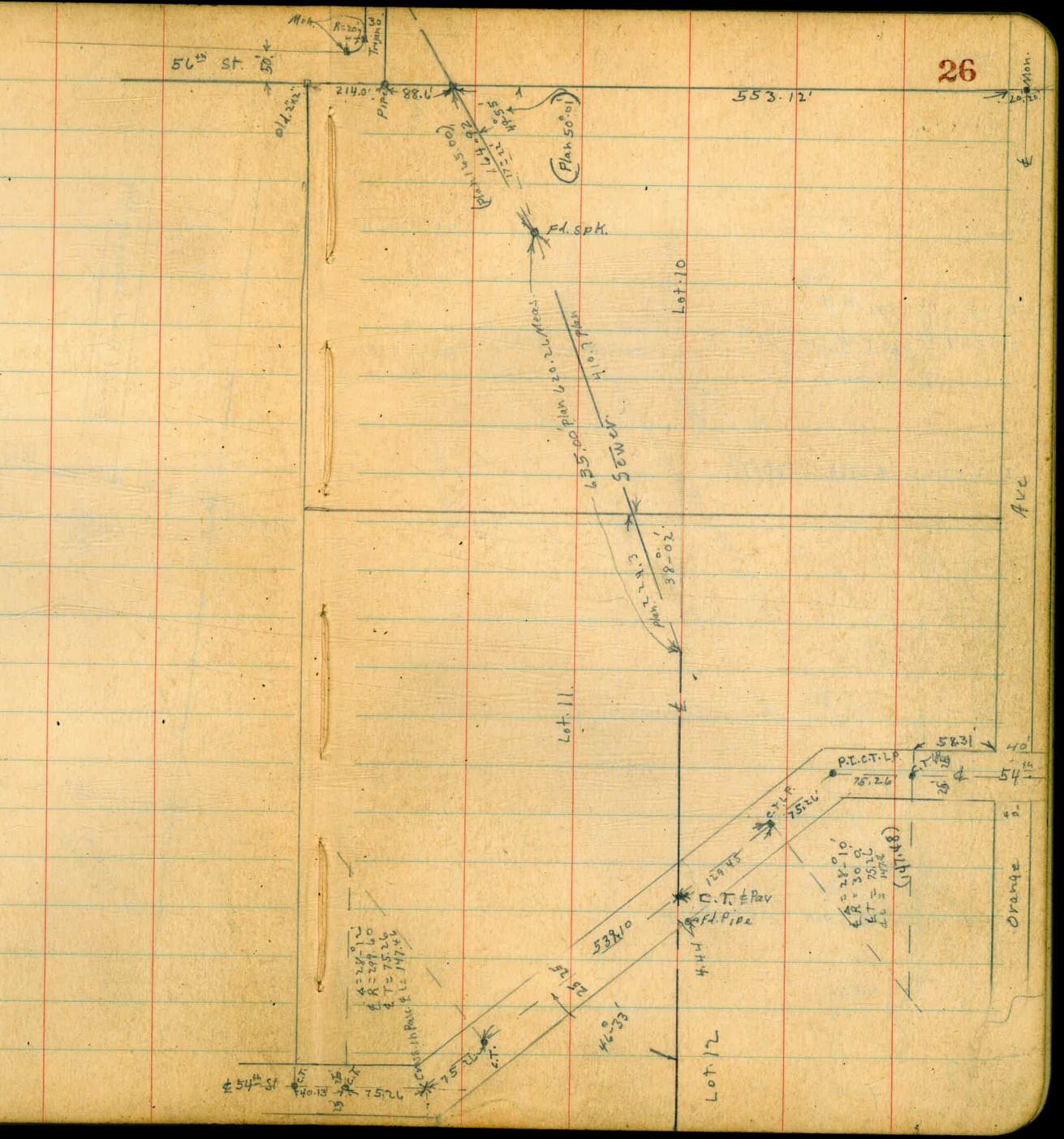
225+86.92 P.O.T. E. Lin. Lot. 10

224+22.00 Fd. spk ∠ 17°-22' Lt.

218+01.74 S Stub ℄ ∠ 38°-02' Lt.

213+94.90 ℄ = ℄ 54th St

213+64.34 4.44 Rt of ℄ Fd Pipe By Day.

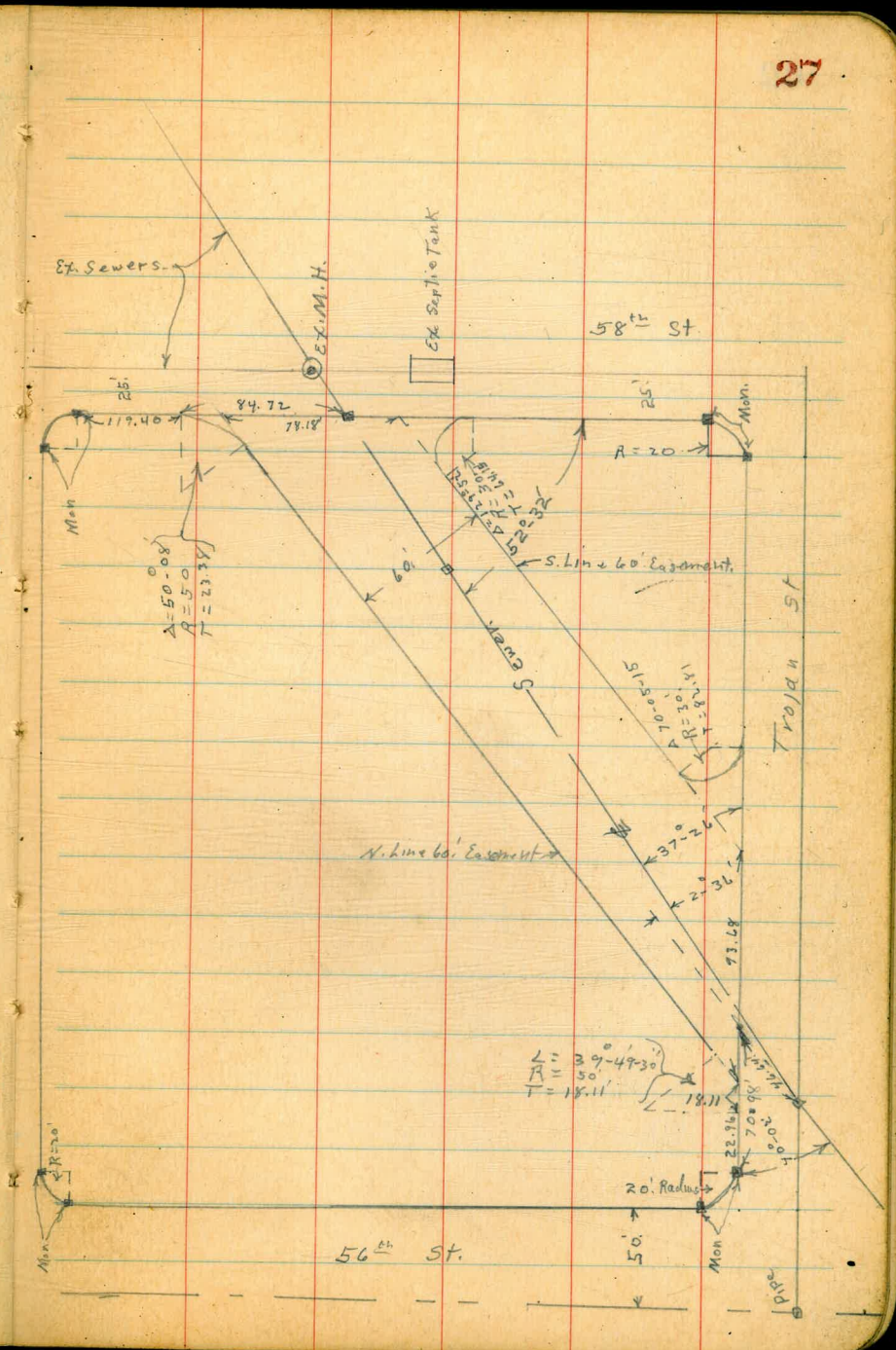


234 + 23 (31.6) Ex. M.H.

233 + 91.62 P.O.T. W. Line 58th St.

232 + 20 ℄ Stak P.O.T.

227 + 24.56 ℄ Hub ∠ 2° 36' Rt.



10-31-38 Levels on Prelim. Sewer in Bdw. Extension from 35th to Home Ave. in Home Ave from Bdw Extension

To Euclid

BM. B. P.	0.82	52.69	51.87	N.W. 35th & E. st (Bdw. Ext.) Federal Blvd.
M.H. (#1) ℄ 35th + 8.8 N of ℄ Bdw Ext	0.88	51.81	Top.	
" " " " " " " " " "	Top. sealed in		F.L.	
M.H. (#2) ℄ 35th + 230.4 S. of ℄ Bdw Ext	5.65	47.04	Top.	
" " " " " " " " " "	15.85	36.84	F.L.	
M.H. (#3) ℄ 35th + 306.8 S. of M.H. (#2)	12.25	40.44	Top.	
" " " " " " " " " "	18.79	33.90	F.L.	

BM	7.18	59.05		51.87	
0+00 = ℄ 35th St		on pav.	8.03	51.02	
+50			7.50	51.5	
+50	2' Rt =	Top. d.	6.90	52.15	
1+00		pav	6.57	52.48	
1+00	2' Rt	Top. d.	5.97	53.08	
1+50	" "	" "	5.10	53.95	∠ incl.
1+50		pav	5.64	53.41	
1+60.9	Face of curb	pav	5.50	53.55	
2+61	" " "	Top. d.	5.04	54.01	
1+74.3	Top. E. Face W. Bridge Abutment		5.20	53.85	
1+74.3	bed of wash.		16.8	42.3	
1+74.3	Bridge Deck.		5.00	54.00	
2+00		wash	16.7	42.4	
2+50		wash	17.8	41.3	
2+67		wash	16.0	43.1	
2+68	Top. Conc. Footing		14.2	44.9	
2+74.4	{ " W. face E. Abutment		14.2	44.9	
2+74.4	Top " " " "		4.75	54.30	
2+74.4	Bridge decks		4.55	54.50	

2+89.93	B.C. Lt. ℄ Sewer	4.3	54.8
"	5' Lt = S pav.	4.81	54.24
3+50	" " " "	4.45	54.60
3+50	℄ Sewer	4.4	54.7
4+08 "	" " P.C.C.	4.24	54.81 ℄ stub
4+08 "	5' Lt = S. Pav. P.C.C.	4.05	55.00
4+50	" " " "	3.77	55.28
4+50	℄	3.7	55.4
5+00	℄	3.5	55.6
5+00	5' Lt S. Pav	3.38	55.67
5+50	" " " "	3.14	55.91
5+50	℄	3.1	56.0
6+00	℄	1.7	57.4
6+00	5' Lt. = S. Pav P.C.C	2.95	56.10
+50	" " " "	2.72	56.33
+50	℄	2.6	56.5
7+00	"	2.5	56.6
7+00	5' Lt. = S. Pav	2.50	56.55
+50	" " " "	2.23	56.82
+50	℄	1.8	57.3
8+00	" "	1.8	57.3

8+00	5' Lt. S. Edge pav.	1.90	57.15	
T.P. X in pav. 6' Lt of 7+91 & EC.	6.27	63.39	1.93	57.12
8+50	℄ Sewer	6.3	57.1	
8+50	5' Lt = Pav	6.04	57.35	
9+00	" " "	5.60	57.79	
9+00	℄	5.7	57.7	
9+50	"	5.2	58.2	
9+50	5' Lt = pav.	5.28	58.11	
10+00	" " "	4.92	58.47	
10+00	℄	4.8	58.6	
10+50	"	44	59.0	
10+50	5' Lt = pav	4.58	58.81	
11+00	" " "	4.20	59.19	
11+00	℄	4.1	59.3	
11+50	℄	4.0	59.4	
11+50	5' Lt. pav	3.90	59.49	
12+00	" " "	3.53	59.86	
12+00	℄	3.8	58.6	
12+03	(5.5 Rt of ℄ Sewer = S El End 18" Con. Iron Pipe Culvert Inlet. Rt. Lst to Pav.	8.6	54.8	F.L.

63.39

12+50	5' Lt. = pav	3.21	60.18	
12+50	℄ sewer	3.2	60.2	
13+00	" "	3.0	60.4	
13+00	5' Lt = pav	2.88	60.51	
+50	" " "	2.67	60.72	
+50	℄	2.62	60.77	Top. Headwall
+53 Net for profile	℄ SE 14 End 18" Cor. Iron FL	5.00	58.39	culvert at Rt Lt
14+00	"	2.7	60.7	
14+00	5' Lt = pav	2.47	60.92	
+63 38	" " " B.C. Rt	2.38	61.01	
+63 38	℄ B.C. Rt	2.6	60.8	
T = P.X in Pav Lt. Lt of 14+63 38 P.C.	8.66	69.66	2.39	61.00 ✓
15+00	℄	8.5	61.2	
15+00	5' Lt. pav	8.53	61.13	
+50	" " "	8.10	61.56	
+50	℄	8.3	61.4	
16+00	"	8.1	61.6	
16+00	5' Lt. pav	7.80	61.86	
+55 13	" " " E.C.	7.42	62.24	
+55 13	℄ E.C.	7.6	62.1	

69.66

17+00	℄ sewer	7.1	62.6
17+00	5' Lt. pav	6.86	62.80
+50	" " "	6.31	63.35
+50	℄	6.2	63.5
18+00	"	5.7	64.0
18+00	5' Lt. pav	5.87	63.79
+50	" " "	5.40	64.26
+50	℄	5.5	64.2
19	"	5.1	64.6
19	5' Lt. pav	4.98	64.68
+50	" " "	4.31	65.25
+50	℄	4.8	64.9
20	"	4.4	65.3
20	5' Lt. = pav	3.73	65.93
+50	" " "	3.14	66.52
+50	℄	3.5	66.2
21	"	2.8	66.9
21	5' Lt. pav	2.45	67.21
+50	" " "	1.80	67.86
+50	℄	2.2	67.5
22	"	1.5	68.2

69.66

22	5' Lt = pav	1.20	68.46	
T.P.	7.70 76.52 ✓	0.84	68.82 ✓	
+50	5' Lt = pav	7.56	68.96	
+50	℄ Sewer	7.7	68.8	
23	" "	7.3	69.2	
23	5' Lt = pav	7.12	69.40	
+78.90	Δ 2.7' " "	6.43	70.09	
+78.90	℄ Sewer Δ stub	6.67	69.85	
24+50	" "	5.3	71.2	
24+50	5' Lt. = pav	5.42	71.10	
24+79	0.3 Lt of ℄ Sewer Line — S. End. inlet 12" Cor. Iron Culvert. at Rt ∠ to Pav. With Conc. Box. Inlet	7.55	68.97	Not for Profile F.L.
25	5' Lt = pav	4.80	71.72	
25	℄	4.7	71.8	
+50	"	4.3	72.2	
+50	5' Lt = pav.	4.23	72.29	
26	" " "	3.65	72.87	

76.52

33

26	℄ Sewer	3.4	73.1	
+50	" "	3.2	73.3	
+50	5' Lt = pav	3.17	73.35	
+96.67	Δ 44°-43' Lt. ℄ Sewer	2.8	73.7	
T.P. C.T. ℄ Home Ave 8.5' E. of P.I. ℄ Bdw. Ext.	4.61	79.51	1.62	74.90 = 75.12

F.B. 1437 P. 63. Home Ave. B.M. 0.22 Below Home Ave B.M.s.

27+03 ℄ = S. Edge cone pav	5.70	73.81	
27+53 ℄ = N " " "	5.13	74.38	
27+62.5 = N " Asphalt "	5.10	74.41	
27+70 Top. Bank	5.2	74.3	
27+76 Top. conc. Footing Flood control Wall	12.70	66.81	
27+77 bed of wash.	14.4	65.1	
27+77.5 0.8 Rt. Top. W. End. bridge abutments	4.73	74.78	
27+79.5 0.8 Rt. Top. Footing " " "	13.70	65.81	
27+80 ℄ bed of wash	15.5	64.0	
10' Rt. of ℄ = Deck. S.W. Cor Bridge	4.80	74.7	
27+92 wash,	12.0	67.5	
28+45 "	12.0	67.5	
28+55 "	10.8	68.7	
28+55.5 0.8' Rt. = Top. W. End N. Abutment	7.02	72.49	
10' Rt of ℄ = Deck N.W. Cor Bridge	4.34	75.17	

		79.51		
28+65		8.5	71.0	
+80		7.2	72.3	
+85		5.5	74.0	
29+00		5.3	74.2	
+10		7.0	72.5	
+50		6.4	73.1	
30+00		5.6	73.9	
+50		4.5	75.0	
31+00	℄ Sewer	4.0	75.5	
31+00	10' Rt = Home Ave Rdw.	2.7	76.8	
+50		3.3	76.2	
32+00		2.4	77.1	
+50		1.8	77.7	
33+00		0.9	78.6	
T.P.	7.69	86.75 ✓	0.45	79.06 ✓ Nail Tel Pole E side Home Ave
+25			7.1	79.7
+30			5.2	81.6
+50			2.9	83.9
+90			2.2	84.6

		86.75		
34+00			3.3	83.5
34+00	10' Rt. W edge {Home Ave Rdw		6.7	80.1
+50			5.5	81.3
35+00			5.1	81.7
35+00	-60' Rt = W. side wash.		9.8	77.0
+45	2.5' Rt = F.L. Inlet 22" Steel pipe Culvert		6.9	79.9
+46	℄ ground		6.0	80.8
+55	" "		8.9	77.9 wash to W.W.
+80			7.4	79.6 " " "
+85			4.8	82.0
36+00			4.8	82.0
36+00	10' Rt. Home Ave Rdw.		4.0	82.8
+50			4.2	82.6
37+00			3.2	83.6
T.P.	10.78	96.20 ✓	1.33	85.42 ✓
+50			12.5	83.7
38+00			12.3	83.9
+50			12.1	84.1
39+00			11.5	84.7

96.20

39+00 -10'Rt. = Home Ave Rdw.		8.2	88.0	
39+00 - 60'Rt. W. edge Wash		13.5	82.7	
+50		10.5	85.7	
40+00		9.6	86.6	
+48 96 Δ 9°-13' Rt.		7.8	88.4	
" " " " " "	12'-Rt. Stub	5.93	90.27 ✓	
41+00		6.3	89.9	
+25		4.0	92.2	
+43 88 ℄ Stub		3.57	92.63 ✓	
+50 ℄ = W. Home Ave Rdw.		4.0	92.2	
42+00		3.3	92.9	
+56 26 = ℄ Home Ave at E.C.		2.3	93.9	
43+00		1.2	95.0	
+50		0.4	95.8	
T.P.	11.49	106.86 ✓	1.03	95.37 ✓
44+00			10.1	96.8
+35	E. side Rdw. Home Ave		9.9	97.0
+50			9.0	97.9
+70			8.6	98.3

106.86

+85		10.0	96.9	
45+00		10.3	96.6	
+07' - 13'Rt = S. End. Flood control Fence		11.6	95.3	Top. Bank,
+07' 15' " = W. edge wash:		16.5	90.4	
+23 - 6' Rt Δ in Flood control Fence		11.0	95.9	Top. Bank.
+50 ℄		10.3	96.6	
+80 - 5' Rt. Δ in Flood control Fence		11.7	95.2	Top. Bank.
46+00 ℄		11.1	95.8	
46+00 - 9' Lt = S. Home Ave Rdw		6.7	100.2	
+25' ℄		11.9	95.0	
+80' ℄		7.6	99.3	
+40 - 10' Rt. E. End. Flood Control Fence		9.8	97.1	Top. Bank
+40 - 11' Rt. NW. side wash.		15.3	91.6	
46+48 24 ℄ Δ 7°-29'-30" Rt.		6.91	99.95	℄ Stub
T.P.	11.61	111.56 ✓	6.91	99.95 ✓
+95			13.0	98.6
+97			16.0	95.6
47+06			14.2	97.4
+70			8.4	103.2
48+00			8.2	103.4
+50			6.4	105.2

		111.56		
49+00			5.6	106.0
+40.06	℄ stub		5.84	105.72
+40.06	12' Lt = S. Home Ave Rdw.		5.1	106.5
+50			7.0	104.6
+75			9.1	102.5
50+00			9.5	102.1
+50			9.5	102.1
51+00			9.9	101.7
+50			8.8	102.8
+74			9.3	102.3
+80			7.3	104.3
52+20.92			7.0	104.6
" "	13' Lt = S. Home Ave Rdw.		3.2	108.4
" "	340' Rt ℄ wash.		12.7	98.9
+50			6.7	104.9
+85			5.0	106.6
+87			8.0	103.6
53+00			8.0	103.6
+50			4.8	106.8
T.P.	9.68	119.84 ✓	1.40	110.16 ✓

		119.84		
54+00			11.6	108.2
+50			9.3	110.5
+53			11.4	108.4
55+00			10.0	109.8
+25			8.6	111.2
+35			6.8	113.0
+50			7.0	112.8
56+00			5.2	114.6
" "	12' Lt Home Ave Rdw		7.5	112.3
+50			6.5	113.3
57+00			5.4	114.4
+40			5.3	114.5
+60			6.5	113.3
+73			2.0	117.6
+85	3½ Lt. S. End Outlet Box [Culvert 4' wide		7.0	112.8
+85	℄ sewer		8.9	110.9
+93			4.6	115.2
58+00			4.2	115.6
+50			4.7	115.1
59+00			5.6	114.2
" "	65' Rt = wash		11.0	108.8
" "	11' Lt Home Ave Rdw.		3.9	115.9

Top. Box Fl. Covered.

		119.84		
59+50			6.8	113.0
60+00			7.8	112.0
+50			5.5	114.3
61+00			5.0	114.8
+50			4.7	115.1
62+00			3.8	116.0
T.P.	9.30	129.03 ✓	0.11	119.73 ✓
+52.87	∠ 4°-31' Lt.		12.3	116.7
63+00			11.4	117.6
+50			10.8	118.2
64+00			9.7	119.3
" "	35' Rt wash		13.0	116.0
+50			10.0	119.0
+84.95	∠ 16°-44' Lt.		9.34	119.69
65+00			8.9	120.1
" "	16' Lt. Home Ave Rdw.		5.2	123.8
+50			8.5	120.5
+50	10' Rt. N. edge wash.		11.8	117.2
+50	100' " S " "		11.2	117.8

		129.03		
66+00			8.7	120.3
+50			9.3	119.7
+60			8.0	121.0
67+00			7.1	121.9
+12	1' Lt. S. End Outlet 18" Conc. Pipe Culvert.		9.1	119.9 F.L.
+17.07	∠ 4°-31' Lt		6.23	122.80 ℄ stub
+17.07	10' Lt. Home Ave Rdw.		3.1	125.9
+50			5.8 ✓	123.2
68+00			5.0	124.0
+50			4.5	124.5
69+00			3.8	125.2
" "	20' Rt. wash		6.0	123.0
T.P.	9.07	136.92 ✓	1.18	127.85 ✓
69+50.79	∠ 6°-41' Rt stub.		11.03	125.89
70+00			10.2	126.7
+50			10.0	126.9
71+00			9.2	127.7
+50			7.8	129.1
+61	5' Lt S. End Outlet 18" Conc Pipe Culvert		10.5	126.4

				136.92
71+64			10.0	126.9
+66			7.3	129.6
+76.57	∠ 6°-41' Rt stub		7.09	129.83
"	10' Lt = Home Ave Rdw.		5.6	131.3
72+00			6.8	130.1
" "	200' Rt = wash.		10.2	126.7
+50			6.1	130.8
73+00			5.7	131.2
+50			4.8	132.1
74+00			4.1	132.8
+50			3.8	133.1
T.P.	9.04	145.67	0.29	136.63
75+00			10.8	134.9
+50			8.5	137.2
76+00			7.2	138.5
76+00	9' Lt. Home Ave Rdw.		8.0	137.7
+50			7.7	138.0
77+00			7.6	138.1
77+00	65' Rt. = wash.		13.4	132.1

				145.67	
+50			8.6	137.1	
+61	32' Lt = S. End Outlet 24" Conc. Pipe Culvert.		10.3	135.4	FL.
+70			6.8	138.9	
78+00			6.0	139.7	
+50			5.4	140.3	
79+00			3.8	141.9	
" "	9' Lt Home Ave Rdw		1.3	144.4	
T.P.	12.34	157.91	0.10	145.57	
+50			13.7	144.2	
80+00			11.2	146.7	
" "	9' Lt = Home Ave Rdw.		9.6	148.3	
+50			9.3	148.6	
81+00			8.0	149.9	
" "	10' Lt = Home Ave Rdw.		6.0	151.9	
BM. B.P. Ely Cor. Box Culvert	6.92	155.00	9.83	148.08 = Fairmont Ave = 148.22 S. of Home Ave 0.14 Below Home Ave	

		155.00		
81+10	℄ Sewer	6.2	148.8	
+32	"	7.6	147.4	
+32	11' Lt. Home Ave Rdw	3.1	151.9	
+32	96' Rt. wash	16.6	138.4	
+39	℄ sewer	3.3	151.7	2.5' Lt of ℄ Elec Light Pole
+47	W. Edge Fairmont Pav.	3.97	151.03	
+67	E " " "	5.03	149.97	
81+75	℄	5.3	149.7	
+80		4.1	150.9	
+97	Fire Hydt. 2.8 Lt of ℄ Sewer	4.53	150.47	on Flange
82+00		4.5	150.5	
" "	70' Rt = Wash	16.6	138.4	
" "	10 Lt = Home Ave Rdw	4.1	150.9	
+15		6.8	148.2	
+50		8.7	146.3	
83+00		8.0	147.0	
" "	5' Rt. Toe Slope	11.8	143.2	
+50		8.2	146.8	
"	5' Rt. Toe Slope	10.5	144.5	
"	45' Rt = wash	14.0	141.0	
+82	2' Rt S. End Outlet 4.0 x 2.0 Box Culvert	11.9	143.1	F.L.

		155.00		
84+00			8.1	146.9
" "	10' Lt Home Ave Rdw.		5.2	149.8
+50			9.5	145.5
85+00			9.0	146.0
+50			7.8	147.2
86+00			7.0	148.0
+25			4.4	150.6
+50			4.0	151.00
+55			6.1	148.9
+90			4.3	150.7
87+00			6.3	148.7
+50			5.8	149.2
T.P.	10.12	164.85	0.27	154.73
88+00			14.4	150.5
" "	12 Lt Home Ave Rdw		9.6	155.3
+25			11.7	153.2
+50			13.4	151.5
+58	2' Lt of ℄ Sewer Elec Co Guy Pole			
+84.70	∠ 2°-46'-30" Lt.		14.0	150.85

		164.85			
88+90			10.6	154.3	
89+50			9.8	155.1	
90+00	100' Rt = Wash		14.0	150.9	
90+00			9.2	155.7	
+50			9.1	155.8	
+81.24	∠ 2°-46'-30" Lt.		7.60	157.20	& stub.
91+00			8.2	156.7	
+50			7.4	157.5	
92+00			5.2	159.7	
" "	9' Lt. Home Ave Rdw		3.4	161.5	
+25			6.0	158.85	
+50			6.3	158.6	
93+00			5.3	159.6	
+31±	2' Lt. = S. End Outlet 1.5×2.7 Conc. Box Culvert.		6.90	157.95	F.L. Not for Profile
+50			3.3	161.6	
94+00			3.3	161.6	
" "	10' Lt. Home Ave Rdw.		0.6	164.3	
T.P.	11.52	175.93 ✓	0.44	164.41 ✓	
94+50			13.7	162.2	

		175.93			
95+00			13.0	162.9	
+50			11.4	164.5	
96+00			11.2	164.7	
+50			10.2	165.7	
97+00			8.5	167.4	
" "	150' Rt = Wash.		14.5	161.4	
+50			7.5	168.4	
+70			7.3	168.6	
+77.5	0.5 Rt = S. End. Outlet 2.5×4.0 Conc Box. Culvert		10.4	165.5	F.L. Not for profile
+78			9.8	166.1	
+88			6.7	169.2	
98+00			7.1	168.8	
+50			7.7	168.2	
+72			7.4	168.5	
+75			9.2	166.7	
99+00			8.7	167.2	
" "	12' Lt = Home Ave Rdw		4.4	171.5	
+19	25 Lt. = S. End. Outlet 1.5×3.0 Conc. Box. Culvert		9.4	166.5	F.L. No profile
+50			6.5	169.4	
100+00			6.2	169.7	
+50			4.8	171.1	

		175.93			
101+00			5.0	170.9	
+50			5.7	170.2	
102+00			3.5	172.4	
+17			2.2	173.7	
T.P.	10.07	185.79 ✓	0.21	175.72 ✓	
+50			13.8	172.0	
103+00			12.7	173.1	
" "	12' Lt Home Ave Rdw.		9.2	176.6	
+50			11.5	174.3	
+50	3' Rt of ℄		13.5	172.3	
+75			12.3	173.5	
104+00			10.4	175.4	
+50			8.7	177.1	
105+00			8.6	177.2	
+25			10.6	175.2	
+50			9.5	176.3	
+60			7.7	178.1	
106+00			7.2	178.6	
+08			6.6	179.2	

		185.79			
+10			8.8	177.0	
+50			8.0	177.8	
+82	3' Lt. { 5-End Outlet 1.5×3.0 Conc. Box. Culvert.		7.7	178.1	F.L. Not profile
107+00			6.7	179.1	
+05			5.5	180.3	
+25			7.0	178.8	
+50			5.5	180.3	
+50	90' Rt. = Wash		9.8	176.0	
108+00			4.3	181.5	
T.P.	9.68	195.28 ✓	0.19	185.60 ✓	
+50			13.0	182.3	
109+00			13.0	182.3	
" "	12' Lt = Home Ave Rdw.		9.0	186.3	
+50			11.0	184.3	
110+00			10.4	184.9	
+15			10.1	185.2	
+20			11.8	183.4	
+50			11.2	184.1	
111+00			9.0	186.3	

195.28

+50		8.1	187.2	
112+00		7.2	188.1	
+23 22	R.O.T. stub & sewer Hub. S. Lin. Home Ave	6.67 7.15	188.61 188.13	
+23 22	" N " " "	6.03	189.25	
+73		6.5	188.8	
+76		8.0	187.3	
112+99 24	Δ 9°-25'-30" Lt.	7.8	187.5	
113+50		5.6	189.7	
+50	5' Rt Nat. Gr	7.2	188.1	
+50	9' Lt Home Ave Rdw.	0.5	194.8	
T.P.	8.15 201.92 ✓	1.51	193.77 ✓	
114+00		12.1	189.8	
114+00	45' Rt = Wash	15.0	186.9	
+50		10.0	191.9	
115+60		9.0	192.9	
+50		7.4	194.5	
116+03 36	Δ 9°-25'-30" Rt.	7.17	194.75	℄ stub
" "	19.8' Rt. P.I. Hub. Home Ave	7.32	194.60	
+28		6.7	195.2	

201.92

116+30	W. side wash.	8.3	193.6	
+56	" "	8.8	193.1	
+56	26'. Lt S. End Outlet.	7.7	194.2	F.L. 4'+4' Box Culvert
+61	E. side wash	8.9	193.0	
+62		7.5	194.4	
117+00		7.6	194.3	
+60		7.5	194.4	
+65		5.7	196.2	
118+00		5.3	196.6	
118+00	7' Rt. N. side wash	9.0	192.9	
+50		4.5	197.4	
119+00		4.4	197.5	
119+00	10' Rt = N. edge wash	8.0	193.9	
+50		3.6	198.3	
T.P.	12.35 209.90	4.37	197.55	
120+05 13	℄ Tub. P.O.T.	10.79	199.11	
" "	19.8' Lt. Man Blk Cor.	11.11	198.79	
+50		9.6	200.3	
+90		8.7	201.2	

Con. Page 44.

11-16-38 Line Change from Sta 30+48 to sta 41+42.85

T.P. Page 34	7.96	87.02 ✓		79.06	Nail in Pole
30+48 Δ 1° 54' 30 Rt			12.0	75.0	
31+00			11.5	75.5	
+50			10.7	76.3	
32+00			9.5	77.5	
+50			8.8	78.2	
33+00			8.3	78.7	
+50			6.0	81.0	
34+08	∠ 1° 54' 30 Lt		6.49	80.53	℄ stub
+50			5.9	81.1	
35+00			5.0	82.0	
+45 = ℄ New Culvert - ground			4.4	82.6	
cut stub. Inlet Cut 1.05			8.75	78.27	
36+00			4.2	82.8	
+50			3.6	83.4	
37+00			2.9	84.1	
+50			1.9	85.1	
38+00			0.8	86.2	
T.P.	9.24	95.32 ✓	0.98	86.04 ✓	

95.32

43

+50		8.3	87.0
39+00		7.3	88.0
+50		6.2	89.1
40+00		5.6	89.7
+49.16 = +48.96 change ℄ original 12' Rt } stub.		5.05	90.27 = 90.27 Page 35
41+00		4.0	91.3 ✓
EQUATION { +42.85 Δ 9° 13' Rt. = +43.88 Station ahead See page 35.		2.69	92.63 ℄ stub { original P.O.T.

209.90

121+00	Toeslope Euclid Ave		6.6	203.3
" "	60' Rt = Wash		13.5	196.4
60' Rt +02 — F.L. S. End. Outlet 3-60" Cor Pipe Culverts under Euclid Ave			10.9	199.0
T.P.	8.17	217.91 ✓	0.16	209.74 ✓
121+24 ℄ stub P.O.T.			2.26	215.65 ✓ = 215.74 0.09 Below Home Ave
+29	S. edge Euclid Ave		3.00	214.91
+42½	℄ " "		3.10	214.81
+55½	N. " " "		3.30	214.61
+62			2.6	215.3
+85	Toe slope Euclid		14.0	203.9
122+10	℄		14.0	203.9
" "	30' Rt N. End. Inlet F.L.		18.55	199.36 3-60" Cor Pipe Culverts
+30			14.0	203.9
+31			15.5	202.4
123+00			15.0	202.9
" "	30' Rt = wash		16.0	201.9
+50	N Wly Bank		14.0	203.9
+60	℄ wash		16.0	201.9

217.91

+80	S Ely Bank		14.5	203.4
124+00			12.6	205.3
+50			12.0	205.9
125+00			11.6	206.3
+50			9.6	208.3
+75			9.3	208.6
+90			10.4	207.5
126+00			9.0	208.9
T.P.	12.37	221.14 ✓	9.14	208.77 ✓
126+00	50' Lt = wash.		15.4	205.7
+45			11.5	209.6
+46	Main wash Wly side		14.5	206.6
+80	" " Ely "		14.0	207.1
+81			12.6	209.1
127+00			11.5	209.6
+50			10.5	210.6
128+00			9.4	211.7 ✓
+50			8.6	212.5
129+00			7.0	214.1
129+00	70' Rt = wash		10.5	210.6

		221.14		
129+00	40' Lt	ground	8.8	212.3
+35			6.8	214.3
+40	W. side of in wash		8.5	212.6
+79	S.E. " "	"	9.3	211.8
+90			7.2	213.9
130+50			7.2	213.9
131+00			5.0	216.1
+35.14	Δ 36°-03' Lt.		3.62	217.52
T.P.	12.78	230.30 ✓	3.62	217.52
132+00			13.3	217.0
+10			11.6	218.7
+50			11.2	219.1
+50	120' Lt. = wash.		14.7	215.6
133+00			10.0	220.3
+65			8.2	222.1
+66	E. side wash		10.6	219.7
+85	W. " "		9.8	220.5
134+00			8.3	222.0
+50			7.8	222.5
+50	5' Rt = wash W. side		9.3	221.0
+90			7.8	222.5

		230.30		
135+00	W. side wash		9.0	221.3
+50	In wash.		8.0	222.3
+50	T.W = W. side wash		8.3	222.0
+70	W. edge wash		8.2	222.1
+72	W. Bank.		7.0	223.3
136+00			6.4	223.9
" "	20' Rt = W. side wash		7.1	223.2
+20	20' " = " " "			
+45	W Bank		6.0	224.3
+50	W. side wash		4.8	223.5
+65	E " "		6.6	223.7
+66	E. Bank		4.5	225.8
137+00			3.8	226.5
" "	50' Lt = wash		6.0	224.3
T.P.	9.90	236.38 ✓	3.82	226.48
+50			8.3	228.1
138+00			7.6	228.8
+50			6.7	229.7
"	20' Lt = wash			
+72			6.1	230.3
+75			8.2	228.2

236.38
236.28

139+00		7.6	228.8	
+25	E. Bank	7.0	229.4	
+30	E. side wash	8.2	228.2	
+45		9.2	227.2	
+52	W. side wash	8.2	228.2	
+55	W. Bank	6.3	230.1	
140+00		5.0	231.4	
" "	20.0' Rt = Wash			
+50		4.2	232.2	
T.P.	9.34 241.89	3.83	232.55	
141+00		8.4	233.5	
+50		7.0	234.9	
142+14.66		4.8	237.1	ground
142+14.66	△ 4°-14'-30" Lt.	5.27	236.62	E stub.
142+37.10	℄ 49th S. Line Fairhaven Acres	4.8	237.1	
" "	36' Rt = W. side wash	8.4	233.5	
142+65	W. Bank	5.0	236.9	
142+66	W side wash-	7.7	234.2	
143+00	In "	7.1	234.8	

241.89

+50	In wash	5.5	236.4	
"	10' Lt. "	6.8	235.1	
144+00	In wash.	5.0	236.9	
+54	" "	5.0	236.9	
+54	2' Rt Top. Rubble wall	2.1	239.8	E. Bank wash
T.P. 3 Nail's In Elec Pole & 35-36 15' Lt. 144+75	12.68 252.37	2.19	239.70	
145+00	℄	15.2	237.2	
" "	1' Rt = Top Rubble wall	12.2	240.2	E. bank wash
145+35	E. side wash	14.5	237.9	
+38	{ground to N. {Top N. End Rubble wall	11.5	240.9	Wash is 10' Lt
146+00		11.8	240.6	
+50		10.9	241.5	
147+00		9.3	243.1	
+50		7.5	244.9	
148+00		5.8	246.6	
+50		4.6	247.8	
149+00		4.1	248.3	
+48.57	N. Line Fairhaven Acres	3.7	248.7	
150+00		4.1	248.3	
+50		3.3	249.1	
+58.5	Top. 40" wood. stave Pipe Chollas Hts Line	5.5	246.9	

		252.38			
151+00			2.8	249.6	
T.P.	11.93	261.78	2.53	249.85	✓
151+62 21	Δ 37-47 Rt.		10.6	251.2	ground.
"	" " "		11.05	250.73	℄ Hub.
152			10.3	251.5	
+50			9.9	251.9	
153			10.0	251.8	
+50			9.6	252.2	
154			8.6	253.2	
+50			4.7	257.1	
T.P.	8.79	267.97 ✓	2.60	259.18 ✓	
155			6.7	261.3	
+12 53	Δ 37°-30'-30" Lt		5.62	262.35	℄ stub
+50			2.1	265.9	
+50	5' Lt of ℄		8.3	259.7	
+65			3.0	265.0	
+65	4' Lt. of ℄		8.2	259.8	

		267.97		
+80			5.3	262.7
+80	2' Lt of ℄		8.3	259.7
156.			7.3	260.7
+25			8.2	259.8
+50			8.7	259.3
157.			9.6	258.4
157	14 Lt of ℄ = S. side wash.			
T.P.	5.10	264.30 ✓	8.77	259.20 ✓
+18	S. Bank		6.0	258.3
+27	S. side wash		9.6	254.7
+32 34	Δ 64°-12'-10" Rt		9.6	254.7
+80			9.6	254.7
+82			5.5	258.8
158.			4.7	259.6
158.	6' Lt of ℄ = S. Bank		4.7	259.6
158.	8' " " S. side wash		8.7	255.6
+50			4.0	260.3
+92	S. Bank		4.1	260.2
+92	10' Lt of ℄ = S. Bank wash			
+99	S. side wash		6.2	258.1
159+20	N " "		6.0	258.3
+22	N Bank		3.0	261.3

		264.30		
159+50			2.0	262.3
"	55. Rt of ℄ = N Bank wash			
T.P.	6.25	269.00 ✓	1.55	262.75 ✓
160			5.5	263.5
+39	N. Bank wash		5.4	263.6
+39	8' Rt of ℄ = N side wash			
+41	N. side wash		8.7	260.3
+50	S " "		8.6	260.4
+52	S. Bank wash		5.0	264.0
+52	5' Lt of ℄ = S. side wash			
+85 78	△		5.11	263.89	℄ Stub
161			4.6	264.4
+50			3.6	265.4
162			3.3	265.7
T.P.	10.97	277.39 ✓	2.58	266.82 ✓
+50			10.8	266.6
163			10.6	266.8
+50			9.8	267.6
+50	10' Lt = S. Side wash			

		277.39		
+80	S. Bank of wash		10.0	267.4
+85	S. side wash		11.0	266.4
164	" " "		10.8	266.6
164	5' Lt. in wash		12.0	265.4
+61	S. side wash.		10.6	266.8
+63			7.7	269.7
+63	3' Lt = S. side wash		10.6	266.8
+90			6.8	270.6
+95			5.0	272.4
BM. Nail Pole			5.45	271.94 = 50th St (=271.83) City BM. 0.11 Hmm	✓ S. Side Wightman St. 100' E of
Wightman St. Set BM. B.P. S. End. Conc Box Culvert			4.41	272.93	✓ 140' E of 50th St.
BM.	10.48	283.41		272.93
164+97	∠ 15°-37' Rt		11.0	272.4
165+20				272.3
+23			12.4	271.0
+50			12.3	271.1
166+00			11.7	271.7
+50			11.5	271.9
167+00			10.1	273.3
+07.	Fence W Line Lot			
+07.	6.5 Rt. = Peach Tree.			

Abandoned See Page 58 1.1

+25	3' Rt. Peach Tree			
+50		9.5	273.9	
+68	9' Rt. Apple Tree			
+86	5' Rt. Apple Tree			
from +95	To 168+14 = Berry Patch			
168+00		8.8	274.6	
+14	Cross Fence			
+28	" "	8.1	275.3	
+28	S. side Open shed. Cor. Iron Roof No floor			
+63	N " " " " " " "			
+85	Fence on Top of 8" conc. Retaining	7.4	276.0	ground bS.
	wall	6.7	276.7	Top. wall
+87		8.5	274.9	ground fsN
"	10' Lt. = S. side wash			
169	= S. side wash	9.2	274.2	
+12	N " "	9.7	273.7	
+20		7.5	275.9	
+50		7.4	276.0	
170		6.3	277.1	
from +06	To +25 Pile of broken glass + dirt 2' High			
+50		5.6	277.8	
+80		4.9	278.5	
T.P.	9.05	288.17 ✓	4.29	279.12 ✓

171			6.5	281.7	
+07	Top. Conc Retaining wall		8.5	279.7	
+08			10.3	277.9	
+12.98	Δ 46°-18' Lt. ℄ stub		10.29	277.88	
	8' Rt. = wash.		12.4	275.8	
+25	℄ = wash		11.5	276.7	
+50			9.8	278.4	
+50	3' Lt = wash		12.0	276.2	
+67			9.0	279.2	
+75			7.2	281.0	
+75	15' Lt. El. Outlet (48" Conc Pipe culvert)		10.9	277.3	This is the East of R. Pine culvert
+75	" " ground.		12.4	275.8	
T.P.	11.77	299.30 ✓	0.64	287.53 ✓	
+92			9.6	289.7	
172+05			7.2	292.1	
+08.71	S. Line Univ.		1.7	297.6	
+19.04	S. cone ch.		1.80	297.50	
"	gutter Pair		2.47	296.83	
+39.70	℄		2.22	297.08	

		299.30		
172+60.37	N. d. Line on par.	3.18	296.12	
+70.7	N. Line ll mix = N. edge Pav.	2.93	296.37	
+79		0.9	298.4	
	F.L. Inlet 48'			This is the
+94	30' Lt = Con. Pipe Culvert	20.5	278.8	East of two pipes
173		16.8	282.5	
+50		16.4	282.9	
174		16.4	282.9	
+50		16.2	283.1	
175		16.2	283.1	
+43		16.0	283.3	
+60		14.9	284.4	
+79.89	Δ 41°-06 Lt & stub	13.98	285.32	
T.P. & stub	8.40	293.72 ✓		285.32 ✓
+89	E. Bank	8.7	285.0	
+90	E. side wash	11.4	282.3	
+96	W. " "	11.4	282.3	
+97	W. Bank	8.5	285.2	
176+50		8.0	285.7	
+85	W. Bank	7.2	286.5	
+86	W. side wash	8.7	285.0	
177+00	E. side "	8.2	285.5	

		293.72		
+15	E. Bank		6.8	286.9
+50			6.8	286.9
+50	10' Lt = wash.		7.2	286.5
178			6.1	287.6
+50			5.2	288.5
179			4.5	289.2
+50			2.6	291.1
+85	E. Bank		3.0	290.7
+86	E. side wash		5.4	288.3
180	E. " "		4.5	289.2
+05	E Bank		2.3	291.4
+35	E. "		2.5	291.2
+36	E. side wash		5.0	288.7
+48	E " "		3.8	289.9
+50	E Bank		2.1	291.6
+72.09	Δ 1°-23' Lt & stub		0.57	293.15
T.P. & stub	9.94	303.09 ✓	0.57	293.15
181+00			10.7	292.4
+06	2' Lt. Fig Tree			
+16	4' Lt. " "			
+38	4' Lt. " "			

303.09

+49	3' Lt Fig Tree			
+50		9.9	293.2	
+72	3' Lt. Fig Tree.			
182		9.0	294.1	
+50		7.5	295.6	
+89.5	S. side Rubble wall	7.0	296.1	ground
+90	" " Top " "	3.8	299.3	
+92.5	N " " " "	3.8	299.3	
+94	N. side " "	7.0	296.1	ground.
+94.39	∠ 59°-17' Rt.	7.0	296.1	
+94.39	26' Lt = wash	10.5	292.6	
183+20		8.0	295.1	
+50		5.4	297.7	
184	E. Bank	5.0	298.1	
+08	E side wash	7.2	295.9	
+30	W " "	7.2	295.9	
+40	W. Bank	4.7	298.4	
185		4.6	298.5	
+50		3.8	299.3	
186		2.4	300.7	
T.P.	12.60	314.11	1.58	301.51

314.11

186	25' Rt = wash	16.6	297.5
+35		12.5	301.6
+37		13.5	300.6
+50		13.3	300.8
+55		12.2	301.9
+80		12.0	302.11
+85		10.7	303.4
187		11.0	303.1
+36		10.5	303.6
+36.	4.5' Rt. = W Bank wash	10.6	303.5
+36.	8' Rt = W. side "	14.6	299.5
+62.4	W. Line Altadena / W. Bank. wash.	11.5	302.6
+70	W side wash	15.0	299.1
+98	E " "	14.0	300.1
188+05.	E. Bank "	10.2	303.9
+50		7.3	306.8
+69.40	∠ 32°-05' Rt.	6.7	307.4
+85		5.1	309.0
+89		5.7	308.4
189+10		2.6	311.5
+30.3	S. cone ch. of Orange Ave	2.46	311.65
"	gutter	3.3	310.8

		314.81			90+06.3 89-30.3
189+50			2.2	311.9	
190+06	gutter		1.8	312.3	
+06	N. cone. & Orange Ave		0.93	313.18	
+27			0.9	313.2	
+37			6.0	308.1	
T.P. Top Fire Hydt	8.45	322.26 ✓	0.30	313.81 ✓	S.E. Orange & Altadena
		check Levels.			
T.P. B.M. B.P.	12.50	333.52	1.24	321.02 ✓	S.E. Orange + 50th St.
T.P.	3.32	335.23 ✓	1.61	331.91	
B.M. B.P.			2.15	333.08 ✓ (=332.95)	S.E. 49th & Orange 0.13 High
B.M. Hydt	6.74	320.55 ✓		313.81	S.E. Orange & Altadena
+45	S. Side wash		14.6	306.0	
+63	N. " "		14.0	306.6	
+65	N. Bank.		12.4	308.2	
191			12.3	308.3	
+50			11.0	309.6	

		320.55			
192			9.8	310.8	
+50			9.0	311.6	
+70			7.7	312.9	
+94			7.3	313.3	
193+06.59	Δ 18°-00' Lt		8.4	312.2	
+50			8.1	312.5	
194			7.4	313.2	
+50			7.5	313.1	
195			5.8	314.8	
+50			5.1	315.5	
196			4.3	316.3	
+08	W. Bank wash		4.0	316.6	
+13	W. side "		6.1	314.5	
+28.27	℄ stub ∠ 41°-55' Rt.				
T.P. ℄ stub	12.51	327.13 ✓	5.93	314.62 ✓	In wash
+31	in wash		11.7	315.4	
+50	" "		11.0	316.1	
+98	W. Bank wash		10.0	317.1	
197	W side "		11.5	315.6	
+10	E " "		11.5	315.6	
+15	E Bank "		9.8	317.3	

327.13

+50		7.7	319.4
+69 44	W. line 52nd St	6.2	320.9
+85		4.6	322.5
198		5.8	321.3
Set. BM. Mon		3.13	324.00
+50		5.8	321.3
199		6.0	321.1
+50		5.2	321.9
200		4.4	322.7
+55	W. Bank	4.0	322.5
+60	W. side wash	5.2	321.9
+75	E " "	5.1	322.0
+80	E Bank	4.3	322.8
201		3.7	323.4
+50		3.5	323.6
+83 57	℄ stub △ 27° 10' Rt	2.85	324.28
T.P.	11.35 335.63'	2.85	324.28
202+00		10.9	324.7
202+00	7' Lt = ℄ Wash.	13.0	322.6

5.7' Line Trojan 20' S of W. Line 52nd St.

335.63

+50		10.5	325.1
+75	S. Bank	12.0	323.6
+75	2' Lt = ℄ wash	12.4	323.2
203		10.2	325.4
203	2' Lt = ℄ Wash	12.0	323.6
+50		8.9	326.7
+50	20' Lt = ℄ wash.	11.0	324.6
+88	S. Bank	8.8	326.8
+93	℄ wash	9.8	325.8
204	℄ "	9.8	325.8
+05	N. Bank	8.5	327.1
+30	20' Rt = ℄ wash	9.0	326.6
+55	N. Bank	7.4	328.2
+51	wash	8.7	326.9
.63	wash	8.7	326.9
+67	S. Bank	7.3	328.3
205		6.8	328.8
205	20' Lt = ℄ wash	9.0	326.6
+50		5.8	329.8
206		5.0	330.6
+50		4.5	331.1
+50	15' Lt = ℄ wash	5.6	330.0

335.63

+90			3.8	331.8
207			4.5	331.1
207	5. Lt = ℄ wash.		5.2	330.4
+42.96	∠ 5° - 30' Rt ℄ Hub		2.47	333.16
+42.96	5. Lt = ℄ wash		4.4	331.2
T.P.	12.80	347.00	1.43	334.20
+55	wash s side		15.6	331.4
+75	"		17.0	330.0
207+80	"		14.0	333.0
208+20	"		13.6	333.4
+50	"		12.8	334.2
+90	N. Bank		11.1	335.9
+90	5' Rt. ℄ Wash		13.0	334.0
209+50	wash		10.6	336.4
210	"		10.1	336.9
+50	"		9.4	337.6
211	"		9.0	338.0
+50	"		7.8	339.2
212	"		6.8	340.2
+50	"		6.4	340.6
213			5.2	341.8
213	10' Rt = wash		7.0	340.0

347.00

+17	W/4 Bank cross wash		4.5	342.5
+18	℄ wash		5.0	342.0
+19	E/4 Bank cross wash		4.5	342.5
+40			2.9	344.1
+40	20' Rt = wash		4.0	343.0
T.P.	13.27	359.43	0.84	346.16
+75			11.1	348.3
+81	W. edge of Pav.		11.86	347.57
+93	23.5' Rt = W. End. Outlet double 24" Pipe Culverts		15.8	343.6
+94.20	℄ 20' Pav ℄ 54th St.		11.76	347.67
214+08.7	℄ " "		11.96	347.47
+14.			11.6	347.8
+15	℄ = W. End. Con. Headwall for Double 24" Pipes		12.60	346.83
+17.5	3.4' Rt = ℄ N. Pipe of Double 24" Conc. Pipe Culverts. Inlet		15.30	344.13 F.L.
+24			14.2	345.2
+50			13.3	346.1
215			12.4	347.0
+50			11.8	347.6
216			11.5	347.9
+50			10.3	349.1

		359.43		
217			9.3	350.1
+50			8.1	351.3
+60	N. Bank		8.3	351.1
+65	wash		11.4	348.0
+79	wash		11.0	348.4
+80	S. Bank		8.0	351.4
218+01 74	∠ 38-02 Lt.		7.5	351.9
+50			5.8	353.6
T.P.	12.93	365.38 ✓	6.98	352.45 ✓
chk BM. T.P.	B.P. Headwall S.W. {orange +54 Sts}		1.45	363.93 = 363.75 (0.18 High)
BM	1.45	365.38 ✓		363.93
T.P.	6.98	359.43 ✓	12.93	352.45 ✓
T.P.	11.55	364.74 ✓	6.24	353.19 ✓
219			10.6	354.1
+50			9.5	355.2
+50	20' Lt = wash		13.5	351.2

		364.74		
220			8.7	356.0
+15	S. Bank		9.1	355.6
+17	wash		11.6	353.1
+28	"		11.0	353.7
+30	N. Bank		9.0	355.7
+50			8.8	355.9
221			6.7	358.0
+50			5.5	359.2
222			4.9	359.8
222	18' Rt. = wash		6.7	358.0
T.P.	12.98	373.19 ✓	4.53	360.21 ✓
+48	N. Bank		12.6	360.6
+53	wash		15.0	358.2
+84	wash		15.6	357.6
+87	"		11.8	361.4
223	"		11.6	361.6
+15	"		11.5	361.7
+20	N. Bank		11.0	362.2
+50			10.4	362.8
224			9.6	363.6

373.19

224 + 22	∠ 17°-22' Lt	9.0	364.2	
+50		8.7	364.5	
225		7.9	365.3	
225	7' Rt = wash	9.5	363.7	
+08.	N. Banks	8.1	365.1	
+11	wash	8.6	364.6	
+50	"	7.5	365.7	
+55	"	6.7	366.5	
+86.92	"	4.37	368.2	P.O.T. & stub
226	"	4.4	368.8	
+25	"	3.0	370.2	
+50	"	2.2	371.0	
T.P. & stub				
225 + 86.92	13.27	382.09	4.37	368.82
Chk. B.M. Mon N. End 20' Rad	{N.E. Cor 56th + Trojan}		1.35	380.74 = 380.56 0.18 High
227	wash		9.8	372.3
+24.56	"		9.4	372.7
228	"		7.7	374.4
+50	"		7.2	374.9
229	"		6.0	376.1
+50	"		5.1	377.0

382.09

230	wash		4.0	378.1
+50	"		2.0	380.1
T.P.	12.98	392.56	2.51	379.58
231	wash		11.5	381.1
+50	"		10.1	382.5
+74	"		10.8	381.8
+84	N. Bank		10.0	382.6
232			7.6	385.0
+20	℄ stub	P.O.T.	4.96	387.60
+42			3.2	389.4
+42	5' Rt = Wash		10.0	382.6
+58.	N. Bank.		9.0	383.6
233			6.5	386.1
233	10' Rt = Wash		8.5	384.1
+25			6.5	386.1
+60			5.6	387.0
+91.62	℄ stab P.O.T.		3.00	389.6
234 + 23.2	Ex. M.H.		4.20	388.36 Top. & Ground
" "	" " "		9.70	382.86 F.L.
				382.52 Profile 0.34 High

		392.56			
T.P.	12.86	402.42	3.00	389.56	
T.P.	12.35	414.37	0.40	402.02	
BM. B.P.			2.11	412.26	N.W. 58th & Meade
T.P.	12.64	426.90	0.11	414.26	
T.P.	12.76	438.79	0.87	426.03	
T.P.	13.06	451.66	0.19	438.60	
T.P.	13.23	464.73	0.16	451.50	
T.P.	10.11	474.50	0.34	464.39	
BM. B.P.			2.98	471.52 = El Cajon.	N.W. 58th &
				= 471.24	
				0.24 High.	

1-12-39

Change Sta 164+84 83 to Sta 171+07 36 △ see Page 22

B.M. B.P.	5.74	278.67 ✓	272.93	see Page 5 Cncl. Box Culvert
164+84 83	△ 15°-49' Rt.	8.4	270.3	
+96	S of Rock	6.6	272.1	
165+21	N " "	6.6	272.1	
+25		7.7	271.0	
166		7.0	271.7	
+40		7.2	271.5	
+90	Fence W. Line Lot	5.4	273.3	
167+05	2' Rt. of ℄ Peach Tree			
167+24	3' Lt of ℄ " "			
167+50		4.7	274.0	
+68	5' Rt Apple.			
+76	2' Rt. Grapevine			
+86	1' Lt Peach Tree			
+96	S. side Berry Patch.			
168		3.9	274.8 ✓	
+15.	N. side Berrys = Cross Fence			
+30	" "			
+50		3.2	275.5 ✓	
T.P.	9.00	284.22 ✓	3.45	275.22 ✓

284.22

+51	S. Side open chicken Shed.		
+64	N. side above shed.		
+93	Cross. Fence	8.2	276.0
+93	Top-wall E. End	7.2	277.0
+95		9.6	274.6
169+04	S. Bank	9.1	275.1
+05	wash	10.0	274.2
+18	"	10.0	274.2
+25	N. Bank	8.2	276.0
+50		8.0	276.2
170+07	= w. side Bank filled with dirt. Trash & Broken Glass	6.8	277.4
+11		4.7	279.5
+25		4.7	279.5
+30	Natural Ground	6.7	277.5
+50		6.5	277.7
+80		5.3	278.9
171		3.4	280.8
+03.	Top. conc. wall	4.7	279.5
+04.		6.6	277.6
+07 36	∠	6.7	277.5

1-27-39	Connection bet M.H. #38 sta 127+52 18 & Outlet Existing Sewer Serving Islen air. See Page 18.				
BM & stub	3.74	221.26		217.52	131+35 14
0+00	& stub M.H. #38 sta 127+52 18		10.84	210.42	
0+33			9.3	212.0	
+41			10.7	210.6	
+67	wash		11.0	210.3	
+80			9.5	211.8	
1+00			9.7	211.6	
+15			7.7	213.6	
+18			4.8	216.5	
+33			2.6	218.7	
T.P.	12.13	231.15	2.24	219.02	
+43			9.6	221.6	
+53			6.0	225.2	
1+60 5	ground.		5.2	226.0	
1+60 5	Top. Ex. 6" Conc. pipe		7.14	224.01	
				223.4	Flow line ?

2-1-39 Change in Line from Station 196+28.27 △ to Sta 209+27.85

Levels Page 61

~~"B" (207+91.80 P.I. ℄ of W. line Lot 12) = (208+50.92 "C" Line)~~

~~(206+53.88 △ 28°-19' Rt. B. Line) = (207+13 OR P.O.T. "C" Line)~~

206+83.51 △ 29°-22 Rt. "C" Line

202+38.36 ℄ Dawson Proposed "C" Line

199+46.75 "C" E. Line 52nd St.

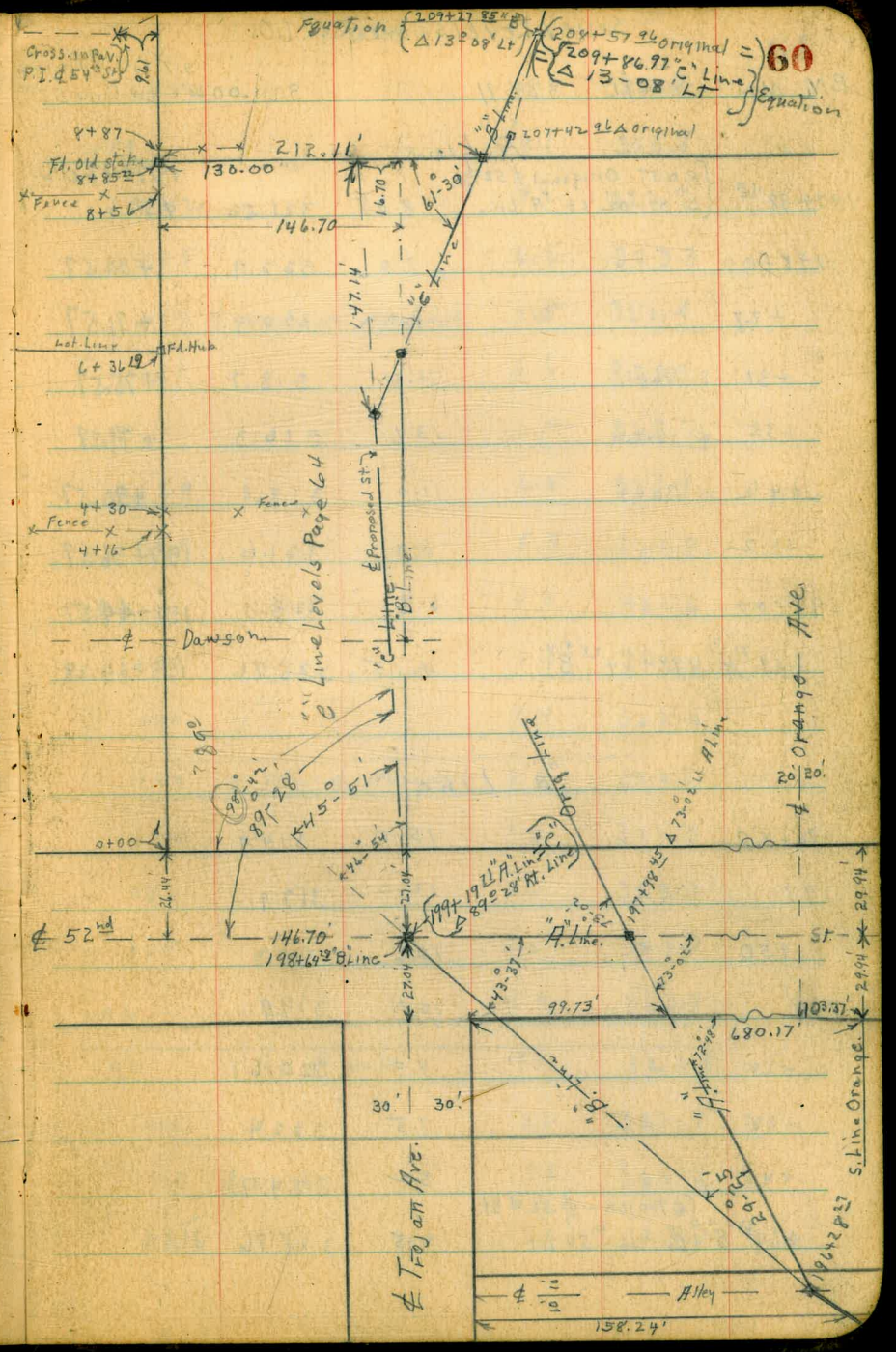
~~198+91.32 E. Line 52nd St "B" Line.~~

~~198+64.28 "B" Line △ 46°-54' Rt.~~

199+19.71 "C" Line △ 89°-28" Rt. = "A" Line continuation

196+28.27 △ ℄ Alley. Original = "A" Line = "B" Line

Equation (209+27.85 "C" △ 13°-08' Lt) = (208+57.96 Original) = (209+86.97 "C" Line △ 13-08 Lt) Equation



Sewer Levels See Page 60.

BM. Mon	5.91	329.91	324.00	S.T'Line - Trojan 20.'E of W. Line 52nd
		"A" Line		
197+98 45	P.O.T. Original ℄ 52nd St. Δ 37-02' Lt. "A" Line	8.35	321.56	197+43.02 ℄ Stub
198+00		7.0	322.9	+44.57
+27		9.0	320.9	+71.57
+31	S. Bank	11.2	318.7	+75.57
+35	℄ Wash	13.6	316.3	+79.57
+46	N Bank	11.0	318.9	+90.57
+52		8.3	321.6	197+96.57
199+00		6.6	323.3	198+44.57
+19 71 "A"	198+64 27 "B"	4.15	325.76	198+64.28
		"B" Line		
196+50		15.0	314.9	
197		12.0	317.9	
+50		10.6	319.3	
198		10.0	319.9	
+28		9.3	320.6	
+34		7.5	322.4	
+45		5.2	324.7	
+64 28 "B"	℄ Trojan - ℄ 52nd St Δ 46-54 Rt	4.15	325.76	℄ Stub

329.91

+70		5.0	324.9
199		6.1	323.8
+12		7.2	322.7
+35		6.6	323.3
+44	℄ wash Not Main wash	7.5	322.4
+49		6.6	323.3
200		6.2	323.7
+20		6.5	323.4
+50		5.9	324.0
201		4.3	325.6
+33		9.4	326.5
+40		7.4	322.5
+40	3' Rt. - ℄ Main wash	7.6	322.3
+52		7.6	322.3
+53		6.6	323.3
+75		5.0	324.9
202		6.0	323.9
202	3' Rt. ℄ wash	7.1	322.8
+05		7.2	322.7
+15	℄ wash	7.5	322.4
+25		6.2	323.7

		329.91		
+35			6.2	323.7
+50			8.0	321.9
+60			6.5	323.4
203			4.8	325.1
203	11' Rt ℄ wash		6.6	323.3
T.P	11.92	337.75	4.08	325.83
+50			10.6	327.2
204			9.3	328.5
204	14' Rt = wash		13.2	324.6
+60			7.8	330.0
205			5.1	332.7
+50			5.1	332.7
+75			6.7	331.1
206			6.6	331.2
+53^{88}	Δ 28° 19' Rt.		6.63	331.12
206+53^{88}	12' Rt. ℄ wash		9.0	328.8
207			6.7	331.1
+20			6.5	331.3
+50			4.4	333.4

		337.75		
+91^{80}	℄ stub W Line Lt 12		2.52	335.23
208			2.1	335.7
+50			2.0	335.8
209			2.2	335.6
{+27^{85} B" = 208+57^{96} Original Δ 13° 08' Lt.			2.76	334.99
+27^{85}	2' Rt = wash		3.3	334.5
chk. ℄ stub 207+42^{36}			4.59	333.16

2-6-39. Pyclim Sewers. "B.I." Line Ramsey. Level Notes
From ℄ Alley Blk 27 Fairmont Addition Page 66.
To ℄ Alley Blk. 34. " "

0+00 = S. line Fairmont Add. + ℄ Alley Blk. 27
1+89 25 ℄ Line 50 24 St
2+36 41 Stub ℄ " " Δ 8°-33' Rt
2+80 29 " W Line " "

5+05 10 stub ℄ Alley Blk. 28 Δ 17°-38' Lt

7+44 50 stub W. Line Winona

8+41 22 stub S. Line Orange.

9+10 24 Hub. { ℄ Orange Ave / ℄ Alley Blks 36+29 Δ 12°-30' Lt.

10+12 62

10+49 85 = E. d. 49 24

11+09 = W. d. 49

11+22 07 stub W. line 49 24

12+68 27 stub. ℄ Alley Blk. 35 Δ 17°-52' Rt.

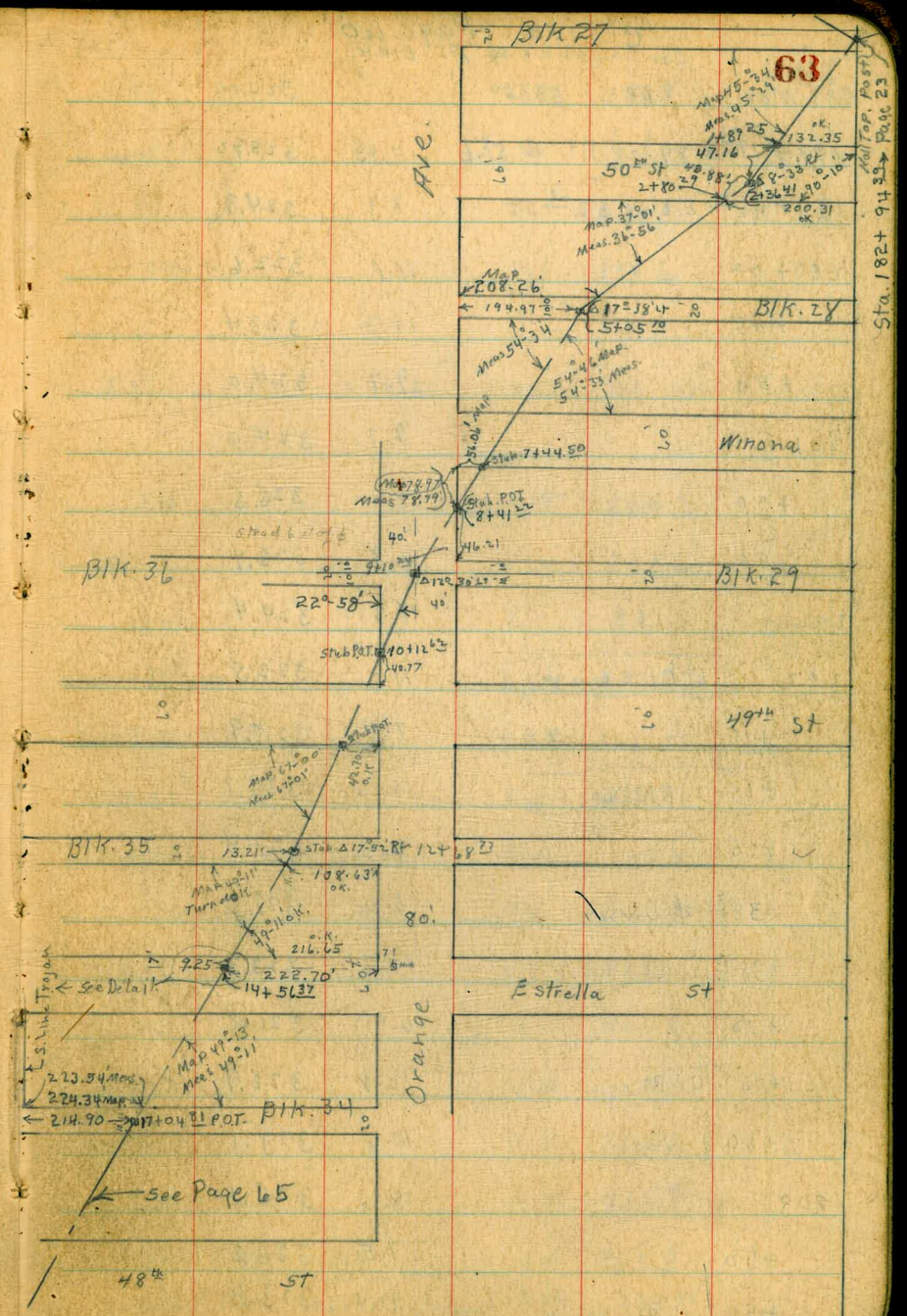
Detail
℄ Sewer
E. Line Estrella
N. Line Orange.
49°-11'
216.65'
10' curb inlet.
12'
3.5'
3.6'
2.0'
E. Face
Cross. on Face Curb P.O.T. 14+63 07

14+56 37 Nail P.O.T. E. Line Estrella
14+63 01 Cross P.O.T. Face of E. Curb.

17+04 81 stub P.O.T. ℄ Alley Blk. 34

18+99 E. d. Face.

19+46 W. d. Face



"C" Line Page 60
Continuation of "A" Line

BM. Mon.	9.69	333.69		324.00
199+19.21	△ 89°-28' Rt. ℄ Stub		7.93	325.76
199+46.25	E. Line 52nd St.		8.9	324.8
200+00			11.1	322.6
+05			10.3	323.4
+50			9.7	324.0
201			9.7	324.0
+50			8.2	325.5
+90			6.8	326.9
202			9.3	324.4
202	6' Rt = wash		11.2	322.5
+15			7.8	325.9
+15	7' Rt. wash		10.6	323.1
+20			6.3	327.4
+38.36	℄ Dawson		6.2	327.5
+38.35	12' Rt = wash.		10.4	323.3
+70			6.9	326.8
+70	4' Rt = wash		10.8	322.9
+80	℄ Wash		10.6	323.1
203			8.6	325.1
+50			7.5	326.2
+50	16' Rt = wash		10.4	323.3

		333.69		
204			6.0	327.7
+50			3.6	330.1
205			3.0	330.7
+50			0.1	333.6
T.P.	5.31	338.81	0.19	333.50
+75			4.5	334.3
206			5.2	333.6
+40			7.0	331.8
+83.51	△		7.24	331.57
207+13	P.O.T.		7.69	331.12
+50			8.0	330.8
+50	10' Rt = wash		9.4	329.4
+80			7.4	331.4
208			6.1	332.7
+25			4.6	334.2
+60			3.0	335.8
209			3.2	335.6
+50			3.1	335.7
+50	7' Rt = wash		5.0	333.8
+86.91	"C" Line = 208+57.96 Original		3.82	334.99

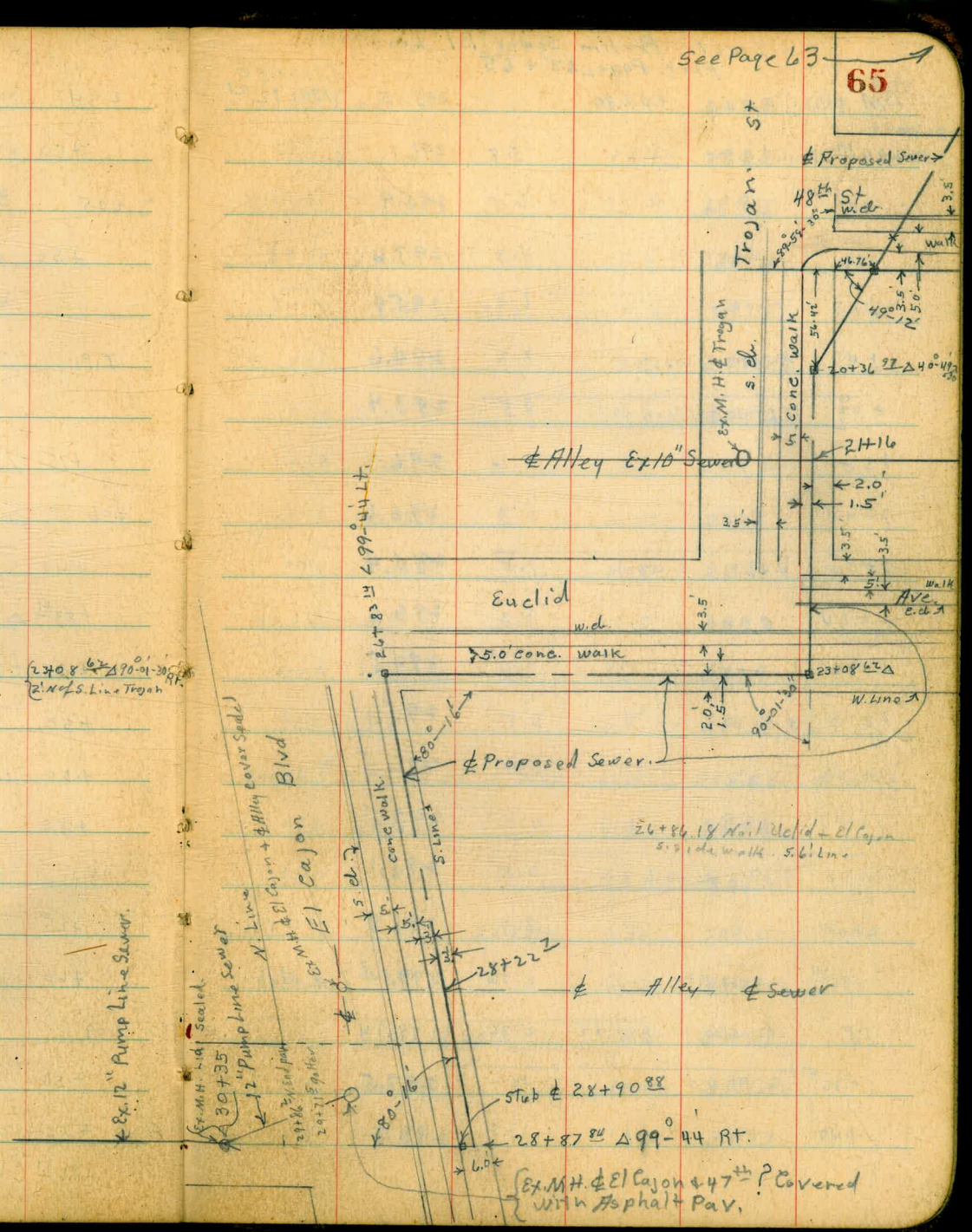
Prelim Sewers "B.1." Line
Continued from Page 63
Level Notes Page 66

See Page 63 →

19+46 7 w. ch.
19+53 17 cross P.O.T. W. 7' Line
19+62 42 W. Line 48th St

20+36 97 Stub ℄ Δ 40°-49'-30" Lt.

22+62 8 E. ch. Euclid Ave.
22+98 8 w. ch. " "



Levels Prelim Sewer "B1" Line.
Plat. Pages. 63 + 65

BM. ℄ Stub	8.75	301.90		293.15	{Page 50 180+72 09
0+00 = 182+94 39 Main Line			5.8	296.1	
+07			6.0	295.9	
+12			4.3	297.6	
+15			6.0	295.9	
+47	℄ cross wash		7.3	294.6	
+47	17. Lt = ℄ Main wash		8.5	293.4	
+50			5.6	296.3	
1+00			5.3	296.6	
1+00	5. Lt = ℄ wash		7.5	294.4	
1+04			6.3	296.6	
1+10	E. wash		7.4	294.5	
1+18	W. "		6.8	295.1	
1+20			5.4	296.5	
1+50			4.0	297.5	
1+50	9' Lt = ℄ wash		6.8	295.1	
2+00			3.0	298.9	
+36 41	Δ 8-33' Rt.		2.76	299.14	℄/stub
T.P.	12.58	311.72	2.76	299.14	
+36 41	10. Rt. ℄ wash.		14.2	297.5	
+47			13.5	298.2	

		311.72			
7+50	wash		14.4	297.3	
+57	℄ "		13.4	298.3	
+80	"		12.2	299.5	
3+00			10.5	301.2	
3+00	12. Lt ℄ wash		14.2	297.5	
+45			9.3	302.4	
+50			11.5	300.2	
+53			9.1	302.6	
+75	E. Bank		10.0	301.7	
+85	S. wash		10.8	300.9	
4+00	" "		12.5	299.2	
+10	W Bank		9.8	301.9	
+50			6.8	304.9	
5+05 10	Δ 17° 38' Lt	E. Bank	6.11	305.61	℄ Stub
+18	℄ wash		6.9	304.8	
+50			4.5	307.2	
T.P.	11.36	320.42	2.66	309.06	
6+00			12.3	308.1	
6+00	5. Lt. ℄ wash		13.3	307.1	
+10	wash		13.0	307.4	
+25	"		13.3	307.1	

320.42

6+40	wash		12.5	307.9
+50			11.3	309.1
7+00			10.1	310.3
+05	W. edge wash		11.5	308.9
+18			9.4	311.0
+18	7. Rt = W edge wash		11.8	308.6
+18	21.5 Rt = S. End Outlet 48" Culvert		11.20	309.22 F.L.
+44.50	P.O.T. Stub		10.60	309.82
+84			8.5	311.9
8+00			4.5	315.9
+13			1.8	318.6
T.P.	12.69	332.40	0.71	319.71
8+41.42	S. Line Orange		3.7	328.7
+65			3.4	329.0
+70			3.8	328.6
9+10.20	℄ Alley ℄ Orange △	12°30' Lt.	2.8	329.6
+70			3.0	329.4
+76			2.0	330.4
10 +12.62	N. Line Orange.		1.8	330.6
+30			2.8	329.6
40			1.0	331.40

332.40

10+69.2	E. cmt. ch. 49th St.		0.87	331.53
" "	gutter pav.		1.21	331.19
11+00			0.53	331.87
11+09	gutter pav		0.75	331.65
T.P.	5.96	337.81	0.55	331.85
chk. BM	S.E. Orange & 49th		4.73	333.08 page 52 0.13 High
11+09	W. ch. 49th		5.39	332.42
+25			6.1	331.7
+35			11.4	326.4
	17. Lt = NW. End Intake 48" Culvert.		15.60	322.21 F.L.
+50			13.8	324.0
12+00			14.3	323.5
+68.77	△ 17°-52'		13.7	324.1
13+00			12.8	325.0
+50			12.1	325.7
14+00			10.9	326.9
+15			9.4	328.4
+15	8.3 Lt = E. End Outlet 36" Culvert		10.60	327.21 F.L.
T.P.	8.80	346.04	0.57	337.24
+43			4.0	340.0

11.24
4.36
15.60

67

5.25
3.35
19.60

	346.04			247.8 / 23.9
14+63.07	E. conc. ch.	6.32	339.72	18.99 / 1822.9
" " "	gutter {of N.E. cor grating of ch. inlet	7.31	338.73	
" " "	F.L. ch. inlet	16.7	329.3	
15+00		7.0	339.0	
+34		6.6	339.4	
+40		13.4	332.6	
+42	4.3' Lt = {Inlet W. End 36" Culvert	18.0	328.0	
+46 ℄		18.0	328.0	
16+00		17.0	329.0	
+50		16.8	329.2	
17+04.81	P.O.T. ℄ Alley Blk 34	15.0	331.0	
+50		14.1	331.9	
18+00		13.2	332.8	
+43	ground	12.0	334.0	
+43.5	Top. conc wall E+W.	11.2	334.8	
+81.5	E. side Conc. wall	10.4	335.6	
+82	Top. " "	4.14	341.90	
+83	ground.	4.8	341.2	
+99	E. cmt. ch. 48" St.	4.84	341.20	
"	gutter pav	5.44	340.60	
19+22.3	℄ "	5.34	340.70	
19+46.7	gutter "	5.78	340.34	

	346.04			
19+46.7	W conc. ch 48"	5.15	340.89	
20+00		4.6	341.4	
20+36.87	℄ stub Δ 40°-49'-30" Lt.	3.88	342.16	
T.P.	6.30 3.48.84	3.50	342.54	
+73	℄ conc walk.	6.32	342.52	
21 +06	Top. ch. E. side Alley	6.15	342.69	
+06	Alley pav.	6.47	342.37	
+16	28' Rt. ℄ Trojan Ex M.H.	11.52	337.32	F.L. 10" Sewer
+16	" " " " "	5.39	343.45	Top M.H. = pav.
+26	Alley pav.	6.45	342.39	
+26	Top. ch w. side Alley	6.02	342.82	
+50		6.0	342.8	
22+00		6.0	342.8	
+62.5	E. ch. Euclid	5.51	343.33	
"	gutter Pav	6.17	342.67	
+80.5	℄ "	5.19	343.65	
+98	gutter "	5.59	343.25	
+98.5	W. cmt. ch.	4.94	343.86	
23+08.62	Δ 90°-01'-30" Rt.	4.75	344.09	℄ stub
+50		4.7	344.1	
24+00		4.5	344.3	
+20.5	℄ 2.6' cmt. walk	4.30	344.54	
+46	℄ 2.6' cmt. walk.	4.20	344.64	

348.84

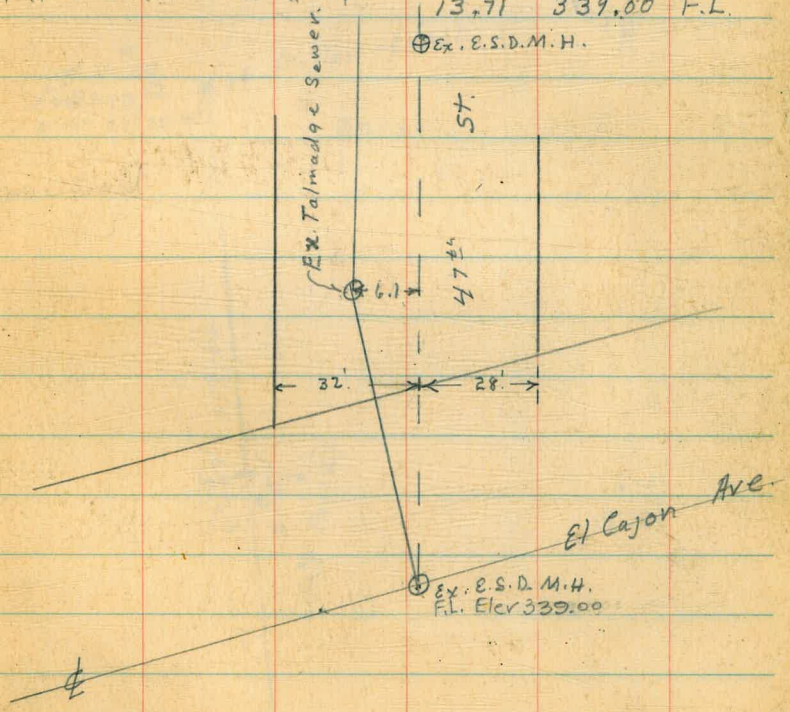
24+83	S. side cone drive	3.92	344.92	
+98	N " " "	3.84	345.00	
25+26	℄ 3' cone walk	3.70	345.14	
+39	℄ 3' " "	3.59	345.25	
+58	E+W. Conc. Wall	3.30	345.54	
26+00		3.4	345.4	
+50		3.0	345.8	
+83.14	℄ Stub △ 99°-44' Lt.	2.86	345.98	
+83.14	3' N - S. Edge cone. walk.	3.00	345.84	
T.PBM.	5.08	350.91	3.01	0.12 High 345.83
27+00		4.8	346.1	
+50		5.0	345.9	
28+12.4	℄ E. Alley	4.83	346.08	
+12	Alley Pav.	5.14	345.77	
+22.7	" "	5.18	345.73	
+22?	to Rt - Ex M.H. Top sealed.	3.89	347.02	Top = Pav.
+33	pav. "	4.85	346.06	
+33	W. ℄ Alley	4.55	346.36	

345.71 S.W El Cajon & Euclid.

28+87.84	4.3	346.6	
28+90.88 S. edge walk	4.26	346.65	

3-30-39

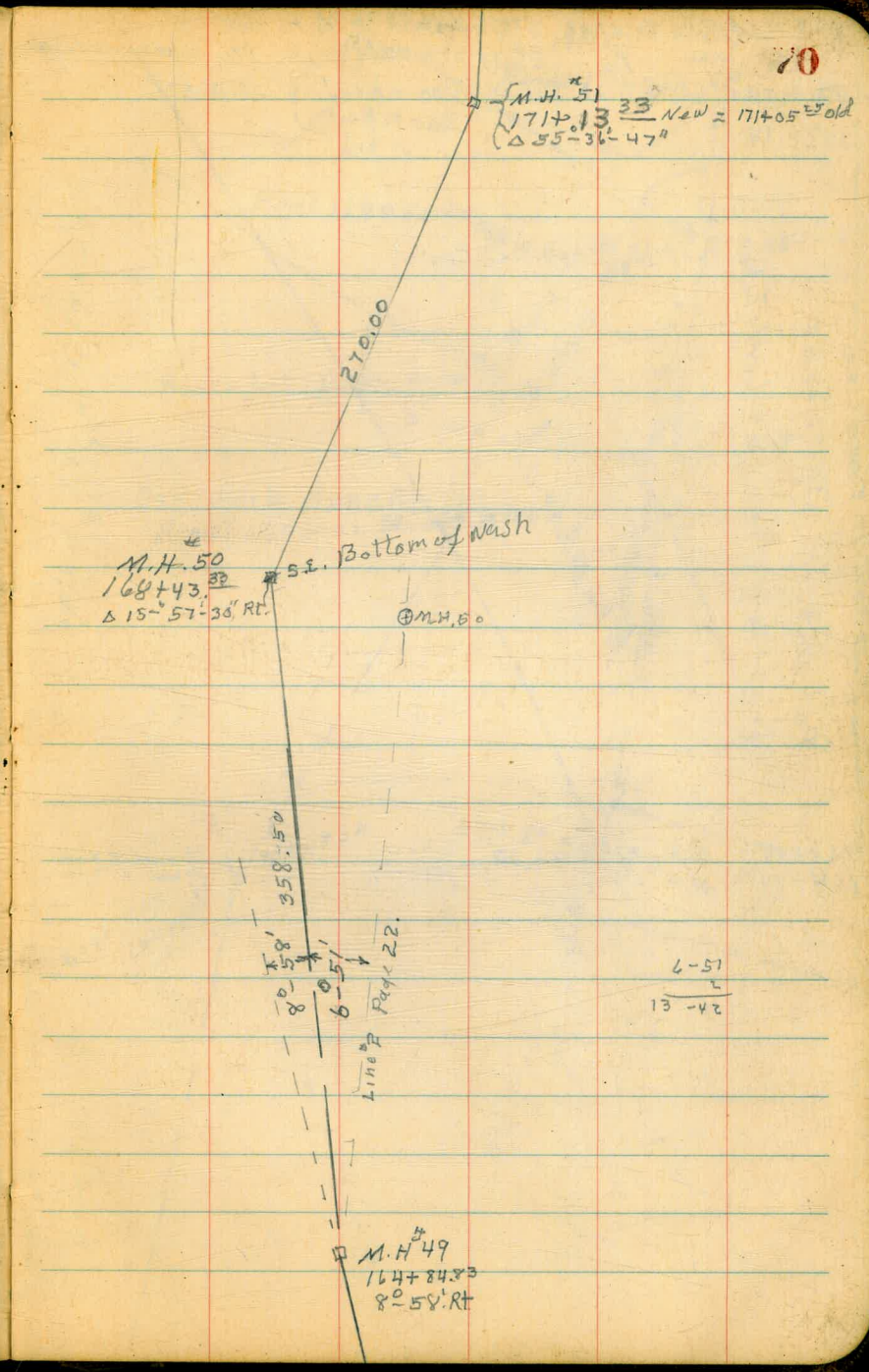
B.M.	6.88	352.71	345.83	opp. page
Ex. M.H. ℄ El Cajon in 47th St.	5.20	347.51		Pav
" " " " " "	5.30	347.41		Rim
	8.41 below			
	13.71	339.00		F.L.



5-10-39 Change from 164+84.83 To 171+13.33

"B" Line

Abandoned. See Page 71.



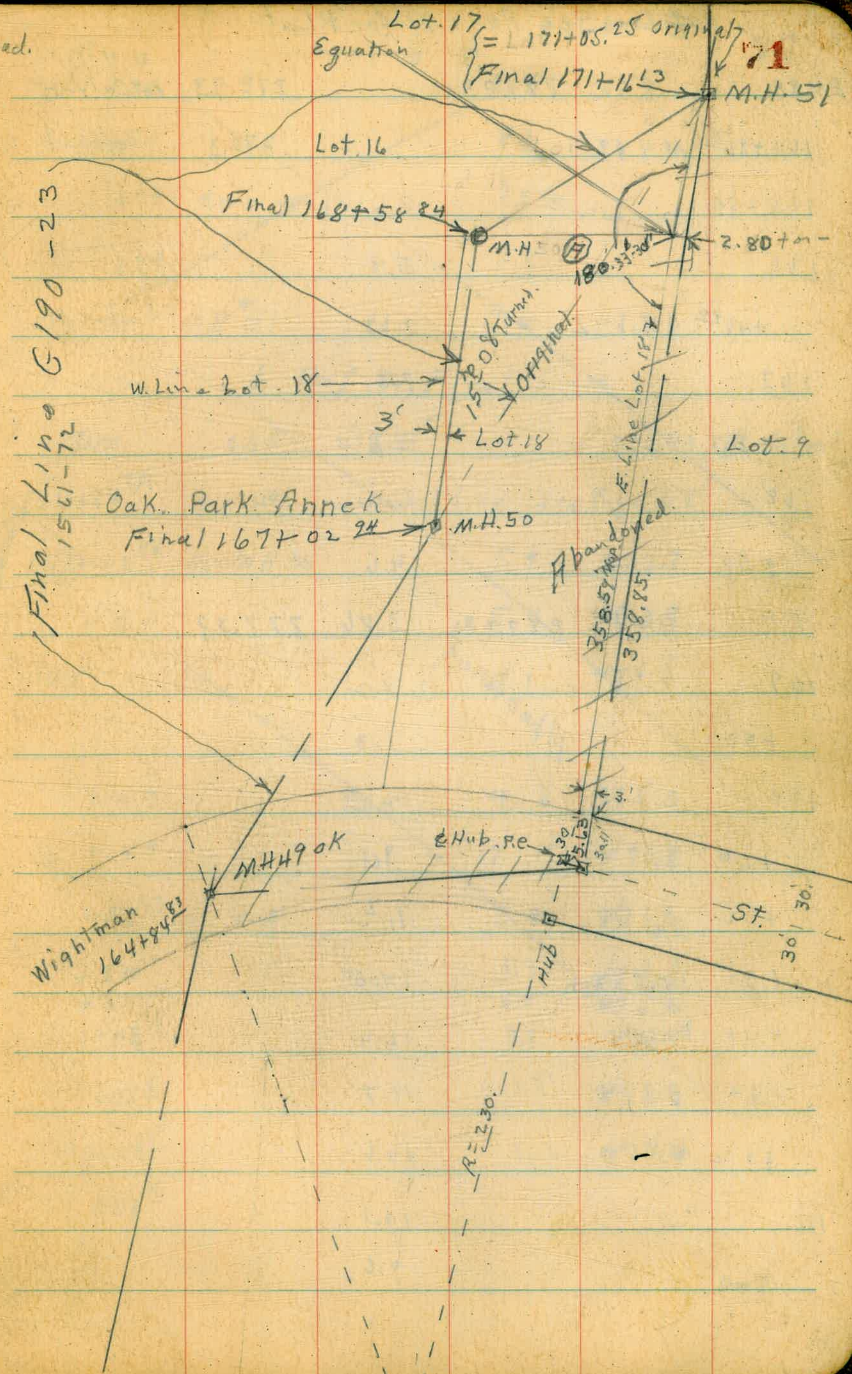
5-18-39 "℄" Line change Sta 164+84 83 M.H. 49
To Sta 171+05 25 M.H. 50. orignal use ahead.
171+05 25 Original station Use ahead. } M.H. 51
172+04 86 Use to Rear }

170+35 36 opp. Lot Cor.

No △ in Sewer Line
Put M.H. at station on 50
6' offset stubs in + Levels Taken

Abandoned

166+46 40	M.H. 50	∠ 74°10'	Lt.	changed ℄ Wightman
164+84 83	M.H. 49	∠	Rt.	No change



℄ Levels See Page 71 for Plat.

			℄ Ground.		Wightman in Culvert.
BM.B.P.	8.32	281.25		272.93	
164+84.83	M.H 49			270.3	ground
165+50			8.6		
166			5.9		
+46.40	℄ stub ∠		3.63		
167			4.3		
+50			6.6		
168			6.4		
+50			4.6		
T.P.	9.84	287.23	3.86	277.39	
169			8.2		
+50			7.3		
170			8.2		
+20			9.1		
+32	Bank		11.2		
+35	Bottom wash		14.5		
+41	Bank		12.4		
+50			11.7		
+52			10.6		
171			10.1		
+20			9.6		

Abandoned

+30			8.3	
+50			8.1	
+98	conc. wall		7.82	
+99			9.6	
172+04.86	M.H #51		9.6	

℄ Profile Final Line

BM.	6.65	279.58 ✓	272.93	B.P. Culvert
164+84.83	M.H. 49	original Line See Page 58		
167+02.84	New M.H. 50		5.9	273.7
+50			5.7	273.9
168			5.1	274.5
+47		Bank	4.6	275.0
+49		Wash	7.8	271.8
+58.84	M.H.A.	"	7.8	271.8
+60		Bank	5.1	274.5
+85			4.4	275.2
169+02.8			3.7	275.9
+52.5			3.3	276.3
170+02.5			2.2	277.4
+52.8				

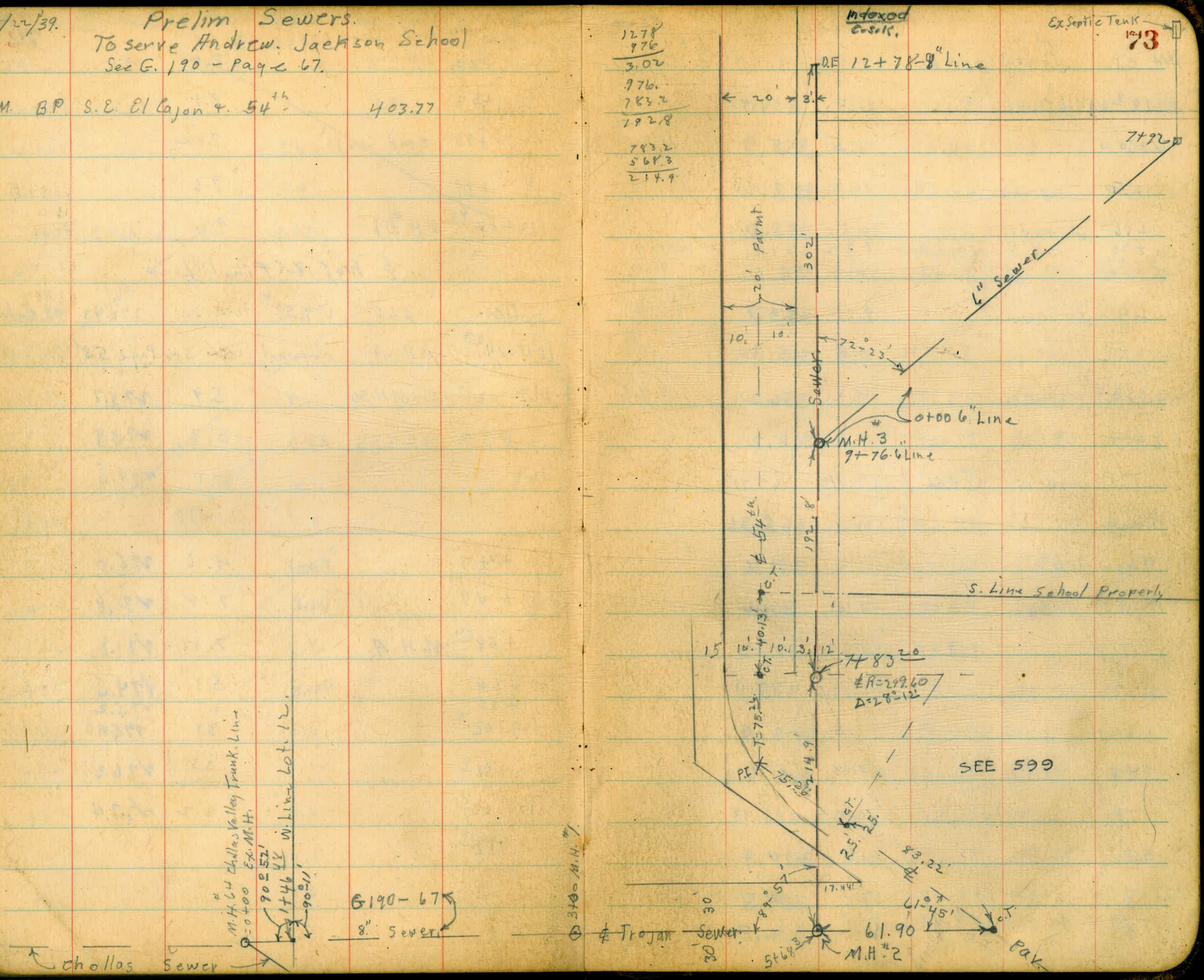
8/22/39.

Prelim Sewers.

To serve Andrew. Jackson School

See E. 190 – Page 67.

B.M. B.P. S.E. El Cajon & 54th. 403.77



℄ Sewer

℄ 54th St
℄ Trojan Ave

BM. C.T.	12.75	364.42		351.67	
5+48	M.H. #2		12.5	351.9	
6+00			8.5	355.9	
6+50			10.8	353.6	
6+66	W. Pav.		10.51	353.9	
6+75	35' W = N. Side House		13.2	351.2	Floor
6+97			10.2	354.2	
7+00					
+40	E. Pav.		9.71	354.7	
+50			9.3	355.1	
+83	P.C. Pav. Curve		8.2	3562	
8+50			3.2	361.2	
T.P.	14.15	377.86	0.71	363.71	
9+00			12.5	365.36	
9+76	M.H. #3		6.2	371.6	
10+00			4.2	373.6	
TP	12.77	389.89	0.74	377.12	
10+50			11.9	378.0	
11+00			7.5	382.4	
11+50			3.3	386.6	
T.P.	12.75	402.48	0.16	389.73	
12+00			11.7	390.8	
+50			7.7	394.8	
12+78			5.7	396.8	

				F.L. Grade	
		⊼ 364.42			
	stub 6's	12.55	351.87	346.72	+ 5.15
	" 6' W	10.98	353.44	346.90	+ 6.54
	" 6' W	10.80	353.62	347.20	+ 6.42
6+75 Brk	X 4' W.	10.16	354.26	347.50	+ 6.76
Brk	X 4' W	9.13	355.29	349.00	+ 6.29
Brk.	X 4' W	7.97	356.45	351.50	+ 4.95
	X 4' W.	3.20	361.22	356.80	+ 4.42
		⊼ 377.86	373.86	— ?	
	X 4' W	12.47	365.39	360.75	+ 4.64
	X 4' W	6.11	371.75	366.75	+ 5.00
	X 4' W	4.12	373.74	368.74	+ 5.00
		⊼ 389.89			
	X 4' W	11.85	378.04	372.93	+ 5.11
	X 4' W	7.49	382.40	377.11	+ 5.29
	X 4' W	3.28	386.61	381.29	+ 5.32
		⊼ 402.48			
	X 4' W	11.65	390.83	385.47	5.36
	X 4' W	7.68	394.80	389.65	5.15
	X 4' W	5.64	396.84	392.00	4.84

6" Line from M.H. #3 N. E.ly.

377.86

			# sewer	
0+00 =	M.H. #3		6.2	371.6
0+50			4.2	373.6
1+00			3.9	373.9
+50			3.4	374.4
2+00			3.0	374.8
+50			2.8	375.0
3+00			2.2	375.6
T.P.	6.31	382.01	2.11	375.70
+50			6.1	375.9
4+00			5.1	376.9
+50			4.5	377.5
5+00			4.5	377.5
+50			4.5	377.5
6+00			4.3	377.7
+50			4.5	377.5
7+00			4.0	378.0
+50			3.1	378.9
+92	5' S. of wall. Δ to Septic Tank.		3.11	378.9

35426
5.57
359.83
11.88
348.00

359.83
8.83
351.00
349.5

Δ 377.86

			FL Grade	cut
X 4' W.	6.11	371.75	367.10	+4.65
Stub 6' N.W	4.24	373.62	369.80	+3.82
" " "	3.86	374.00	371.00	+3.00
" " "	3.34	374.52	371.35	+3.17
" " "	3.05	374.81	371.70	+3.11
" " "	2.77	375.09	372.05	+3.04
" " "	2.16	375.70	372.40	+3.30

Δ 382.01

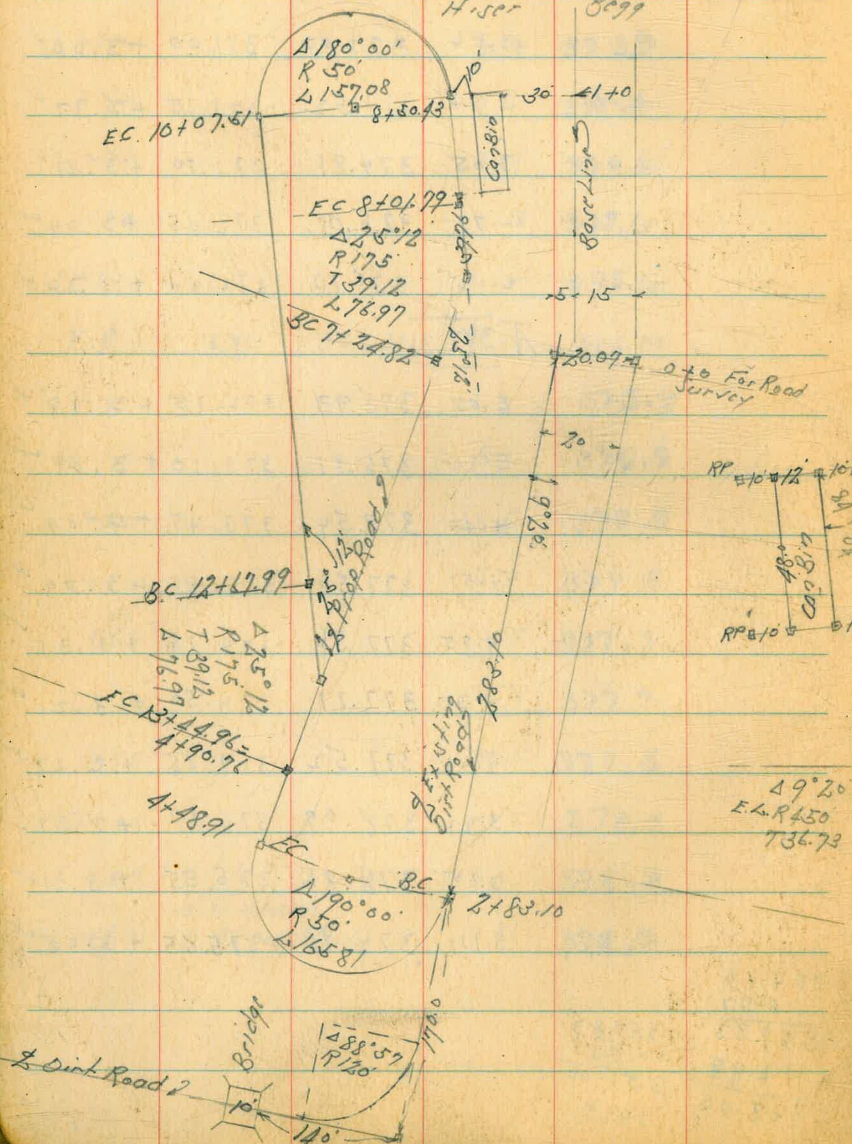
" " "	6.08	375.93	372.75	+3.18
" " "	5.10	376.91	373.10	+3.81
" " "	4.47	377.54	373.45	+4.09
" " "	4.51	377.50	373.80	+3.70
" " "	4.55	377.46	374.15	+3.31
" " "	4.30	377.71	374.50	+3.21
" " "	4.49	377.52	374.85	+2.67
" " "	3.92	378.09	375.20	+2.89
" " "	3.15	378.86	375.55	+3.31
" " S.E.	3.11	378.90	375.85	+3.05

Proposed Can Bin Collier Park

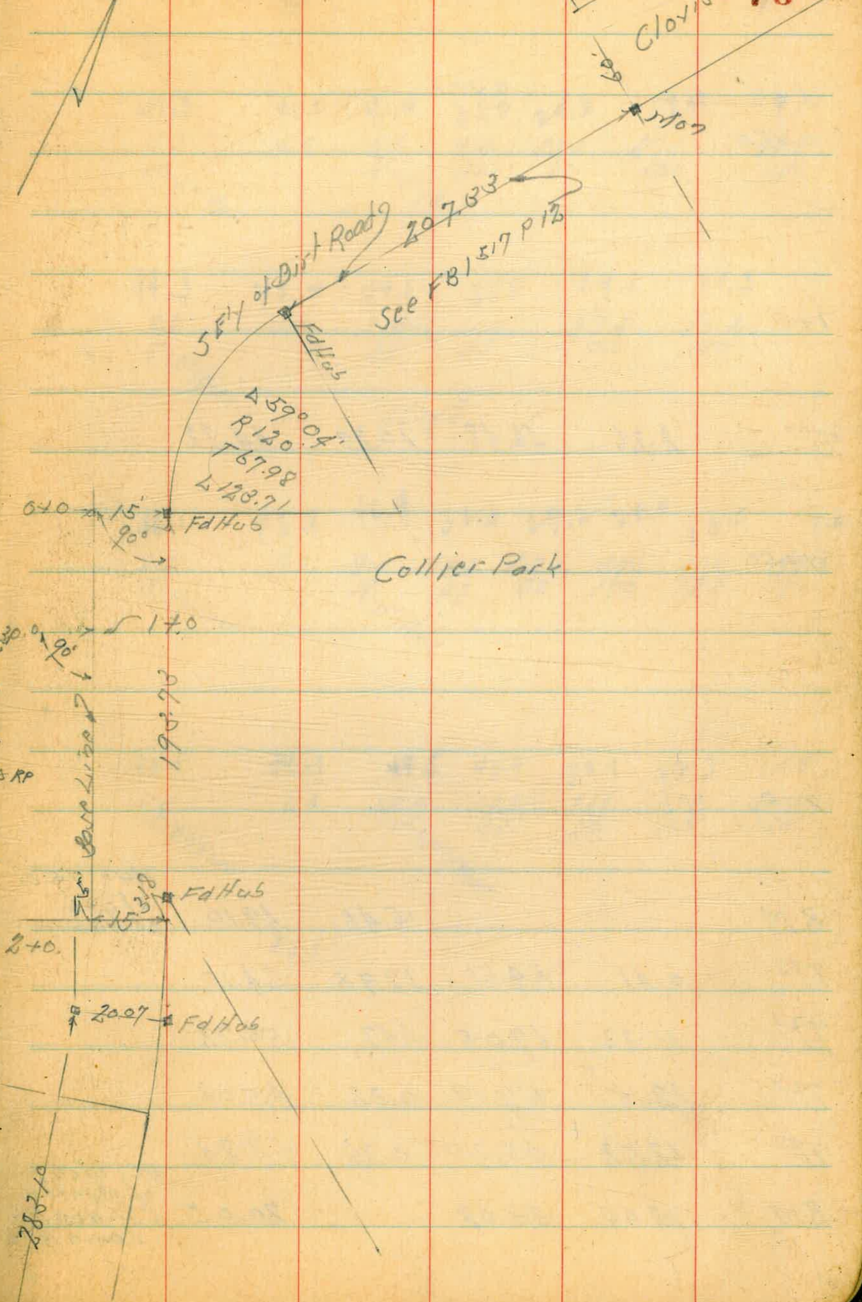
~~Levels Next Page~~

Nov. 19-42

Sisson | Bliss
Hazard | Sommermyer
Hiser | Begg



Indexed
c.s.k.

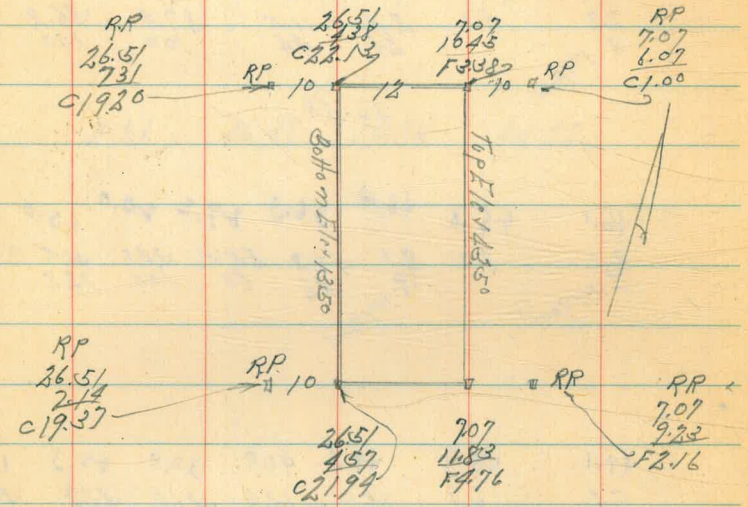


		over			
1+50					
1+0					
TP	2.26	46.48	10.29	44.22	
0+50					
0+0					
BM			5.41	49.10	Hub 15' E of 0+0 EC Hub
TP	0.41	54.51	12.95	54.10	
TP	11.33	67.05	1.47	55.72	
TP	12.16	57.19	0.32	45.03	
TP	12.52	45.35	0.26	32.83	
BM	13.04	33.09		20.05	B.C. Mon East of Mentone 574 West Pt. Loma Blvd.

Lt=E		℄			Rt.W		
42.3	41.0	41.4	37.0	24.2	19.4	9.0	
4.2 / 10'=Ely Ro.	5.5	5.1 / 21'=Wly Ro	9.5 / 30	22.3 / 80	27.1 / 100	37.5 / 140	
44.3	43.4	44.1	35.0	19.1	10.3		
2.2 / 8'=Ely Road	3.1	2.4 / 24	11.5 / 44	27.4 / 100	36.2 / 130		
		46.48					
46.1	45.8	46.4	36.3	29.2	20.0	13.0	7.2
8.4 / 12'=Ely Road	8.7	8.1 / 19'=Wly Road	18.2 / 42	25.3 / 65	34.5 / 100	41.5 / 128	47.3 / 150
49.1	48.1	49.5	40.9	32.9	22.3	14.4	
5.4 / 15'=Ely Road	6.4	5.0 / 15'=Wly Road	13.6 / 33	21.6 / 60	32.2 / 100	40.1 / 130	
	54.51						

Grades on Coo Bin

BM	1.47	50.57		49.10	FC Hub 0+0 Back Lt.
TP	1.27	40.01	11.83	38.74	



240

46.48

Lt. B Rt. 78

38.5	39.2	38.1	33.5	24.9	18.4	10.0	
8.0	7.3	8.4	1.20	21.6	28.1	36.5	
8=Fly Road		19=Fly Road	32	72	100	137	

46.48

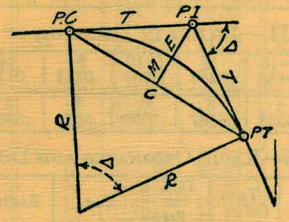
Levels Proposed Road To Conbin
Collier Park
Sketch Page 76

Dec 9-42
Sisson
Hazard
Hiser

BM	0.66	49.76		49.10	Hub 15 Ft o+o on Base Line
TP	0.26	38.11	11.91	37.85	
0+0			0.88	37.23	on Stub
1+0			6.8	31.3	
2+0			12.3	25.8	
TP	0.46	26.25	12.32	25.79	
+83.10	B.C.		4.54	21.71	on Stub
2+0			5.3	21.0	
+20			7.9	18.4	
+30			7.0	19.3	
+50			9.4	16.9	
4+0			15.7	10.6	
+48.91	E.C.		18.7	7.6	
+90.76			19.0	7.3	
5+0			18.7	7.6	
+50			14.8	11.5	
+50	40' Rt of ℄		7.4	18.9	
6+0			11.0	15.3	
6+0	20' Rt of ℄		7.3	19.0	
TP	11.88	31.13	7.00	19.25	
		31.13			
6+50			11.0	20.1	
6+50	30' Rt of ℄		5.4	25.7	
7+0			5.7	25.4	
7+0	? Lt of ℄		11.7	19.4	
+24.82	B.C. Lt		2.98	28.15	on Stub
TP	6.16	37.16	0.13	31.00	
+68.3			6.4	30.8	
8+01.79	E.C.		4.25	32.91	on Stub
8+50.48	B.C. Lt		4.48	32.68	" "
+76.61			6.6	30.6	
9+02.79			12.0	25.2	
TP	0.12	25.27	12.01	25.15	
9+28.97			7.0	18.3	
9+55.15			14.2	11.1	
TP	0.38	18.99	11.66	18.61	
9+81.33			7.9	6.1	
10+07.51	E.C.		8.95	5.04	on Stub
10+07.51	20 Rt of ℄		12.5	1.5	
10+07.51	50' Rt of ℄		12.0	2.0	
TP	9.89	14.43	8.95	5.04	
10+50			6.7	7.7	

		14.43			
11+70			4.1	10.3	
11+70	30' Rt of ℄		9.1	5.3	
11+70	60' Rt of ℄		12.5	1.9	
11+50			4.6	9.8	
12+0			4.4	10.0	
12+0	30' Rt of ℄		10.3	4.1	
12+0	50' Rt of ℄		10.3	4.1	
+50			4.5	9.9	
12+67.99	BC. Rt		4.85	9.58	on Stub
12+67.99	27' Rt of ℄		9.5	4.9	
12+67.99	? Rt of ℄		9.8	4.6	
13+06.47			5.4	9.0	
13+94.96	EC. 4+90.76		7.17	7.26	on Stub
13+94.96	20' Rt of ℄		9.3	5.1	
13+94.96	50' Rt of ℄		9.2	5.2	
TP	11.75	23.69	2.49	11.94	
TP	11.78	35.43	0.04	23.65	
TP	10.02	45.15	0.30	35.13	
TP	7.81	51.14	1.82	43.33	
BM			2.05	49.09	Starting 99.10

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

Radius=R=$\frac{50}{\sin. D/2}$ (1) Degree of Curve=D and sin. $\frac{D}{2}=\frac{50}{R}$ (2)

Tangent=T=R tan $\frac{\Delta}{2}$ (3) Length of Curve=L=$100\frac{\Delta}{D}$ (4)

Middle ordinate=M= R(1—cos. $\frac{\Delta}{2}$) (5) =R vers $\frac{\Delta}{2}$ (6)

External=E=T tan $\frac{\Delta}{4}$ (7) =R ÷ cos. $\frac{\Delta}{2}$ —R (8)=R exsec $\frac{\Delta}{2}$ (9)

Long Chord=C=2 R sin. $\frac{\Delta}{2}$ (10) Δ=Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=414.49 ft. From Table V correction=.36 or T=414.85 ft. P. C.=Sta. P.I.—T=157+45.50. Also from (4) L=746.00 and P. T.=Sta. P. C.+L=164+91.50.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 (54.50÷100)²=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus (54.50)²÷(2 x 688.26)=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6÷8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.