1619

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.

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MICROFILMED JAN 2 1985

1619

CITY ENGINEER

ENGINEERING DEPARTMENT,
CITY OF SAN DIEGO,
CALIFORNIA.

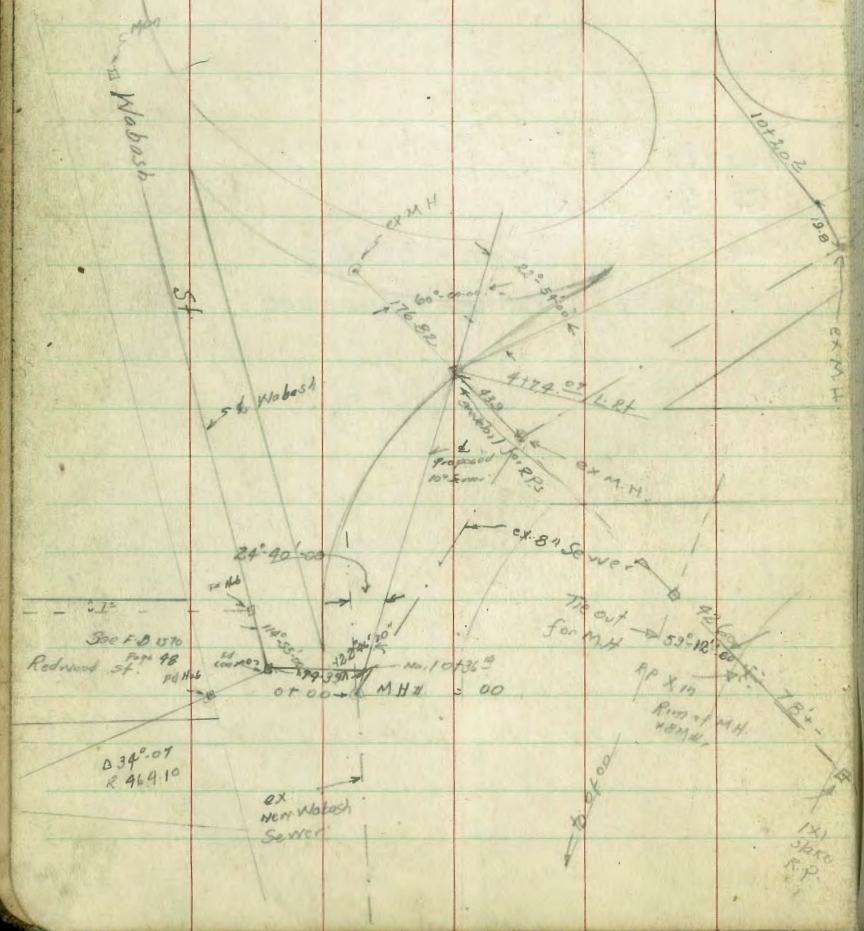
The paper stock of this book is made of a **high grade 50% rag** paper having a **water resisting surface.** This book is sewed with Bing **Special Enamel Waterproof Thread.**

Made in U. S. A.

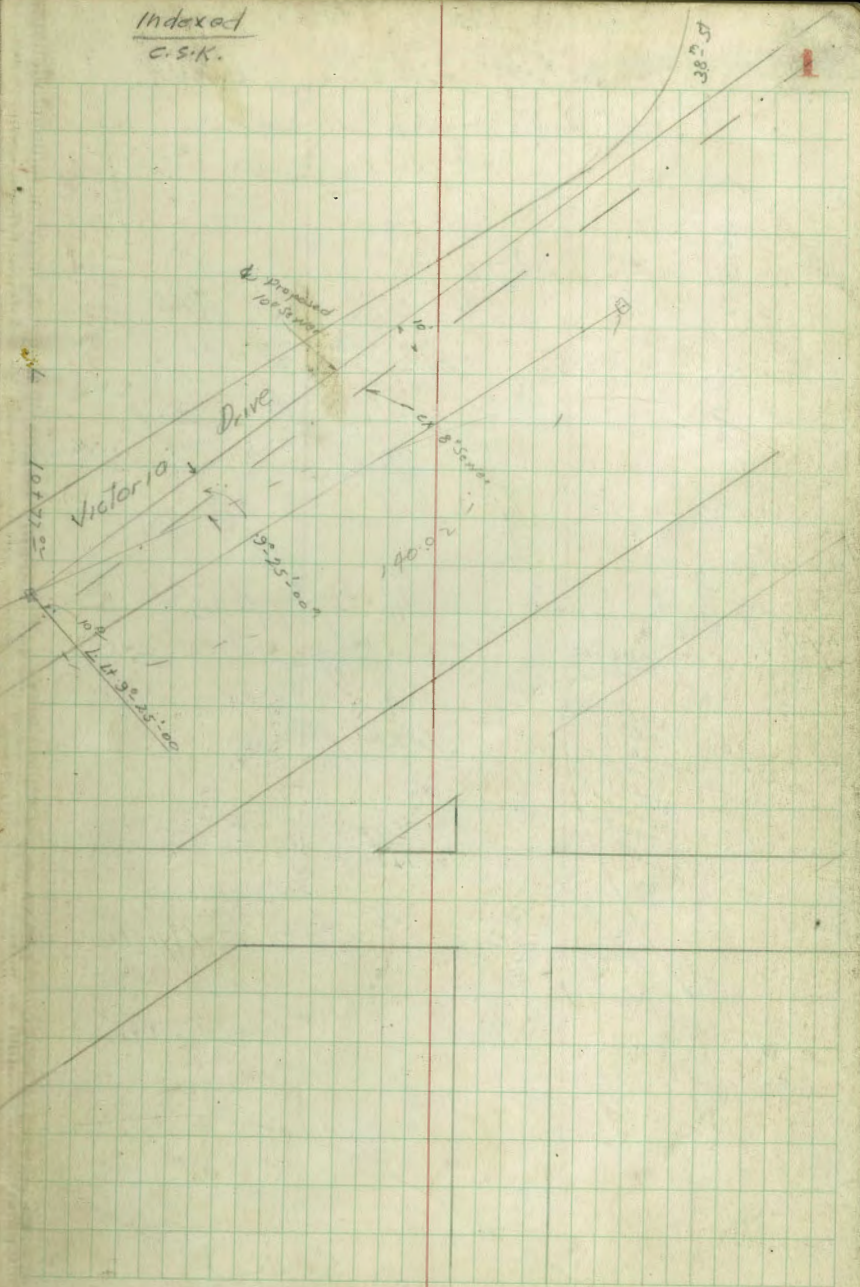
Merrit St.		18 - 30
"G" St. (Peak)		32 - 35
54TH St.	Trojan - El Cajon	36 - 42
RR Tracks	Kettner & Broadway	43 - 44
		45 -
Fern Curb	S. of Date	46 50

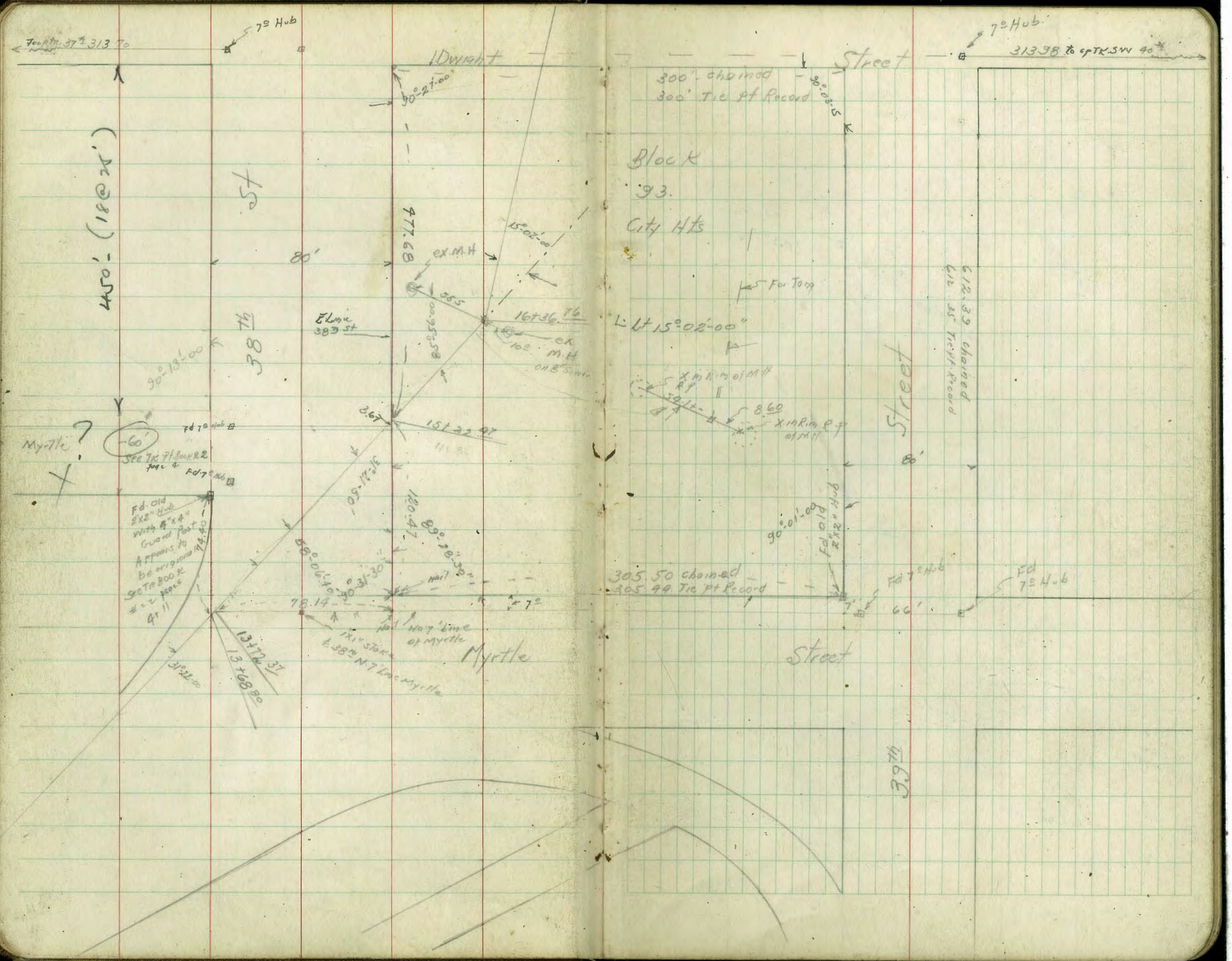
Bliss
Sommermyer
Beggs

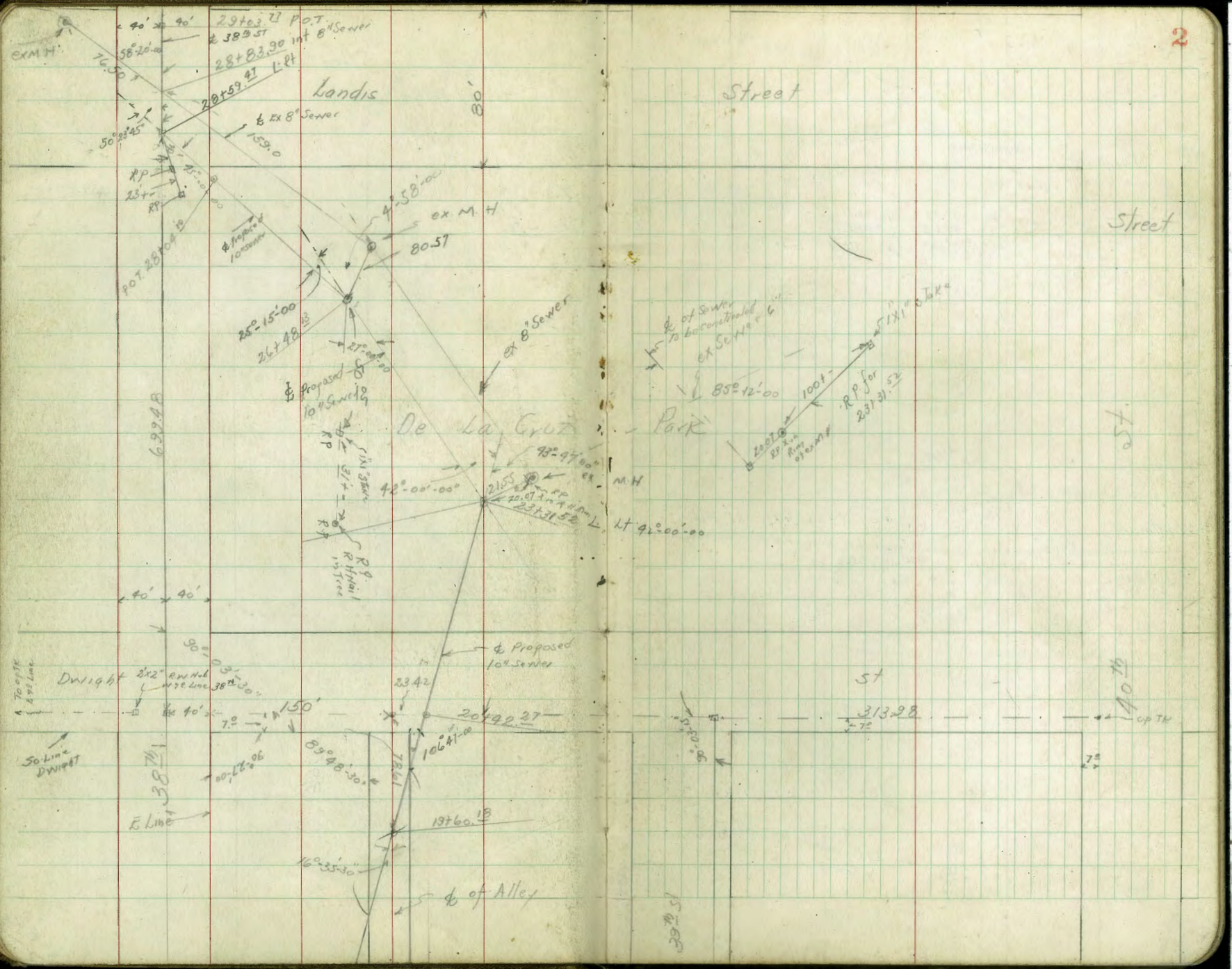
Sewer Preliminary from ex MH Wabash & Redwood N.E.ly along Victoria Ave to Block 93 C.T.y Hts. Across Dela Cruz Park to ℄ 38th St and then North to Alley North of El Cajon ℄ 37th

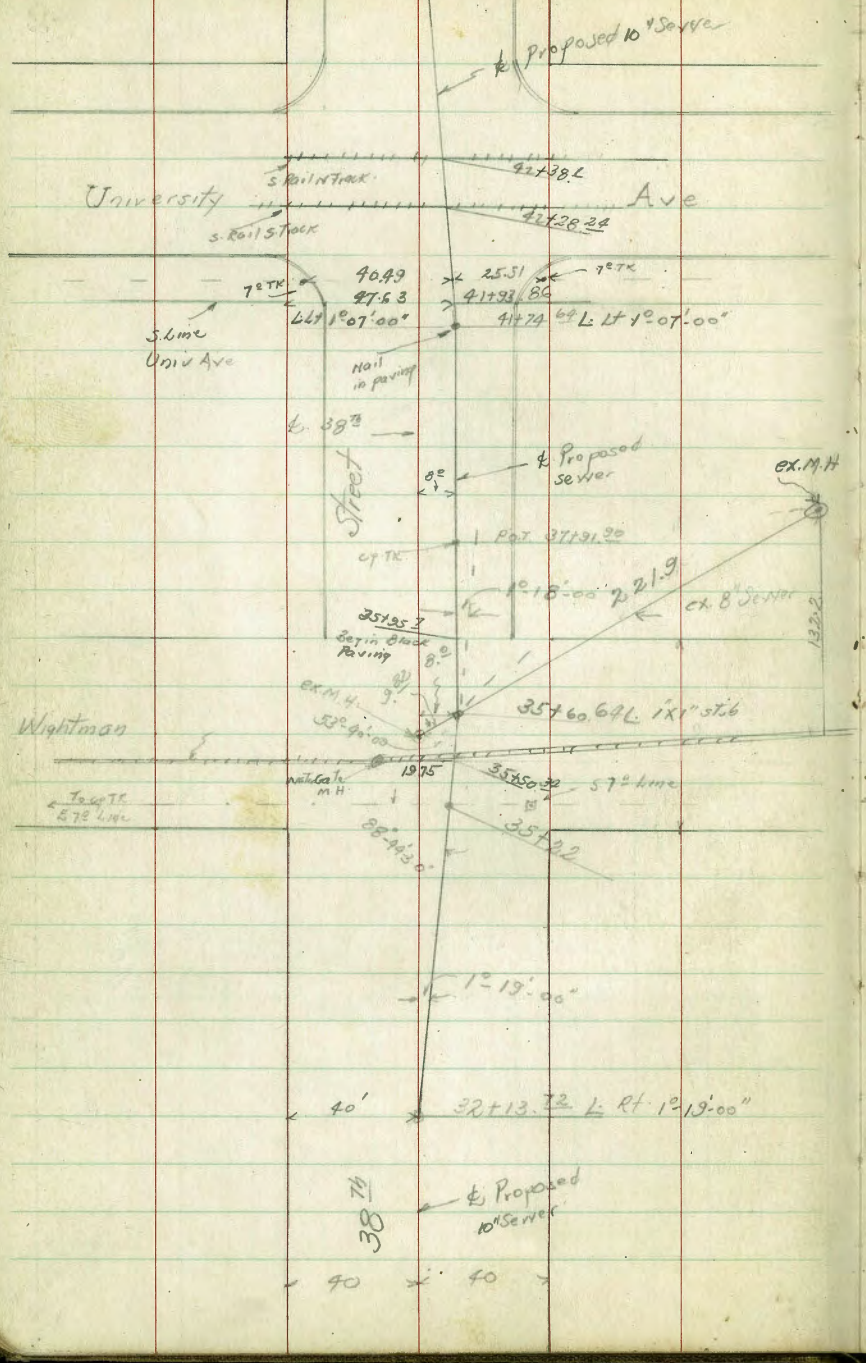


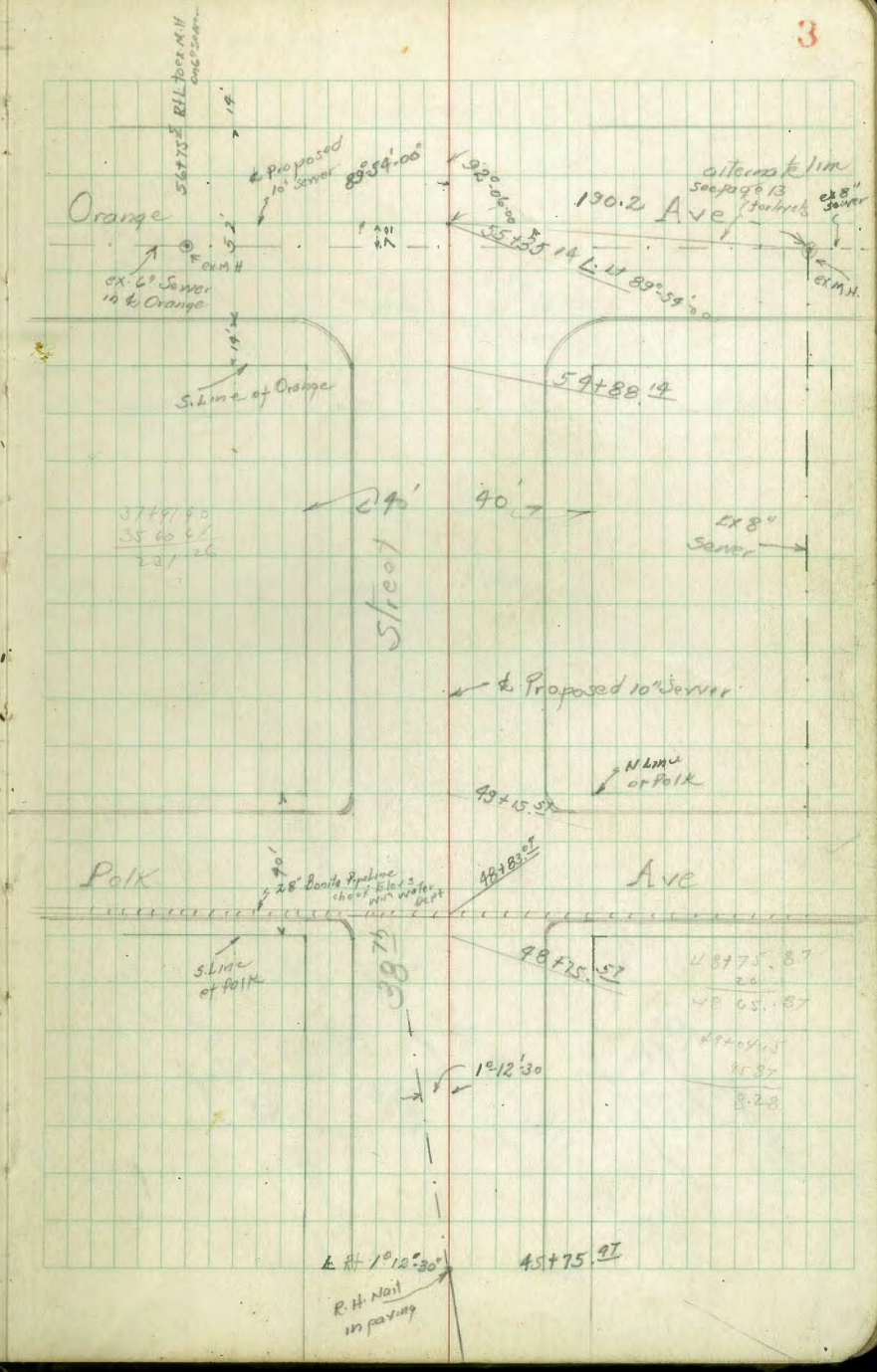
Indexed
C.S.K.



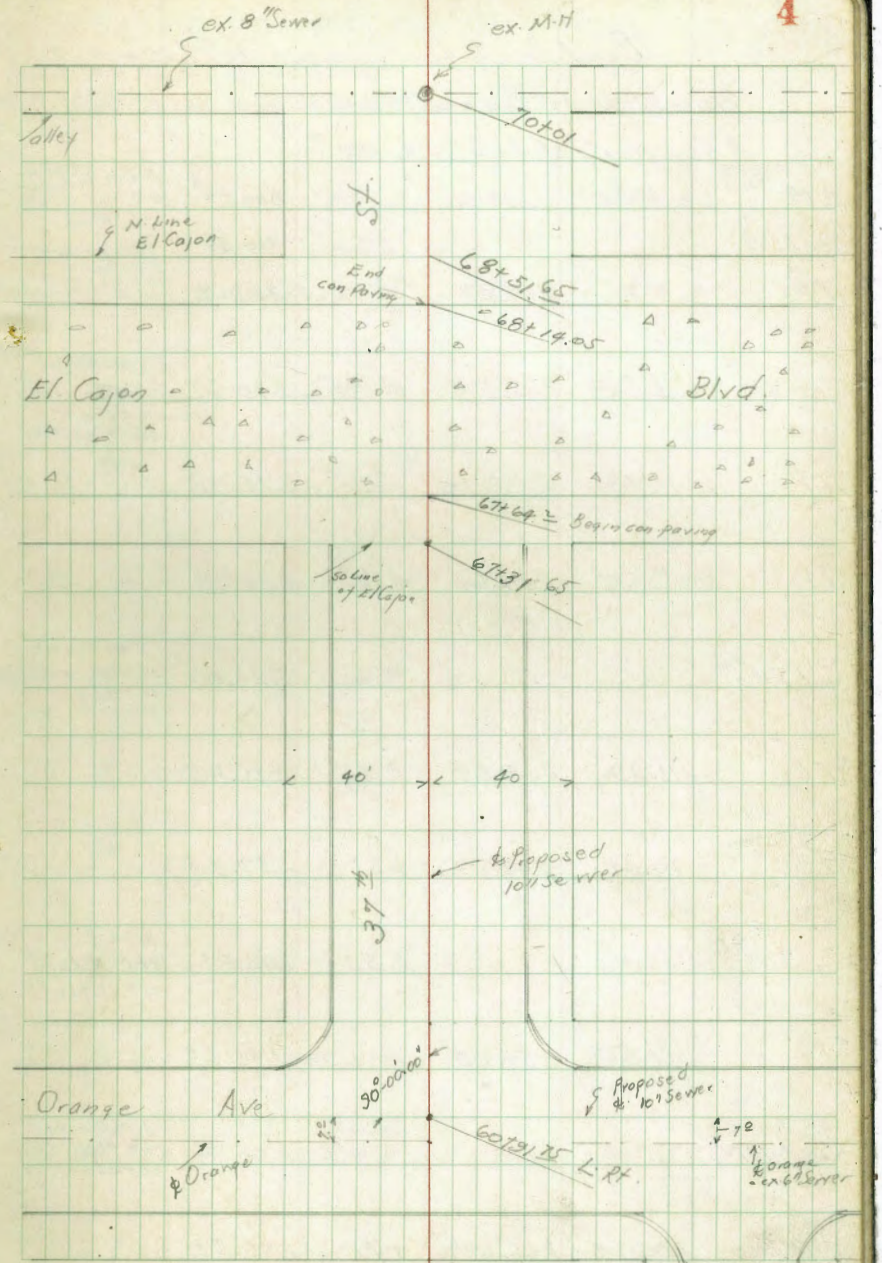

Dwight
Street
Block
93.
City Hts
Myrtle
Street
38th
39th
Street
Myrtle
Street
7° Hub
ex. M.H
Fd 7° Hub
Fd. Old 2x2" Hub
300 chained
300 Tie pt Record
305.50 chained
305.49 Tie pt Record
612.39 chained
612.35 Tie pt Record
477.68
160.47
78.14
13+72.37
13+68.80
16+36.76
15+22.97
Nail
Nail Nor'line of Myrtle
1x1" Stake
Fd. Old 2x2" Hub
Fd 7° Hub
66'
80'
60'
Sec Tie 71 Bwp R2
Fd. Old 2x2" Hub With 4"x4" Guard Post to Appears to be original 1144.40
See Tie 800 R
Fd 7° Hub
Fd 7° Hub
313.38 to cp Tie SW 40th
Fd 7° Hub
Fd 7° Hub
4450' - (18°25')


Landis
Street
Street
De La Croix Park
St
St
Dwight
St
ex M.H.
ex. M.H
ex 8" Sewer
℄ Proposed 10" Sewer
℄ of Alley
℄ of Sewer to be constructed
ex Sewer 4" & 6"
R.P. for 23+31.52
℄ Proposed 10" Sewer
50' Line Dwight
℄ Line
39th St
39th St
39th St
cp TK
P.O.T. 28+04.18
P.O.T. 29+63.72
28+83.30 int 8" Sewer
28+59.41 L.Pt
℄ Ex 8" Sewer
159.0
76.50
58°-20'-00
50°-25'-45"
80.57
4°-58'-00"
25°-15'-00
26+48
27°-00'-00
42°-00'-00"
93°-47'-00"
21.55
20.07
23+31.52
Lt 42°-00'-00
69.48
90°-03'-30"
38th St
150'
7°
23.42
20+42.27
313.98
106°-41'-00
89°-48'-30"
19+61
19+60.18
16°-35'-30"
00'-17'-06
8°-03'-30"
85°-12'-00
100'
40'
40'
40'
40'


℄ Proposed 10" Sewer
University Ave
S. Rail N. Track
S. Rail S. Track
42+38.L
42+28.24
40.49
47.63
25.51
41+93.86
7° TK
7° TK
L.Lt 1°07'00"
41+74.69 L. Lt 1°07'00"
S. Line Univ Ave
Nail in paving
℄ 38th
℄ Proposed sewer
8°
ex. M.H
Street
Pot 37+91.90
cp. TK
1°18'00" p 21.9
ex. 8" Sewer
35+35.7
Bot in Block Paving
132.2
ex. M.H.
53°40'00
35+60.64 L. 1"x1" st.b
Wightman
Water Gate M.H
19.75
35+50.32
57° line
To cp TK 57° Line
88°49'30"
35+02
1°-19'-00"
40'
32+13.72 L. Rt 1°19'00"
38th
℄ Proposed 10" Sewer
40
40


56+72.5 R.L. Tock M.H. one 8" Sewer
14'
℄ Proposed 10" Sewer
89°54'00"
92°06'00"
alternate line see page 13 (turbrek)
ex 8" Sewer
Orange Ave
130.2
55+55.14 L. Lt 89°54'00"
ex. M.H.
ex. 6" Sewer in ℄ Orange
ex. M.H.
14'
S. Line of Orange
59+88.19
37+91.90
35.60
23.26
24'
40'
Ex 8" Sewer
Street
℄ Proposed 10" Sewer
N Line of Polk
49+15.57
Polk Ave
40'
28" Bonita Pipeline check Block in water Dept
48+83.07
S. Line of Polk
38th
48+75.57
48+75.87
20
48 65.87
47+04.15
95.97
8.28
1°12'30
℄ Rt 1°12'30"
R.H. Nail in paving
45+75.97

See Dog. 7011 Roll
" 533 "
Books. 518. 525. 526. 1351. Sewers
1570 Rwd "
Tie points. Bk. 22



11/21/91

Bench Levels for Proposed 10" Sewer

From Wabash & Redwood along Victoria Drive to Alley North of Elgin St. 37th

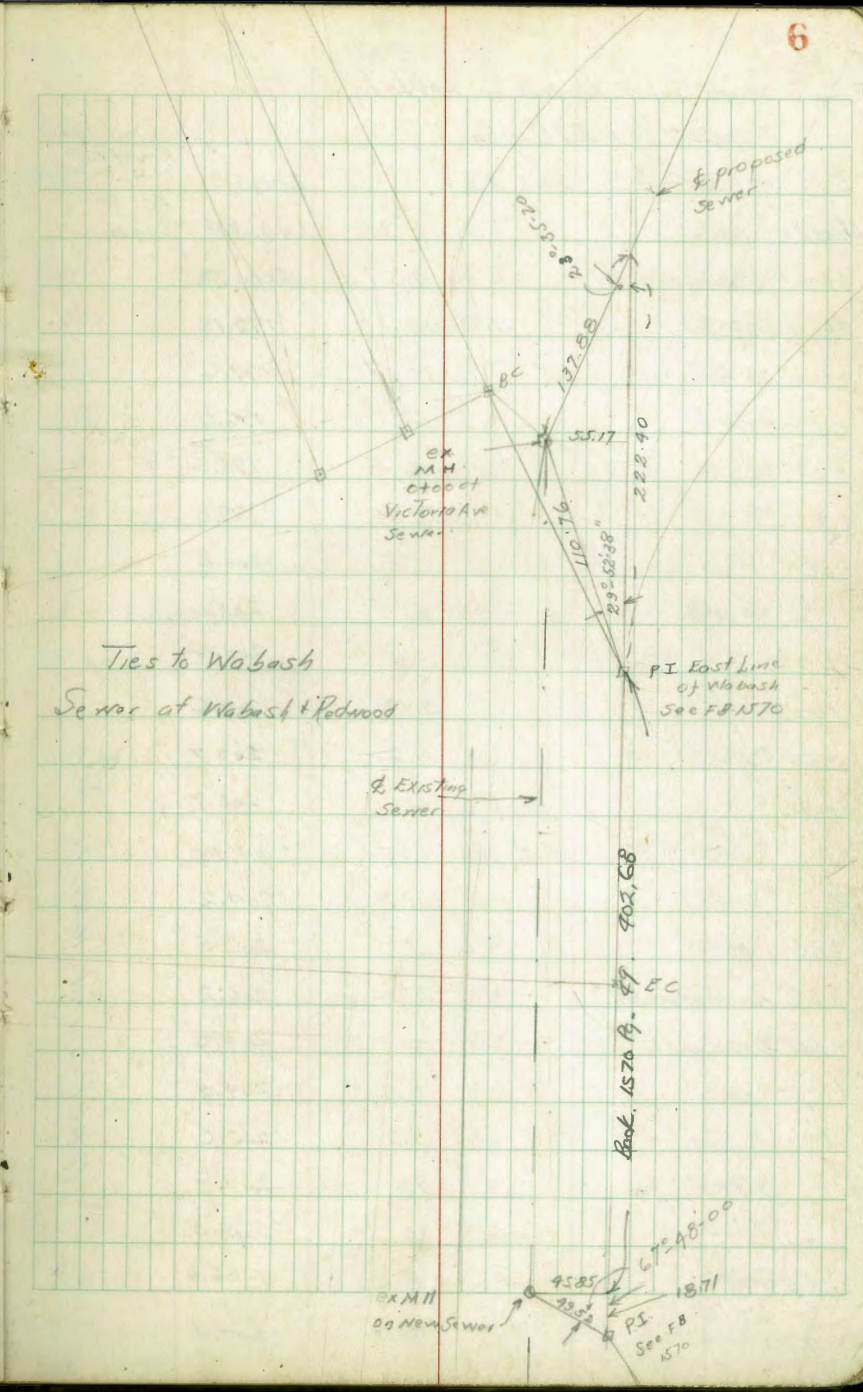
B.M. Sec. F.B. 1520-p.7	1250	213.00		200.50	S. Rim of M.H. #. Con Man to Wabash P.C. Curve S. of Redwood. See F.B. # 1570
Set BM #1			12.66	200.34	
TP	11.71	214.51	10.20	202.80	
Set BM #2	11.88	222.55	3.84	210.67	X in Rim of ex M.H. opp Sta 4+74 et see sketch page 1
TP	11.12	228.10	5.57	216.98	
T.P.	5.67	230.61	3.16	224.94	
Set BM #3			4.60	226.01	X in Concrete N Side ex M.H. Sta 10+20.2. see sketch page 1
T.P.	11.99	238.84	3.76	226.85	
T.P.	10.01	247.34	1.51	237.33	
Set BM #4			2.53	244.81	X in Rim of Con ex M.H. 55' Rt of 16+36 76
T.P.	11.58	258.23	0.69	246.65	
Set BM #5			4.49	253.74	X in Rim of M.H. 45' Rt + - 20+25
T.P.	10.18	266.69	1.72	256.51	

266.69

Set BM #6	9.41	273.95	2.15	264.54	X in Rim M.H. 215 Rt 23+31.52
T.P.	11.83	284.65	1.13	272.82	
Set BM #7			9.95	274.70	X on Rim M.H. 40 Rt + - opp 2.7 2.2
T.P.	12.53	292.48	4.70	279.95	on L 28+33.87
Set BM #8			9.26	283.22	X in Con Rim M.H. 76 So of L 28+34 See sketch P2.
T.P.	10.91	302.80	0.59	291.89	
T.P.	12.23	314.88	0.15	302.65	
T.P.	9.08	323.69	0.27	314.61	
Set BM #9	12.33	330.68	5.34	318.35	S.E. Cor No 6 38th & Wabash
T.P.	11.08	341.52	0.24	330.44	
T.P.	8.06	348.89	0.69	340.83	
check BM #10	3.68	355.33	3.32	345.57	N.W. BP 38th & Univ.
				345.65	0.08 error
T.P.	7.34	361.20	1.47	353.86	

corrected to BM.

		361.20			
Set BM #11	8.12	365.89	3.43	357.77	SW Tx 38th + Polk
TP.	7.71	371.38	2.22	363.67	
Check BM #12	4.83	372.98	3.23	368.15	NW BP Orange + 38th
Set BM #13	6.00	376.06	2.92	370.06	NW Tx Tk Orange + 37th
Check BM #14			2.49	373.57 373.50 0.07 error	S.W. B.P. El Cajon + 37th



11/29/41

Sewer Profile Levels from Wabash & Redwood to 37th & El Cajon

B.M.	4.79	205.29		200.50 ✓	Rim of Old M.H. See F.B. 1570 Page 7 B.C. Mon & Wabash
Check BM #1			4.95	200.34	
0+00 Rim New M.H.			4.57	200.72	
Flow Line " " "			13.17	192.12	
0+00 on Ground			10.7	194.6	
+12			9.3	196.0	
+13			6.8	198.5	
+35			6.3	199.0	
+50			5.0	200.3	
+56			3.3	202.0	
+60			5.1	200.2	
1+00			3.7	201.6	
+50			2.6	202.7	
+90		✓	1.6	203.7	
T.P.	11.33	215.48	1.14	204.15	
2			11.3	204.2	
+55			9.0	206.5	
+59 Bank of wash			9.3	206.2	
+61 Bottom wash.			10.9	204.6	
+78 " "			10.8	204.7	
3+00			9.9	205.6	
" " 2' Rt. Top Bank			7.8	207.7	
+20			10.2	205.3	
+50			8.9	206.6	
+70			8.4	207.1	

Notes Reduced - 11-27-41 -

↑ 21598 ✓

+70 3' Lt	7.1	208.4
+81	6.5	209.0
" " 3' Rt	8.5	207.0
4+00	6.6	208.9
+25	5.2	210.3
+45	4.5	211.0
+65	1.9	213.6
+70	2.2	213.3
+74 0.7 L on stake	3.39	211.89
" " Check BM #2 Rim of M.H.	9.81	210.67
" " Flow line	11.47	209.01
T.P. on L ✓	3.39	211.49
7.56	219.05	
4+80	6.6	212.5
5+00	7.2	211.9
+10	7.6	211.5
+35	6.6	212.6
" " 4' Rt.	8.2	210.9
+39	7.9	211.2
+47	8.3	210.8
+67	6.2	212.9
6+00	5.2	213.9
+50	4.3	214.8
7+00	2.9	216.2
+20	2.7	216.4
+50	1.9	217.2

		219.05			
+65 Bank of wash			1.7	217.9	
T.P.	8:42	225.62	1.85	217.20	
+70 in wash W. edge			9.3	216.3	
+78 ctr of wash			9.8	215.8	
+89 E edge wash			9.0	216.6	
+94			7.9	217.7	
8			7.5	218.1	
+35			5.2	220.4	
+50 Top Bank			5.1	220.5	
+51 Bottom "			6.5	219.1	
" " 4' Rt ctr wash			7.5	218.1	
+70 Bottom wash out			6.6	219.0	
" 4' Lt Top Bank			4.7	220.9	
+90			5.6	220.0	
" " 2' Lt Top Bank			4.0	221.6	
" " 4 Rt			6.8	218.8	
9			3.8	221.8	
" " 2 Rt			6.0	219.6	
" " 5 " ctr channel			6.4	219.2	
+50			2.1	223.5	
+73			0.8	224.8	
T.P.	7.08	230.90	1.80	223.82	
10+00			5.3	225.6	
+20 2 Rt L to ex M.H.			5.1	225.8	
+" 19 8 Rt. Rim			4.87	226.03	Note. Lid of M.H. Sealed Flow not Available
Check. B.M. #3 X in concrete N. Side			4.87	226.03 226.01 0.02	error

230.88 corrected

+37			6.1	224.8
+50			4.4	226.5
TP on L 10 + 77 02	8.65	235.50	4.03	226.85
11+00			8.1	227.4
+50			7.2	228.3
12+00			5.6	229.9
" 12' Rt Top creek Bank			5.7	229.8
" 15" Bottom "			7.7	227.8
+50			4.0	231.5
+75			3.0	232.5
13+00			1.7	233.8
TP	11.11	245.34	1.27	234.23
+15			11.0	234.3
+50			10.2	235.2
14+00			9.5	235.8
+25			8.8	236.5
+60			7.3	238.0
15+00			5.6	239.7
+35 Top Bank			4.5	240.8
" " 4 Rt			7.7	237.6
+47 Wedge creek			7.1	238.2
+70 ctr creek			6.8	238.5
+90 E edge creek			6.0	239.3
" " 4' Rt			3.8	241.5

		245.34 ✓		
16+00			4.0	241.3
" "	5' Lt in wash		5.8	239.5
+07			3.1	242.2
+23			2.3	243.0
+30			3.1	242.2
+36 76 L	8.38	250.69	3.03	242.31
" " 10' Rt	Rim ex M.H.		7.42	243.27
" " "	Main flow 8"		15.96	234.73
" " "	Flow from West 6"		15.62	235.07
+36 76 55 Lt	Rim ex M.H. (See sketch)		5.85	244.89
" "	Flow Line		13.40	237.29
Check B.M. #4	X in Rim above M.H.		5.86	244.83
				244.81
				0.02 error
16+62			7.6	243.1
17+00			6.5	244.2
+20			5.4	245.3
+70			4.0	246.7
+95			3.2	247.5
18+00	Top creek Bank		3.4	247.3
" "	4' Lt		5.3	245.4
+03	Bottom Ditch		5.3	245.4
+11			9.3	246.4
+30			2.4	248.3
" "	2' Rt in wash		3.9	246.8
+38			2.2	248.5
"	2' Rt " "		4.2	246.5

		250.67 corrected		
+50			3.7	247.0
+60	ctr Ditch		4.1	246.6
+72	edge ditch		3.2	247.5
+73	Top Bank	✓	1.4	249.3
T.P.	10.89	258.50	3.06	247.61
19+00			8.8	249.7
+30			8.2	250.3
+35			7.4	251.1
+60			6.9	251.6
20+00			5.8	252.7
+25			4.7	253.8
" "	45' Rt. BM #5	X on concrete Rim	4.72	253.78 ✓
				253.74
+50			3.6	254.9
				0.04 error
" "	6' Lt Top Bank		3.7	254.8
" "	7 " Bottom creek		5.3	253.2
21+00			3.1	255.4
+30			2.8	255.7
+75		# Note H.I. corrected to above BM 35	1.3	257.2
T.P.	11.62	269.38	0.73	257.77
22+00			10.9	258.5
+30			9.6	259.8
+50			8.3	261.1
+85			7.1	262.3
23+00			7.3	262.1
+01			7.3	262.1
+03			9.1	260.3

✓ 269.35 ← corrected to BM opp. Sta 20+25

+09			8.8	260.6
+13			6.8	262.8
+31 52 L Lt			6.56	262.79
Check BM #6	2155 Rt 0.4 L on M.H. Rim	X in con. Rim	4.80	264.55 264.54
+60			6.4	263.0
+75			7.3	262.1
+85			6.4	263.0
24+00			5.9	263.5
+11 Top bank			5.7	263.7
+17 Bottom + ctr Ditch			7.6	261.8
+25			5.6	263.8
+45			3.7	265.7
25+00			2.3	267.1
+27			2.0	267.4
+38		✓	0.5	268.9
T.P.	10.59	279.27	0.67	268.68
+60			9.4	269.9
+90			8.4	270.9
26+00			9.0	270.3
+48 13 L Lt			6.40	272.9
" " 6 Rt Top Bank			6.2	273.1
" " 8 " Bottom Creek			7.9	271.4
+62			5.8	273.5
" " 2' Rt Top Bank			5.8	273.5
" " 5 " Bottom Ditch			7.1	272.2

π 279.27

6.77
9.54
11.26

+75			5.1	274.2
" " 5 Rt			5.1	274.2
" " 8 Rt			6.9	272.4
27+00			5.1	274.2
+22 opp. ex M.H.			5.5	273.8
Check BM #7	X in con. Rim		4.54	274.73 BM #7
" " 40' Rt Rim S.side				
Flow line			11.26	268.01 274.70 0.03 error
+50			4.5	274.8
+60			2.7	276.6
" " 4' Rt			4.0	275.3
" " 4 Lt			2.1	277.2
+80			0.8	278.5
" " 5 Rt			1.8	277.5
" " 5 Lt		✓	+ 0.2	279.5
T.P. 9.81	288.97		0.11	279.16
28+00			8.5	280.5
+04 10 P.O.T.			8.64	280.33
+17			9.2	279.8
" " 6' Lt			7.7	281.3
" " 6' Rt			12.6	276.4
+23 Bottom Ditch S.Side			12.6	276.4
+29 " " N "			13.2	275.8
+35			10.0	279.0
" 3' Lt Bottom Ditch			11.5	277.5
" 3' Rt			10.0	279.0

		288.97 ✓		
28+59.47 L Rt	*Note from L 70 30+07 Filled Ground		8.98	279.99
" " 3' Lt Bottom Ditch			11.1	277.9
+70			4.9	284.1
" " 6' Rt			2.5	286.5
" " 6' Lt			6.5	282.5
28+83.20 int 8" Sewer			+0.8	289.8
Check BM #8 Rim MH 765 Lt 83.30		2.8	5.72	283.25
				283.22
				0.03 error
" " Flow Line		✓	11.76	277.21
T.P.	12.80	301.07	0.67	288.30
				288.27 corrected to above BM
+90			9.5	291.6
" " 5' Lt			10.6	290.5
" " 5' Rt			7.7	293.4
29+00			7.8	293.3
+03.27	P.O.T. on stake		7.36	293.71
+15			5.8	295.3
+50			4.3	296.8
30+00			2.4	298.7
+07*	approx end of fill Ground		2.1	299.0
T.P.	10.30	311.34 ✓	0.03	301.04
+90			10.4	300.9
31+00			5.1	306.2
+50		✓	0.8	310.5
T.P.	12.06	322.95	0.45	310.89
32+00			8.7	314.3

		322.95 ✓	
32+13.72 L Rt on stake		8.09	314.86
+50		6.6	316.4
33+00		5.8	317.2
+50		5.1	317.9
34+00		4.7	318.3
+50		4.4	318.6
35+00		4.0	319.0
+15 S Line Wightman		4.3	318.7
* Note check elev of this Main with water Dept			
+50.34 Water Main		3.9	319.1
+60.41 L Lt on stake 1.218'-00 See Sk 26		3.89	319.06
" " 9.82 Lt ex. M.H. Rim		3.61	319.34
" " " Flow Line		12.96	309.99
T.P. 12.15	331.21	3.89	319.06 ✓
Flow Line East 38" in Wightman	M.H. in Alley See Sk 4	20.09	311.12
+95.7 Begin Block Paving		11.20	320.0
36+00		10.85	320.36
+50		7.00	324.2
37+00		3.10	328.11
T.P. 12.92	343.64 ✓	0.49	330.72
+50		12.34	331.30
38+00		9.74	333.90
+50		7.48	336.16
39+00		5.79	337.85
+50		4.26	339.38
40+00		3.01	340.63

See Back of Page 59

		343.64			
40+50			1.74	341.90	
41+00			0.39	343.25	
T.P.	8.36	351.61	0.39	343.25	
+50		9.86 / 7.64 / 14.22	7.02	344.59	
+74 64	L. Lt. 1°07'00"		6.29	345.32	
+93 86	S Line Univ		5.80	345.81	
42+07 86	SC6 "		5.69	345.92	
+28 24	S Rail S Track		5.46	346.15	
+38 1	S Rail N Track		5.36	346.25	
+59 2	NC6		5.46	346.15	
42+73 2	N Line Univ		5.49	346.12	
Check BM BP	#10		5.97	345.64	NW Univ +38"
43+00			4.98	346.63	
+50			4.08	347.53	
44+00			3.14	348.47	
+50			2.13	349.92	
45+00	9.70	360.04	1.27	350.34	
+75 47	L Rt 1°12'30		0.22	351.82	
46+00			7.75	352.29	
+50			6.74	353.30	
47+00			5.73	354.31	
+50			4.75	355.29	
48+00			3.81	356.23	
+75.57	S Line Pole		2.46	357.58	
+83.07	Bonita Pipe Line 28"		2.34	357.70	* check Grade with Water Dept
49+00			2.19	357.85	

		360.04			
49+15.57	N Line Pole		2.00	358.04	
Check B.M. #11			2.28	357.76	SW Pole TK 3.89
50+00	9.06	368.58	0.52	359.52	
+50			8.43	360.15	
51+00			7.60	360.98	
+50			6.87	361.71	
52+00			6.09	362.49	
+50			5.33	363.25	
53+00			4.51	364.07	
+50			3.64	364.94	
54+00			2.86	365.72	
+50			2.07	366.51	
+88.14	S Line Orange		1.58	367.00	
55+00			1.32	367.26	
+28 19	int 6" Sewer & Orange		0.96	367.62	
+35 14	L. 439 #12	372.49	0.98	367.60	
Check B.M.	NW B.P. 38" + Orange		4.36	368.13	
+50			4.76	367.73	
56+00			4.62	367.87	
+50			4.54	367.95	
+75 5	approx M.H.	* Note. This 6" Sewer has Never been in Service	4.44	368.05	
" "	7' Lt to M.H.		4.58	367.91	
" "	F/O W Line		9.28	363.21	
57+00			4.31	368.18	
+50			4.25	368.24	
58+00			4.06	368.43	

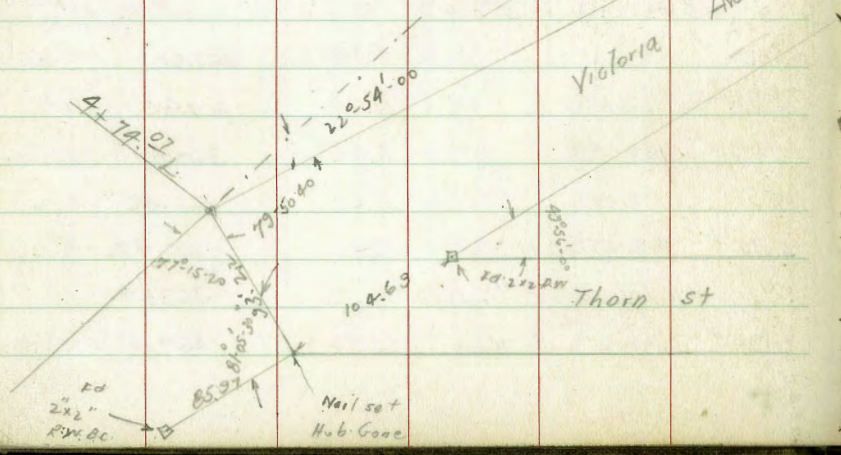
		372.49 ✓		
+50			3.89	368.60
59+00		✓	3.73	368.76
T.P.	6.06	375.05	3.50	368.99
+20			6.44	368.61
+37			6.98	368.07
+50			6.58	368.47
+80			6.35	368.70
60+00			6.05	369.00
+50			5.70	369.35
+31.25 L.	30°-00'-00" Rt. & 37th Orange		5.44	369.61
61+00			5.55	369.50
+10.85 N.C.b. Orange			5.83	369.22
+32			5.93	369.62
+70			4.85	370.20
62+00			4.90	370.15
+50			4.59	370.46
63+00			4.28	370.77
+50		✓	4.07	370.98
T.P. 64+00	6.73	378.02	3.76	371.29
+50			6.42	371.60
65+00			6.04	371.98
+50			5.75	372.27
66+00			5.48	372.54
+50			5.01	373.01
67+00			4.75	373.27

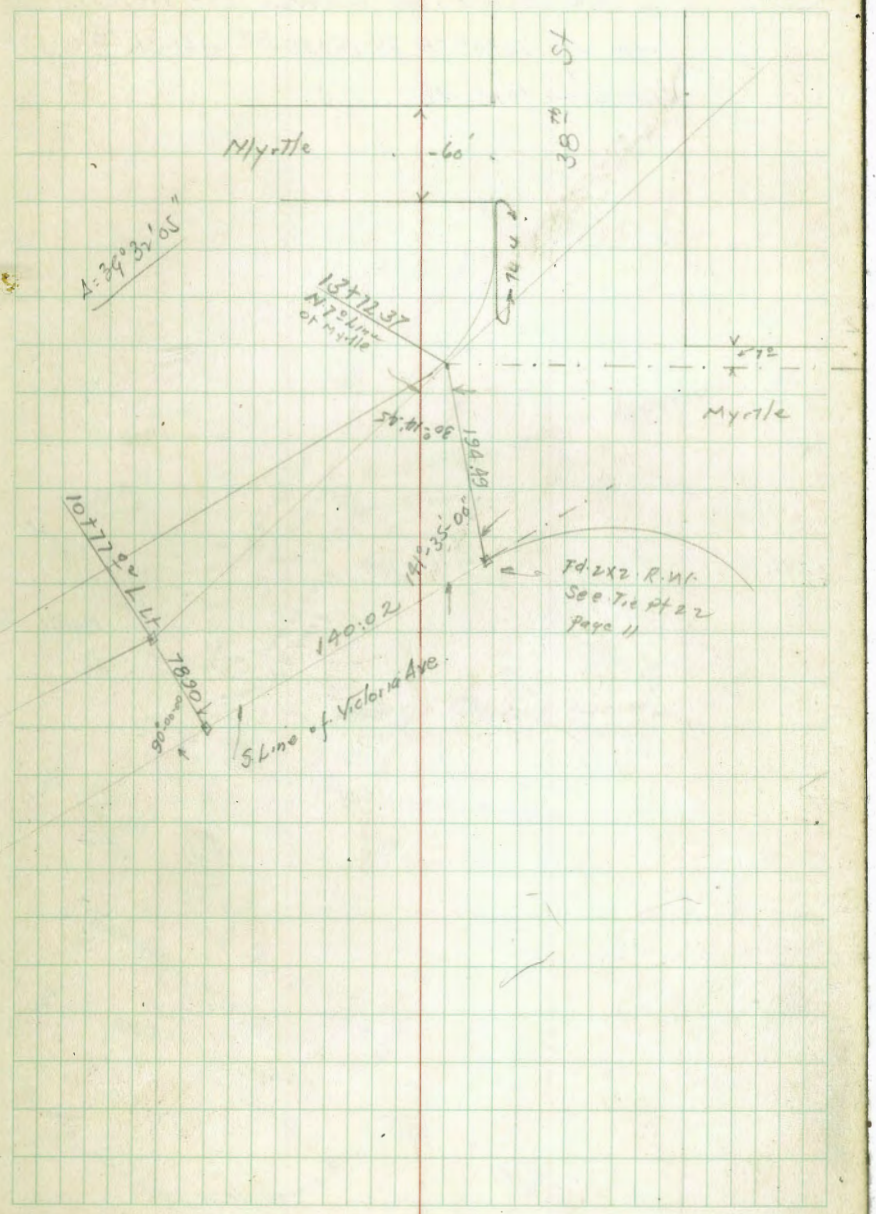
	378.02 ✓	
67+31.65 S. Line El Cajon	4.40	373.67
+64.2 S. Edge Con. Paving	3.66	374.36
+94 Hi Spot Con "	2.84	375.18
68+00	2.93	375.09
+19.05 N. Edge con paving	3.08	374.94
+31.85 N.C.b. El Cajon	2.95	375.07
+51.65 N. Line El Cajon	2.39	375.63
69+00	2.18	375.84
+50	1.70	376.32
70+01 Rim ex M.H. 8" Sewer	1.16	376.86
" " Flow Line	6.66	371.36
B.M. #14 Check. B.M. S.W. El Cajon 137th	4.49	373.53 B.P.
		373.50 ← BM Line
		0.03 error or Diff

Levels for alternate line. 190 ± See Sta 74 To & Alley East 4+33.8.

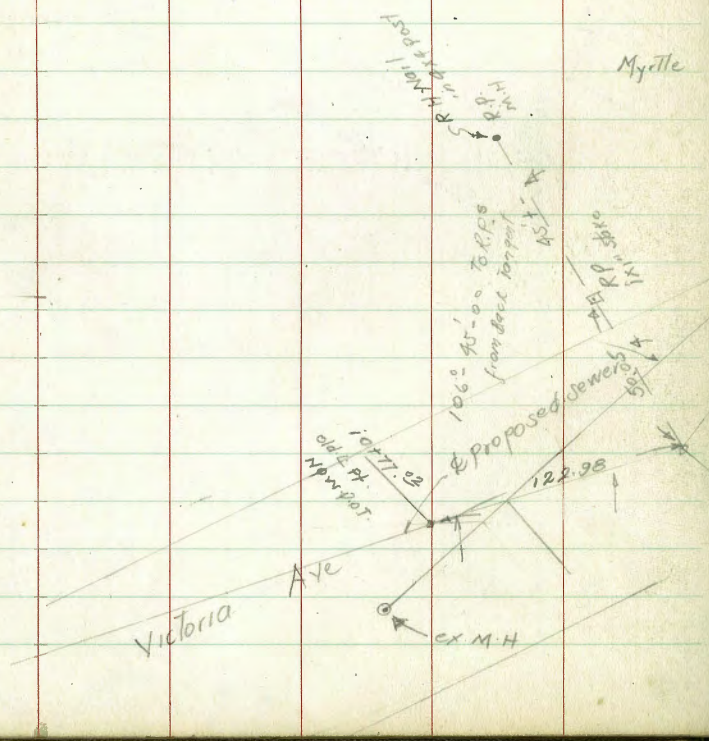
4.36	372.49 ✓		368.13 NW BP 38th & Orange
0+00		4.89	367.60
+50		5.04	367.45
1+00		5.42	367.07
+50		5.63	366.86
+90 ± Rim ex M.H.		5.82	366.67
" " Flow Line 6" from W'd		15.12	357.37
" " " 8" Main		15.36	357.13

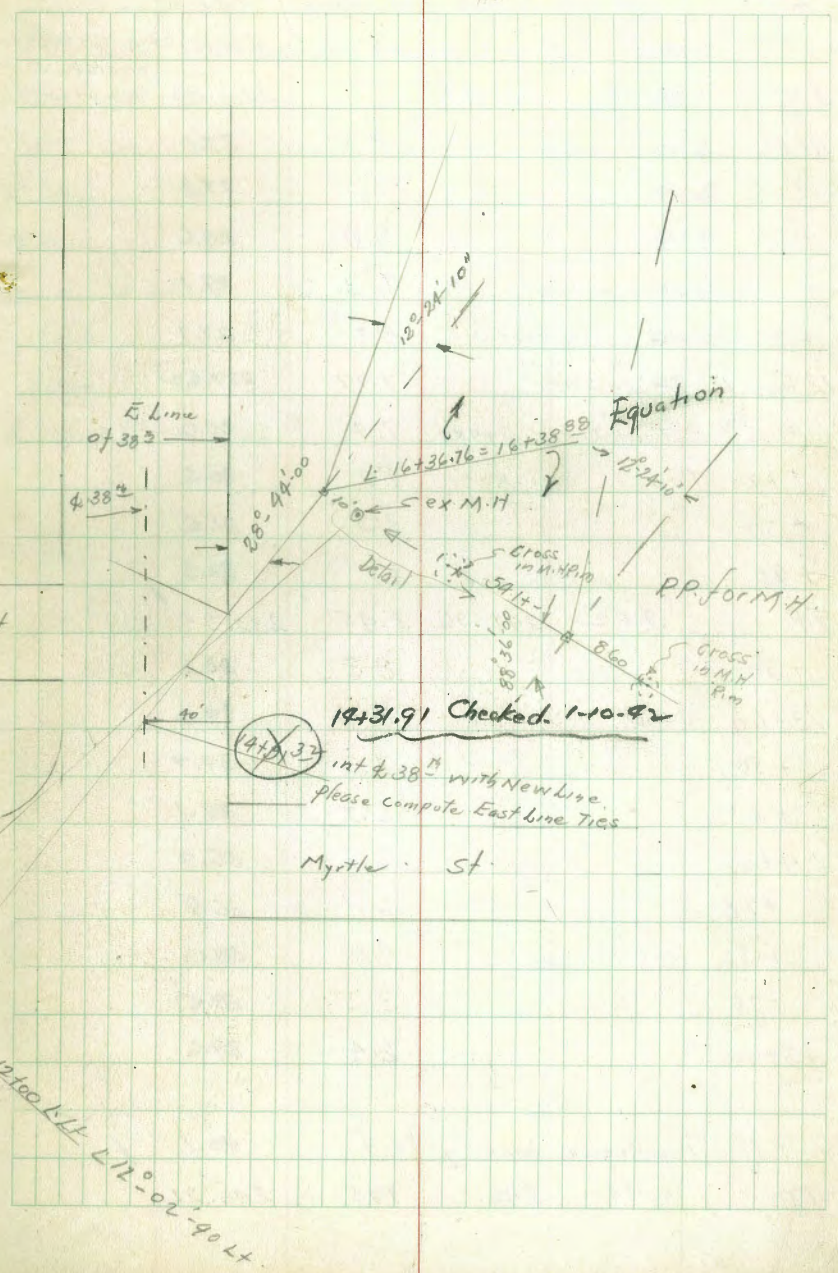
Ties for East San Diego Trunk Sewer on Victoria Avenue.





Relocation of Sewer on Victoria Ave
from Sta 10+77.02 to 16+38.88 = 16+36.76
Levels on Page 16





Profile Levels for Line Change

East S. Diego Trunk Sewer 10+77.02 to 16+38.88 on Station L 10+77.02

BM	8.54	235.39 ✓		226.85	
11+00			8.3	27.1	
+25	Int. old Sewer?		7.6	27.8	
+50			6.8	28.6	
+78	Bank of creek		6.3	29.1	
+81	Bottom creek Bank		8.3	27.1	
12+00	L. Lt on stake		7.77	227.62	
+15	Bottom creek Bank		7.4	28.0	
+20	Top " "		4.9	30.5	
+50			3.9	31.6	
+65		✓	3.1	32.3	
T.P.	9.02	241.96	2.45	232.94 ✓	
+90			8.8	33.2	
13+00			8.0	34.0	
+50			7.3	34.7	
+65			6.9	35.1	
14+00			6.6	35.4	
+28			6.1	35.9	
+50	Int. old Sewer?		4.0	38.0	
+75			3.5	38.5	
15+00			2.4	39.6	
+37	Top creek bank ✓		1.9	40.1 ✓	
TP	6.44	246.65	1.75	240.21	

		π 246.65 ✓	
+42	Bottom creek Bank	8.9	237.7
+60	ctr creek	8.5	381
+88	East Edge of creek	7.3	39.3
+98		6.3	40.3
16+00		5.2	41.4
"	5' Lt.	7.0	39.6
+23		3.6	43.0
+32		4.5	42.1
L 16+38.88 New = 16+36.76		4.36	242.29 ✓

Walker 7-11-42
Hardin
Reed

Indexed
C.S.K.

Plotted
T.P.S. 136-127

Ties
& Cross Sections
35th St. And Merrit St.
from Market St. to
36th

Shs. Public 1151
Per Filed Map #1172

Tie Point Book 19 - Page 37
for Additional Ties
in Dell's Park Add.

Wt. 7" Line
Set Hub

Merrit St.

Prop. line

cb. line

℄ Market Street
655.20'

Set C.T. Ld Plg.

Fd. Wood Plg. in Expansion Joint
in Concrete Paving 0.6' South of ℄

Fd. C.T. Ld

Set Ld & C.T.

Set Hub

35TH Street

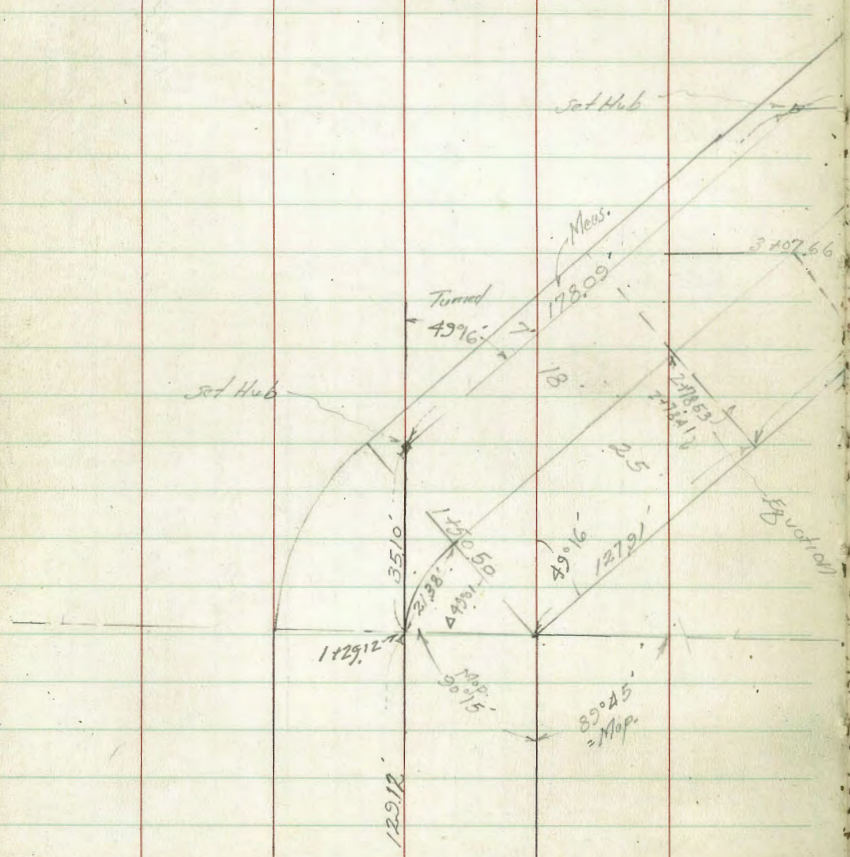
36TH Street

Meas. 392.60 (3 times as dist.)

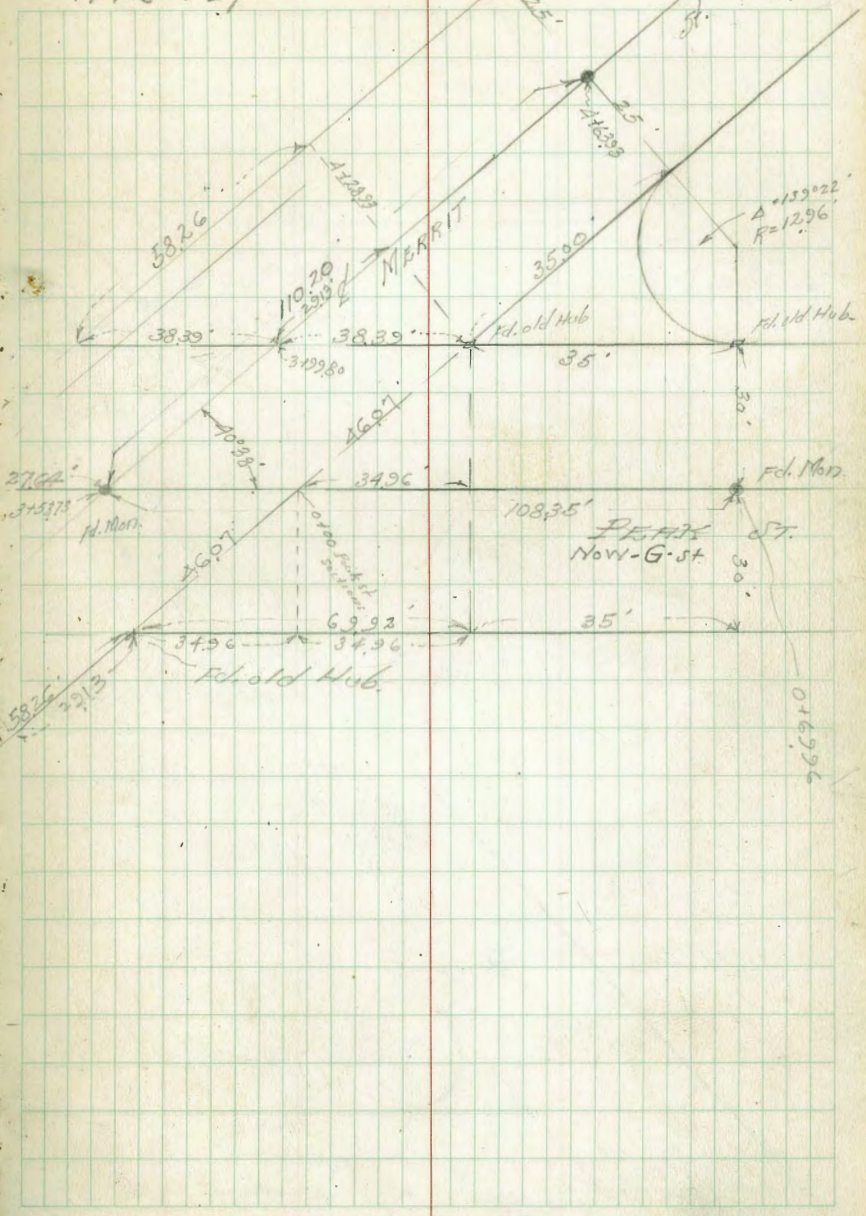
ISLAND AVE.

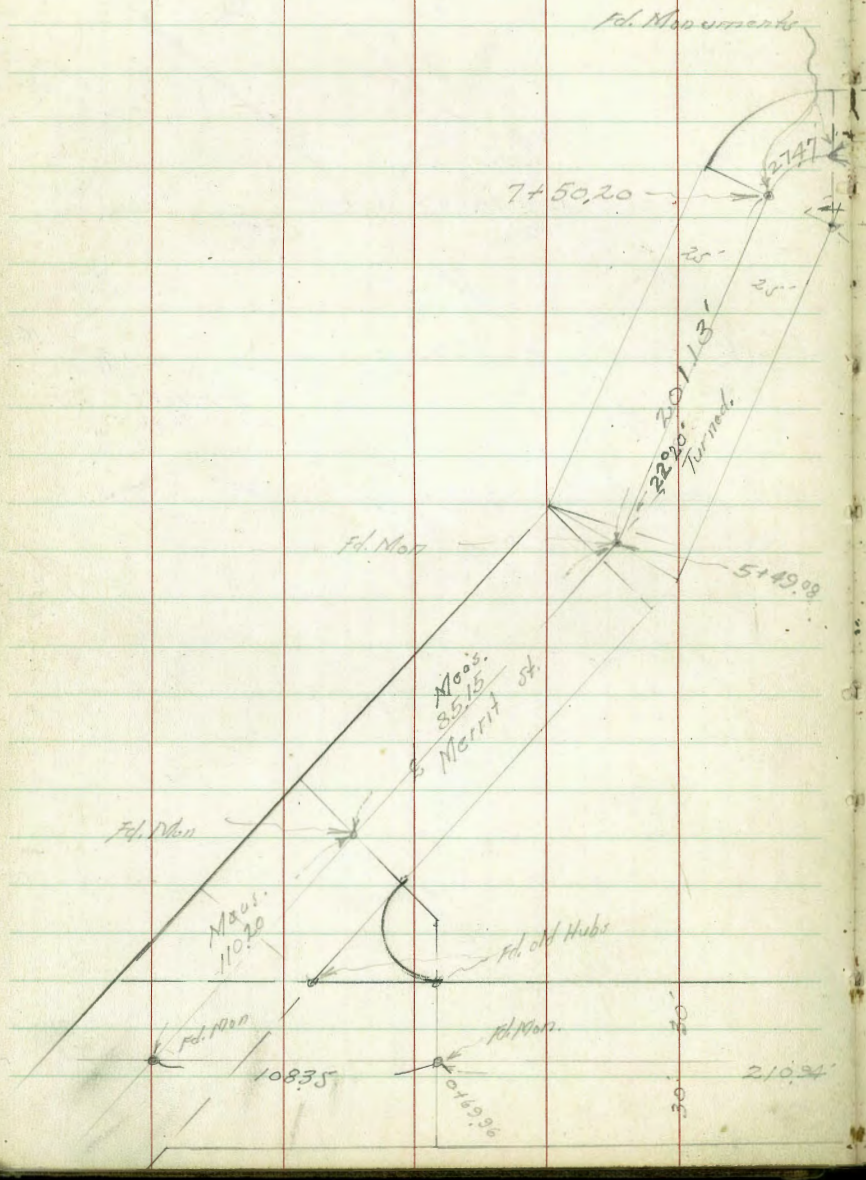
637.80' - F.B. 1535 - Page 53

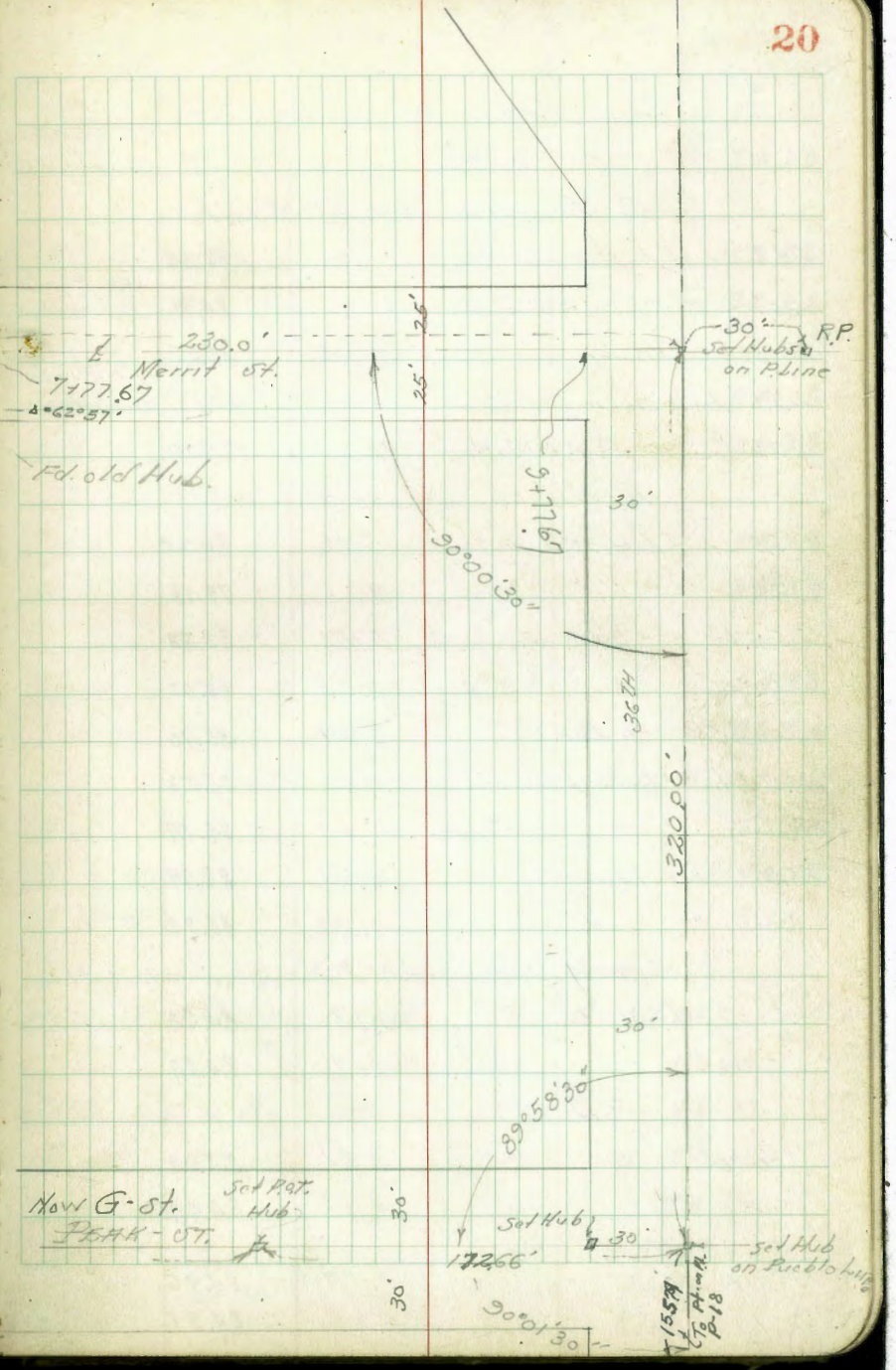
Merrit St. Cross Section
Cont. from P 18



Plotted - 1-28-48
136 -
TPB-127




Fd. Monuments
7+50.20
2.74'
25'
25'
20113'
22°20'
Turned.
Fd. Mon
5+49.08
Meas.
35.15
℄ Merrit St.
Fd. Mon
Meas.
110.20
Fd. old Hubs
Fd. Mon
Fd. Mon.
10835
0+69.96
210.24'
30'
30'


230.0'
℄ Merrit St.
7+77.67
Δ=62°57'
Fd. old Hub.
30'
Set Hubs
on P. line
R.P.
25'
25'
9+11.67
90°00'30"
30'
36 TH
320.00'
30'
89°58'30"
Now G-St.
Park-St.
Set Rot.
Hub
30'
30'
Set Hub
17266'
30
Set Hub
on Pueblo line
90°01'30"
1559
To Pl. on R.
P-18

Walker
Hardin
Reed
7-13-42

MERRIT St. Cross Sections 50' Wide 10' cbs 7.5' Hs

from Market St. to 36TH St.

3.65	89.30		85.65	P.M. NE.PR. Market & 35th

℄ Existing Paving Market

85.5' Rt. of ℄ 35th and Pav.	0.92	88.38
35.5' Rt. " " " " Pav. = Rt.	4.39	84.91 opp P.C. cb. Rot. North & South
℄ 35th on Pav	5.55	83.75
29.6' Lt. = Rt. in Pav.	6.45	82.85 opp P.C. Rot. on North
79.6 " on Pav. = ℄ Market	10.00	79.30

North cb. Market

75.5' Lt. of ℄ of 35th on cb.	9.10	80.20
" " " " " " Gut.	9.76	79.54
25.5' Lt. " " " " P.C. top cb.	5.47	83.83
" " " " " " " Gut	6.28	83.02
℄ 35th on Pav.	5.34	83.96
35.9' Rt. = P.C. 20' cb Rod. on cb.	3.77	85.53
" " " " " " Gut.	4.41	84.89
85.9 " on Top cb.	0.31	88.99
" " Gut.	0.98	88.32

Levels N.E. Rot. 3 Parts cb. Arc = 31.2'

P.C. Top cb. 35.9' Rt. of ℄	3.77	85.53
" Gut.	4.41	84.89
Part 1		
Top cb.	4.21	85.09
Gut.	4.81	84.49
Part #2		
Top cb.	4.35	84.95
Gut.	4.99	84.31

Indexed
C.S.K.

21

89.30

Part 3 = E.C. Rot

Top cb.	4.35	84.95
Gut.	5.01	84.29

Levels N.W. Rot. cb Arc = 15' 3 Parts

P.C. Rot 25.5' Lt. of ℄	5.47	83.83
Gut " " " " "	6.48	82.82
Part 1		
Top cb.	5.25	84.05
Gut.	5.97	83.33
Part 2		
Top cb.	5.11	84.19
Gut.	5.71	83.59
Part 3 = E.C.		
Top cb.	5.02	84.28
Gut.	5.66	83.64

0 - 14.5 = Lowest Point in Valley Gut between cb. P.C.

℄ Valley Gut.	5.36	83.94
7.5' Rt. = E ½	5.22	84.08
7.5' Lt. = W ½	5.58	83.72

0 - 3.25 = North edge Existing Paving

14.4' Lt. of ℄ = North end cb Rot. and cb	5.02	84.28 = Same as Part 3 above on NW Rot.
" " " " " Gut	5.66	83.64
7.5' Lt. of ℄ on Pav.	5.37	83.93
℄ 35th " "	5.18	84.12
7.5' Rt.	5.04	84.26
15.5' Rt. on Gut.	5.01	84.29 Same as Part 3 N.E. Rot.
" " " Top cb	4.35	84.95
60' Rt. of	1.8	87.5

		89.30	Merrit St.		
	0+00				
-35'			+4.2	93.5	
-12			1.5	87.8	
-8			3.7	85.6	
E.			3.8	85.5	
cb.			4.2	85.1	
1/4			4.9	84.4	
E.			5.0	84.3	
1/4			5.3	84.0	
cb.			5.0	84.3	
W			5.3	84.0	
+20			6.8	82.5	
	0+08				
-20			3.7	85.6	
W			2.5	86.8	
+5			4.0	85.3	
cb.			4.7	84.6	
W 1/4			4.8	84.5	
E.			4.8	84.5	
E. 1/4			4.4	84.9	
cb.			4.0	85.3	
E.			3.5	85.8	
+10			0.6	88.7	
T.P.	13.08	102.27	0.11	89.19	
E+12			4.1	98.2	
+35			6.4	95.9	

Reduced & Plotted 7-23-42 CAH.

			102.27		
	0+15				
-35			5.6		96.7
-24			2.4		99.9
-11			2.4		99.9
T.P.	12.99	115.21	0.05	102.22	
-9			27.6		87.6
E.			28.7		86.5
cb.			29.5		85.7
1/4			29.8		85.4
E.			30.0		85.2
1/4			30.6		84.6
cb.			29.8		85.4
+3			29.5		85.7
W			14.4		100.8
+10			14.9		100.3
	0+42				
-20			6.2		109.0
W			3.2		112.0
+5			2.9		112.3
+8			27.0		88.2
cb.			27.4		87.8
1/4			28.2		87.0
E.			28.2		87.0
1/4			27.9		87.3
cb.			27.4		87.8
E.			27.0		88.2

		11521	Merrit St	
E +10			24.6	90.6
+17			6.9	108.3
+35			11.3	103.9
+60			8.7	106.5
	0 +60			
-60			5.3	109.9
-35			1.7	113.5
-27			1.9	113.3
-25			10.7	104.5
-18			13.3	101.9
-16			21.8	93.4
E			25.3	89.9
cb			25.8	89.4
¼			25.9	89.3
℄			25.9	89.3
¼			25.9	89.3
+7			23.7	91.5
cb+2			1.1	114.1
W			1.4	113.8
+20			2.4	112.8
T.P.	8.77	122.56	1.42	113.79
	0 +75			
-20			8.6	114.0
W			8.3	114.3
cb.			7.6	115.0
+1			7.7	114.9

	122.56	
+6	28.9	93.7
¼	29.7	92.9
+5	32.0	90.6
℄	31.8	90.8
¼	31.5	91.1
cb.	31.7	90.9
E.	31.9	90.7
+10	32.0	90.6
+14	31.0	91.6
+22	6.1	116.5
+35	6.7	115.9
+55	5.8	116.8
	1+00	
-55	4.0	118.6
-15	5.7	116.9
-12	29.4	93.2
-10	30.2	92.4
E.	30.2	92.4
cb.	30.1	92.5
¼	29.8	92.8
℄	29.5	93.1
+5	26.1	96.5
+6	7.3	115.3
¼	7.3	115.3
cb.	7.4	115.2
W	7.8	114.8
+20	7.7	114.9

122.56

1+29.12 = B.C.			
-20	7.7	114.9	
W	7.6	115.0	
cb.	7.6	115.0	
1/4	7.6	115.0	
+2	7.6	115.0	
+3	19.7	102.9	
E	25.6	97.0	
+2	26.5	96.1	
1/4	26.7	95.9	
cb.	27.0	95.6	
E	27.4	95.2	
+13	26.1	95.5	
+16	6.9	115.7	
+55	5.9	116.7	
1+50.50 = E.C.			
E	27.4	95.2	
cb.	26.7	95.9	
1/4	1.4	121.2	
E	23.8	98.8	
+4	21.0	101.6	
+5	8.0	114.6	
W 1/4	8.0	114.6	
Wcb.	8.3	114.3	
W	8.0	114.6	
+20	8.4	114.2	

122.56 Merrit St.

24

1+78		
-20	10.1	112.5
W	10.1	112.5
cb.	10.2	112.4
1/4	9.5	113.1
E	8.4	114.2
+5	8.2	114.4
1/4	18.0	104.6
cb.	14.7	107.9
E	16.7	105.9
+5	7.4	115.2
+25	6.3	116.3
1+83		
-25	6.2	116.4
E	7.7	114.9
cb.	8.2	114.4
1/4	8.2	114.4
E	8.4	114.2
1/4	10.2	112.4
cb	11.0	111.6
W	11.4	111.2
+25	11.9	110.7
2+00		
-25	16.6	106.0
W	12.6	110.0
cb.	11.1	111.5

122.52

W 1/4	9.6	113.0
℄	8.2	114.4
E 1/4	8.0	114.6
cb.	8.0	114.6
E.	7.8	114.8
+25	6.0	116.6
2+25		
-25	5.0	117.6
E.	7.1	115.5
cb.	7.7	114.9
1/4	7.4	115.2
℄	7.5	115.1
1/4	8.3	114.3
cb.	10.9	111.7
W	12.7	109.9
+25	19.0	103.6
2+50		
-25	16.7	105.9
W	8.7	113.9
cb.	8.0	114.6
1/4	7.0	115.6
℄	6.7	115.9
1/4	6.4	115.2
cb.	6.6	116.0
E	5.6	117.0
+25	3.7	118.9

122.56 Merrit St.

2+78.41 } Equation
= 2+78.53 }

-25	1.5	121.1
E	2.3	120.3
+8	3.7	118.9
cb.	5.0	117.6
1/4	5.3	117.3
℄	5.5	117.1
1/4	5.7	116.9
cb.	6.6	116.0
W	6.9	115.7
+30 = brow of Hill	10.0	112.6
3+07.66 = see sketch		
℄	3.3	119.3
E 1/4	3.2	119.4
+6	2.8	119.8
E cb	2.5	120.1
+1	1.3	121.3
E	0.5	122.1
+25	+0.7	123.3
T.P. 7.12 127.95	1.73	120.83 on Conc. Mon. ℄ Merrit & Peak St
3+07.66 = S.L. Peak		Note: all sections in this intersection = Production Peak St.
E	4.6	123.4
+13	5.8	122.2
cb	7.7	120.3
1/4	8.1	119.9
℄	8.7	119.3
1/4	9.6	118.4
cb.	11.0	117.0
W	12.3	115.7
+24	17.0	111.0

127.95

= scb Peak

-25	14.2	113.8
W	11.6	116.4
cb.	10.0	118.0
1/4	8.7	119.3
℄	7.8	120.2
1/4	7.3	120.7
cb.	7.3	120.7
E	5.2	122.8

S 1/4

E	4.6	123.4
cb.	6.1	121.9
1/4	6.8	121.2
℄	7.0	121.0
1/4	7.9	120.1
cb.	9.4	118.6
W	10.5	117.5
+25	13.0	115.0

℄ Peak St.

-25	12.0	116.0
W	10.4	117.6
cb.	9.2	118.8
1/4	7.7	120.3
℄	6.8	121.2
1/4	6.2	121.8
cb.	5.3	122.7
E	3.8	124.2

127.95 Merrit st

N 1/4 Peak

E	3.9	124.1
cb.	5.4	122.6
1/4	6.0	122.0
℄	6.4	121.6
1/4	7.7	120.3
cb	9.0	119.0
W	10.1	117.9
+25	11.9	116.1

N cb Peak

-25	11.7	116.3
W	9.9	118.1
cb.	8.9	119.1
1/4	7.2	120.8
℄	6.1	121.9
1/4	6.0	122.0
E cb.	5.5	122.5
E.L.	3.7	124.3
T.P.	10.26 131.09	7.12 120.83

T.P. Cor Mon. ℄ Merrit & Peak

3+99.8 = N.L. Peak St. on E

E.L.	4.9	126.2
cb.	8.2	122.9
1/4	8.8	122.3
℄	9.2	121.9
1/4	9.8	121.3
cb.	11.8	119.3
W	13.0	118.1
+20	14.5	116.6

4+28.93			
-20		14.8	116.3
W		12.5	118.6
cb.		11.4	119.7
1/4		9.6	121.5
℄		8.8	122.3
1/4		8.5	122.6
cb.		8.0	123.1
+3		5.7	125.4
E		4.9	126.2
4+63.93			
-20		0.9	130.2
E		5.5	125.6
cb.		6.9	124.2
1/4		8.0	123.1
℄ on Ground		8.4	122.7
℄ " Conc. Mon.		8.67	122.4
W 1/4		9.0	122.1
cb.		10.2	120.9
W		11.1	120.0
+20		14.2	116.9
5+00			
-20		14.9	116.2
W		9.6	121.5
cb.		9.0	122.1
1/4		8.9	122.2
℄		8.7	122.4

E 1/4	8.3	122.8
cb.	7.3	123.8
+4	4.7	126.4
E	3.3	127.8
+10	1.3	129.8
5+84		
-10	2.7	128.4
E	3.7	128.4
+7	5.8	125.8
cb	7.4	123.7
+2	9.1	122.0
1/4	10.1	121.0
℄	10.5	120.6
1/4	10.5	120.6
cb.	10.5	120.6
W	11.4	119.7
+20	19.2	111.9
5+49.08 = Δ Lt	22°20'00"	Section on bisector
-20	19.2	111.9
W	14.2	116.9
cb.	12.3	118.8
1/4	11.5	119.6
℄ on Ground.	11.2	119.9
℄ " Conc. Mon.	11.87	119.2
1/4	11.2	119.9
+6	10.6	120.5
cb.	9.2	121.9

		131.09		
cb + 3			6.7	124.4
E			5.5	125.6
+10			3.7	127.4
	5+75			
-25			8.5	122.6
E			14.0	117.1
cb.			13.1	118.0
1/4			12.4	118.7
℄			12.2	118.9
1/4			12.8	118.3
cb.			13.3	117.8
W			16.5	114.6
+7			20.0	111.1
+25			25.6	105.5
	6+00			
-25			23.4	107.7
W			17.0	114.1
cb.			13.0	118.1
1/4			12.5	118.6
℄			11.8	119.3
1/4			12.1	119.0
cb.			12.4	118.7
E			12.5	118.6
+25			9.3	121.8
	6+25			
-25			6.6	124.5

		131.09	Merrit st.	
E			9.6	121.5
cb.			10.8	120.3
1/4			10.6	120.5
℄			10.6	120.5
1/4			11.0	120.1
cb.			12.3	118.8
W			13.0	118.1
+25			16.3	114.8
	6+50			
-25			12.8	118.3
W			8.8	122.3
cb.			8.3	122.8
1/4			8.3	122.8
℄			8.3	122.8
1/4			8.2	122.9
cb.			8.3	122.8
+5			5.6	125.5
E			5.1	126.1
+10			4.2	126.9
	6+75			
-10			1.3	129.8
E			2.4	128.7
+5			2.9	128.2
cb.			5.5	125.6
1/4			5.5	125.6
℄			5.7	125.4

		131.09		
W ¼			5.7	125.4
cb.			6.0	125.1
W			6.7	124.4
+20			8.5	122.6
	7+25			
-15			3.0	128.1
W			2.4	128.7
cb.			2.3	128.8
¼			1.8	129.3
℄			1.7	129.4
¼			1.3	129.8
T.P.	12.87	143.51	0.45	130.64
cb.			13.7	129.8
+3			12.2	131.3
E			11.8	131.7
+10			11.1	132.4
	7+50.20 - B.C. Rt.			
-10			10.2	133.3
S E			10.9	132.6
+8			11.2	132.3
cb.			12.3	131.2
¼			12.5	131.0
℄ on Ground			12.4	131.1
℄ on Conc. Mon			12.56	130.9
N W ¼			12.7	130.8
cb			13.2	130.3
N W			13.3	130.2
+15			13.4	130.1

143.51 Merrit St.

7+77.67		
-20	9.1	134.4
N	10.5	133.0
cb.	10.6	132.9
¼	10.4	133.1
℄ on Ground.	10.5	133.0
℄ on Conc. Mon.	11.11	132.4
¼	11.0	132.5
cb.	11.4	132.1
S	10.9	132.6
+10	11.1	132.4
8+00		
-10	9.1	134.4
S	9.2	134.3
cb.	9.5	134.0
¼	9.3	134.2
℄	9.2	134.3
¼	9.1	134.4
cb.	9.1	134.4
N	9.0	134.5
+10	8.9	134.6
8+50		
-10	4.7	138.8
N	4.7	138.8
cb.	5.0	138.5
¼	4.8	138.7

143.51

℄			4.8	138.7
S 1/4			4.7	138.8
cb.			5.4	138.1
S.L.			4.6	138.9
+10			4.4	139.1
T.P.	10.25	151.79	1.97	141.54
	9+00			
-10			6.7	145.1
S			6.7	145.1
+6			6.6	145.2
cb.			8.2	143.6
1/4			8.0	143.8
℄			7.8	144.0
N 1/4			7.8	144.0
cb.			7.9	143.9
+6			6.5	145.3
N			6.6	145.2
+10			6.6	145.2
	9+17			
-10			5.1	146.7
N			4.8	147.0
+5			4.3	147.5
cb.			5.5	146.3
+3			6.2	145.6
1/4			6.3	145.5
℄			6.3	145.5

151.79 Merrit St.

S 1/4			6.5	145.3
cb.			6.2	145.6
+4			4.4	147.4
S			4.7	147.1
+10			4.8	147.0
	9+50			
-10			2.4	149.4
S			2.3	149.5
+6			2.5	149.3
cb.			6.5	145.3
1/4			9.2	142.6
℄			8.9	142.9
1/4			8.5	143.3
cb.			4.7	147.1
+3			4.1	147.7
N			6.1	145.7
+10			7.6	144.2
	9+65			
-10			9.3	142.5
N			8.0	143.8
cb.			5.6	146.2
+3			5.6	146.2
1/4			9.3	142.5
℄			9.9	141.9
1/4			9.4	142.4
cb.			7.6	144.2

151.79

Ncb +5	2.6	149.2	
SL.	2.6	149.2	
+10	2.5	149.3	
9+70			
-10	4.2	147.6	
S	4.8	147.0	
cb.	6.1	145.7	
1/4	7.2	144.6	
℄	8.2	143.6	
N 1/4	8.4	143.4	
cb.	5.9	145.9	
N	8.2	143.6	
+10	9.8	142.0	
9+74			
-10	12.5	139.3	
N	11.1	140.7	
cb.	9.7	142.1	
1/4	9.0	142.8	
℄	8.3	143.5	
1/4	7.5	144.3	
cb	6.5	145.3	
S	5.2	146.6	
+10	4.3	147.5	
9+77.67 = INL. 36th St.			
-10	4.3	147.5	
SL.	5.2	146.6	

151.79 Merrit St.

S.cb.			6.6	145.2	
1/4			7.6	144.2	
℄			8.4	143.4	
N 1/4			9.1	142.7	
cb.			9.7	142.1	
N			11.1	140.7	
+10			13.2	148.6	
T.P.	1.33	150.34	2.78	149.01	on Hub on Rebar & on ℄ Pack
T.P.	1.39	147.33	4.40	145.94	
T.P.	0.23	134.73	12.83	134.50	
T.P.	4.71	127.55	11.89	122.84	
TP chk			5.19	122.36	N.W. BP Market & 36th
F.B. 1602 Page 25				122.26	
				0.10 diff.	
				-0.03	Error below
				0.07	True diff. in Elev. Above
Above					
T.P.	0.52	122.88		122.36	BM
T.P.	0.02	109.88	13.02	109.86	
T.P.	0.17	97.39	12.66	97.22	N.E. BP Market & 35th
T.P. chk starting BM P.21			11.71	85.68	
				85.65	BM.
				0.03	Error

Walker
Hurdin
Recd:
7-15-42

Cross Section ~~Peak~~ (Now-"G") St. 60 wide 10 cbs 10 1/4s.

from Merrit to 36th St.

	1285	133.68	120.83	Conc. Mon & Merrit & Peak P.25
	0+00 = diag section = E. Line Merrit			
S.L.		10.3	123.4	
+12		9.8	123.9	
+15.36 = cb.		10.8	122.9	
1/4		10.3	123.4	
℄		9.5	124.2	
	0+00 Ft to ℄ Peak			
℄		9.5	124.2	
1/4		9.2	124.5	
cb.		8.8	124.9	
+2		7.5	126.2	
S.L.		6.9	126.8	
+10		6.6	127.1	
	0+40			
-10		3.7	130.0	
S.L.		3.7	130.0	
+8		4.1	129.6	
cb.		4.7	129.0	
S 1/4		4.8	128.9	
℄		4.7	129.0	
N 1/4		5.8	127.9	
N cb.		6.8	126.9	
N		7.2	126.5	
+5		7.3	125.4	

Reduced & Platted 7-23-42 GBH

Indexed
C.S.R.

133.68

0+69.96 = P.C. Rd on N

-10		4.7		129.0
N		4.0		129.7
cb.		3.3		130.4
1/4		2.5		131.2
℄		2.1		131.6
S 1/4		2.1		131.6
cb.		2.2		131.5
+2		1.8		131.9
S.L.		1.1		132.6
+10		0.6		133.1
T.P.	1249	145.98	0.19	133.49
	1+00			
-10		10.6		135.4
S.L.		10.4		135.6
+8		10.1		135.9
cb.		11.2		134.8
1/4		11.1		134.9
℄		10.7		135.3
1/4		11.2		134.8
cb.		11.9		134.1
N		12.4		133.6
+10		12.8		133.2
	1+42			
-10		9.1		136.9
N		9.0		137.0

		145.98		PEAK ST.
N cb.			8.6	137.4
+7			8.1	137.9
1/4			6.8	139.2
℄			6.5	139.5
1/4			6.5	139.5
S cb			6.9	139.1
+2			6.3	139.7
SL			5.7	140.3
+10			4.8	141.2
	1+62			
-10			1.9	144.1
SL.			1.4	144.6
+8			1.4	144.6
cb.			3.9	142.1
S 1/4			4.1	141.9
℄			3.9	142.1
+8			4.2	141.8
1/4			4.9	141.1
+6			6.4	139.6
N cb.			6.6	139.4
NL			7.7	138.3
+10			8.7	137.3
T.P.	11.16	156.99	0.15	145.83
	1+82			
-10			17.3	139.7
N			15.5	141.5

	156.99		
N cb.		14.7	142.3
1/4		13.6	143.4
+3		12.7	144.3
℄		12.4	144.6
S 1/4		12.2	144.8
S cb.		12.2	144.8
+1		11.3	145.7
SL		10.7	146.3
+10		9.6	147.4
	2+00		
-10		6.6	150.4
SL		7.1	149.9
+9		8.2	148.8
cb		10.1	146.9
1/4		10.3	146.7
℄		10.2	146.8
+7		10.3	146.7
1/4		11.9	145.1
cb.		12.9	144.1
N		13.5	143.5
+10		14.6	142.4
	2+35		
-10		12.5	143.5
N		10.3	146.7
cb		10.0	147.0
1/4		8.0	149.0

		15699		PEAK ST.
℄			7.2	149.8
S 1/4			6.7	150.3
+9			6.4	150.6
cb.			5.4	151.6
SL.			5.0	152.0
+10			5.1	151.9
	2+60			
-10			3.1	153.9
SL.			3.1	153.9
cb			4.0	153.0
+2			5.5	151.5
S 1/4			5.5	151.5
℄			5.4	151.6
N 1/4			5.7	151.3
cb			7.3	149.7
N			8.9	148.1
+10			10.0	147.0
	2+80.9 = P.O.T.			
-10			7.1	149.9
N			6.1	150.9
cb.			5.8	151.2
+5			4.8	152.2
N 1/4			4.7	152.3
℄ on Ground			4.8	152.2
℄ on Hub.			4.98	
S 1/4			4.9	152.1
+8			4.9	152.1

		15699		PEAK ST.
Scb.			4.2	152.8
SL.			3.7	153.3
+10			3.0	154.0
	3+00			
-10			2.6	154.4
S			2.3	154.7
cb.			2.7	153.3
+2			4.1	152.9
S 1/4			4.4	152.6
℄			4.2	152.8
N 1/4			3.9	153.1
Ncb.			4.9	152.1
N			4.9	152.1
+10			5.2	151.8
	3+50			
-10			4.3	152.7
N			3.8	153.2
cb.			4.3	152.7
1/4			4.3	152.7
℄			4.2	152.8
1/4			3.9	153.1
cb.			4.1	152.9
SL.			3.2	153.8
+10			2.8	154.2

Cont. P. 35

156.99 PEAK 57

4+00

S-10	3.8	153.2	
S	3.8	153.2	
cb	3.8	153.2	
+3	6.5	150.5	
1/4	6.7	150.3	
℄	6.7	150.3	
N 1/4	6.6	150.4	
cb	6.8	150.2	
N cb+5	5.4	151.6	
N	5.5	151.5	
+10	6.6	149.4	
4+23.56 = W.L. 36th			
-10	8.9	148.1	
N	8.5	148.5	
cb.	9.1	147.9	
1/4	9.1	147.9	
℄	9.3	147.7	
1/4	9.3	147.7	
+8	8.7	148.3	
cb.	7.4	149.6	
S.L. on old Hub	7.40	149.6	℄ Hub Peak P-30 on Pueblo Line 3rd
cbk. Hub P-30 ℄ Peak on Pl. 36th	11.09	145.90 145.94 0.04 Error.	

Walker
Hurdin
Wirt
8-12-42

Cross Sections 54th St. 50' Wide 10' Cbs ~~75 lbs~~ 7/2
Between Trojan & El Cajon Blvd.
from Station 26+40 F.B. 1501-24
to El Cajon Blvd.

Note: No 'Ys taken. West edge Paving not rod.

F.B. 1572-30
F.B. 599 used 1299 364.68 351.69 BM C.T. Ad Pg. E. Trojan 54th

26+40 F.B. 1501 = 26+40 this Book.

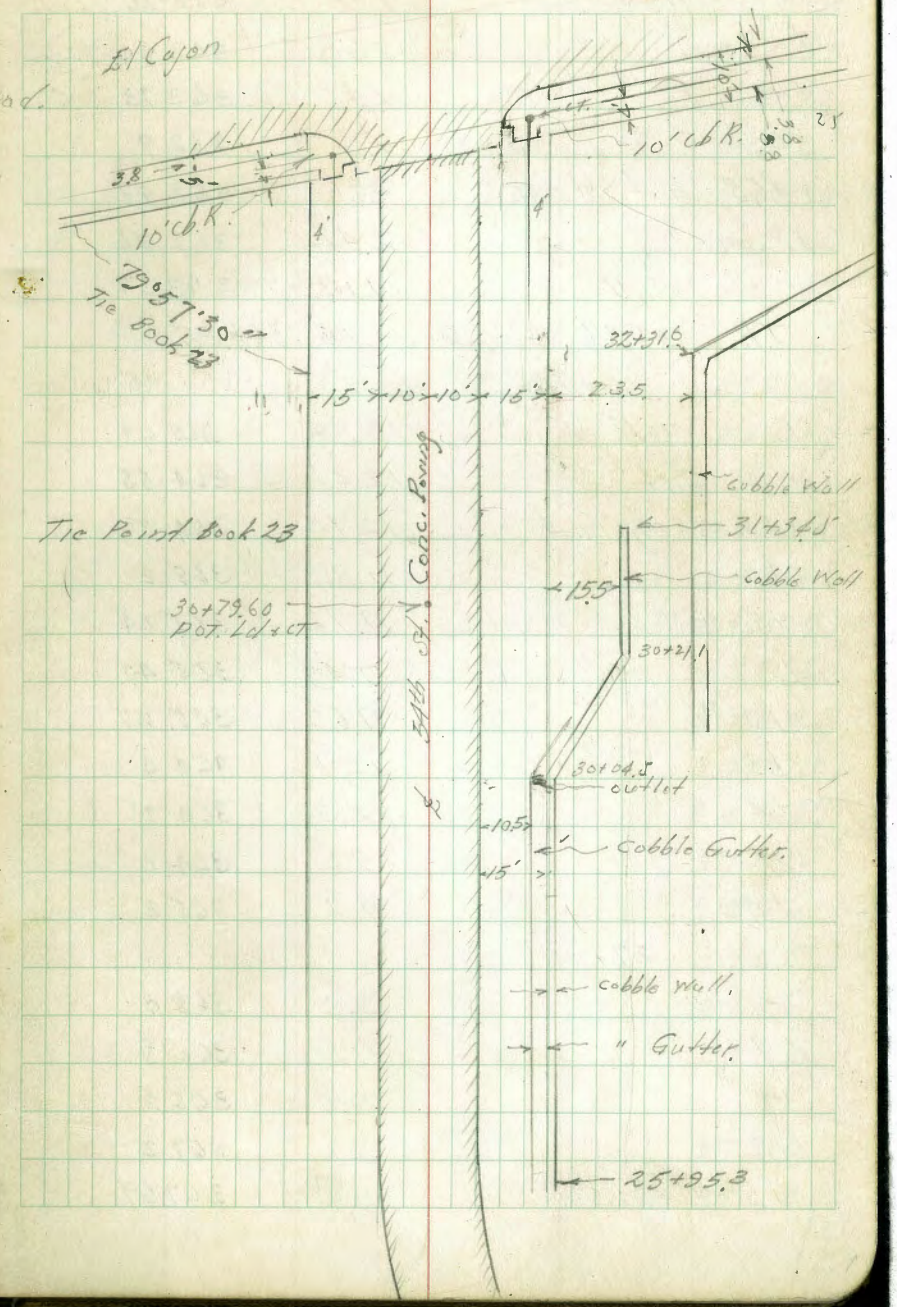
25+95.3 = End Cobble Wall & Gutter

E on Wall	4.51	360	17
" " Gut.	6.10	358	58
+4.5 = edge Gut.	5.80	358	88
E cb.	5.20	359	48
+5' = E edge Pav.	5.43	359	25
℄ "	5.18	359	50
+10 = W " "	5.23	359	45
cb	5.3	359	4
+4	5.2	359	5
+13	6.7	358	0
W	6.8	357	9
+20	6.8	357	9
+30	5.2	359	5
26+40			
-30	1.8	362	9
-9	3.5	361	2
W	3.2	361	5
+5	2.8	362	7
cb.	2.0	362	7

Indexed
C.S.K.

Blvd.

36



26+40 Cont.

364.68

W cb +5 = W edge Por	1.88	362	80
℄ on "	1.68	363	00
+10 = E. " "	1.95	362	73
cb	1.8	362	9
+5.5 = Gut. W edge	2.21	362	47
E. on "	2.42	362	26
" " Wall	1.17	363	51
T.P. 12.41 376.96	0.13	364.55	
26+70			
E. on Wall	10.98	365	98
" " Gut.	12.41	364	55
+4.5 = W. edge Gut.	12.10	364	86
cb.	11.8	365	2
+5 = E " Por.	11.72	365	24
℄ "	11.49	365	47
+10 W " "	11.69	365	27
cb.	12.1	364	9
+4	12.3	364	7
W	13.0	364	0
+30	11.7	365	3
27+00			
-30	9.0	368	0
-7	11.2	365	8
W	10.8	366	2
Cb.	9.8	367	2
+5 = W edge Por	9.27	367	69

376.96

27+00 Cont.

℄ Por.	9.03	367.93
+10 E edge Por	9.23	367.73
cb.	9.4	367.6
+5.5 = W " Gut.	9.66	367.30
E. on "	9.90	367.06
" " Wall	8.49	368.47
27+45 Jog in Grade of Wall		
E. on Wall South Grade	4.76	372.20
" " " " "	4.26	372.70
27+50		
E. on Wall	3.87	373.09
" " Gut.	5.73	371.23
+4.5 = W edge Gut.	5.49	371.47
cb.	5.2	371.8
+5 = E " Por.	5.04	371.92
℄ "	4.85	372.11
+10 W " "	5.09	371.87
cb.	5.9	371.1
W	6.4	370.6
+10	6.5	370.5
+15	5.5	371.5
+30	4.0	373.0
28+00		
-30	+2.0	379.0
W	0.8	376.2

	376.96			
W+7			0.7	376.3
+8			1.5	375.5
cb.			1.4	375.6
+5 = W edge Pav.			0.88	376.08
℄	"		0.70	376.26
+10 = E	"	"	0.82	376.14
cb.			0.9	376.1
+5.5 W 1" Gut			1.12	375.84
E on Gut			1.52	375.44
" on Wall			+0.34	377.30
TP	12.92	389.68	0.20	376.76
	28+50			
E on Wall			8.08	381.60
" " Gut			9.93	379.75
+4.5 on W edge Gut.			9.57	380.11
cb.			9.4	380.3
+5 = E " Pav.			9.21	380.47
℄	"		9.10	380.58
+10 = W "	"		9.27	380.41
cb.			9.9	379.8
+4			8.7	381.0
+8			3.9	385.8
W			4.0	385.7
+20			2.4	387.3
+30			1.0	388.7
	29+00			

	29+00	389.68		
-40			+7.8	397.5
-30			+7.6	397.3
W			+3.3	393.0
+3			0.0	389.7
+6			1.0	388.7
+8			5.3	384.4
cb.			5.5	384.2
+5 = W edge Pav			5.09	384.59
℄	"		4.87	384.81
+10 E	"	"	4.94	384.74
cb.			5.1	384.6
+5.5 = W edge Gut			5.32	384.36
E, on Gut			5.65	384.03
" " Wall			3.82	385.86
TP	12.94	401.91	0.71	388.97
	29+50			
E on Wall			11.96	389.95
" " Gut.			14.14	387.77
+4.5 = W edge Gut.			13.65	388.26
cb.			13.2	388.7
+5 = E " Pav.			12.94	388.97
℄	on	"	12.89	389.02
+10 = W edge	"		13.05	388.86
cb.			13.2	388.7
+3			11.1	390.8
W			3.5	398.4

	401.91	29+50 Cont.	
W+30		3.3	398.6
+50		3.3	398.6
	29+75		
-50		2.5	399.4
-30		2.5	399.4
-4		2.5	399.4
-1		9.1	392.8
W		9.7	392.2
cb.		11.4	390.5
+5 = W edge Pav.		10.94	390.97
℄ "		10.77	391.14
+10 E " "		10.82	391.09
cb.		11.0	390.9
+5.5 = E edge Gut.		11.57	390.34
E on Gut.		12.05	389.86
E " Wall		9.71	392.20
	30+00		
E on Wall		7.79	394.12
" " Gut.		10.01	391.90
+4.5 = W edge Gut.		9.60	392.31
cb.		9.0	392.9
+5 = E " Pav.		8.83	393.08
℄ "		8.73	393.18
+10 = W " "		8.87	393.04
cb.		9.5	392.4
W		8.7	393.7
+4		1.8	400.1
+30		2.0	399.9
+50		2.2	399.7

	401.91	
	30+02.5 = End outlet	
Floor	= 9.76	392.15
	3+04.5 = Δ in Wall	
E, on Wall	7.50	394.41
	30+21.1 = Δ in Wall = End Gutter	
E. on Wall	2.14	399.77
	30+25	
-50	1.8	400.1
-30	2.0	399.9
-5	1.2	400.7
W	5.5	396.4
+4	6.7	395.2
cb.	7.5	394.4
+5 = W edge Pav.	6.83	395.08
℄ on "	6.76	395.15
+10 E " " "	6.87	395.04
cb.	7.2	394.7
E on Ground.	6.7	395.2
+15.5 Toe Wall	6.4	395.5
" on "	2.17	399.74 ✓
	30+50	
-15.5 Toe Wall	4.7	397.2
E	4.8	397.1
cb.	5.4	396.5
+5 on E edge Pav.	5.07	396.84
℄ "	5.03	396.88
+10 " W " "	5.15	396.76

40191

W cb.			5.5	396.4
W			4.3	397.6
+7			0.1	401.8
+30			0.5	401.4
+50			1.0	400.9
T.P.	7.27	408.26	0.92	400.99
30+75				
-50			6.9	401.4
-30			6.6	401.7
-5			5.8	402.5
W			7.0	401.3
+4			10.2	398.1
cb.			10.7	397.6
+5 = W edge Pav.			9.85	398.41
L " "			9.74	398.52
E " "			9.83	398.43
cb.			10.2	398.1
E			9.8	398.5
+15.5 of Wall			9.5	398.8
" on "			8.12	400.14 ✓
31+00				
-15.5 on Wall			7.81	400.45 ✓
" Ground			8.2	400.1
E			8.4	399.9
cb.			8.8	399.5
+5 = E edge Pav.			8.35	399.91

40826

L Pav.	8.28	399.98
W edge Pav.	8.41	399.85
cb.	9.1	399.2
W	5.6	402.7
+30	6.2	402.1
+50	6.5	401.8
31+25		
-30	6.1	402.2
W	5.4	402.9
+7	5.4	402.9
cb.	8.0	400.3
+5 = W edge Pav.	7.29	400.97
L "	7.21	401.05
E " "	7.32	400.94
cb.	7.3	401.0
E	7.0	401.3
+15.5 on Wall	6.87	401.39 ✓
31+50		
E -15	5.8	402.5
E	5.8	402.5
cb.	6.3	402.0
+5 = E edge Pav.	6.31	401.95
L "	6.17	402.09
+10 W " "	6.29	401.97
cb.	6.8	401.5
+1	6.7	401.6
+3	5.0	403.3

408.26

W	5.2	403.1	
+30	6.0	402.3	
31+75			
-30	6.0	402.3	
W	4.6	403.7	
+5	4.2	404.1	
+9	5.6	402.7	
cb.	5.8	402.5	
+5 = W edge Pav.	5.43	402.83	
℄ on "	5.35	402.91	
E edge "	5.49	402.77	
cb.	4.9	403.4	
E	4.9	403.4	
+23.5 = Toe of Wall	4.5	403.8	
" on Wall	1.04	407.22	
32+00			
E	3.9	404.4	
cb.	4.5	403.8	
E edge Pav.	5.15	403.11	
℄ "	5.01	403.25	
W " "	5.09	403.17	
cb.	5.4	402.9	
+5	4.5	403.8	
W	4.6	403.7	
+30	5.9	402.4	

408.26

32+50		
-30	6.5	401.8
W	5.4	402.9
+7	4.8	403.5
cb.	5.7	402.6
W edge Pav.	5.29	402.97
℄ "	5.15	403.11
E " "	5.24	403.02
cb.	4.9	403.4
E	4.4	403.9
32+31.6 = W △ in Wall		
E +23.5 on Wall	0.77	407.49
" " Ground	3.2	405.1
33+00		
E	5.0	403.3
cb.	5.9	402.4
+5 = E edge Pav.	5.71	402.55
℄ "	5.52	402.74
W " "	5.70	402.56
cb.	5.9	402.4
W	6.5	401.8
+30	7.6	400.7
33+50		
-30	8.6	401.7
W	6.1	402.2
cb.	5.9	402.4

	408.26		33+50	
W edge Pav.		6.15	402.11	
℄ "		6.02	402.24	
E " "		6.10	402.16	
Cb.		6.1	402.2	
+1		4.8	403.5	
E		4.5	403.8	
T.P.	4.57	406.47	6.36	401.90

Sxy. 4' tuck. El Cajon & 54th

℄ station 54th = 33+87.19 = S.L. El Cajon Blvd

33+88.4 = End cb. Returns on both sides.

E on Sedge Walk	2.84	403.63
E cb on Cb.	3.67	402.80
Gut.	4.13	402.34
+5 on Pav.	4.24	402.23
℄ " "	4.26	402.21
+10 " "	4.50	401.97
W cb. " "	4.72	401.75
W cb. on top cb	4.27	402.20
W on edge walk	4.74	401.73

33+97.34 = S cb. El Cajon

-30 on cb.	6.37	400.10
" " Gut.	7.06	399.41
W on P.C. cb Ref on cb	4.91	401.56
" Gut.	5.49	400.98
℄ 54th	4.51	401.96
E on Cb.	2.86	403.61
" " Gut	3.50	402.97
+30	1.73	404.74

406.47

℄ SE Ref. Top cb.			3.27	403.20
" " " Gut.			3.94	402.53
T.P.	12.77	418.43	0.81	405.66
T.P.	6.58	423.82	1.19	417.24
Chk. H.E.B.P. El Cajon & Dayton St.			4.61	419.21
B.M. Book by Bliss.				419.31
				0.10

check this Elev. Not listed in M.M. B.M. Book.

26+51.3 = ℄ Elec Pole 21.8 Lt. of ℄ 54th = ℄ of Pole

27+98 = ℄ " " 20.9 " " " " " "

29+99 = " " " 21.6 " " " " " "

32+05 = ℄ " " 28.3 Rt. " " " " " "

32+44.6 = ℄ " " 22.4 Lt. " " " = " " "

33+46 = ℄ Deadman 19.8 Lt. " " " = " " Anchor

33+68.5 = ℄ Elec Guy Pole 20.5 " " " " " " Guy Pole

3397
174
3223

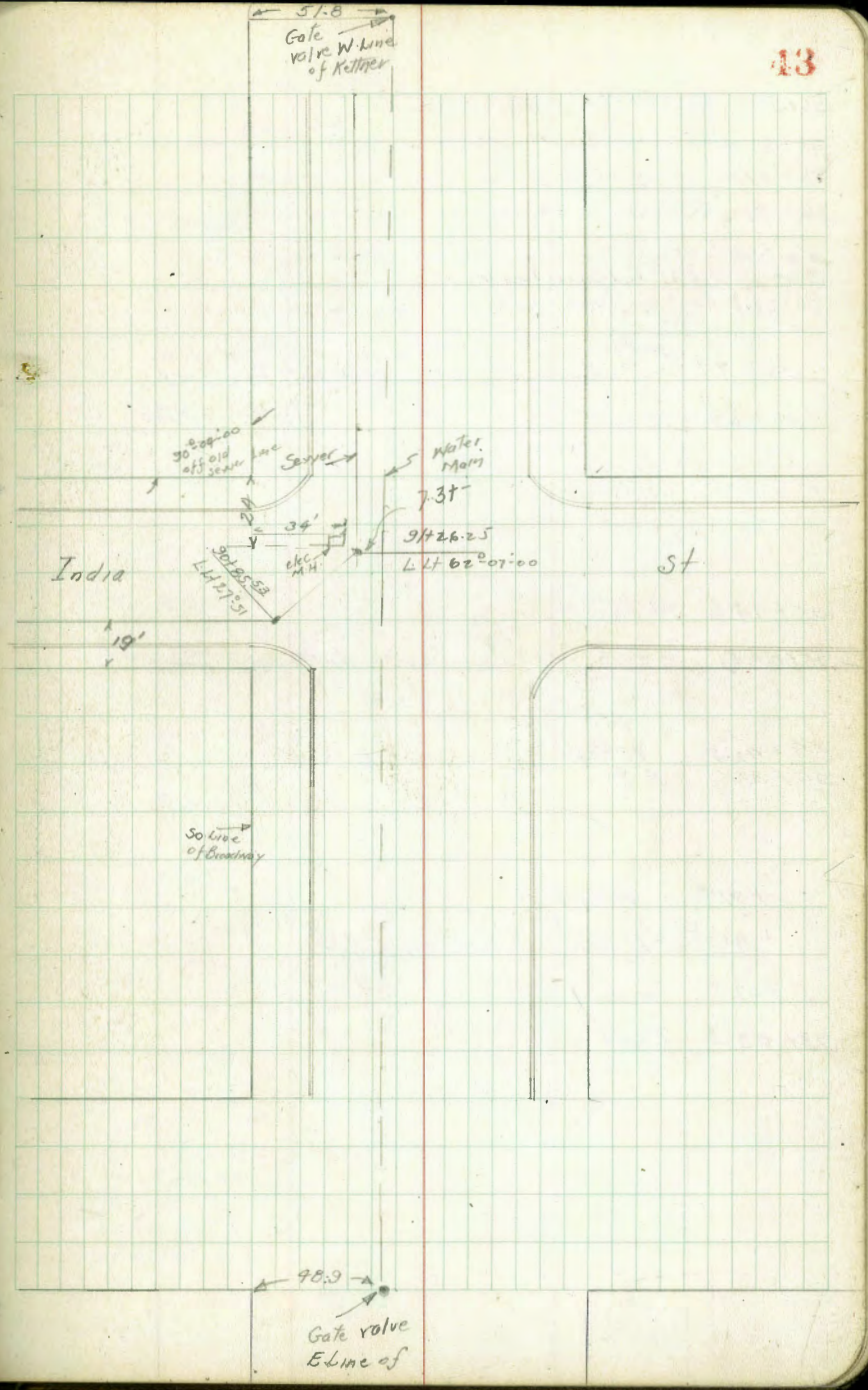
17.8 to pole Conduit up

Bliss
Begg.
W. Moore
8/21/42

Location of Elec. R.R. Tracks Kettner
+ Broadway. See Page 49

Location Water Main with Reference to M.H
India + Broadway - Page 43

Location Water Main India to Pacific Hgh Way
Pages 43 + 49.



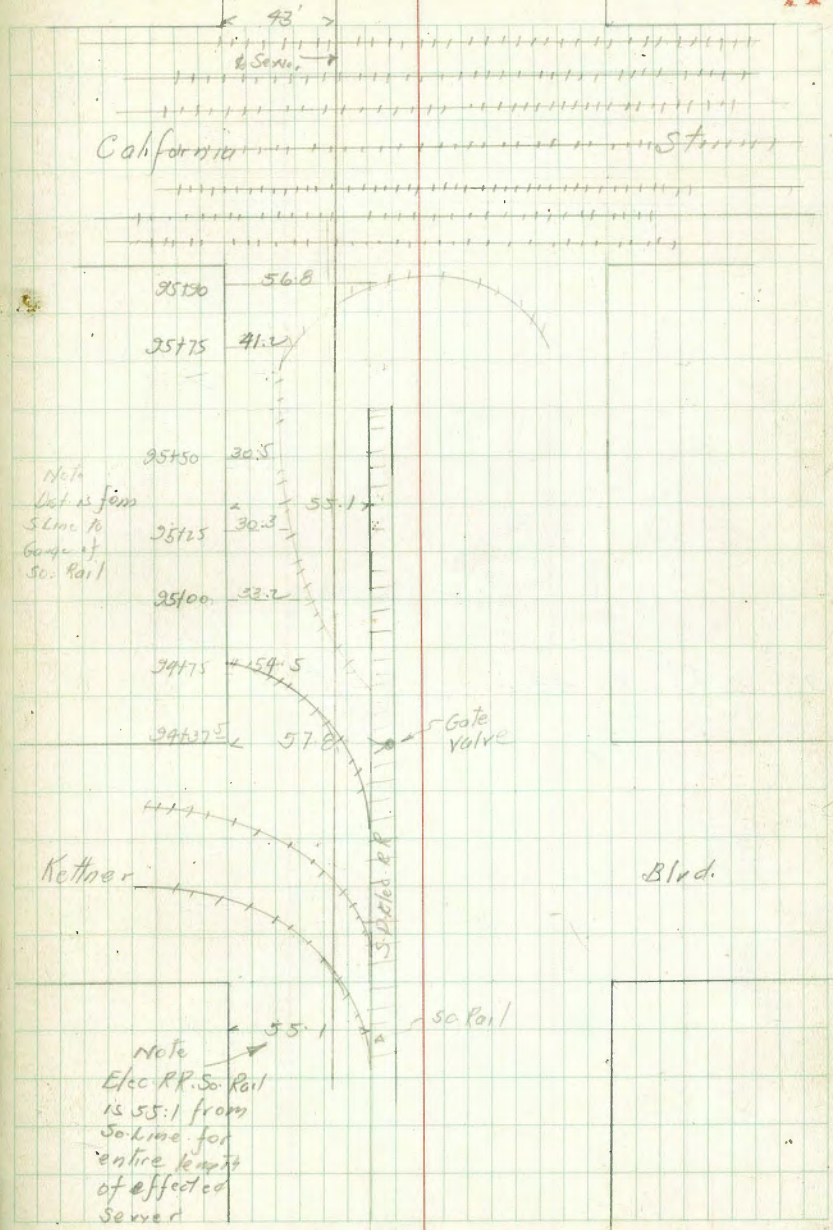
96+97.6 East Rail of Single Track
96+85.4 " " " " "
96+81.9 " " " " "
96+73.2 " " " " "
96+59.2 " " " " "
96+35.9 East Rail Single Track
96+22.8 East Rail Single Track

95+77 W. Rail Intersection of Sewer with loop Track
95+69.3 E. Rail

95+14.6 W. Rail
95+04.6 E. Rail inter of Sewer with loop Track

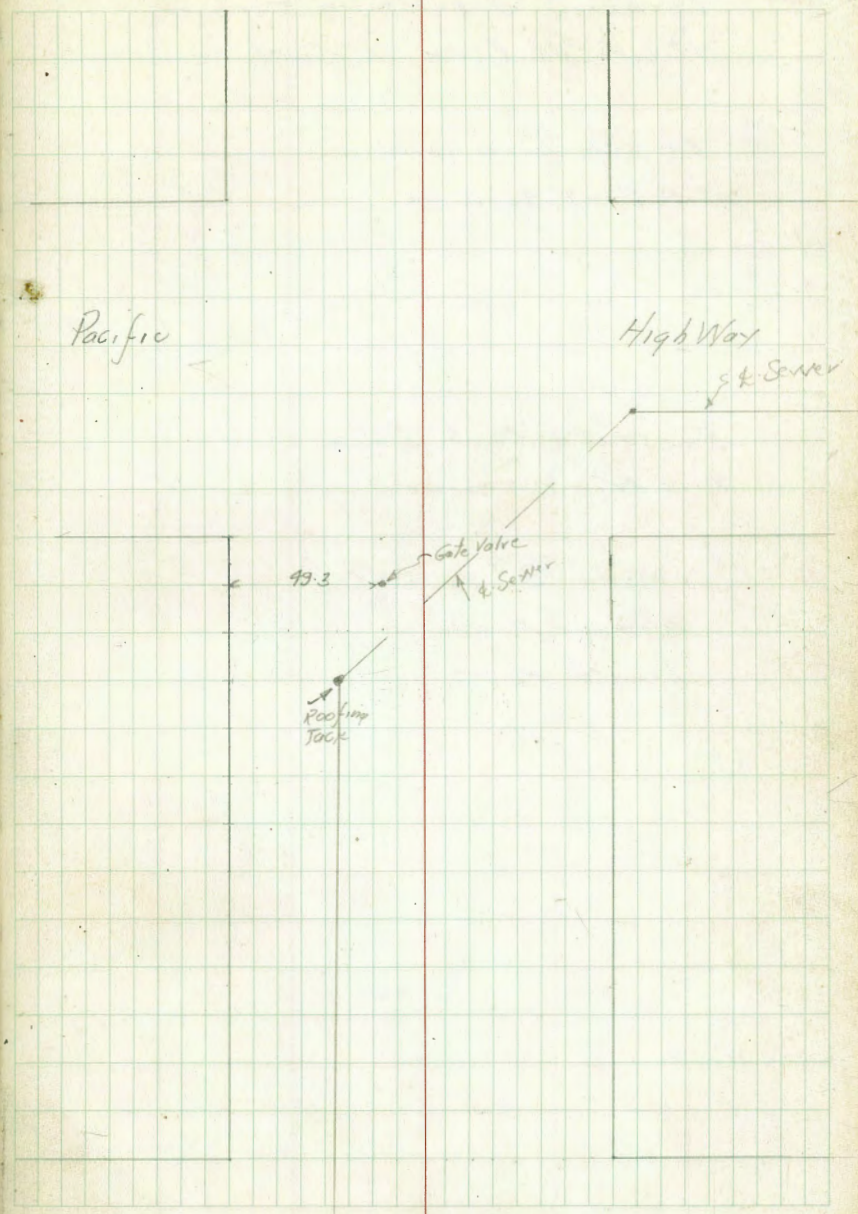
94+42.5 W. Rail
94+33.6 E. Rail old Track into Gas Co

+91.8 W. Rail
+86.7 E. Rail Tracks on Kettner
+67.8 W. Rail
93+59.8 E. rail



00
98+82 94 L.Rt 48°-10
30
98+ 52.94
29.5

98+82.94
29.50
98+58.44 98+
98+50



Location of Existing curb on
W. side of Fern St. South of Date St.

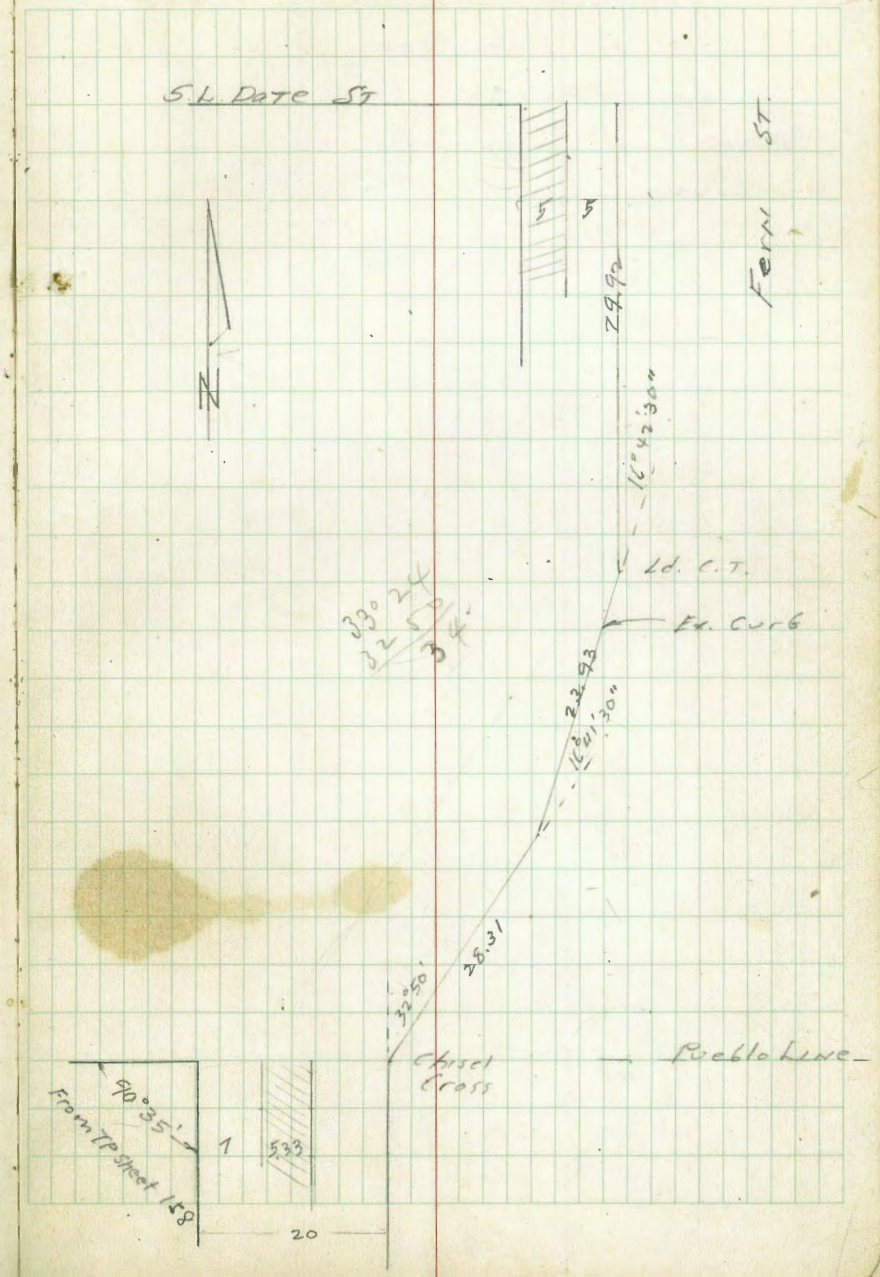
Ex. sidewalk same a shown in
T.P. Book 9 p 24

Moore
9-25-42.

Existing curb line is a
traffic menace —

Option "B" is best.
Align. p 48
Levels p 49

Indexed
C.S.K.



Proposed change of curb line on W. side Fern So. of Date

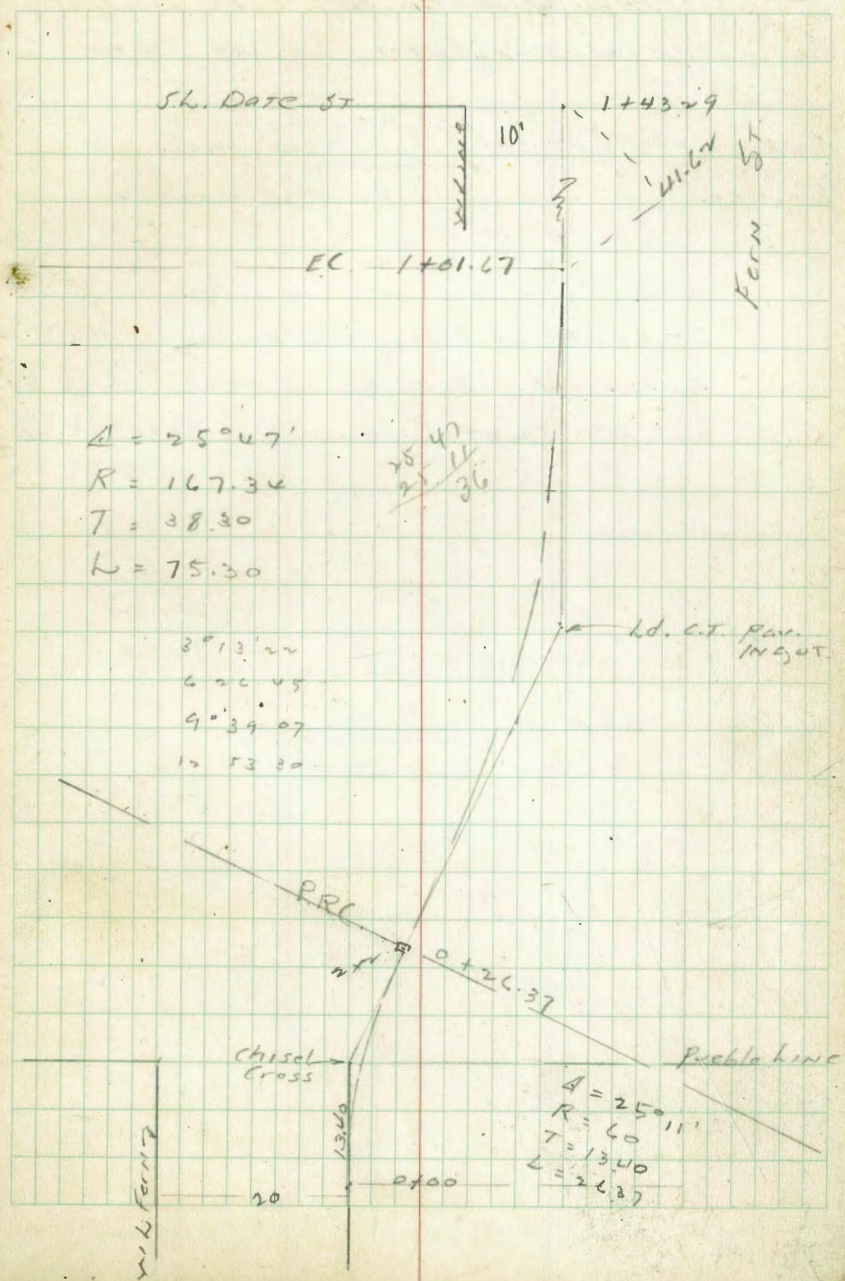
OPTION "A"

Moore

9-25-20.

NOT so good.

Indexed
C.S.K.



Prop. change of Curb Line
on W side Fern, So. of Date

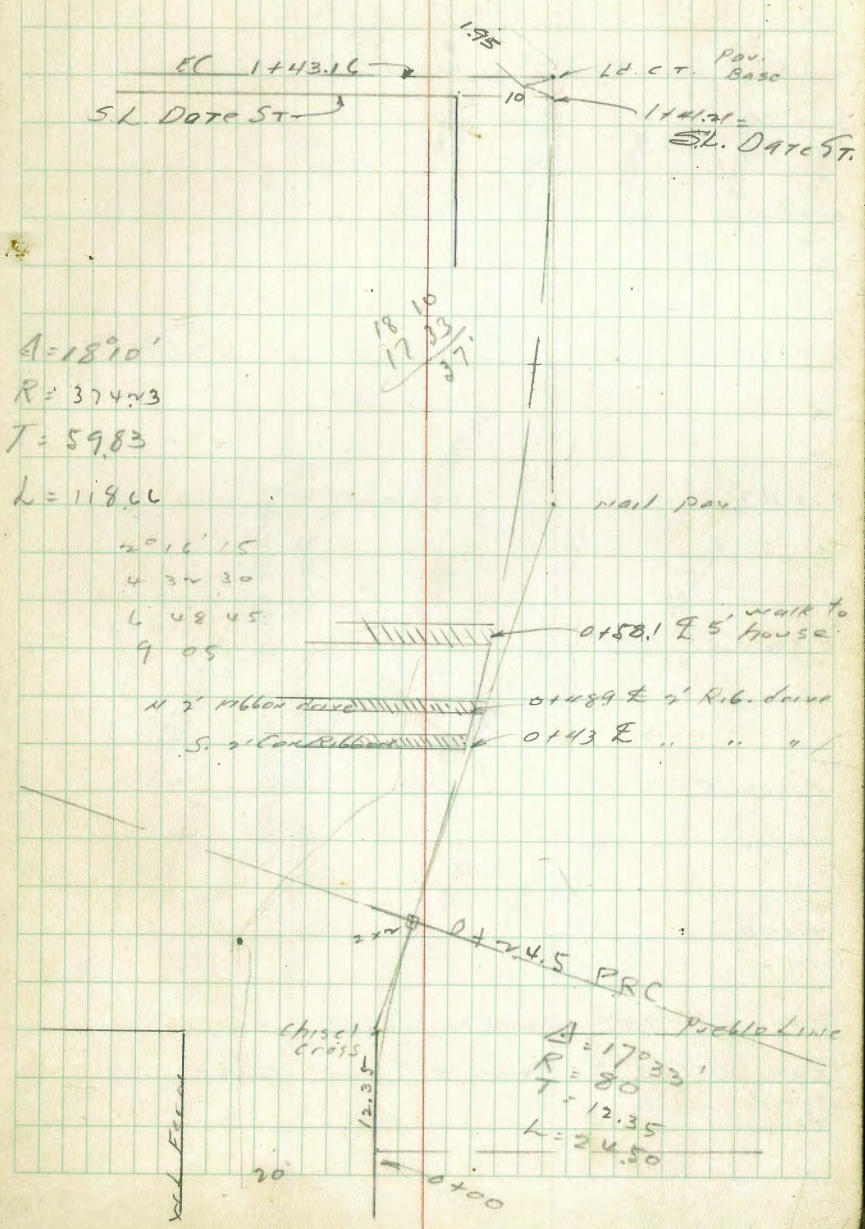
Moore
9-25-44.

OPTION "B"

Like this better

E. curb of Fern is not in
question, has been taken care of
by St. Dept. Crew. See Sisson Notes.

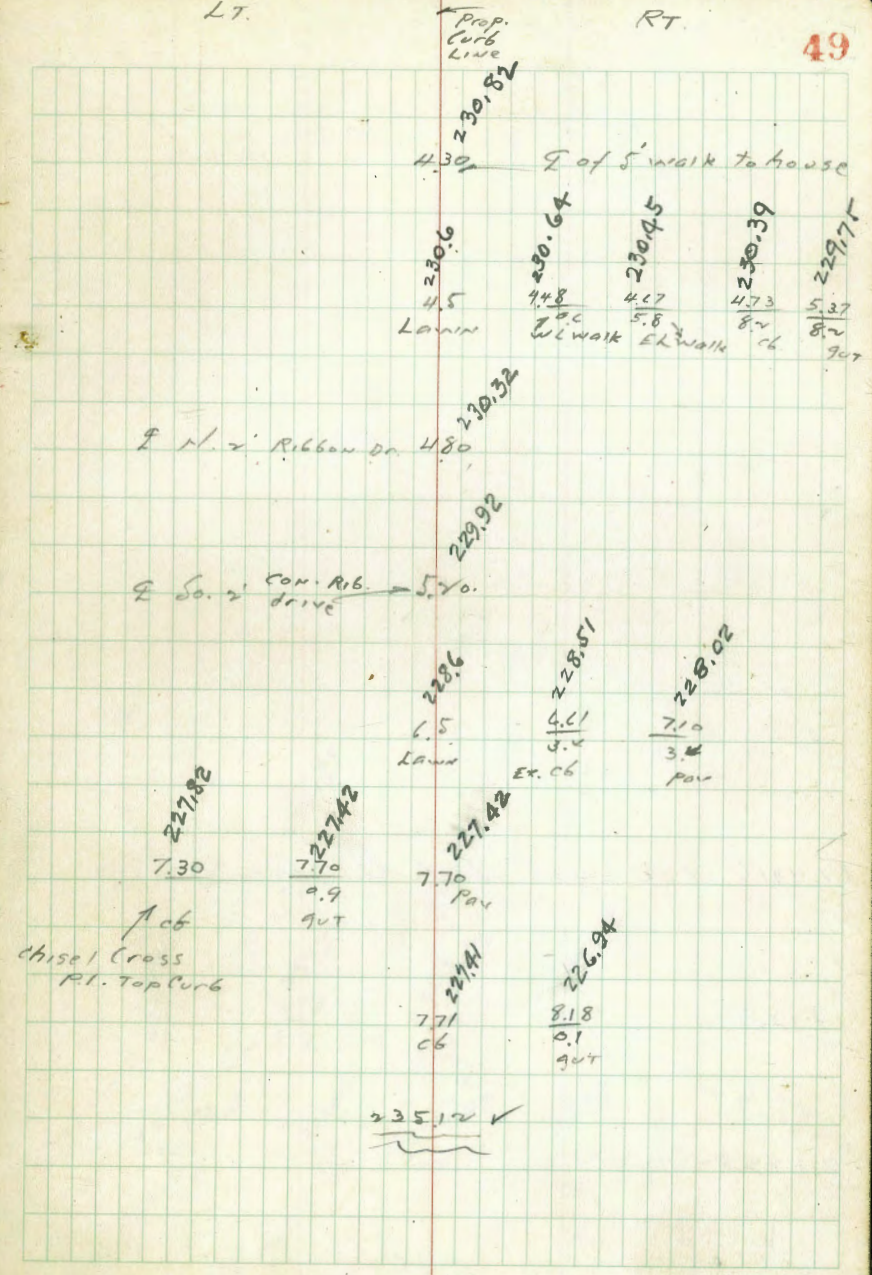
Indexed
C.S.K.



Levels on "B" Line

0 + 58.1					
0 + 54.6					
0 + 48.9					
0 + 43					
0 + 24.5	P.R.C.				
0 + 12.5					
0 + 00					
T.P.	7.75	235.12	5.38	227.37	
SEBP. Beech Fenn	0.68	232.75		232.07	

Notes Reduced 9-26-42
Plotted on large scale



1+43.6 E.C. = 1.95 N of Sh. Date St.

1+13.5

0+83.8 N

Top Curb → 234.85 / 0.27 / 0.10

234.21 / 0.91 / Gut

233.61 / 1.51 / 9.1

233.54 / 1.58 / 3.9

232.92 / 2.20 / On Can. Drive

232.78 / 2.34 / 1.2

Gut. Pan in drive to Gas & Oil Sta.

W. L. walk

E. L. walk

232.17 / 2.95 / 5.5

232.01 / 3.11 / 0.4

232.00 / 3.12

231.22 / 3.90 / 4.8

Gut in drive Pan

W. L. walk

E. L. walk

235.12

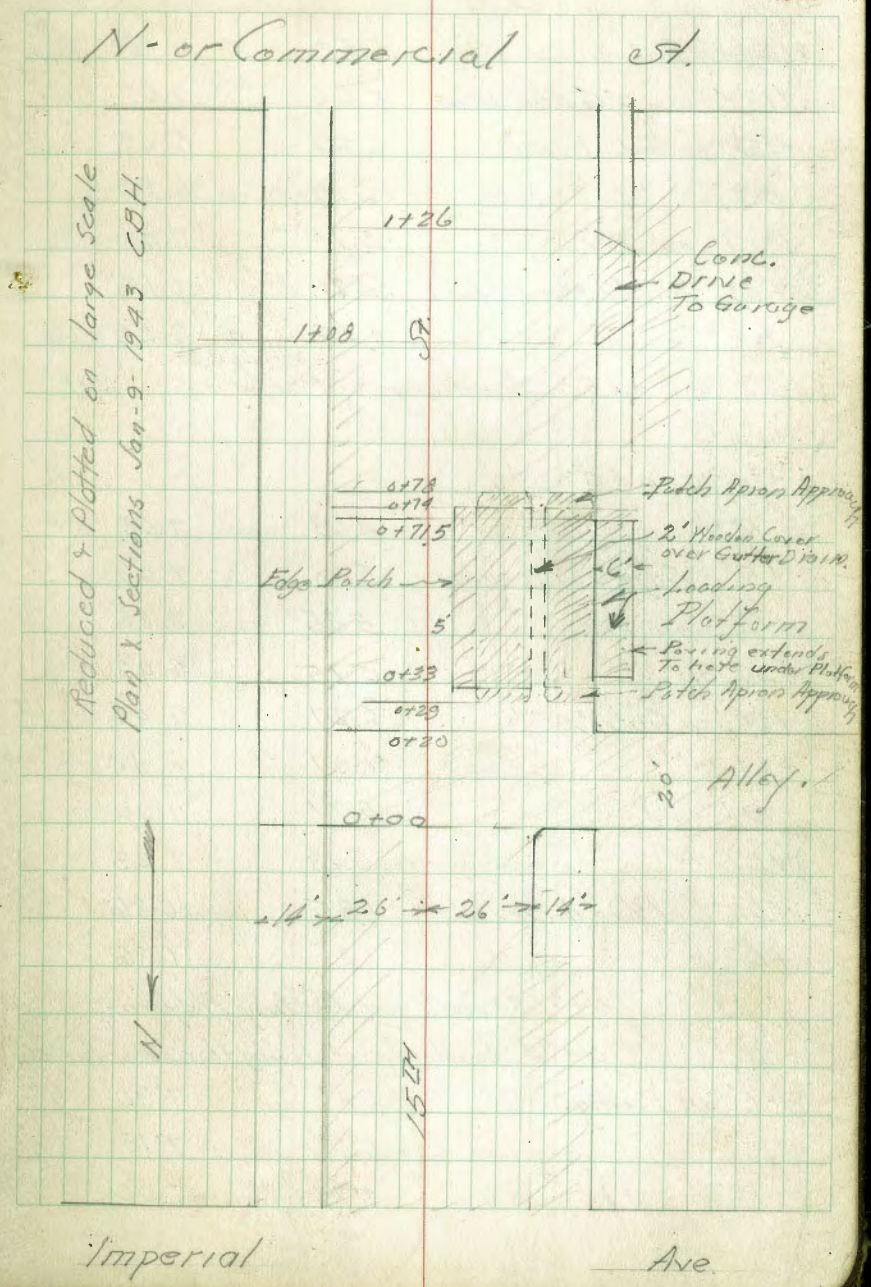
This drive has been abandoned.

Walker
Hardin
Hogard
1-8-43

Levels on Paving etc. on 15th St.
Between Imperial Ave & Commercial Ave
for purpose of establishing Grade
for Proposed Commercial Gutter
in Front of Ice Plant.

Grd Book no				BM SE BP. 16th + Comm.
P-5	0.23	12.71	12.48	
	0+00 = N.L. Alley.			
℄ St. 15th		5.32		7.39
+13'		5.58		7.13
W Gut. on Pav.		6.00		6.71
" on Rot.		5.59		7.12
W.L. on ⌀		5.39		7.32
" " Gut.		5.48		7.23
+6 on Pav.		5.18		7.53
	0+20			
-6' on Pav.		5.10		7.61
W.L. " "		5.49		7.22
+1' " "		5.47		7.24
Gut " "		6.08		6.63
+13' " "		5.66		7.05
℄ " "		5.43		7.28
	0+29 = Toe of Patch Apron Approach			
℄ on Pav		5.43		7.28
+13' " "		5.71		7.00
+26 " "		6.17		6.54
W.L. " " W edge		5.51		7.20
	0+33 = Top Apron Approach			
-6		4.73		7.98

Indexed
C.S.K.



Imperial Ave.

15th St.

1271

W.L. on Pav.	5.53	7.18
+13 = W. edge 2' Gutter Drain	5.66	7.05
+13' on Gut. Pav.	6.22	6.49
+15 " " "	6.19	6.52
+27 on Pav.	5.70	7.01
+35 " " edge Patch.	5.52	7.19
℄	5.45	7.26

0+35.5 = Beginning 6' wide Loading Platform

0+50

℄ 15th	5.63	7.08
+5' = Edge Patch on Pav.	5.68	7.03
+13 on Pav.	5.85	6.86
+25 on "	5.75	6.96
+25' on Gut.	6.27	6.44
+27 " "	6.27	6.44
+27' on Pav.	5.71	7.00
W.L. " "	5.48	7.23
W.L. " Platform	1.85	10.86
+6 " "	1.85	10.86

0+71.5 = South end Loading Platform

0+74 = South edge of Paving that extends W+6'

W-6' on Paving.	4.81	7.90
W.L. " "	5.58	7.13
+13 on "	5.71	7.00

1271 15th St. 52

W+13.1' on Gutter Pav.	6.22	6.49
+15.0 " " "	6.22	6.49
+15.1 on Top "	5.77	6.94
+27	5.85	6.86
+35 = S.E. Cor Patch	5.73	6.98
℄ 15th	5.71	7.00

0+78 = Toe Patch

℄ 15th on Paving.	5.70	7.01
+13 " "	5.89	6.82
Gut " "	6.21	6.50
W.L. " "	5.79	6.92
+6 on Ground	5.6	7.1

1+08

-6' on Ground	6.2	6.5
W.L. " Pav.	5.95	6.76
+13 = Gut " "	6.41	6.30
W+26 " "	5.97	6.74
℄ 15th " "	5.71	7.00

1+18 = ℄ Drive on West

℄ 15th on Pav.	5.74	6.97
+13' " "	6.00	6.71
+26 " " = Gut Line	6.45	6.26
W.L. on Pav.	5.99	6.72
+6' " "	5.80	6.91

1+26 = South edge drive on W.

-6 on Ground-	6.1	6.6

	12.71	15th St
WL. on Paving.	6.03	6.68
+14 " " Gut. Line	6.48	6.23
+27 " "	6.03	6.68
℄ 15th on Paving. 1+50	5.81	6.90
Gutter Line on Pav.	6.56	6.15

Walker
Osborne
Hazard
4-17-43
FB 1502-17

Cross Section SAN DIEGO AVE.
Between Riley St. And Gaines St.
Outs are from ℄ San Diego

	5.41	10.03		4.62 NELY St. San Diego to Riley
T.P.	3.96	7.29	6.70	3.33
0-25 = ℄ Riley.				
125' Rt. of ℄			5.7	
15' Rt. = SLY Line			5.3	
℄			5.0	
15' Lt. = NLY "			4.9	
100' Lt			4.5	
0+00 = ℄ Line Riley				
100' Lt.			4.7	
15' Lt			4.3	
℄			5.1	
15' Rt			4.6	
125' Rt.			5.7	
0+50				
75' Rt			4.6	
15 "			4.5	
℄			5.1	
8' Lt			4.7	
10' Lt.			3.8	
15' Lt			3.8	
21' Lt. at Bld			3.8	
1+00				
21' Lt. at Bld			3.7	

7.29

Indexed
C.S.K.

54

15' Lt.	4.0
10' Lt	4.6
℄	5.2
15' Rt.	4.5
50' Rt	4.4
100' Rt.	4.8
130' Rt.	5.8
160' Rt.	6.0
1+50	
160' Rt	5.8
100' Rt	5.8
50' Rt	4.3
15' Rt	4.6
℄	5.2
10' Lt.	4.9
15' Lt.	4.5
21' Lt. at Bld.	4.3
1+96.3 = Int. Existing Pav	
℄ on Pav	4.60
2+07.2	
15.6' Lt. on Pav	4.26
℄ " "	4.71
13' Lt. " "	4.70
24.8' Lt. " "	4.60

7.29

2+50

30' Rt. on Pav.	4.71
15' " " "	4.78
℄	4.90
15' Lt	4.63

Diag. Sec. 2+91.9 = Int. Conc. Pav. Pacific Blvd.

21' Lt. on Conc Cb	4.48
" " " " Gut.	4.96
℄ on Conc. Pav	4.93
24.2' Lt. = Int. SLY. Line San Diego Ave	5.02
48' Lt. on Conc. Pav.	5.11
72.3' Lt. on Conc. Grating	5.67
75.5 " " " "	5.77 at cb. Ret.
" " " " Cb. Ret.	4.74

3+06 = ℄ Valley Gut. Pacific Blvd

℄	5.11

0+04 = WLY Dble Garage on N

21' Lt. of ℄ on Con.	3.82

0+30 = ℄ Vent. To Bld on N

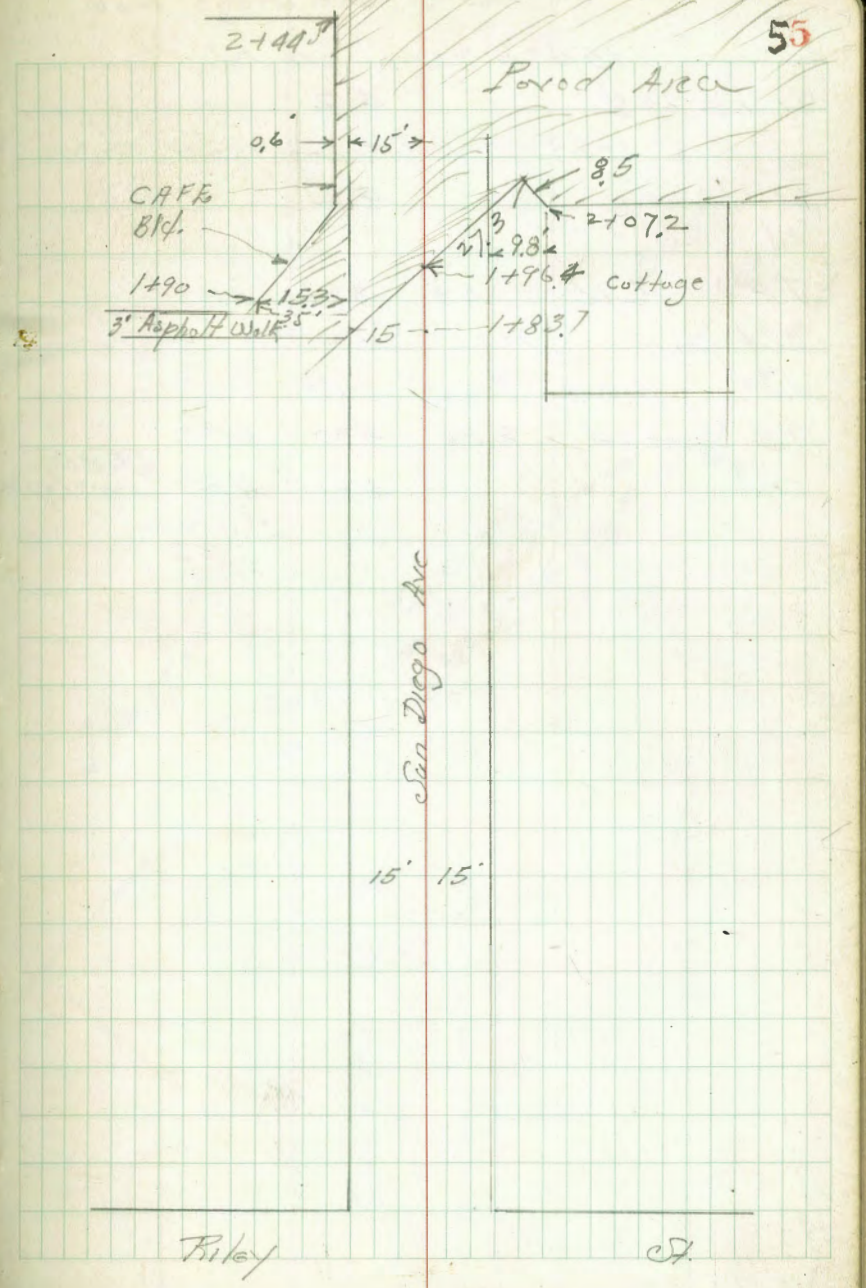
21' Lt. of ℄ on Vent.	4.3

0+75 = ℄ Vent. on N

21' Lt.	4.2

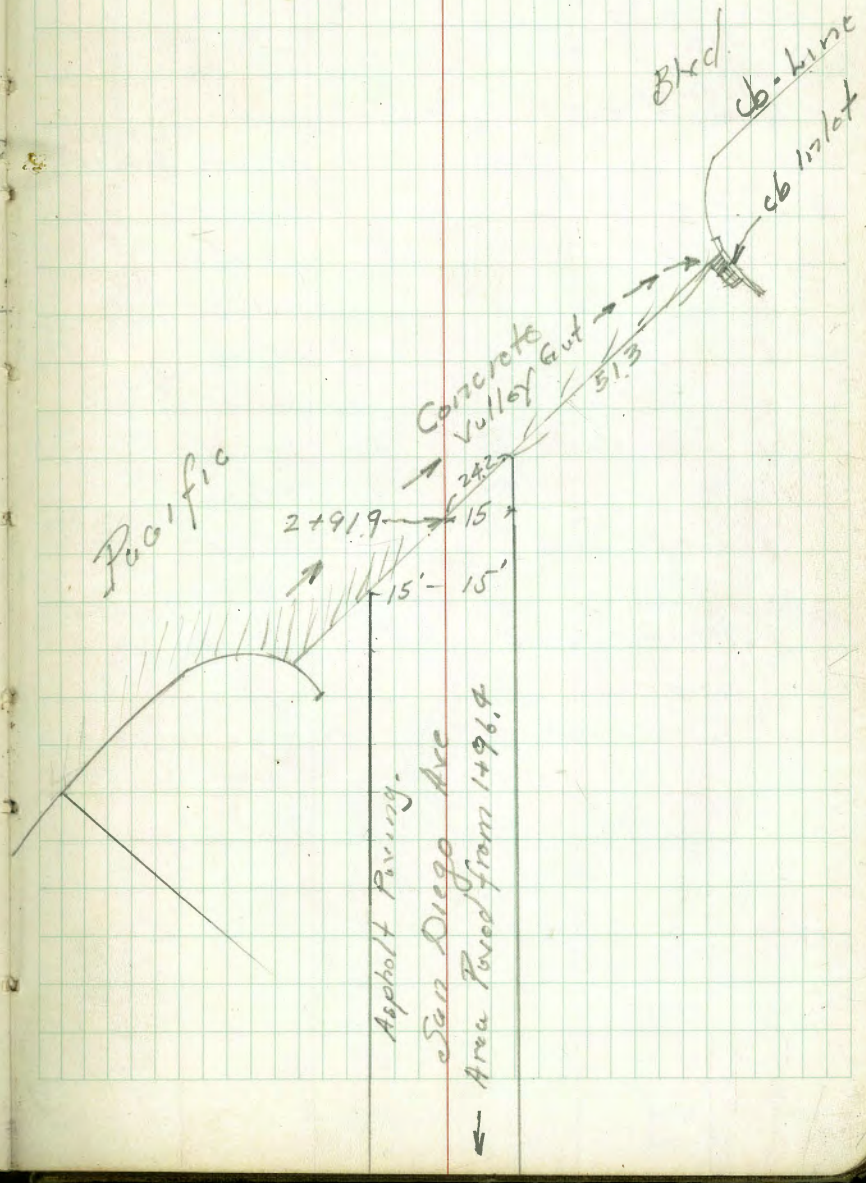
1+05 = ℄ Vent on N

21' Lt.	4.2



7.29 San Diego Ave

	1+50 = ℄ Vent. on N				
21' Lt. of ℄			4.2		
	1+69 = ℄ Dble Garage on N				Dirt Floor
21' Lt.			4.2		
T.P.	6.75	10.08	3.96	3.33	
Chk Sterling & M.			5.45	4.63	San Diego N.E. & Taylor
T.P.	5.03	9.66	5.45	4.63	
T.P.	4.04	8.80	4.90	4.76	
Chk.			4.11	4.69	S.F.B.R. Juan & Taylor
				4.72	
				0.03	



Location of Existing Curb & Sidewalks
West Side of Forest St. South of Date

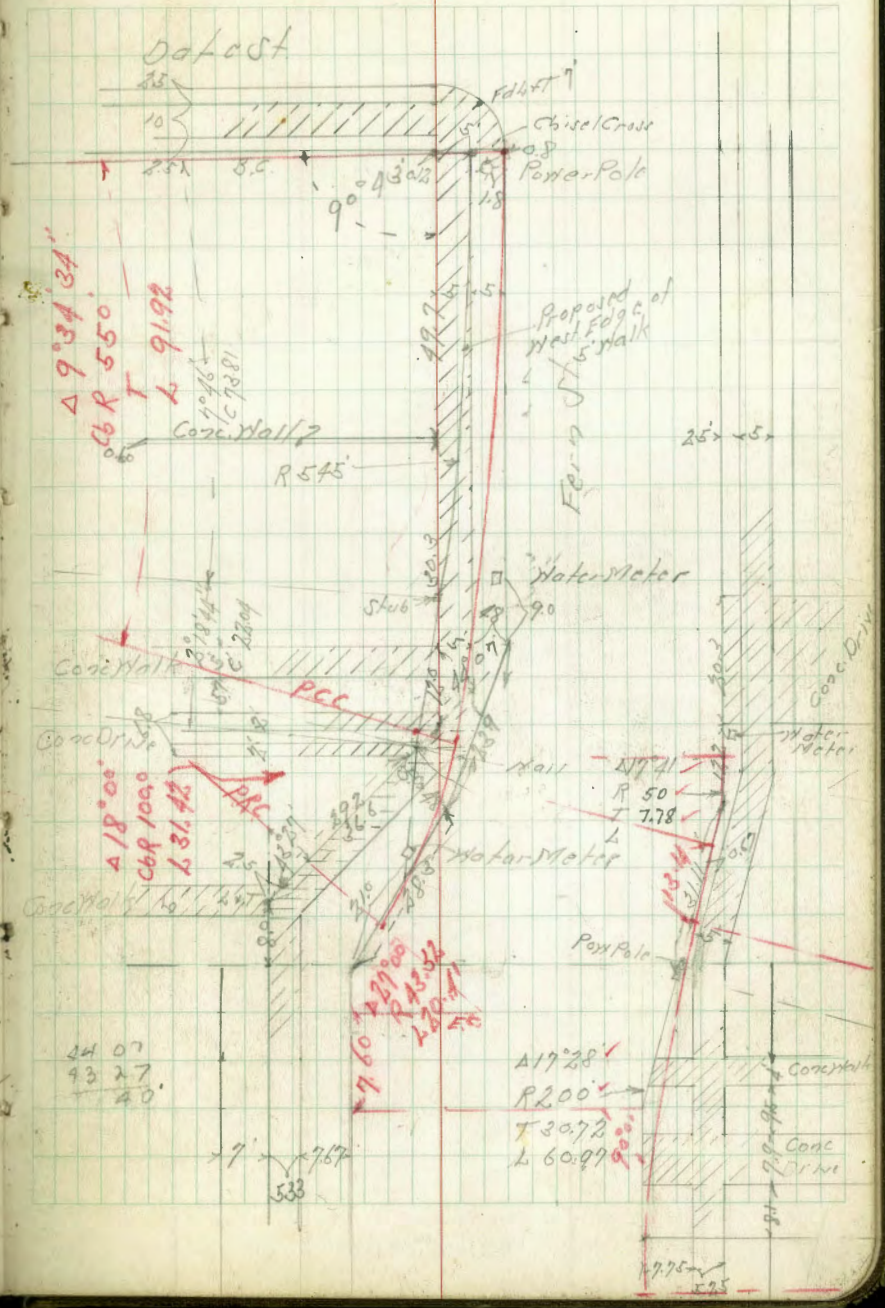
Red. as laid out for Const.

Dec 6-43
Sisson
Bliss
Osborne
Bagg

June 22-44
Sisson
Bliss
Osborne

Grades N Cb of Forest For Construction

BM	4.94	241.98		237.04	
TP	2.02	237.24	6.76	235.22	
S.L.	Date		2.42	234.82	
1				233.18	
2				232.54	
3				231.40	
4	P.C.C.	= Conc Walk	6.98	230.26	
1				229.23	
2	P.R.C.	= Cb	9.04	228.20	
1				227.76	
2	E.C.	= Cb	9.91	227.33	



Levels to Determine Flow M.H. 176.82

Left of L on Victria Server

L: 9+74.07

B.M.	10.73	222.22		211.49	
TP	9.71	229.90	2.03	220.19	
Rim			1.13		
Flow Line			9.21		

Levels to Determine Flow Line Elev of ex M.H. in alley East of 38th & Wightman

BM	9.30	327.65		318.35	S.E. 7th & Wightman & 38th
Flow Line			16.53	311.12	
0+00					
0+50			5.04		
1+00			5.92		
+50			5.63		
+90 2 R.M. ex 8" M.H.			5.82		

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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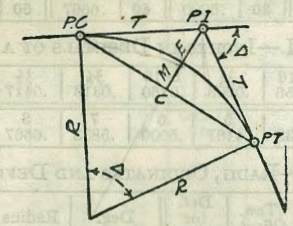


CURVE FORMULAS

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 x sec $\frac{\Delta}{2}$ (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 $(54.50 \div 100)^2$=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26)$=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′.

Table VI.—Corrections for Sub-Chords and Long Chords.

FOR SUB-CHORDS ADD										Excess of arc per 100 ft.	LONG CHORDS				
D	10	20	30	40	50	60	70	80	90		D	200	300	400	500
4°	.00	.00	.01	.01	.01	.01	.01	.01	.00	.02	1	199.99	299.97	399.92	499.85
6	.00	.01	.01	.02	.02	.02	.02	.01	01	.05	2	199.97	299.88	399.70	499.39
8	.01	.02	.02	.03	.03	.03	.03	.02	.01	.08	3	199.93	299.73	399.32	498.63
10	.01	.02	.03	.04	.05	.05	.05	.04	.02	.13	4	199.88	299.51	398.78	497.57
12	.02	.04	.05	.06	.07	.07	.07	.05	.03	.18	5	199.81	299.24	398.10	496.20
14	.02	.05	.07	.08	.09	.10	.09	.07	.04	.25	6	199.73	298.90	397.26	494.53
16	.03	.06	.09	.11	.12	.12	.12	.09	.05	.33	7	199.63	298.51	396.28	492.57
18	.04	.08	.11	.14	.15	.16	.15	.12	.07	.41	8	199.51	298.05	395.14	490.31
20	.05	.10	.14	.17	.19	.20	.18	.15	.09	.51	9	199.38	297.54	393.86	487.75
22	.06	.12	.17	.21	.23	.24	.22	.18	.10	.62	10	199.24	296.96	392.42	484.90
24	.07	.14	.20	.25	.28	.28	.26	.21	.12	.74	12	198.90	295.63	389.12	478.34
26	.09	.17	.24	.29	.32	.33	.31	.25	.15	.86	14	198.51	294.06	385.22	470.65
28	.10	.19	.27	.34	.37	.38	.36	.29	.17	1.00	16	198.05	292.25	380.76	461.86
30	.11	.22	.31	.39	.43	.44	.41	.33	.19	1.15	18	197.54	290.21	375.74	452.02
32	.13	.25	.36	.44	.49	.50	.47	.38	.22	1.31	20	196.96	287.94	370.17	441.15
34	.15	.28	.40	.50	.55	.57	.53	.43	.25	1.48	22	196.32	285.44	364.06	429.30
36	.17	.32	.45	.56	.62	.64	.59	.48	.28	1.66	24	195.63	282.71	357.43	416.53
38	.18	.36	.51	.62	.70	.71	.66	.53	.31	1.86	26	194.87	279.76	350.30	402.89
40	.21	.40	.56	.69	.77	.79	.73	.59	.35	2.06	28	194.06	276.59	342.69	388.43
42	.23	.44	.62	.76	.85	.87	.81	.65	.38	2.28	30	193.18	273.20	334.61	373.20
44	.25	.48	.68	.84	.94	.96	.89	.72	.42	2.50	32	192.25	269.61	326.08	357.28
46	.27	.52	.75	.92	1.02	1.05	.98	.78	.46	2.74	34	191.26	265.81	317.12	340.73
48	.30	.57	.81	1.00	1.12	1.14	1.06	.86	.50	2.99	36	190.21	261.80	307.77	323.61
50	.32	.62	.89	1.09	1.21	1.24	1.15	.93	.55	3.24	38	189.10	257.60	298.03	305.99
52	.35	.67	.96	1.18	1.31	1.35	1.25	1.01	.59	3.52	40	187.94	253.21	287.94	287.94
54	.38	.73	1.04	1.28	1.42	1.46	1.35	1.09	.64	3.80	42	186.72	248.63	277.51	269.54
56	.41	.78	1.12	1.38	1.53	1.57	1.46	1.17	.69	4.09	44	185.44	243.87	266.78	250.85
58	.44	.84	1.20	1.48	1.65	1.69	1.57	1.26	.74	4.40	46	184.10	239.93	255.78	231.95
60	.47	.91	1.29	1.59	1.76	1.81	1.68	1.35	.80	4.72	48	182.71	233.83	244.51	212.92

Note.—When a chord of less than 100 ft. is used the corrections given in the above table should be added to the nominal length of chord to get the length which should be used in order that the 100 ft. points will check with those obtained by using the standard 100 ft. chord. Thus in locating a 14° curve by 25 ft. chords measure 25′.06 for each chord. Long chords are useful in passing obstacles.

Table VII.—Middle Ordinates for Rails in Feet.

Deg. of Curve	LENGTH OF RAILS							Deg. of Curve	LENGTH OF RAILS.						
	32	30	28	26	24	22	20		32	30	28	26	24	22	20
1°	.022	.020	.016	.013	.011	.009	.008	16°	.356	.313	.273	.236	.200	.170	.139
2	.045	.038	.034	.029	.025	.021	.017	17	.378	.333	.290	.252	.213	.180	.148
3	.067	.058	.051	.044	.037	.031	.026	18	.400	.351	.306	.265	.225	.190	.156
4	.089	.079	.069	.060	.050	.042	.035	19	.423	.371	.324	.280	.238	.201	.165
5	.112	.099	.086	.074	.063	.053	.044	20	.445	.392	.341	.296	.250	.212	.174
6	.134	.117	.102	.088	.076	.064	.052	21	.466	.410	.357	.309	.262	.222	.182
7	.156	.137	.120	.104	.088	.074	.061	22	.487	.430	.375	.325	.275	.233	.191
8	.179	.158	.137	.119	.100	.085	.070	23	.509	.450	.390	.338	.287	.243	.199
9	.201	.175	.153	.133	.112	.095	.078	24	.531	.469	.408	.354	.299	.253	.208
10	.223	.196	.171	.148	.125	.106	.087	25	.552	.486	.424	.367	.311	.263	.216
11	.245	.216	.188	.163	.139	.117	.096	26	.573	.506	.441	.382	.323	.274	.225
12	.268	.236	.206	.179	.151	.128	.105	27	.594	.524	.457	.396	.335	.284	.233
13	.290	.254	.222	.192	.163	.138	.113	28	.618	.545	.475	.411	.348	.294	.242
14	.312	.275	.239	.207	.175	.148	.122	29	.638	.564	.491	.424	.361	.303	.250
15	.334	.295	.257	.223	.188	.159	.131	30	.660	.583	.508	.438	.374	.313	.259

SLOPE REDUCTIONS.

When distances are measured on a slope they may be reduced to the equivalent horizontal distance by the following approximate rule:—subtract from the slope distance the square of the rise divided by twice the slope distance. Thus for a slope distance of 250.3 ft. and a rise of 15 ft. correction$=15^2 \div 2 \times 250.3=.45$ (by slide rule) or horizontal distance$=250.3-.45=249.85$. When vertical angle=V. A. is measured horizontal distance=slope distance—slope distance (1—Cos. V. A.). Thus for slope distance of 248.7 ft. and V. A. of 4° 20′ from Table VIII Cos=.99714 and correction$=1-.99714=.00286$ per foot or total of $.286 \times 2\frac{1}{2}$ (near enough)$=.57$ and horizontal distance$=248.7-.57=248.13$ ft.

TRIGONOMETRICAL FORMULAS.

See fig. (a).

sin. $A=\frac{a}{c}$

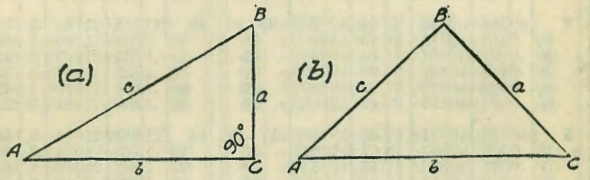
cos. $A=\frac{b}{c}$

tan. $A=\frac{a}{b}$

cot. $A=\frac{b}{a}$

sec. $A=\frac{c}{b}$

cosec. $A=\frac{c}{a}$



Formula for Solving Triangles.

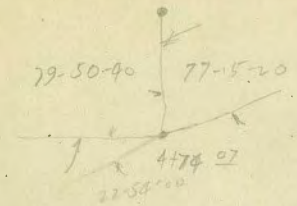
Given	Sought.	Right triangles. See fig. (a).
a, c	A, B, b	$\sin. A=\frac{a}{c}$, $\cos. B=\frac{a}{c}$, $b=\sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan. A=\frac{a}{b}$, $\cot. B=\frac{a}{b}$, $c=\sqrt{a^2+b^2}$.
A, a	B, b, c	$B=90°-A$, $b=a \cot. A$, $c=\frac{a}{\sin. A}$.
A, b	B, a, c	$B=90°-A$, $a=b \tan. A$, $c=\frac{b}{\cos. A}$.
A, c	B, a, b	$B=90°-A$, $a=c \sin. A$, $b=c \cos. A$
Given	**Sought.**	**Oblique triangles. See fig. (b).**
A, B, a	b	$b=\frac{a \sin. B}{\sin. A}$
A, a, b	B	$\sin. B=\frac{b \sin. A}{a}$
a, b, C	$A-B$	$\tan. \frac{1}{2}(A-B)=\frac{(a-b) \tan. \frac{1}{2}(A+B)}{a+b}$
a, b, c	A	If $s=\frac{1}{2}(a+b+c)$, $\sin. \frac{1}{2}A=\sqrt{\frac{(s-b)(s-c)}{bc}}$; $\cos. \frac{1}{2}A=\sqrt{\frac{s(s-a)}{bc}}$, $\tan. \frac{1}{2}A=\sqrt{\frac{(s-b)(s-c)}{s(s-a)}}$, $\sin. A=\frac{2\sqrt{(s-a)(s-b)(s-c)s}}{bc}$
A, B, C, a	area	$\text{area}=\frac{a^2 \sin. B \sin. C}{2 \sin. A}$
A, b, c	area	$\text{area}=\frac{1}{2} bc \sin. A$
a, b, c	area	$s=\frac{1}{2}(a+b+c)$, $\text{area}=\sqrt{s(s-a)(s-b)(s-c)}$

Table VIII.—Natural Trigonometrical Functions.

Angle	Sine.	Tan.	Cotg.	Cosin.		Angle	Sine.	Tan.	Cotg.	Cosin.	
° ′						° ′					
0	0	0	00	1	90	8	.1392	.1405	7.115	.99027	82
10	.0029	.0029	343.8	1	50	10	.1421	.1435	6.968	.98986	50
20	.0058	.0058	171.9	.99998	40	20	.1449	.1465	6.827	.98944	40
30	.0087	.0087	114.6	.99996	30	30	.1478	.1495	6.691	.98902	30
40	.0116	.0116	85.94	.99993	20	40	.1507	.1524	6.561	.98858	20
50	.0145	.0145	68.75	.99989	10	50	.1536	.1554	6.435	.98814	10
1	.0175	.0175	57.29	.99985	89	9	.1564	.1584	6.314	.98769	81
10	.0204	.0204	49.10	.99979	50	10	.1593	.1614	6.197	.98723	50
20	.0233	.0233	42.96	.99973	40	20	.1622	.1644	6.084	.98676	40
30	.0262	.0262	38.19	.99966	30	30	.1650	.1673	5.976	.98629	30
40	.0291	.0291	34.37	.99958	20	40	.1679	.1703	5.871	.98580	20
50	.0320	.0320	31.24	.99949	10	50	.1708	.1733	5.769	.98531	10
2	.0349	.0349	28.64	.99939	88	10	.1736	.1763	5.671	.98481	80
10	.0378	.0378	26.43	.99929	50	10	.1765	.1793	5.576	.98430	50
20	.0407	.0407	24.54	.99917	40	20	.1794	.1823	5.485	.98378	40
30	.0436	.0437	22.90	.99905	30	30	.1822	.1853	5.396	.98325	30
40	.0465	.0466	21.47	.99892	20	40	.1851	.1883	5.309	98272	20
50	.0494	.0495	20.21	.99878	10	50	.1880	.1914	5.226	.98218	10
3	.0523	.0524	19.08	.99863	87	11	.1908	.1944	5.145	.98163	79
10	.0552	.0553	18.07	.99847	50	10	.1937	.1974	5.066	.98107	50
20	.0581	.0582	17.17	.99831	40	20	.1965	.2004	4.989	.98050	40
30	.0610	.0612	16.35	.99813	30	30	.1994	.2035	4.915	.97992	30
40	.0640	.0641	15.60	.99795	20	40	.2022	.2065	4.843	.97934	20
50	.0669	.0670	14.92	.99776	10	50	.2051	.2095	4.773	.97875	10
4	.0698	.0699	14.30	.99756	86	12	.2079	.2126	4.705	.97815	78
10	.0727	.0729	13.73	.99736	50	10	.2108	.2156	4.638	.97754	50
20	.0756	.0758	13.20	.99714	40	20	.2136	.2186	4.574	.97692	40
30	.0785	.0787	12.71	.99692	30	30	.2164	.2217	4.511	.97630	30
40	.0814	.0816	12.25	.99668	20	40	.2193	.2247	4.449	.97566	20
50	.0843	.0846	11.83	.99644	10	50	.2221	.2278	4.390	.97502	10
5	.0872	.0875	11.43	.99619	85	13	.2250	.2309	4.331	.97437	77
10	.0901	.0904	11.06	.99594	50	10	.2278	.2339	4.275	.97371	50
20	.0929	.0934	10.71	.99567	40	20	.2306	.2370	4.219	.97304	40
30	.0958	.0963	10.39	.99540	30	30	.2334	.2401	4.165	.97237	30
40	.0987	.0992	10.08	.99511	20	40	.2363	.2432	4.113	.97169	20
50	.1016	.1022	9.788	.99482	10	50	.2391	.2462	4.061	.97100	10
6	.1045	.1051	9.514	.99452	84	14	.2419	.2493	4.011	.97030	76
10	.1074	.1080	9.255	.99421	50	10	.2447	.2524	3.962	.96959	50
20	.1103	.1110	9.010	.99390	40	20	.2476	.2555	3.914	.96887	40
30	.1132	.1139	8.777	.99357	30	30	.2504	.2586	3.867	.96815	30
40	.1161	.1169	8.556	.99324	20	40	.2532	.2617	3.821	.96742	20
50	.1190	.1198	8.345	.99290	10	50	.2560	.2648	3.776	.96667	10
7	.1219	.1228	8.144	.99255	83	15	.2588	.2679	3.732	.96593	75
10	.1248	.1257	7.953	.99219	50	10	.2616	.2711	3.689	.96517	50
20	.1276	.1287	7.770	.99182	40	20	.2644	.2742	3.647	.96440	40
30	.1305	.1317	7.596	.99144	30	30	.2672	.2773	3.606	.96363	30
40	.1334	.1346	7.429	.99106	20	40	.2700	.2805	3.566	.96285	20
50	.1363	.1376	7.269	.99067	10	50	.2728	.2836	3.526	.96206	10
					82						74
	Cosin.	Cotg.	Tan.	Sine.	Angle.		Cosin.	Cotg.	Tan.	Sine.	Angle.

Table VIII.—Natural Trigonometrical Functions.

Angle	Sine.	Tan.	Cotg.	Cosin.		Angle	Sine.	Tan.	Cotg.	Cosin.	
° ′						° ′					
16	.2756	.2867	3.487	.96126	74	24	.4067	.4452	2.246	.91355	66
10	.2784	.2899	3.450	.96046	50	10	.4094	.4487	2.229	.91236	50
20	.2812	.2931	3.412	.95964	40	20	.4120	.4522	2.211	.91116	40
30	.2840	.2962	3.376	.95882	30	30	.4147	.4557	2.194	.90996	30
40	.2868	.2994	3.340	.95799	20	40	.4173	.4592	2.177	.90875	20
50	.2896	.3026	3.305	.95715	10	50	.4200	.4628	2.161	.90753	10
17	.2924	.3057	3.271	.95615	73	25	.4226	.4663	2.145	.90631	65
10	.2952	.3089	3.237	.95545	50	10	.4253	.4699	2.128	.90507	50
20	.2979	.3121	3.204	.95459	40	20	.4279	.4734	2.112	.90383	40
30	.3007	.3153	3.172	.95372	30	30	.4305	.4770	2.097	.90259	30
40	.3035	.3185	3.140	.95284	20	40	.4331	.4806	2.081	.90133	20
50	.3062	.3217	3.108	.95195	10	50	.4358	.4841	2.066	.90007	10
18	.3090	.3249	3.078	.95106	72	26	.4384	.4877	2.050	.89879	64
10	.3118	.3281	3.048	.95015	50	10	.4410	.4913	2.035	.89752	50
20	.3145	.3314	3.018	.94924	40	20	.4436	.4950	2.020	.89623	40
30	.3173	.3346	2.989	.94832	30	30	.4462	.4986	2.006	.89493	30
40	.3201	.3378	2.960	.94740	20	40	.4488	.5022	1.991	.89363	20
50	.3228	.3411	2.932	.94646	10	50	.4514	.5059	1.977	.89232	10
19	.3256	.3443	2.904	.94552	71	27	.4540	.5095	1.963	.89101	63
10	.3283	.3476	2.877	.94457	50	10	.4566	.5132	1.949	.88968	50
20	.3311	.3508	2.850	.94361	40	20	.4592	.5169	1.935	.88835	40
30	.3338	.3541	2.824	.94264	30	30	.4617	.5206	1.921	.88701	30
40	.3365	.3574	2.798	.94167	20	40	.4643	.5243	1.907	.88566	20
50	.3393	.3607	2.773	.94068	10	50	.4669	.5280	1.894	.88431	10
20	.3420	.3640	2.747	.93969	70	28	.4695	.5317	1.881	.88295	62
10	.3448	.3673	2.723	.93869	50	10	.4720	.5354	1.868	.88158	50
20	.3475	.3706	2.699	.93769	40	20	.4746	.5392	1.855	.88020	40
30	.3502	.3739	2.675	.93667	30	30	.4772	.5430	1.842	.87882	30
40	.3529	.3772	2.651	.93565	20	40	.4797	.5467	1.829	.87743	20
50	.3557	.3805	2.628	.93462	10	50	.4823	.5505	1.816	.87603	10
21	.3584	.3839	2.605	.93358	69	29	.4848	.5543	1.804	.87462	61
10	.3611	.3872	2.583	.93253	50	10	.4874	.5581	1.792	.87321	50
20	.3638	.3906	2.560	.93148	40	20	.4899	.5619	1.780	.87178	40
30	.3665	.3939	2.539	.93042	30	30	.4924	.5658	1.767	.87036	30
40	.3692	.3973	2.517	.92935	20	40	.4950	.5696	1.756	.86892	20
50	.3719	.4006	2.496	.92827	10	50	.4975	.5735	1.744	.86748	10
22	.3746	.4040	2.475	.92718	68	30	.5000	.5774	1.732	.86603	60
10	.3773	.4074	2.455	.92609	50	10	.5025	.5812	1.720	.86457	50
20	.3800	.4108	2.434	.92499	40	20	.5050	.5851	1.709	.86310	40
30	.3827	.4142	2.414	.92388	30	30	.5075	.5890	1.698	.86163	30
40	.3854	.4176	2.394	.92276	20	40	.5100	.5930	1.686	.86015	20
50	.3881	.4210	2.375	.92164	10	50	.5125	.5969	1.675	.85866	10
23	.3907	.4245	2.356	.92050	67	31	.5150	.6009	1.664	.85717	59
10	.3934	.4279	2.337	.91936	50	10	.5175	.6048	1.653	.85567	50
20	.3961	.4314	2.318	.91822	40	20	.5200	.6088	1.643	.85416	40
30	.3987	.4348	2.300	.91706	30	30	.5225	.6128	1.632	.85264	30
40	.4014	.4383	2.282	.91590	20	40	.5250	.6168	1.621	.85112	20
50	.4041	.4417	2.264	.91472	10	50	.5275	.6208	1.611	.84959	10
					66						58
	Cosin.	Cotg.	Tan.	Sine.	Angle.		Cosin.	Cotg.	Tan.	Sine.	Angle.



62'
55

452.47

Howard 80'

Oregon 80

Block 12 ½

96°-02'-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.

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