1708

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.

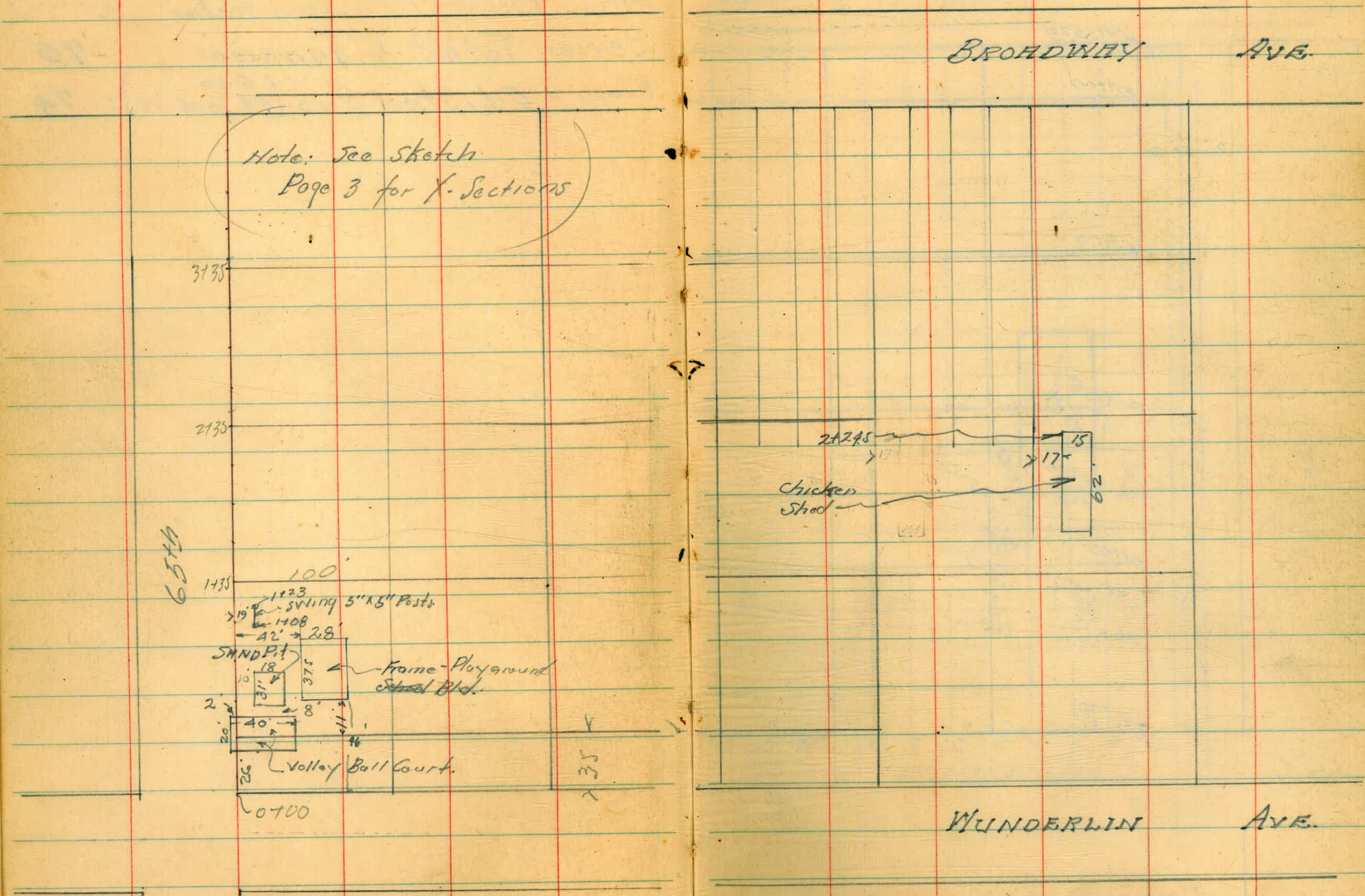
1708

CITY ENGINEER'S OFFICE

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

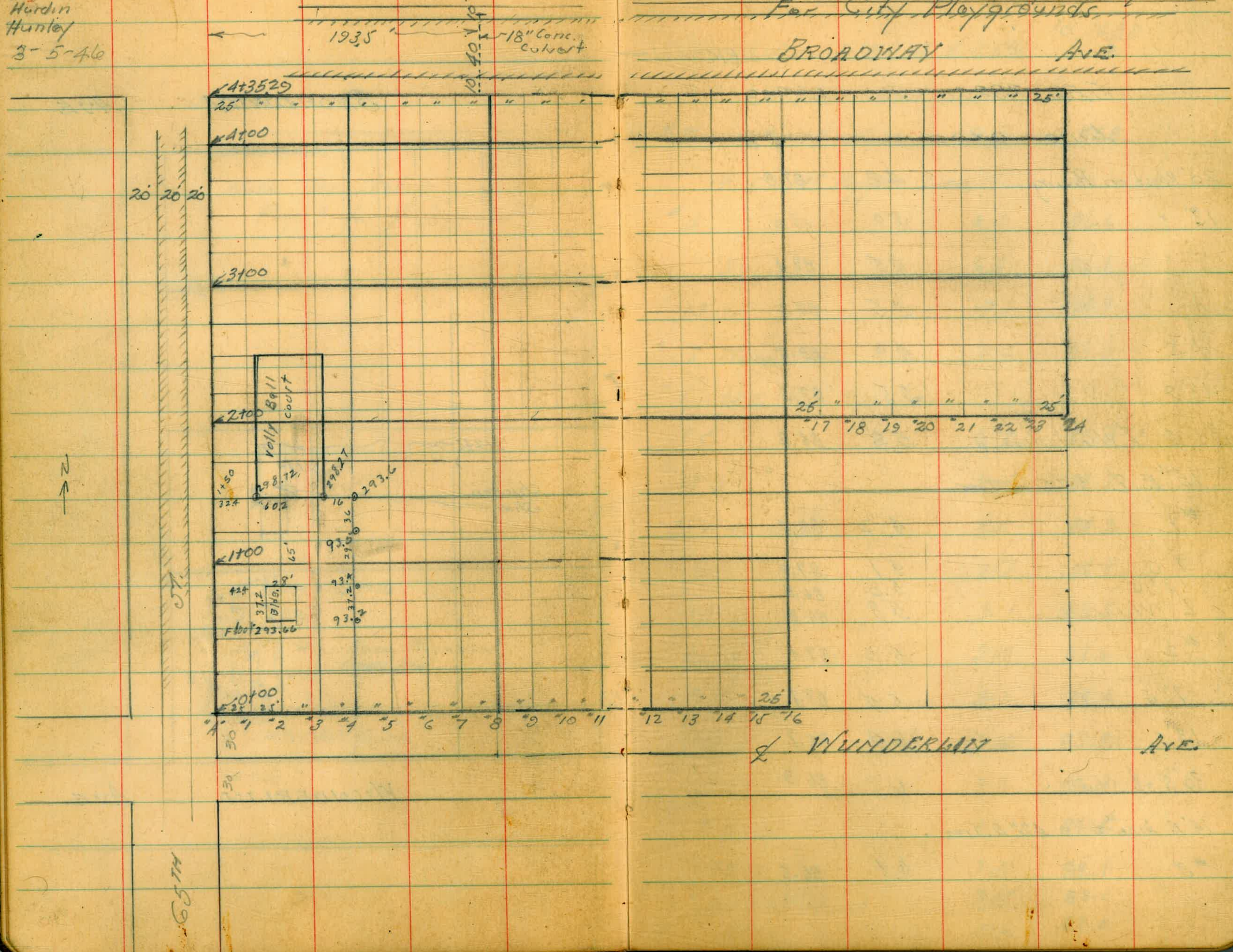
Blk "F" Resub. Pt. Loma Hgts Alley Cross Section	64 to 73
Sewer Talbot to Jennings	76
Prop. " O.L. Steel Sub (See EG 1506-79)	74


BROADWAY AVE.
Note: See Sketch
Page 3 for X-Sections
3+35
2+35
1+35
65th
100
1+23
Swing 5"x5" Posts
1+08
42'
28
SAND Pit
18
37.5
Frame-Playground
School Bld.
40'
Volley Ball Court
0+00
2+24.5
15
17
Chicken
Shed
62
WUNDERLIN AVE.

Walker
Henderson
Hardin
Hunley
3-5-46

Indexed
C.S.K.

CROSS SECTION - LOTS 1, 2, 3, 8, 9.
Blk: 14 - Encanto Heights Map #1063
For City Playgrounds.



		BM. Nail	
5.52	292.60		287.08
Line 0+00			
20' West on Paving		4.8	87.8
13' "		5.0	87.6
8' "		3.5	89.1
"A"		3.5	89.1
7' S		4.0	88.6
13' S		5.5	87.1
30' S = ℄ Wunderlin		5.8	86.8
15' E ℄ 30" Euc. Tree			
#1		4.2	88.4
7' S.		4.7	87.9
13' S		5.8	86.8
℄ Wunderlin		5.8	86.8
#2		5.2	87.4
7' S		5.5	87.1
13' S		6.4	86.2
30' S = ℄ Wund.		6.3	86.3
14' E Line #2 = 42" E. Tree			
#3		6.1	86.5

= ℄ Wunderlin 5' E of ℄ 65th		F.B. 1683 2
0+00 Cont.		
#3 30" S = ℄ Wund.	6.8	85.8
" 14' E 14" Pepper Tree		
#4	6.0	86.6
" 7' S	6.5	86.1
" 13' S	7.7	84.9
" ℄ Wund.	7.6	85.0
#4 14' E = 18" Euc. Tree		
#5	6.7	85.9
13' S	8.4	84.2
30' S = ℄ Wund.	8.4	84.2
#6	7.7	84.9
13' S	9.1	83.5
30' S ℄ "	9.0	83.6
#7	8.2	84.4
13' S	9.4	83.2
30' S	9.3	83.3
#8	8.6	84.0
13' S	9.5	83.1
30' S = ℄ Wund.	9.5	83.1
12' N	5.6	87.0

29260

0+00 Cont.

#7 17' E 13'N = ℄ Clump 4 Euc Trees		
#9	8.3	84.3
" 12'S	9.7	82.9
30'S = ℄ Wunderlin	9.7	82.9
13'	5.6	87.0
#10	8.3	84.3
" 11'S	9.6	83.0
" 30'S = ℄ Wund.	9.7	82.9
" 13'N	5.5	87.1
#11	8.4	84.2
" 11'S	9.5	83.1
" 30'S ℄ Wund.	9.6	83.0
" 14'N	5.5	87.1
#12	8.3	84.3
" 10'S	9.2	83.4
" 30'S	9.2	83.4
" 14'N	5.6	87.0
#13	7.7	84.9
" 10'S	8.9	83.7
" 30'S	8.8	83.8
# 15'N	5.1	87.5

29260

0+00 Cont.

#14	7.0	85.6
" 9'South.	9.0	83.6
" 30' " = ℄ Wund.	8.7	83.9
" 15'N	4.7	87.9
#15	7.1	85.5
" 9'S.	8.1	84.5
" 30'S = ℄ Wund.	8.7	83.9
" 17'N	4.4	88.2
#16 = 400' E EL. 65th	7.1	85.5
" 9' South.	9.1	83.5
" 30' " = ℄ Wund	9.1	83.5
" 50' E.	9.7	82.9
" 100' E.	8.3	84.3
0+25		
#16 100' E.	7.4	85.2
" 50 E.	7.0	85.6
"	5.9	86.7
" 12'W	4.5	88.1
#15	3.8	88.8
#14	4.1	88.5

0+25	292.60		
#13	4.4	88.2	
#12	4.7	87.9	
#11	4.8	87.8	
#10	5.0	87.6	
#9	4.8	87.8	
#8	5.2	87.4	
#7	5.2	87.4	
#6	5.1	87.5	
#5	4.9	87.7	
#4	5.0	87.6	
#3	4.2	88.4	
#2	3.2	89.4	
#1	2.2	90.4	
"A"	2.1	90.5	
9.5'W = 24" Euc. Tree 1' South			
"A" 12'W	2.4	90.2	
16'W	3.8	88.8	
20" on E edge Pav.	3.5	89.1	
0+50			
"A" 20'W on Pav.	2.2	90.4	
" 16'"	2.5	90.1	
10.5'W = 14" Pop. Tree.	1.1	91.5	

0+50 Cont.			
A	292.60	1.7	90.9
Sand Pit		0.6	92.0
#1		1.8	90.8
Floor school		+1.1	93.7
#2		3.0	89.6
#3		2.9	89.7
#4		3.9	88.7
#5		4.2	88.4
#6		4.5	88.1
#7		4.5	88.1
#8		4.4	88.2
#9		4.3	88.3
#10		4.3	88.3
#11		4.2	88.4
#12		4.0	88.6
#13		3.6	89.0
#14		2.9	89.7
#15		2.9	89.7
" 10'E.		3.0	89.6
" 19'E		4.4	88.2
#16		4.5	88.1
" 16 50'E.		5.7	86.9
#16 100'E.		4.1	88.5

		29260			
I.D.	12.71	29.79	5.52	28.708	
	0+75				
#16	100'E.		10.3	89.5	
#16	50'E.		11.2	88.6	
#16	5'E.		10.8	89.0	
#16			9.8	90.0	
#15			9.4	90.4	
#14			9.4	90.4	
#13			9.9	89.9	
#12			10.3	89.5	
#11			10.7	89.1	
#10			10.8	89.0	
#9			10.9	88.9	
#8			11.1	88.7	
#7			11.2	88.6	
#6			11.0	88.8	
#5			10.4	89.4	
#4			9.4	90.4	
#3			9.1	90.7	
#2	8'W = Wadye School Bld		8.1	91.7	
#1	in Sand Pit		7.8	92.0	

	0+75	29.79		
"A"			7.7	92.1
11'W			7.4	92.4
16'W			8.4	91.4
20'W on Pav.			8.0	91.8
	1+00			
20'W off Pav.			6.7	93.1
15'W			7.2	92.7
12'W			6.4	93.4
"A" = E. Line 65th			6.8	93.0
#1			7.1	92.7
#2			7.5	92.3
#3			8.2	91.6
#4			8.4	91.4
#5			9.0	90.8
#6			9.8	90.0
#7			10.3	89.5
#8			10.5	89.3
#9			10.3	89.5
#10			10.2	89.6
#11			10.0	89.8
#12			9.9	89.9

	299.79		
	1+00 Cont. from P-7		
#13		9.3	90.5
#14		8.9	90.9
#15		8.8	91.0
#16		9.2	90.6
#16	50'E.	9.6	90.2
#16	100'E.	8.6	91.2
	1+25		
#16	100'E.	7.6	92.2
#16	50'E.	8.5	91.3
#16		8.0	91.8
#15		8.2	91.6
#14		8.3	91.5
#13		8.9	90.9
#12		9.4	90.4
#11		9.5	90.3
#10		9.8	90.0
#9		9.8	90.0
#8		9.9	89.9
#7		9.7	90.1
#6		8.6	91.2
#5		7.7	92.1

	1+25	299.79	
#4		7.1	92.7
#3		6.5	93.3
#2		6.1	93.7
#1		5.8	94.0
"A"		5.4	94.4
" 12'W.		4.8	95.0
16'W.		5.4	94.4
20'W on P&Y.		5.1	94.7
" 10'W 42" Elm Tree			
	1+50		
"A" 10'W = 2 10" Pop. Tree			
" 20'W		3.8	96.0
16'W		4.0	95.8
11'W.		3.4	96.4
"A"		3.7	96.1
#1		4.5	95.3
#2		4.7	95.1
#3		5.2	94.6
#4		5.9	93.9
#5		6.5	93.3
#6		7.0	92.8

299.79

1750

#7	8.0	91.8
#8	8.9	90.9
#9	9.0	90.8
#10	9.0	90.8
#11	8.9	90.9
#12	8.7	91.1
#13	8.3	91.5
#14	7.9	91.9
#15	7.5	92.3
" 10'E.	7.6	92.2
" 15'E.	6.7	93.1
#16	6.8	93.0
" 50'E.	7.1	92.7
" 100'E.	6.4	93.4

1775

#16 100'E.	5.3	94.5
#16 50'E.	6.1	93.7
#16	5.6	94.2
#16 20'W.	5.4	94.4
#15	6.7	93.1

299.79

1775

#14	7.1	92.7
#13	7.6	92.2
#12	8.0	91.8
#11	8.1	91.7
#10	8.0	91.8
#9	8.1	91.7
#8	7.3	92.5
#7	6.4	93.4
#6	6.0	93.8
#5 - (8'E. 5'South) = 14" Stump Pepper Tree		
#5	5.4	94.4
#4	4.5	95.3
#3	4.0	95.8
#2	3.5	96.3
#1	2.7	97.1
#1 43'South = 36" Euc. Tree		
"A"	2.3	97.5
10'W.	1.9	97.9
16'W.	2.4	97.4
20'W.	2.3	97.5

Cont. P-10

299.79

2+00

"A"	20'W on Pav.	0.8	99.0
	17'W	1.0	98.8
	13'W	0.7	99.1
"A"		0.8	99.0
#1		1.0	98.8
#1	20'N = 40" Euc. Tree		
#2		1.8	98.0
#2	(15'E 20'N) 12" Pepper Tree.		
#3		2.4	97.4
#4		3.4	96.4
#5		4.2	95.6
#6		5.1	94.8
#7		5.3	94.5
#8		5.5	94.3
#9		6.3	93.5
#10		7.1	92.7
#11		7.1	92.7
#12		7.1	92.7
#13		6.9	92.9
#14		6.5	93.3
#14	20'E	6.0	93.8

299.79

2+00

#15		4.3	95.5
#16		4.2	95.6
#15	(6'E 5'South) = two Euc. Trees 12" + 36"		
#15	(5'E 3'N) = 16" Euc.		
#15	(9'E on Line) (three Euc. Trees 24" 10" 12")		
#17		4.4	95.4
#18		4.5	95.3
#19		4.3	95.5
#20		4.1	95.7
#22		3.9	96.9
#23		1.8	98.0
#24 = 600'		0.7	99.1
	2+25		
#24		+0.7	00.5
#23		0.7	99.1
	15'E - 16" Pepper Tree.		
#22		-1.6	98.2
#21		1.6	98.2
#20		2.5	97.3
#19		2.6	97.2
#18		2.9	96.9

	2+25	299.79		
#17			3.3	96.5
#16			3.0	96.8
20' W			2.7	97.1
#15			3.4	96.4
5' W			5.1	94.7
#14			5.7	94.1
#13			5.6	94.2
#12			5.8	94.0
#11			5.3	94.5
#10			4.6	95.2
#9			4.4	95.4
#8			4.0	95.8
#7			4.3	95.5
#6			4.0	95.8
#5			3.1	96.7
#4			1.8	98.0
#3			1.1	98.7
#2			0.6	99.2
T.P.	6.72	306.16	0.35	299.44
#1			5.6	00.6
"A"			5.1	01.1
10' W			5.1	
14' W			6.1	01.1
16' W on Rod			5.8	00.1
				00.4

306.16

2+50		
"A" 20' W	4.4	01.8
14' W	4.4	01.8
8' W	3.2	03.0
"A" = E. Line 6th	3.4	02.8
#1	3.8	02.4
#2	4.9	01.3
#3	5.9	00.3
#4	7.0	99.2
#5	7.7	98.5
#6	8.6	97.6
#7	9.1	97.1
#8	9.3	96.9
#9	9.4	96.8
#10	9.3	96.9
#11	9.1	97.1
#12	9.0	97.2
#13	9.3	96.3
#14	10.5	95.7
15' E	10.7	95.5
#15	9.2	97.0

		306.16		
#15	8'E		7.5	98.7
#16			7.2	99.0
#17			7.7	98.5
#18			7.7	98.5
#19			7.3	98.9
#20			7.2	99.0
#21			6.6	99.6
#22			6.1	00.1
#23			5.2	01.0
#24 = 600'E E Line 65th			3.8	02.4
T.P.	6.90	310.52	0.54	305.62
	2+75			
#24 = 600'E E Line 65th			6.5	04.0
#23			8.0	02.5
#22			9.1	01.4
#21			9.4	01.1
#20			10.0	00.5
#19			10.2	00.3
#18			10.4	00.1
#17			10.2	00.3
#16			9.8	00.7

		2+75	310.52	
#15			10.8	99.7
#14			10.4	00.1
#13			11.2	99.3
#12			11.7	98.8
#11			12.1	98.4
#10			12.3	98.2
#9			12.5	98.0
#8			12.5	98.0
#7			12.2	98.3
#6			11.7	98.8
#5			11.3	99.2
#4			10.2	00.3
#3			8.8	01.7
#2			8.0	02.5
#1			6.2	04.3
"A"			5.6	04.9
	9'W		5.6	04.9
	16'W		7.6	02.9
	20'W		7.4	03.1

310.52

2764
555' E = 14" Pap. Tree
2770
331 E = 20" " "
2770
263' E = 18" " "
2770
223' E = 20" Euc. "
2770
133' E = 20" Pap. "
2770
65' E = 20" " "
2770
24' E = 20" Euc. "

3+00

"A"	20'	6.0	04.5
	15'	6.3	04.2
	8'	3.8	06.7
"A"		3.8	06.7
#1		4.7	05.8
#2		6.8	03.7
#3		7.7	02.8
#4		8.4	02.1
#5		9.8	00.7
#6		10.7	99.8
#7		11.1	99.4
#8		10.8	99.7
#9		10.9	99.6

310.52

#10		10.9	99.6
#11		10.7	99.8
#12		9.7	00.8
#13		9.6	00.9
#14		9.0	01.5
#15		8.4	02.1
#16		7.8	02.7
#17		7.8	02.7
#18		8.2	02.3
#19		7.9	02.6
#20		7.9	02.6
#21		7.1	03.4
#22		6.9	03.6
#23		5.8	04.7
#24 = 600' E. of Line 65+00		4.4	06.1
TP	9.03 312.65	6.90	303.62

3+25

#24		4.2	08.4
#23		5.5	07.1
#22		6.2	06.4
#21		6.6	06.0

3+25 312.65

#20	7.7	04.9
#19	7.6	05.0
#18	7.6	05.0
#17	7.4	05.2
#16	7.3	05.3
#15	8.5	04.1
#14	9.1	03.5
#13	10.0	02.6
#12	10.5	02.1
#11	10.1	02.5
#10	11.6	01.0
#9	11.6	01.0
#8	11.5	01.1
#7	11.5	01.1
#6	11.3	01.3
#5	9.9	02.7
#4	8.9	03.7
#3	8.2	04.4
#2	7.0	05.6
#1	5.0	07.6
A	4.5	08.1

3+25 312.65

"A" 8' IN	4.6	08.0
15' IN	7.0	05.6
20' IN on Pov.	6.8	05.8
3+20 24' E = 20" Euc. Tire		
3+20 65' E = 20" Pop. "		
3+20 143' E = 20" " "		
3+20 173' E = 30" Euc "		
3+20 223' E = 16" " "		
3+20 263' E = 12" Pop. "		
3+195 333' E = 20" " "		

3+50

"A" 20' IN on Pov.	5.2	07.4
15 "	5.6	07.0
8' "	3.2	09.4
"A"	2.0	10.6
#1	3.6	09.0
#2	5.2	07.4
#3	6.4	06.2
#4	7.5	05.1
#5	8.3	04.3

	3+50	312.65		
#6			9.1	03.5
#7			9.6	03.0
#8			9.7	02.9
#9			9.7	02.9
#10			9.6	03.0
#11			9.4	03.2
#12			8.8	03.8
#13			8.0	04.6
#14			7.0	05.6
#15			6.1	06.5
#16			4.9	07.7
#17			4.9	07.7
#18			4.7	07.9
#19			5.0	07.6
#20			4.6	08.0
#21			4.1	08.5
#22			3.5	09.1
#23			2.8	09.8
#24			1.5	11.1
TP	6.32	316.21	2.76	309.89

	3+75	316.21		
#24			2.3	13.9
#23			3.4	12.8
#22			4.2	12.0
#21			4.9	11.3
#20			4.5	11.7
#19			5.4	10.8
#18			5.2	11.0
#17			5.4	10.8
#16			6.0	10.2
#15			7.3	08.9
#14			8.5	07.7
#13			9.6	06.6
#12			10.4	05.8
#11			10.9	05.3
#10			11.1	05.1
#9			11.4	04.8
#8			11.5	04.7
#7			11.4	04.8
#6			11.2	05.0
#5			10.5	05.7

316.21

3+75 Cont. from P-15

#4	2.5	06.7	
#3	8.2	08.0	
#2	6.7	09.5	
#1	5.4	10.8	
"A"	4.0	12.2	
6' W	5.1	11.1	
14' W	8.0	08.2	
20' W on Rev.	7.3	08.9	

3+70 = Row Trees.

25' E = 18" Euc.
65' E 10" Pop.
132' E 18" " "
179' E 24" Euc. "
223' E 24" " "
264' E 8" Pop. "
333' E 18" " "

4+00

A 20' W on Rev.	5.9	10.3	
13' "	6.5	09.7	
7' "	5.2	11.0	
6' W	2.0	14.2	

316.21

4+00

A	2.6	13.6
#1	3.6	12.6
#2	5.4	12.8
#3	6.6	09.6
#4	7.3	08.9
#5	8.7	07.5
17' N	6.6	09.6
#6	2.8	06.4
5' N	2.3	06.9
#7	2.7	06.5
20' N	8.5	07.7
#8	2.2	07.0
#9	2.6	06.6
#10	2.1	07.1
#11	8.1	08.1
#12	7.9	08.3
#13	7.8	08.4
#14	6.2	10.0
#15	5.0	11.2
#16	3' N	13.0
#19	2.6	13.6

	4+00	316.21			
#18			2.3	13.9	
#19			2.2	14.0	
#20			2.2	14.0	
#21			1.8	14.4	
#22			1.3	14.9	
#23			1.1	15.1	
#24			+0.3	16.5	
T.P. Chk BM B.P.			3.95	312.26	
Edgo Pov. S.W. Mkt + 65th FB 1683/2				312.24 - BM	
				0.02	
	12.16	324.40		312.24 BM	
	4+25				
#24			5.3	19.1	
8'N			4.5	19.9	
#23			6.4	18.0	
12'N			4.9	19.5	
#22			6.5	17.9	
11'N			5.2	19.2	
#21			6.7	17.7	
13'N			4.8	19.6	
#20			7.0	17.4	
13'N			5.3	19.1	

		324.40			
#19			7.3	17.1	
13'N			5.4	19.0	
#18			7.4	17.0	
13'N			5.6	18.8	
#17			8.1	16.3	
13'N			6.7	17.7	
#16			8.7	15.7	
13'N			7.1	17.3	
#15			10.2	14.2	
13'N			8.5	15.9	
#14			11.4	13.0	
12'N			9.7	14.7	
#13			13.1	11.3	
11'N			11.6	12.8	
#12			13.9	10.5	
10'N			12.7	11.7	
#12 15'W			14.1	10.3	
#12 (10'N 15'W)			12.8	11.6	
#11			13.3	11.1	
8'N			12.3	12.1	
#11 15'W			13.5	10.9	
# (15'W 9'N)			12.2	12.2	

32+40

#10		12.1	12.3
#9		12.1	12.3
#8		14.2	10.2
#8	7'W	15.2	09.2
#8	(7'W 10'N)	14.7	09.7
#7		13.4	11.0
#7	15'W	12.6	11.8
#6		10.8	13.6
"	15'W	10.3	14.1
#5		11.7	12.7
"	13'W	13.7	10.7
#4		13.2	11.2
"	10'N	12.1	12.3
#3		12.3	12.1
"	12'N	11.4	13.0
#2		11.1	13.3
#1		10.1	14.3
"A"		9.5	14.9
	5'W	9.3	15.1
	11 W	12.0	12.4
	20 'W	12.7	11.7

32+40

A+45.3 = South edge MKT st Paving.

A	20'W on Pav.	11.1	13.3
"	5'W " "	10.9	13.5
"	5'W 8'South	11.5	12.9
	" 16' "	8.0	16.4
A	on Pav.	10.8	13.6
	7' South	11.4	13.0
	13' "	7.9	16.5
#1	on Pav.	10.4	14.0
	10'S	10.7	13.7
	12'S	8.8	15.6
#2	on Pav.	10.0	14.4
	9'South	10.3	14.1
	11" "	9.7	14.7
#3	on Pav.	9.7	14.7
	9'South	9.4	15.0
#4	on Pav.	9.6	14.8
	9'South	9.4	15.0
#5	on Paving.	9.2	15.2
	23'S	9.7	14.7
#6		9.1	15.3

	32+40		
	4+45.3		
#7	on P.v.	9.0	15.4
	21' South	10.1	14.3
#8	on P.v.	8.8	15.6
	11'S	8.7	15.7
#9	on P.v.	8.6	15.8
	14'S	8.5	15.9
#10	on P.v.	8.5	15.9
	15' South.	9.0	15.4
#11	on P.v.	8.3	16.1
	10'S	7.9	16.5
#12	on P.v.	8.0	16.4
	9'S	7.3	17.1
#13	on "	7.5	16.9
	9'S	7.1	17.3
#14	on "	6.9	17.5
	9'S	6.4	18.0
#15	on "	6.3	18.1
	9'S	5.8	18.6
#16	on "	5.6	18.8
	9'S	4.9	19.5
#17	on "	4.9	19.5
	4'S	4.8	19.6
	9'S	4.3	20.1

	32+40		
#18	on P.v.	4.1	20.3
	4'S	4.1	20.3
	9'S	3.5	20.9
#19	on "	3.4	21.0
	3'S	3.4	21.0
	9'S	3.0	21.4
#20	on "	2.7	21.7
	3'S	2.8	21.6
	9'S	2.4	22.0
#21	on "	2.2	22.2
	3'S	2.4	22.0
	9'S	2.0	22.4
#22	on "	1.5	22.9
	9'S	1.4	23.0
#23	on "	0.9	23.5
	9'S	1.1	23.3
#24	on P.v.	0.0	24.4
	9'S	0.0	24.4
4+36 N 1+93.5 E = ℄ 18" Conc. Culvert.			
	on Flow	15.0	09.4

3+20 = Row Trees.

25' E 24" Euc. Tree
3+26
62' E 24" Pop "
3+20
66' E 24" "
114' E 20" Euc. "
223' E 24" "
264 E 24" Pop. "

Osborne
Hardin
Carey
4-4-46

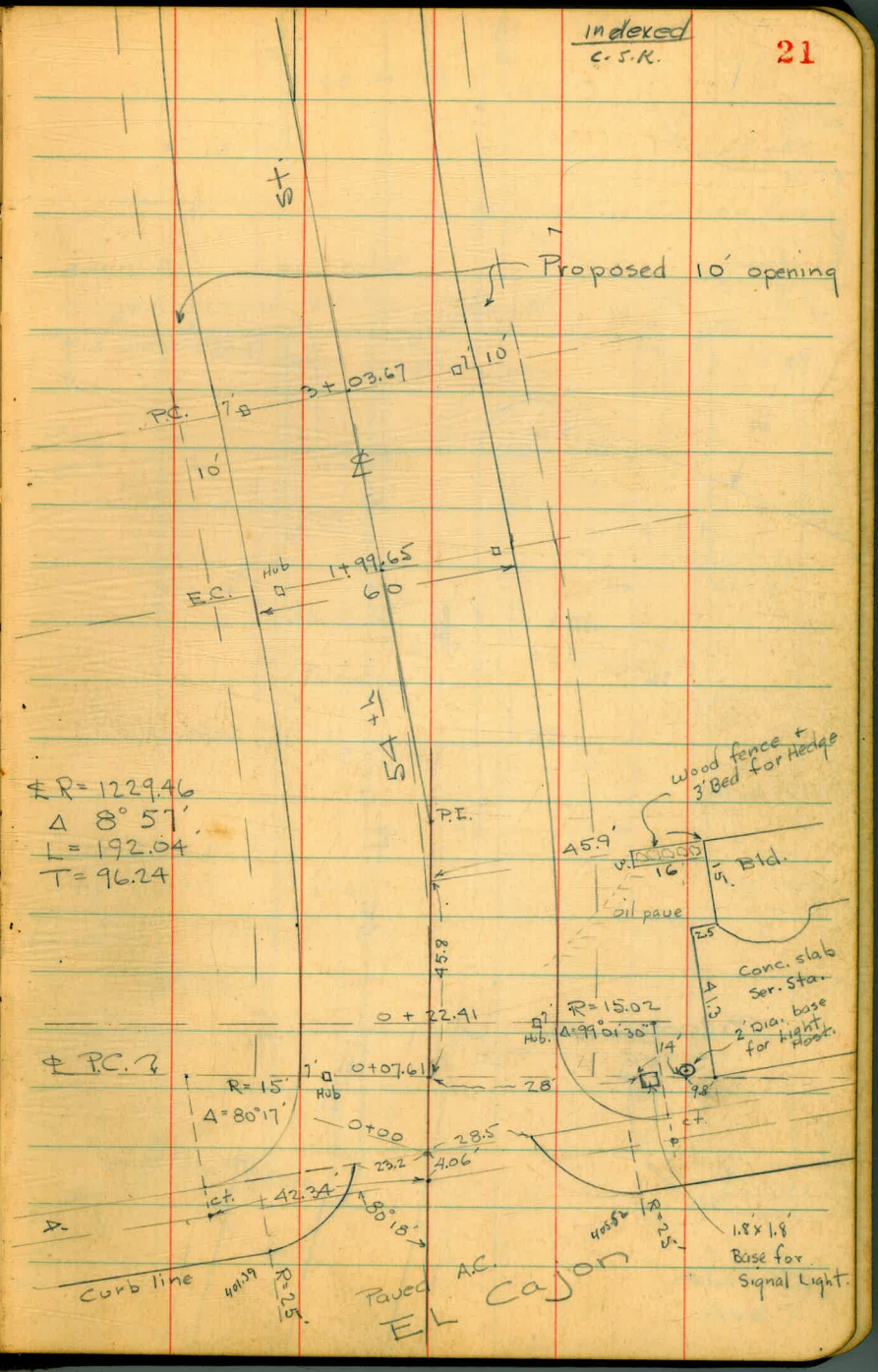
X-Sect of 54th St. — From El Cajon to N.L. of Collier St. from the East.

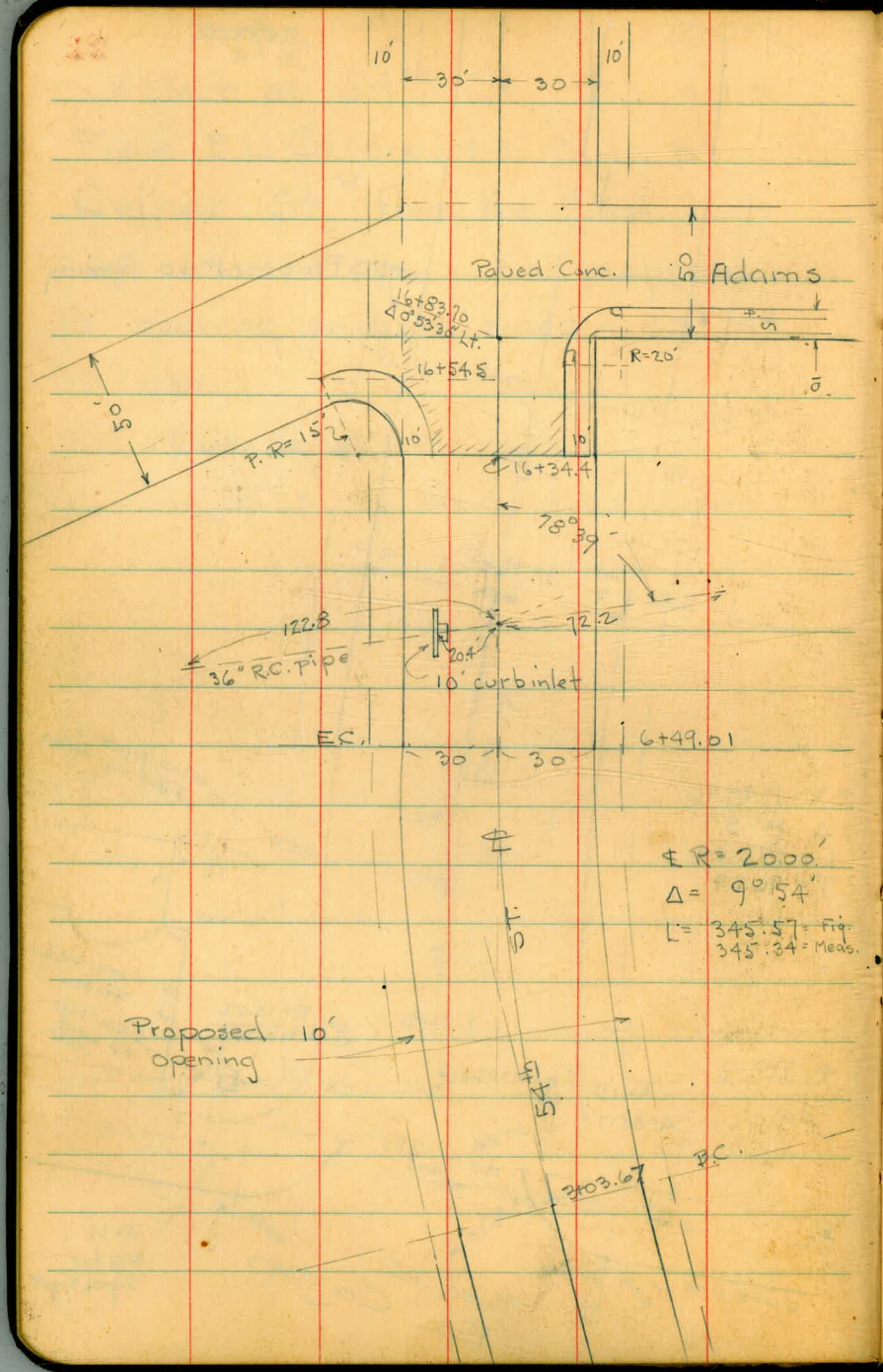
60' st. -10' cbs. - for proposed 10' opening on both sides = 80' st. 10' cbs.

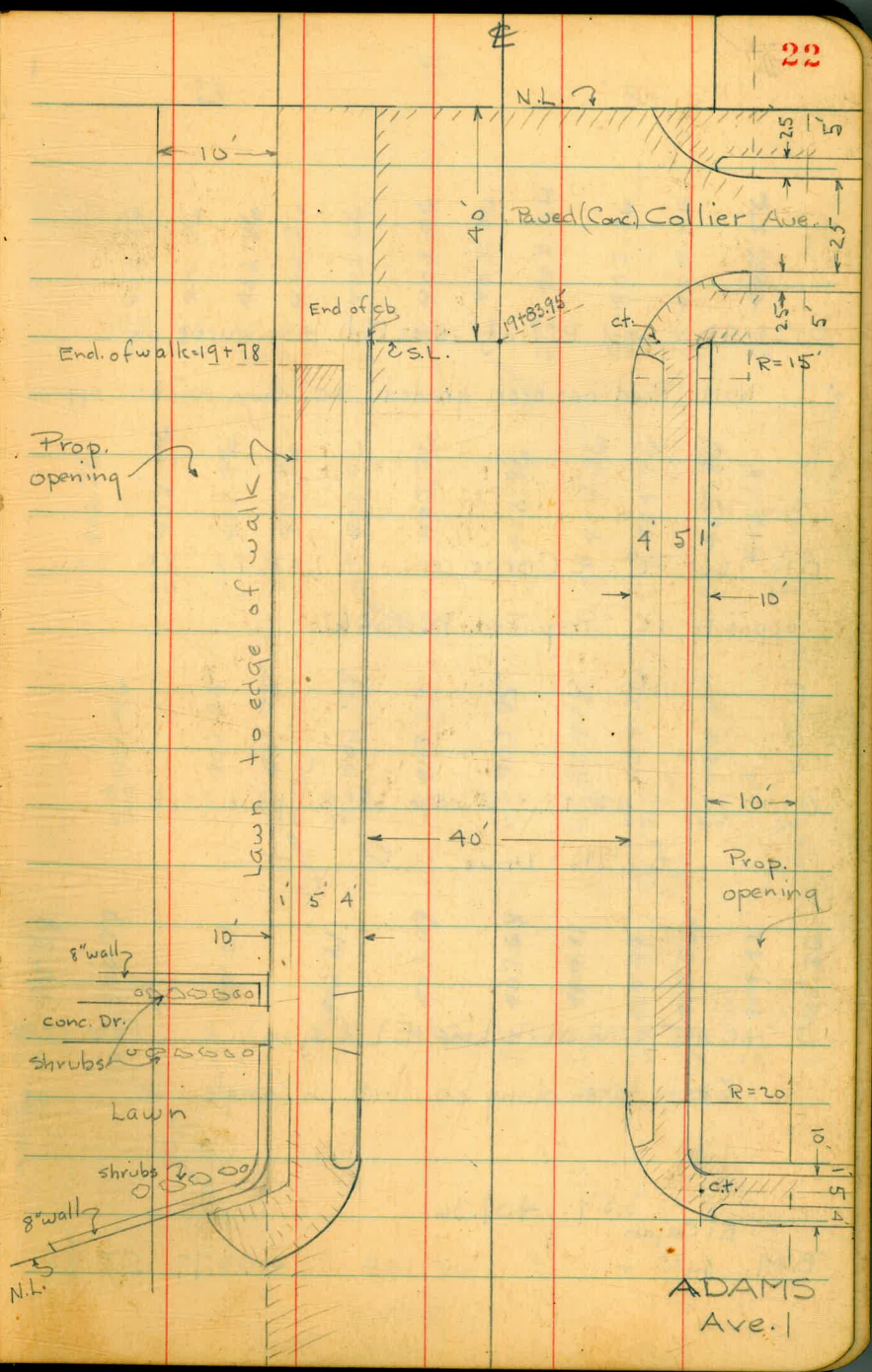
Ties - Book G 162 P. 7-66-67

B. 23 - P. 19

Indexed
C.S.R.




10'
30'
30
10'
Paved Conc.
Adams
16+83.70
40°33'30" Lt.
16+54.5
R=20'
P.R=15'
10'
10'
℄ 16+34.4
28°39'
122.8
72.2
20.4'
36" R.C. Pipe
10' curb inlet
E.C.
6+49.01
30'
30
℄ R=2000'
Δ= 9°54'
L= 345.57 = Fig.
345.34 = Meas.
Proposed 10'
opening
E.T.
P.C.
3703.67


N.L.
10'
Paved (Conc.) Collier Ave.
End of cb
19+83.35
End. of walk=19+78
℄ S.L.
ct.
R=15'
Prop. opening
Lawn
4'
5'
1'
10'
40'
10'
Prop. opening
8" wall
conc. Dr.
shrubs
Lawn
shrubs
8" wall
N.L.
R=20'
c.t.
ADAMS Ave.

0+22.41 = opp. P.C. of 15.02' Rad. prop. curve on E.

Note: Road has been graded - 20' Rdwy. 10' cbs. approx.

0+07.61 = P.C. ℄ Curve

opposite 15' Prop. Rod. P.C. on W.

0+00 - 12' Lt. = W. edge of oil pave. Ext. of Ser. sta. Drive.

0-10.15 = N. curb line El Cajon

Sect. taken along cb. line on Angle.

	3.59	407.36	
B.M. El Cajon 54th +		403.77	S.E.B.P.

Lt. ℄ Rt.

0+22.41

	1	2	3	4	5	6	7	8	9	10	11
Elev.	402.36	402.86	402.86	402.36	402.66	403.06	403.46	403.66	403.76	404.46	405.56
Rod	5.0	4.5	4.5	5.0	4.7	4.3	3.9	3.7	3.6	2.9	1.8
Dist.	40	30	23	21	10		6 = W. edge Pave.	15	23	30	40

0+07.61

	1	2	3	4	5	6	7	8	9	10	11
Elev.	402.36	402.56	402.56	401.96	403.06	403.36	403.96	404.26	404.76	405.36	402.18
Rod	5.0	4.8	4.8	5.4	4.3	4.0	3.4	3.1	2.6	2.0	
Dist.	40	30	23	21	4 = W. edge Pave to S/S.		15	27	30	40	51.8 = S.W. cor. Conc. Slab of Ser. sta.

0+00

	1	2	3	4	5	6	7	8	9	10
Elev.	401.46	402.25	401.75	402.49	403.23	403.95	404.18	404.26	404.81	405.81
Rod	5.9	5.11	5.61	4.87	4.13	3.41	3.18	3.10	2.55	1.55
Dist.	50	23.2 = Top Cb.	23.2 = gut. = end of cb. 25' R. Ret.	12 = W. edge Pave		15	25	28.5 = gut. = end of Cb. 25' R. Ret.	28.5 = top cb.	50 = on Ser. sta. Pave

0-10.15

	1	2	3	4	5	6	7	8	9	10	11	12
Elev.	399.92	401.39	400.79	401.61	402.21	403.09	403.69	404.11	405.49	405.52	404.92	405.36
Rod	7.44	5.97	6.57	5.75	5.15	4.27	3.67	3.25	2.87	1.84	2.44	2.00
Dist.	60 in gutter	41 Top Cb.	41 = gut = P.C. 25' Rad. Return	25	15		15	25	35	50 = Top Cb. = PC 25' Rad. Return	50 gut.	60

407.36

2+51 = 40.6 Lt. = ℄ 12" Euclyptus

2+40

T.P. 4.33 403.94 7.75 399.61

1+99.65 = E.C. ℄

1+53 - 32.3' Rt. = end of wire fence

1+50

1+49.5 = 1.5 Rt. = ℄ Sewer M.H.

1+42 = 23' Lt. = ℄ Tel. pole

1+00

0+83 = Begin High wire fence on Rt. 31.3

0+50

Lt. ℄ Rt.

402.34	402.74	401.14	400.84	400.14	400.44	400.64	400.54	400.14	401.04	401.74	403.14 ? 404.74	403.04 " 404.84
1.6	1.2	2.8	3.1	3.8	3.5	3.3	3.4	3.8	2.9	2.2	+0.8	+0.9
40	31	29	20	19	10		10	19	20	29	33	40

403.94

402.66	402.56	401.36	401.36	400.56	400.96	401.06	400.96	400.66	401.36	401.96	404.86	405.16
4.7	4.8	6.0	6.0	6.8	6.4	6.3	6.4	6.7	6.0	5.4	2.5	2.2
40	32	30	23	21	10		10	18	20	30	33	40

402.16	402.36	401.86	401.86	401.16	401.66	402.06	402.10	401.66	401.56	402.16	402.56	404.56	404.96
5.2	5.0	5.5	5.5	6.2	5.7	5.3	5.26	5.7	5.8	5.2	4.8	2.8	2.4
40	33	31	23	21	10		1.5 = on rim of M.H.	10	18	20	28	32	40

402.56	402.76	402.76	402.16	402.16	402.36	402.36	403.16	402.66	403.36	404.86
4.8	4.6	4.6	5.2	5.2	5.0	5.0	5.2	4.7	4.0	2.5
40	30	23	21	10		10	19	20	30	40

402.86	402.86	402.86	402.36	402.56	402.76	402.86	403.26	403.96	404.26	405.66
4.5	4.5	4.5	5.0	4.8	4.6	4.5	4.1	3.4	3.1	1.7
40	30	23	21	10		10	20	26 = W. edge pave - sev. sta.	30	40 on s.s. pave

407.36

Lt. ℄ Rt

4+00

393.54	393.24	394.54	398.34	398.34	397.94	398.14	398.34	398.14	397.94	398.64	398.94	397.14	388.84	388.04
10.4	10.7	9.4	5.6	5.6	6.0	5.8	5.6	5.8	6.0	5.3	5.0	6.8	15.1	15.9
60	50	40	30	20	17	10		10	17	20	30	40	55	80

3+55

372.54	375.84	394.14	398.74	398.94	398.54	398.74	398.74	398.64	398.74	399.04	399.34	398.84	386.74	387.84
31.4	28.1	9.8	5.2	5.0	5.4	5.2	5.2	5.3	5.2	4.9	4.6	5.1	17.2	16.1
100	69	40	30	20	19	10		10	19	21	30	35	53	80

3+35

379.74	382.74	396.54	399.24	399.04	398.74	398.94	399.14	398.94	398.94	399.44	399.74	399.94	396.64	388.74	387.54
24.2	21.2	7.4	4.7	4.9	5.2	5.0	4.8	5.0	5.0	4.5	4.2	4.0	7.3	15.2	16.4
85	65	40	30	20	19	10		10	19	20	30	34	40	55	70

3+03.67 = P.C.

394.54	397.34	399.84	399.64	399.14	399.44	399.64	399.54	399.14	399.94	400.54	400.64	399.64	397.54	397.34
9.4	6.6	4.1	4.3	4.8	4.5	4.3	4.4	4.8	4.0	3.4	3.3	4.3	6.4	6.6
60	40	32	20	19	10		10	18	20	30	35	40	47	60

2+75

400.74	401.04	401.54	400.54	400.34	399.54	399.84	400.14	400.04	399.64	400.54	401.24	403.34	403.34	402.94
3.2	2.9	2.4	3.4	3.6	4.4	4.1	3.8	3.9	4.3	3.4	2.7	0.6	0.6	1.0
50	40	32	29	20	19	10		10	19	20	29	32	40	50

403.94

5+50				
5+15				
5+00				
T.P.	9.02	405.88	7.08	396.86
4+75				
4+25				

Lt. | ℄ | Rt.

Lt.								℄				Rt.		
399.18	400.38	400.98	396.98	396.58	396.08	396.18	396.38	396.38	396.38	397.18	397.68	405.08	405.38	405.88
6.7	5.5	4.9	8.9	9.3	9.8	9.7	9.5	9.5	9.5	8.7	8.2	0.8	0.5	0.0
50	40	32	28	20	18	10		10	18	20	29	33	40	50
398.48	399.38	400.28	397.38	396.48	396.48	396.68	396.88	396.68	396.58	397.38	397.88	405.08	405.48	405.68
7.4	6.5	5.6	8.5	8.9	9.4	9.2	9.0	9.2	9.3	8.5	8.0	0.8	0.4	0.2
50	40	32	29	20	18	10		10	18	20	29	33	40	50
398.98	399.88	400.48	397.48	397.18	396.68	396.88	397.08	396.98	396.98	397.38	397.88	404.68	404.98	403.08
6.9	6.0	5.2	8.4	8.7	9.2	9.0	8.8	8.9	8.9	8.5	8.0	1.2	1.4	2.8
50	40	33	29	20	18	10		10	19	20	29	32	40	50
401.44	401.94	401.44	397.94	397.54	396.94	397.14	397.44	405.88	397.04	397.84	398.24	400.84	398.34	397.34	394.34
3.5	3.0	2.5	6.0	6.4	7.0	6.8	6.5	6.6	6.9	6.1	5.7	3.1	5.6	6.6	9.6
50	40	34	30	20	18	10		10	19	20	30	34	40	42	65
401.44	401.94	401.44	397.94	397.54	397.54	397.94	397.94	397.84	397.84	398.34	398.74	398.64	397.34	391.34	389.64
3.0	3.0	3.5	5.7	6.0	6.4	6.0	6.0	6.1	6.1	5.6	5.2	5.3	6.6	12.6	14.3
50	40	33	30	20	18	10		10	18	20	30	38	40	50	65

403.94

8+00

7+50

7+48 - 22' Rt. = ± tel. pole

7+00

Rt. top bank opp. Sta. 6+00
T.P. 1.01 405.28 1.61 404.27

6+49.01 = E.C.

6+00

Lt.					℄				Rt				
403.28	403.38	403.78	399.88	399.28	399.08	398.58	398.48	398.48	398.48	397.98	397.78	397.98	398.08
2.0	1.9	1.8	1.54	1.60	1.72	1.67	1.65	1.68	1.75	1.55	1.54	0.73	1.17	1.52
50	40	33	30	18	17	10		10	20	21	30	34	40	60
403.58	403.58	403.58	402.78	402.18	400.98	401.28	401.48	400.98	400.58	402.78	403.28	397.88	397.28	396.28
1.8	1.7	1.7	12.5	13.1	14.3	14.0	13.8	14.3	14.7	12.5	12.0	7.4	8.0	9.0
50	40	32	30	18	17	10		10	19	21	30	34	40	50
403.08	403.38	403.38	394.28	394.18	393.08	393.48	393.58	392.38	393.18	394.68	394.88	399.68	399.78	399.08
2.2	1.9	1.9	11.0	11.1	12.2	11.8	11.7	11.9	12.1	10.6	10.4	4.6	5.5	6.2
50	40	32	30	19	17	10		10	18	20	30	32	40	50
402.68	402.98	403.38	395.28	395.08	394.28	394.68	395.28	394.68	394.28	395.88	396.08	402.58	402.98	402.78
3.2	2.9	2.5	10.6	10.8	11.6	11.2	10.67	11.2	11.6	10.0	9.8	3.3	3.4	3.6
50	40	32	29	20	18	10		10	19	21	30	34	40	50
401.68	401.98	402.78	396.28	395.88	395.18	395.48	395.68	395.58	395.18	396.68	396.88	404.98	404.98	404.28	404.48
4.2	3.9	3.1	9.6	10.0	10.7	10.4	10.2	10.3	10.7	9.2	9.0	1.4	1.6	1.4
50	40	32	29	20	18	10		10	18	20	30	34	40	50

405.88

9+85				
9+50 – 22' Rt. = ℄ Tel. pole				
9+3.5				
T.P.	1.77	383.98	12.29	382.21
9+10.1 = ℄ M.H.		on rim		
9+00				
T.P.	2.15	394.50	12.93	392.35
8+50				

Lt. ℄ Rt.

351.68	357.58	370.68	371.78	372.68	377.68	378.18	377.98	377.98	377.78	378.68	378.98	372.98	364.68	366.68	372.08
32.3	26.4	13.3	5.2	5.3	6.3	5.8	6.0	6.0	6.2	5.3	5.0	11.0	19.3	17.3	11.9
90	60	40	30	20	18	10		10	18	20	30	40	52	69	80

376.48	378.98	380.68	380.48	380.08	380.28	380.58	380.48	380.08	381.48	381.78	379.98	366.28	366.58	370.98
7.5	5.0	3.3	3.5	3.9	3.7	3.4	3.5	3.9	2.5	2.2	9.0	17.7	17.4	13.0
60	40	30	20	17	10		10	19	21	30	40	52	63	73

383.98

12.19

382.31

393.20	393.60	393.20	383.4	382.60	381.40	382.10	382.60	382.40	382.4	383.30	383.6	383.6	378.40	369.40
1.3	0.9	1.3	11.5	11.9	12.6	12.4	11.9	12.1	12.5	11.2	11.5	11.5	16.1	26.0	25.1
50	40	33	30	19	17	10		10	18	20	30	34	40	58	73

394.50

402.18	401.98	401.68	387.28	386.48	385.08	385.08	385.38	385.48	384.78	386.28	386.28	388.88	387.88	382.58
3.1	3.3	3.6	18.0	18.8	20.2	20.2	19.9	19.8	20.5	19.0	19.0	16.4	17.4	22.8
50	40	35	30	18	17	10		10	20	21	30	33	40	60

405.28

11+15

28.8
100

10+80

10+65.1 = int. of ℄ with ℄ 36" R.C. Culvert.

20.4 Lt. = face of cb. at ℄ of 2'x3.5' box + grate

10' opening Cb. inlet. top of cb. is Level

outlet - not shown. in Sect.

for angle see sketch. Small ditch at inlet + larger one at

10+50

T.P. 6.76 383.80 6.94 377.04

N. inside Cor. Conc. Inlet cb.

10+15

Lt. ℄ Rt.

349.80	348.20	371.30	377.50	377.40	376.70	377.00	377.00	377.00	376.90	378.00	378.20	373.90	364.90	363.50
34.0	35.6	12.5	6.3	6.4	7.1	6.8	6.8	6.8	6.9	5.8	5.6	9.9	18.9	20.3
87	77	40	30	20	19	10		10	19	20	32	40	55	80

347.80	345.50	371.50	377.00	376.90	376.20	376.40	376.50	376.60	376.50	377.40	377.90	371.30	349.20	349.80
36.0	38.3	12.3	6.8	6.9	7.6	7.4	7.3	7.2	7.3	6.4	5.9	12.5	34.6	34.0
115	85	40	30	20	19	10		10	19	20	30	40	75	115

340.33	376.00	377.08	346.93
43.47	7.80	6.78	36.97
122.8 = F.L. on outlet.	20.4 on grate	20.4 Top cb.	72.2 = inlet on F.L.

342.40	345.50	374.50	376.90	377.00	376.10	376.30	376.50	376.70	376.70	377.50	377.86	371.70	350.70	350.[illegible]	350.90
41.4	38.3	13.0	6.9	6.8	7.7	7.5	7.3	7.1	7.1	6.3	6.0	12.1	33.1	33.8	32.9
125	83	40	30	21	19	10		10	18	20	30	40	73	93	113

345.98	350.48	371.68	377.98	377.98	376.78	379.18	377.18	379.28	377.18	377.88	378.28	372.08	360.68	359.88	360.58
38.0	33.5	12.3	6.0	6.0	7.2	6.8	6.8	6.7	6.8	6.1	5.6	11.9	23.3	24.1	23.4
120	82	40	30	20	18	10		10	18	20	30	40	58	70	85

383.80

383.98

T.P. 12.59 394.22 2.17 381.63

12+50

	Lt							℄				Rt			
Elev.	365.60	362.10	376.40	381.70	381.70	381.10	381.30	381.60	381.60	381.50	382.70	383.20	(396.0) 371.60?	(396.4) 371.20?	(397.80) 369.80?
Rod	18.2	21.7	7.4	2.1	2.1	2.7	2.5	2.2	2.2	2.3	1.1	0.6	+12.2	+12.6	+14.0
Dist.	80	60	40	30	20	18	10		10	18	20	30	36	40	60

12+00 204 85

	Lt							℄				Rt			
Elev.	356.80	358.00	373.70	379.50	379.50	379.00	379.10	379.30	379.20	379.20	380.30	380.80	(392.0) 375.60?	(392.4) 375.20?	(393.7) 373.90?
Rod	27.0	25.8	10.1	4.3	4.3	4.8	4.7	4.5	4.6	4.6	3.5	3.0	+8.2	+8.6	+9.9
Dist.	70	63	40	30	19	18	10		10	19	20	30	36	40	60

11+83.1 = ℄ M.H. on rim 378.89

4.91

11+70 Note plus(+) rods on bank on rt.

	Lt							℄				Rt			
Elev.	358.00	354.50	372.80	378.70	378.60	378.10	378.10	378.20	378.20	377.80	379.00	379.50	381.40	380.10	377.20
Rod	25.8	29.3	11.0	5.1	5.2	5.7	5.7	5.6	5.6	6.0	4.8	4.3	+2.4	+3.7	+6.6
Dist.	85	68	40	30	20	19	10		10	18	20	30	33	40	60

11+50 21,8 Rt. = ℄ Tel. pole.

11+45

	Lt							℄				Rt		
Elev.	355.00	351.50	371.40	377.80	377.90	377.30	377.40	377.50	377.50	377.60	378.10	379.20	379.80	379.60
Rod	28.8	32.3	12.4	6.0	5.9	6.5	6.4	6.3	6.3	6.2	5.7	4.6	4.0	4.2
Dist.	86	73	40	30	20	19	10		10	19	20	30	40	60

383.80

14+45 - ℄ M.H. on rim

14+15

T.P.	11.66	404.87	1.01	393.21

13+85

13+50

13+26 - 22' Rt. = ℄ tel. pole

13+00

℄

Lt. Rt.

390.47 396.92 397.07 396.07 395.27 394.37 394.97 395.14 394.77 394.37 395.77 395.87 394.47 399.97 400.27
14.0 7.9 7.8 8.8 9.1 10.5 9.9 9.7 3 10.1 10.5 9.1 9.0 5.4 4.9 4.6
65 40 36 30 20 19 10 10 19 21 30 33 40 50

380.27 374.17 389.87 393.57 393.27 392.07 392.57 392.67 392.17 391.97 393.37 393.97 394.27 399.47
24.6 30.1 15.0 11.3 11.6 12.8 12.3 12.2 12.7 12.9 11.5 11.1 10.6 5.4
86 71 40 30 20 19 10 10 18 20 30 40 60

377.82 372.52 384.02 391.12 390.92 390.02 390.22 404.87 390.52 390.42 391.02 391.32 393.02 390.82
16.4 21.7 10.2 3.1 3.3 4.2 4.0 3.7 3.8 4.2 3.2 2.9 1.2 +3.4
75 60 40 30 20 19 10 10 18 20 30 40 60

394.42 389.02 381.82 382.42 388.52 387.32 388.12 388.42 388.22 388.12 388.42 389.72 390.62 390.12 388.22
19.8 25.2 12.4 5.8 5.7 6.9 6.1 5.8 6.0 6.1 5.3 4.5 +3.6 +4.1 +6.0
75 60 40 30 20 19 10 10 19 20 30 32 40 60

370.32 366.22 374.12 384.82 385.12 384.22 384.52 384.62 384.52 385.32 387.42 390.22 389.02 388.42 387.82
24.0 28.0 16.1 9.4 9.1 10.0 9.7 9.6 9.7 8.9 6.8 3.5 +5.2 +5.8 +6.4
80 63 40 32 20 19 10 10 20 30 33 35 40 60

394.22

16+00

15+50

15+25

T.P. 11.06 412.26 3.67 401.20

15+00 – 22.3 Rt. = ℄ Tel. pole

14+70

Lt.						℄			Rt.				
406.66	406.96	406.46	406.26	404.80	406.06	406.36	406.26	405.56	406.66	406.56	408.76	409.06	409.82
5.6	5.3	5.8	6.0	7.4	6.2	5.7	6.0	6.7	5.6	5.7	3.5	3.2	2.4
50	40	30	21	20	10		10	20	21	30	35	40	50
401.86	402.26	402.86	402.86	401.66	402.36	402.66	402.56	401.76	403.26	403.66	406.16	406.66	407.26
10.4	10.0	9.4	9.4	10.6	9.9	9.6	9.7	10.5	9.0	8.6	6.1	5.6	5.0
50	40	30	21	19	10		10	19	21	30	32	40	50
401.56	402.06	401.56	401.06	399.66	400.66	400.76	400.66		400.06	401.46	401.76	404.96	404.26	405.86
10.7	10.2	10.7	11.2	12.6	11.6	11.5	11.6	12.2	10.8	10.5	7.3	7.0	6.4
50	40	30	21	20	10		10	19	21	30	33	40	50
394.77	398.97	399.87	399.27	398.07	399.07	412.26							
10.1	5.9	5.0	5.6	6.8	5.8	5.9	6.1	6.6	4.7	4.2	0.9	0.4	0.0
60	40	30	21	20	10	398.97	10	19	21	30	32	40	50
						398.77							
394.17	399.77	399.57	398.07	397.77	396.37	396.87	396.97	396.57	395.97	397.67	397.97	402.67	402.77	403.07
10.7	5.1	5.3	6.8	7.1	8.5	8.0	7.9	8.3	8.9	7.2	6.9	2.2	2.1	1.8
60	40	33	30	21	20	10		10	19	21	30	33	40	50

404.87

16+93.70 = S. cb. Line

16+83.70 = Angle pt. in ℄ 54th - S.L. Adams

Rods on Ret. on S.L. Adams

16+73.7 = P.C. of 20' R. Ret. on S.E. Cor.

T.P.	7.70	420.96	4.58	413.26	N.E.B.P. Adams 413.40

16+54.5 = int. W. edge of pave with S.W. Ret.

T.P.	6.82	417.84	1.24	411.02

16+34.4 = S. edge of Conc. pave + curbs.

no walk. - 22' Lt. = ℄ guy pole

Lt. ℄ Rt.

16+93.70:

Elev.	412.26	412.16	411.96	411.76	412.26	412.38	412.50	412.36	412.46	412.55	413.03
Rod	8.7	8.8	9.00	9.02	8.70	8.58	8.46	8.60	8.50	8.41	7.93
Offset	50	40	29.6 (= W. edge Pave)	20	10		10	20	30	40 (= gut.)	40 (Top cb. P.C. Ret.)

16+83.70:

Elev.	412.01	412.56
Rod	8.95 = gut.	8.40 = Top cb.
Offset	22.6	22.6

16+73.7:

Elev.	410.76	411.06	411.19	411.22	411.56	411.71	411.77	411.54	412.20	412.26	413.16	413.56
Rod	10.2	9.9	9.77	9.74	9.40	9.25	9.19	9.42	8.76	8.70	7.8	7.4
Offset	50	40	30 (= W. edge of Conc. pave)	20	10		10	20 (gut)	20 (top)	29 (= E. edge of S. walk)	32	40

420.96

16+54.5:

Elev.	409.85	410.64	410.74	410.15	410.12	410.47	410.52	410.52	410.22	410.94	410.94	411.94	412.44
Rod	7.99	7.2	7.10	7.69	7.72	7.37	7.32	7.32	7.62	6.90	6.9	5.9	5.4
Offset	59.5 (= face of end of curb of Ret.)	40	30.4 (Top)	30.4 (gut)	20	10		10	20 (gut)	20 (Top)	30	31	40

417.84

16+34.4:

Elev.	410.86	409.26	409.50	408.87	409.28	409.45	409.31	408.85	409.46	409.46	409.66
Rod	1.4	3.0	2.76	3.39	2.98	2.81	2.95	3.41	2.80	2.8	2.6
Offset	40	30	20 (= Top)	20 (gut)	10		10	20 (gut)	20 (top cb.)	30	40

412.26

17+39 = 36' Lt. = ℄ 4' Palm

17+33.70 = N.L. Adams - wall is straight 8" on top. from here N.

17+32.5 = 22.3 Lt. = ℄ 10" palm.

17+31.5 - 29.2 Lt. = face of N. end of 10" coping on wall

17+23.70 = N. cb. Line Adams 6.6 / 40

17+22.4 - 34.2 Lt. = P.C. of curve in 8" wall

17+20.1 - 5' Lt. = center of 2.2'x2.2' S.D.G&E. Co. M.H.

17+15 = S. end cb. on N.W. ret. ▾edge of pave

17+08.70 = ℄ Adams = on M.H.

Lt. ℄ Rt.

414.86 415.12 413.26 413.18 412.64 412.95 413.01 413.07 412.72 412.71 413.30 413.54 413.56
6.1 5.84 7.60 7.78 8.32 8.01 7.95 7.96 8.24 8.25 7.66 7.44 7.4
40 29 29 20 20 10 10 20 22.7 22.7 30 40
Top wall = wedge of walk Top = Gut = P.C. 20 Rad. Ret. Gut. Top on walk

416.52
4.44
29.2 = Top wall

416.31 413.16 413.18 413.16 412.48 412.84 412.90 412.90 412.69 412.77 412.94 413.41
4.65 7.8 7.78 7.80 8.48 8.12 8.06 8.06 8.27 8.19 8.02 7.55
33 33 30 21.5 21.5 10 10 20 30 40 40
Top wall ground on walk = Top cb. = Gut. Gut. Top cb. = P.C. 20' R. Ref.

415.93 413.66 413.76 412.87 412.21 412.39 412.73 412.82 412.84 412.68 412.94 413.12
5.03 7.3 7.2 8.09 8.75 8.57 8.23 8.14 8.12 8.28 8.02 7.84
44.4 4.4 40 29 29 20 10 10 20 30 40
= Top wall ground Top end of cb. = Gut. In cross gutter

415.73 413.56 413.46 412.17 412.30 412.60 412.72 412.82 412.64 412.89 413.06
5.23 7.4 7.5 8.79 8.66 8.36 8.24 8.14 8.28 8.07 7.90
53.1 50 40 29.2 20 10 10 20 30 40
= Top of 10" Coping on 8" Conc. wall outside edge = W. edge Conc. pave on M.H.

420.96

17+96.4 = ℄ 3' Conc. walk on Lt.

17+78 = 21.8 Lt. = ℄ P. pole. + face of 8" E+W. Wall on Lot line

17+74.5 N. Side Drive.

17+66.2 = S. side Conc. driveway (solid) with 4" curbs - 4" High on both sides

17+62.3 = 22.3 Lt. = ℄ 14" Palm

17+47.5 - 22.3 Lt. = ℄ 14" palm

17+43.70 = P.C. of N.E. Ret.

Lt.			℄		Rt.							
415.83	415.68	415.21	414.12									
5.13	5.28	5.75	6.84									
50	40	35	29 = W. edge walk									
	on walk											
418.40	415.96	418.61	416.81	413.87								
2.56	5.5	2.35	4.15	7.09								
40	40	30.4	29.9	29 walk								
	ground	Top end E+W. wall	= Top of N+S. wall									
415.27	415.90	415.43	416.78	413.87								
5.69	5.56	5.53	4.18	7.09								
50	40	37.6	29.8 = Top wall	29 = walk								
on Dr.	on Dr.	on Dr.										
415.29	415.39	415.37	415.53	413.74								
5.67	5.57	5.54	5.43	7.22								
50	40	37.6	29.3 Top wall	29.3 on walk + dr.								
on Dr.	on Dr.	on drive										
415.06	415.06	415.30	413.53	413.35	412.79	413.12	413.14	413.15	412.71	413.24	412.46	415.76	415.96
5.9	5.9	5.66	7.43	7.61	8.17	7.84	7.82	7.81	8.25	7.72	7.5	5.2	5.2
50	40	29	29	20	20	10		10	20	20	30	32	40
		Top wall	W. edge walk	Top	gut.				gut	Top = P.C.			

420.96

18+75 = 22.3 Lt = ℄ 14" Palm

18+72.7 = N. Side of Drive.

18+57.8 - 22.7 Rt. = ℄ P. pole & S. side of Conc. Drive on Lt.

18+53.5 - 22.3 Lt. = ℄ 12" Palm

18+50

18+32.3 = 22.2 Lt. = ℄ 12" palm.

18+20.7 = ℄ 7' solid Conc. Drive on Lt.

18+00

℄

Lt. Rt.

416.13 416.01 415.72 415.20 414.93

4.83 4.95 5.24 5.76 6.03

50 40 35 30 29

416.03 415.99 415.69 415.06 414.80

4.93 4.97 5.27 5.90 6.16

50 40 35 30 29

on Dr. walk

416.16 416.6 414.96 414.72 414.36 413.84 414.07 414.19 414.02 413.69 414.30 414.96 416.84 416.96

4.8 4.8 6.0 6.24 6.60 7.15 6.89 6.92 6.94 7.32 6.66 6.5 4.1 4.0

50 40 30 29 20 20 10 10 20 20 30 32 40

walk Top. gut. gut Top

415.98 415.79 415.33 414.57 414.35

4.98 5.22 5.63 6.39 6.61

50 40 35 30 29 = walk

on Dr.

415.86 415.76 414.56 414.14 413.91 413.31 413.69 413.67 413.69 413.23 413.85 414.06 416.56 416.36

5.1 5.2 6.4 6.80 7.05 7.65 7.32 7.29 7.32 7.73 7.11 6.9 4.4 4.6

50 40 30 29 20 20 10 10 20 20 30 32 40

walk Top gut. gut Top

420.96

19+63 - 22' Lt. = ℄ 2" Palm.

19+50

19+33.6 - 22' Lt. = ℄ 2" Palm

19+13.2 = ℄ 4' walk (conc.) on Lt. also bet. walk + cb.

T.P. 7.21 421.74 6.43 414.53

19+00

18+87.1 = N. side of Dr.

18+78 - 22.2 Lt. = ℄ P. pole + S. side of Conc. Drive on Lt. with 4" Conc. curb on S. side about 5" High

	Lt.			℄					Rt			
	416.44	416.34	415.34	415.15	414.57	414.89	414.96	414.85	414.96	415.07	415.19	416.64	416.94
	5.3	5.4	6.4	6.59	7.22	6.85	6.78	6.89	7.28	6.67	4.6	5.1	4.8
	50	40	30	20 Top	20 gut	10		10	20 gut	20 Top	30	32	40
	416.64	416.30	415.95	415.28	415.11								
	5.10	5.44	5.79	6.46	6.63								
	50	40	35	30	29 on walk								
	416.66	416.46	415.96	414.65	414.14	414.47	421.74	414.58	414.95	414.77	414.62	414.66	417.16	417.26
	4.3	4.5	5.9	6.31	6.82	6.49		6.38	6.51	6.96	6.34	6.3	3.8	3.7
	50	40	30	20 top	20 gut	10			10	20 gut	20 Top	30	32	40
	416.32	416.21	415.76	415.19	414.95									
	4.64	4.75	5.20	5.82	6.01									
	50	40	35	30	29									
	on Dr.													
	416.28	416.16	415.83	415.16	414.96									
	4.68	4.80	5.13	5.80	6.00									
	50	40	35	30	29 walk									
	on Dr.													

420.96

20+03.95 = ℄ Collier + ℄ M.H.

19+91.45 = S. cb. line Collier Ave.

19+90 = 39.5 Rt. = ℄ Fire Hyd.

19+90 = 21.3 Lt. = ℄ P. pole

19+83.95 = S.L. Collier Ave. = End of cb. on W.

19+79.7 - 21.6 Rt. = ℄ Tel. pole

19+76.45 = P.C. of 15' R. Ret. on S.E. Cor.

19+74.6 = ℄ of 7.5' Conc. Drive on Lt.

℄

Lt.							Rt.			
415.24	415.14	414.94	414.74	414.90	414.97	415.01	414.94	414.90	414.88	414.81
6.5	6.6	6.8	7.00	6.84	6.90	6.73	6.80	6.84	6.86	6.93
50	40	30	20	10	on M.H.	10	20	30	40	50
			Lt. w. edge Pave							

415.34	415.34	415.24	414.73	415.01	415.04	415.02	414.89	414.90	414.90	415.39	414.82	415.31
6.4	6.4	6.5	7.01	6.73	6.70	6.72	6.85	6.84	6.84	6.35	6.92	6.43
50	40	30	20	10		10	20	30	35	35	40	40
			Lt. w. edge Conc. pave						Out	Top P.C. Ret.	Out	Top

416.29	416.09	415.54	415.39	414.76	415.07	415.13	415.10	414.80	415.52	415.45	415.43
5.5	5.7	6.2	6.35	6.98	6.67	6.61	6.64	6.94	6.22	6.29	6.31
50	40	30	20	20	10		10	22	22	30	40
			Top of end. cb.	Out				Out	Top cb.	on edge of walk	

416.48	415.56	415.49	414.71	415.09	415.22	415.17	414.76	415.41	415.44	416.79	417.04
5.26	6.18	6.25	7.03	6.65	6.52	6.62	6.98	6.33	6.3	5.0	4.7
40	29	24	20	10		10	20	20	30	31	40
on Dr.	on Dr.	on walk	Out in drive				Out	Top			

416.61	416.47	416.13	415.67	415.56
5.13	5.26	5.61	6.06	6.18
50	40	35	30	29

421.74

Check B.M. S.E. El Cajon & 54th			2.49	403.77	403.77 ✓
	8.54	406.26	3.27	397.72	
	11.79	400.99	0.61	389.20	
	12.78	389.81	12.89	377.03	
	0.76	389.92	12.52	389.16	
	0.40	401.68	13.02	401.28	
T.P. on B.M.	1.04	414.30	8.48	413.26	N.E. B.P. Adams & 54th

Lt. ℄ Rt.

20+23.95 = N.L. Collier Ave.

Elev.	Rod	Dist.	Remarks
415.59	6.2	50	
415.69	6.1	40	
415.69	6.2	30	
415.69	6.2	21	
414.28	7.46	20.2	= W. edge Pave.
414.59	7.15	10	
414.75	6.99		
414.69	7.10	10	
414.28	7.46	23.3	= gut.
414.92	6.82	23.3	= Top cb end of ret.
414.95	6.79	30	on walk
414.90	6.84	40	on walk

20+16.45 = N. cb. line

Elev.	Rod	Dist.	Remarks
415.29	6.5	50	
415.29	6.5	40	
415.09	6.7	30	
414.50	7.24	20.2	= W. edge Pave.
414.70	7.04	10	
414.85	6.89		
414.76	6.98	10	
414.52	7.22	20	
414.45	7.29	30	
414.41	7.33	35	gut.
414.86	6.88	35	Top at P.C. ret.
414.36	7.38	40	gut.
414.83	6.91	40	Top

421.74

Moore
Sommermeyer
Begg

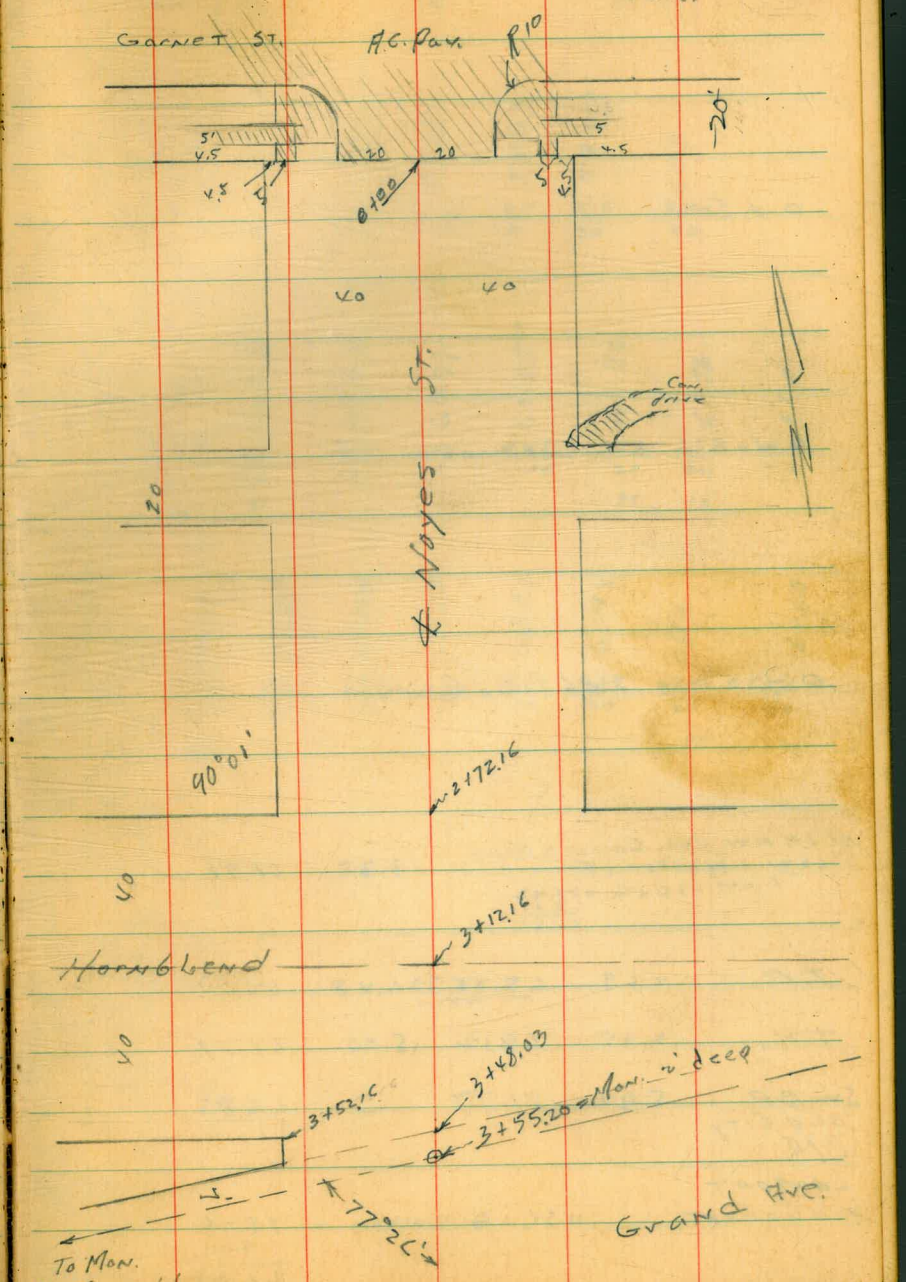
X sec Noyes St. 80' wide
Garnet to Grand Ave.

5-22-46.

Grade all ready established
Profile 1211
A. M.

Indexed
C.S.K.

40



Noyes

0 + 50				
0 + 00 S.L. Garnet				
0 − 20 = S.c6 Line Garnet				
Fd. B.P. N.W. Cor. Garnet & Noyes 6221 = Walker; derived from USC&G = 71.22 − 9.01 = 62.21			3.35	61.98 ✓
T.P.	2.69	65.33	6.48	62.64
T.P.	2.35	69.12	5.00	66.77
SW B.P. old City B.M. Lamont and Garnet	5.94	71.77		65.83
	USC&G Walker =			75.06 − 9.01 = 66.05

Lt = To E. — ℄ — Rt

	59.8 5.5/40	59.5 5.8/19	58.93 6.4/17	59.13 6.2	58.63 6.7/11	59.93 5.4/20	60.9 4.4/40	
65.3 5.0/40	59.88 5.35/20 c6	59.67 5.66/20 9T	60.23 5.10/10	60.71 4.62	60.85 4.48/10	60.80 4.53/20 9T	61.76 3.57/20 c6	62.0 3.3/40
59.81 5.52/40 c6	59.29 6.04/40 9T.	59.85 5.48/20	60.44 4.89/10	60.83 4.50	61.01 4.32/10	60.98 4.35/20	61.18 4.15/40 9T	61.68 3.65/40 c6

65.33

Noyes

2+00

1+46.08

1+26.08

1+00

0+93 ℄ 3.8 wide Con. Porch step

45.33

℄ ℄ P.I.

55.1 55.73 56.13 55.73 56.23 56.3

10.2/40 9.6/22 9.2/13 9.6 9.1/10 9.0/40

56.1 56.73 57.23 56.93 58.03 58.0

9.2/40 8.6/18 8.1 8.4/6 7.3/16 P.I. 7.3/27 7.3/40

56.15 56.25 56.63 57.63 57.43 58.13 58.3

9.35/45.7 9.18/40 9.08/36.4 8.7/20 7.7 7.9/8 7.2/20 7.0/40

Con. Con. drive Con.

57.1 57.73 58.23 57.93 59.2

8.2/40 7.6/18 7.1 7.8/10 6.1/40

58.10

7.23/39.5

65.33

3 + 44 Sec. at 90°

3 + 12.16 ℄ Hornblend

2 + 72.1 C N.L. Hornblend

T.P. 3.39 56.23 12.49 52.84

2 + 50

2 + 16 ℄ 7.8 Con. drive

65.33

Lt. ℄ Rt.

				50.93	50.83	50.4	
				5.3	5.4	5.8	
					20	40	
53.2	52.93	51.33	51.43	52.53	52.33	52.23	52.1
3.0	3.3	4.9	4.8	3.7	3.9	4.0	4.1
40	31	27	5	3		20	40
54.1		54.13		53.43	53.03	53.13	53.1
2.1		2.1		2.8	2.4	2.8	2.5
40		24		5		15	40
					56.23		
54.92		54.73		53.93	54.43	54.63	54.3
10.41		10.6		11.4	10.9	10.7	11.0
39.9		20		4		20	40

E 3' Con. walk

55.33	55.26
10.00	10.07
47	39.5
Gar. Con. fl.	Gar. dr.

65.33

	Lamont / Grand				Old City
Check to NWBP			2.76	50.33	50.37 / 0.04
T.P.	6.73	53.09	3.90	46.36	
T.P.	5.58	50.26	11.55	44.68	

3+68.52 = N.C6 Line of Grand (Sec. parallel with Grand)

3+55.20 = 7' Line on Grand (Sec. parallel with Grand)

3+52.16 Sec. at 90°

3+48.03 = N.L. Grand and Sec. parallel with Grand

3+44 Sec. parallel with Grand

56.23

Lt — ℄ — Rt

Station								
3+68.52		45.0 — 11.2/40.98	45.83 — 10.4/20	45.93 — 10.3/12	45.53 — 10.7	45.03 — 11.2/20	44.9 — 11.3/40.98	
3+55.20		46.0 — 10.2/40.98	52.03 — 9.2/20	47.24 — 9.0/8	45.84 — 10.4	45.43 — 10.8/20	45.4 — 10.8/40.98	
3+52.16					46.33 — 9.9	46.23 — 10.0/9	47.83 — 8.4/20	57.33 — 5.9/33; 50.2 — 6.0/40
3+48.03		46.9 — 9.3/40.98	47.53 — 8.7/30	47.73 — 8.5/13	47.33 — 8.9	46.03 — 10.0/20	46.6 — 9.6/40.98	
3+44	51.2 — 5.0/40.98	51.63 — 4.6/33	48.23 — 8.0/31	48.53 — 7.7/7	50.93 — 5.3/6	50.93 — 5.3	50.63 — 5.6/20	50.1 — 6.1/40.98

S.W. Cor. of Noyes & Howland →

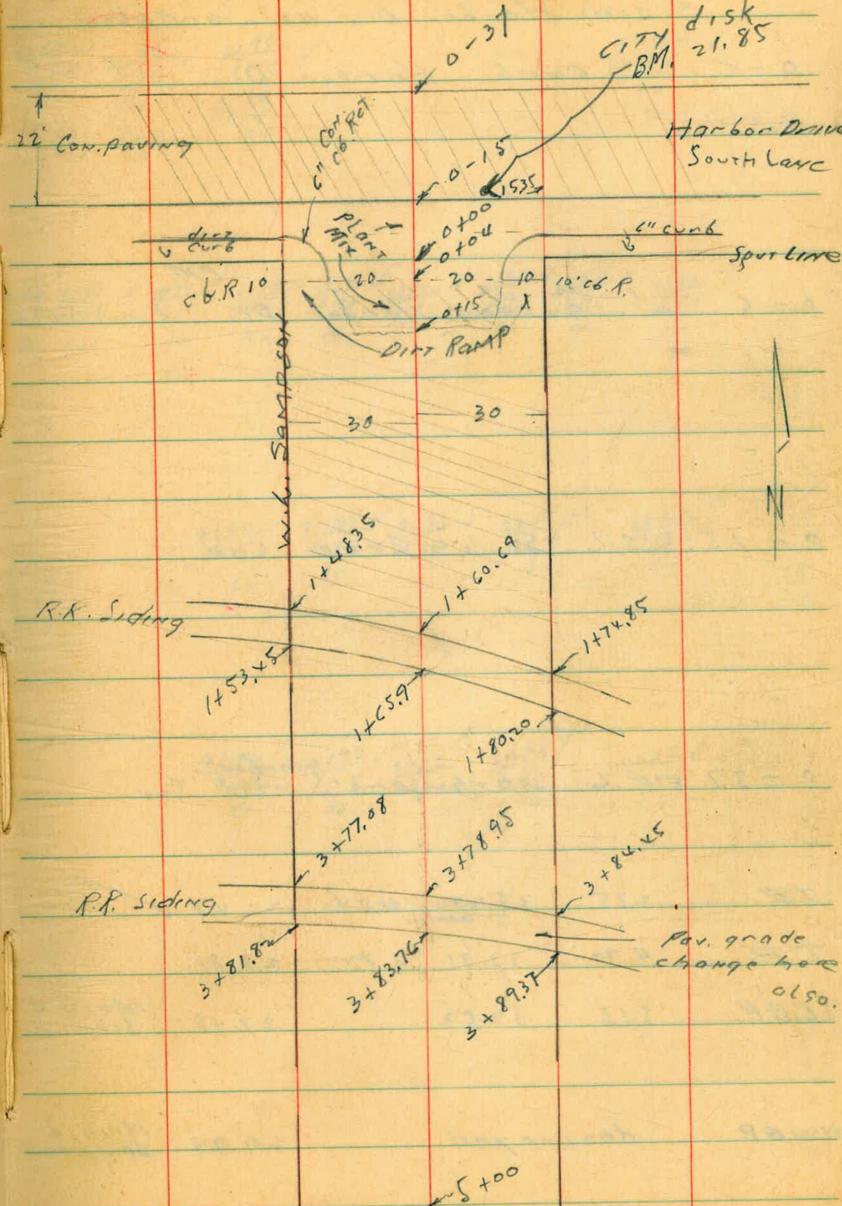
56.23

Levels on Sampson St.
at Harbor Drive,
for grade change
on State Ramp up.

C. Moore
Sam McMeyer
J. Moore
Begg

6-5-46

Indexed
C.S.K.



Levels on State Ramp
S. side Harbor Dr. at Sampson

0 - C S. Curb Harbor Dr.

0 - C S. gutter Harbor Dr. P.M. = Plant Mix

0 - 15 = S.L. South Lane Con.

0 - 37 = N.L. South Lane Harbor Drive Con.

T.P.	2.75	25.22	11.04	22.47 ✓	
T.P.	4.70	33.51	3.84	28.81	
S.E.B.P.	5.15	32.63		27.48	Main & Sicard
N.W.B.P.	destroyed			29.99	Main & Sampson

Lt = to E. & Rt = West.

21.68 ✓ / 3.54 / 90 / Top C6.
21.76 ✓ / 3.36 / Co / Top C6
21.96 ✓ / 3.26 / 30 / Top C6 B.C.

22.26 ✓ / 2.96 / 30 / end Curb Ret.

21.05 ✓ / 4.17 / 90
21.32 ✓ / 4.00 / Co
21.39 ✓ / 3.83 / 30 / 9T.
21.15 ✓ / 4.07 / 20
21.32 ✓ / 3.90 / 10
21.39 ✓ / 3.83
21.31 ✓ / 3.91 / 10
21.27 ✓ / 3.95 / 20
21.61 ✓ / 3.61 / 30 / 9T

21.67 ✓ / 3.60 / Co
21.99 ✓ / 3.43 / 30
21.93 ✓ / 3.30
22.08 ✓ / 3.14 / 30
22.23 ✓ / 2.99 / Co

21.80 ✓ / 3.42 / Co
21.92 ✓ / 3.25 / 30
22.12 ✓ / 3.10
22.28 ✓ / 2.94 / 30
22.39 ✓ / 2.83 / Co

25.22

	LT = E	℄	RT = W
0+20	19.32 ✓ 5.89 30 Con.	18.73 ✓ 6.49 20 Con	19.14 ✓ 6.08 10 Con	19.23 ~~19.33~~ ✓ 5.99 Con	19.21 ✓ 6.01 10 Con	18.84 ✓ 6.38 20 Con	19.35 ✓ 5.87 30 Con. end dirt Ramp
0+15 end State Plant Mix and Beg. old Con. pav. Should be on old Est. grade from SLY.	19.62 ✓ 5.60 30 Con	19.05 ✓ 6.17 20 Con	19.22 ✓ 5.85 10 Con	19.55 ✓ 5.67 Con	19.72 ✓ 5.78 10 Con	19.08 ✓ 6.14 20 Con	20.5 ✓ 4.7 23 dirt	20.7 ✓ 4.5 30 dirt Ramp
0+09	19.95 ✓ 5.47 30 Con.	19.36 ✓ 5.86 22 P.M. edge	19.46 ✓ 5.77 20 PM	19.81 ✓ 5.41 10 PM	19.94 ✓ 5.28 PM	19.87 ✓ 5.30 10 PM	19.79 ✓ 5.43 20 P.M.	21.2 ✓ 4.0 24 dirt Ramp	21.3 ✓ 3.9 30 dirt
0+04	20.1 ✓ 5.1 30 dirt	21.29 ✓ 3.93 20 Top C6. end.	20.32 ✓ 4.90 20 P.M.	20.31 ✓ 4.91 10 P.M.	20.44 ✓ 4.78 PM	20.43 ✓ 4.79 10 PM	20.64 ✓ 4.58 20 PM	21.40 ✓ 3.82 20 Top C6 end	21.7 ✓ 3.5 30 dirt
0+00 S.L. Harbor Dr. P.M. = Plant Mix	21.2 ✓ 4.0 30 dirt	21.42 ✓ 3.80 20.8 Top C6.	20.68 ✓ 4.54 20 P.M.	20.66 ✓ 4.56 10 PM	20.83 ✓ 4.37 PM	20.73 ✓ 4.39 10 P.M.	20.91 ✓ 4.31 20 PM.	21.62 ✓ 3.60 20.5 Top C6	21.9 ✓ 3.3 30 dirt

25.22

25.22

1+20				
T.P. P.46	0.24	22.71		22.47 ✓
Add'l Levels on Sampson.				
check to orig. B.M.		5.11	27.48	27.48
T.P.	3.89	32.59	2.20	28.70
T.P.	8.43	30.90	2.75	22.47 ✓ P.46
1+00	old Con. Pav.			
0+50	old Con. Pav.			
		25.27		

$L_T = E$ $\quad$ ϕ $\quad$ $R_T = N$

16.82 / 5.89 / 30	16.27 / 6.44 / 20	16.62 / 6.09 / 10	16.74 / 5.97	16.68 / 6.03 / 10	16.49 / 6.25 / 20	16.74 / 5.97 / 30 end Patch
			22.71			
17.36 ✓ / 7.80 / 30	16.78 ✓ / 8.44 / 20	17.17 ✓ / 8.05 / 10	17.26 ✓ / 7.96	17.22 ✓ / 8.00 / 10	16.91 ✓ / 8.31 / 20	17.38 ✓ / 7.84 / 30
18.72 ✓ / 6.50 / 30	18.07 ✓ / 7.15 / 20	18.52 ✓ / 6.70 / 10	18.6 ✓ / 6.62	18.52 ✓ / 6.70 / 10	18.29 ✓ / 7.02 / 20	18.68 ✓ / 6.54 / 30
			25.22			

1 + 65.9

1 + 60.9

1 + 53.5

1 + 48.35

1 + 40

22.71

Lt		℄			Rt	
15.56	15.51	15.51	15.53	15.56	15.55	15.64
7.15	7.20	7.20	7.18	7.15	7.16	7.07
30	20	10	Rail	10	20	30
15.74	15.60	15.63	15.67	15.73	15.72	15.78
6.97	7.11	7.08	7.04	6.98	6.99	6.93
30	20	10	Rail	10	20	30
15.98	15.71	15.75	15.78	15.89	15.95	15.87
6.73	7.00	6.96	6.93	6.82	6.76	6.84
30	20	10		10	20	30
						Rail
16.11	15.80	15.83	15.93	15.99	16.04	15.98
6.60	6.91	6.88	6.78	6.72	6.67	6.73
30	20	10		10	20	30
						Rail
16.29	15.89	16.03	16.15	16.13	16.15	16.13
6.42	6.82	6.68	6.56	6.58	6.56	6.58
30	20	10		10	20	30
endRanch						

22.71

	Lt		℄		Rt	
2+15	14.31 8.40 30	13.72 8.99 20 CNd Patch	14.05 8.66 10	14.16 8.55	14.08 8.63 10	13.92 8.99 20	14.29 8.62 30
2+00	14.74 7.97 30	14.41 8.30 20	14.41 8.30 10	14.63 8.08	14.49 8.22 10	14.13 8.58 20 CNd Patch	14.74 7.97 30
1+90	14.97 7.74 30	14.80 7.91 20	14.69 8.02 10	14.90 7.81	14.78 7.93 10	14.60 8.11 20	15.00 7.71 30
1+80.20	15.22 7.49 30 Rail	15.11 7.60 20	15.09 7.62 10	15.15 7.56	15.06 7.65 10	15.06 7.65 20	15.16 7.45 30
1+74.85	15.32 7.39 30 Rail	15.29 7.42 20	15.29 7.42 10	15.27 7.44	15.20 7.51 10	15.22 7.49 20	15.41 7.30 30
	22.71		22.71				

		Lt		℄		Rt		
3+60		11.07	11.09	11.09	11.15	11.05	11.05	11.07	11.05
		5.38	5.36	5.36	5.30	5.40	5.40	5.38	5.36
		30	20	10		10	16.6 97.	20	30
3+40		11.27	11.18	11.34	11.33	11.29	11.14	11.19	11.50
		5.18	5.27	5.11	5.17	5.16	5.31	5.26	4.95
		30	20	10		10	18.2 97	20	30
3+18		11.41	11.22	11.55	11.59	11.53	11.35	11.78	
		5.04	5.23	4.90	4.86	4.92	5.10	4.67	
		30	20	10		10	20	30	
			Top Iron 9-gtc						
3+00		12.05	11.69	11.96	11.98	11.89	11.60	12.08	
		11.40	4.76	4.49	4.47	4.56	4.85	4.37	
		30	20	10		10	20	30	
T.P.	3.88	16.45	10.14	12.57					
					16.45				
2+50		13.35	12.82	13.14	13.31	13.19	12.81	13.45	
		9.36	9.89	9.57	9.40	9.52	9.90	9.36	
		30	20	10		10	20	30	
	22.71								
					22.71				

3 + 89,37

3 + 84,45

3 + 83,76

3 + 81,87

3 + 78,95

3 + 77,08

16,45

Lt

10,95
5,50
30
Rail

10,99
5,46
30
Rail

11,01
5,44
Rail

11,03
5,42
Rail

16,45

Rt

10,97
5,48
30
Rail

10,96
5,49
30
Rail

Set B.M. on City disk	R.P.	1.62'	21.85		
check to	Starting T.P.	1.00	22.47	22.47	
T.P.	10.43	23.47	3.41	13.04	
5+00	No change to South				
4+50					
4+08					

16x5

Lt = East			℄			Rt
9.17 / 7.28 / 30	8.51 / 7.94 / 20	8.89 / 7.56 / 10	8.99 / 7.46	8.89 / 7.56 / 10	8.55 / 7.90 / 20	9.06 / 7.39 / 30
9.95 / 6.50 / 30	9.36 / 7.09 / 20	9.70 / 6.75 / 10	9.83 / 6.64	9.74 / 6.71 / 10	9.46 / 6.99 / 20	9.97 / 6.48 / 30
10.60 / 5.85 / 30	10.21 / 6.24 / 20	10.53 / 5.92 / 10	10.58 / 5.87	10.41 / 6.04 / 10	10.07 / 6.38 / 20	10.62 / 5.83 / 30

16' N of S.L. Harbor Drive
15.35 W of E.L. of Sampson

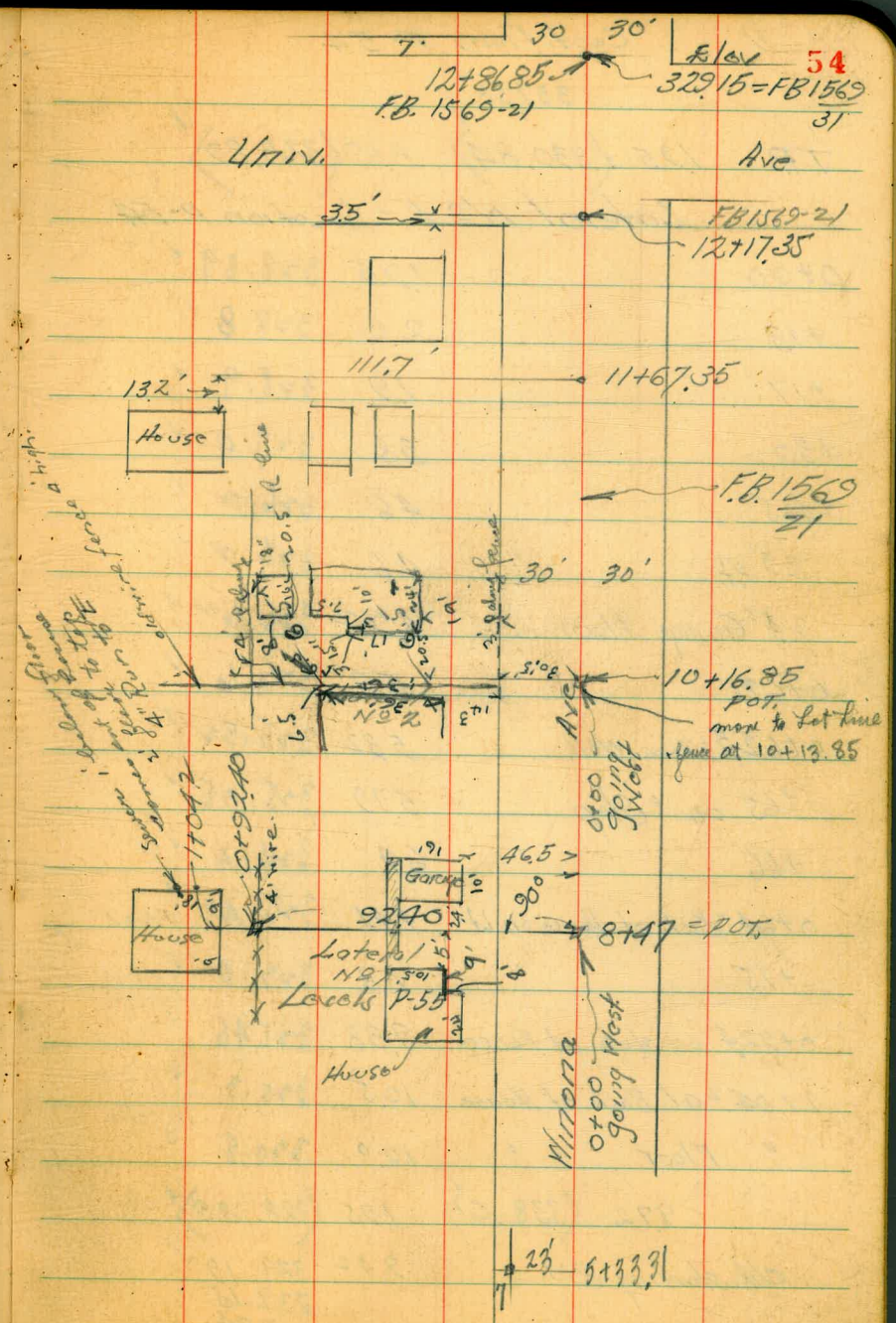
16x5

Walker
Hendricks
Becker
8-29-46

Levels proposed sewer

	926 (338.91)		322.15	BM. 12+86.85 FB1569-31
	11+67.35			
111.7' West on ground		13.6	324.8	✓
13.2' South of Above		13.5	324.9	✓
20' " = 2 House Floor		12.36	326.05	✓
	Lateral No 2			
0+00		5.96	(332.45)	✓
+15		6.1	332.3	✓
+20		5.6	332.8	✓
+30		5.9	332.5	✓
T.P.	5.13 (337.58)	5.96	(332.45)	✓
+50		5.7	331.9	✓
+62.5	2' Lt = 1½ fruit Tree	6.0	331.6	✓
0+91.1	= Int Fence	6.8	330.8	✓
1+00		7.0	330.6	✓
+07	opp Back of House	7.2	330.4	✓
11.8 Lt	= NE Cor. House	7.7	329.9	✓
" "	Floor "	7.3	330.3	✓

Cont. p. 55



Cont. from P. 54

337.58 ✓

T.P.	1.95	(330.84)	8.69	(328.89) ✓

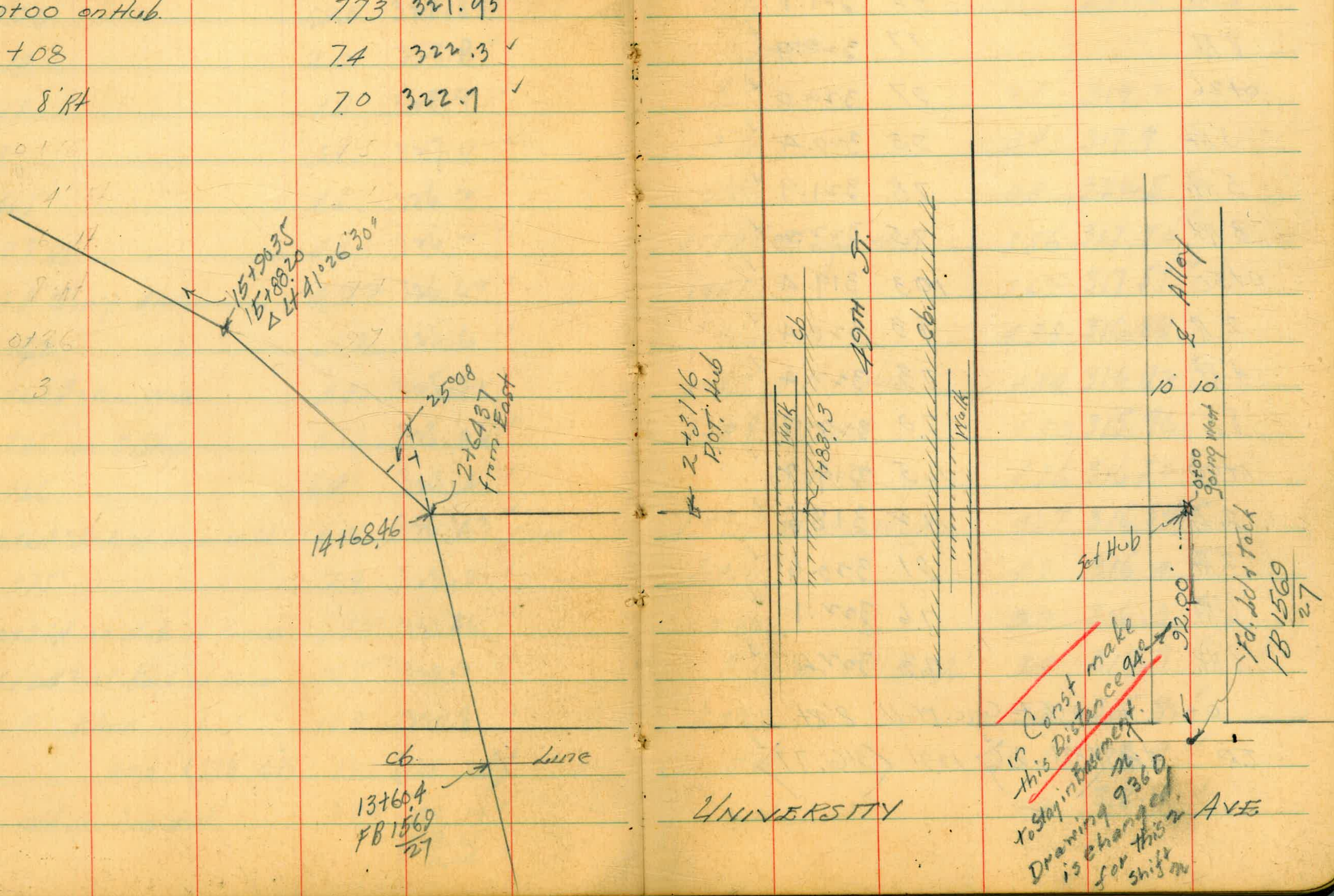
Lateral #1 - Location P. 54

0+00	1.95	328.89	✓
+13	2.0	328.8	✓
+17	1.9	328.9	✓
+30	3.8	327.0	✓
+46.5	4.6	326.2	✓
2.3' Rt.	4.6	326.2	✓
2.4' Garage Floor	4.22	326.62	✓
0+62	5.2	325.6	✓
0+62.3 = Conc. Walk	5.32	325.52	✓
+65 on " Step	5.79	325.05	✓
+66	6.4	324.4	✓
0+64 = Back of House on Lt	4.41	326.43	✓ Floor
+75	7.8	323.0	✓
0+92.4 on stub at Fence	9.38	321.46	✓
1+04.2 at Back of House	10.5	320.3	✓
" Floor " "	10.0	320.8	✓
9.72	(338.61)	1.95	(328.89) ✓
Chk. Starting BM.	9.42	329.19	✓
		329.15	
		0.04	

Walker
Hendricks
Becker
8-30-46

Proposed Sewer
Univ. Ave And 49th St.

	0.53	(329.68)		329.15	BM1 C.T. 2d Plg. Page 54
0+00 on Hub.			7.73	321.95	✓ m 9/3/46
+08			7.4	322.3	✓
8' Rt			7.0	322.7	✓



<329.68>

0+16		9.5	320.2
4'RT		9.1	320.6
6'RT		8.2	321.5
8'RT		7.7	322.0
0+26		9.7	320.0
3'RT		9.3	320.4
5'RT		7.8	321.9
8'RT		7.5	322.2
0+50		10.3	319.4
2'R		9.3	320.4
4'RT		7.3	322.4
8'R		7.0	322.7
1+00		10.5	319.2
2'LT		11.2	318.5
2'RT		9.1	320.6
6'RT		7.6	322.1
8'RT		7.3	322.4

0+26 to 0+67 = Conc. Wall 8'RT.

T.P. 4.99 <321.26> 12.91 <316.77>

321.26

1+28

℄		1.6	319.7
5'LT		3.6	317.7
5'RT		0.5	320.8
1+32			
℄		2.1	319.2
3'LT		3.4	317.9
5'R		0.8	320.5
1+38.5 = E edge Walk		3.56	317.70
1+47		3.69	317.57
" Gut		4.38	316.88
1+65 = ℄ Pav 4th		4.34	316.92
1+83 = W Gut		5.30	315.96
" on W Cb.		4.76	316.50
1+91.5 W edge Walk		4.67	316.59
2+00		4.9	316.4
+20		5.0	316.3
5'LT. on Fill Bank		3.4	317.9
2+25		5.4	315.9
3'LT.		2.4	318.9
6'LT		2.4	318.9

(32126)

2+35		6.4	314.9	✓
3 Lt.		3.2	318.1	✓
7 Lt.		3.2	318.1	✓
2+36.16	Fill Ground = P.O.T. 2"x2" Hub	6.60	314.66	✓ 5' Lt Same
+43		8.0	313.3	✓
TP	1.95 (314.54) ✓	8.67	(312.59) ✓	
2+64.37 = Int. Canyon Line		12.5	302.0	✓
= 14+68.46 (1569/48)	New Berels over recent fill			
	Canyon Line - from cb. Line Univ. North to Alley.			
13+60.4 = North cb Univ. Ave		2.84	(311.70) ✓	1569/47
14+00 in Fill		1.9	312.6	✓
+24		1.6	312.9	✓
14+52 = Toe slope		13.5	301.0	✓
13.6 Lt. Top 42" Conc. Culvert		14.48	300.06	✓
" Flow		18.25	≈96.99	✓ = Natural Ground
14+68.46 Δ Lt 25°08		12.5	302.0	✓
10 Lt.		15.5	≈99.0	✓
14+85 = Toe slope		14.0	300.5	✓
10 Rt.		8.8	305.7	✓
10 Lt.	Nat. Ground	15.4	≈99.1	✓

314.54

15+00	Natural Ground	14.0	300.5	✓
10 Rt = Toe slope		12.2	302.3	✓
10 Lt		15.1	≈99.4	✓
15+20		13.2	301.3	✓
+40	Fill	10.8	303.7	✓
10 Rt	"	3.3	311.2	✓
15 Lt	Toe Fill	14.6	≈99.9	✓
15+60	Nat. Ground	10.5	304.0	✓
+85		9.9	304.6	✓
10 Rt		7.0	307.5	✓
10 Lt		11.9	302.6	✓
15+88.20 Δ Lt 41°26'30" = 15+90.35 Ahead		9.88	(304.64) ✓	

304.64 − FB 1569/48
0.02

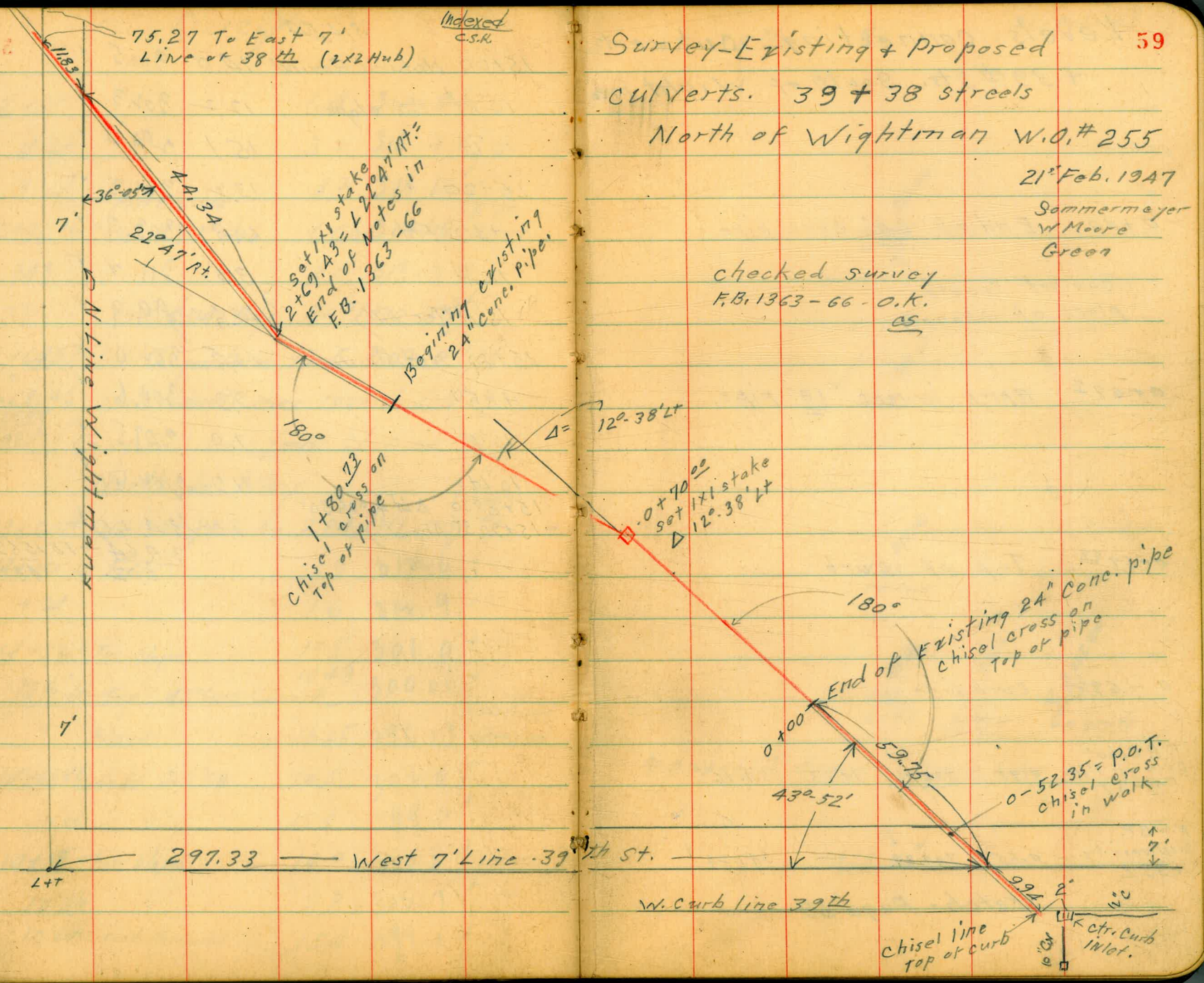
Indexed C.S.R.

Survey-Existing + Proposed Culverts. 39th & 38th streets North of Wightman W.O.#255

21st Feb. 1947

Sommermeyer
W Moore
Green

checked survey
F.B. 1363-66 - O.K.
as



Levels connecting culverts at 38th ℄
+ 39th Sts. South of Wightman.

Station	Description				Rod / Elevation		
0+00	End of 24" Conc. pipe				10.05 Invert (328.06)		
	(can not locate place of change)						
0+67±	Aprox invert 18" pipe.				4.9 (333.21)		
0-69^69	Top of curb				1.03 Top Curb (337.08)		
0-69^69	curb line				2.23 Gutter (335.88)	4.7 Bottom of box (333.4)	2.27 on grate (335.84)
T.P. Chisel Cross on ℄ line Page 59	0.95	338.11 ✓	10.73	337.16	℄ proposed drain = Base line		
N.W.B.P. University + 39th	0.65	347.89 ✓	—	347.24 ✓	338.11 ✓		

Sketch - Page 59

0+60

0+50

0+24

0+20

0+00 on ground

338.11

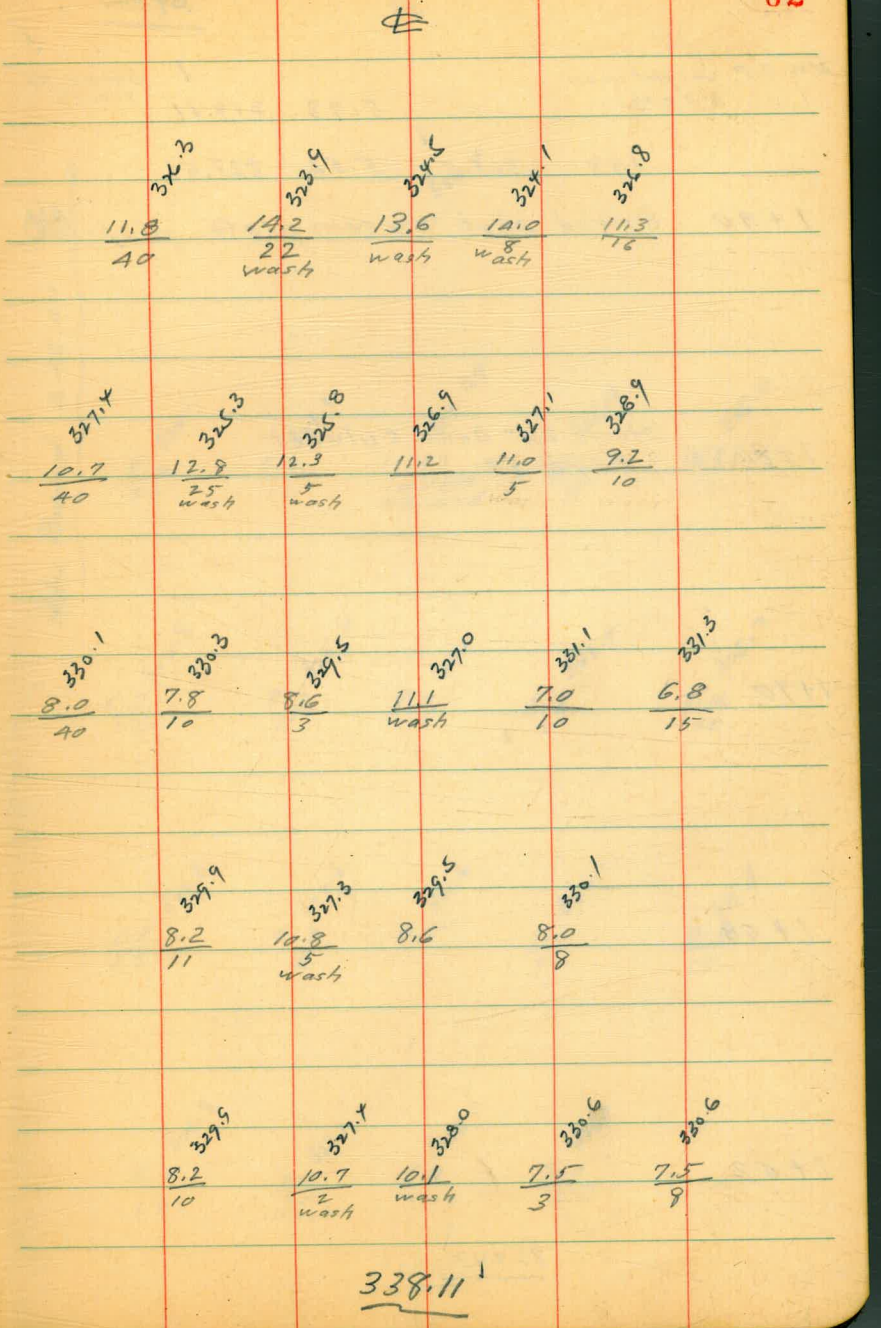
℄

330.3	330.6	329.9	331.0		
7.8 / 10	7.5	10.2 / 5 wash	7.1 / 10		
331.3	332.1	331.2	328.7	328.6	330.4
6.8 / 6	6.0	6.9 / 5	9.4 / 6 wash	9.5 / 9 wash	7.7 / 10 top
331.0	332.1	329.3	329.4	330.8	
7.1 / 6	6.0	8.8 / 1 wash	8.7 / 5 wash	7.3 / 8	
331.0	331.8	329.5	329.6	331.0	331.0
7.1 / 10	6.3 / 1	8.6 wash	8.5 / 5 wash	7.1 / 8	7.1 / 10
334.3	334.3	328.71	333.01	332.71	
3.8 / 10	3.8 / 6	9.4	5.1 / 6	5.4 / 10	

338.11

T.P.	3.99	329.13	12.97	325.14
1+40				
1+12	Wash spreads out here 11' Lt = ctr 12" Eucalyptus			
1+08	16' Lt = ctr. 14" Eucalyptus			
0+89				
0+77				
0+70	L	12°-38' Lt	Taken on split	

338.11



338.11

.09 Error ?

N.W.B.P. Wightman #38 th			5.98	319.61	Shown as 319.70
	1.98	325.59	5.52	323.61	
1+90	Ground shot to complete profile				
1+80.73	Start 24" Conc. Culvert Page 59				
1+70					
1+68					
1+62					
		329.13			

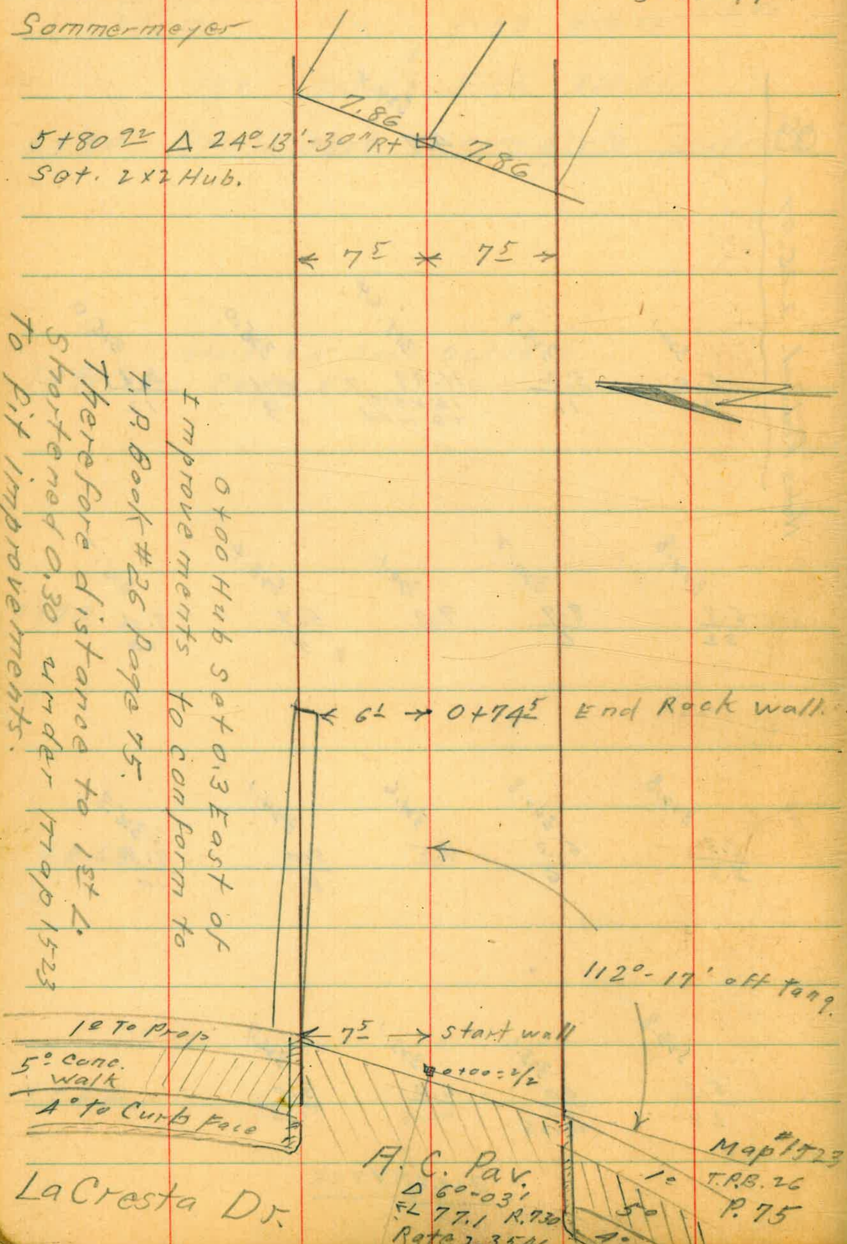
Notes Reduced 2-25-07

		324.4		
		4.7		
324.1	323.9	319.64	326.0	326.0
5.0 / 20	5.2 / 11	11.49 Invert + ground	4.1 / 9	4.1 / 12
327.8	320.2	320.1	323.4	325.7
6.3 / 22	8.9 / 6	9.0	5.7 / 5	3.4 / 10
327.8	327.8	327.6	324.1	325.8
6.3 / 22	6.3 / 6	7.5	5.0 / 5	3.3 / 10
323.8	323.1	323.1	326.1	
5.3 / 28	6.0 / 20 wash	6.0 wash	3.0 / 20	

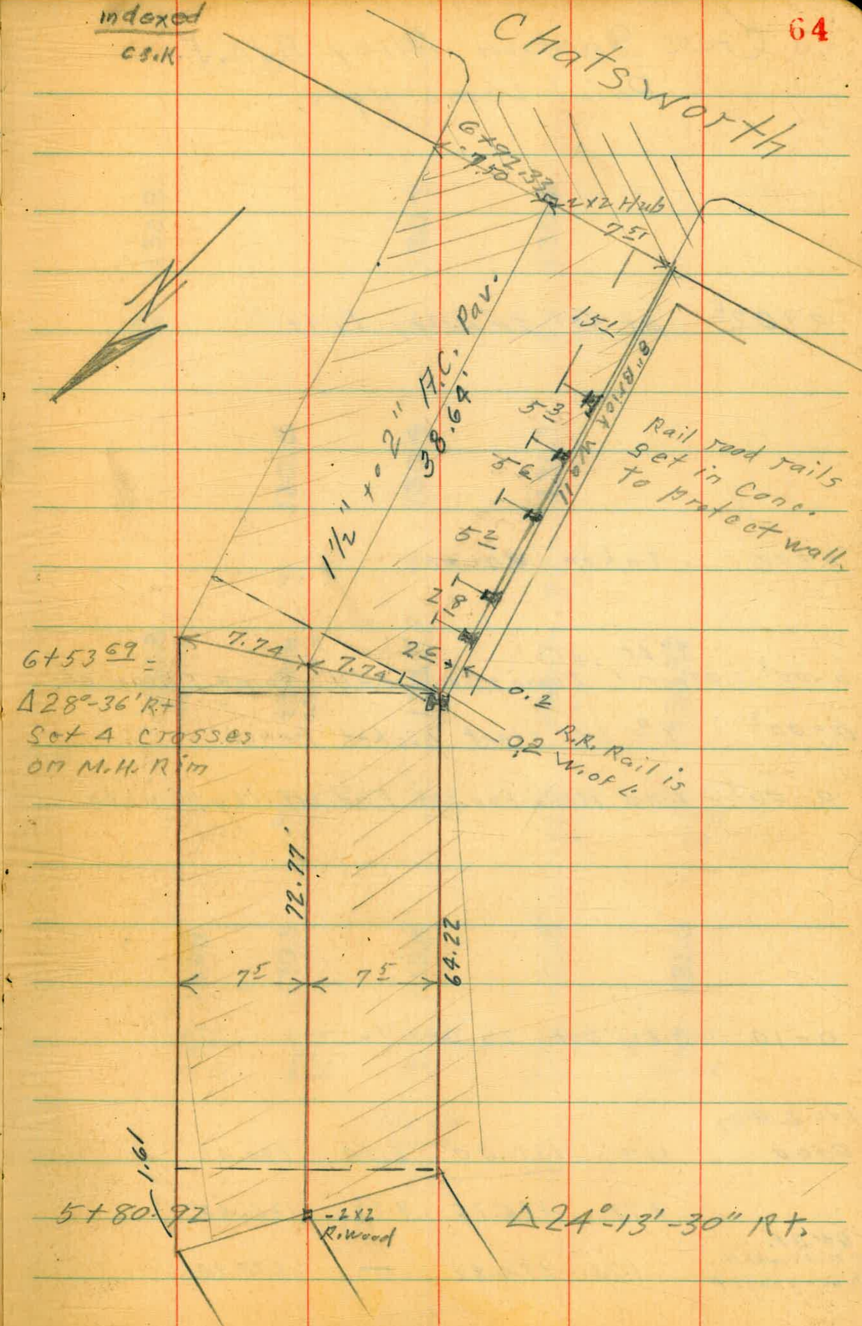
329.13

Cross Section Alley Blk. "F"
Pt. Loma Hgts.
W.O. #230
3-26-47

Sommermeyer



indexed
C.S.K.



Cross Section Alley Blk. F"
Point Loma Hgts.

Lt = N ℄ Rt = S

					130.8		130.4	130.6	
0+02 C	at 90° to Alley line				0.82 / 7.5 top wall		1.2	1.0 / 7.5	
						130.5	130.4	130.7	
0+00	Taken on arc.					1.1 / 8.1	1.2	0.9 / 8.1	
0-00	8 Lt = start 1' stone + conc wall same El. as ℄				130.8 / 130.28	130.6 / 130.59	130.53	130.7 / 130.75	130.90
0-00	9 Lt = start picket fence.								
0-00	End A.C. Pav. & End Alley Curbs				0.82 / 8.1	1.01 / Out 8.1	1.07 Pav	0.85 / Out 8.1	0.70 / Top Ch 8.0
					130.9	130.3	130.5	130.5	131.0
0-10	N.Ely. Curb La Cresta				0.69 / 8.1 top Gt.	1.25 / 8.1 Out	1.14 pav	1.13 / 8.1 Out.	0.57 / 8.1 top Gb
2x2 ℄ Alley							131.60		
0+00		1.17	131.60	5.73	130.43				
		9.71	136.16	8.38	126.45				
NWBP. Chatsworth Narragansett		1.73	134.83	—	133.10				

Station	Description		Lt = N				℄	Rt = S
0+98	6ª Lt = P. pole # P.A. 3885 16" –	123.8	124.3	123.4		122.2	122.3	122.8
0+86⁶	6³ Lt = ℄ 4" Conc. wall 90° to Alley	7.8 / 7.5	7.30 / 6.3 Top wall	8.2 / 6		7.4 / 3	7.3	8.8 / 7.5
0+86⁵	7.0 Lt End. Board shed			126.2				
0+74.5	6ᴸ Lt = End wall			5.37 / 6.1 Top wall				
+71	7ᶜ Lt = start board shed	126.9		126.8	125.1	124.2	124.4	124.6
0+70	7ᶜ Lt = End picket fence.	4.7 / 7.5		4.80 / 6.2 Top wall	6.5 / 6.1 Grd.	7.4 / 3	7.2	7.0 / 7.5
		127.4		127.3	125.9		125.6	125.6
0+60		4.2 / 7.5		4.26 / 6.0 top wall	5.7 / 6.0 Grd.		6.0	6.0 / 7.5
		129.2	129.2		128.9		128.9	128.9
0+25		2.44 / 7.5	2.44 / 6.9 top wall		2.7 / 6.9 Grd		2.7 131.60	2.8 / 7.5

131.60

2+38	7ᵉ Rt. = ℄ 2' wide brick incinerator 3ᵉ deep.			
T.B. Pole	1.92	109.13	13.12	107.21
2+18	6ᵉ Rt. = start Lath house			
2+00				
1+59	Move 1ᵉ 6ᵉ Lt = Chr. 10" pole P.A. 3865			
1+57	8ᵉ Rt. = End board Fence.			
1+50				
1+24ᴱ	7ᵉ Rt. = start board fence			
T.P.	1.25	120.33	12.52	119.08
1+17ᴱ	13ᵉ Rt. = E. End double Gar. Conc. floor.			
0+99	12ᵉ Rt. = W. End double Gar. Conc. floor			
		131.60		

Lt. = N.	℄	Rt. = S
		107.9
		1.2
		7 = Ground at Burner
	109.13	
110.3	109.8	109.8
10.0	10.5	10.5
7.5		6
115.0	114.0	114.1
5.3	6.3	6.2
7.5		5
	120.33	
119.4	118.1	118.8
12.2	13.5	12.8
7.5		7.5
		121.3
		10.33
		12.7 on floor
	131.60	

Lt. = N.	℄	Rt. = S
109.8	110.4	
10.5	9.9	
	7.5	
113.8	114.8	
6.5	5.5	
7	7.5	
117.8	121.1	
13.8	10.52	
6	13.0 on floor	

Lt. = N ℄ Rt. = S.

3+98	7° Lt. = Ctr. 10" P. Pole. # P.A 3835					
3+68.5	12° Rt. = ℄ 17' Double. Car. Conc. floor. Floor Level				100.3	
					8.80 / 12.7	
3+50		101.9	101.5	101.4	101.6	100.7
		7.2 / 7.5	7.6	7.7 / 5	7.5 / 7.5	8.4 / 2.5
3+36	9.2 Lt. = End picket fence.	104.4	103.9	103.8	103.8	104.3
3+00		4.7 / 7.5	5.2 / 4	5.3	5.3 / 4	4.8 / 7.5
+78	9.3 Lt. = start picket fence.	105.6	105.5	105.1	105.1	105.1	105.3
2+78	7.8 Lt. = ctr. 10" pupolo. #. J.P.A 3851 + #307A51H 7.7 Rt. = N.E. Cor Gar. -	3.5 / 7.5	3.6 / 6.0	4.0 / 4	4.0	4.0 / 4	3.8 / 7.5
2+65±	7.7 Rt. = N.W. Cor. Stucco Gar. So. Entorance. 6.8 Rt. = End lath fence + lath house.	107.1	106.6	106.8	107.0	107.5
2+50		2.0 / 7.5	2.5 / 6	2.3	2.1 / 5	1.6 / 7.5
	109.13			109.13		

5+16	10' Rt = End Conc. wall Base 8.5 Lt = End stucco Bldg			
5+00				
4+96	8.0 Lt. = start. stucco Bldg 8.0 Lt = End slat fence			
4+58	9.5 Rt = Start Conc. wall base 7.3 Lt = start slat fence			
T.P.	0.35	96.74	12.74	96.39
4+47	10.5' Lt = ℄ - 18' Wide stucco Bldg.			
4+42	12.9 Rt. = End doub. Gar.			
4+38	8.5' Lt = Ctr. 1' Cedar tree.			
4+24	12.8 Rt. = start doub. Gar. Conc. Floor.			
4+00		109.13		

	Lt.	℄	Rt.
	96.0	95.9	94.6	94.4	94.5	95.2
	0.7 / 8	0.8 / 7.5	2.1 / 3	2.3	2.2 / 6	1.5 / 7.5
	Ground at Bldg			96.74		
	98.2	98.2	97.4	97.4	97.3	97.1	97.3
	10.9 / 7.5	10.9 / 6	11.9 / 4	11.7	11.8 / 6	11.4 / 7.5	11.8 / 25
					98.13		
					11.00 / 12.8		
					98.26		
					10.87 / 12.8		
	100.1	99.7	99.5	99.3	99.6	
	9.0 / 7.5	9.4 / 3	9.6 / 109.13	9.8 / 6	9.5 / 7.5	

5+88 8.6 Rt = Δ in wall

5+83 { 10° Lt = Δ in fence
8.6 Lt = Ctr. 14" P. pole # R.R. 3813

5+80.92 Δ 24° 13' 30" Rt. Taken on Split

5+77.5 { 10.4 Lt = start board Fence
7.5 Lt = start Rock & cement wall
= start of 1½" or 2" A.C. Pav.
10.8 Lt. = start Conc. wall
Rt.

5+60 8° Rt = ℄ 4° Wide Conc. walk.

5+58 End Apron & Gar.

5+39 = Start ~~Wt.~~ End Con. Apron & Gar.
96.74

	Lt.	℄	Rt.
	91.1	90.0	89.8	89.7	89.6
	5.6 / 7.9 Topwall	6.7 / 5.8 Base wall	6.9 / 4.5	6.97 2x2 R.W. Hub	7.1 / 7.9
5+77.5	91.5	90.4	90.0	90.0	89.7	89.6
	5.2 / 7.8 Topwall	6.3 / 7.5 Base wall	6.7 / 4.5 Edge pav.	6.7	7.9 / 7.5 Pav.	7.1 / 10.8
					91.1	
					5.66 / 8.5	
				91.4	91.8
				5.34 / 6.7 Edge Apron	4.90 / 15.8 Floor
	92.7	92.4	92.3	92.35	92.25	91.9
	4.0 / 7.5	4.3 / 4	4.4	4.39 / 6.8 Apron	4.29 / 7.5	4.82 / 15.8 Floor

96.74.

	7.9 Lt. = ℄ 6" North + 30. Conc. wall
6+37.5	7.4 Lt. = End Conc. Blk. wall.
	7.8 Lt. = start Conc block wall
6+31	8.1 Rt. = start Conc. wall
6+30.7	7.46 Rt. = End Conc. Apron. Car. way back
6+23	6.8 Lt. = End Rock + cement Wall
6+15	9.6 Lt. = End Fence
	9.3 Rt End Conc. Wall
6+28	7.10 Rt. = start Conc. Apron

96.7.4

Lt.	℄	Rt.
87.9	89.3	
8.8 / 7.9 top wall	7.4 / 10.0	
86.9	86.9	86.7
9.8 / 7.5	9.8 / 6.85 Edge. Pav	10.0
		86.7
		10.0 / 7.5
86.8		
9.9 / 8.1		
		86.7
		9.97 / 7.46
88.7	87.3	
8.0 / 9.2 top wall	9.4 / 6.9 Base wall	
89.5	88.1	87.9
7.4 / 9.2 top wall	8.6 / 6.4 Base wall	8.8
87.8	87.8	
8.87 / 7.0	8.91 / 8.3	

96.7.4

6+63

6+56 14° Lt. = start Gar. Conc. floor

6+55.5 10° = start Conc. Apron

T. P. 0.56 87.64 9.96 86.78

9.9 Rt = ℄ in wall.

6+53.69 Δ 28°36' Rt. Section on split of Δ

6+53.5 12.2 Lt = ℄ 10° Conc. Dr. (Level)

96.74

Lt.	℄	Rt.
85.9	85.6	85.3	85.2
1.7 / 10	2.0 / 7.5	2.3	2.4 / 7.3
85.8	85.6	85.8	
1.79 / 14.0 Gar. Floor	1.99 / 10.6 Edge Apron	1.8 / 10.5 pav.	
85.7			
1.89 / 10.6 Apron.		87.64	
86.1	85.8	85.7	
10.6 / 9.74	10.9	11.0 / 7.74 Ctr. R.R. rail Guard	L in wall. / 7.9
86.24			
10.50 / 12.2		96.74	

orig B.M. P. 65			1.84	133.07	(133.10)
T.P.	11.48	134.94	0.46	123.46	
T.P.	13.03	123.97	0.17	110.89	
T.P.	12.13	111.06	0.43	98.93	
T.P.	13.15	99.36	1.43	86.21	
S.E.B.R. Poe + Chatsworth	9.57	87.64	9.57	78.07	should be 78.21

7+02.33 N. cb. line Chatsworth

6+92.33 7° Rt = End cone wall N. Line Chatsworth.

6+74 5 10° Lt = End cone apron

6+73 5 14° Lt. = End double gar.

87.64

81.3 — 6.28 / 7.5 top cb

80.6 — 7.00 / 7.5 Cut

80.7 — 6.91

80.9 — 6.67 / 7.5 Cut

81.8 — 5.82 / 7.5 top cb

81.68 — 5.96 / 7.5 top cb

80.7 — 6.9 / 7.5 Cut.

82.0 — 5.6

81.9 — 5.7 / 7.5 Cut

82.07 — 5.57 / 7.5 top cb

85.71 — 1.93 / 10.6 apron

84.8 — 2.8 / 7.5

84.2 — 3.4 / 4

84.0 — 3.6

83.8 — 3.8 / 7.5

85.8 — 1.84 / 14 Gar. floor

85.6 — 2.01 / 10.6 apron

87.64

10-21-47
74
Sommerfield's
W. Moore
Sherman
W.O. 60169

Prop. Sewer Thru. Blk. "C" O.L. Steel Sub. + West to East End of Commercial St.

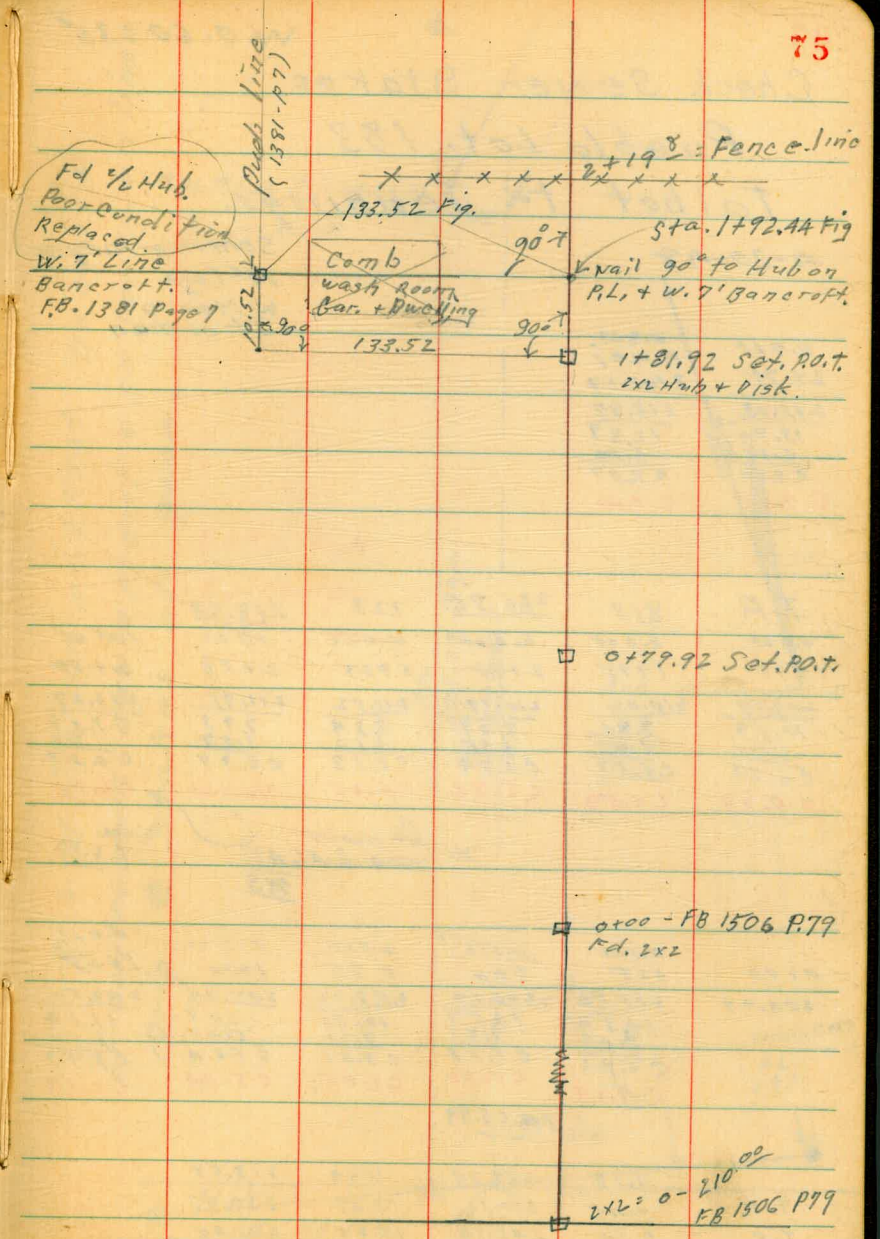
Continued from FB 1506 P. 79

Stationing same as FB 1506 - P. 79

T.P. Between 0+65 & 0+93 F.B. 1506 P. 79	12124	64.96 ✓		52.72
0+79 ℄	Set 1 2½ R.O.T. B.M. on Hub		12.51	52.45
0+80	℄		12.5	52.5
" 35 Rt			10.8	54.2
" 90 Rt	Top slope ~~bank~~		9.9	55.1
" 96	on slope		14.9	50.1
	1+00			
℄			11.2	53.8
40' Rt			10.0	55.0
92' Rt.	top slope		10.4	54.6
100' Rt.	on slope		14.6	50.4
	1+50			
℄			8.2	56.8
50' Rt			8.7	56.3
100 Rt.			10.0	55.0
108 Rt	top slope		10.8	54.2
115 Rt	on slope		14.7	50.3

		1+95		
℄			4.0	61.0
20' Lt.			1.7	63.3
79' Lt	Grd		0.6	64.4
N.E. Cor. 79' Lt.	Comb. wash room & dwelling (Floor)		+ 0.8	65.8
20' Rt.			5.0	60.0
72' Rt.			8.6	56.4
73' "			10.2	54.8
81 "	Top of slope		10.3	54.7
	2+18			
2' Lt =	Ctr. 24" Eucalyptus tree.			
2+19.8 =	Cross fence line.			
	2+20			
℄			1.5	63.5
40' Lt			0.6	64.4
20' Rt			3.1	61.9
65 Rt.	Top slope		7.3	57.7
80 Rt	on slope		16.1	48.9
T.P.	6.38	70.50 ✓	0.84	64.12
		2+70		
℄			2.8	67.7

		70.50			
		2+70 Cont			
20' Lt				0.6	69.9
15 Rt.				4.4	66.1
35 Rt.				4.9	65.6
57' Rt				10.3	60.2
83 Rt	Top slope			11.2	59.3
98 Rt.	Bottom of wash			18.1	52.4
T.P	5.86	73 02 ✓	3.34	67.16	
N.W.B.P Imperial	+32		6.01	67.01	(67.03)
				-0.02	



W.O. 60235

Check Sewer Stakes

Pueblo Lot. 183

Talbot to Jennings.

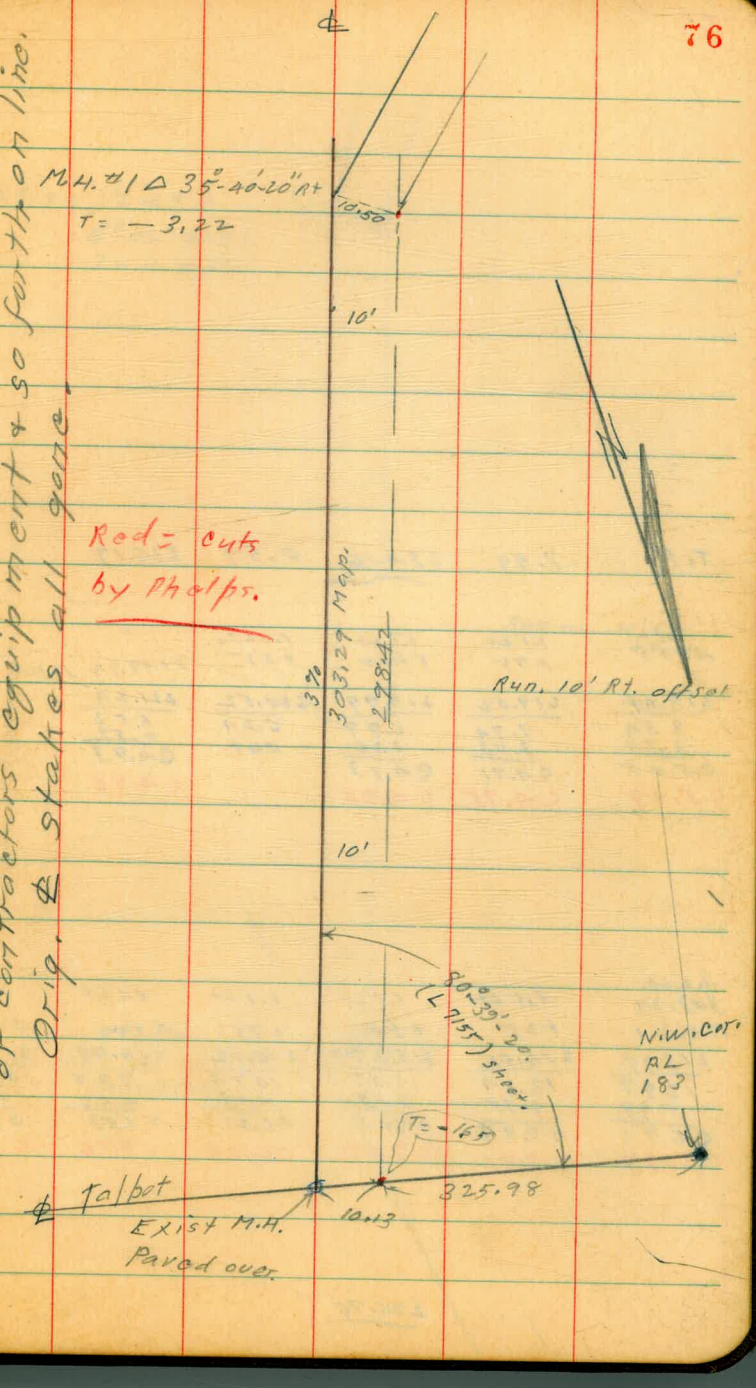
4-30-48

Sommermeyer
McCoy
W Moore
Sherman

0.7 Lt	0.8 Lt.				
2+75	M.H. #1				
	3+03.29				
213.02	213.87				
13.74	12.89				
6.54	5.50				
C 7.20	C 7.39				
C 7.25	C 7.40				
T.P.	8.13	226.76	1.23	218.63	
0.6 Lt	0.6 Lt	0.4 Lt	0.4 Lt	0.7 Lt	0.5 Lt
1+50	1+75	2+00	2+25	2+38	2+50
209.27	210.02	210.79	211.52	211.91	212.27
10.59	9.84	9.09	8.34	7.95	C 7.59
3.86	3.45	3.35	2.16	1.58	1.22
C 6.73	C 6.39	C 5.74	C 6.18	C 6.37	C 6.37
C 6.88	C 6.53	C 5.82	C 6.25	No cut	C 6.34
			Is now marked (6.43) MS		make C 6.40
	0.1 Lt	0.2 Lt	0.3 Lt	0.5 Lt	0.4 Lt
0+00	+25	+50	+75	1+00	1+25
204.77	205.52	206.27	207.02	207.77	208.52
	14.34	13.59	12.84	12.09	11.34
	7.42	7.80	7.23	6.45	5.35
	C 6.92	C 5.79	C 5.61	C 5.64	C 5.99
	C 7.19	C 5.80	C 5.85	C 5.84	C 6.18
		Make C 5.99			
	1.18	219.86	11.64	218.68	
T.P.	0.45	230.32	12.27	229.87	
T.P.	0.14	242.14	12.26	242.00	
T.P.	0.78	254.26	9.88	253.48	
N.W. Catalina + Santa Barbara	2.68	263.36	—	260.68	

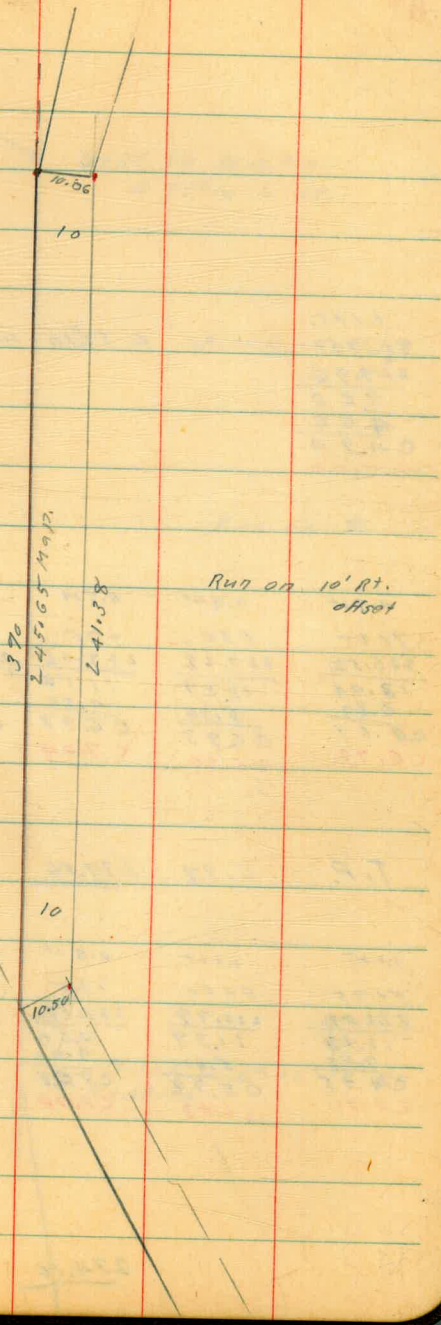
Part of line run on offset because of contractors equipment & so further on line. Orig. ℄ stakes all gone.

Red = cuts by Phelps.



T. P.	7.99	234.16	0.59	226.17	
1.1 Lt.					
A+55	1.1 Lt. +75	1.1 Lt. 5+00	1.1 Lt. +25	5+48.94 M.H.# 2	
219.42	219.02	219.77	220.52	221.24	
8.34	7.74	6.99	6.24	5.52	
3.29	3.03	2.26	0.47	0.59	
C 5.05	C 4.71	C 4.73		C 4.93	
C 5.09	C 4.75	C 4.80		C 4.98	
1.2 Lt.					
303.29	1.1 Lt.	1.3 Lt.	1.1 Lt.	1.1 Lt.	1.1 Lt.
M.H.# 1	+25	+50	+75	4+00	4+25
213.87	214.52	215.27	216.02	216.77	217.52
12.89	12.24	11.49	10.74	9.99	9.24
5.98	4.85	4.47	4.53	4.46	4.11
C 6.91	C 7.89	C 7.02	C 6.21	C 5.53	C 5.13
C 6.97	C 7.91	C 7.05	C 6.24	C 5.56	C 5.17
		226.76			

5+48.94 M.H.# 2
6°-02'-20" Rt.
T = — 0.52



1.1 Lt.					
8+39.59 = M.H. #3		△ 51°14'-10" Lt			
229.96					
9.60					
4.66					
C 4.94					
C 5.00					

0.9 Lt	0.9 Lt	0.7 Lt	0.7 Lt	0.8 Lt	
7+25	+50	+75	8+00	+25	
226.52	227.27	228.02	228.77	229.52	
13.04	12.29	11.54	10.79	10.04	
6.37	5.36	4.56	4.95	4.70	
C 6.67	C 6.93	C 6.98	C 5.84	C 5.34	
C 6.73	C 6.80	C 7.04	C 5.89	C 5.40	

T. P.	C. 37	239.56	0.97	233.19	

1.2 Lt	1.0 Lt	0.8 Lt	0.7 Lt	1.0 Lt	0.8 Lt
5+75	6+00	+25	+50	+75	7+00
222.04	222.79	223.52	224.27	225.02	225.77
12.44	11.39	10.64	9.89	9.14	8.39
7.69	5.41	4.97	4.63	3.65	1.61
C 4.75	C 5.98	C 5.67	C 5.26	C 5.49	C 6.78
C 4.51	C 6.03	C 5.70	C 5.32	C 5.54	C 6.84

234.16

8+39.59 M.H. #3
△ 51°14'-10" Lt.

Run on ℄

3.70

M.H. #2 60°02'-20" Rt
5+48.94

Orig B.M. Catalina & Santa Barbara			2.68	- 0.06 260.62	(260.68)
T.P.	3.62	263.30	1.88	259.68	
T.P	13.00	261.56	4.51	248.56	
2" pipe & Catalina & Jennings	3.80	253.07	7.91	249.27	
T.P.	3.46	257.18	3.55	253.72	

℄ Jennings M.H.#4 11+20.85 Map.

M.H.#4 - 11+21.36 Chained. = ℄ Jennings.

238.17 - map
19.10
1.80
C 17.30
C 17.45

(This cut on thier Rod head Nail 0.1 Lt. (East) and 0.1 South of our line. 10' off ℄.)

0.3 Lt	0.3 Lt	0.4 Lt	0.3 Lt	0.2 Lt	0.1 Lt
9+75	10+00	+25	+45.85	+75	11+00
233.91	234.64	235.37	235.97	236.82	237.55
2.36	22.63	21.90	21.30	20.45	19.72
4.87	2.25	3.83	3.11	1.78	2.06
C 18.53	C 18.38	C 18.07	C 18.19	C 18.66	C 17.66
C T.P. 18.60	C 18.46	C 18.13	C 18.24	C 18.71	C 18.70
	T.P. 10.76	257.27	4.42	246.51	
T.P.	13.16	250.93	1.79	237.77	257.27
0.6 Lt					
M.H.#3	0.3 Lt	0.5 Lt	0.4 Lt ℄ 250.93	0.4 Lt	0.3 Lt
8+39.59	+64	+75	9+00	+25	+50
229.96	230.67	230.99	231.72	232.45	233.18
9.60	8.89	8.57	19.21	24.82	24.09
4.43	4.48	1.79	4.42	6.41	5.59
C 5.17	C 4.41	C 6.78	C 14.79	C 18.41	C 18.50
C 5.22	C 4.47	C 6.84	C 14.86	C 18.47	C 18.57

239.56

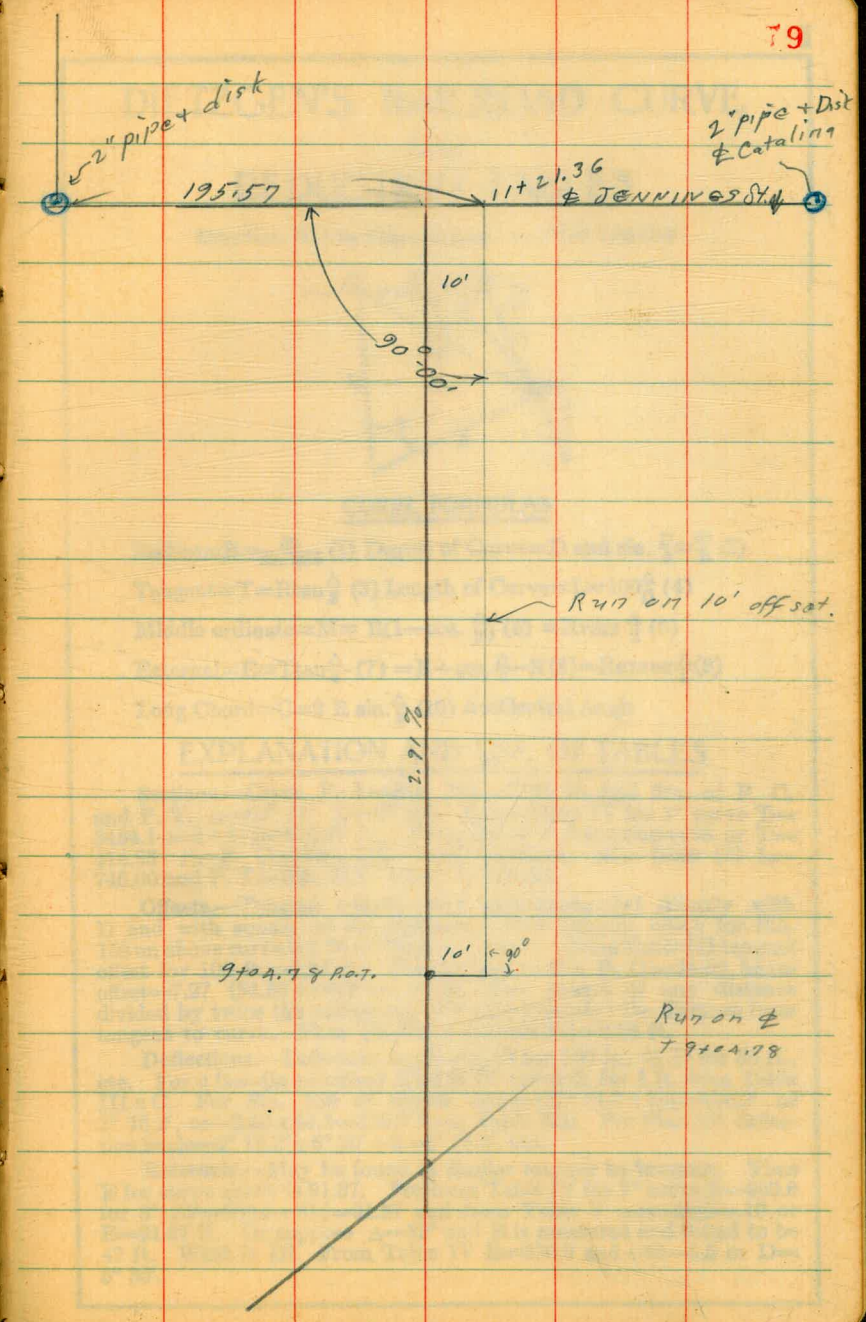


Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
31°	1589.0	216.3	41°	2142.2	387.4	51°	2732.9	618.4
10′	1598.0	218.7	10′	2151.7	390.7	10′	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	226.0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32	1643.0	230.9	42	2199.4	407.6	52	2794.5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654.3
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668.0
33	1697.2	246.1	43	2257.0	428.5	53	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34	1751.7	261.8	44	2314.9	450.0	54	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35	1806.6	278.1	45	2373.3	472.1	55	2982.7	729.9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.8	30	3014.5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36	1861.7	294.9	46	2432.1	494.8	56	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078.7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37	1917.1	312.2	47	2491.3	518.2	57	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954.3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38	1972.9	330.2	48	2551.0	542.2	58	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39	2029.0	348.6	49	2611.2	566.9	59	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40	2085.4	367.7	50	2671.8	592.3	60	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
61°	3375.0	920.2	71°	4086.9	1308.2	81°	4893.6	1805.3
10′	3386.3	925.9	10′	4099.5	1315.6	10′	4908.0	1814.7
20	3397.5	931.6	20	4112.1	1322.9	20	4922.5	1824.1
30	3408.8	937.3	30	4124.8	1330.3	30	4937.0	1833.6
40	3420.1	943.1	40	4137.4	1337.7	40	4951.5	1843.1
50	3431.4	948.9	50	4150.1	1345.1	50	4966.1	1852.6
62	3442.7	954.8	72	4162.8	1352.6	82	4980.7	1862.2
10	3454.1	960.6	10	4175.6	1360.1	10	4995.4	1871.8
20	3465.4	966.5	20	4188.5	1367.6	20	5010.0	1881.5
30	3476.8	972.4	30	4201.2	1375.2	30	5024.8	1891.2
40	3488.3	978.3	40	4214.0	1382.8	40	5039.5	1900.9
50	3499.7	984.3	50	4226.8	1390.4	50	5054.3	1910.7
63	3511.1	990.2	73	4239.7	1398.0	83	5069.2	1920.5
10	3522.6	996.2	10	4252.6	1405.7	10	5084.0	1930.4
20	3534.1	1002.3	20	4265.6	1413.5	20	5099.0	1940.3
30	3545.6	1008.3	30	4278.5	1421.2	30	5113.9	1950.3
40	3557.2	1014.4	40	4291.5	1429.0	40	5128.9	1960.2
50	3568.7	1020.5	50	4304.6	1436.8	50	5143.9	1970.3
64	3580.3	1026.6	74	4317.6	1444.6	84	5159.0	1980.4
10	3591.9	1032.8	10	4330.7	1452.5	10	5174.1	1990.5
20	3603.5	1039.0	20	4343.8	1460.4	20	5189.3	2000.6
30	3615.1	1045.2	30	4356.9	1468.4	30	5204.4	2010.8
40	3626.8	1051.4	40	4370.1	1476.4	40	5219.7	2021.1
50	3638.5	1057.7	50	4383.3	1484.4	50	5234.9	2031.4
65	3650.2	1063.9	75	4396.5	1492.4	85	5250.3	2041.7
10	3661.9	1070.2	10	4409.8	1500.5	10	5265.6	2052.1
20	3673.7	1076.6	20	4423.1	1508.6	20	5281.0	2062.5
30	3685.4	1082.9	30	4436.4	1516.7	30	5296.4	2073.0
40	3697.2	1089.3	40	4449.7	1524.9	40	5311.9	2083.5
50	3709.0	1095.7	50	4463.1	1533.1	50	5327.4	2094.1
66	3720.9	1102.2	76	4476.5	1541.4	86	5343.0	2104.7
10	3732.7	1108.6	10	4489.9	1549.7	10	5358.6	2115.3
20	3744.6	1115.1	20	4503.4	1558.0	20	5374.2	2126.0
30	3756.5	1121.7	30	4516.9	1566.3	30	5389.9	2136.7
40	3768.5	1128.2	40	4530.4	1574.7	40	5405.6	2147.5
50	3780.4	1134.8	50	4544.0	1583.1	50	5421.4	2158.4
67	3792.4	1141.4	77	4557.6	1591.6	87	5437.2	2169.2
10	3804.4	1148.0	10	4571.2	1600.1	10	5453.1	2180.2
20	3816.4	1154.7	20	4584.8	1608.6	20	5469.0	2191.1
30	3828.4	1161.3	30	4598.5	1617.1	30	5484.9	2202.2
40	3840.5	1168.1	40	4612.2	1625.7	40	5500.9	2213.2
50	3852.6	1174.8	50	4626.0	1634.4	50	5517.0	2224.3
68	3864.7	1181.6	78	4639.8	1643.0	88	5533.1	2235.5
10	3876.8	1188.4	10	4653.6	1651.7	10	5549.2	2246.7
20	3889.0	1195.2	20	4667.4	1660.5	20	5565.4	2258.0
30	3901.2	1202.0	30	4681.3	1669.2	30	5581.6	2269.3
40	3913.4	1208.9	40	4695.2	1678.1	40	5597.8	2280.6
50	3925.6	1215.8	50	4709.2	1686.9	50	5614.2	2292.0
69	3937.9	1222.7	79	4723.2	1695.8	89	5630.5	2303.5
10	3950.2	1229.7	10	4737.2	1704.7	10	5646.9	2315.0
20	3962.5	1236.7	20	4751.2	1713.7	20	5663.4	2326.6
30	3974.8	1243.7	30	4765.3	1722.7	30	5679.9	2338.2
40	3987.2	1250.8	40	4779.4	1731.7	40	5696.4	2349.8
50	3999.5	1257.9	50	4793.6	1740.8	50	5713.0	2361.5
70	4011.9	1265.0	80	4807.7	1749.9	90	5729.7	2373.3
10	4024.4	1272.1	10	4822.0	1759.0	10	5746.3	2385.1
20	4036.8	1279.3	20	4836.2	1768.2	20	5763.1	2397.0
30	4049.3	1286.5	30	4850.5	1777.4	30	5779.9	2408.9
40	4061.8	1293.6	40	4864.8	1786.7	40	5796.7	2420.9
50	4074.4	1300.9	50	4879.2	1796.0	50	5813.6	2432.9

Table VIII.—Natural Trigonometrical Functions.

Angle	Sine.	Tan.	Cotg.	Cosin.		Angle	Sine.	Tan.	Cotg.	Cosin.	
or						or					
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.	
or						or					
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.

Albatross South Robinson
1st Block Stoko West Prop Line
of Albatross

SE 79.41

Mkt Wunderland 312.24
1.12
313.36
11.82
301.54
0.36
301.90

118.02

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.