

F.B.  
978

LEVEL BOOK

373

IND



B.M. 2-L. Chatsworth Plug E. of Car tracks - 77.14  
 100' W. of Chas. Moore's spk. 118.31

# KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO.

SAN FRANCISCO.

ST. LOUIS.

## TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.

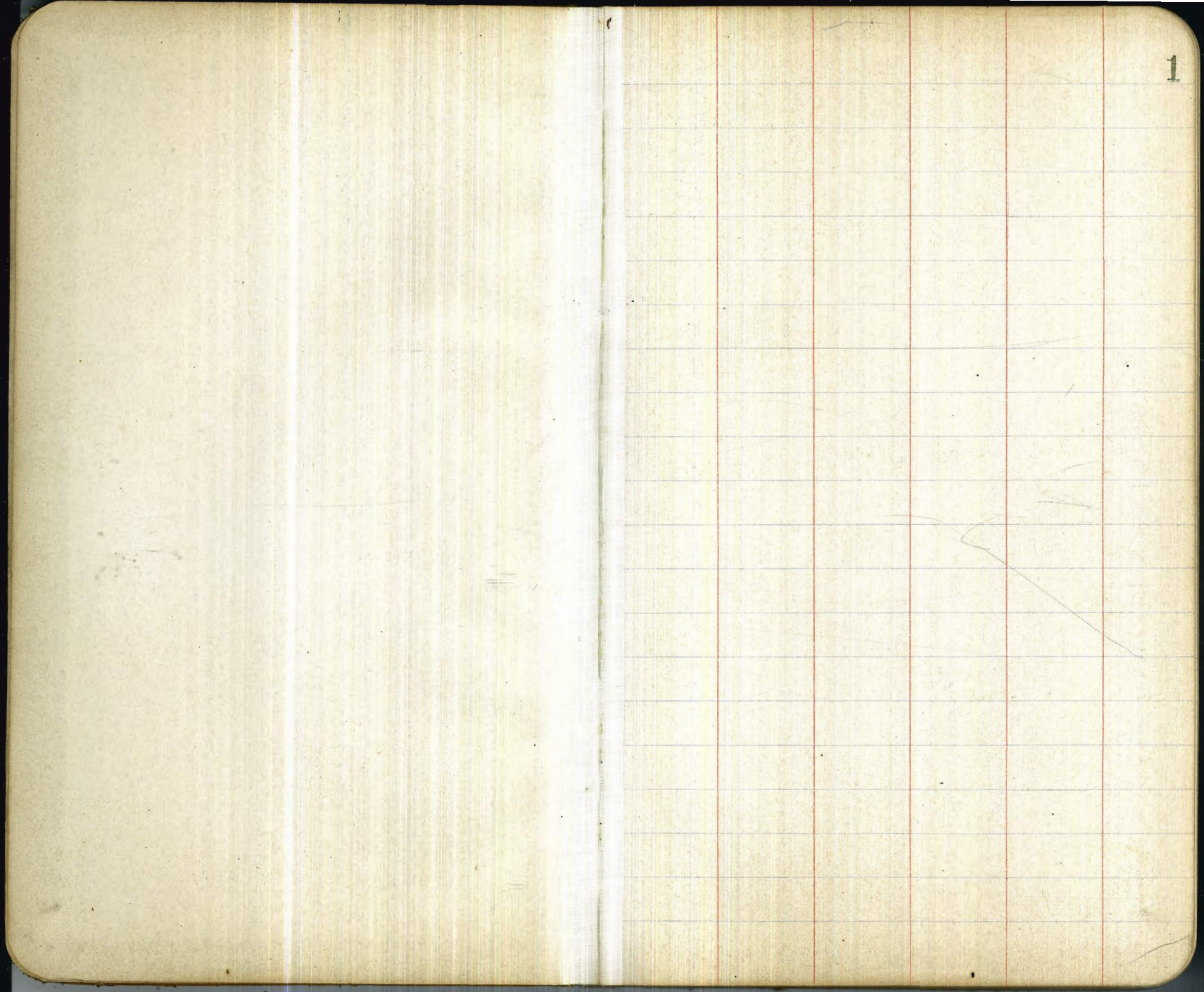
FOR SINGLE TRACK EXCAVATION

"Copyright, 1895, by Keuffel & Esser Co."

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.







X. Sec. Chatsworth Blvd.  
 70' Wide - 10' Wks - 12 1/2 ft 1/4's.  
 from S.L. Ft. Loma Ry. Rt. Way to 1145. of Cresta Drive.

9 3/15  
 west:  
 open:  
 Moore:

BM. EL Chatsworth N. of Car tracks Plug 77.14

6.35 83.49

Sec. AB - Int. of Chatsworth on both sides  
 with Ft. Loma Ry. Rt. Way = 196.7 on WL & 143.3 on EL  
 North of N.L. Pce St.

WL	5.7	77.8
C	5.9	77.6
1/4	6.3	77.2
E	6.6	76.9
1/4	7.0	76.5
C	7.2	76.3
EL	7.9	75.6

Sec AC see sketch

EL	7.9	75.6
C	7.0	76.5
1/4	6.7	76.8
E	6.3	77.2
1/4	6.2	77.3
C	6.0	77.5
WL	6.0	77.5



83.49. Chatsworth

143.9' N of NL Pce.

WL	6.8	76.7
C	7.1	76.4
1/4	6.1	77.4
⊕	6.2	77.3
1/4	6.6	76.9
C	7.0	76.5
EL	7.9	75.6

134.36' N. of NL Pce = SL Waterway on W.

EL	7.4	76.1
C	6.9	76.6
1/4	6.6	76.9
⊕	6.2	77.3
1/4	6.2	77.3
C	6.0	77.5
WL	5.9	77.6

Chatsworth

83.49

3

125' N. of Pce.

WL	6.0	77.5
C	6.1	77.4
1/4	6.2	77.3
⊕	6.1	77.4
1/4	6.6	76.9
C	7.1	76.4
EL <sup>+4</sup>	7.7	73.8
	7.2	74.8
	8.1	75.4

120' N

EL	10.2	73.3
+9	9.5	74.0
C	7.5	76.0
1/4	6.8	76.7
⊕	6.2	77.3
1/4	6.2	77.3
C	6.1	77.4
WL	6.0	77.5



Chatsworth

X Secs

83.49

118' N. of Pce.

WL	60	77.5
C	6.1	77.4
1/4	6.2	77.3
±	6.2	77.3
1/4	6.8	76.7
C	7.5	76.0
+1	9.3	74.2
EL	8.6	74.9

111' N. of Pce.

EL	7.1	76.4
C	7.1	76.5
1/4	6.5	77.0
±	6.1	77.4
1/4	6.0	77.5
C	6.2	77.3
WL	6.1	77.4

Chatsworth

83.49

100' N. of Pce.

WL	55	78.0
C	60	77.5
1/4	60	77.5
±	59	77.6
1/4	65	77.0
C	69	76.6
EL	67	76.8

75' N. of Pce.

EL	68	76.7
C	65	77.0
1/4	62	77.3
±	59	77.6
1/4	58	77.7
C	59	77.6
WL	57	77.8

4



## Chatsworth

83.49

50' N. of Poe.

WL	5.1	78.4
c	5.8	77.7
1/4	5.6	77.9
±	5.7	77.8
1/4	6.2	77.3
c	6.6	76.9
EL	5.8	77.7

25' N. of Poe.

EL	5.8	77.7
c	6.4	77.1
+2	6.7	76.8
1/4	6.0	77.5
±	5.4	78.1
1/4	5.4	78.1
c	5.5	78.0
WL	4.9	78.6

## Chatsworth

83.49

NL. Poe. 60' Wide. 10' Wks. - 10' 1/4".

5

WL	4.8	78.7
c	5.2	78.3
1/4	5.1	78.4
±	5.0	78.5
1/4	5.4	78.1
+7	6.2	77.3
+12	7.2	76.3
c	6.4	77.1
EL	6.2	77.3

N. Curb Poe

EL	7.7	75.8
c	7.2	76.3
+1	6.5	77.0
1/4	5.3	78.2
±	4.9	78.6
1/4	4.9	78.6
±8	4.9	78.6
+9	5.6	77.9
c	5.7	77.8
WL	5.2	78.3



Chatsworth X Secs

83.49

N 1/4 Poe

WL	4.9	78.6
C	5.1	78.4
1/4	4.7	78.8
£	4.7	78.8
1/4	5.1	78.4
+9	6.0	77.5
+10	6.9	76.6
C	7.0	76.5
+1	6.1	76.4
EL	5.7	77.8
£ Poe		
EL	5.4	78.1
+9	5.7	77.8
C	6.5	77.0
+2	6.3	77.2
+6	5.2	78.3
1/4	5.0	78.5
£	4.5	79.0
1/4	4.6	78.9
C	4.8	78.7
WL	4.5	79.0

Chatsworth

83.49

S 1/4 Poe

WL	4.0	79.5
C	4.7	78.8
1/4	4.4	79.1
£	4.3	79.2
1/4	4.8	78.7
+10	5.5	78.0
C	6.2	77.3
+2	5.5	78.0
EL	4.6	78.9
S Curb Poe		
EL	5.6	77.9
C	6.2	76.3
1/4	4.7	78.8
£	4.4	79.1
1/4	4.2	79.3
C	5.3	78.2
WL	4.5	79.0



Chatsworth.

83.49

S.L. Poe.

WL.	40	795
C	47	788
+5	48	787
+7	42	793
1/4	42	793
£	43	792
1/4	45	790
+4	51	784
+11	72	763
C	52	783
EL.	56	775
	49	786
50'S of S.L. Poe		
EL.	40	795
C	46	789
+1	43	792
+3	57	778
1/4	43	792
£	36	799
1/4	36	799
C	34	801
	31	804

Chatsworth.

83.49

7

100'S. of Poe.

WL.	20	815
C	24	811
1/4	26	809
£	26	809
1/4	30	805
+9	41	794
C	31	804
EL.	28	807

150'S.

EL.	17	818
C	19	816
+1	25	810
1/4	23	812
£	18	817
1/4	17	818
C	14	821
WL.	11	824
T.P.	100	82.49

11.27 93.76



Chatsworth.

93.76

200' S. of Poe.

WL.	104	83.4
C	107	83.1
1/4	110	82.8
£	109	82.9
1/4	112	82.6
+11	118	82.0
C	108	83.0
EL.	106	83.2

250' S. of Poe.

EL.	92	84.6
C	94	84.4
+3	106	83.2
1/4	101	83.7
£	98	84.0
1/4	101	83.7
C	102	83.6
WL.	88	85.0

Chatsworth.

93.76

N.L. Wawogg Drive. 60' Wide - 10' Wks.

WL.	87	85.1
C	91	84.7
1/4	97	84.1
£	92	84.6
1/4	94	84.4
+11	95	84.3
C	87	85.1
EL.	88	85.0

N. Curb Wawogg

EL.	87	85.1
C	88	85.0
+5	90	84.8
+7	97	84.1
1/4	92	84.6
£	90	84.8
1/4	95	84.3
C	96	84.2
WL.	92	84.6

8



Chatsworth.

93.76

N. 1/4 Wawona.

WL	8.7	85.1
C	9.2	84.6
1/4	9.3	84.5
±	8.6	85.2
1/4	9.1	84.7
+9	9.6	84.2
C	8.6	85.2
EL	8.1	85.7

± Wawona.

EL	7.9	85.9
C	8.2	85.6
+4	9.1	84.7
1/4	8.9	84.9
±	8.3	85.5
1/4	8.7	85.1
C	8.8	85.0
WL	8.3	85.5

Chatsworth.

93.76

S. 1/4 Wawona

WL	8.1	85.7
C	8.7	85.1
1/4	8.5	85.3
±	8.0	85.8
1/4	8.4	85.4
+10	8.8	85.0
C	7.9	85.9
EL	7.4	86.4

S. Curb Wawona

EL	7.3	86.5
C	7.5	86.3
+4	8.5	85.3
1/4	8.1	85.7
±	7.7	86.1
1/4	8.3	85.5
C	8.5	85.3
WL	{ 8.1 7.1	{ 85.7 86.7

9



Chatsworthy.

93.76

S.L. Wawona Drive

WL	7.0	86.8
+9	7.3	86.5
C	8.1	85.7
1/4	7.9	85.9
£	7.3	86.5
1/4	7.7	86.1
+11	8.2	85.6
C	7.0	86.8
EL	6.7	87.1

50' S. of Wawona

EL	5.5	88.3
C	5.5	88.3
+2	5.6	88.2
+5	6.8	87.0
1/4	6.0	87.8
£	5.5	88.3
1/4	5.8	88.0
+4	6.7	87.1
+9	6.6	87.2
C	5.8	88.0
WL	4.8	89.0

Chatsworthy.

93.76

100' S. of Wawona

WL	2.9	90.9
C	3.5	90.3
+2	4.1	89.7
+5	4.9	88.9
1/4	3.8	90.0
£	3.6	90.2
1/4	3.7	90.1
+8	4.3	89.5
+9	4.9	88.9
C	3.5	90.3
EL	3.1	90.7

150' S. of Wawona

EL	0.8	93.0
C	1.0	92.8
+7	2.2	91.6
1/4	1.5	92.3
£	1.4	92.4
1/4	1.5	92.3
+4	1.8	92.0
+6	2.1	91.1

10



93.76 Chatsworth

Chatsworth

C 1.2 92.6  
 WL 0.8 93.0  
 T.P. 0.26 93.50

12.55 106.05

Zoo's. of Wawonga

WL 11.1 95.0  
 C 11.1 95.0  
 +5 12.6 93.5  
 +9 12.6 93.5  
 1/4 11.7 94.4  
 £ 11.6 94.5  
 1/4 11.5 94.6  
 +2 11.8 94.3  
 +3 12.5 93.6  
 +5 11.8 94.3  
 C 11.0 95.1  
 EL. 10.9 95.2

Z50'S. of Wawonga

EL. 8.2 97.9  
 C 8.6 97.5  
 +2 9.6 96.5

+11

1/4

£

1/4

+5

+9

C

WL.

Z75'S = NL of Olyphant on East  
 60' Wide - 10' WKS - 10' 1/4's.

WL.

C

+1

+7

+9

1/4

£

1/4

+2

+3

+4

+10

C

EL.

106.05

10.4 95.7

9.5 96.6

9.4 96.7

9.5 96.6

10.8 95.3

10.4 95.7

9.0 97.1

8.2 97.9

7.6 98.5

8.1 98.0

9.0 97.1

9.7 96.4

8.7 97.4

8.4 97.7

8.2 97.9

8.4 97.7

8.5 97.6

9.5 96.6

8.8 97.3

8.6 97.5

7.6 98.5

4.1 99.0



Chatsworth

106.05

N. Curb Olyphant

EL.	6.9	99.2
C	7.3	98.8
+3	8.1	98.0
+7	8.4	97.7
+9	9.2	96.9
+10	8.2	97.9
1/4	8.0	98.1
£	7.8	98.3
1/4	8.0	98.1
+4	8.5	97.6
+6	9.5	96.6
+8	9.3	96.8
*C	7.8	98.3
WL.	7.2	98.9

N. 1/4 Olyphant

WL.	6.7	99.4
C	7.1	99.0
+4	7.8	98.3
+5	9.1	97.0

Chatsworth

106.05

12

+7	8.0	98.1
1/4	7.6	98.5
£	7.4	98.7
1/4	7.5	98.6
+3	8.0	98.1
+4	8.8	97.3
+6	7.7	98.4
C	6.9	99.2
EL	6.5	99.6

£ Olyphant

EL	6.1	100.0
C	6.8	99.3
1/4	7.3	98.8
£	7.0	99.1
1/4	7.2	98.9
+2	7.4	98.7
+7	8.9	97.2
+9	7.5	98.6
C	6.6	99.5
WL.	6.4	99.7



Chatsworth.

106.05

S. 1/4 Olyphant.

WL	59	100.2
C	63	99.8
+3	69	99.2
+8	87	97.4
+9	73	98.8
1/4	68	99.3
£	67	99.4
1/4	68	99.3
C	68	99.3
EL	61	100.0

S. Curb Olyphant.

EL	57	100.4
C	64	99.7
1/4	65	99.6
£	63	99.8
1/4	65	99.6
+1	66	99.5
+3	82	97.9
+5	70	99.1
C	62	99.9
WL	58	100.3

Chatsworth.

106.05

S. L. Olyphant.

WL	53	100.8
C	57	100.4
+8	66	99.5
+10	76	98.5
1/4	62	99.9
£	57	100.4
1/4	60	100.1
C	56	100.5
EL	53	100.8

50' S. of Olyphant.

EL	32	102.9
C	34	102.7
+5	41	102.0
1/4	36	102.5
£	36	102.5
1/4	38	102.3
+5	43	101.8
+9	51	101.0
C	35	102.6
WL	32	102.9

13



Chatsworthy.  
100' S. of Olyphant.  
106.05

WL.	06	105.5
C	13	104.8
+7	22	103.9
+10	14	104.7
1/4	13	104.8
£	11	105.0
1/4	11	105.0
+10	15	104.6
C	08	105.3
EL.	06	105.5
T.P.	021	105.84

12.96

118.80

150' S. of Olyphant.

EL.	107	108.1
C	108	108.0
+3	115	107.3
1/4	112	107.6
£	111	107.7
1/4	114	107.4
+4	116	107.2
+5	129	105.9

Chatsworthy.

118.80

14

+9	13.1	105.7
C	11.3	107.5
WL.	10.8	108.0

174.39 S. = NL. Alley on West.

WL.	9.5	109.3
C	9.8	109.0
+2	9.9	108.9
+3	12.1	106.7
+7	12.0	106.8
+9	10.0	108.8
1/4	10.0	108.8
£	9.8	109.0
1/4	9.7	109.1
+10	10.3	108.5
C	9.5	109.3
EL.	9.1	109.7



118.80

194.39'S - S.L. Alley.

EL.	80	110.8
C	85	110.3
+3	87	110.1
+6	93	109.5
1/4	86	110.2
£	86	110.2
1/4	89	109.9
+5	90	109.8
+6	107	108.1
Ent	113	107.5
+2	87	110.1
WL.	83	110.5

250'S of Olyphant.

WL.	54	113.4
C	54	113.4
+2	54	113.4
+5	91	109.7
+10	60	112.8
1/4	59	112.9
£	55	113.3

Chatsworthy.

118.80

15

1/4	57	113.1
+10	59	112.9
C	52	113.6
EL.	49	113.9

299.4'S of Olyphant - NL Cresta Drive  
 on West - 60' Wide - 10' WKS - 10' 1/4'S.

EL.	21	116.7
C	28	116.0
+6	37	115.1
1/4	34	115.4
£	31	115.7
1/4	33	115.5
+4	35	115.3
+6	53	113.5
+10	50	113.8
C	31	115.7
WL.	25	116.3



Chatsworth

118.80

309.45 = N. Corb. of Cresta

WL.	2.9	115.9
C	3.1	115.7
1/4	2.7	116.1
£	2.6	116.2
1/4	2.9	115.9
C	2.9	115.9
EL.	1.8	117.0

319.45 = N 1/4 Cresta

EL.	1.5	117.3
C	1.9	116.9
+7	2.8	116.0
1/4	2.5	116.3
£	2.5	116.3
1/4	2.1	116.7
C	2.1	116.7
WL.	1.8	117.0

Chatsworth

118.80

16

329.45 = £ Cresta.

WL.	1.1	117.7
C	1.5	117.3
1/4	1.5	117.3
£	1.4	117.4
1/4	1.8	117.0
+9	2.3	116.5
C	1.6	117.2
EL.	1.1	117.7

339.45 = S 1/4 Cresta

EL.	0.6	118.2
C	1.2	117.6
+5	2.0	116.8
1/4	1.4	117.4
£	1.0	117.8
1/4	1.0	117.8
C	1.1	117.7
WL	{ 2.0	116.8
	{ 0.7	118.1
T.P.	0.30	118.50

9.22 127.72



Chatsworth

127.72

349<sup>+</sup> S. = 5 Corb Cresta

WL.	9.1	118.6
C	9.5	118.2
+2	9.8	117.9
+5	10.8	116.9
+9	9.8	117.9
1/4	9.6	118.1
±	9.7	118.3
1/4	9.8	117.9
+4	9.8	117.9
+5	10.5	117.2
+7	9.9	117.8
C	9.4	118.3
EL.	9.0	118.7

359<sup>+</sup> S. of Olyphant = 5. L. Cresta.

EL.	8.4	119.3
C	9.1	118.6
+5	9.8	117.9
1/4	9.2	118.5
±	8.8	118.9

Chatsworth

127.72

17

1/4	9.0	118.7
+5	9.4	118.3
+9	10.0	117.7
+10	8.8	118.9
C	8.5	119.2
WL.	8.4	119.3

400's. of Olyphant.

WL.	6.0	121.7
C	6.3	121.4
+2	6.4	121.3
+4	8.8	118.9
+7	7.0	120.7
1/4	6.9	120.8
±	6.6	121.1
1/4	7.0	120.7
+6	7.7	120.0
C	6.3	121.4
EL.	6.7	121.5



Chatsworth

127.72

443.75 of Chyphant = N.L. Macaulay  
of East - 60' Wide.

EL.	40	123.7
c	51	122.6
1/4	47	123.0
±	42	123.5
1/4	46	123.1
+7	63	121.4
+9	43	123.4
c	40	123.7
WL	38	123.9

443.75 on E. - 470.85 on West.

WL	21	125.6
c	27	125.0
+7	44	123.3
+10	36	124.1
1/4	35	124.2
±	35	124.2
1/4	42	123.5
+9	51	122.6
c	44	123.3
EL	40	123.7

TP.

127.72

141

126.31

18

7.63

135.94

B.M. NW Cor. Chats. & 100' S of  
Macaulay on W. side  
Arlington Drive. Plug.

Z.81

133.13

133.22

ok.



Cross Section of Poe St - Chatsworth Blvd  
to P. of W. Pt. Loma Ry.

60' wide - 15' walks - 10'  $\frac{1}{4}$ s.

Sketch

77.4

Pg. 3. of Cont.  
B.E. & R.W.

2.55

79.69

F. Lije Chatsworth Blvd

NL. 2.4 77.3

C 3.9 75.8

$\frac{1}{4}$  2.0 77.7

E 1.6 78.1

$\frac{1}{4}$  0.9 78.8

C 1.6 78.1

+3 4.3 75.4

+5 2.5 77.2

~~DL~~ 2.3 77.4

25' E.

~~DL~~ 2.7 77.0

+6 5.4 74.3

C 3.6 76.1

+3 2.6 77.1

$\frac{1}{4}$  2.5 77.2

E 2.4 77.3

+8 2.6 77.1



Poe

79.69

1/4	3.9	75.8
C	4.5	75.2
+5	3.2	76.5
NL	3.4	76.3

50' East of Chatsworth

NL	4.8	74.9
+3	5.6	74.1
+5	4.5	75.2
C	4.6	75.1
#1	5.4	74.3
1/4	5.4	74.3
+6	3.7	76.0
£	3.5	76.2
1/4	3.4	76.3
C	4.7	75.0
+4	6.1	73.6
SL	4.6	75.3

Poe

75' E. of Chatsworth

79.69

20

SL	6.1	73.6
C	6.3	73.4
1/4	6.3	73.4
£	6.1	73.6
1/4	6.1	73.6
C	6.2	73.5
NL	6.1	73.6

100' E. of Chatsworth

NL	7.6	72.1
C	7.0	72.7
1/4	7.0	72.7
£	7.1	72.6
1/4	7.1	72.6
C	7.1	72.6
SL	6.8	72.9

125' E

SL	8.0	71.7
C	7.6	72.1
1/4	7.8	71.9



1969

Foc

£	80	71.7
1/4	80	71.7
C	78	71.9
NL	80	71.7
150' E of Chatsworth		
NL	88	70.9
C	83	71.4
1/4	85	71.2
£	86	71.1
1/4	84	71.3
C	83	71.4
SL	82	71.5
175' E of Chatsworth		
SL	88	70.9
C	88	70.9
1/4	90	70.7
£	9.1	70.6
1/4	9.1	70.6
C	9.1	70.6
NL	9.3	70.4

1969

Foc

21

194.66 East =

NL	93	70.4
C	96	70.1
1/4	95	70.2
£	95	70.2
1/4	94	70.3
C	94	70.3
SL	94	70.3
210.48 = Int. N. Corb Pt Loma Rt Wly.		
SL	9.8	69.9
C	9.7	70.0
1/4	9.7	70.0
£	9.6	70.1
1/4	9.8	69.9
C	9.9	69.8
226.30 = Int. N 1/4 Rt Wly		
SL	100	69.7
C	9.9	69.8
1/4	100	69.7
£	9.9	69.8
1/4	100	69.7



79.69

Poc

West. Davis.  
Otey. Herrick  
Moore 7/5/15.

22

242.12 = Int.  $\frac{1}{4}$  with Rt. Way

SL	10.1	69.6
C	10.1	69.6
$\frac{1}{4}$	10.1	69.6
$\frac{1}{2}$	10.1	69.6

257.94 Int  $\frac{3}{4}$ 

SL	10.3	69.4
C	10.3	69.4
$\frac{1}{4}$	10.0	69.7

273.76 Int  $\frac{1}{2}$  Curb

SL	10.5	69.2
C	10.2	69.5

289.59 = Int SL with Rt. Way.

SL	10.3	69.4
----	------	------



Cross-sections Wawona Drive.  
 From E.L. Chatsworth to WL Capistrano  
 60' wide - 10' WKS - 10' 1/4's.

West- Davis  
 oter- Herrick  
 Moore 9/16/5.

Wawona.

23

Sketch

T.P. 79.69 1.82 77.87  
 10.48 88.35

E.L. Chatsworth Blvd.

NL 34 85.0  
 C 32 85.2  
 1/4 26 85.8  
 E 22 86.7  
 1/4 20 86.4  
 C 18 86.6  
 SL 14 87.0

15' East.

NL 41 84.3  
 +4 62 78.2  
 C 40 84.4

25' East.

SL 27 85.7  
 C 28 85.6  
 1/4 23 86.1  
 E 28 85.6  
 1/4 35 84.9  
 C 40 84.4  
 +3 73 81.1  
 NL 62 82.2



## Wawaya.

88.35

50' East

NL	88	79.6
C	51	83.3
1/4	45	83.9
E	42	84.2
1/4	39	84.5
C	38	84.6
SL	33	85.1

64ft. East.

NL	72	81.2
C	65	81.9

75' East.

SL	54	83.0
C	53	83.1
1/4	62	82.2
E	63	82.1
1/4	72	81.2
C	75	80.9
NL	82	80.2

## Wawaya.

88.35

24

100' East. of Chats worth.

NL	88	79.6
C	81	80.9
1/4	75	80.9
E	72	81.2
1/4	68	81.6
C	64	82.0
SL	63	82.1

125' East.

SL	74	81.0
C	76	80.8
1/4	79	80.5
E	85	79.9
1/4	89	79.5
C	96	78.8
NL	100	78.4

146' East.

SL	78	80.6
C	89	79.5
1/4	97	78.7
E	103	78.1



88-35 Wawona  
150' East

NL	10.6	77.8
C	10.7	77.7
1/4	10.8	77.6
E	10.6	77.8
1/4	10.4	78.0
C	10.4	78.0
SL	10.1	78.3

153' East

SL	10.3	78.1
C	9.8	78.6

160' East

SL	7.6	80.8
C	7.8	80.6

168' East

NL	9.4	79.0
C	9.0	79.4

88-35 Wawona

25

175' East

SL	6.0	82.4
C	6.6	81.8
1/4	7.6	80.8
E	7.7	80.7
1/4	7.3	81.1
C	7.4	81.0
NL	7.6	80.8

184' East ↑

SL	6.0	82.4
C	5.0	83.4
C	5.7	82.7

200' East of Chatsworth

SL	3.2	85.2
C	2.6	85.8
1/4	2.3	86.1
E	1.9	86.5
1/4	1.4	87.0
C	1.1	87.3
NL	1.1	87.3



Wawona

88.35

T.P.

0.35 88.00

13.01 101.01

225' East of Chatsworth

NL. 8.3 92.7

C 8.7 92.3

1/4 9.1 91.9

E 9.2 91.8

1/4 9.4 91.6

C 9.2 91.8

SL. 9.5 91.5

250' East.

SL. 5.7 95.3

C 5.6 95.4

1/4 5.1 95.9

E 5.2 95.8

1/4 4.9 96.1

C 5.0 96.0

NL. 4.9 96.1

Wawona

26

101.01

275' East of Chatsworth

NL. 2.1 98.9

C 1.9 99.1

1/4 1.4 99.6

E 1.2 99.8

1/4 1.1 99.9

C 1.2 99.8

SL. 1.0 100.0

T.P. 0.07 100.94

4.76 105.70

300' S of Chatsworth Blvd.

SL. 3.0 102.7

C 3.2 102.5

1/4 3.4 102.3

E 4.0 101.7

1/4 4.4 101.3

C 5.3 100.4

NL. 6.1 99.6



Wawona.

10570

325' E. of Chatsworth

NL	65	99.2
C	54	100.3
1/4	44	101.3
£	34	102.3
1/4	29	102.8
C	25	103.2
SL	21	103.6

350' East

SL	21	103.6
C	28	102.9
1/4	38	101.9
£	46	101.1
1/4	60	99.7
C	67	99.0
NL	75	98.2

Wawona.

97

10570

375' East

NL	9.9	95.8
C	8.9	96.8
1/4	7.6	98.1
£	6.2	99.5
1/4	5.7	100.0
C	4.6	101.1
SL	3.6	102.1

400' East

SL	6.3	99.4
C	7.0	98.7
1/4	7.8	97.9
£	8.8	96.9
1/4	9.9	95.8
C	10.7	95.0
NL	12.1	93.6



Wawonga.

105.70

425' East.

NL	13.3	92.4
C	12.0	93.7
1/4	11.3	94.4
£	10.8	94.9
1/4	10.1	95.6
C	9.7	96.0
SL	8.9	96.8
T.P.	10.35	95.35

1.58

96.93

450' East.

SL	0.9	96.0
C	2.2	94.7
1/4	3.1	93.8
£	3.6	93.3
1/4	4.0	92.9
C	5.0	91.9
NL	6.7	90.7
+10	8.2	88.7

Wawonga.

96.93

475' East.

-20	124	84.5
NL	97	87.2
C	85	88.4
1/4	75	89.4
£	67	90.7
1/4	51	91.8
C	36	93.3
SL	2.9	94.0

510.99' East of North = WL Capistrano

511.57 " 07, South

SL. Hub.

333	93.60	
C	4.5	92.4
1/4	6.5	90.4
£	8.8	88.1
1/4	10.4	86.5
C	12.1	84.8
NL	13.7	83.2

98



Olyphant St. X Secs 60 Wide - 10' Wks.  
E.L. Chatsworth to W.L. Capistrano.

BM. 95.01

11.74 106.75

E.L. Chatsworth Blvd.

SL	59	100.9
C	64	100.4
1/4	68	100.0
±	68	100.0
1/4	72	99.6
C	76	99.2
NL	79	98.9

25' East.

NL	83	98.5
C	82	98.6
1/4	75	99.3
±	70	99.8
1/4	64	100.4
C	58	101.0
SL	52	101.6

Olyphant.

Sketch.



## Olyphant

106.75

50' East

SL	4.8	102.0
C	5.6	101.7
1/4	6.5	100.3
1/2	6.8	100.0
3/4	7.3	99.5
C	7.5	99.3
NL	6.9	99.9

75' East

NL	7.6	99.2
C	7.8	99.0
1/4	7.7	99.1
1/2	7.5	99.3
3/4	7.3	99.5
C	7.1	99.7
SL	5.8	101.0

## Olyphant

106.75

100' East

SL	6.5	100.3
C	7.5	99.3
1/4	8.2	98.6
1/2	8.6	98.7
3/4	8.9	97.9
C	9.0	97.8
NL	9.2	97.6

125' East

NL	10.2	96.6
C	9.6	97.2
1/4	9.4	97.4
1/2	9.0	97.8
3/4	8.6	98.7
C	8.1	98.7
SL	6.9	99.9

145' East

NL	13.8	93.0
C	13.4	93.4

50



## Olyphant

106.75

150' East

SL	9.5	97.3
C	10.0	96.8
1/4	10.8	96.0
1/2	11.3	95.5
3/4	12.0	94.8
C	12.7	94.1
NL	13.6	93.2

160' East

SL	8.3	98.5
C	9.5	97.3

175' East

NL	12.9	93.9
45	11.6	95.2
C	11.5	95.3
1/4	10.7	96.1
1/2	9.5	97.3
3/4	8.9	97.9
C	8.2	96.6
SL	7.5	99.3

## Olyphant

31

106.75

200' East

SL	8.1	98.7
C	8.6	98.2
1/4	9.3	97.5
1/2	9.5	97.3
3/4	9.7	97.1
C	10.0	96.8
NL	10.5	96.3

212' East

SL	9.1	97.7
C	8.5	98.3

229.8' East = WL Merdety 60' Wide

SL	6.2	100.6
C	6.6	100.2
1/4	7.3	99.5
1/2	7.7	99.1
3/4	8.1	98.7
C	8.8	98.0
NL	9.4	97.4



106.75

Olyphant.

259<sup>8</sup> E-£ Mendota. st.

NL.	75	99.3
c	70	99.8
1/4	67	100.1
£	63	100.5
1/4	57	101.1
c	52	101.6
SL.	44	102.4

289<sup>8</sup> East of Chatsworth = EL Mendota.

SL.	35	103.3
c	42	102.6
1/4	47	102.1
£	50	101.8
1/4	52	101.6
c	53	101.5
NL.	53	101.5

25E. of Mendota.

NL.	53	101.5
c	51	101.7
1/4	48	102.0
£	45	102.3

106.75

Olyphant.

32

1/4	44	102.4
c	40	102.8
SL.	35	103.3

50' East

SL.	31	103.7
c	37	103.1
1/4	40	102.8
£	40	102.8
1/4	45	102.3
c	47	102.1
NL.	49	101.9

75' East. of Mendota

NL.	38	103.0
c	35	103.3
1/4	34	103.4
£	35	103.3
1/4	32	103.6
c	29	103.9
SL.	24	104.4



106.75

Olyphant

100' E. of Mendota

SL	15	105.3
C	20	104.8
1/4	23	104.5
£	23	104.5
1/4	26	104.2
C	28	104.0
NL	28	104.0

125' E. of Mendota

NL	16	105.2
C	13	105.5
1/4	22	104.6
£	10	103.8
1/4	11	105.7
C	08	106.0
SL	05	106.3
T.P.	0.32	106.43

1141

117.84

117.84

Olyphant

150' East

33

SL	102	107.6
C	102	107.6
1/4	107	107.1
£	106	107.2
1/4	102	107.6
C	104	107.4
NL	107	107.1

175' East of Mendota

NL	84	109.4
C	82	109.6
1/4	80	109.8
£	83	109.5
1/4	86	109.2
C	89	108.9
SL	88	109.0

200' East

SL	60	111.8
C	60	111.8
1/4	56	112.2
£	56	112.2



## Olyphant-

117.84

1/4	55	112.3
c	54	112.4
NL	56	112.2

225E = WL Capistrano

NL	2.7	115.1
c	3.1	114.7
1/4	3.2	114.6
1/2	3.3	114.5
1/4	3.5	114.3
c	3.4	114.4
SL. Hob.	3.49	114.35







Mendota

129.15

400'S. of Olyphant

EL.	86	120.6
+Z	77	121.5
C	76	121.6
1/4	79	121.3
£	81	121.1
1/4	83	120.9
C	73	121.9
WL.	76	121.6

375'S. of Olyphant

WL.	89	120.3
C	94	119.8
1/4	100	119.2
£	103	118.9
1/4	101	119.1
C	94	119.8
+8	97	119.5
EL.	106	118.6

Mendota

129.15

350'S. of Olyphant

EL.	13.8	115.4
C	13.3	115.9
1/4	12.7	116.5
£	12.3	116.9
1/4	11.6	117.6
C	11.0	118.2
WL.	10.8	118.4
T.P.	12.32	116.83

0.79 117.62

325'S. of Olyphant

WL	08	116.8
C	09	116.7
1/4	1.3	116.3
£	1.8	115.8
1/4	2.4	115.2
C	2.9	114.7
EL	3.7	113.9

36



## Mendota.

117.62

## 300's of Olyphant

FL	50	112.6
C	44	113.2
1/4	41	113.5
£	32	114.4
1/4	29	114.7
C	27	114.9
WL	27	114.9

## 275's of Olyphant

WL	40	113.6
C	42	113.4
1/4	44	113.2
£	49	112.7
1/4	54	112.2
C	59	111.7
EL	63	111.3

## Mendota

117.62

37

## 250's of Olyphant

EL	78	109.8
C	74	110.2
1/4	70	110.6
£	66	111.0
1/4	66	111.0
C	63	111.3
WL	58	111.8

## 225's of Olyphant

WL	74	110.2
C	79	109.7
1/4	77	109.9
£	78	109.8
1/4	78	109.8
C	84	109.2
EL	90	108.6



Mendota

117.62

200's of Olyphant

EL.	100	107.6
C	97	107.9
1/4	94	108.2
E	91	108.5
1/4	89	108.7
C	84	109.2
WL.	80	109.6

175's of Olyphant

WL.	76	110.0
C	78	109.8
1/4	85	109.1
E	96	108.0
1/4	104	107.2
C	105	107.1
EL.	103	107.3

Mendota

117.62

150's of Olyphant

EL.	103	107.3
C	106	107.0
1/4	112	106.4
E	102	107.4
1/4	91	108.5
C	88	108.8
WL.	87	108.9

125's of Olyphant

WL.	101	107.5
C	105	107.1
1/4	110	106.6
E	117	105.9
1/4	119	105.7
C	117	105.9
EL.	115	106.1
T.P.	12.09	105.53

3.59 109.12

38



## Mendota.

109.12

## 100's. of Olyphant.

EL	3.5	105.6
C	3.6	105.5
1/4	4.0	105.1
£	4.8	104.3
1/4	4.0	105.1
C	3.7	105.4
WL	3.3	105.8

## 75's. of Olyphant.

WL	4.9	104.2
C	4.7	104.4
1/4	4.6	104.5
£	5.4	103.7
1/4	4.7	104.4
C	4.4	104.7
EL	4.2	104.9

## 50's. of Olyphant.

EL	5.1	104.0
C	4.9	104.2
1/4	5.4	103.7

## Mendota.

39

109.12

£	5.9	103.2
1/4	7.5	101.6
C	7.4	101.7
WL	7.1	102.0

## 45's. of Olyphant.

WL	7.1	102.0
C	7.9	101.2
1/4	7.0	102.1
£	5.9	103.2

## 39's. of Olyphant.

WL	9.3	99.8
C	8.0	101.1
1/4	6.6	102.5
£	5.8	103.3

## 25's. of Olyphant.

WL	7.7	101.4
C	6.9	102.2
1/4	6.2	102.9
£	5.7	103.4



Mendota

40

109.12

1/4	53	103.8
C	53	103.8
EL	50	104.1

S.L. Olyphant

EL	59	103.2
C	59	103.2
1/4	64	102.7
E	68	102.3
1/4	74	101.7
C	81	101.0
WL	86	100.5



Capistrano X Secs 60' Wide 10' Wks.  
From N.L. Macaulay to S.L. Pt Loma Ry Rt Way.

Nail Post N.L. Macaulay.		12874	
6-36	13510		WL
N.L. Macaulay =	{ 46384'S of Olyphant of E. 461.765 " " " " W.		C
WL.	4.7	130.4	1/4
C	4.3	130.8	£
1/4	3.9	131.2	1/4
£	2.8	132.3	C
1/4	2.4	132.7	EL.
C	1.6	133.5	
EL.	0.5	134.6	EL.
	425'S of Olyphant.		C
EL.	2.6	132.5	1/4
C	3.5	131.6	£
1/4	4.4	130.7	1/4
£	4.8	130.3	C
1/4	5.7	129.4	WL.
C	6.4	128.7	
WL.	6.7	128.4	

Capistrano.

13510

41

400'S of Olyphant.

8.6	126.5
7.8	127.3
7.0	128.1
6.4	128.7
6.1	129.0
5.0	130.1
3.3	131.8

375'S of Olyphant.

5.4	129.7
6.4	128.7
7.5	127.6
8.0	127.1
8.6	126.5
9.5	125.6
10.1	125.0



## Capistrano

13510

350'S of Olyphant

WL	11.1	124.0
C	10.5	124.6
1/4	9.6	125.5
1/2	9.0	126.1
1/4	8.5	126.6
C	7.6	127.5
EL	6.8	128.3

325'S of Olyphant

EL	7.9	127.2
C	9.0	126.1
1/4	9.8	125.3
1/2	10.1	125.0
1/4	10.7	124.4
C	11.0	124.1
WL	12.1	123.0

## Capistrano

13510

42

300'S of Olyphant

WL	13.0	122.1
C	12.8	122.3
1/4	12.5	122.6
1/2	11.4	123.7
1/4	10.7	124.4
C	9.3	125.8
EL	8.3	126.8

275'S of Olyphant

EL	9.4	125.7
C	10.4	124.7
1/4	11.3	123.8
1/2	11.8	123.3
1/4	12.8	122.3
C	13.9	121.2
WL	15.6	119.5
T.P.	12.20	122.90

248

125.38



125.38

250' S of Olyphant.

WL	59	119.5
C	43	121.1
1/4	36	121.8
Φ	32	122.2
1/4	25	122.9
C	15	123.9
EL	+0.2	125.6

225' S of Olyphant.

EL	1.5	123.9
C	22	123.2
1/4	2.8	122.6
Φ	3.1	122.3
1/4	3.9	121.5
C	5.4	120.0
WL	6.5	118.9

200' S of Olyphant.

WL	7.1	118.3
C	6.1	119.3
1/4	4.7	120.7

125.38

Capistrano

43

€	37	121.7
1/4	32	122.2
C	29	122.5
EL	23	123.1

175' S of Olyphant

EL	34	122.1
C	41	121.3
1/4	52	120.2
€	59	119.5
1/4	65	118.9
C	74	118.0
WL	84	117.0

150' S of Olyphant

WL	96	115.8
C	88	116.6
1/4	80	117.4
€	64	119.0
1/4	46	120.8
C	25	122.9
EL	21	123.3



12538

125' S. of Olyphant

EL.	23	123.1
C	40	121.4
1/4	54	120.0
£	67	118.7
1/4	80	117.4
C	89	116.5
WL.	100	115.4

100' S. of Olyphant

WL.	103	115.1
C	92	116.2
1/4	80	117.4
£	68	118.6
1/4	54	120.0
C	44	121.0
EL.	32	122.2

75' S. of Olyphant

EL.	13	124.1
C	29	122.5
1/4	46	120.8

12538

Capistrano

AA

£	6.1	119.3
1/4	7.7	117.7
C	9.5	115.9
WL.	10.7	114.7

50' S. of Olyphant

WL.	10.8	114.6
C	9.3	116.1
1/4	7.6	117.8
£	6.0	119.4
1/4	4.4	121.0
C	3.0	122.4
EL.	1.8	123.6

25' S. of Olyphant

EL.	3.3	122.1
C	4.0	121.4
1/4	5.2	120.2
£	6.8	118.6
1/4	8.0	117.4
C	9.8	115.6
WL.	10.9	114.5



125.38

S.L. Olyphant. 60 wide, 10 Wks.

		1102	114.45
WL.			
C		99	115.5
1/4		87	116.7
£		75	117.9
1/4		60	119.4
C		44	121.0
EL.		37	121.7

S. Corb.

EL.		43	121.1
C		49	120.5
1/4		61	119.3
£		77	117.7
1/4		90	116.4
C		100	115.4
WL.		109	114.5

S. 1/4

WL		110	114.4
C		99	115.5
1/4		91	116.3

125.38

Capistrano 45

£		79	117.5
1/4		68	118.6
C		57	119.7
EL.		46	120.8

£ Olyphant.

EL.		54	120.0
C		61	119.3
1/4		70	118.4
£		80	117.4
1/4		89	116.5
C		97	115.7
WL.		108	114.6

N 1/4

WL.		108	114.6
C		100	115.4
1/4		88	116.6
£		80	117.4
1/4		71	118.3
C		65	118.9
EL.		57	119.7



125.38

N. Curb

EL.	54	120.0
C	62	119.2
1/4	69	118.5
£	76	117.8
1/4	84	117.0
C	96	115.8
WL	107	114.7

NL. Olyphant =

WL	103	115.1
C	91	116.3
1/4	80	117.4
£	69	118.5
1/4	67	118.7
C	59	119.5
EL	54	120.0

25' N of Olyphant

EL	57	119.7
C	63	119.1
1/4	69	118.5

125.38

Capistrano

16

£	75	117.9
1/4	81	117.3
C	88	116.6
WL	99	115.5

50' N of Olyphant

WL	107	114.7
C	100	115.4
1/4	93	116.1
£	88	116.6
1/4	82	117.2
C	75	117.9
EL	72	118.2

75' N of Olyphant

EL	100	115.4
C	104	115.0
1/4	105	114.9
£	110	114.4
1/4	113	114.1
C	120	113.4
WL	125	112.9



12538

T.P. 1263 112.75

0.34 113.09

100' N. of Olyphant

WL. 34 109.7

C 3.1 110.0

1/4 32 109.9

⊕ 3.0 110.1

1/4 3.0 110.1

C 2.5 110.6

EL. 19 111.2

125' N. of Olyphant

EL. 50 108.1

C 5.3 107.8

1/4 5.8 107.3

⊕ 5.7 107.4

1/4 5.7 107.4

C 5.2 107.9

WL. 5.2 107.9

Capistrano

113.09

47

150' N. of Olyphant

WL. 83 104.8

C 84 104.7

1/4 8.5 104.6

⊕ 8.3 104.8

1/4 7.8 105.3

C 7.1 106.0

EL. 6.1 107.0

175' N. of Olyphant

EL. 9.9 103.2

C 10.0 103.1

1/4 10.3 102.8

⊕ 10.4 102.7

1/4 10.4 102.7

C 10.2 102.9

WL. 10.0 103.1



113.09

200' N. of Olyphant.

WL.	11.3	101.8
C	11.4	101.7
1/4	11.6	101.5
£	11.7	101.4
1/4	12.0	101.1
C	12.0	101.1
EL.	12.1	101.0
T.P.	12.90	100.19

0.65 100.84

225' N of Olyphant.

EL.	21	98.7
C	24	98.4
1/4	26	98.2
£	22	98.6
1/4	20	98.8
C	1.7	99.1
WL.	1.7	99.1

100.84

Capistrano

48

250' N.

WL.	53	95.5
C	55	95.3
1/4	57	95.1
£	60	94.8
1/4	59	94.9
C	52	95.6
EL.	49	95.9

275' N. of WL. } = 5 L. Wagon 79. { 60' W. of WL.  
266.25 N. of EL. } { 67.04. Wide of EL.

EL.	6.5	94.3
C	7.1	93.7
1/4	7.8	93.0
£	8.1	92.7
1/4	7.8	93.0
C	7.3	93.5
WL.	7.2	93.6
T.P.	0.87	94.47
	7.24	93.60



94.47

So. Ch. Wawona

W.L.	2.0	925
Ch	19	926
H	24	921
C	30	915
H	29	916
Ch	25	920
E.L.	18	927

So. H

E.L.	4.0	905
Ch	4.4	901
H	4.7	898
C	4.4	901
H	3.6	909
Ch	3.6	909
W.L.	4.1	903

94.47

Capistrano

49

Ctr. Wawona

W	5.8	88.7
Ch	6.3	88.2
H	6.6	87.9
C	5.8	88.7
H	5.1	89.4
Ch	5.7	88.8
E	6.2	88.3

No. H

E	6.6	87.9
Ch	7.6	86.9
H	8.5	86.0
C	7.7	86.8
H	7.6	86.9
Ch	7.6	86.9
W	8.0	86.5



9447

No. Ct. Wawona

W	9.6	84.9
Ch	9.5	85.0
W	9.6	84.9
C	9.5	85.0
W	9.7	84.8
Ch	8.6	85.9
E	8.0	86.5

E. Wawona

E	9.6	84.9
Ch	10.3	84.2
W	11.0	83.5
C	10.7	83.8
W	10.7	83.8
Ch	10.9	83.6
W	11.0	83.5
T.P	105	83.15
		12.37
		82.10

Capistrano

50

83.5

25 No Wawona

W	2.6	80.6
Ch	2.4	80.8
W	2.6	80.6
C	2.3	80.9
W	2.1	81.1
Ch	2.0	81.2
E	2.0	81.2

50 No Wawona

E	4.9	78.3
Ch	5.3	77.9
W	5.3	77.9
C	5.2	78.0
W	5.3	77.9
Ch	5.1	78.1
W	5.1	78.1



P. 3.15.

75 No Wawona

W	7.4	75.8
Cl	8.1	75.1
W	8.2	75.0
C	7.9	75.3
W	8.3	74.9
Cl	8.5	74.7
E	9.1	74.1

100 No

E	12.3	70.9
Cl	11.8	71.4
W	11.1	72.1
C	10.6	72.6
W	10.7	72.5
+2	12.7	70.5
+5	10.7	72.5
Cl	10.4	72.8
W	10.1	73.1

T.P 5.15 75.78 12.52 70.63

Capistrano

51

75.78

106 No Wawona

E	6.0	69.8
Cl	5.1	70.7

112 No

E	9.3	66.5
Cl	5.9	69.9

115 No

W	4.5	71.3
Cl	4.7	71.1
W	5.3	70.5
+2	7.5	68.3
+5	5.6	70.2
C	5.6	70.2
W	6.0	69.8
+2	7.5	68.3
Cl	8.4	67.4
E	8.8	67.0



75.78

125 No. Wawona

W	5.5	70.3
+3	7.6	68.2
Ch	8.4	67.4

128' No.

W	8.2	67.6
Ch	8.2	67.6

731.28' No. R of W at Ch

W	8.3	67.5
Ch	8.1	67.7
W	8.3	67.5
C = R of W	8.1	67.7

115.07 on E } WL R of W  
 147.15 " W }

W	8.0	67.8
Ch	8.0	67.8
4	8.1	67.7
C	8.1	67.7
4	8.2	67.6
Ch	8.2	67.6
E	8.7	67.1







10/3/15  
Gregory  
Moore  
Miller

CROSS-SECTION OF FILL ON  
GRAPE ST.  
Between Fern + 31st ST  
(GRAPE = 75' WIDE 12' WALKS 12.75' QUARTERS)

25822

74

BM.	0.49	169.96	269.47	SE. GRADE & FERN	5	1.3	256.9
160' EAST OF FERN ST.							
S		11.5	258.5		+R	2.2	256.6
cb = cement Curb & Walk.		[12.32	257.64		1/4	1.6	256.6
		13.0	257.0				
1/4		12.3	257.7		C	1.0	257.2
C		11.8	258.2		1/4	1.2	257.0
1/4		11.9	258.1		+110	1.4	256.8
cb		12.3	257.7		cb	0.9	257.3
		11.8	258.2				
N		11.0	259.0		N	1.0	257.2

Cement Curb on So. from FERN to 175.3 East.

220' E

180' EAST							
					-9	3.3	254.9
N		12.1	257.9		N	1.5	256.7
cb		12.4	257.6		cb	1.5	256.7
		12.8	257.2				
1/4		12.5	257.5		+1	1.8	256.4
C		12.3	257.7		1/4	1.4	256.8
1/4		13.0	257.0		C	1.3	256.9
cb		13.7	256.3		1/4	1.9	256.3
		13.1	256.9				
S		12.5	257.5		+11	2.6	255.6
T.P.	1.27	258.22	13.01	256.95	cb	1.9	256.3



5	1.7	256.5
+5	1.7	256.5
	240' EAST.	
-11	7.5	250.7
-5	3.7	254.5
5	2.7	255.5
cb	2.5	255.7
+1	3.1	255.1
1/4	2.0	256.2
C	1.6	256.6
1/4	1.8	256.4
+11.0	2.2	256.0
cb	1.7	256.5
N	1.5	256.4
+2	1.9	256.3
+10	6.7	251.5
+22	14.1	244.1
+25	14.7	243.5

260' EAST

55

-40	22.6	235.6
-20	21.6	236.6
N	2.4	255.8
+2	1.9	256.3
cb	2.1	256.1
+1	2.7	255.5
1/4	2.1	256.1
C	2.2	256.0
1/4	2.8	255.4
+1/2	3.8	254.4
cb	3.3	254.9
+10	3.0	255.2
5	3.7	254.5
+280	23.2	235.0
+360	26.5	231.7
+430	26.5	231.7

280' E

OUTLET OF CULV. = 36' So. of S.L. Elev. of Flow line = 225.5

-50

31.3

226.9

32.6

225.6

use this for  
section ahead







S		2.7	255.5
+R		1.7	256.5
cb		2.0	256.2
+1		2.4	255.8
1/4		1.5	256.7
C		0.9	257.3
1/4		0.9	257.3
+12		1.5	256.7
cb		0.8	257.4
+11		0.5	257.7
N		1.0	257.2
+20		15.3	242.9
+28		14.5	243.7

340° E

T.P.	10.9H	268.15	1.01	257.21
-10			12.8	255.4
-8			13.0	255.2
N			9.7	258.5
cb			10.4	257.8
1/4			10.9	257.3
			10.1	258.1

C		10.1	258.1
1/4		10.7	257.5
+11		11.5	256.7
cb		11.0	257.2
+10		11.3	256.9
S		11.7	256.5
+11		19.0	249.2
+21		21.8	246.4

360° E

S		10.3	257.9
cb		10.4	257.8
+0.75		10.8	257.4
1/4		9.7	258.5
C		9.3	258.9
1/4		9.5	258.7
d		10.2	258.0
+3		9.7	258.5
N		8.9	259.3

380° E

N		8.1	260.1
---	--	-----	-------



268.15

+9.		8.7	259.5
cb.		9.2	259.0
1/4		8.6	259.6
c		8.5	259.7
1/4		8.9	259.3
+11.0		9.9	258.3
cb		9.1	258.8
5		9.0	259.2

Cement Curb Constructed from 385' E to 314' = 976

400' E of FERN ST

5		7.7	260.5	
cb = Cement Curb		7.97	260.18	
1/4		8.5	259.7	
		7.7	260.5	
c		7.2	261.0	
1/4		7.1	260.8	
cb		8.1	259.8	
+2.0		7.5	260.7	
N		7.0	261.2	
T.P.	1.58	269.19	0.24	269.91
Chk.		0.91	268.58 =	NE 314' + 662.00
			269.55	

78



Grape St.

	S. line	12.75' Curb	12.75' 1/4	12.75' 1/2	12.75' 3/4	12.75' Curb	12.75' N Line
150' E of Fern	258.20	257.95	257.80	258.45	258.35	258.95	259.20
160	257.85	257.60	257.40	258.00	257.80	258.4	258.65
180	257.05	256.80	256.60	257.20	257.00	257.6	257.85
200	256.75	256.50	256.28	256.85	256.60	257.2	257.45
220	256.45	256.2	255.95	256.50	256.20	256.8	257.05
240	256.25	256.0	255.75	256.30	256.00	256.6	256.85
260	256.15	255.9	255.65	256.20	255.90	256.5	256.75
280	256.25	256.0	255.75	256.30	256.0	256.6	256.85
300	256.45	256.2	255.95	256.50	256.20	256.8	257.05
320	256.85	256.6	256.35	256.90	256.60	257.2	257.45
340	257.45	257.2	256.95	257.50	257.20	257.8	258.05
360	258.25	258.0	257.75	258.25	257.90	258.5	258.75
380	259.25	259.0	258.75	259.30	259.00	259.6	259.85
400	260.45	260.2	259.95	260.45	260.10	260.7	260.95







10/15/15  
Gregory  
Moore  
Miller

CROSS-SECTION OF  
MONTECITO WAY 50' W OF  
From First St To Front St

295.49

61

on B.M.	4.46	295.49	291.03	SE. FIRST + Montecito	S	6.3	289.2	
		W.L. FIRST ST.			cb	6.3	289.2	
S	4.5	291.0			1/4	6.1	289.4	
cb	4.7	290.8			C	6.6	288.9	+0.4
1/4	5.0	290.5			1/4	6.7	288.8	0.0
C	4.4	291.1	+0.1		cb	7.1	288.4	+0.2
1/4	4.8	290.7	+0.1		N	6.4	289.1	+0.2
cb	5.2	290.3	+0.3			6.3	289.2	+0.3
4.7	290.8	+0.2						
N	4.3	291.2	0.0		N	6.3	289.2	+0.1
		50' WEST			cb	6.5	289.0	+0.1
					1/4	6.9	288.6	0.0
N	5.2	290.3	+0.1		1/4	6.4	289.1	0.0
cb	5.4	290.1	0.0		C	6.5	289.0	
1/4	6.3	289.2	+0.1		1/4	6.7	288.8	
5.9	289.6	+0.1			cb	7.0	288.5	
C	5.5	290.0	+0.3		S	7.2	288.3	
#	5.4	290.1			1/4	7.2	288.3	
+R	5.9	289.6				7.1	288.4	
1/4	5.9	289.6						
cb	6.0	289.5						
S	5.7	289.8						

110' WEST

125' WEST



295.49

C	6.6	288.9	0.0
1/4	7.0	288.5	+0.2
cb	7.3	288.2	+0.4
	6.7	288.8	0.0
N	6.5	289.0	+0.1

150' WEST

N	7.0	288.5	+0.1
cb	7.2	288.3	+0.1
	7.9	287.6	+0.3
1/4	7.5	288.0	+0.2
C	7.3	288.2	+0.2

1/4	7.4	288.1	
cb	7.4	288.1	
S	6.9	288.6	

165' WEST

S	6.8	288.7	
cb	7.5	288.0	
1/4	7.6	287.9	
C	7.5	288.0	+0.2
1/4	7.8	287.7	+0.2
cb	8.1	287.4	+0.3
	7.3	288.2	+0.1
N	7.3	288.2	-0.2

295.5

180' WEST

62

N	7.3	288.2	+0.1
cb	7.5	288.0	+0.2
	8.2	287.3	+0.5
1/4	8.0	287.5	+0.2

C	7.4	288.1	+0.2
1/4	7.4	288.1	
cb	7.6	287.9	
S	7.5	288.0	

300' WEST = E LINE FRONT ST.

S	7.7	287.8	
cb	7.8	287.7	
1/4	8.2	287.3	
C	7.9	287.6	+0.3
1/4	8.5	287.0	+0.1
cb	8.5	287.0	+0.5
	7.7	287.8	+0.3
N	7.8	287.7	0.0



## MONTECITO

WAY

63

	No.	Cb	1/4	C	1/4	cb	S
W. LINE FIRST	291.25	291.0	290.6	291.0		291.0	291.25
50 W	290.38	290.13	289.67	290.31 <sup>with</sup>		290.0	290.25
100 W	289.50	289.25	288.75	289.37 <sup>with</sup>		289.0	289.25
110 W	289.32	289.07	288.57	289.14 <sup>with</sup>		288.5	289.05
125 W	289.06	288.81	288.28	288.90 <sup>with</sup>		288.5	288.75
150 W	288.62	288.37	287.82	288.43 <sup>with</sup>		288.0	288.25
165 W	288.36	288.11	287.54	288.15 <sup>with</sup>		287.7	287.95
180 W	288.10	287.85	287.27	287.88 <sup>with</sup>		287.4	287.65
EL. FRONT.	287.75	287.5	286.9	287.25		287.0	287.25



11 Davis  
10 Haeppel  
11 Herrick  
Cross Section of Torrey Pine Road Sta 91774 to Sta 93627  
Sta 97469 to 100+52.5

64

	Left			Ctr			Right		
436	120.21			115.85 BM PI	115.85 + 65.20				
91+77.5 PC	107.5 13	107.4 10	107.2	106.8 7	112.5 10	117.3 25			
92	109.2 13	109.1 10	109.2	108.9 5	114.5 8	120.2 25			
+25	111.1 13	111.1 10	110.6	113.2 3	118.4 6	124.2 25			
+50	112.7 13	112.5 10	112.5	121.9 4	126.0 15	129.2 25			
+75	114.7 13	114.6 10	114.4 3	123.2 1	129.7 12	131.7 25			
93	116.2 10	116.6 10	116.3 5	122.0	129.3 6	132.6 20	134.6 25		
+25	118.9 13	118.8 10	118.3	127.0 2	133.4 15	137.2 25			
T.P.	4.78	124.19	0.80	119.41					
+50	121.0 13	120.9 10	120.6	120.5 5	132.1 11	139.9 25			
E.C. + 182.2	122.4 13	122.3 10	122.2	122.2 6	132.8 10	140.6 25			
T.P.	13.03	137.13	0.09	124.10					
T.P.	9.25	146.09	0.39	136.74					
97+69.5 PC	136.1 15	136.3 10	136.7	136.5 9	145.8 17	148.6 25			
+75	136.4 15	136.5 10	136.9	136.7 8	146.6 16	150.7 25			
98	137.7 15	137.8 10	137.6	137.4 4	146.8 10	152.0 25			
+14	138.8 15	138.5 10	138.0	141.3 4	152.4 25				
+25	139.2 15	138.8 10	138.4 2.5	143.6 1	152.5 25				

Sta	Left			Ctr			Right		
98+50	129.9 15	139.6 8	141.0 4	146.5 25	153.4				
+75	142.6 30	141.5 15	147.5 12	150.0 10	152.3 10	154.7 25			
99	144.5 30	143.4 17	148.8 13	151.6 10	153.7 10	156.1 25			
+25	145.7 30	144.8 17	149.0 14	152.2 10	153.9 10	156.6 25			
T.P.	12.76	158.78	0.07	146.02					
+50	147.2 30	146.3 15	149.8 12	151.9 10	153.9 10	156.6 25			
+75	148.8 25	148.5 7	151.2 4	151.7 5	154.1 10	156.7 25			
100	151.1 20	150.3 10	150.1 2	150.0 5	153.8 10	154.9 25	157.7 25		
+25	151.3 15	151.4 10	151.9 8	151.5 11	154.9 13	157.4 25			
E.C. + 510.6	150.8 16	152.9 12	152.9 10	153.1 11	155.5 13	158.1 25			







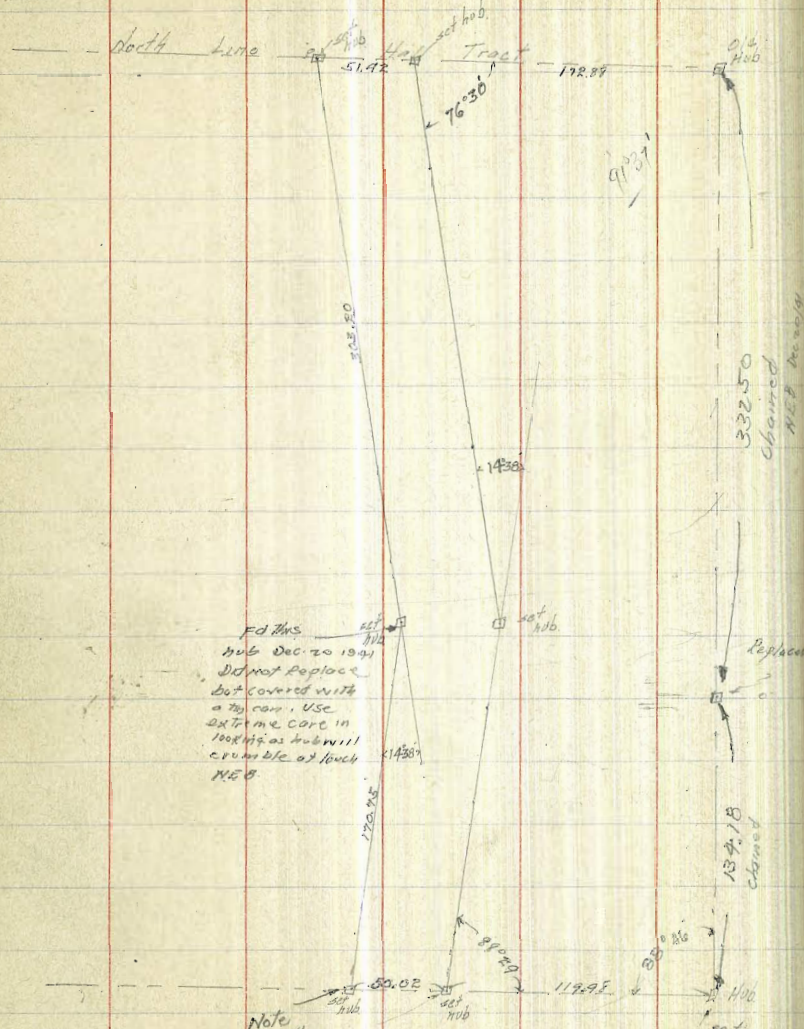




2/2/16  
Graham  
Pisone  
Miller

Survey of Dove St thru the Hall  
Tract in P.L. 1122 using distances  
as given in deed to city

120  
976  
220



Ed Hus  
Hub Dec 20 1941  
Did not replace  
but covered with  
a top coat, use  
at time. Corc in  
look up as hub will  
crumple etc at touch  
NEB

Note  
Had these  
hubs of  
Dec 20-1941  
White stone  
piece & replaced them with new hubs  
- E.H. Hus -

Replaced  
Hub SE Cor  
Palm Hk  
N.W. Cor  
Idy. of W. & S. B.

S.W. COR?



12/9/15  
Gregory  
Moore  
Miller

CROSS SECTION OF  
INTERSECTION OF  
DOVE ST WITH DOUGLAS ST  
(Dove = 70' wide Douglas = 50' wide)

250

267.9 NS.

68

No. QUARTER

BM	346	267.93	264.47	F	37	264.2
		H. L. DOUGLAS		cb	40	263.9
E		3.5	264.4	1/2	50	262.9
cb		3.8	264.1	C	60	261.9
1/4		3.7	264.2	1/2	71	260.8
C		5.1	262.8	cb	73	259.6
1/4		5.8	262.1	+10	96	258.3
cb		6.9	261.0	W	113	256.6
W		9.2	258.7	+23	20.5	247.4
+10		12.5	256.4			
		No. CURB				
-19		18.4	249.5	-30	25.5	242.4
-15		17.9	250.0	W	13.5	254.4
W		10.6	257.3	+3	10.2	257.7
cb		7.9	260.0	cb	7.9	259.0
1/4		6.5	261.4	1/2	7.7	260.2
C		5.3	262.6	C	6.3	261.6
1/4		4.4	263.5	1/4	5.5	262.4
cb		3.8	264.1	cb	4.3	263.6
E		3.4	264.5	E	3.8	264.1

CENTER

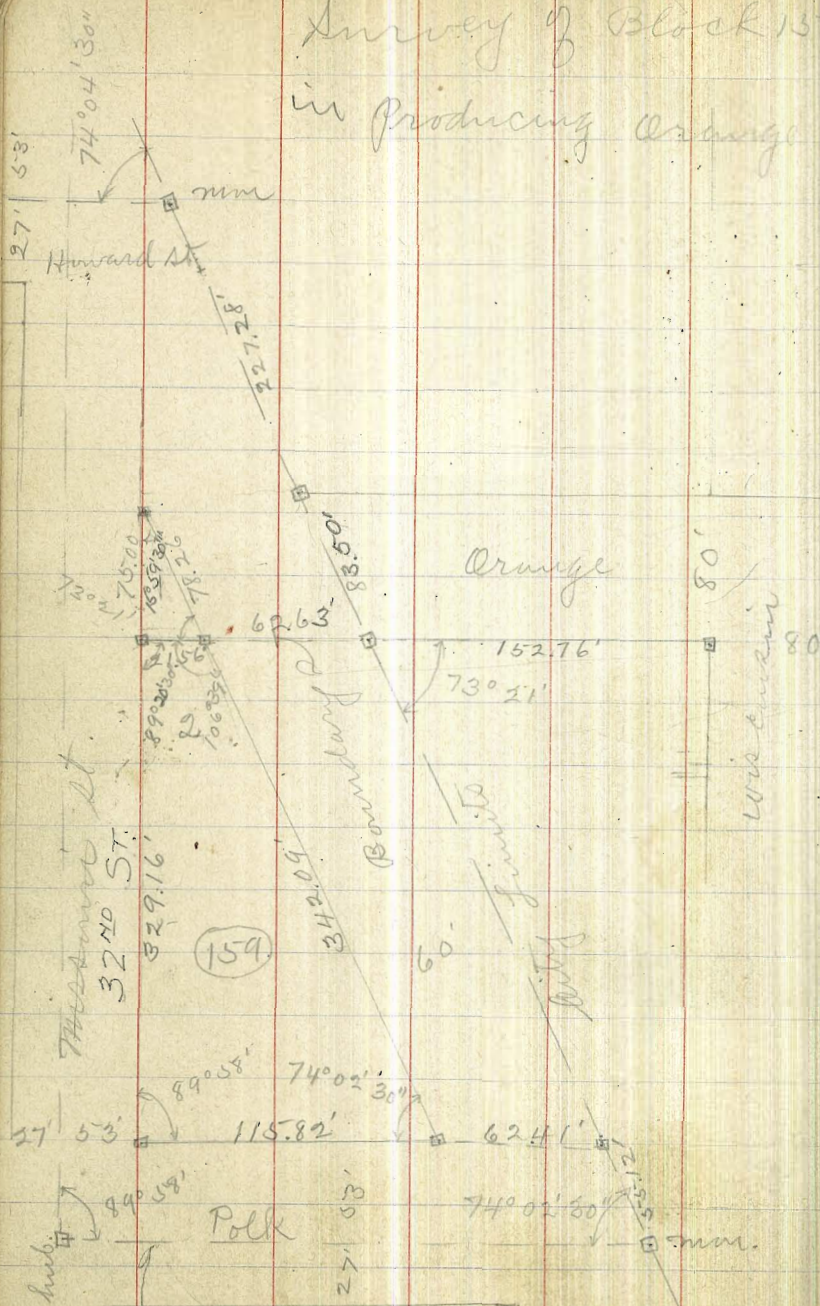






Survey of Block 159 University Heights  
 in Producing Orange ave through to mission

Sept. 27/16  
 Lehigh  
 Evans  
 Shaw



(Also see sidewalk book B-15 pgs 55)







11/13/16  
Gregory  
Moore  
Miller

LEVELS ON ROAD (50' wide)  
THRU Ernest Allen's Ranch

PL 1180

Mon 3. Sec  
Village Road  
at Trumbull

72

BM.	3.70	39.57	26.87		C	3.9	34.6	
T.P.	2.98	27.69	5.86	24.71	N	3.1	35.4	
T.P.	4.12	27.52	4.29	23.10	N	5.18	33.31	on hub
T.P.	5.26	26.27	6.51	21.01	C	5.4	33.1	
T.P.	6.36	27.20	5.43	20.84	S	5.7	32.8	
T.P.	11.96	38.01	1.15	26.05				SEC. B
T.P.	7.43	45.12	0.32	37.69	S	7.2	31.3	
T.P.	0.73	38.49	7.36	37.76	C	6.5	32.0	
					N	5.2	33.3	
34' w. of Sec A = Center of Road (as graded) Escondido Blvd.								50' E
S			1.2	37.3	N	9.0	29.5	
C			1.2	37.3	C	9.7	28.8	
N			1.0	37.5	S	9.1	29.4	
23' w. of Sec A = East Side of Road (as graded)								100' E
N			0.8	37.7	S	11.3	27.2	
C			1.0	37.5	C	11.0	27.5	
S			1.3	37.2	N	11.1	27.4	
17' w. of Sec A = toe of slope								
S			3.7	34.8				



38.49

136' E = 2' x 1' x 6' wood cyl. 32.5 long.

N			12.4	26.1	
C			11.2	27.3	= top of cyl. bot is 1' lower
S			12.4	26.1	
T.P.	486	31.97	11.38	27.11	
		150' E			
S			5.8	26.2	
C			5.1	26.9	
N			4.5	27.5	
		200' E			
N			5.3	26.7	
C			5.5	26.5	
S			6.2	25.8	
		240' E			
S			6.1	25.9	
C			5.7	26.3	
N			5.4	26.6	
		355' E			
N			5.4	26.6	
C			5.3	26.7	

72

S

5.1

26.9

300' E

S

5.1

26.9

C

5.1

26.9

N

4.8

27.2

350' E

N

5.2

26.8

C

5.1

26.9

S

4.9

27.1

400' E

S

5.7

26.3

C

5.4

26.6

N

4.7

27.3

450' E

N

5.0

27.0

C

5.0

27.0

S

5.4

26.6

500' E

S

4.9

27.1

C

4.6

27.4

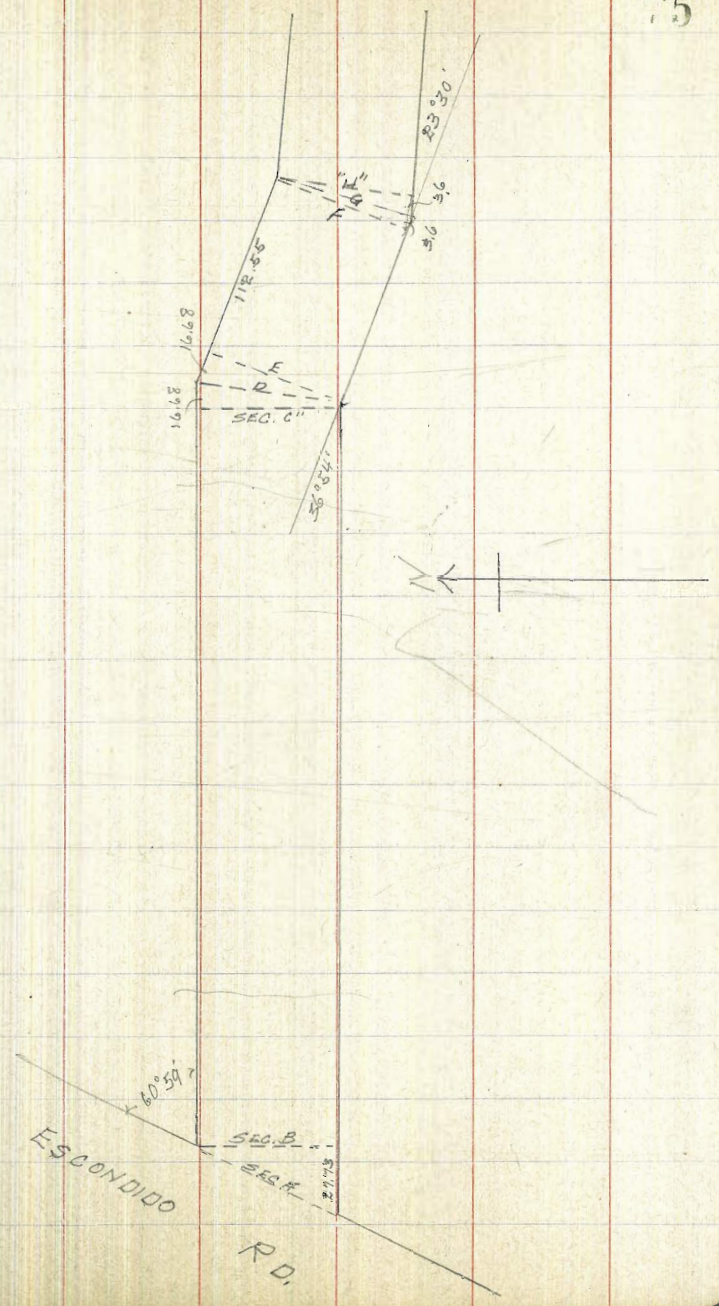


N	4.8	27.2	
	550' E		
N	4.3	27.7	
C	4.6	27.4	
S	4.8	27.2	
	600' E		
S	4.6	27.4	
C	3.7	28.3	
N	4.3	27.7	
	634' E on No.		
	628' E = 1' x 6' culv. (wooden) 32' long		
	622' E on So.		
N	4.5	27.5	
C	3.0	29.0	top culv.
S	5.1	26.9	
	650' E		
S	4.4	27.6	
C	2.8	28.2	
N	4.5	27.5	
	665.54' E = SEC C		
N	3.7	28.3	
C	2.9	28.1	

S	4.6	27.4	
	1668' E on No.		
	00 E - So. = SEC D		
S	4.6	27.4	
C	3.3	28.7	
N	3.9	28.1	
	1668' E on No.		
	00 - So. = SEC E		
N	2.8	29.2	
C	3.0	28.0	
S	4.6	27.4	
	40' E of "E"		
S	4.2	27.8	
C	3.2	28.8	
N	3.7	28.3	
	75' E		
N	2.6	29.4	
C	2.4	29.6	
S	2.8	29.2	
	112.55' E = SEC F		
S	0.8	31.2	
C	0.5	31.5	



N			0.3	31.7	taken 65.0 N. Line on grade road.
T.P.	5.31	36.96	0.3 ✓	31.65	
		360 on 50 00 - No	} E = SEC G.		
N			5.2	31.8	
C			5.5	31.5	
S			6.5	30.5	
		340 E on 50 00 E - No	} = SEC H.		
S			5.8	31.2	
C			5.3	31.7	
N			5.2	31.8	
		25' E			
N			3.8	33.2	
C			4.9	32.7	
S			3.6	33.4	
B.M.			2.83	34.13	
			29.14		set pole at angle pt N side

























275.00  
60.00  
448.72  
778.72

507.37  
20.00  
1.05.00  
60.00  
111.00  
805.77  
778.72  
27.07

194.66  
289.59

320  
105  
36.16

W. 461.76  
425.84  
388.4  
470.79  
443.72  
27.07

775  
60  
35  
209.39  
774.39 = NL. Cont.  
26  
104.39 = SL  
106.00  
279.39 = NL. Cont.  
60  
359.39 = SL Cont.  
111.40

115.07  
142.00  
26.257  
137.24

13736  
62.51  
196.71  
443.88

451.86  
452.94  
2

13335  
1250  
2171  
46.85  
179.66 = N. 257.4  
102.66  
135.79  
350  
15  
510.99

375  
136.57  
57.15

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.  
FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.