

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING  
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.



TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	.43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	.51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4.76	5.31	5.86	6.43	7.01	7.60
120°	.62	1.25	1.93	2.52	3.16	3.81	4.45	5.11	5.77	6.44	7.12	7.80	8.50	9.22

FOR EXTERNALS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	.036	.046	.056	.065	.074	.083	.093	.106	.120	.127	.135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

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B.

La Jolla Hermosa #2

Survey for drainage easement - Lot 19, B/L 34

PROPOSED DRAIN - LOTS 43 & 44 - R/K 92-E-W. MURSE  
 N 1/4 OF "B" ST  
 N 1/4 OF "31" ST

PROPOSED DRAIN - HERMOSA TERRACE  
 AVENIDA CUESTA + WINA MAP



INDEXED

JER

SEP 14 1954

Survey for drainage easement across

Lot 19, Blk 34, La Jolla Hermosa unit #2

C. Allen, D. Sisson, C. Powell

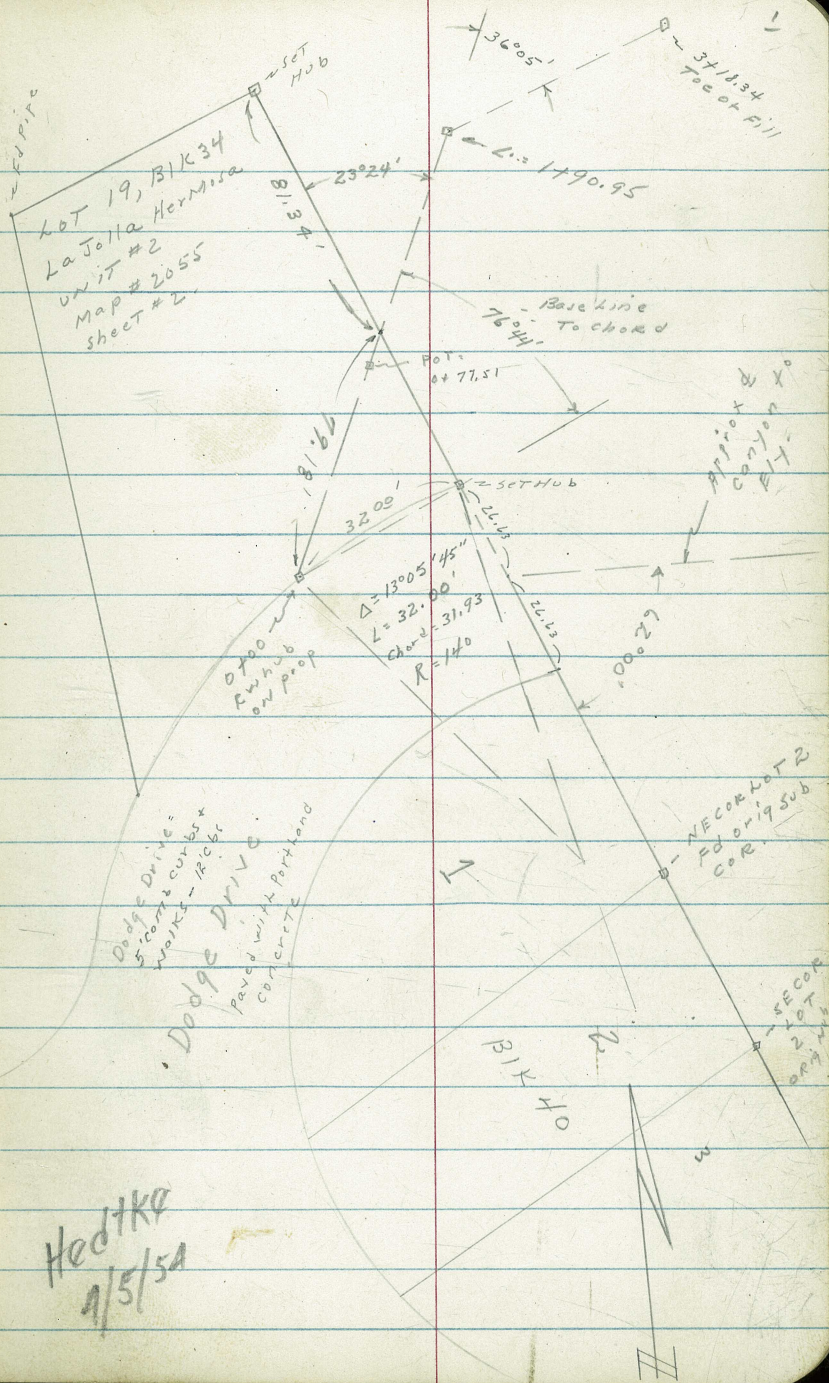
Ref. TP sheet 1737, File Map # 2055.

Base line is approx @ bottom canyon.

Wo # 21229, 3-30-54

Line shown to city is rough and NOT tied

accurately.



INDEXED

APR 1 - 1954

INDEXED

R.A. Lutz  
APR 1 - 1954

Hedtko  
9/5/54



Levels on easement Lot 19, B1234  
 La Jolla Hermosa Unit 2 -  
 See page 1

Bottom Wash - Loose boulders  
 0+00 = Intersection Base Line + Nly Line Dodge

Side Walk Covered -

12' curbs - 5' curbs sidewalk  
 0-13- = Nly Curb Line Dodge Drive

Intersects Cb Line

LT	RT
206.08	206.18
207.78	207.98
210.58	
75	56
58	30
25	10
on arc	on arc
199.93	202.86
198.83	202.23
1415	1072
1475	1135
25	25
cb	cb
90T	90T
206.05	205.49
753	809
25	25
cb	cb
90T	90T

213.58  $\pi$   
 $\frac{2}{3}$

TP11 12.88 213.58 0.04 200.70

TP10 13.22 200.74 3.77 187.52

BP ON NELY COR Folsom Dr + Dodge Dr

TP9 11.77 191.29 1.41 179.52

TP8 13.01 180.93 0.10 167.92

TP7 13.22 168.02 0.07 154.80

TP5 13.25 154.87 0.06 141.62

TP4 13.00 141.68 0.12 128.68

TP3 13.03 128.80 0.09 115.79

TP2 13.21 115.86 0.16 102.65

TP1 13.33 102.81 0.17 89.48

BM 13.23 89.65 76.42

NE BP La Camada + La Jolla Blvd



Drain Survey cont.

1400-11<sup>5</sup> LT = New Sanitary Sewer

	236.51	237.71	237.51	235.51	233.91	232.91	237.31	234.91
	+2 <sup>6</sup>	+1 <sup>4</sup>	1 <sup>6</sup>	3 <sup>6</sup>	5 <sup>2</sup>	6 <sup>1</sup>	1 <sup>8</sup>	+4 <sup>2</sup>
	30	23	20	10	5	10	15	25

0+89- 5° RT = SECOR Out-off wall for sewer

0+79.18 = Intersection of Base Line & Fly Line Lot 19-

0+75

	234.81	231.31	230.31	229.01	235.51
	4 <sup>3</sup>	7 <sup>8</sup>	8 <sup>8</sup>	9 <sup>5</sup>	3 <sup>6</sup>
	25	16		12	25

0+73- Base Line Crosses Sanitary Sewer

9<sup>6</sup>  
ground

TP<sub>3</sub> 13.29 239.11 0.14 225.82

239.11 T

Sewer Parallel Fly Line Lot 19-

0+50.12° RT = New Sanitary Sewer

	222.46	225.76	225.26	225.16	222.76	220.36
	+3 <sup>5</sup>	0 <sup>2</sup>	0 <sup>7</sup>	0 <sup>8</sup>	+3 <sup>2</sup>	+5 <sup>6</sup>
	25	8		16	22	30

Wash has been dozed for construction of sewer

0+25

	223.26	221.56	219.76	218.26	218.96	219.96	223.16
	2 <sup>7</sup>	4 <sup>4</sup>	6 <sup>2</sup>	7 <sup>7</sup>	7 <sup>0</sup>	6 <sup>0</sup>	2 <sup>8</sup>
	25	16	4		2	3	25

TP<sub>2</sub> 12.62 225.96 0.24 213.34

225.96 T

213.58 T



Piers, Drain Cont

LT

R

RT

L

2+25

262.47 258.37 254.87 254.57 254.37 250.27  
 2<sup>1</sup> 6<sup>2</sup> 9<sup>7</sup> 10<sup>0</sup> 10<sup>2</sup> 4<sup>3</sup>  
 15 10 5 3 3 10

TP,5 12.94 264.57 0.26 251.63

264.57 x

18' RT =  $\frac{d}{2}$  Sewer MH on E+W 8" Line on split  
 1+90.95 1' 36<sup>005</sup> to Right - Section taken

241.29 251.29 248.89 248.60 249.39 251.49 251.69  
 + 10<sup>6</sup> + 0<sup>6</sup> 3<sup>0</sup> 3<sup>29</sup> 2<sup>5</sup> 0<sup>4</sup> 0<sup>2</sup>  
 25 5 2 Hub 6 10 1<sup>5</sup>  
 9" same

3<sup>1</sup> RT = SW COR Pier  
 Sewer crossing - 2 conc piers  
 1+76 5' Base Line intersects 8" C.I. Sanitary

247.49 250.91  
 4<sup>4</sup> 0<sup>90</sup>  
 Ground  $\frac{d}{2}$   
 Top  
 8" C.I. Sewer

C.I. Sanitary Sewer.  
 1+75- 3<sup>6</sup> LT = SE COR conc pier for 8"

250.89 249.89 247.49 245.89 247.69 248.89  
 + 1<sup>0</sup> 2<sup>0</sup> 4<sup>4</sup> 6<sup>0</sup> 4<sup>2</sup> + 3<sup>0</sup>  
 20 14 7 10 25

251.89 x

TP,4 13.10 251.89 0.32 238.79

1+25- 4<sup>0</sup> LT = toe fill by bull dozer

233.81 237.11 237.11 236.61 236.21 238.01 238.91  
 5<sup>3</sup> + 2<sup>0</sup> 2<sup>0</sup> 2<sup>5</sup> 2<sup>9</sup> + 1<sup>1</sup> + 10<sup>2</sup>  
 + 2<sup>0</sup> 8<sup>0</sup> 4<sup>0</sup> 7 10 25

239.11 x







Drain Survey -

Dodge Drive extended - (76.42)

TP32			13.37	76.43
TP31	0.35	89.80	13.27	89.45
TP30	0.09	102.72	13.37	102.63
TP29	0.24	116.00	13.01	115.76
TP28	0.09	128.77	13.10	128.68
TP27	0.14	141.78	13.30	141.64
TP26	0.11	154.94	13.32	154.83
TP25	0.19	168.15	13.37	167.94
TP24	1.78	181.31-10.27		179.53
TP23	0.95	189.80	13.30	188.85
TP22	0.44	202.15	13.13	201.71
TP21	1.07	214.84	13.07	213.77

LT Starting BM -

R

ET

INDEXED  
Scars  
APR 1 - 1954

Hodtke  
1/5/54

1+00-

225.64 221.04 221.04 224.04 219.04 226.64 220.54  
 $\frac{+1}{20}$   $\frac{5}{10}$   $\frac{5}{5}$   $\frac{2}{4}$   $\frac{2}{10}$   $\frac{+0}{10}$   $\frac{+6}{25}$

0+75

225.84 222.64 219.34 219.64 221.54 225.84  
 $\frac{1}{25}$   $\frac{4}{10}$   $\frac{7}{5}$   $\frac{7}{6}$   $\frac{5}{8}$   $\frac{10}{25}$

0+37 = Ely side trash Rack

219.84 217.54 217.94 217.84 219.34  
 $\frac{7}{25}$   $\frac{9}{14}$   $\frac{8}{25}$   $\frac{9}{15}$   $\frac{7}{25}$

226.84







Proposes drain Lots 48 & 44 B/K 92  
E.W. MORSE

0+50

0+18.79 = A RT 17°30' (sect at 90° Ax Tang.)

0+05 B/K E

0+01 5/16 S RT = END WING WALLS

0+00 END EXIST. 30" Clay Pipe

0-15 = B/K

T.P. 0.35 197.12 12.29 196.77

0-32 = B/K

0-45.86 = inlet - C&F

B.M. 2.32 209.06

206.74 = N.W. B.P.  
"B" & 31/ST.

LT.

E

RT. (B/K)

100

1872	1875	1877	1872	1872
2.4	7.5	10.0	9.4	4.0
20	5/100		9/100	20
1872	1875	1877	1876	1872
6.9	9.9	10.1	9.5	8.0
10	2/100		5/100	10

		1872		
		9.4		
	1872			
	9.71	9.8		9.80
	5 TP WALL	9rd		5 TP WALL
1872				1872
6.3	8.6	8.36	8.16	8.44
9rd	5/100	3 TP WALL	5.16 TP WALL	3 TP WALL
	9rd	2 WALL		2 WALL
			1872	
			5.4	
			197.12	
			X	
			5.0	
			1872	
	204.52	27.36	204.30	
	4.52 TP & B	FL	5.76	
	2	E		

209.06



Prop. DESIGN (CONT.)

LT. E RT.

1450 } 15.5 RT - S'wly CORN. HOUSE  
 1445 } 2.0 LT E 18" Palm Tree  
 1440 5' LT E 10" Palm Tree  
 1439 12' LT E 16" Pepper Tree  
 1432 8.5 RT S'wly CORN. 3' wide wooden STAIRWAY  
 1430.5 10.2 RT to S'wly CORNER Wood Panch Support (2nd story Arch) (4" x 6")

1423.45 { 8.75 LT = E Sewer M.H.  
 (CUTS along E Alley)  
 26' RT E elevated wooden DRIVE - used For PK'G

1423.45 = A LT 15° (sect 90° OK TANG) = approx. E Alley

T.P. 9.25 201.24 5.13 191.99 ON 2x2 HUB 1423.45

1417 E 3.0' EUCALYPTUS 11' LT

1400

2012	1999	1999	1995	1995	1990	1986
420	30	6.3	7.7	8.1	7.2	4.4
27	20	15	10	10	8	15
			100		100	

2012	1995	1992	1992	1986	1985	1995
40.2	5.2	8.1	8.20	15.00	9.2	8.7
30	20	10	8.75	8.95	9	1.3
		9.1	RUN	FLINE	100	25
			M.H.	SEWER		
		1991	1995	1992	1995	1995
		5.1	8.4	7.7	8.7	2.0
		20	8	9	9	20
			100	100	100	100

201.24

1995	1995	1995	1995	1992
0.6	7.0	7.7	6.0	0.9
20	4	10	6	20
	100		100	

197.12



PROP DRAIN (CONT.)

LT.

♀

RT

10

CHK

2.57 206.76 = 206.74  
(Sec 8.11)

T.P.

8.57 209.33 0.48 200.76

206.3  
+5.1  
10

208.5  
+7.3

211.2  
+2.0  
10

2150

(ON Slope ahead.)

2130

The NLY END CANYON

207.2  
+6.0  
16

199.2  
1.5  
6  
70% slope

199.0  
7.2

200.4  
0.8  
5  
70% slope

204.7  
+3.5  
10  
+7.0  
20

2100

209.7  
+3.5  
20

199.0  
4.2  
8  
80

199.3  
5.2

199.5  
4.7  
10  
70

198.5  
2.7  
20

1480

8.5 LT ♀ 6" Pepper

1472.5

6.5 RT ♀ 3.0 Palm

1460

15.5 LT ♀ 10" Pepper

1455

8.0' RT ♀ 18" Palm

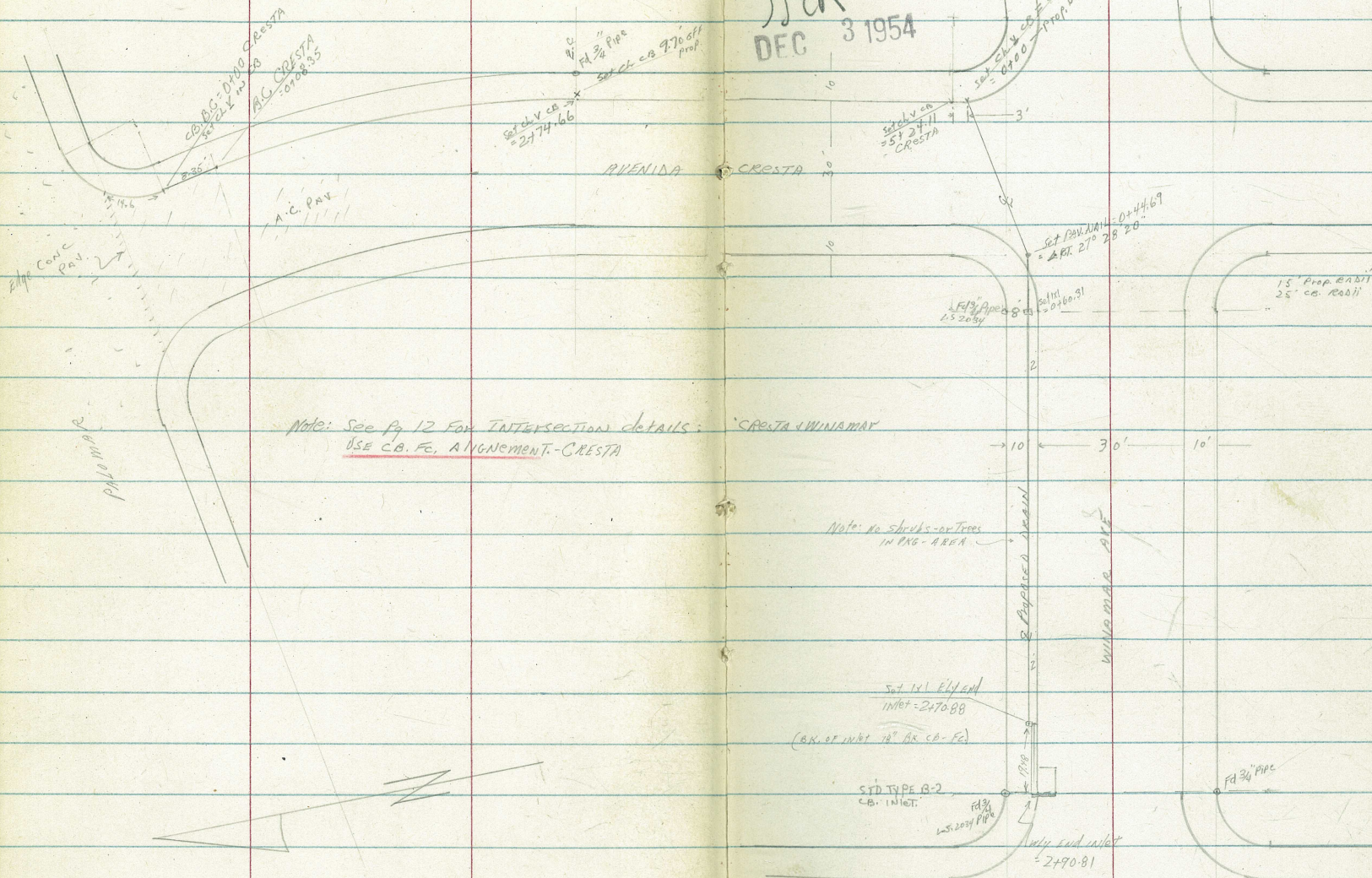
206.24  
+19.172



Clark  
Shepherd  
Briner  
0916  
12-1-54  
W.O. 21290

PROPOSED DRAIN & CONC. CUTTER -  
AVENIDA CRESTA & WINAMAR  
HERMOSA TERRACE

INDEXED  
DEC 3 1954









Proposed Drain & Gutters  
CRESTA & WINAMAR

Ave. CRESTA

(E. 1/4) LT.

Ely  
CB, FC, CRESTA

RT (W. 1/4)

13

1+17.5 = E 4' Long SINK-Hole IN GUTT.

1+00

0+50

0+08.35 = CB, BC CRESTA

0+00 = CB, B.C. - Return

0-14.6 = Edge Conc. Pav. Palomar

0-26.2

0-37.75 = CB, FC (S. Ely CRESTA & Palomar)  
(Stationing Around CB Ret)

T.P. 3.65 69.75 12.79 66.10

B.M. 0.06 78.89

78.83 = NE. B.P. (See note pg 18 Reg. this B.M.)  
LA TOLLA BVD &  
PALOMAR

65.69	65.92	65.71	65.87
4.06 CB	4.53 C	4.44 5	4.38 10
66.33	65.83	65.41	65.16
3.42 CB	3.92 C	3.84 5	3.79 10
66.27	66.28	66.24	66.28
3.63 CB	3.87 GUT	3.41 5	3.40 10
66.25	66.22	66.24	66.35
3.00 CB	3.43 GUT	3.41 5	3.40 10
67.77	66.27		66.25
2.78 CB	3.21 GUT		3.50 20' CRESTA on Conc. Pav. Edge
67.29	66.25		
2.55 CB	3.00 GUT		
67.50	65.0		
2.19 77' 03	2.64 GUT		

69.75



AVE. CRESTA (cont)

Elev  
CB Fc  
cresta

14

4450

63.29  
51.76 CB  
63.42  
6.33 G  
63.55  
6.20 5  
63.62  
6.11 10

4250

63.08  
51.67 CB  
63.46  
6.09 G  
63.77  
5.98 5  
63.83  
5.92 10

3750

DRIVE  
63.43  
51.32 CB  
63.86  
5.79 G  
63.92  
5.83 5  
63.96  
5.79 10

3400

64.43  
51.32 CB  
63.86  
5.79 G  
64.44  
5.71 5  
64.49  
5.66 10

2776.8 = E 4" Tile DRAIN IN CB

64.13  
51.61  
F.L. DRAIN

2774.66 = E.C. CB LINE - CRESTA

64.58  
51.17 CB  
64.4  
5.61 Gut.  
64.23  
5.52 5  
64.44  
5.41 10

2450

64.25  
51.01 CB  
64.08  
5.47 Gut.  
64.25  
5.40 5  
64.29  
5.35 10

2100

64.81  
49.74 CB  
64.32  
5.43 G  
64.41  
5.34 5  
64.55  
5.20 10

1750

65.20  
49.55 CB  
64.43  
5.12 G  
64.42  
5.03 5  
64.46  
4.95 10

1429 = E 4" Tile DRAIN IN CB.  
(Water drains OUT OF D. into GUTTER here)

65.44  
49.41  
T.C.B.  
49.20  
F.L. DRAIN = Gut. Elev  
4.82 5  
4.72 10

69.75



CRESTA (CONT)

LT.

Elev  
CBFC  
CRESTA

RT.

(Cont Levels Prop. DRAIN WINAMAR Pg 16)

SET T.B.M.

T.P. 1.72 65.13<sup>✓</sup> 6.51 63.41<sup>✓</sup> Ch. □ NWLY BC  
= CRESTA & WINAMAR

65.13<sup>✓</sup>

Note: For det. Intersection See Pg 12

5724.11 = CB. B.C NWLY Ret CRESTA & WINAMAR

65.72	63.22	63.29	63.28
6.20	6.70	6.63	6.64
CB	6	5	10

63.42	63.21	63.29	63.60
6.10	6.60	6.43	6.32
CB	6	5	10

5700

T.P. 6.46 69.92<sup>✓</sup> 6.29 63.46<sup>✓</sup>

69.92<sup>✓</sup>



Proposed Drain Winamark

0+96.0 - Fly edge back walk

0+84.5 = Wly Edge drive

0+67.9 Fly edge drive

0+60.31 = CB Ret P.C

0+57.2 Edge walk

0+50.4 = CB FC N Wly Ret.

0+44.69 = I. RT. 27°28'20"

0+19 E Cresta

0+00 = L.P.T. N Wly Ret. Winamark + Cresta (see sketch) Pg 11

59.55

6.61

59.58

56.5

60.21

4.22

61.54	61.26	61.21	61.53	61.4	61.45	61.74
3.59	3.87	4.12	3.60	3.5	3.49	3.39
12	7	5	2	3	7	7
		GUT	CB		Edge Walk	bk walk

61.88

3.25

62.42	62.59	62.10	61.81	62.21
2.80	3.04	2.83	3.32	2.42
12	7	8	8	9.9
PAV	PAV	CB	CB	bk walk Ret.
62.42	62.22	62.24	62.4	62.57
2.31	2.51	2.87	3.03	2.56
10	5	5	3	3
			CB	CB
			At 90°	bk walk Ret.
	63.0	63.05	63.0	62.78
	1.93	2.08	2.03	
	5	5	5	

63.23

1.90

5

65.13 (see preceding)

(see intersection Pg 12) For Ret.



MINAMAK DRAIN (CONT.)

H. E 12 T.

2+90.81 = Wly End

35.40	25.12	34.83	37.84	35.47	35.5	35.44	35.82
6.62	6.78	7.27	7.26	6.43	6.6	6.36	6.28
12	7	1/2 9406	6	2 CB		2 WALK	1

2+87.21 = PT where inlet meets Box = gnd Brk.

35.43	29.16	31.23	35.13
6.97	12.94	10.87	6.97
4.2	2	2	2
9478	FLINE	FLINE	GATE
9478	Box	INLET	9478

2+70.88 = Ely End Inlet

38.04	37.21	38.02	37.44	38.13	38.1	38.11	38.18
4.06	4.39	5.14	4.64	3.97	4.0	3.88	3.82
12	7	2	2	2	2	2	1
		FL Inlet	GUT	CB		WALK	
		24 End					

T.P. 2.83 42.10 13.26 39.27

42.10

2+50

40.47	40.46	40.29	40.24	40.2	40.2	40.85
11.86	12.07	12.24	11.77	11.8	11.68	
12	7	6	2 CB		2 WALK	

2+00

46.21	46.27	46.51	46.93	46.3	47.65	47.08
5.57	5.76	6.02	5.61	5.6	5.48	5.45
12	7	2	2 CB		2 WALK	1

T.P. 0.00 52.53 12.60 52.53

52.53

1+50

52.24	52.64	52.52	52.02	52.0	52.15
12.38	12.51	12.41	12.11	12.1	12.01
12	7	2	2 CB		2 WALK
57.65	57.28	57.21	57.21	57.21	57.21
8.61	7.75	7.70	7.44	7.55	7.34
12	7	2	2 CB	4	1
57.65	57.28	57.21	57.21	57.21	57.21
7.18	7.35	7.56	7.06	6.97	6.89
12	7	2	2 CB		2 WALK
					5.83
					5.83
					7.34
					WALK

1+25 (CON VERT CURVE)

1+00 = Wly edge wall

65.13



## WINADAR DRAIN (CONT.)

note: Bench Book shows two clk's For N.E. P. Palomar + La Jolla Blvd.  
 (walker's data) → 78.83 + 78.48 : we used 79.83 AS STG. A.M.  
 Had we used 79.48 our clk's would have  
 been within 100'

clk's 7.97 30.86 = 30.75 (?) = S.E. P.  
 Colmar + VISTA DEL MAR

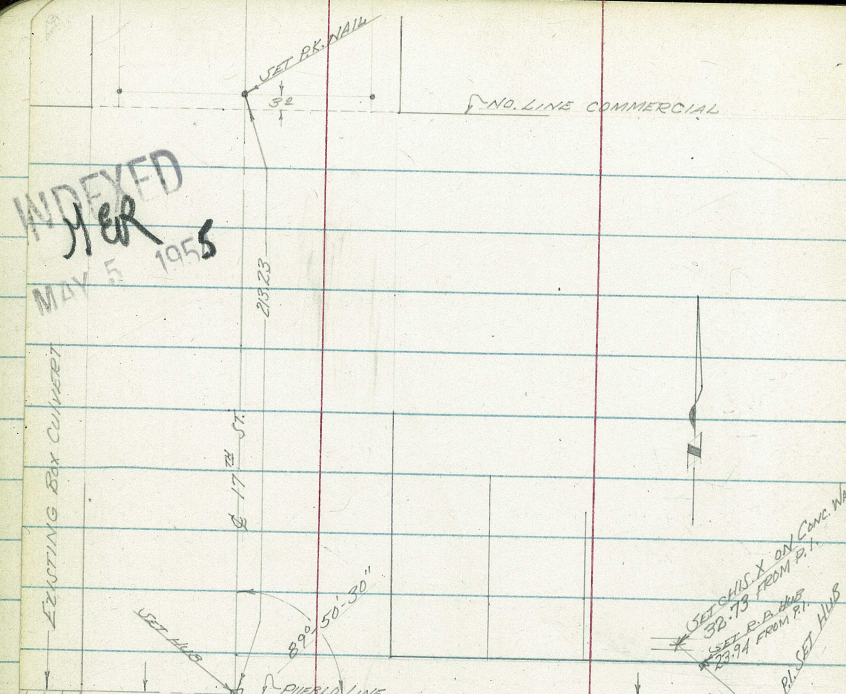
T.P. 4.74 3883<sup>✓</sup> 8.01 34.09<sup>✓</sup>



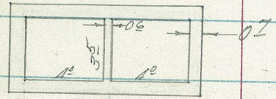
DRAIN SURVEY, SIGSBEE & KEARNEY TO 17TH & LOGAN 19

COTA  
 GARBER  
 KELLEY  
 MOORE  
 5-2-55  
 W.O. # 32521

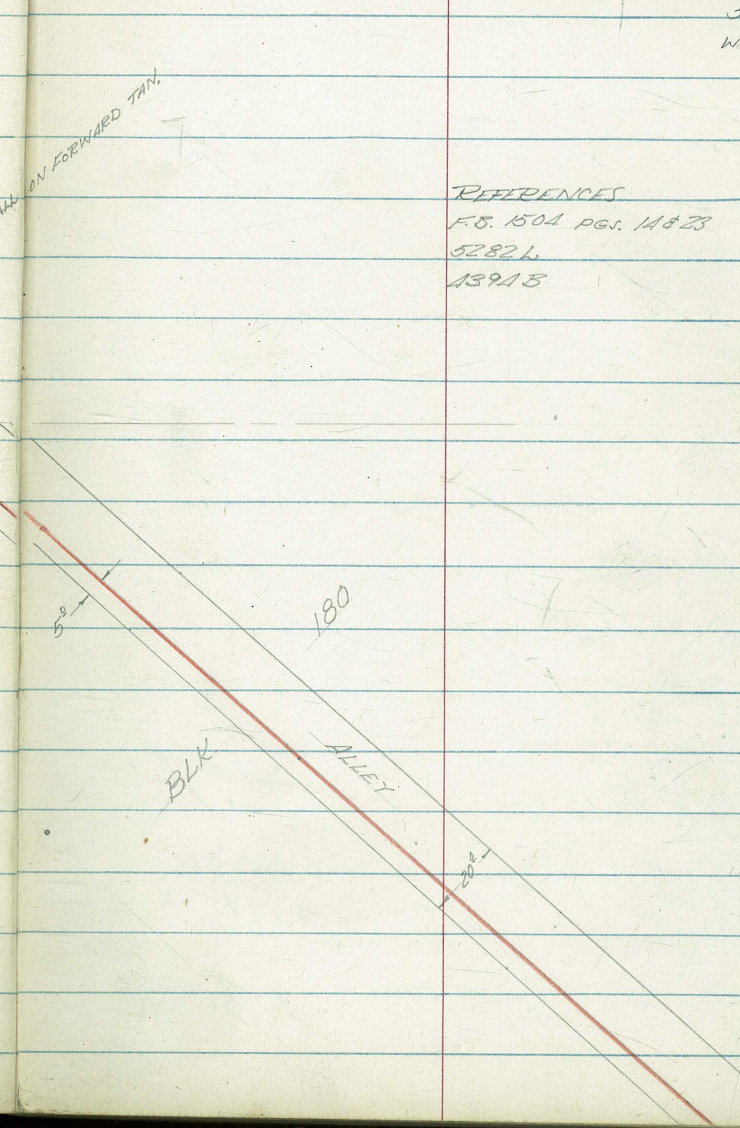
REFERENCES  
 F.S. 1504 PGS. 14 & 23  
 52826  
 13918



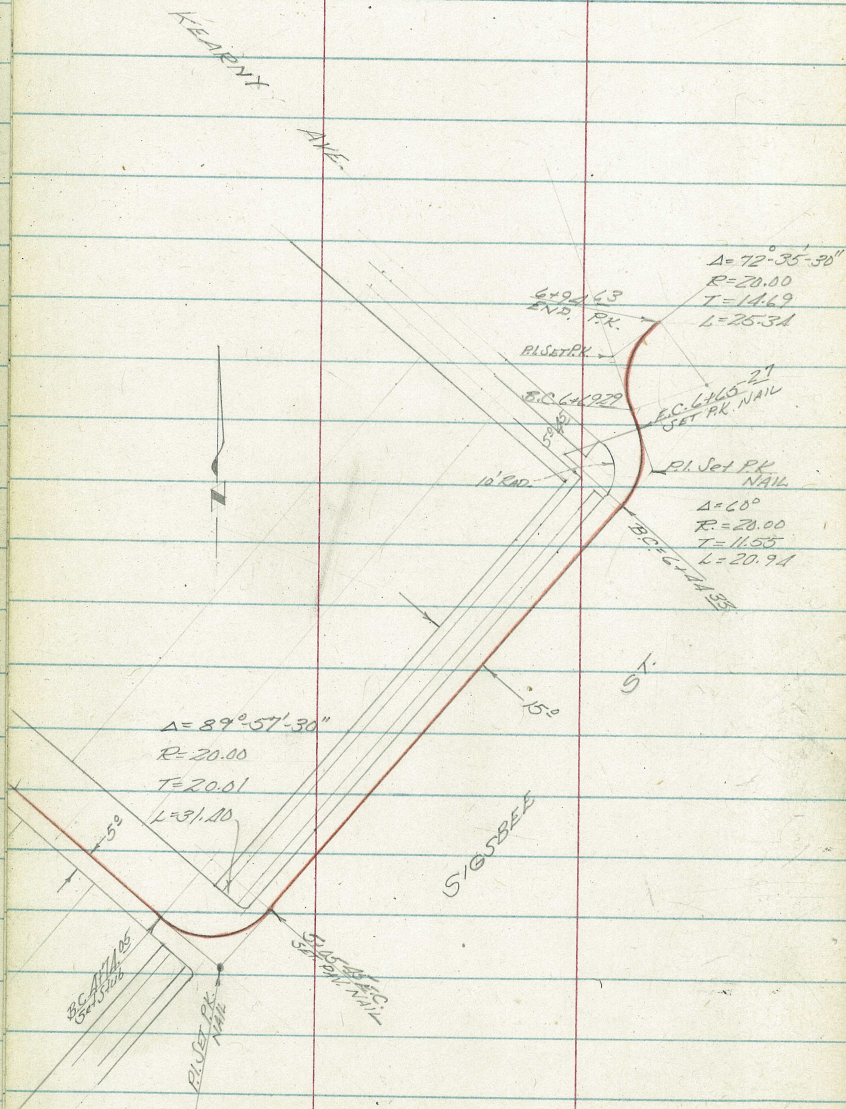
$\Delta = 39^{\circ} 10' 25''$   
 $R = 2000$   
 $T = 7.22$   
 $L = 13.85$



CULVERT SECTION







SIGBEE ST.

60' ST.

20' ROADWAY

10' PARKING

23' CB. TO WALK, 5' WIDE WALK

29' ALLEY RETURNS

A.C. DRIVING

KEARNY

80' ST.

52' ROADWAY

14' PARKING

45' CB. TO WALK

5' WIDE WALK

A.C. PARKING



DRAIN SURVEY OFF 17TH - CONT'D.

LT.

±

RT.

107

186 19.0  
125 50

0+40 ± 17TH

153	138	11.1	10.57	11.1	10.0	9.3	10.1	143	140
15	10	4.7	4.7	2		2	6	9	15
		GRD.	HUB						
			ON PUEBLO						
			LINE						

0+12

15.0	11.2	9.5	9.7	139	138
20	10		6	11	15

0+06 END OF CONC. SLAB

9.4	9.38	8.5
10		9

0+00 END OF EXISTING BOX CULVERT

8.43  
INVERT.

SET ELEV ON HUB, ON P.I. OF PUEBLO LINE ± 17TH = 10.57

USED DIRECT ELEV. ROD

B.M. = NEBP IMPEDIAL ± 17TH ELEV. = 36.00



DRAIN SURVEY OFF 17TH - CONT'D.

L.T.

¢

R.T.

1461<sup>5</sup> 75 LT TO ¢ POWER POLE # A 1640

1458<sup>5</sup> ¢ CROSSES 10<sup>0</sup> HIGH CORRUGATED METAL FENCE

10.8  
18  
1 FOOT  
OF 42 HIGH WALL

1450

10.1	111	13.2	15.2	15.2	15.2
18	15	9	6		15

1425<sup>4</sup> 1<sup>5</sup> LT TO NEAR EDGE 18" DIAM. P.W.M.

1411 — 22<sup>5</sup> LT. BEGIN 4<sup>0</sup> HIGH RET. WALL

1400

11.7	10.5	11.6	12.2	15.6	15.8
20	15	8		8	15
	F.L.				

0475

13.9	11.6	9.3	11.4	15.0	15.3
20	15	6		6	15
		F.L.			

0468 12<sup>3</sup> LT. TO ¢ COVER M.H.

6.71  
INVERT  
OF LINE  
FROM  
WEST

3.79  
INVERT  
OF LINE  
FROM  
NORTH  
(MAIN LINE)

6.54  
INVERT  
OF LINE  
FROM  
EAST



DRAIN SURVEY OFF 17<sup>TH</sup> - CONT'D.

LT.

¢

RT.

2469 15° LT. TO ¢ POWER POLE #5921884

2461 5° RT. TO ¢ POWER POLE # NO NUMBER

2446 5° RT GUY WIRE ENTERS GRD. (FROM POLE)

2440

15.7	14.1	12.8	11.5	11.8	14.5	15.8	16.0
13	6	5	2		1	5	15
BUDG.			FL.				

2434 12<sup>7</sup>° LT BEGIN CHED (LEAN TO)

1486<sup>28</sup><sub>EC</sub> 5° RT TO RT ON FENCE

15.8	15.5	13.7	11.1	11.1	12.0	14.9	15.3	15.3
20	15	7	6	11		1	5	15
				FL.				

1472<sup>AB</sup> B.C.

15.8	14.1	12.1	10.7	11.1	14.8	15.0
22	12	10	4	3		15
			FL.			

1471° ¢ CROSSES 10° HIGH FENCE

1466<sup>L</sup> 19° LT END 10° HIGH EXT. WALL

1465 9<sup>5</sup>° LT TO ¢ M.H.

7.83

INVERT

1463<sup>5</sup> 6<sup>5</sup>° LT TO COR. 10° HIGH METAL FENCE



DRAIN SURVEY OFF 17<sup>TH</sup> CONT'D.

LT.

\$

RT.

3480 } 14<sup>o</sup> LT TO POWER POLE # 5981874  
 5<sup>o</sup> RT END 7<sup>o</sup> HIGH BOARD FENCE  
 1<sup>o</sup> RT TO POWER POLE PA 1680

3450

166	171	172	15.7	12.8	13.0	15.3	16.9	17.0
20	15	11	5	1		2	6	15
				F.H.				

3441 } 58 RT BEGIN 7<sup>o</sup> HIGH BOARD FENCE  
 5<sup>o</sup> RT END OUTHOUSE  
 3436 58 RT TO, BELIEVE IT OR NOT, AN OUTHOUSE

3427 18<sup>o</sup> LT END BLDG.

3417 4<sup>o</sup> RT END 5<sup>o</sup> HIGH FENCE

3404 5<sup>o</sup> RT BEGIN 5<sup>o</sup> HIGH WOOD FENCE

NOTE! HOUSE IS 34<sup>o</sup> DREP

3401 5<sup>o</sup> RT END HOUSE

3400

2483 5<sup>o</sup> RT BEGIN HOUSE

2479 5<sup>o</sup> RT END 10<sup>o</sup> HIGH METAL FENCE

18.2	17.5	15.3	13.0	12.5	12.8	14.1	16.1
15	12	5	4	2		1	5
				F.H.			

2474 16<sup>o</sup> LT END LEAN TO, BEGIN BLDG.



DEAIN SURVEY OFF 17<sup>TH</sup> - CONT'D

A452 17° LT. BEGIN HOUSE

14.2 18.5  
41 46

A450

14.3 20.5 21.7 22.1 21.9 22.5 23.0  
29 26 15 10 5 10  
TOP  
RIP  
RAP

A438

17.8 17.9 14.7 14.6 20.0 21.2 20.7 20.7 21.2 21.5  
85 24 26 18 17 10 5 5 8  
FL. EDGE  
RIP RAP

6<sup>7</sup> RT. BEGIN HOUSE  
10<sup>2</sup> RT. END BLDG.

A430 3<sup>2</sup> RT. BEGIN 5° HIGH WOOD FENCE

A425 10° LT. BEGIN RIP RAP OF BROKE CONC.  
5<sup>4</sup> Y. SIDE OF DITCH ONLY

18.6 18.7 14.6 13.6 18.5 19.6 19.1  
30 22 19 13 10 10  
FL.

A410 19° LT. END HOUSE

A400

18.3 18.2 13.6 13.6 16.0 18.3 19.5  
19 15 9 5 4 10  
FL.

3487 19° LT. BEGIN HOUSE

3481 11° RT. BEGIN BLDG.



DRAIN SURVEY OFF 7<sup>TH</sup> CONT'D.

LT.                      §                      RT.

5405<sup>45</sup> E.C.

2457	2408	2419	2471	2487
5	5		10	15
CB.	944			

SECTION TAKEN RADIALY  
MID POINT OF CURVE

2467	2441	2439	2488
10		2	10

A+89 WLY CB LINE SIGSBEE

2471	2412	2451	2413	2513	2492	2517
17	17		67	67	20	20
CB.	944		944	CB.	944	CB.

A+82<sup>4</sup> EDGE OF AC, APPROX. WLY LINE SIGSBEE

2485	2464	2473	2495	2508
15	5		42	47
944			944	CB.
CB.				TOP

A+77<sup>5</sup> 16<sup>8</sup> LT. END HOUSE

A+74<sup>05</sup> B.C. 6<sup>0</sup> RT. END HOUSE

24A	2470	247
15		5
	ON	
	STUB	
	§	
	GRD.	

A+57 15<sup>5</sup> LT. § POWER POLE # 1142144







DRAIN SURVEY OFF 17<sup>TH</sup> CONT'D.

LT.      \$      RT.

B.M. 23.38 = 23.50 N.E. B.P. KEARNY & SIGSBEE  
 (BENCHES IN THIS AREA DO NOT CHECK  
 EACH OTHER WELL)

6+94.63 E.C. - END

22.48    22.46    22.46    22.48    22.48  
 15        10                    10        15

6+81.96 MID POINT CURVE

21.48    21.76    22.15    22.40    22.51  
 15        10                    10        15

6+69.29 B.C.

21.43    20.53    21.48    22.13    22.29  
 103      103  
 C.B.      944  
 TOP

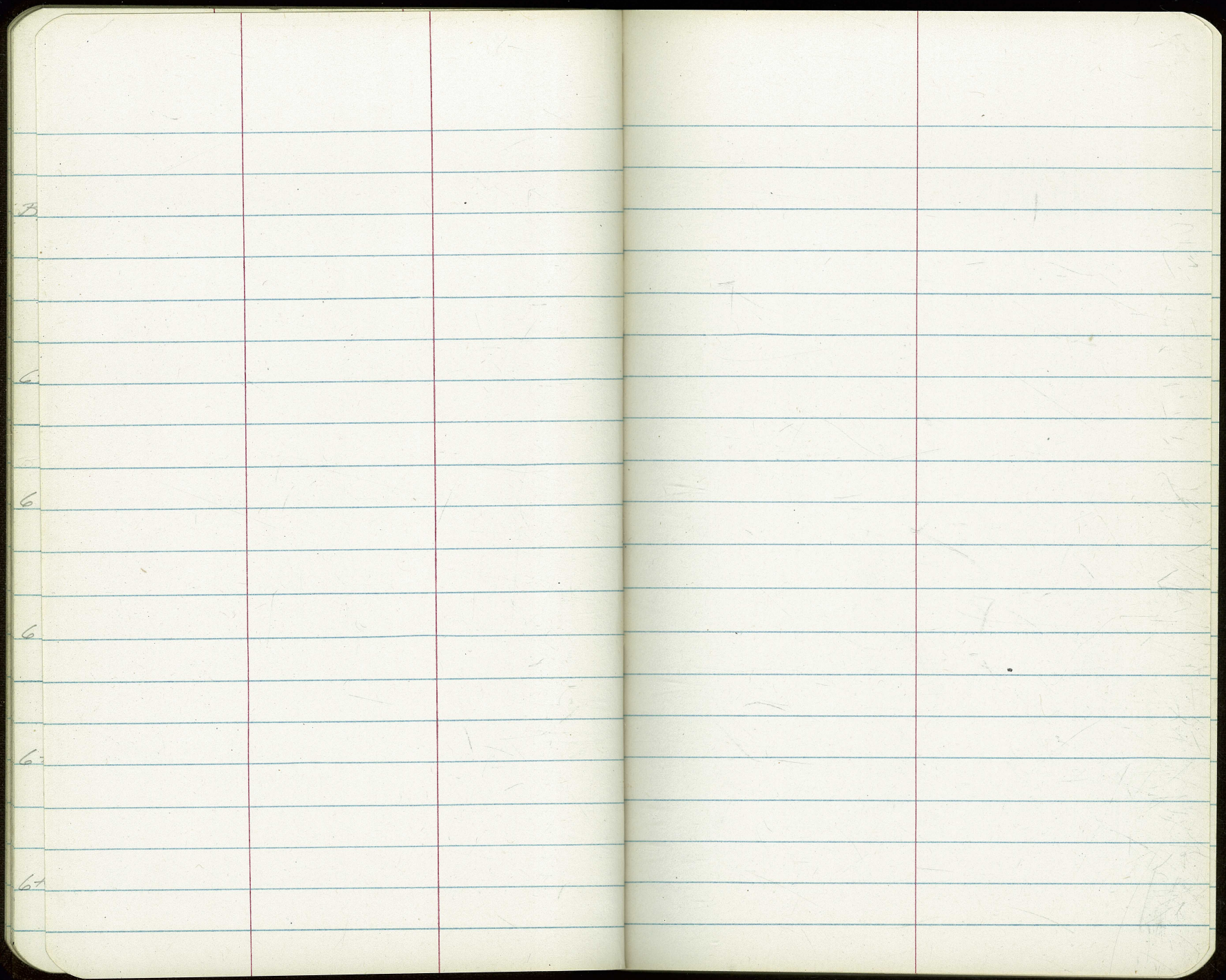
6+65.27 E.C.

20.45    21.26    22.01    22.20  
 8                    10        15  
 944

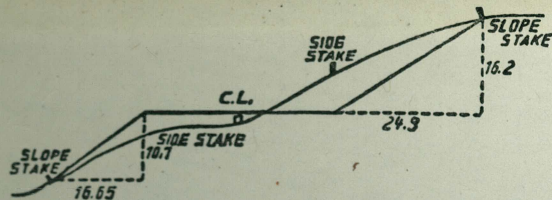
6+54.80 MID POINT OF CURVE

20.50    20.91    21.48    21.74  
 61                    10        15  
 TO  
 CURB  
 RETURN  
 (GUTTER)









**DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.**

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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