1228

HILLSIDE DRIVE

SECTIONS AND LEVELS

~~ALCO~~

FIELD BOOK

760

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100 00	0 44	100.00	0.87	99.99	1.31	89
1	99.98	1 75	99 98	2 18	99 97	2.62	99.95	3.05	88
2	99.94	3.49	99 92	3.93	99 91	4 36	99.88	4.80	87
3	99.86	5.23	99 84	5 67	99 81	6.10	99.79	6.54	86
4	99 76	6.98	99 73	7.41	99.69	7.85	99.66	8.28	85
5	99 62	8.72	99.58	9.15	99 54	9.58	99.50	10 02	84
6	99.45	10.45	99.41	10 89	99.36	11.32	99.31	11.75	83
7	99 25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16 50	98 56	16.93	80
10	98 48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98 16	19.08	98 08	19 51	97.99	19 94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21 64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24 62	96.81	25 04	96.70	25.46	75
15	96.59	25 88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27 98	95.88	28 40	95 76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30 07	95.24	30.49	72
18	95.11	30 90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93,97	34.20	93.82	34.61	93.67	35.02	93.51	35 43	69
21	93,36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38 67	67
23	92.05	39.07	91.88	39 47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89 69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48 86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52 99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60 53	79.34	60.88	79.07	61 22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

Published by the A. Lietz Co., San Francisco, Cal.

1228

TABLE OF STADIA REDUCTIONS

For a Constant of 100.

ROD VERTICAL.

Min.	0°		1°		2°		3°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff Elev.	Hor Dist.	Diff. Elev.
0'	100.00	.00	99.97	1.74	99.88	3.49	99.73	5.23
2	100.00	.06	99.97	1.80	99.87	3 55	99.72	5.28
4	100.00	.12	99.97	1.86	99.87	3.60	99.71	5.34
6	100.00	.17	99.96	1.92	99.87	3.66	99.71	5.40
8	100.00	.23	99.96	1.98	99.86	3.72	99.70	5.46
10	100.00	.29	99.96	2.04	99.86	3.78	99.69	5.52
12	100.00	35	99.96	2.09	99.85	3.84	99.69	5.57
14	100.00	.41	99.95	2.15	99.85	3.90	99.68	5.63
16	100.00	.47	99.95	2.21	99.84	3.95	99.68	5.69
18	100.00	.52	99.95	2.27	99.84	4.01	99.67	5.75
20	100.00	.58	99.95	2.33	99.83	4.07	99.66	5.80
22	100.00	.64	99.94	2.38	99.83	4.13	99.66	5.86
24	100.00	.70	99.94	2.44	99.82	4.18	99.65	5.92
26	99.99	.76	99.94	2.50	99.82	4.24	99.64	5.98
28	99.99	.81	99.93	2.56	99.81	4.30	99.63	6.04
30	99.99	.87	99.93	2.62	99.81	4.36	99.63	6.09
32	99.99	.93	99.93	2.67	99.80	4.42	99.62	6.15
34	99.99	.99	99.93	2.73	99.80	4.48	99.62	6.21
36	99.99	1.05	99.92	2.79	99.79	4.53	99.61	6.27
38	99.99	1.11	99.92	2.85	99.79	4.59	99.60	6.33
40	99.99	1.16	99.92	2.91	99.78	4.65	99.59	6.38
42	99.99	1.22	99.91	2.97	99.78	4.71	99.59	6.44
44	99.98	1.28	99.91	3.02	99.77	4.76	99.58	6.50
46	99.98	1.34	99.90	3.08	99.77	4.82	99.57	6.56
48	99.98	1.40	99.90	3.14	99.76	4.88	99.56	6.61
50	99.98	1.45	99.90	3.20	99.76	4.94	99.56	6.67
52	99.98	1.51	99.89	3.26	99.75	4.99	99.55	6.73
54	99.98	1.57	99.89	3.31	99.74	5.05	99.54	6.78
56	99.97	1.63	99.89	3.37	99.74	5:11	99.53	6.84
58	99.97	1.69	99.88	3.43	99.73	5.17	99.52	6.90
60	99.97	1.74	99.88	3.49	99.73	5.23	99.51	6.96
c= .75	.75	.01	.75	.02	.75	.03	.75	.05
c=1.15	1.15	.01	1.15	.03	1.15	:05	1.15	.07
c=1.90	1.90	.02	1.90	.05	1.90	.08	1.90	.12

Min.	4°		5°		6°		7°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist	Diff. Elev.	Hor Dist.	Diff. Elev.
0'	99.51	6.96	99.24	8.68	98.91	10.40	98.51	12.10
2	99.51	7.02	99.23	8.74	98.90	10.45	98.50	12.15
4	99.50	7.07	99.22	8.80	98.88	10.51	98.48	12.21
6	99.49	7.13	99.21	8.85	98.87	10.57	98.47	12.26
8	99.48	7.19	99.20	8.91	98.86	10.62	98.46	12.32
10	99.47	7.25	99.19	8.97	98.85	10.68	98.44	12.35
12	99.46	7.30	99.18	9.03	98.83	10.74	98.43	12.43
14	99.46	7.36	99.17	9.08	98.82	10.79	98.41	12.49
16	99.45	7.42	99.16	9.14	98.81	10.85	98.40	12.55
18	99.44	7.48	99.15	9.20	98.80	10.91	98.39	12.60
20	99.43	7.53	99.14	9.25	98.78	10.96	98.37	12.66
22	99.42	7.59	99.13	9.31	98.77	11.02	98.36	12.72
24	99.41	7.65	99.11	9.37	98.76	11.08	98.34	12.77
26	99.40	7.71	99.10	9.43	98.74	11.13	98.33	12.83
28	99.39	7.76	99.09	9.48	98.73	11.19	98.31	12.88
30	99.38	7.82	99.08	9.54	98.72	11.25	98.29	12.94
32	99.38	7.88	99.07	9.60	98.71	11.30	98.28	13.00
34	99.37	7.94	99.06	9.65	98.69	11.36	98.27	13.05
36	99.36	7.99	99.05	9.71	98.68	11.42	98.25	13.11
38	99.35	8.05	99.04	9.77	98.67	11.47	98.24	13.17
40	99.34	8.11	99.03	9.83	98.65	11.53	98.22	13.22
42	99.33	8.17	99.01	9.88	98.64	11.59	98.20	13.28
44	99.32	8.22	99.00	9.94	98.63	11.64	98.19	13.33
46	99.31	8.28	98.99	10.00	98.61	11.70	98.17	13.39
48	99.30	8.34	98.98	10.05	98.60	11.76	98.16	13.45
50	99.29	8.40	98.97	10.11	98.58	11.81	98.14	13.50
52	99.28	8.45	98.96	10.17	98.57	11.87	98.13	13.56
54	99.27	8.51	98.94	10.22	98.55	11.93	98.11	13.61
56	99.26	8.57	98.93	10.28	98.54	11.98	98.10	13.67
58	99.25	8.63	98.92	10.34	98.53	12.04	98.08	13.73
60	99.24	8.68	98.91	10.40	98.51	12.10	98.06	13.78
c= .75	.75	.06	.75	.07	.75	.08	.74	.10
c=1.15	1.15	.09	1.14	.11	1.14	.13	1.14	.15
c=1.90	1.89	.15	1.89	.18	1.89	.21	1.88	.25

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Table of Stadia Reductions.—Continued.

Min	8°		9°		10°		11°	
	Hor Dist.	Diff. Elev	Hor Dist.	Diff. Elev	Hor Dist.	Diff Elev	Hor Dist	Diff Elev.
0'.....	98.06	13.78	97.55	15.45	96.98	17.10	96 36	18.73
2.....	98.05	13.64	97 53	15.51	96.96	17.16	96.34	18 78
4.....	98.03	13.89	97.52	15.56	96 94	17.21	96 32	18.84
6.....	98.01	13.95	97.50	15.62	96.92	17 26	96.29	18.89
8.....	98.00	14.01	97.48	15.67	96 90	17.32	96 27	18.95
10.....	97.98	14 06	97.46	15.73	96 88	17.37	96.25	19.00
12.....	97.97	14.12	97.44	15.78	96 86	17.43	96 23	19.05
14.....	97.95	14.17	97.43	15.84	96 84	17.48	96 21	19.11
16.....	97.93	14 23	97.41	15.89	96.82	17.54	96 18	19.16
18.....	97.92	14.28	97.39	15.95	96.80	17 59	96.16	19.21
20.....	97.90	14.34	97.37	16.00	96 78	17.65	96.14	19.27
22.....	97.88	14.40	97.35	16 06	96.76	17.70	96.12	19.32
24.....	97.87	14.45	97.33	16.11	96.74	17.76	96.09	19.38
26.....	97.85	14.51	97.31	16 17	96.72	17.81	96.07	19.43
28.....	97.83	14.56	97.29	16.22	96 70	17.86	96.05	19.48
30.....	97.82	14.62	97.28	16.28	96.68	17.92	96.03	19.54.
32.....	97.80	14.67	97.26	16 33	96 66	17 97	96.00	19.59
34.....	97.78	14.73	97 24	16.39	96.64	18 03	95 98	19.64
36.....	97.76	14.79	97.22	16.44	96 62	18 08	95 96	19 70
38.....	97.75	14.84	97.20	16.50	96.60	18.14	95.93	19.75
40.....	97 73	14.90	97.19	16.55	96 57	18 19	95.91	19.80
42.....	97.71	14.95	97.16	16 61	96.55	18.24	95.89	19 86
44.....	97.69	15.01	97.14	16 66	96 53	18 30	95.86	19 91
46.....	97.68	15.06	97.12	16 72	96.51	18 35	95.84	19.96
48.....	97.66	15.12	97.10	16.77	96 49	18.41	95.82	20 02
50.....	97.64	15.17	97 08	16.83	96 47	18.46	95.79	20 07
52.....	97.62	15.23	97.06	16.88	96 45	18.51	95 77	20.12
54.....	97.61	15 28	97.04	16 94	96 42	18.57	95.75	20.18
56.....	97 59	15.34	97 02	16 99	96 40	18 62	95.72	20.23
58.....	97.57	15.40	97.00	17.05	96.38	18.68	95.70	20.28
60.....	97.55	15.45	96.98	17 10	96.36	18.73	95.68	20.34
c= .75.	74	11	74	12	.74	14	.73	15
c=1.15...	1.14	.17	1.13	.19	1 13	21	1 13	.23
c=1.90.	1.88	.28	1.87	.31	1 87	35	1 86	.38

Min.	12°		13°		14°		15°	
	Hor. Dist.	Diff Elev	Hor Dist.	Diff. Elev	Hor Dist.	Diff Elev	Hor. Dist.	Diff. Elev.
0'.....	95.68	20.34	94.94	21.92	94.15	23.47	93.30	25.00
2.....	95.65	20.39	94.91	21.97	94.12	23.52	93.27	25.05
4.....	95.63	20.44	94.89	22.02	94.09	23.58	93.24	25.10
6.....	95.61	20 50	94.86	22.08	94.07	23.63	93.21	25.15.
8.....	95 58	20.55	94.84	22.13	94.04	23.68	93.18	25 20
10.....	95.56	20.60	94.81	22.18	94.01	23.73	93.16	25.25
12.....	95.53	20 66	94 79	22 23	93.98	23.78	93.13	25.30
14.....	95.51	20 71	94.76	22.28	93.95	23.83	93.10	25.35.
16.....	95.49	20.76	94.73	22.34	93.93	23.88	93 07	25 40
18.....	95.46	20.81	94.71	22.39	93.90	23.93	93.04	25.45
20.....	95.44	20.87	94.68	22.44	93.87	23.99	93.01	25.50
22.....	95 41	20.92	94.66	22.49	93.84	24.04	92.98	25.55
24.....	95.39	20.97	94.63	22.54	93.81	24.09	92.95	25.60
26.....	95.36	21.03	94.60	22.60	93.79	24.14	92.92	25.65
28.....	95.34	21.08	94.58	22.65	93.76	24.19	92.89	25.70
30.....	95.32	21.13	94.55	22.70	93.73	24.24	92.86	25.75
32.....	95.29	21.18	94.52	22.75	93.70	24.29	92.83	25.80
34.....	95.27	21.24	94.50	22.80	93.67	24.34	92.80	25.85
36.....	95.24	21.29	94.47	22.85	93.65	24.39	92.77	25.90
38.....	95.22	21.34	94.44	22.91	93.62	24.44	92.74	25.95
40.....	95.19	21.39	94.42	22 96	93.59	24.49	92.71	26.00
42.....	95.17	21.45	94.39	23 01	93.56	24.55	92.68	26 05
44.....	95 14	21.50	94.36	23.06	93.53	24.60	92.65	26.10
46.....	95 12	21.55	94.34	23 11	93.50	24.65	92.62	26.15
48.....	95.09	21.60	94.31	23.16	93.47	24.70	92.59	26.20
50.....	95.07	21.66	94.28	23.22	93.45	24.75	92.56	26.25
52.....	95.04	21.71	94.26	23.27	93.42	24.80	92.53	26.30
54.....	95.02	21.76	94 23	23.32	93.39	24.85	92.49	26.35
56.....	94.99	21.81	94.20	23.37	93.36	24.90	92.46	26.40
58.....	94.97	21.87	94.17	23.42	93.33	24.95	92.43	26.45
60.....	94.94	21.92	94 15	23.47	93.30	25.00	92.40	26 50
c= .75...	73	16	.73	17	.73	19	.72	20
c=1.15...	1.12	.25	1.12	.27	1 11	29	1.11	.31
c=1.90.	1.85	.41	1.85	44	1.84	48	1.83	.51

Published by the A. Lietz Co., San Francisco, Cal.

Table of Stadia Reductions.—Continued.

Min	16°		17°		18°		19°	
	Hor. Dist.	Diff Elev	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.
0'.....	92.40	26 50	91.45	27.96	90.45	29.39	89.40	30.78
2.....	92.37	26.55	91.42	28.01	90.42	29.44	89.36	30.83
4.....	92.34	26.59	91.39	28.06	90.38	29.48	89.33	30.87
6.....	92.31	26.64	91.35	28.10	90.35	29.53	89.29	30.92
8.....	92.28	26 69	91.32	28.15	90.31	29.58	89.26	30.97
10.....	92.25	26.74	91 29	28.20	90 28	29.62	89.22	31.01
12.....	92.22	26.79	91.26	28.25	90.24	29.67	89.18	31.06
14.....	92.19	26.84	91.22	28.30	90.21	29.72	89.15	31.10
16.....	92.15	26 89	91.19	28.34	90.18	29.76	89 11	31.15
18.....	92.12	26.94	91.16	28.39	90.14	29.81	89.08	31.19
20.....	92.09	26.99	91 12	28.44	90 11	29.86	89.04	31.24
22.....	92.06	27.04	91.09	28.49	90 07	29.90	89.00	31.28
24.....	92.03	27 09	91.06	28.54	90 04	29.95	88.96	31.33
26.....	92.00	27.13	91.02	28 58	90.00	30.00	88.93	31.38
28.....	91.97	27.18	90.99	28.63	89.97	30 04	88.89	31.42
30.....	91.93	27 23	90.96	28.68	89.93	30.09	88.86	31.47
32.....	91.90	27.28	90.92	28.73	89.90	30.14	88 82	31.51
34.....	91.87	27.33	90.89	28.77	89.86	30.19	88.78	31.56
36.....	91.84	27.38	90.86	28 82	89 83	30.23	88 75	31.60
38.....	91.81	27.43	90 82	28.87	89.79	30.28	88.71	31.65
40.....	91.77	27 48	90.79	28.92	89.76	30.32	88.67	31.69
42.....	91.74	27.52	90.76	28 96	89.72	30.37	88.64	31.74
44.....	91 71	27 57	90.72	29 01	89 69	30.41	88.60	31.78
46.....	91.68	27.62	90.69	29 06	89.65	30.46	88.56	31.83
48.....	91.65	27.67	90.66	29 11	89.61	30.51	88.53	31.87
50.....	91.61	27 72	90.62	29 15	89.58	30.55	88.49	31.92
52.....	91.58	27.77	90.59	29.20	89.54	30.60	88.45	31.96
54.....	91.55	27.81	90.55	29 25	89.51	30.65	88.41	32 01
56.....	91.52	27 86	90 52	29.30	89.47	30 69	88.38	32.05
58.....	91.48	27.91	90.48	29.34	89.44	30 74	88.34	32.09
60.....	91 45	27.96	90.45	29.39	89.40	30.78	88 30	32.14
c= .75....	.72	.21	72	.23	.71	.24.	.71	.25
c=1.15..	1 10	33	1 10	35	1.09	.37	1.08	.38
c=1.90.	1 82	.54	1.81	57	1.80	60	1.79	.63

Min.	20°		21°		22°		23°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dis.	Diff. Elev.	Hor. Dist.	Diff. Elev
0'.....	88.30	32.14	87.16	33.46	85.97	34 73	84.73	35.97
2.....	88.26	32.18	87.12	33.50	85.93	34.77	84.69	36.01
4.....	88.23	32.23	87.08	33.54	85.89	34.82	84.65	36 05
6.....	88.19	32.27	87.04	33.59	85.85	34 86	84.61	36 09
8.....	88.15	32.32	87.00	33.63	85.80	34.90	84 57	36.13
10.....	88.11	32.36	86.96	33.67	85.76	34.94	84.52	36.17
12.....	88.08	32.41	86.92	33.72	85.72	34.98	84.48	36.21
14.....	88 04	32.45	86.88	33.76	85.68	35 02	84.44	36.25
16.....	88.00	32.49	86.84	33.80	85.64	35.07	84.40	36 29
18.....	87.96	32.54	86.80	33.84	85.60	35.11	84.35	36.33
20.....	87.93	32.58	86.77	33.89	85.56	35.15	84.31	36.37
22.....	87.89	32.63	86.73	33.93	85.52	35.19	84.27	36.41
24.....	87.85	32.67	86.69	33.97	85.48	35.23	84.23	36.45
26.....	87.81	32.72	86.65	34.01	85.44	35.27	84.18	36.49
28.....	87.77	32.76	86.61	34.06	85.40	35 31	84.14	36.53
30.....	87.74	32.80	86.57	34.10	85.36	35.36	84.10	36.57
32.....	87.70	32.85	86.53	34.14	85.31	35.40	84.06	36 61
34.....	87.66	32.89	86.49	34.18	85.27	35.44	84.01	36.65
36.....	87.62	32.93	86 45	34 23	85.23	35.48	83 97	36.69
38.....	87.58	32 98	86.41	34.27	85.19	35.52	83.93	36.73
40.....	87.54	33.02	86.37	34.31	85.15	35.56	83.89	36.77
42.....	87.51	33.07	86.33	34.35	85.11	35.60	83.84	36 80
44.....	87.47	33.11	86.29	34.40	85.07	35 64	83.80	36.84
46.....	87.43	33.15	86.25	34.44	85.02	35.68	83.76	36.88
48.....	87.39	33.20	86.21	34.48	84.98	35.72	83 72	36.92
50.....	87.35	33.24	86.17	34.52	84.94	35.76	83 67	36.96
52.....	87.31	33.28	86.13	34.57	84.90	35.80	83.63	37.00
54.....	87 27	33.33	86.09	34.61	84.86	35.85	83.59	37.04
56.....	87.24	33.37	86.05	34.65	84.82	35.89	83.54	37 08
58.....	87 20	33.41	86.01	34.69	84.77	35.93	83.50	37.12
60.....	87.16	33.46	85.97	34.73	84.73	35.97	83.46	37.16
c= .75....	.70	.26	.70	.27	.69	.29	.69	.30
c=1.15....	1.08	.40	1.07	.42	1.06	.44	1.05	.46
c=1.90....	1.78	.66	1.77	70	1.76	.73	1.74	.76

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Table of Stadia Reductions.—Continued.

Min.	24°		25°		26°		27°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff.. Elev.
0'.....	83.46	37.16	82.14	38.30	80.78	39.40	79.39	40.45
2.....	83.41	37.20	82.09	38.34	80 74	39.44	79.34	40.49
4.....	83.37	37.23	82.05	38.38	80.69	39.47	79.30	40.52
6.....	83.33	37.27	82.01	38.41	80.65	39.51	79.25	40.55
8.....	83.28	37.31	81.96	38 45	80 60	39.54	79.20	40.59
10.....	83.24	37.35	81.92	38.49	80 55	39.58	79.15	40.62
12.....	83.20	37.39	81.87	38.53	80.51	39.61	79.11	40.66
14.....	83.15	37.43	81.83	38.56	80.46	39.65	79.06	40.69
16.....	83.11	37.47	81.78	38.60	80.41	39.69	79.01	40.72
18.....	83.07	37.51	81.74	38.64	80.37	39.72	78.96	40.76
20.....	83.02	37.54	81.69	38.67	80.32	39.76	78 92	40.79
22.....	82.98	37.58	81.65	38.71	80.28	39.79	78.87	40.82
24.....	82.93	37.62	81.60	38.75	80.23	39.83	78.82	40.86
26.....	82.89	37.66	81.56	38.78	80.18	39.86	78.77	40.89
28.....	82.85	37.70	81.51	38.82	80.14	39.90	78.73	40.92
30.....	82.80	37 74	81.47	38 86	80.09	39.93	78.68	40.96
32.....	82.76	37.77	81.42	38.89	80 04	39.97	78.63	40.99
34.....	82.72	37.81	81.38	38.93	80.00	40.00	78.58	41.02
36.....	82.67	37.85	81 33	38.97	79.95	40.04	78.54	41 06
38	82.63	37.89	81 28	39.00	79.90	40.07	78.49	41.09
40.....	82.58	37.93	81 24	39 04	79.86	40.11	78 44	41.12
42.....	82.54	37.96	81.19	39 08	79 81	40.14	78.39	41.16
44	82.49	38.00	81.15	39 11	79.76	40.18	78.34	41.19
46.....	82 45	38.04	81.10	39.15	79 72	40.21	78.30	41.22
48.....	82 41	38 08	81 06	39.18	79.67	40.24	78.25	41.26
50.....	82.36	38.11	81.01	39.22	79.62	40.28	78 20	41.29
52.....	82.32	38.15	80 97	39.26	79.58	40.31	78 15	41.32
54	82.27	38.19	80.92	39.29	79.53	40 35	78.10	41.35
56.....	82.23	38.23	80.87	39.33	79.48	40.38	78 06	41.39
58.....	82.18	38.26	80.83	39.36	79 44	40.42	78.01	41.42
60.....	82 14	38.30	80.78	39.40	79 39	40.45	77 96	41 45
c= 75....	68	31	.68	32	67	.33	.66	.35
c=1.15....	1.05	48	1.04	50	1.03	51	1 02	.53
c=1 90....	1.73	79	1.72	82	1.70	85	1.69	.88

Min.	28°		29°		30°	
	Hor. Dist.	Diff. Elev.	Hor. Dist	Diff Elev.	Hor. Dist.	Diff. Elev.
0'.....	77 96	41 45	76.50	42 40	75.00	43 30
2.....	77.91	41.48	76.45	42.43	74.95	43.33
4.....	77.86	41 52	76.40	42.46	74.90	43.36
6	77.81	41.55	76 35	42.49	74.85	43 39
8.....	77.77	41 58	76.30	42.53	74 80	43.42
10.....	77.72	41.61	76.25	42.56	74.75	43.45
12.....	77.67	41.65	76.20	42.59	74.70	43.47
14.....	77.62	41.68	76.15	42.62	74.65	43.50
16.....	77.57	41.71	76.10	42.65	74.60	43 53
18.....	77.52	41.74	76.05	42.68	74.55	43 56
20.....	77.48	41.77	76.00	42.71	74.49	43.50
22.....	77.42	41.81	75.95	42 74	74.44	43 62
24.....	77.38	41.84	75.90	42.77	74.39	43 65
26.....	77.33	41.87	75.85	42.80	74.34	43.67
28.....	77.28	41.90	75.80	42.83	74.29	43 70
30.....	77.23	41.93	75.75	42.86	74.24	43 73
32.....	77.18	41 97	75.70	42.89	74.19	43.76
34.....	77.13	42 00	75.65	42.92	74.14	43 79
36.....	77.09	42.03	75.60	42.95	74.09	43.82
38.....	77.04	42.06	75.55	42 98	74.04	43 84
40.....	76.99	42.09	75.50	43.01	73.99	43.87
42.....	76.94	42.12	75 45	43 04	73.93	43 90
44.....	76.89	42.15	75.40	43 07	73 88	43.93
46.....	76.84	42.19	75.35	43.10	73 83	43 95
48.....	76.79	42 22	75.30	43.13	73.78	43.98
50.....	76.74	42.25	75 25	43.16	73.73	44 01
52.....	76.69	42.28	75 20	43.18	73.68	44.04
54.....	76.64	42.31	75.15	43.21	73.33	44 07
56.....	76.59	42.34	75.10	43.24	73.58	44.09
58.....	76.55	42.37	75.05	43 27	73.52	44.12
60.....	76.50	42.40	75.00	43 30	73.47	44.15
c= .75..	.66	.36	.65	.37	.65	38
c=1.15....	1.01	55	1.00	.57	0.99	.58
c=1.90..	1.67	91	1.65	.94	1 64	.95

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Levels & X-sections Hillside Drive

T Segale B.T Randall
Aug - 26 - 28 -

5.63 230.53 224.92

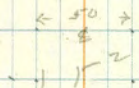
B.M. Stake S.E Cor Hillside Dr

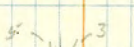
0+00	220.0	219.0-219.8-221.3	222.	222.25	
	10.5	11.5 11.7 9.2	8.5	8.3	
	2.3	4 +2.0	2	2.5	
0+19.47	222.3	222.9-221.5-224.8	225.3	225.9	
	8.2	8.6 9.0 6.7	4.2	4.6	
	4.5	4 +3.0	2	4.5	
0+25	222.8	222.5-222.3-226.3	226.8	227.0	
	9.7	8.0 8.2 11.2	8.7	8.5	
		+3.0			
0+50	225.8	226.1-225.3-227.5			
	4.7	4.4 3.2 3.0			
		+3.0			
0+62.54	227.0	227.4-226.8-230.2			
	3.5	3.1 3.7 0.3			
		+3.			
0+75	229.6	229.0-228.2			
	1.9	1.5 2.3			
		+1.9			
T.P.	11.46	241.71	0.30	230.25	
0+50			230.5	230.7	
			1.2	1.0	
0+62.54			232.2	231.9	
			9.5	9.8	
0+75		232.6	234.3	234.0	
		9.1	7.4	7.7	
1+00	230.1	231.7	231.4-235.7-236.9	237.0	
	11.6	10.0	10.3 8.0 11.8	11.5	
			+2.0		

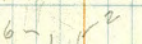
P.C.

P.C.

P.C. @ 0+62.54







	L					R
			241.71			
1+25	229.8	232.5	234.6	236.6	238.2	239.0
	11.9	9.2	7.1	5.1	3.5	2.7
			+16.0	+11.0		
1+50	236.2	232.4	237.6	237.6	240.5	242.7
	11.5	9.3	4.4	4.1	1.2	9.0
			+11.0	+12.0	R.	
1+75	234.5	236.0	240.6			
	7.2	5.7	0.9			
		+11.0	+5.0			
2+00	238.9	240.1				
	2.8	1.6				
T.P.	13.45	253.77	0.39	241.32		
1+75			241.3	243.6	245.1	
			12.4	10.1	8.6	
			+18.5			
2+00			244.5	243.8	244.2	244.1	246.0
			9.2	9.9	9.5	7.7
			+3.0			
2+25	240.8	242.7	248.3	248.4	247.1	247.5	247.8
	12.9	11.0	5.4	5.3	6.6	6.2	6.0
			+13.0	+5.0			
2+50	241.8	243.2	247.6	250.4	250.3	250.8
	12.0	10.6	4.2	3.0	3.6	3.2	3.0
			+5.0	+7.0	R		
2+75	241.7	243.8	248.3	248.6	250.7	251.7	251.2
	12.1	11.0	4.5	2.6	3.1	2.7	2.6
			+5.0	+8.0			
2+75	242.5	244.7	251.6	253.1	252.4	252.5	253.6
	11.3	9.1	2.2	0.7	1.4	1.3	0.2
			+5.1	+9	R		
3+00	243.4	245.5	252.3				
	10.4	8.3	1.5				

P.T.

P.C.

253.77

3+05.64	243.4	246.0	250.6	✓			
	10.4	7.8	3.2				
			+3.0				
3+25	245.9	247.3	251.6	✓			
	7.9	6.5	2.2				
			+3.0				
				✓			
3+50	252.0	252.6					
	1.8	1.2					
T.R.	11.83	265.20	0.40	253.37			
					YS 06		
3+00			254.5	254.6	~~253.2~~	✓	
			10.7	11.2	8.6		
			+8.0				
3+05.64			252.7	254.3	257.0	✓	
			12.5	10.5	10.9	8.2	
				+7.0			
3+25				256.6	260.2	✓	
				9.6	5.6	5.0	
				+8.0			
3+50			253.2		259.0	262.5	✓
			12.0	7.8	8.1	6.2	2.7
			+10.0		+17.0		
3+75	254.3	254.9					✓
	10.9	10.3	9.0	6.3	6.3	2.7	
			+10	+3.0	+15	+17.0	R
3+95.39	258.2	259.0		260.3	260.1	265.2	✓
	7.0	6.2		4.9	3.7		
					+11.0	+17.0	
4+06	258.4	260.2		260.6		265.6	✓
	6.8	5.0		4.6	5.0		
				+11.0	+17.0		
4+25	254.2	255.3		261.4	261.6	✓	
	1.0	9.9		3.7	3.8	3.6	
				+7.0		+12.0	

PC

PC

PC, C

5 — 1 — 1.3

5 — 1 — 1.3

2 — 1 — 1.5

2 — 1 — 1.7

3 — 1 — 1.5

20 — 1 — 1.11

20 — 1 — 1.11

7 — 1 — 1.12

265.20

	252.9	259.1 261.4			260.9	261.1 ✓	
4+50	12.3	10.1 3.8 +3.0	3.0	2.7 4.0 +12.0	4.3 +16	4.1	Wash - Box culvert - 4+50 - Left side
	253.5	256.4	263.4	263.8 263.0	261.3		
4+66.45	11.7	7.8	2.0	2.4 2.2 +9.0	3.4 +13.0	3.6	3.6 ✓ R.C.C
	254.0	267.8 262.9	263.4	263.2	262.1	262.3 ✓	
4+75	11.2	7.4	2.3 +10.0	2.0	2.0 +7.0	3.1	2.9
	256.7	260.0	264.7	264.5	265.0 ✓		
5+00	8.5	5.2	0.5 +12.0	0.7	0.2 +3.0		
	259.4	262.8 ✓					
5+25	5.8	2.4					
F.P.	11.19	275.12	1.27	263.93			
				264.2	264.9 ✓		
3+75				10.9	10.2		
				266.7	667.9 ✓		
3+95.39				8.4	7.2		R.C.C
B.M.		1	5.02	270.10			B.M. - 10 ft outside 3+95.39 Right side - R.C.C
				267.2	268.8 ✓		
4+00				7.9	6.3		
			267.2	268.2	269.3 ✓		
4+25			7.9 +15	6.9	3.6		
			267.0 ✓				
5+00			8.1 +6.0				

		275.12				
5+25		266.7	266.2	273.1	✓	
		8.4	5.9	2.0		
		+13.0		+6.0		
5+50	260.8	264.2	264.1	269.2	269.0	✓
	14.3	10.9	6.0	5.9	6.1	
			+8.0		+8.0	
5+62.04	261.9	263.6	264.9	269.9	270.2	✓
	13.2	11.5	5.2	5.2	4.9	
			+7.0		+13.	
5+68.94	263.1	264.3	270.7	270.5	270.9	✓
	12.0	10.8	4.4	4.6	4.2	
			+5.0		+12.0	
5+75	263.0	266.0	271.5	271.1	271.4	271.6 ✓
	10.1	9.1	3.6	4.0	3.7	3.5
			+4.0		+17.0	
6+00	267.7	268.9	274.5	273.1	272.7	273.3 ✓
	7.4	6.2	0.6	2.0	2.4	1.8
			+3.0		+19.0	
6+25	266.6	267.9	274.3	274.0	274.1	✓
	8.5	7.2	0.8	1.1	1.0	
			+3.0		+17.0	
6+36.04	267.0	268.9	275.0	274.8	284.7	✓
	8.1	6.2	0.1	0.3	0.4	
			+3.0		+13.0	
T.P.	9.57	284.38	0.31		274.81	
5+00				272.4	275.0	✓
				12.0	9.4	
5+25				278.8	281.0	✓
				5.6	3.4	
5+50			279.1	281.0	283.1	✓
			5.3	3.4	1.3	
			+16.0			

P.T.

P.C

P.R.C

12 — 1 — 3

13 — 1 — 6

8 — 1 — 8

7.13

284.38

5+62.04 — 279.7 / 4.7 — 281.8 / 2.6 — P.T.

5+68.94 — 279.9 / 4.7 — 282.3 / 2.1 — P.C.

5+75 — 280.8 / 3.6

6+00 — 277.8 / 6.6

6+25 — 281.4 / 3.0 — 282.5 / 1.9

6+36.04 — 279.9 / 4.5 — 281.4 / 3.0 — P.R.C.

6+50 — 267.3 / 16.7 — 269.4 / 14.6 — 278.6 / 8.8 — 276.5 / 9.9 — 276.7 / 8.7 — 280.5 / 3.9 — 282.0 / 2.4 — +10. +10.

6+75 — 274.1 / 13.3 — 274.7 / 9.7 — 276.7 / 7.7 — 276.2 / 8.2 — 277.3 / 7.1 — 277.8 / 6.6 — +15.0

B.M. — 6.08 — 278.30

6+88 — 276.9 / 7.45 / +13.0

7+00 — 272.9 / 11.5 — 276.5 / 7.9 — 280.9 / 3.5 — 282.3 / 2.1 — +160 +10

7+01.03 — 273.1 / 11.3 — 276.3 / 8.1 — 281.4 / 3.0 — 282.9 / 1.5 — +12.67.0 +15.

< 50 >

4 — 11

3 — 11.

9.

8.

2 — 15.

5 — 14.

10 — 11.

15 — 12

B.M. Stake & tack S.W. Cor Garage Sta. 6+50 - 6+75

Concrete Drive - S.W. Cor. side wall .7 x .7

5 — 12

+160 +10 on left Concrete Drive

5 — 12.

P.T. +16 ** 7 Left - Concrete Dr.

284.38

7+25	273.8	277.3 277.9	277.6	279.7	279.7	282.3 ✓	+15 ⊄ +6 - Concrete Dr
	10.6	7.1 6.7 6.8	4.7		4.7	2.1	
		+15. +6.	℄				
7+48.62	274.1	275.9 277.7	277.6	279.3 279.6	279.7	284.4 ✓	P.C. - +13⊄ +4 Concrete Drive
	10.3	8.5 6.7	6.8	5.1 4.8	4.7	T	
		+13. +4.	℄				
7+50	273.7	275.3 277.7	277.5	279.3	279.6	284.1 ✓	+2 ⊄ +3 Concrete Dr
	10.7	9.1 6.7	6.9	5.1	4.8	0.3	
		+18. +2.0	℄				
7+75	271.9	274.1 277.4	277.4	279.6	279.8	283.8 ✓	+13⊄ +3 Concrete Drive
	12.5	10.3 7.0	7.0	4.8	4.6	0.6	
		+13. 7.3.					
8+00	272.3	275.4 276.5	276.4	279.1 280.1	282.5	284.8 ✓	+14⊄ +5 Concrete Dr
	12.1	9.0 7.9	7.9	4.9 4.3	1.6	T	
		+14. +5.	℄	+18.			
8+10.18	272.7	275.3 276.7	276.7	279.2 279.5	280.3 283.3	284.8 ✓	P.C.C. +14⊄ +5 Concrete Dr + #3 Concrete Wall - 7 wide
	11.7	9.1 8.7	8.7	5.2 4.9	4.1 0.7	T+.4	
		+14. +5.	+4.33	℄	+17.	T.	
8+25	273.6	274.1 274.1	274.3	278.1 280.1	280.5 ✓	T+7 ⊄ +8 - Concrete Drive - +7 Top Concrete wall -
	10.8	10.3 10.3	10.5	6.3 4.3	3.9		
		L +16 +8.	+7.	℄	+17.		
8+~~75~~ T.P.	3.00	286.56	2.82	281.56			No End Form
8+25				284.3	285.1 ✓		
				2.3	1.5		
8+50	271.4	271.4 271.4	276.2	279.5 280.0	283.7	284.9 ✓	+17.0 Edge Concrete Drive to TC Top wall -
	15.2	15.2 15.2	10.4	7.1 5.6	2.9	1.7	
		L +17.0 +16.		+18.0			
8+75	274.0	279.9		284.4	284.7	286.6 ✓	+21.5 edge garage - Garage 8' W ⊄ 12' E of Sta -
	12.1	~~283.7~~		6.7 5.2	1.9	1.0	
	+21.			℄ +19.			
8+~~71~~34	274.7	275.6	279.9	281.8	285.7 283.7	✓	P.T.
	11.9	11.0	6.7	4.8	1.4 0.9		
					+28		

286.56

	274.7	275.4	280.0	281.9	283.0	✓
9+00	11.9	11.2	6.6	4.7	1.6	
	272.7	274.1	279.7 (281.8)	282.2 (282.3)	284.6	✓
9+16.30	13.9	12.5	6.9 4.8 +5.	4.4 4.3 +27.	2.0	
	272.7	274.0	279.2 (282.3)	282.5 (282.5)	284.7	✓
9+25	13.9	12.6	7.4 4.3 +7.	4.1 4.1 +28	1.8	
	275.4	275.7	279.8 (283.3)	283.2	283.3	✓
9+50	11.2	10.9	6.8 3.3 +7.	3.4	3.3	
	276.3	277.9	282.0 (284.1)	284.1 (284.3)	286.3	✓
9+75	10.1	8.7	4.6 2.5 +6.	2.5 2.3 +27	0.3	

T.P. 10.69 296.44 0.81 285 75

	278.1	279.4	284.6 (284.7)	287.1	287.7	✓
9+94.51	18.3	17.0	11.8 11.7 +18.	9.3	8.7	
	277.8	281.2 (284.0)	285.1 (284.8)	286.6	287.3	✓
10+00	17.6	15.2 12.4 +9.	11.3 11.6 +18.	9.8	8.9	
	279.1	280.3 (284.2)	285.2 (284.9)	286.6	287.6	✓
10+01.91	17.3	16.1 12.7 +9.	11.2 11.3 +17.	9.8	8.8	
	281.8	283.7 (285.2)	286.1 (285.8)	(289.0) 289.3	290.1	✓
10+25	14.6	12.7 11.2 +13	10.3 10.6 +16.	7.4 7.1 +18	6.3	

B.M. 3.86 292.58

	285.6	286.3	(287.0) (287.2) (289.9)	292.1	291.6	✓
10+50	10.8	10.1	6.5 4.9 +6 +8	4.3	4.8	

(x)

P.C.

P.T.

(4 7.0) Shed

B.M. - 5' off 10+50 Rightside - Stake

296.44

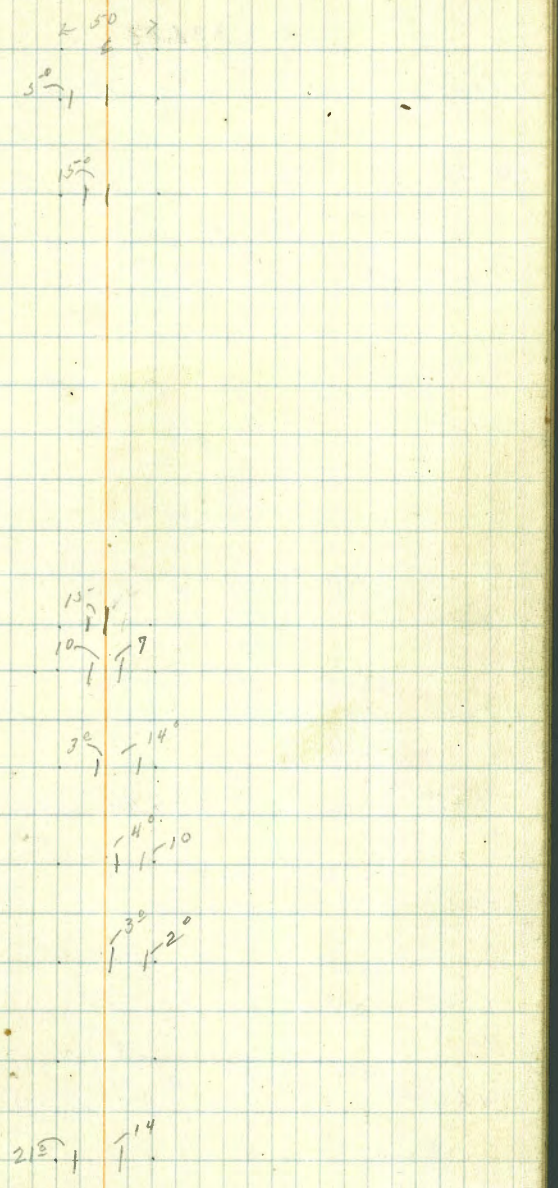
10+75	286.2	288.7	288.5	294.1	293.7	294.8 ✓
	10.2	7.7	7.9	3.3	2.7	1.6
			+2.			
10+98 [87]	288.2	290.8	291.9	294.7	293.4 ✓	
	8.2	5.6	4.5	4.7	1.4	
			+17.0		+3.	
11+00	288.2	290.8	291.9	294.7	293.4 ✓	
	8.2	5.6	4.5	4.7	1.4	
			+17.0		+3.	
11+25	289.9	291.9	295.2	295.2	295.8 ✓	
	6.5	4.6	1.2	0.2	0.9	
			+12.0		+7	

T.R. 12.83 308.03 1.24 295.20

10+98 [87]				297.6	297.9 ✓	
				10.4	10.1	
11+00				297.6	297.9 ✓	
				10.4	10.1	
11+25				301.3	304.1	303.1 ✓
				6.7	4.9	3.9
				+13.		
11+50	291.1	294.7	298.9	299.0	299.5	305.2 306.1 ✓
	16.9	13.3	9.1	9.0	8.5	2.8 1.9
			+5.		+18.0	
11+75	293.6	294.3	298.0	301.0	302.8	302.8 307.6 ✓
	14.4	13.7	10.0	7.0	5.2	5.2 0.4
			+6.		+2.0	
12+00	297.2	297.9	302.0	304.6	306.6	305.6 307.3 ✓
	10.8	10.1	6.0	3.4	1.4	2.4 0.7
			+4.		+3.0	

T.P. 12.95 320.63 0.35 307.68

12+25	303.0	303.3	305.9	309.6	309.7	309.1	314.5 319.5
	17.6	17.3	14.7	11.0	10.9	11.5	6.1 1.1
			+12.	+4.		+16.	



		326.73			
	308.9	309.8	312.4	311.5	311.3
12+50	11.7	10.8	8.2 +13	9.1	9.3 +8
B.M.				1.09	319.54
	313.5	315.4	314.2	318.9	317.4
12+75	7.1	5.2 +28	6.4	7.7	3.2 +5 +30 2.6
	316.3	316.3	315.6		
13+00	4.3	4.3	5.8 +16		
T.P.	4.28	323.82			319.64
	318.1	318.0			
13+25	5.7	5.8			
	322.4	322.0	321.9		
0+00	1.4	1.8	1.9 +17.0		
T.P.	12.94	336.44		0.32	323.50
	326.6	325.2	325.4		
0+25	9.8	10.2	1.0 +6		
	322.1	325.7	330.2	330.2	330.3
0+50	14.3	10.7	6.2 +13	6.2	6.1 +15.0
	321.1	323.0	329.8	334.0	334.6
0+66.45	15.3	13.4	2.6 +22	2.4	1.8 +17

B.M. State 5' off 12+35 - nightside -

T.M. 12+25

T.P. Replaced 13+25

Check this Against Balance of Section

336.44

	320.8	323.4	335.4	335.4
0+75	15.6	13.0	1.0	1.0
			+19.	R
	321.7	324.9		
1+00	14.7	11.5		

T.P.	13.1	348.80	0.64	335.80

			335.8	340.0	339.1	339.5
1+00			13.1	8.9	9.8	9.4
			L	+6		+28.
	325.1	327.9	338.0	341.9	342.0	342.0
1+25	23.8	21.0	10.9	6.0	6.9	6.9
			L	+8.		+24.
	330.0	335.1	345.0	345.8	344.4	346.4
1+50	18.9	15.8	3.9	3.1	4.5	3.5
			L	+2.0	+18.0	
	341.9	344.8				
1+75	7.0	4.1				

T.P.	11.44	359.82	0.52	348.38

		349.6	348.7	347.4	352.7	352.3
1+75		10.2	NI	12.4	7.1	7.5
		+7.0	L	+12.0	+16.0	R
	354.1	353.0	354.5	354.6	353.0	352.8
2+00	5.7	5.8	5.2	5.8	6.8	7.0
			L	+11.	+7.	
	352.0	352.3	355.4	355.9	353.3	352.8
2+25	3.8	3.5	2.4	3.9	6.5	7.0
			L	+2.0		

		359.82	46.5	44.4		
	359.4	358.4	356.8	35	353.0	352.8
2+50	6.4	1.4	3.0	3.3	5.2	6.8	7.0
			+16.1		+6.0		
B.M.				1.10	338.72		
	12.11	331.85			319.54		
				316.0	317.8	319.4
12+50				13.7	13.9	12.3
				+13.0		
				319.1	322.3	323.5
12+75				12.6	9.4	8.2
				+5.		
		323.2	324.7	327.4	328.5
13+00		8.5	7.0	4.3	3.2
		+8.0			
T.P.	12.98	343.06	1.07	330.08		
		324.2	327.7	331.2	331.8
13+25		18.9	15.4	11.9	11.3
		+17			
		327.7	331.8	336.4	335.3
0+00		15.4	11.3	7.7	7.6
		+15.0			
		331.5	334.5	338.7	339.7
0+25	11.6 →	11.6	8.6	4.7	3.4
		+3.0			
			338.0	340.4	341.6
0+50			8.1	2.7	1.5
			+12.0		
T.P	12.24	354.52	0.78	342.28		

10 ft. back 2+25 Left side stake

B.M. 12+25

G	PL(L)	℄	PL(R)	G
	364.52			
0+66 45			341.6	342.3
			12.9 R	12.2
			339.7	342.8 343.0
0+75			14.8	11.7 11.5
				22.0
T.R.O	5.97	364.69	358.72	
	367.8	359.3	357.4	354.7 353.1
2+75 93	6.9	7.2	7.3	10.3 11.6
	361.1	358.2	358.1	355.7 354.5
3+00	3.6	6.5	6.6 6.3 +3	9.0 10.2
	363.1	362.3	361.8 359.9 358.9	355.2 358.5
3+25	1.6	2.4	2.9 5.8 5.8 +7.75.2	6.5 6.2
		364.5	360.3 360.4	360.7 359.3
3+50		6.2	+6.0 4.3	3.9 5.4
		361.4	361.9 360.0	360.5 358.8
3+66 45		3.3 +8.	3.0 2.7 +3.0	4.2 8.9
		362.2	362.3 362.4	360.3 356.7
3+75		2.5	2.4 2.1 6.0	4.4 8.0
				361.7 359.2
4+00				3.0 5.4
T.R.	11.98	37 5.28	1.39	363.30
	366.0	265.8		
3+50	4.3	10.5		

B.M. Stake 2+25

P.R.C.

30' road

P.T.

375.28

366.3 364.9

3+66 45 9.0 10.4

B.M. 7.26 368.02 Stake 10' back 3+66 45 Left side -

363.3

3+75 10.0

364.8 364.4 364.6 364.8

4+00 10.5 10.9 10.7 10.5

+3.0

364.8 364.4 364.6 364.8

4+01.49 +3.0 P.C.

367.7 369.1 367.9 367.0 366.0

4+25 7.6 6.2 7.4 8.3 9.3

375.1 372.0 371.6 371.8 369.7

4+50 6.2 3.3 3.7 3.5 5.6

T.R. 10.46 384.11 1.63 373.65

380.9 379.1 373.7 374.1 374.5 374.1

4+75 3.2 5.0 10.4 10.0 9.6 10.4

382.5 379.4 374.7 374.9 375.0 374.4

4+83 T 1.6 4.7 9.4 9.2 9.1 9.7

+4.0 P.B.C.

382.7 376.2 376.1 376.3 376.3

5+00 1.4 7.9 8.0 7.8 7.8

+2.

382.8 382.2 379.0 379.0 378.5

5+25 1.3 1.9 -6.1 5.1 5.6

+3.7 +7.

382.5 380.4 380.7

5+50 1.6 3.7 3.4

+1

< 30 ↓

15.0 → 3.0 ↓

3P → 8.0 ↓

5.0 → 15.0 ↓

4P → 5.0 ↓ 5.0 ↓ 8.0 ↓

2.0 → 12.0 ↓

7.0 → 8. ↓

3.0 14.0

R+05

		384.71		
5+75			384.1 T	384.4 T +0.3
T.P.	13.05	396.77	0.39	383.72
5+00	384.3 12.3			
5+25	386.0 10.8	385.1 11.7		
5+50	389.2 7.6	388.0 8.8	386.5 10.3	384.9 11.9 +3.
5+75	393.4 3.3	392.5 4.2	391.2 5.5	389.3 7.3 +3
6+00	396.5 0.3	396.6 1.3	393.9 3.9 +3.0	389.5 7.2 / 389.1 7.7 / 389.1 7.7
B.M.			2.95	393.82
T.P.	13.01	405.94	3.84	392.93
6+25	394.9 11.0	394.7 11.2	394.4 11.5	393.9 12.2 +7 / 388.2 17.7 / 392.9 13.0
6+50	396.1 9.8	397.6 8.3	398.0 7.9 +4.+3.	401.1 4.8 / 401.3 4.6 / 398.2 7.7 / 397.2 8.7
T.P.	11.82	416.28	1.48	404.46

<- 30' ->

1.5 / 17 ✓ TC + 0.5

1.5 / 10.0 ✓ R + 90

B.M. Stake 10' back 5+75 Left.

Left 6+25 R

8.0 / 7. ✓ R + 1.6

24.0 ✓ L. at 6+75 - 7.0

4.5 5.8

		416.28			
	405.8	405.3	404.0	401.4	400.0
6+75	10.5	11.0	12.3	14.8	16.3
	411.1	411.0	409.7	408.9	408.3
7+00	5.2	5.3	6.6	7.4	7.8
T.P.					
7+[illegible]	12.84	427.74	1.38	414.90	
	416.2	416.8	418.5	418.7	418.1
7+25	11.5	10.9	9.2	9.0	9.6
	418.4	419.8	423.0	423.1	425.4
7+50	9.3	7.9	4.7	3.6	2.3
B.M.			1.41	426.33	
	416.9	419.7	421.1	424.4	
7+75	10.8-8.0		6.6	3.3	
		+13.			
	417.7	417.8	418.6	421.6	424.1
8+00	10.0	9.9	9.1	3.1	3.6
			+3.0		+2.
	417.9	421.2	421.6		
8+25	9.8	6.5	6.1		
	417.8	419.4	424.4		
8+50	9.9	8.3	3.3		
	422.8	423.1	427.2		
8+75	4.9	4.6	0.5		
	425.9				
9+00	1.8				

73

P.T.

L - 5.0

→ L - 8.3

L AT 7+00 47.

L AT 7+00 +0.0

10ft Road 7+50 - R - stake

R - 15.0

R 7+75 - 11.0

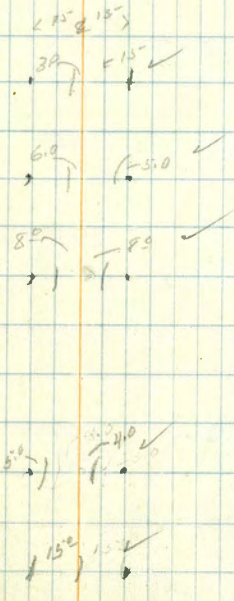
L 8+95 +3.1

R 8+50 +0.0

R 8+75 +0.4

T.P.	8.30	434.63		426.33		
7+75				427.4 7.2	428.8 5.8	
8+00			424.2 10.0 +3.4	424.6 7.0	428.3 6.3	
8+25				422.4 12.2	427.2 7.4	
8+50				425.0 9.6	424.9 9.7	
8+75				427.3 7.3	427.1 7.5	
9+00	426.0 7.6	426.9 7.7	429.5 5.1 +3.0	429.3 5.3	428.9 5.7	428.8 5.8
9+25	426.8 7.8	428.2 6.4	430.4 4.2 +6.	430.5 4.1	429.9 4.7	432.2 2.4 +12- 433.8 1.8
9+50	428.4 6.2	432.1 2.5	432.3 2.3 +8.	432.0 2.6	431.9 2.7 +8.	
T.P.	9.55	443.46	0.22	433.91		
9+75	432.4 N.I	434.0 9.5		433.9 9.6	434.0 9.5-7.4 +4.5	436.1
10+06	436.0 7.5	436.0 7.5		435.5 8.0	439.3 4.2 +3	

B.M. 7+50



			443.46		
	437.5	437.4	437.4		
10+25	6.0	6.1	6.1		
	438.9	438.5	438.6	438.4	
10+50	4.6	5.0	4.9	5.1 +2.	
	439.6	438.9	438.8	438.9	
10+62.67	3.9	4.6	4.7	4.6 +3.	
	439.5	438.9	438.8	438.7	
10+75	4.0	4.6	4.7	4.8 +3.	
	435.2	437.0	438.5	438.4	438.2
11+00	8.3	6.5	5.0 +5.	5.1	5.3
	426.1	427.2	434.4	438.4	438.4
11+25	17.4	16.3	10.9	5.1	5.1
	419.7	424.9	432.2	439.0	446.1
11+50	23.8	18.6	11.3	4.5 3.4 +12.	3.3
	425.3	427.5	434.3	441.2	
11+75	18.2	16.0	9.2	2.3	
	429.4	432.1	438.5	443.5	
12+00	14.1	11.4	5.0	π	
	429.8	433.2	439.2		
12+11.90	13.7	10.3	4.3		
	432.9	435.6	441.9		
12+25	10.7	7.9	1.6		
	441.5				
12+50	2.0				

10.1
2
8.1
4.5.7

P.C

P.R.C

℄

℄ 11+25 +0.0

℄ 11+50 +0.0

℄ 11+75 +0.0

℄ 12+00 +1.8

℄ 12+25 +3.0

℄ 12+50 +1.3

		443.46				
T.P.			1.73	441.73		Stake - 11+75 - R.
T.P.	12.82	446.73		433.91		R.P. - 9+50
9+50			434.7 12.0	436.0 10.7		
9+75			434.9 436.5 11.8 10.2 +7	437.6 9.1		
10+00			439.4 441.5 7.3 5.2 +4	442.8 3.9		
T.P.	14.48	456.57	1.64	445.09		
10+25			445 445.6 11.6 11.0 +7.	445.3 10.1		
10+50			446.0 449.2 10.6 7.4 +11	450.5 6.1		
10+62.67			443.0 11.6	457.4 5.2		P.C.
10+75			443.9 13.7	449.9 6.7		
T.P.	11.79	453.52		441.73		B.M. - 11+75
11+75				443.9 9.6		

G P ℄ P G

453.52

12+00				446.9	
				6.6	
12+11.9			444.6	447.7	
			7.9	5.8	
12+25			446.4	448.5	
			7.1	5.0	
	443.6	446.8	450.6	453.3	
12+50	7.9	6.7	3.9	1.2	
T.P.	11.73	462.25	3.00	450.52	
	448.4	449.5	451.5	453.3	454.2
12+75	13.9	12.8	10.8	9.0	8.1
	454.0	454.9	456.1	457.7	458.3
13+00	8.3	7.4	6.2	6.6	7.0
	457.6	458.2	458.1	458.9	456.4
13+25	4.7	4.1	4.2	5.4	5.9
B.M.			7.92	454.33	
	458.1	458.1	457.9	458.0 462.1 462.3	462.3
13+50	4.2	4.2	4.4	4.3 +2 +4 T	T
	458.0	458.0	457.3	462.2	462.3 462.3
13+57 74	4.3	4.3	10.0 +3	0.1 T	T
	458.0	458.2			
13+75	4.3	4.1			

< 38 >

P.R.C

7.0 16.9

10 16.1

10 16.1

6 16.1 P-10

12 15.7 P+00

5.2 16.1 P+00

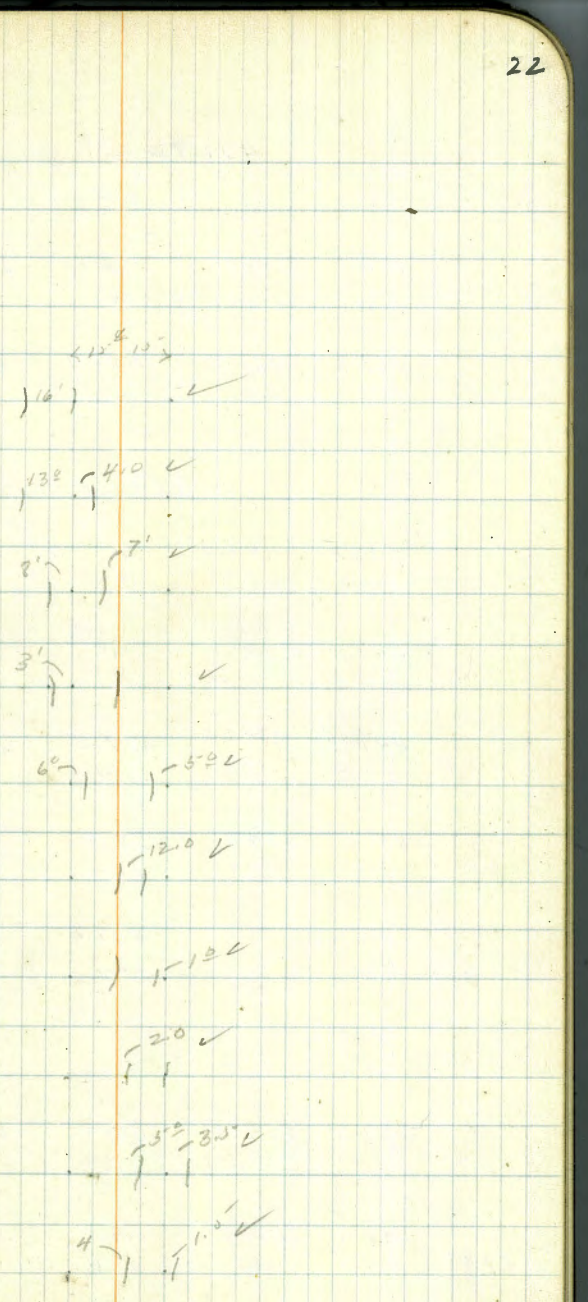
Stake - 15ft left of 13+25 Left side

3 7.2

5.9 3.0

13.0 10

		462.26			
T.P.	10.31	471.92	0.64	461.61	
13+75			462.3 9.6	464.4 7.5	465.3 6.6
14+00	458.2 13.7	458.4 458.1 13.5 12.8 +8	461.8 10.1	465.4 6.5	467.2 4.7
14+25	458.9 13.0	458.8 13.1	460.2 11.7	463.7 8.2	466.7 5.2
14+50	460.0 11.9	460.0 11.9	460.9 11.0	463.8 8.1	465.3 6.4
14+75	461.3 10.6	461.7 10.2	461.8 10.1	464.7 7.7	465.8 6.1
15+00	457.2 14.7	461.5 464.0 10.4 7.9 +6.	464.0 7.9	464.0 7.9	473.8 Π +1.9
15+25	456.4 15.5	460.6 11.3 5.1 +2	466.8 466.3 5.6	466.1 466.1 5.8 5.8 +12.	470.3 Π +3.4
15+50	456.2 15.7	459.2 12.7	467.9 4.0	467.2 467.5 4.7 4.4 +14.	474.5 Π +2.6
15+75	453.6 18.3	457.1 14.8	464.5 467.8 7.4 4.1 +2.	467.9 4.0	467.7 4.2
16+00	450.9 21.0	453.6 18.3	463.6 467.6 8.3 4.1 +5	467.7 4.2	467.4 4.5
16+25	452.5 19.4	455.8 16.1	464.9 463.6 7.0 4.3 +4.	467.0 4.9	466.8 5.1



		471.92	466.4	467.5		
	452.6	453.9		466.9		466.7
16+28.87	19.3	16.0		7.5	4.4 +3.	5.0	5.2
	458.5	461.5	466.9	467.3	466.2	466.4	477.5
16+50	13.4	10.4	5.0 +3	4.6	5.7	5.5 +12.0	+5.6
	461.3	466.4		466.2	463.9		477.2
16+75	10.6	5.5		5.7	6.0		5.3
T.P.		11.82	478.53	5.19		466.73	
	433.6	458.5	466.2	466.9	466.2		466.2
17+00	22.9	20.1		12.4	11.7 +2.	12.4	12.4
	448.0	452.0		468.9	466.3	467.8	467.3
17+25	30.6	24.6		19.7	12.3	10.8 +12	11.3
	447.9	458.6		457.5	463.0		466.2
17+50	30.7	28.		21.1	15.6		13.4
	445.0	457.8		457.2			463.3
17+69	33.6	20.8		21.4			15.2
	445.0			448.4			464.5
17+63	43.6			30.2			14.1
	444.6						466.0
17+69	34.0			1			12.6
	447.5	449.2		457.9	465.8		467.3
17+75	31.1	29.4		20.7	12.8		11.3
	454.1	457.5		463.6	469.1		469.5
18+00	24.3	21.1		15.6	9.6		9.1

R + 3.2

R + 1.5

R + 0.0

478.55

18725	461.0	462.6	468.7	470.0	470.3	470.2
	17.6	16.0	9.9	8.6	8.3	8.4
				+2.		
18720	461.3	462.3	470.3	470.5	470.4	
	17.3	14.3	8.6	8.1	8.2	

T.P 9.69 486.97 127 477.28

B.M. 4.86 482.11

48 ⌐

3.

End -

478.63

#104 ~~478.82~~ B.M. 4.86 482.11

50' WIDE L

LT TO RIGHT

B.M N.E COR LUDINGTON PROPERTY (HUB CONDLY

	650				224.92
		231.42			
	220.1	219.0	218.9	221.6	222.2
0+00	11.3	12.4	12.5	9.8	9.2
	L 5		22	26	TC
	222.9		227.7	228.3	227.0
0+25	8.5		9.2	5.1	4.4
	L		21	26	TC
	225.8		225.4	228.0	230.7
0+50	5.6		6.0	3.4	0.7
	L		21	25	TC
	228.6		228.7	228.0	232.4	234.1
0+75	2.8		2.7	3.4	9.9	8.7
	L		14	21	26	TC
TP	1090		247.30	0.02		231.40
	230.1	231.7	231.9	231.5	233.9	237.2
1+00	12.2	10.6	10.4	10.8	8.4	5.1
	L 4		16	25	28	TC
	233.9		233.9	234.1	234.2	228.7
1+25	3.4		8.4	8.2	8.1	13.6
	TC		29	19	9	TC
	230.3	232.2	232.1	237.4	237.3	239.1	240.8
1+50	12.0	10.1	5.2	4.9	5.0	3.2	1.5
	L	5	15	25	36	39	TC
	234.5	237.2	240.3	240.5	241.3	240.0	241.2
1+75	7.8	5.1	2.0	1.8	1.0	1.05	0.3
	L	13	20	25	41	46	TC
	238.9	244.5	244.0	244.5	244.9	245.9
2	3.4	1.00	10.5	10.0	10.5	8.6
	L	24	25	37	46	TC
TP	1253		254.45	0.38		241.92
		247.2	248.5	247.5	247.6	247.8
2+25	13.3		6.0	7.0	6.9	6.7
	L		25	29	37	TC

ROCK

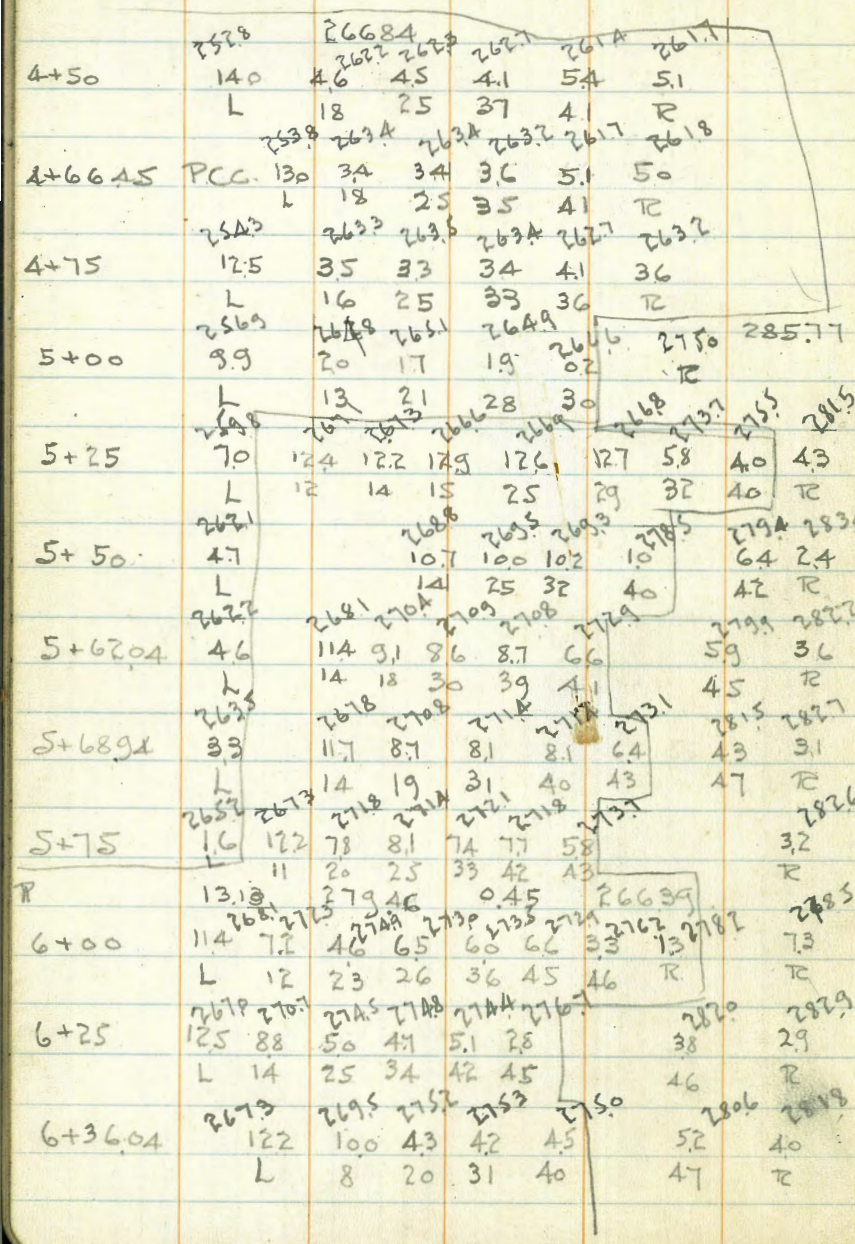
REVERSED

34

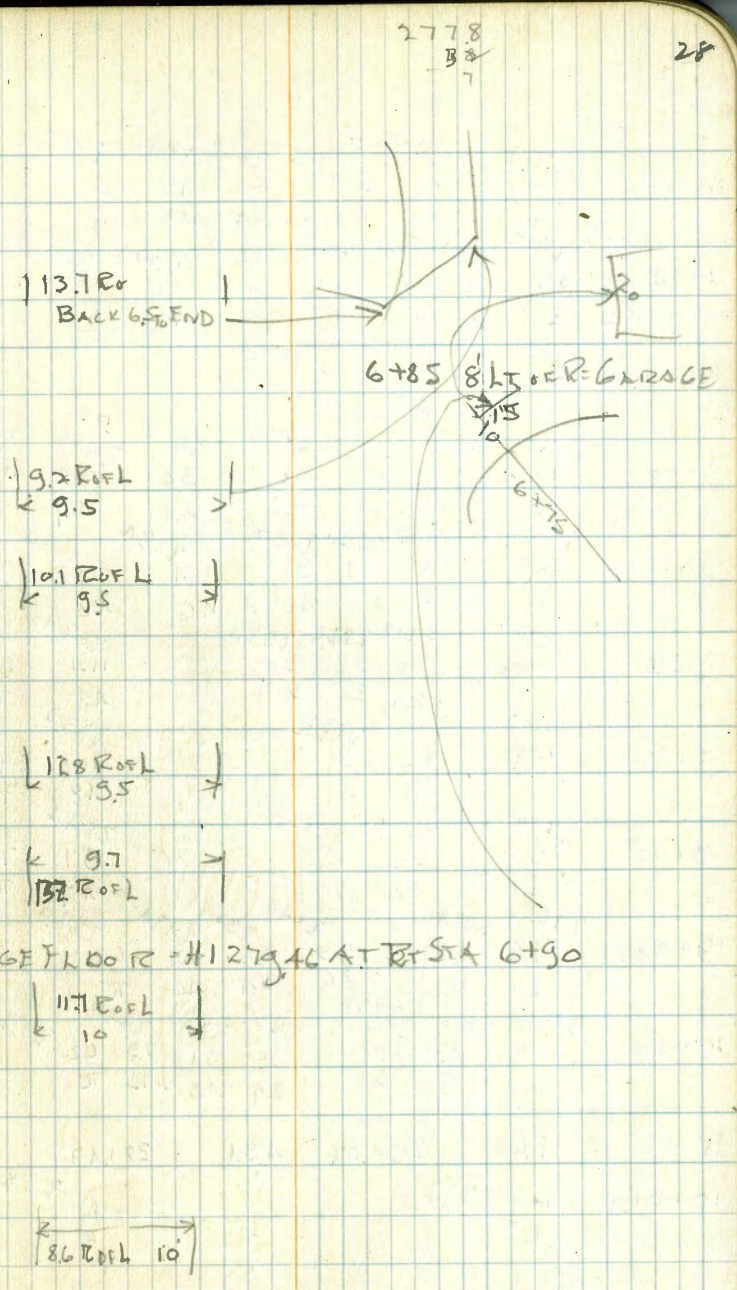
2+50	241.7	254.45	249.1	250.8	250.6	250.5
	12.8		5.4	3.7	3.9	4.0
	L		2.5	3.0	4.0	R
2+5525	241.8	249.3	251.7	251.2		251.3
	12.7		5.2	3.3	3.3	3.2
	L		2.5	3.0	4.0	R
2+75	242.6	251.7	252.6	253.0	252.1	253.9
	11.9		2.8	1.9	1.5	2.4 0.6
	L		2.5	3.2	4.0	4.8 R
3+00	243.5	251.9	253.0	254.5	254.0	256.7
	11.0	2.6	⊼ +0.5	0.0	0.5	10.1
	L	2.5	3.0	4.0	4.6	R
3+05.64	243.5	252.3		250.7	254.9	257.4
	11.0	2.2		1.6 1.2	1.9	9.4
	L	2.5		2.1	2.9	R
3+25	245.9	251.2		254.5	256.2 25.3.9	259.6
	8.6	1.5.6		12.3	10.6 10.9	7.2
	L	1.9		2.5	2.8 4.5	R
3+50	252.1			253.4	253.7 257.1	262.8
	2.4			13.4	9.1 9.7	4.0
	L			1.6	2.5 4.3	R

PT	1267	266.84		0.28	254.17		
	256.6	256.6	255.3	256.7	258.7	267.4	279.46
3+75	12.2	10.2	7.5	7.1	8.1	3.9	14.3
	L	1.5	2.3	3.2	4.0	4.3	R
	258.4	260.7	260.5	260.7	260.1	263.7	268.1
3+9539	8.4	6.1	6.3	6.1	6.7	1.1	11.4
	L	1.5	2.5	3.6	3.7	4.2	R
	258.7	261.1	260.7	261.0	260.3	266.3	269.0
4+00	8.1	5.7	6.1	5.8	6.5	0.5	10.5
	L	1.5	2.5	2.9	3.7	4.2	R
	254.5	255.6	261.7	262.0	261.7	267.7	269.8
4+25	12.3	11.2	5.1	4.8	5.1	11.8	9.7
	L	8	1.8	2.8	3.7	4.0	R

OLD Box CULVERT 1.5x2 ADEQUATE



	2681	2701	2794	2754	2759	2785	2782	2812	2823		
6+50	11.4	9.4	3.6	3.6	3.6		7.6	4.6	3.5		
	L	6	17	24	36		42	46	R		
	2714	2768					2785				
6+75	8.1	2.7	2.9	2766			1.4				
	L	9	25				TD				
7+00											
	2732	2774	2779	2788							
7+01.03	6.3	2.1	1.6	0.7	2785	2810	2826				
	L	8	25	40	38	43	R				
	2741	2774	2776	2790	2793	2794	2831	2830			
7+25	5.4	1.6	1.9	6.8	6.5	6.4	2.7	1.8			
	L	7	19	20	31	42	45	TC			
	2744	2750	2779	2778	2795	2798	2798	2844			
7+43.62	5.1	4.5	1.6	8.0	6.3	6.0	6.0	1.4			
	L	3	9	22	23	36	44	TP			
	2740	2752	2779	2776	2795	2799	2800	2843			
7+50	5.5	4.3	1.6	8.2	6.3	5.9	5.8	1.5			
	L	5	10	23	24	37	47	TC			
	2722	2735									
7+75	7.3	6.2	1.9	8.3	6.1	5.1	1.8				
	L	4	11	23	25	46	TC				
	2725	2768		2765	2794	2804	2839	2844			
8+00	7.0	2.7		9.0	6.4	5.4	1.9	1.4			
	L	9		21	23	44	47	TC			
	2727		2770	2760	2797	2802	2804	2834	2850		
8+10.18	6.8		2.5	9.8	6.6	5.6	5.4	2.4	0.8		
	L		6	20	20	26	43	45	R		
TP	7.73		285.77	1.42		278.04					
	2739	2744	2745	2783	2804	2808		2844	2854		
8+25	11.9	11.4	11.3	7.5	5.4	5.0	1.4	0.4			
	L	9	20	20	25	42	44	R			



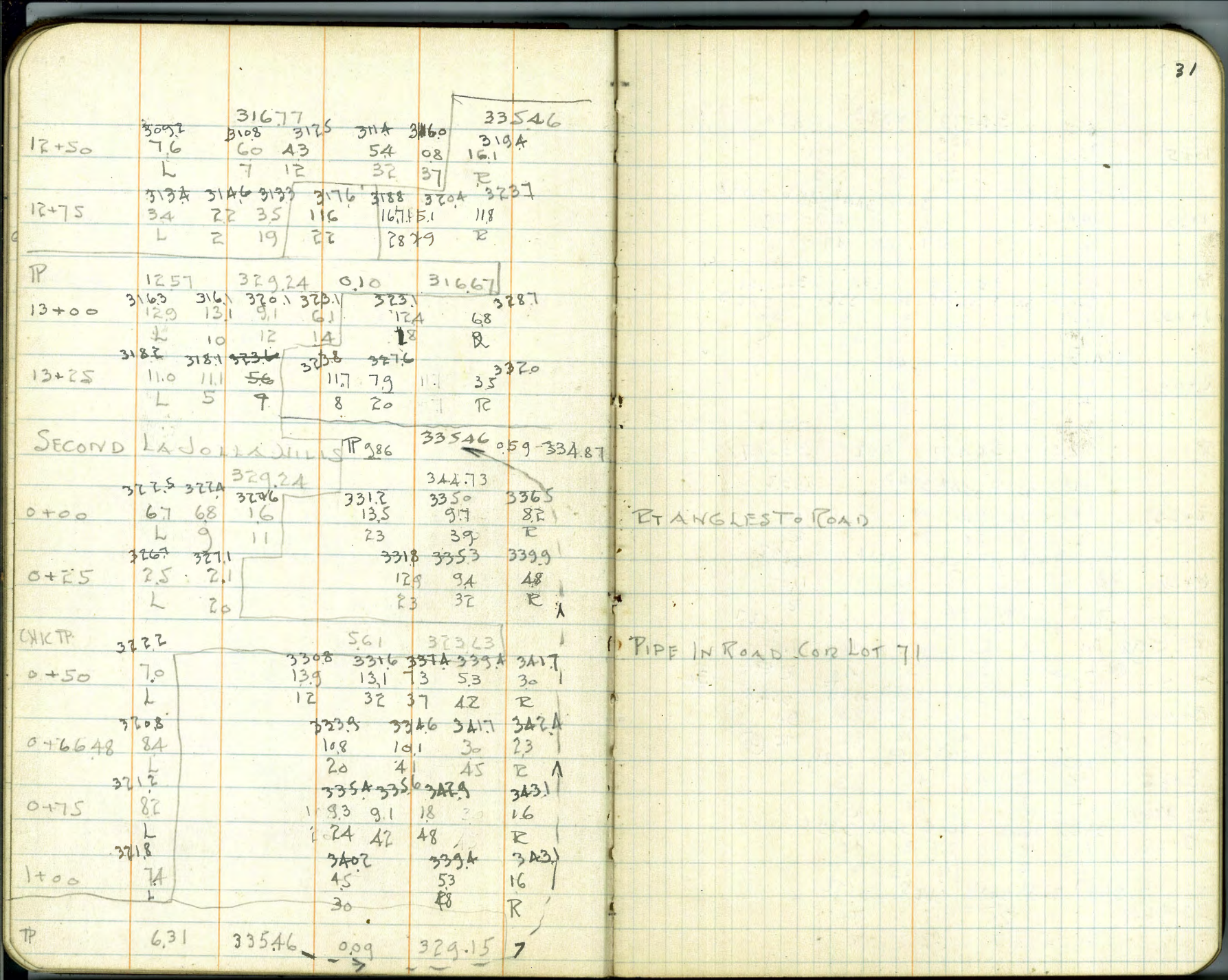
93 LT

			28577				
	2711	2717		2807	2817	2841	2851
8+50	14.7	14.1	5.1		46	17	06
	L	10	27		44	45	R
	2709	2709	2748	2750	2812	2817	2851	2858
8+75	14.9	14.9	11.0	10.8	46	41	07	05
GARAGE FLOOR	L	4	4	7	29	44	46	R
	2748	2818	2819	2854	2858			
8+9134	10.9	4.0	3.9	8.7	8.3			
	L	3.0	4.4	4.7	R			
	2750	2806	2815	2822	2822	2846	2851	
9+00	10.8	5.2	4.3	3.6	3.6	9.5	9.0	
	L	27	29	35	45	47	R	
	2731	2784	2821	2826	2824	2844	2847	
9+1530	12.7	7.4	3.7	3.2	11.7	9.7	9.4	
	L	23	31	40	46	48	R	
	2728	2778	2826	2828		2827	2847	
9+25	13.0	7.0	3.2	3.0		11.4	9.4	
	L	24	34	41		48	R	
	2756	2795	2835			2833	2846	
9+50	10.2	6.3	2.3			10.8	9.5	
	L	23	34			48	R	
	2768	2818	2839			2844	2865	
9+75	9.0	4.0	1.9			9.7	7.6	
	L	24	29			47	R	
	2786	2814		2848	2849	2874	2880	
9+9451	7.2	4.4	9.3	9.2	6.7	6.1		
	L	12	26	14	46	R		
	2791	2811	2838	2851	2850	2868	2879	
10+00	6.7	4.7	2.0	9.0	9.1	7.3	6.2	
	L	9	16	24	43	45	R	
TP +	12.63		294.06	4.34		281.43		
10+019	14.9	2792				6.0	2881	
	L					R		

12' LT OF LT

9' RT OF LT

	2821	29406	2849	2867	2894	2911		
10+25	12.0		9.2	7.9	4.7	3.0		
	L		8	38	40	R		
	2885	2894	2873	2901	2928			
10+50	8.6	6.7	6.8	4.0	1.3			
	L	1.4	3.1	3.3	TR			
CNKB.M								
	2870	2893	2887	1.26	29380			
10+75	7.1	4.9	5.4	2.7	2914	12.1	2947	
	L	6	2.6	2.8		TR		
	2884							
10+98.87	5.7					8.7	2981	
	L					TR		
	2883	2922	2918		2951			
11+00	5.8	1.9	2.3		11.7	8.4	2984	
	L	9	2.6		2.8	TR		
	2902			2953	2956	3006	3043	
11+25	3.9			11.5	11.2	6.7	2.5	
	L			1.3	3.5	3.8	TR	
	2913		2956	2991	2993	3053		
11+50	2.8		11.2	7.7	7.5	1.5	3074	
	L		1.4	2.1	4.1	4.4	R	
TP	1290		30680		0.16	29390		
	2934	2953	2995	3030	3029	3044		
11+75	12.9	11.5	7.3	3.8	3.9	2.4	3076	
	L	1.2	2.2	2.8	4.1	4.6	R	
	2974	3020	3067	3059				
12+00	9.4	4.8	0.1	0.9		3074		
	L	2.1	2.8	4.7		TR		
TP	10.83		31677		0.86	30594		
	3030	3070	3100	3086	3116	3151		
12+25	13.8	9.8	6.8	8.2	5.2	1.7	3172	
	L	1.7	2.2	4.1	4.5	4.6	R	


12+50
12+75
TP
13+00
13+25
SECOND LA JOLLA HILLS TP 986
0+00
0+25
CHK TP
0+50
0+66.48
0+75
1+00
TP
RT ANGLES TO ROAD
PIPE IN ROAD COR LOT 71

		344.3	342.3		345.0
1+25	375.2	343.0	134	10.7	
	L	31	48	TR	
	330.3				
			346.1 344.8	349.6	349.8
1+50	14.4	9.6	10.9	6.1	5.9
	L	27	45	47	TR
PT	12.28	355.69	1.32		343.41
	347.0 347.9	345.7	347.5	352.5	352.3
1+75	13.7 7.8	6.0	8.2	3.2	3.4
	L 12	16	36	42	TR
	354.3 354.1	351.5	354.6		352.9
2+00	1.4 1.6	4.7	1.6	2.8	
	L 8	29	32	TR	
PT	8.50	364.17	0.02		355.67
	357.4 356.2	354.8	356.3		353.2
2+25	6.8 7.6	9.4	7.9		11.0
	L 8	24	27		TR
	355.9 358.7	357.5	351.1	354.8	353.2
2+50	4.3 5.5	6.7	7.1	9.4	11.0
	L 5	8	26	32	TR
	360.8 358.1	357.7	354.5	353.5	352.7
2+59.8	3.4 6.1	6.5	9.7	10.7	11.5
30	(29) L 10	26	35	40	TR (33)
	360.5 362	358.6	358.7	357.4	354.8
3+00	3.7 4.1	5.6	5.5	8.3	9.4
	(30) L 7	4	18	25	TR (30)
	365.6 362.1	359.3	359.6	358.9	
3+25	0.6 2.1	4.9	4.6	5.3	
	L 8	9	24	TR	
H.I. 376.91					
	366.3 364.8	360.5	361.1	359.6	
3+5.	10.6 12.1	3.7	3.1	4.6	
	L 6	9	25	TR	
	366.7 365.1	361.6	362.5	357.2	
3+66.48	10.2 11.8	2.6	1.7	7.0	
	L 5	7	22	TR	

CHANGE TO 30' WIDTH

3+75	3656 3645	3641.7	3622	363.1	3569
	113 124	20		1.1	7.3
	L 3	6		21	R
4+00	3651 3645	3653			3596
	118 120	116		4.6	
	L 5	19		R	
4+01.49	3655 3649	3653			
	114 120	116		4.5	3597
	L 5	19		R	
P	13.05	3769.1		0.31	3638.6
OLK.B.M				8.53	3683.8
4+25	3676 3686 3683				3663
	93 83 86			10.6	
	L 3 19			R	
4+50	3755	3718		3721	3700
	14	51		48	69
	L	6		24	R
4+75	3767 3807	3745	3746	3751	3743
	126 83	24	23	18	26
	L 2	10	23	27	R
P	12.14			0.03	3768.8
4+8382	3828 3817	3890.2	3755	3754	3748
	62 73	139	136	147	
	L 3	7	27	R	
5+00	3848	3826	3766		3766
	42	64	124	124	
	L	6	13	R	
5+25	3864	3849 3826	3782		3789
	26	41 64	108	101	
	L	7 18	20	R	

=3680 3682

← (2) LEFT READINGS

	389.4	389.02	385.3 383.4 380.9		381.0
5+50	12.0	3.7	5.6	8.1	8.0
	L	21	24	26	R
	393.9	392.6	389.8		384.7 384.7
5+75	7.5	8.8	11.6		4.3 4.3
	L	12	20		2.5 R
PI	12.71			0.33	388.69
		401.40			
	396.4	394.2	390.1		389.2
6+00	4.7	7.2	11.3		12.2
	L	9	12		R
	397.4		397.4		397.2
6+25	7.0		7.0		7.2
	L		15		R
	397.7	398.5		402.5	402.8
6+50	3.7	2.9		10.8	11.5
	L	16		22	R
	399.6				
	402.4	401.A		401.A	407.A 409.1
6+75	1.8	0.0		0.0	5.9 4.2
	L	9		16	2.0 R
PI	12.82			0.90	400.50
	400.5	413.32			
		402.1	402.1	409.5	410.8
6+80.76	12.8	11.2	11.2	3.8	2.5
	L	12	18	22	R
	406.2	406.2	403.7	405.2	413.0
7+00	7.1	7.1	9.6	8.1	0.3
	L	3	5	25	R
	405.8	408.7	408.8	407.7	408.5
7+25	7.5	4.6	4.5	5.4	4.8
	L	8	12	14	R
	405.0	411.A	411.A		
7+45.16	8.3	1.9	1.9	2.5	410.8 2.5 410.8
	L	13	15	16	R

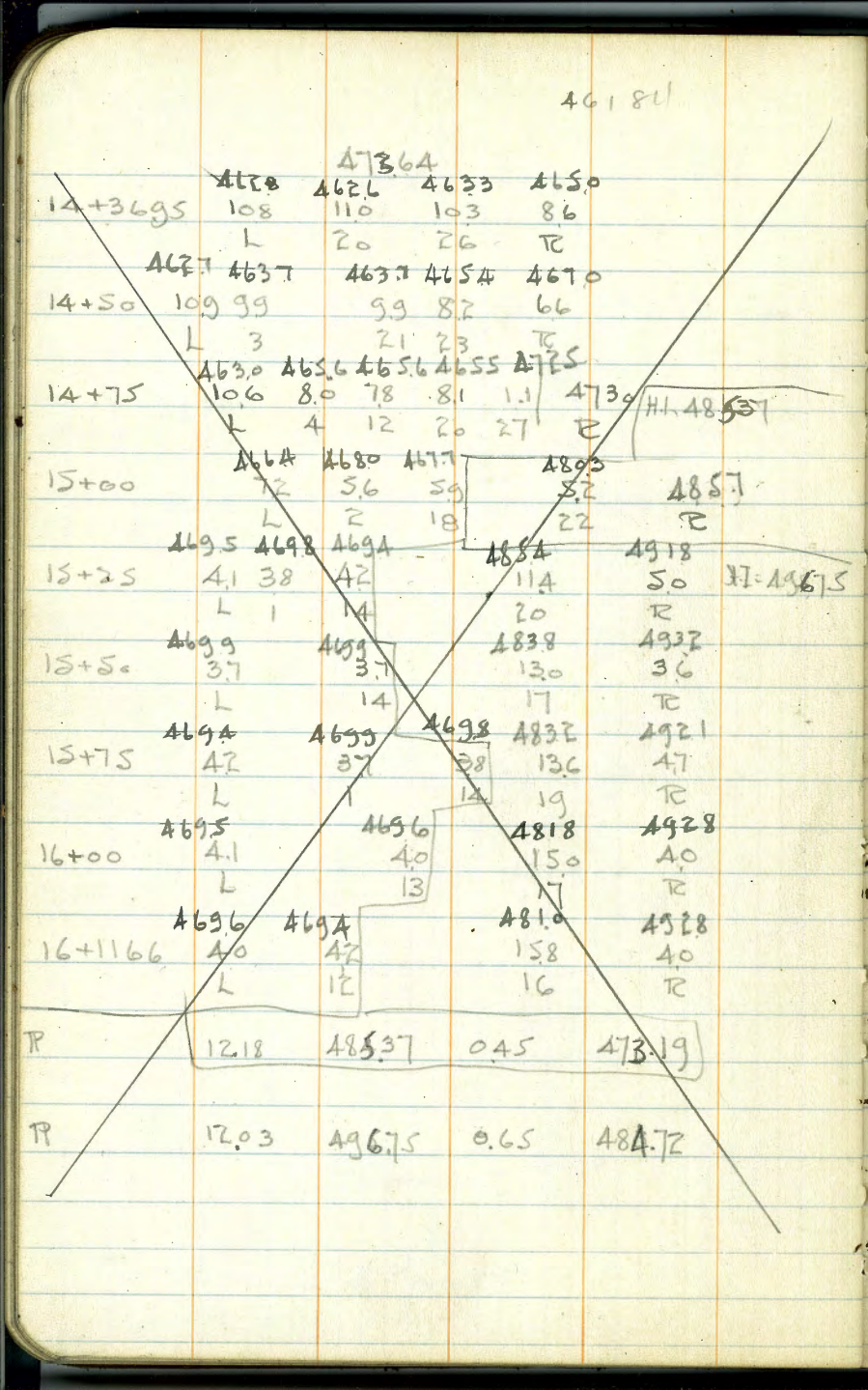
1' R OF MARKER 6+00 IN RT

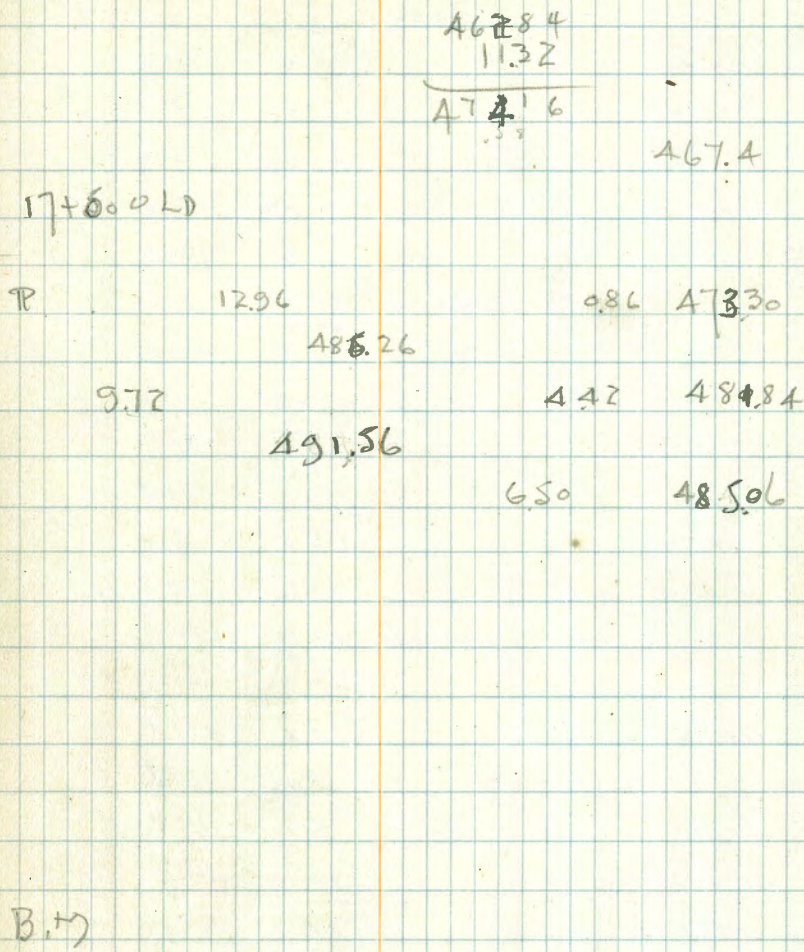
	4053	41332			
	8.0	4116	4121	4114	4114
7+50	L	17	12	19	19
		13	15	18	TR
	4061	4099	4152	4150	
7+75	7.2	34	9.1	9.2	
	L	11	20	TR	
	4034		4131	4184	
8+00	9.9		11.7	5.9	
	L		22	TR	
	4053	4076		4142	
8+25	8.0	5.7		10.1	
	L	10		TR	
	4119		4154		4181
8+50	1.4		8.9		6.2
	L		15		TR
PT	12.55			1.60	41172
	4206	42437	4217		4235
8+75	3.7		26		08
	TR		15		TR
	4227		4244		4273
9+00	1.6		12.1		9.5
	L		18		TR
PT	13.17	43675		0.69	42358
	4226		4260		4291
9+25	14.2		10.8		7.7
	L		16		R
	4238		4269	4308	4327 4328
9+50	13.0		9.9	6.2	4.1 4.0
	L		14	25	28 TR
	4305	4320	4332	4348	4348
9+75	6.3	4.8	3.6	2.0	2.0
	L	5	16	21	TR

	A334	A362 436.75	A36.5	A362	
10+00	34	06	03	06	
	L	11	2.5	R	
TP	12.10		0.19	436.56	
	A358 A370	44926 A382	A378	A388	
10+25	134 123	11.1	11.5	10.5	
	L 3	10	29	R	
	A370	A393	A389 A388	AA01	
10+50	123	100	104 104	82	
	L	9	15 27	R	
	A371	A389	A393 A389	AA08	
10+75	122	104	100 104	85	
	L	5	9 27	R	
	A337	A378	A387 A386	AA10	
10+93.08	156	11.5	10.6 10.7	83	
	L	6	9 27	R	
	A334	A373	A384 A383 A385	AA01	
11+00	159	120	109 11.0 10.8	92	
	L	6	10 15 27	R	
	A326	A381	A388 A385	A361	
11+25	167	112	105 10.8	132	
	L	8	11 26	R	
	A354	A398	AA01 AA05	AA13	
11+50	139	95	92 88	80	
	L	7	15 27	R	
	A386	AA28	AA35 A500	~~A6109~~	
11+75	107	65	58 11.1		
	L	6	25 R		
	~~AA07~~	AA63	AA61 A514		
12+00	86	30	32 9.1		
	L	9	26 R		
	AA47	A501	A501 A503	A514.0	
12+25	A6	110	11.0 10.8	7.1	
	L	10	17 27	R	

	44.78	449.26		45.37	
82+38.67	1.5	94	93	74	
	L	9	27	R	
TP	12.28	461.09	0.45	448.81	
	449.5	452.8	453.7	453.3	455.0
12+50	11.6	83	74	7.8	6.1
	L	5	11	R	
	456.5	457.0	456.1	455.8	
12+75	4.6	4.1	5.0	5.3	460.7
	L	4	17	26	R
	459.5	458.7	458.1	462.9	463.9
13+00	16	24	30	10.7	9.7
	L	10	21	24	R
	460.6	459.9		464.2	465.0
13+25	0.5	1.2		9.4	8.6
	L	17		20	R
TP	12.98			0.43	458.66
		473.64			
		459.8	460.1	464.4	465.4
13+50		13.8	13.5	9.2	8.2
		L	17	21	R
	460.1	460.1	463.8	465.4	
13+59.21	13.5	13.5	9.8	8.2	⊗
	L	16	20	R	
	460.3	460.5	462.6	464.9	
13+75	13.3	13.1	11.0	8.7	
	L	18	22	R	
	460.9	460.8	460.5	463.8	
14+00	12.7	12.8	13.1	9.8	
	L	15	21	R	
	462.1	462.0	462.3	463.6	
14+25	11.5	11.2	11.3	10.0	
	L	15	24	R	

TURN OVER 3 PAGES


14+3695
14+50
14+75
15+00
15+25
15+50
15+75
16+00
16+1166
4618
4736
4728 4626 4633 4650
108 110 103 86
L 20 26 TC
4677 4637 4637 4654 4670
109 99 99 82 66
L 3 21 23 TC
4630 4656 4656 4655 4725
10.6 8.0 78 8.1 1.1 4730
L 4 12 20 27 TC
4857
4664 4680 4677 4803
7.2 5.6 59 8.2
L 2 18 22 TC
4695 4698 4694 4854 4918
4.1 3.8 4.2 11.4 5.0
L 1 14 20 TC
4699 4699 4838 4937
3.7 3.7 13.0 3.6
L 14 17 TC
4694 4699 4698 4832 4921
4.2 3.7 3.8 13.6 4.7
L 1 14 19 TC
4695 4696 4818 4928
4.1 4.0 15.0 4.0
L 13 17 TC
4696 4694 4810 4928
4.0 4.2 15.8 4.0
L 12 16 TC
TP 12.18 4853.7 0.45 4731.9
TP 12.03 4967.5 0.65 4847.2
H.I. 4853.7
H.I. 4967.5


4678.4
11.32
4690.16
467.4
17+60.0 LD
TP
12.96
0.86
4733.0
4856.26
9.72
4.42
4884.84
491.56
6.50
4850.6
B.M.

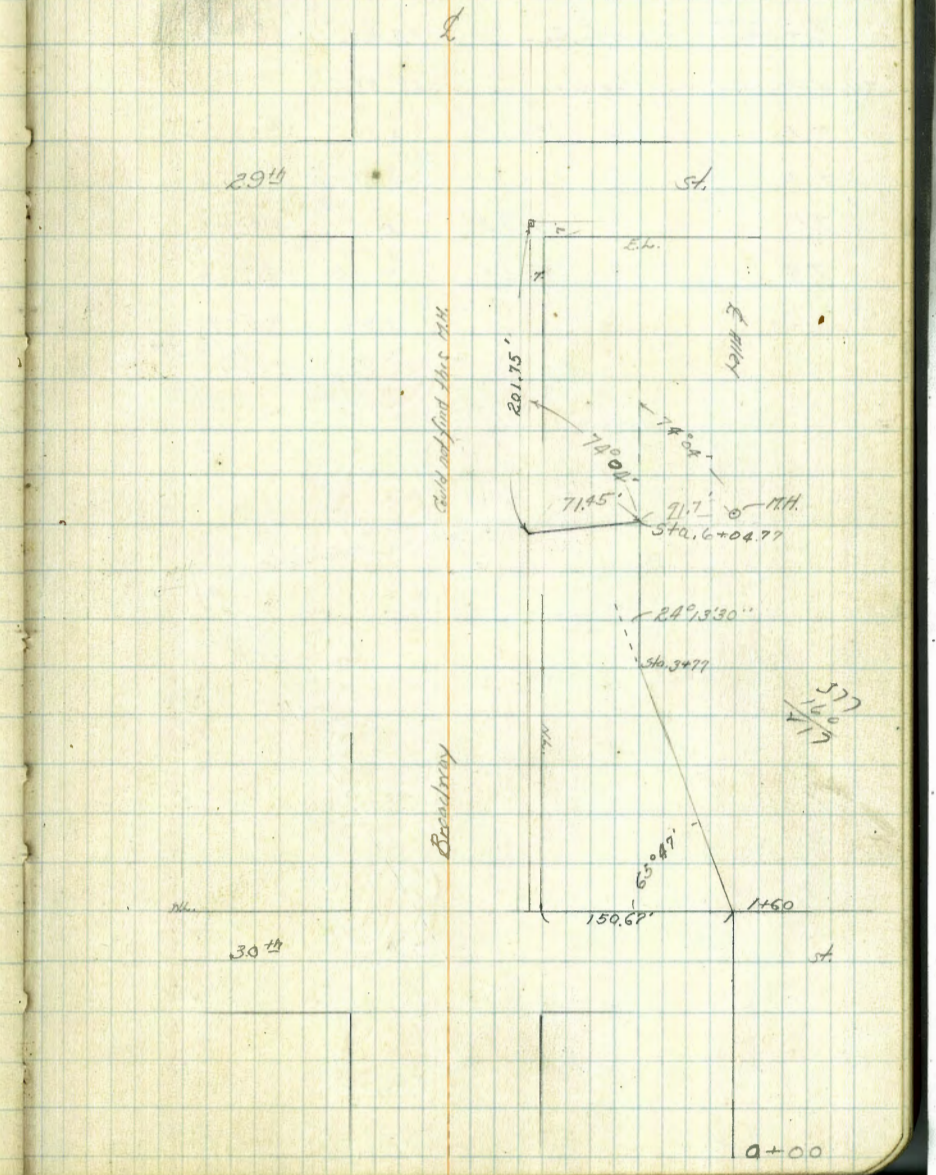
Walker
N. 1/4

Preliminary Levels for Sewer.

Bet. Bdwy. & E. bet. 30th & 29th St.

	9.87	204.90	9	195.08	SE. BR. Bdwy & 30th
			204		
100' E. EL. 30th = 0+00			2.7	202.2 ✓	
+ 50			8.5	196.4 ✓	
1+00 = EL. 30th top Retaining			10.66	194.2 ✓	
+50 = top N'ly			11.49	193.4 ✓	
1+60 = △			11.6	193.3 ✓	
T.P.	0.83	193.64	12.09	192.81	
			193		
1+70			6.9	186.7 ✓	
T.P.	0.81	182.19	12.26	181.38	
			187.2		
1+97			7.33	168.9 ✓	
2+23			16.8	165.4 ✓	
+47			14.2	168.0 ✓	
+57			11.6	170.6 ✓	
T.P.	1.50	120.94	12.75	169.44	
			1709		
3+20			21	168.8 ✓	
Left 30' = Bottom of Gulch			14.4	156.5 ✓	
3+77 = △ R24°13'30"			8.46	162.4 ✓	
4+00			7.1	163.8 ✓	
4+30			10.2	160.7 ✓	
Left 25' = Bottom of Gulch			15.3	155.6 ✓	
T.P.	0.43	158.73	12.64	158.30	
			158.7		
4+85			3.9	154.8 ✓	
5+05			6.8	151.9 ✓	
5+20			11.2	147.5 ✓	
+50			12.0	146.7 ✓	
+90			11.3	147.4 ✓	

37



Cont. from preceding page

		158.73	~~158~~ 7	
5+95			9.1	149.6 ✓
6+04.77 = top of Pipe			12.66	146.0 ✓
MH in Alley N of Bdry. Hor. line			12.55	
T.P.	11.52	170.14	0.11	158.62
T.P.	10.83	180.71	0.26	169.88
T.P.	10.33	190.94	0.10	180.61
T.P.	9.88	198.48	2.34	188.60
			3.39	195.09

195.08 = BM
0.01

Re-x-Sections Hillside Dr. in La Jolla Hills #2

13759.21

	10.00 LT	47360		46360 RT
14+10.66PC	461.3 / 12.3	461.2 / 12.4	461.3 / 12.3	463.0 / 10.6
	0	6	23	30
+25	462.2 / 11.4	462.0 / 11.6	462.1 / 11.5	463.6 / 10.0
	0	6	21	30
+50	461.4 / 12.2	463.2 / 9.9	463.8 / 10.1	463.8 / 9.8	465.2 / 7.9	466.4 / 7.4
	0	6	26	27	30
+75	458.6 / 15.0	465.5 / 8.1	463.3 / 7.9	463.4 / 7.8	471.7 / 2.5
	0	9	6	28	30
15	461.2 / 11.9	468.0 / 5.6	469.2 / 5.9	462.8 / 5.8	481.2 / 6.6	48781
	0	8	6	25	30
+25	463.2 / 10.4	469.8 / 3.8	469.3 / 4.3	485.1 / 1.53	482.3 / 13.1	500.43
	0	9	22	27	30
+50	463.8 / 9.8	470.1 / 3.5	469.9 / 3.7	484.3 / 1.59	487.3 / 13.1
	0	8	22	24	30
+75	464.1 / 9.5	470.0 / 3.6	469.8 / 3.8	484.0 / 1.64	482.2 / 13.2
	0	7	22	25	30
16	467.8 / 5.8	469.5 / 4.1	469.4 / 4.2	480.6 / 1.98	489.6 / 10.6
	0	2	6	19	30
				49246	
+25	468.7 / 4.3	469.2 / 4.4		480.1 / 1.24	482.5 / 9.9	492.9 / 7.5
	0	11		12	6	30

CONT.

1230			46360
	47590		
1222		0.31	47559
	48781		
1313		0.51	48730
	50043		
440		1237	48806
	49246		

LT	47360			49246			50043 RT		
16+31 96PRC	4692 44 0	4692 44 10		4817 10.8 12	4833 9.2 K		4933 7.1 30		
+50	4691 45 0	4693 43 11		4818 10.1 13	4825 10.0 K		4912 9.2 30		
+75	4692 44 0	4695 4.1 6		4832 9.3 21			4876 12.8 30		
PP	531			353	47002				
	47533								
17	4695 6.5 0	4696 5.6 2	4701 5.2 K	4700 4.7 30					
+25	4617 13.6 0	4643 11.0 3	4710 4.3 K	4708 4.5 30	4708 4.5 40				
+50	4607 14.6 0	4687 6.5 10		4713 4.0 K	4719 3.4 30	4723 3.0 45			
+7262	4667 8.6 0	4715 3.8 8	4712 3.6 K	4717 3.6 25	4727 2.6 30	4737 1.6 45			
+75	4677 7.9 0	4715 3.8 7	4715 3.8 K	4713 4.0 25	4730 2.3 30				
+8377 K	4694 5.9 0	4702 4.6 3	4708 4.5 23	4738 1.5 26	4732 1.6 30				
+9269	4679 5.4 0	4689 5.4 K	4699 5.4 17	4745 0.4 21	4745 0.8 30	4735 1.0 42			

K AND SL. LA JOLLA HILLS #2

X section Sapphire St.

From R.R. to Cass St.
B.M. Pole by RR track North of Lawrence 70.90

	+	T	−	
T.R.	9.28	80.18		70.90
T.P.	12.35	92.53	2.00	78.18
T.P.	8.96	98.09	1.40	89.13

15' cbs 10' quarters

0+00 = R.R.

0+00 = End of Sapphire St. taken on diag.

Stations run on N. Line

N.L.	12.0		86.1
cb	12.2		85.9
¼	12.3		85.8
℄	12.4		85.7
¼	12.6		85.5
+3	12.6		85.5
cb	14.3		83.8
SL	14.3		83.8
0+41.20 = R+ Ls to Sapphire			
SL	14.3		83.8
cb	14.0		84.1
¼	12.7		85.4
℄	12.1		86.0
¼	11.6		86.5
cb	11.3		86.8
NL	11.1		87.0
0+90			
NL	9.3		88.8
+6	9.5		88.6
cb	12.5		85.6

	+	T	−	
¼		78.09	13.6	84.5
℄			13.8	84.3
¼			16.4	81.7
+5			15.3	82.8
cb			15.2	82.9
SL			18.9	79.2
1+07				
SL−10			26.0	76.1
SL			27.0	77.1
cb			23.1	76.0
¼			19.2	78.9
℄			16.8	81.3
¼			16.5	81.6
+5			16.7	81.4
cb			13.2	84.9
+10			12.0	86.0
NL			9.0	89.1
+10			9.0	89.1
1+45				
NL			12.5	85.6
cb			18.6	79.5
¼			22.6	75.5
℄			26.5	71.6
¼			29.2	68.9
cb			37.7	60.4

	+	π 98.09	−	
SL			38.3	59.8
+25			38.8	59.3
1+80				
SL-25			36.8	61.3
SL			36.3	61.8
cb			37.2	60.9
¼			32.4	65.7
℄			29.2	68.9
¼			23.3	74.8
cb			18.8	80.3
NL			18.2	85.9
2+00				
NL			18.9	79.7
cb			24.3	73.8
¼			26.7	71.4
℄			28.9	69.2
¼			33.0	65.1
cb			35.5	62.6
+1			37.8	60.3
SL			37.6	60.5
+10			34.0	64.1
2+30				
SL-10			30.5	67.6
SL			34.0	64.1
+3			34.0	64.1

	+	π 98.09	−	
+5			37.0	61.1
cb			37.4	60.7
¼			37.0	61.1
+3			36.6	61.5
+5			33.7	64.4
¼			33.0	65.1
℄			30.8	67.3
¼			29.1	69.0
cb			27.2	70.9
NL			24.3	73.8
+10			21.0	77.1
2+70				
NL -10			32.9	65.2
NL			33.0	65.1
cb			33.4	64.7
¼			33.8	64.3
℄			34.4	63.7
¼			35.4	62.7
cb			35.4	62.7
SL			34.9	63.2
+15			34.1	64.0
+25			30.1	68.0
2+85				
SL-15 =toe of bluff			25.1	73.0

	+	ℸ 98.09	-	
SL			29.7	68.4
cb			28.9	69.2
¼			28.6	69.5
℄			28.4	69.7
¼			27.8	70.3
cb			27.6	70.5
NL			27.7	70.4
+15			27.0	71.1
3+00				
NL-10			25.4	72.7
NL			26.5	72.6
cb			27.0	71.1
¼			27.0	71.1
℄			27.3	70.8
¼			27.4	70.7
cb			27.2	70.9
SL			27.0	71.1
+8			25.9	72.2
+16			5.7	92.4
3+15				
SL-5			5.1	93.0
SL			5.1	93.0
cb			12.1	76.0
¼			19.4	78.7
℄			19.4	78.7

	+	ℸ 98.09	-	
¼			21.8	76.3
cb			22.2	75.9
NL			21.0	77.1
+5			19.0	79.1
3+40				
NL-10			7.9	90.2
NL			7.7	90.4
+8			7.1	91.0
+14			3.3	94.8
cb			3.1	95.0
¼			3.1	95.0
℄			3.4	94.7
¼			3.4	94.7
cb			3.7	94.4
SL			3.4	94.7
4+25				
T.P.	6.10	103.09	4.10	96.99
SL			7.0	96.1
cb			6.5	96.6
¼			6.1	97.0
℄			5.8	97.3
¼			5.4	97.7
cb			5.1	98.0
NL			4.8	98.3
4+75				

	+	ℸ	−	
		103.09		
NL			3.5	99.6
cb			4.1	99.0
¼			4.3	98.8
℄			4.5	98.6
¼			5.1	98.0
cb			5.1	98.0
SL			5.5	97.6
5+27 ℄	= NL. ALLISON			
SL			4.7	98.4
cb			4.2	98.9
¼			3.8	99.3
℄			3.4	99.7
¼			3.1	100.0
cb			2.7	100.4
NL			2.1	100.7
0+00	= EL ALLISON			
NL			1.5	101 6
cb			1.8	101 3
¼			2.2	100 9
℄			2.8	100 3
¼			3.2	100 9
cb			3.5	99 6
SL			4.1	99 0
0+50				
SL			3.2	99 9

	+	ℸ	−	
		108.09		
cb			2.8	100.3
¼			2.5	100.6
℄			2.3	100.8
¼			1.8	101.3
cb			1.5	101.6
NL			1.0	102.1
1+00				
NL			0.5	102.6
cb			1.1	102.0
¼			1.4	101.7
℄			1.6	101.5
¼			2.0	101.1
cb			2.3	100.8
SL			2.4	100.7
T.P.	7.43	108.92'	1.60	101.49
1+50				
SL			7.5	101.4
cb			7.0	101.9
¼			6.4	102.5
℄			6.0	102.9
¼			5.8	103.1
cb			5.6	103.3
NL			4.7	104.2
2+00				
NL			3.8	105.1

	+	T 108.92	−	
cb			4.0	104.9
¼			4.6	104.3
℄			5.2	103.7
¼			5.7	103.2
cb			6.2	102.7
SL			7.7	101.2
2+50				
SL			6.3	102.6
cb			5.6	103.3
¼			5.2	103 7
℄			4.8	104 1
¼			4.5	104 4
cb			4.1	104 8
NL			3.5	105 4
3+00				
NL			2.5	106 4
cb			3.0	105 9
¼			3.5	105 4
℄			3.8	105 1
¼			4.3	104 6
cb			4.8	104 1
SL			5.2	103 7
3+50				
SL			4.8	104 1
cb			4.3	104 6

	+	T 108.92	−	
¼			4.0	104.9
℄			3.7	105.2
¼			3.3	105.6
cb			3.1	105.8
NL			2.4	106.5
3+85				
NL			1.8	107.1
cb			2.7	106.2
¼			3.2	105.7
℄			3.5	105.4
¼			3.8	105.1
cb			4.2	104.7
SL			4.7	104.2
4+12				
SL			4.7	104.2
cb			4.1	104.8
¼			3.7	105.2
℄			3.7	105.2
¼			3.5	105.4
cb			3.0	105.9
NL			2.8	106.1
4+28				
NL			1.4	107.5
cb			2.2	106.7
¼			3.0	105.9

	+	π 108.92	−	
℄			3.5	105 4
¼			4.0	104 9
cb			4.5	104 4
SL			4.9	104 0
4+80				
SL			3.4	105 5
cb			2.8	106 1
¼			2.2	106 7
℄			1.8	107 1
¼			1.3	107 6
cb			0.9	108 0
NL			0.5	108 4
T.P.	10.07	116.94 ✓	2.05	106.87
5+50				
NL			5.6	111 3
cb			6.3	110 6
¼			6.9	110 0
℄			7.4	109 5
¼			7.8	109 1
cb			8.1	108 5
SL			9.2	107 7
6+00				
SL			8.0	108 9
cb			7.0	109 9
¼			6.5	110 4

	+	π 116.94	−	
℄			5.8	111.1
¼			5.2	111.7
cb			4.6	112.3
NL			3.7	113.2
6+50				
NL			2.6	114.3
cb			3.5	113.4
¼			3.8	113.1
℄			4.2	112.7
¼			4.9	112.0
cb			5.3	111.6
SL			5.3	111.6
7+05.20 = NL Bayard				
SL			5.2	111.7
cb			4.5	112.4
¼			4.3	112.6
℄			4.0	112.9
¼			3.4	113.5
cb			3.1	113.8
SL			2.2	114.7
℄ Bayard				
NL			1.5	115.4
cb			2.4	114.5
¼			2.9	114.0
℄			3.3	113.6

	+	⊼ 116.94	−	
¼			4.1	112.8
cb			4.4	112.5
SL			4.9	112.0
0+00	= EL Bayard			
SL			4.2	112.7
cb			3.9	113.0
¼			3.3	113.6
℄			2.6	114.3
¼			2.1	114.8
cb			1.8	115.1
NL			0.8	116.1
T.P.	8.93	124.94	0.93	116.01
0+50 NL			7.3	117.6
cb			8.5	116.4
¼			8.5	116.4
℄			9.1	115.8
¼			9.5	115.4
cb			10.3	114.6
SL			10.5	114.4
1+00				
SL			10.1	114.8
cb			9.6	115.3
¼			9.1	115.8
℄			8.5	116.4
¼			8.3	116.6

	+	⊼ 124.94	−	
cb			8.0	116.9
NL			7.4	117.5
1+50				
NL			6.8	118.1
cb			7.6	117.3
¼			7.7	117.2
℄			8.0	116.9
¼			8.5	116.4
cb			9.0	115.9
SL			10.2	114.7
2+00				
SL			7.7	117.2
cb			7.5	117.4
¼			7.2	117.7
℄			6.4	118.5
¼			6.3	118.6
cb			6.3	118.6
NL			5.5	119.4
2+50				
NL			4.1	120.8
cb			5.5	119.4
¼			5.4	119.5
℄			5.1	119.8
¼			5.1	119.8
cb			5.7	119.2

	+	℄ 124.94	−	
SL			6.4	118 5
2+75				
SL-15			9.4	115 5
SL			7.2	117 7
cb			5.7	119 2
¼			5.2	119 7
℄			5.0	119 9
¼			4.2	120 7
cb			4.1	120 8
NL			3.8	121 1
3+00				
NL			2.7	122 2
cb			3.5	121 4
¼			4.2	120 7
℄			4.5	120 4
¼			5.0	119 9
cb			5.2	119 7
SL			6.6	118 3
+10			8.0	116 9
3+50				
SL			5.8	119 6
cb			4.7	120 2
¼			3.5	121 4
℄			3.1	121 8
¼			2.6	122 3

	+	℄ 124.94	−	
cb			2.6	122.3
NL			1.7	123.2
3+79.2 = WL Cass St				
NL			0.9	124.0
cb			1.9	123.0
¼			2.1	122.8
℄			2.2	122.7
¼			2.5	122.4
cb			3.6	121.3
SL			4.7	120.2
+23' = Edge of graded strip west of paving.				
SL			4.0	120.9
cb			3.5	121.4
¼			3.1	121.8
℄			2.8	122.1
¼			2.1	122.8
cb			1.6	123.3
NL			1.0	123.9
+30' = Edge of pavement				
NL			0.76	124.18
cb			1.35	123.59
¼			1.75	123.19
℄			2.15	122.79
¼			2.54	122.40

	+	I	−	
		124.94		
cb			2.93	122.01
S.L			3.59	121.35
T.P	0.87	119.21	6.60	118.34
T.R			14.95	104.26

Check on T.R in Tourmaline El 104.29

104.26
104.29
0.03

1/11/28 X Section Noyes St McHugh 51
Garnet to Diamond

B.M. Noyes x Garnet N.W.B.P. 62.02

0+00 = N.L Garnet

+ 5.65 = 67.67 − 62.02
20' abs 10' quarters

0+00		
W.L	4.2	625
Top of Cb.	5.74	6193
Gut	5.8	619
¼	6.4	613
℄	6.4	613
¼	7.1	606
Top of cb.	7.71	5996
E.L.	7.6	601
0+08 = 3' palm tree 12' in street on West		
E.L.	7.7	600
cb	7.1	606
¼	6.8	609
℄	6.2	615
¼	6.0	617
+8	5.8	619
cb	4.8	629
+5	3.0	647
W.L.	2.3	654
0+50		
W.L.	1.7	660
cb	3.7	640
¼	5.1	626

	+	π 67.67	−	
℄			5.4	62 3
¼			5.3	62 4
cb			6.1	61 6
+ 3			7.5	60 2
EL			8.2	59 5
1+00 = 4' Palm		12' in	street	on West
EL			7.6	60 1
cb			6.9	60 8
¼			5.0	62 7
+2			4.5	63 2
℄			4.4	63 3
¼			4.3	63 4
cb			4.0	63 7
WL			3.8	63 9
1+50				
WL			4.3	63 4
cb			4.1	63 6
¼			4.4	63 3
℄			4.9	62 8
¼			5.5	62 2
cb			5.6	62 1
EL			5.7	62 0
1+68 = 3' Palm tree		12' in	street	on west
1+95 = 3' "		"	"	" "
2+00				

	+	π 67.67	−	
EL			4.1	63 6
cb			3.9	63 8
¼			3.8	63 9
℄			3.8	63 9
¼			3.6	64 1
cb			3.5	64 2
WL			3.3	64 4
2+50				
WL			2.0	65 7
cb			2.4	65 3
¼			2.3	65 4
℄			2.5	65 2
¼			2.3	65 4
cb			2.3	65 4
EL			2.6	65 1
2+70 = SL Felspar st.				
EL			2.5	65 2
cb			2.1	65 6
¼			2.0	65 7
℄			1.8	65 9
¼			1.8	65 9
cb			2.0	65 7
WL			0.4	67 3
T.P.	10.13	76.71 ✓	1.53	66 14
Curb line				

	+	T 76.27	−	
WL			9.2	671
cb			9.7	666
¼			9.7	666
℄			9.8	665
¼			9.7	666
cb			10.1	662
EL			11.3	650
quarter				
EL			11.3	650
cb			9.8	665
¼			9.4	669
℄			9.6	667
¼			9.4	669
cb			9.6	667
WL			9.0	673
center Line				
WL			8.6	677
cb			9.1	672
¼			9.1	672
℄			9.3	670
¼			9.5	668
cb			9.8	665
EL			11.5	648
quarter				
EL			12.2	641

	+	T 76.27	−	
cb			8.8	685
¼			9.1	672
℄			9.0	673
¼			8.9	674
cb			8.8	675
WL			8.4	679
Curb line				
WL			8.2	681
cb			8.7	676
¼			8.7	676
℄			8.9	674
¼			9.1	672
cb			9.3	670
+15			12.7	636
EL			7.4	689
0+00 = NL Falspar = First of row of Evergreen trees on E&O+ Line				
EL			9.6	667
+12			11.4	649
+16			9.5	668
Eb			8.9	674
¼			8.7	674
℄			8.4	679
¼			8.1	682
ob			8.3	680
WL			7.8	685

	+	ℸ 76.27	−	
0+50				
WL			6.2	70 1
cb			6.7	69 6
¼			7.4	68 9
℄			7.6	68 7
¼			8.0	68 3
cb			8.3	68 0
EL			8.4	67 9
1+00				
EL			7.4	68 9
cb			7.1	69 2
¼			7.1	69 2
℄			7.0	69 3
¼			6.8	69 5
cb			6.1	70 2
WL			5.4	70 9
1+50				
WL			4.6	71 7
cb.			5.1	71 2
¼			5.3	71 0
℄			5.1	71 0
¼			5.3	71 0
cb			5.4	70 9
EL			5.5	70 8
2+00				

	+	ℸ 76.27	−	
EL			3.6	72 7
cb			3.5	72 8
¼			3.7	72 6
℄			3.3	73 0
¼			3.4	72 9
cb			2.7	73 6
WL			2.6	73 7
2+50 = End of Evergreen grove on East Line				
WL			0.8	75 5
cb			1.7	74 6
¼			1.4	76 9
℄			1.8	74 5
¼			1.8	74 5
cb			2.4	73 9
EL			3.1	73 2
TP	11.52	86.12 ✓	1.67	74.60
2+70 = SL Emerald St				
EL			12.4	73 7
cb			12.0	73 1
¼			11.1	75 0
℄			11.0	75 1
¼			10.6	75 5
cb			10.5	75 6
WL			10.1	76 0
Curb line				

	+	↑ 86.12	−	
WL Top of End of curb			10.07	76 05
cb			10.7	75 4
¼			10.8	75 3
℄			10.2	75 9
¼			10.1	76 0
cb			10.8	75 3
EL			10 9	75 2
Quarter				
EL			10.4	75 7
cb			10.8	75 3
¼			10.0	76 0
℄			10.0	76 0
¼			10.3	75 8
cb			10.4	75 7
WL			10 0	76 1
Center line				
WL			9.7	76 4
cb			10.1	76 0
¼			10.1	76 0
℄			9.9	76 2
¼			9.6	76 5
cb			10.4	75 7
EL			9.6	76 5
Quarter				
EL			9.4	76 7

	+	↑ 86.12	−	
cb			10.0	76 1
¼			9.4	76 7
℄			9.6	76 5
¼			10.0	76 1
cb			9.8	76 3
WL			9.4	76 7
Curb Line				
WL Top of End of Curb			8.66	77 46
+1			9.2	76 9
cb			9.4	76 7
¼			9.4	76 7
℄			9.2	76 9
¼			9.2	76 9
cb			9.4	76 7
EL			9.0	77 1
0+00 = N.L. Emerald				
EL			8.0	78 1
cb			8.8	77 3
¼			8.5	77 6
℄			8.6	77 5
¼			8.4	77 7
cb			8.2	77 9
WL			8.2	77 9
0+50				
WL			6.3	79 8

	+	π 8612	−	
cb			6.3	798
¼			6.6	795
℄			7.0	791
¼			6.7	794
cb			7.2	789
+3			6.4	797
EL			6.5	796
1+00				
EL			5.5	806
+17			5.2	809
cb			5.9	802
¼			5.2	809
℄			5.5	806
¼			5.0	811
cb			4.8	813
WL			5.1	810
1+50				
WL			3.9	822
cb			3.7	824
¼			4.1	820
℄			4.4	817
¼			3.8	823
cb			4.5	816
EL			4.5	816
2+00				

	+	π 86.12	−	
EL			2.4	837
cb			3.2	829
¼			2.2	839
℄			2.9	837
¼			2.1	840
+5			1.8	843
WL			0.0	861
T.P.	12.77	9794	0.95	85.17
2+50				
WL			9.7	882
cb			11.4	865
¼			12.8	851
℄			12.1	858
¼			11.6	863
+5			10.8	871
+6			9.6	883
cb			9.3	886
EL			7.6	903
2+70 = S.L Diamond				
EL			4.7	932
cb			7.1	908
+3			7.7	902
+5			10.8	871
¼			11.2	867
℄			11.4	867

X sectian. Emerald

Noyes to Olney

20' cbs. 10' quarters

0+00 = W.L. Olney

H.I. continued from preceding page

	+	T	−	
		97.94		
¼			12.2	85 7
cb			10.1	87 8
WL			10.4	87 5
+30' = Edge of Pavement				
WL			10.41	87 53
cb			10.64	87 30
¼			10.67	87 27
℄			10.50	87 44
¼			10.34	87 60
cb			10.05	87 89
EL			9.48	88 46
T.P.	0.32	86.42	11.84	86.10

H.I. continued from preceding page

86.42

	+	T	−	
0+00				
NL			13.3	73 1
cb			13.6	72 8
¼			13.6	72 8
℄			14.9	71 5
¼			13.4	73 0
cb			13.1	73 3
SL			13.3	73 1
0+25				
SL			12.5	74 9
cb			11.9	74 5
¼			11.9	74 5
℄			12.1	74 3
¼			13.1	73 3
cb			12.7	73 7
NL			12.6	73 8
0+75				
NL			10.3	76 1
cb			10.2	76 2
¼			10.0	76 4
℄			9.8	76 6
¼			9.7	76 7

	+	T 86.42	-	
CL			10.1	76 3
SL			11.0	75 4
1+25				
SL			11.0	754
CL			10.2	76 2
¼			9.8	766
℄			9.3	771
¼			9.1	773
CL			9.0	774
NL			8.8	776
1+75				
NL			7.3	791
CL			7.6	788
¼			7.7	787
℄			7.8	786
¼			7.7	787
CL			7.9	785
SL			8.7	777
2+25				
SL			7.6	788
CL			6.7	797
¼			6.2	802
℄			6.1	803
¼			5.9	805
CL			5.7	807

	+	T 86.42	-	
NL			5.6	808
2+75				
NL			3.6	828
CL			4.2	822
¼			4.9	815
℄			5.1	813
¼			6.0	804
CL			6.6	798
SL			8.0	784
3+25				
SL			10.6	758
CL			7.5	789
¼			6.1	803
℄			5.0	814
¼			3.8	826
CL			3.1	833
NL			2.4	840
3+75				
NL			2.4	840
CL			2.9	835
¼			3.6	828
℄			4.0	824
¼			5.1	813
CL			7.2	792
SL			9.7	767

	+	℄ 86.42	−	
4+25				
SL			10.7	75 7
cb			8.3	781
+8			7.4	790
¼			6.1	803
℄			4.7	817
¼			4.6	818
cb			3.6	828
NL			2.4	840
4+50				
NL			3.4	830
cb			4.5	819
¼			6.7	797
℄			7.0	794
¼			8.0	784
cb			9.3	771
SL			10.5	759
4+75	=6 Eucalyplus trees on SL.			
SL			12.1	743
cb			10.7	757
¼			10.1	763
℄			9.3	771
¼			8.7	777
cb			7.8	786
NL			5.1	813

	+	℄	−	
T.P.	0.18	77.80 ✓	8.86	77.62 ✓
5+00 = EL Noyes				
NL	0.4			774
cb			0.6	772
¼			1.0	768
℄			1.4	764
¼			1.9	759
cb			2.5	753
SL			4.0	738
T.P.	0.13	67.89 ✓	10.04	67.76
T.P.			5.85	62.04 ✓

BM 62.04 − 62.02 ✓ = .02

McHugh 1/11/21

X section Felspar St
Morrell to Olney

B.M. N.W.B.R. Garnet + Morrell 66.30

T.P. 7.92 74.22 66.30

0+00 = E.L. Morrell
20' cbs 10' quarters

0+00		
S.L.	3.1	71 1
Top of Curb	3.32	70 90
+1	4.1	70 1
¼	3.3	70 9
℄	2.8	71 4
¼	2.8	71 4
Gut.	2.6	71 6
Top of Curb	2.00	72 2
N.L.	1.2	73 0
0+50		
N.L.	2.3	71 9
c.b.	3.2	71 0
¼	3.6	70 6
℄	3.7	70 5
¼	4.0	70 2
c.b.	4.3	69 9
S.L.	6.4	67 8
1+00		
S.L.	5.3	68 9
c.b.	4.1	70 1
¼	3.9	70 3
℄	3.5	70 7

	+	T	−	
		74.22		
¼			3.4	70 8
c.b.			2.6	71 6
N.L.			2.3	71 9
			0.14	
1+23 = ℄ cement walk on North 2' Back				
			0.15	
1+45 = ℄ " driveway on North 5' "				
1+50				
N.L.			0.6	73 6
c.b.			1.3	72 9
¼			1.6	72 6
℄			1.7	72 5
¼			1.8	72 4
c.b.			2.2	72 0
+2			1.3	72 9
S.L.			2.0	72 2
2+00				
S.L.			1.3	72 9
c.b.			1.4	72 8
¼			1.7	72 5
℄			1.5	72 7
¼			1.9	72 3
c.b.			2.0	72 2
N.L.			1.6	72 6
T.P.	2.66	75.45	1.43	72.79
2+50				
N.L.			2.6	72 8

	+	π 75.45	−	
CL			3.6	71 8
¼			4.1	71 3
℄			4.2	71 2
¼			4.2	71 2
CL			4.6	74 8
SL			5.7	69 7
3+00				
SL			2.0	73 4
CL			2.4	73 0
+2			3.7	71 7
¼			3.2	72 2
℄			2.9	72 5
¼			2.9	72 5
CL			2.4	73 0
NL			1.9	73 5
3+50				
NL			4.3	71 1
CL			4.7	70 7
¼			4.8	70 6
℄			4.8	70 6
¼			4.8	70 6
CL			5.0	70 4
+2			4.4	71 0
SL			4.2	71 2
4+00				

	+	π 75.45	−	
SL			6.9	68 5
CL			6.8	68 6
¼			6.3	69 1
℄			6.1	69 3
¼			5.8	69 6
CL			5.7	69 7
NL			5.1	70 3
4+50				
NL			5.8	69 6
CL			6.4	69 0
¼			6.5	68 9
℄			6.8	68 6
¼			6.9	68 5
CL			7.7	67 7
SL			7.5	67 9
5+00 = NL Noyes				
SL			8.3	67 1
CL			8.4	67 0
¼			8.0	67 4
℄			7.7	67 7
¼			7.6	67 8
CL			7.4	68 0
NL			7.0	68 4
0+00 = EL Noyes				
NL			9.0	66 4

	+	℄ 75.15	-	
cb			10.7	64 7
¼			12.0	63 4
℄			10.7	64 7
¼			10.5	64 9
cb			10.4	65 0
SL			10.3	65 1
T.P.	2.96	68.40 ✓	10.01	65.49
0+30				
SL-20			4.8	63 6
SL			6.8	61 6
cb			4.7	63 7
¼			4.1	64 3
℄			3.7	64 7
¼			3.6	64 8
cb			3.4	65 0
NL			2.9	65 5
0+50				
NL			4.1	64 3
cb			4.1	64 3
¼			3.9	64 5
℄			4.1	64 3
¼			4.2	64 2
cb			4.5	63 9
SL			5.4	63 0
1+00				

	+	℄ 68.40	-	
SL			6.4	62 0
cb			6.1	62 3
¼			6.1	62 3
℄			5.7	62 7
¼			5.4	63 0
cb			5.1	63 3
NL			4.9	63 5
1+50				
NL			5.9	62 5
cb			6.8	61 6
¼			7.4	61 0
℄			8.6	59 8
¼			7.2	61 2
cb			7.2	61 2
SL			7.2	61 2
2+00				
SL-15			10.0	58 4
SL			10.5	57 9
+5			10.7	57 7
cb			8.8	59 5
¼			8.5	59 5
℄			8.6	59 8
¼			8.7	59 7
cb			8.2	60 2
NL			6.4	62 0

	+	℄ 68.40	−
2+50			
NL			2.8
cb			4.2
¼			5.3
℄			6.1
¼			7.3
cb			8.3
SL			9.6
3+00			
SL			10.6
cb			8.8
¼			7.8
℄			6.5
¼			4.9
cb			3.6
NL			1.4
3+50			
NL			3.1
cb			4.0
¼			4.6
℄			5.6
¼			6.8
cb			7.8
SL			9.7
4+00			

	+	℄ 68.40	−
SL			11.2
cb			10.3
¼			9.6
℄			8.9
¼			7.8
cb			7.1
NL			5.4
4+50 = Palm tree on N. Line			
NL			9.6
cb			11.3
¼			11.6
℄			12.4
¼			12.9
cb			13.9
SL			15.3
TP 1.88		57.49 ✓	12.79
5+00 = WL Olney			
SL			7.3
cb BM N.W.B.P. Olney El 57.13 + 0.07 = 57.20 + Garnex			6.7
¼			5.9
℄			5.1
¼			4.4
cb			3.5
NL			1.5
T.P.			12.32

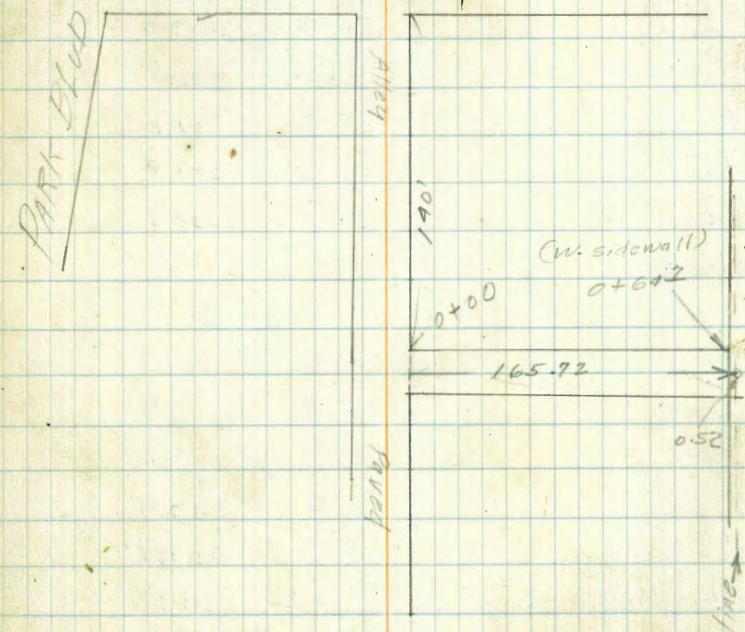
57	2
58	1
58	8
59	5
60	6
61	3
63	0
58	6
57	1
56	8
56	0
55	5
54	5
53	1
55	61
50	2
50	8
51	6
52	4
53	1
54	0
56	0
45	17

May 31-28
Loudon
Isbell
Morgan

Cross-section E-W Alley Blk 246 Univ. Hts

B.M	5.33	301.13		295.80	BP SW Wash & Park Blvd.
T.P.	7.64	307.33	1.44	299.69	
0+00 = E.L		N-S Alley			
S.L.	Pav.		7.33	300.00	
℄	Pav		7.45	299.90	
N.L-			7.23	300.10	
0+00	W end A car garage		3.6' N		
			5.65	301.7	
0+31	E end Same garage		3.8' N		
			5.64	301.7	
0+03					
N.L.			6.2	301.1	
+2			6.6	300.7	
+5			6.8	300.5	
+7			6.7	300.6	
℄			7.0	300.3	
+3			6.8	300.5	
+8			6.8	300.5	
S.L.			6.9	300.4	
0+14					
S.L			6.3	301.0	
+9			6.2	301.1	
℄			6.3	301.0	
+3			6.2	301.1	
+5			6.3	301.0	

Pl to Hed 6/16/28 T.G.H.



0+14	307.33	
N.L	6.1	301.2
0+21		
N.L	5.8	301.5
+4	6.1	301.2
℄	6.0	301.3
+5	5.7	301.6
S.L.	5.9	301.4

Alley - 246 - V.I.H.

	H.I.		
0+30	307.33		
S.L.		5.5	3018
+3		5.3	3020
+7		5.4	3019
℄		5.6	3017
+5		5.8	3015
N.L.		5.8	3015
0+36			
N.L.		5.6	3017
+5		5.6	3017
℄		5.4	3019
+1		5.3	3020
+6		5.2	3021
+9		5.6	3017
S.L. side door on S.L.		5.52	3018
0+43 W end 3 Car garage 0.2 in on South		4.82	
0+47½ E end Same garage 0.2 in		4.81	
0+47			
S.L.		4.9	3024
+8		5.0	3023
℄		5.1	3022
+3		5.0	3023
N.L.		5.2	3021

	307.33		
0+57 W end 2 car garage 4' N. conc. floor		4.69	
0+77 E end Same garage 4.2' N.		4.62	
0+68			
N.L.		4.7	302.6
+3		4.7	302.6
+6		4.8	302.5
℄		4.7	302.6
+1		4.6	302.7
+3		4.5	302.8
+7		4.8	302.5
S.L.		4.9	302.4
T.P. 5.21	309.91	4.63	302.70
0+80 ℄ Single garage 6.8' S. Conc floor		5.14	
0+80			
S.L.		5.3	302.6
+6		5.3	302.6
+7		5.2	302.7
℄		5.2	302.7
+5		5.3	302.6
N.L.		5.1	302.8

Alley 296 - U.H.

1+04	307.91		
N.L.		5.3	3026
+2		5.2	3027
+7		5.3	3026
℄		5.3	3026
+2		5.2	3027
+5		5.4	3025
S.L.		5.2	3027
1+10			
S.L.		5.1	3028
+6	what	5.2	3027
+7		5.1	3028
℄		4.8	3031
+4		4.6	3033
+6		5.0	3029
~~N.L.~~		5.1	3028
1+15			
N.L.		5.1	3028
+4		5.1	3028
+6		5.1	3028
℄		5.2	3027
+5		5.2	3027
S.L.		5.2	3027

307.91

1+18 West 4 car garage 4.6' N Conc floor
4.85

1+61 East 5 unit garage 4.2 N
4.85

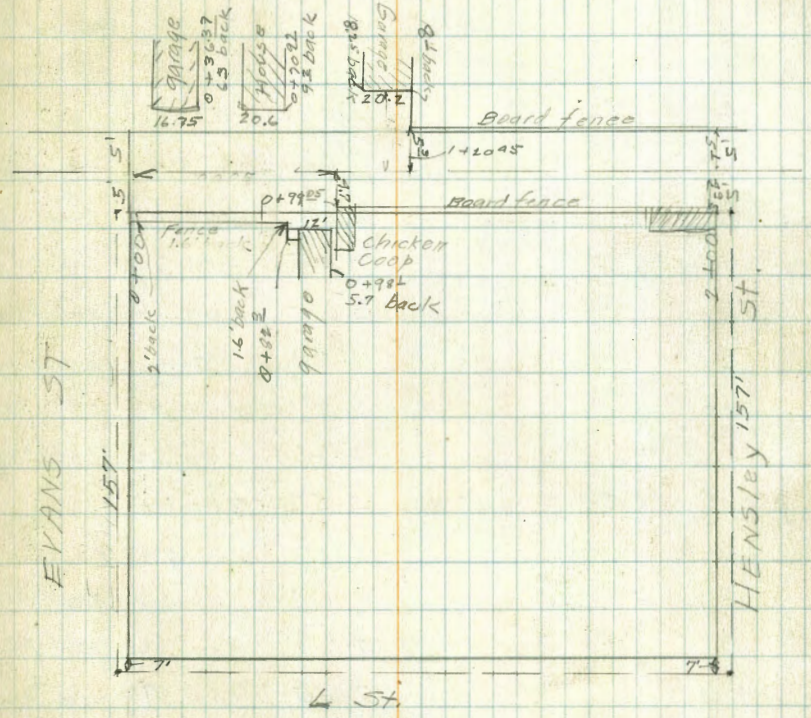
1+25		
S.L.	5.2	3027
+4	5.4	3025
+8	5.1	3028
℄	5.1	3028
+3	5.1	3028
+6	5.1	3028
+8	4.6	3033
N.L.	4.8	3031
1+33		
N.L.	4.3	3036
+4	4.5	3034
+6	5.2	3027
℄	5.4	3025
+1	5.6	3023
+3	5.5	3024
+4	5.4	3025
S.L.	5.5	3024

Alley 296 - U.H.

1+98	307.91		
S.L.		5.3	302.6
+5		5.4	302.5
℄		5.0	302.9
+3		5.0	302.9
+6		5.2	302.7
N.L.		4.7	303.2
1+57			
N.L.		4.8	303.1
+1		4.5	303.4
+2		4.7	303.2
+4		6.1	301.8
℄		6.3	301.6
+6		6.0	301.9
+7		5.4	302.5
S.L.		5.3	302.6
1+60			
S.L.		5.4	302.5
℄		6.1	301.8
+6		6.2	301.7
N.L.		6.4	301.5
1+64.7 = W. edge Retaining wall			
N.L. ~~top~~ wall		8.56	299.35
℄ top wall		8.68	299.23
S.L. top wall		8.76	299.15

307.91

T.P.	0.91	301.73	709 300.82
B.M. Beginning			593 295.80



Location of Buildings in alley rear of lots D & E Blk 219.

Jun. 1 - 28

Loudon

Morgan

Isbell.

Jun 1-28
Loudon

Grade Stakes Alley

BIK 189 W. Hts.

B.M.	6.38	304.86		298.48	S.W. Hendricks & Richmond	
T.P	2.90	305.79	1.97	302.89		
W				3.02	302.77	
E				2.80	302.99	
℄				5.13	302.66	
E			3.87	301.92	302.22	F O.30
W			3.69	302.10	302.08	C0.02
W			4.05	301.74	301.38	C0.36
E			3.65	302.14	301.46	C0.68
E			4.33	301.46	300.70	C0.76
W			4.86	300.93	300.70	C0.23
W	L		5.27	300.52	300.30	C0.22
T.P	5.67	305.89	5.57	300.22		
E			5.19	300.92	300.50	C0.42
E	L		4.61	301.28	300.45	C0.83
E			5.23	300.66	300.39	C0.27
S			5.68	300.29	300.20	C.0.09
N			5.86	300.03	299.90	C0.13
N			6.06	299.83	299.70	C0.13
S			6.28	299.61	299.99	F 0.38
S			5.84	300.05	299.78	C 0.27
N			6.25	299.64	29958	C0.06
S			4.95	300.94	299.35	C1.59
T.P	4.87	304.64	6.12	299.77		
			5.15	299.49	299.28	C0.21

304.64

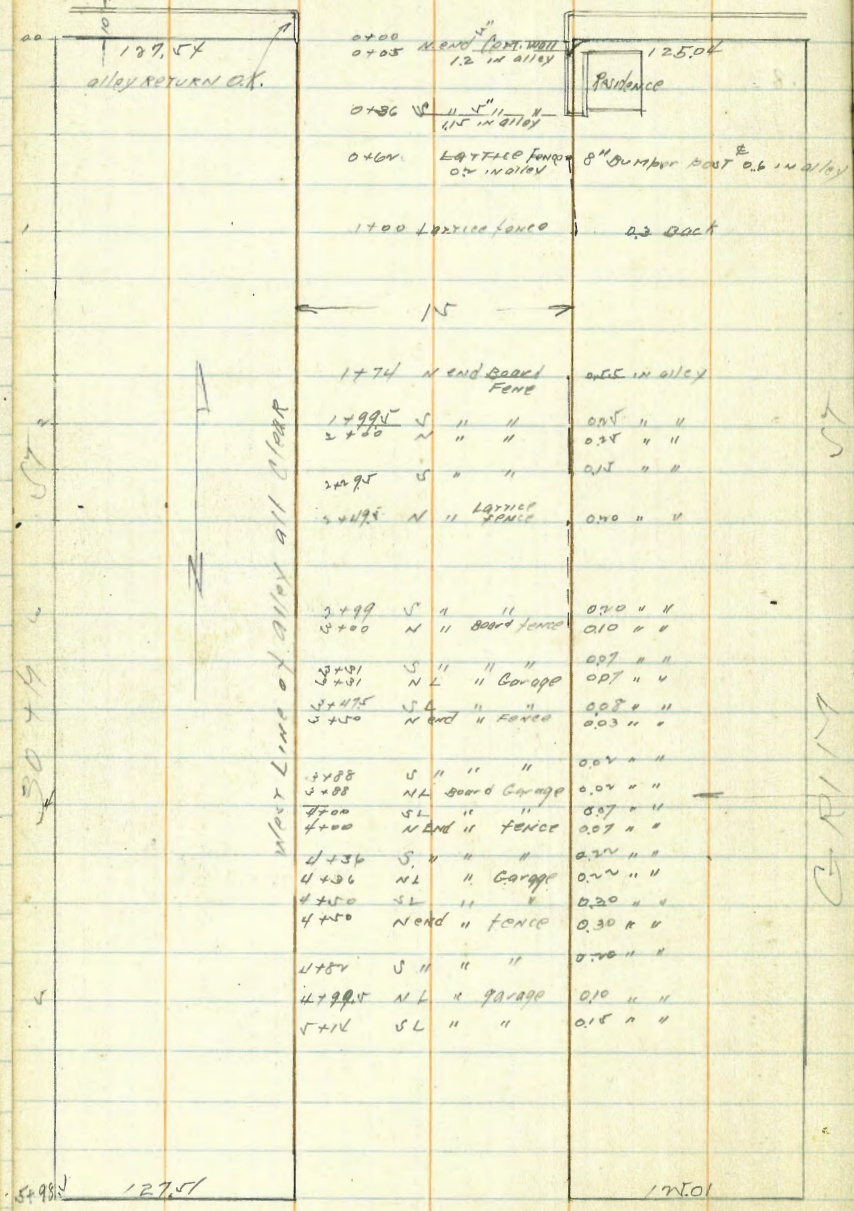
S	4.92	299.72	298.89	CO.83
N	5.48	299.16	299.00	CO.16
	5.89	298.75		
	6.14	298.50		
℄	6.38	298.26		

Location of Bldgs in Alley Blk 8 Fruitvale Hgts

THORN

EAST alley RETURN ST

1.20 IN alley



J Moore
Osborne
Pearce
8/30/48

70

EAVES of Residence OVER HANG IN alley (PLUMB WITH WEST edge of 5" Conc Wall

West edge foundation 0+05 = 0.9' back alley line

" " " 0+34 0.70 " " " "

Mr. Freeburg #2136 GRANT ST has survey by Loebenstein showing Lot depth of 126.30, evidently, erroneously placing alley in center of Block

Garage door 7.6 wide & garage, overhangs in alley 0.10'

" " 8' " " " 0.15'

ALBERTA PLACE

NL

2+40	197.20		197.10	✓
+60	197.48	✓	197.56	✓
+80	197.52	✓	197.74	✓
3	197.30	✓	197.65	✓
+20	196.86	✓	197.27	✓
+40	196.15	✓	196.62	✓
+60	195.20		195.70	✓
4	193.07		193.57	
+4.367	190.74		191.24	

20161 19722 4.41

20161 19748 4.13

20161 19755 ~~4.09~~

20161 19730 ~~4.34~~

20161 ~~19684~~ ~~4.78~~

20161 19615 ~~5.46~~

20161 19520 ~~6.41~~

20161 19307 8.54

20161 19076 10.87

19333 199 ↓

XI = 19710 ~~11.32~~

20132 19756 ~~3.76~~

20132 19774 ~~3.58~~

~~20132~~ 19765 ~~3.67~~

20132 ~~19727~~ ~~4.05~~

20132 19662 4.70

3 ~~20132~~ ~~19570~~ ~~5.62~~

20132 19357 7.75

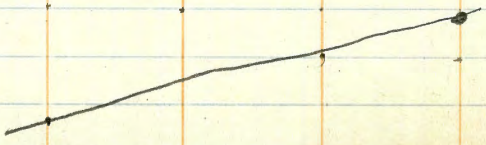
20132 19154 10.08

	5			N
		20000		
0	6.60	19340	6.67	19333
+25	6.40	19360	6.35	19365
+50	6.13	19387	6.00	19400
+75	5.83	19417	5.75	19425
1	5.47	19453	5.44	19456
+25	5.18	19482	5.06	19494
+50	4.85	19515	4.75	19525
+75	4.48	19557	4.14	19586
2+00 - 175	4.07 (+95)	19593	3.57 PI	19643
			3.65	19635
2+00	4.0	19600		
+25	3.7	19630		
TP	5.92		3.57	19643
		20235		
		141		
2+00			6.2	196.2
+25			5.8	196.6
+50	5.3	197.1	5.0	197.4
+75	4.9	197.5	4.9	197.5
3	4.9	197.5	5.2	197.2
+25	5.1	197.3	5.6	196.8
+50	5.7	196.7	6.7	195.7
+75	7.1	195.3	7.9	194.5
4	8.2	194.2	9.0	193.4
+25	10.3	192.9	10.6	191.8
+43	11.4	191.0	11.8	190.6

141 = 198.25 = ELEV. ℄ TR

193.33
7.93
HI 201.26
5.33
TP 195.93
5.28
HI 201.61

Diamond & Lamont	SWBW		105.95
Noyes & Carmel	NW	Mon	62.02
Carmel & Olney	NW	"	45.10
" Martell	NW	"	66.30



43
1397

9000
2990.0
54.67
4443.67

29.8

NATURAL TRIGONOMETRICAL RATIOS

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
0	0	0	1.	∞	∞	1.	90
10	.0029	.0029		343.8	343.8	I.	50
20	.0058	.0058		171.9	171.9	.99998	40
30	.0087	.0087		114.6	114.6	.99996	30
40	.0116	.0116	1.0001	85.94	85.94	.99993	20
50	.0145	.0145	1.0001	68.76	68.75	.99989	10
1	.0175	.0175	1.0002	57.30	57.29	.99985	89
10	.0204	.0204	1.0002	49.11	49.10	.99979	50
20	.0233	.0233	1.0003	42.98	42.96	.99973	40
30	.0262	.0262	1.0003	38.20	38.19	.99966	30
40	.0291	.0291	1.0004	34.38	34.37	.99958	20
50	.0320	.0320	1.0005	31.26	31.24	.99949	10
2	.0349	.0349	1.0006	28.65	28.64	.99939	88
10	.0378	.0378	1.0007	26.45	26.43	.99929	50
20	.0407	.0407	1.0008	24.56	24.54	.99917	40
30	.0436	.0437	1.0010	22.93	22.90	.99905	30
40	.0465	.0466	1.0011	21.49	21.47	.99892	20
50	.0494	.0495	1.0012	20.23	20.21	.99878	10
3	.0523	.0524	1.0014	19.11	19.08	.99863	87
10	.0552	.0553	1.0015	18.10	18.07	.99847	50
20	.0581	.0582	1.0017	17.20	17.17	.99831	40
30	.0610	.0612	1.0019	16.38	16.35	.99813	30
40	.0640	.0641	1.0020	15.64	15.60	.99795	20
50	.0669	.0670	1.0022	14.96	14.92	.99776	10
4	.0698	.0699	1.0024	14.34	14.30	.99756	86
10	.0727	.0729	1.0027	13.76	13.73	.99736	50
20	.0756	.0758	1.0029	13.23	13.20	.99714	40
30	.0785	.0787	1.0031	12.75	12.71	.99692	30
40	.0814	.0816	1.0033	12.29	12.25	.99668	20
50	.0843	.0846	1.0036	11.87	11.83	.99644	10
5	.0872	.0875	1.0038	11.47	11.43	.99619	85
10	.0901	.0904	1.0041	11.10	11.06	.99594	50
20	.0929	.0934	1.0043	10.76	10.71	.99567	40
30	.0958	.0963	1.0046	10.43	10.39	.99540	30
40	.0987	.0992	1.0049	10.13	10.08	.99511	20
50	.1016	.1022	1.0052	9.839	9.788	.99482	10
6	.1045	.1051	1.0055	9.567	9.514	.99452	84
10	.1074	.1080	1.0058	9.309	9.255	.99421	50
20	.1103	.1110	1.0061	9.065	9.010	.99390	40
30	.1132	.1139	1.0065	8.834	8.777	.99357	30
40	.1161	.1169	1.0068	8.614	8.556	.99324	20
50	.1190	.1198	1.0072	8.405	8.345	.99290	10
7	.1219	.1228	1.0075	8.206	8.144	.99255	83
10	.1248	.1257	1.0079	8.016	7.953	.99219	50
20	.1276	.1287	1.0082	7.834	7.770	.99182	40
30	.1305	.1317	1.0086	7.661	7.596	.99144	30
40	.1334	.1346	1.0090	7.496	7.429	.99106	20
50	.1363	.1376	1.0094	7.337	7.269	.99067	10
							82
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
8	.1392	.1405	1.0098	7.185	7.115	.99027	82
10	.1421	.1435	1.0102	7.040	6.968	.98986	50
20	.1449	.1465	1.0107	6.900	6.827	.98944	40
30	.1478	.1495	1.0111	6.766	6.691	.98902	30
40	.1507	.1524	1.0115	6.636	6.561	.98858	20
50	.1536	.1554	1.0120	6.512	6.435	.98814	10
9	.1564	.1584	1.0125	6.394	6.314	.98769	81
10	.1593	.1614	1.0129	6.277	6.197	.98723	50
20	.1622	.1644	1.0134	6.166	6.084	.98676	40
30	.1650	.1673	1.0139	6.059	5.976	.98629	30
40	.1679	.1703	1.0144	5.955	5.871	.98580	20
50	.1708	.1733	1.0149	5.855	5.769	.98531	10
10	.1736	.1763	1.0154	5.759	5.671	.98481	80
10	.1765	.1793	1.0160	5.665	5.576	.98430	50
20	.1794	.1823	1.0165	5.575	5.485	.98378	40
30	.1822	.1853	1.0170	5.488	5.396	.98325	30
40	.1851	.1883	1.0176	5.403	5.309	.98272	20
50	.1880	.1914	1.0181	5.320	5.226	.98218	10
11	.1908	.1944	1.0187	5.241	5.145	.98163	79
10	.1937	.1974	1.0193	5.164	5.066	.98107	50
20	.1965	.2004	1.0199	5.089	4.989	.98050	40
30	.1994	.2035	1.0205	5.016	4.915	.97992	30
40	.2022	.2065	1.0211	4.945	4.843	.97934	20
50	.2051	.2095	1.0217	4.877	4.773	.97875	10
12	.2079	.2126	1.0223	4.810	4.705	.97815	78
10	.2108	.2156	1.0230	4.745	4.638	.97754	50
20	.2136	.2186	1.0236	4.682	4.574	.97692	40
30	.2164	.2217	1.0243	4.620	4.511	.97630	30
40	.2193	.2247	1.0249	4.560	4.449	.97566	20
50	.2221	.2278	1.0256	4.502	4.390	.97502	10
13	.2250	.2309	1.0263	4.445	4.331	.97437	77
10	.2278	.2339	1.0270	4.390	4.275	.97371	50
20	.2306	.2370	1.0277	4.336	4.219	.97304	40
30	.2334	.2401	1.0284	4.284	4.165	.97237	30
40	.2363	.2432	1.0291	4.232	4.113	.97169	20
50	.2391	.2462	1.0299	4.182	4.061	.97100	10
14	.2419	.2493	1.0306	4.133	4.011	.97030	76
10	.2447	.2524	1.0314	4.086	3.962	.96959	50
20	.2476	.2555	1.0321	4.039	3.914	.96887	40
30	.2504	.2586	1.0329	3.994	3.867	.96815	30
40	.2532	.2617	1.0337	3.949	3.821	.96742	20
50	.2560	.2648	1.0345	3.906	3.776	.96667	10
15	.2588	.2679	1.0353	3.864	3.732	.96593	75
10	.2616	.2711	1.0361	3.822	3.689	.96517	50
20	.2644	.2742	1.0369	3.782	3.647	.96440	40
30	.2672	.2773	1.0377	3.742	3.606	.96363	30
40	.2700	.2805	1.0386	3.703	3.566	.96285	20
50	.2728	.2836	1.0394	3.665	3.526	.96206	10
							74
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

NATURAL TRIGONOMETRICAL RATIOS

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
0 /							
16	.2756	.2867	1.0403	3.628	3.487	.96126	74
10	.2784	.2899	1.0412	3.592	3.450	.96046	50
20	.2812	.2931	1.0423	3.556	3.412	.95964	40
30	.2840	.2962	1.0429	3.521	3.376	.95882	30
40	.2868	.2994	1.0438	3.487	3.340	.95799	20
50	.2896	.3026	1.0448	3.453	3.305	.95715	10
17	.2924	.3057	1.0457	3.420	3.271	.95630	73
10	.2952	.3089	1.0466	3.388	3.237	.95545	50
20	.2979	.3121	1.0476	3 357	3.204	.95459	40
30	.3007	.3153	1.0485	3.326	3.172	.95372	30
40	.3035	.3185	1.0495	3.295	3.140	.95284	20
50	.3062	.3217	1.0505	3.265	3.108	.95195	10
18	.3090	.3249	1.0515	3.236	3.078	.95106	72
10	.3118	.3281	1.0525	3.207	3.048	.95015	50
20	.3145	.3314	1.0535	3.179	3.018	.94924	40
30	.3173	.3346	1.0545	3.152	2.989	.94832	30
40	.3201	.3378	1.0555	3.124	2.960	.94740	20
50	.3228	.3411	1.0566	3.098	2.932	.94646	10
19	.3256	.3443	1.0576	3.072	2.904	.94552	71
10	.3283	.3476	1 0587	3.046	2.877	.94457	50
20	.3311	.3508	1.0598	3.020	2.850	.94361	40
30	.3338	.3541	1.0608	2.996	2.824	.94264	30
40	.3365	.3574	1.0619	2.971	2.798	.94167	20
50	.3393	.3607	1.0631	2.947	2.773	.94068	10
20	.3420	.3640	1.0642	2.924	2.747	.93969	70
10	.3448	.3673	1.0653	2.900	2.723	.93869	50
20	.3475	.3706	1.0665	2.878	2.699	.93769	40
30	.3502	.3739	1.0676	2.856	2.675	.93667	30
40	.3529	.3772	1.0688	2.833	2.651	.93565	20
50	.3557	.3805	1.0700	2.811	2.628	.93462	10
21	.3584	.3839	1.0711	2.790	2.605	.93358	69
10	.3611	.3872	1.0723	2.769	2.583	.93253	50
20	.3638	.3906	1.0736	2.749	2.560	.93148	40
30	.3665	.3939	1.0748	2.729	2.539	.93042	30
40	.3692	.3973	1.0760	2.709	2.517	.92935	20
50	.3719	.4006	1.0773	2.689	2.496	.92827	10
22	.3746	.4040	1.0785	2.670	2.475	.92718	68
10	.3773	.4074	1.0798	2.650	2.455	.92609	50
20	.3800	.4108	1.0811	2.632	2.434	.92499	40
30	.3827	.4142	1.0824	2.613	2.414	.92388	30
40	.3854	.4176	1.0837	2.595	2.394	.92276	20
50	.3881	.4210	1.0850	2.577	2.375	.92164	10
23	.3907	.4245	1.0864	2.559	2.356	.92050	67
10	.3934	.4279	1.0877	2.542	2.337	.91936	50
20	.3961	.4314	1.0891	2.525	2.318	.91822	40
30	.3987	.4348	1.0904	2.508	2.300	.91706	30
40	.4014	.4383	1.0918	2.491	2.282	.91590	20
50	.4041	.4417	1.0932	2.475	2.264	.91472	10
							66
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
0 /							
24	.4067	.4452	1.0946	2.459	2.246	.91355	66
10	.4094	.4487	1.0961	2.443	2.229	.91236	50
20	.4120	.4522	1.0975	2.427	2.211	.91116	40
30	.4147	.4557	1.0989	2.411	2.194	.90996	30
40	.4173	.4592	1.1004	2.396	2.177	.90875	20
50	.4200	.4628	1.1019	2.381	2.161	.90753	10
25	.4226	.4663	1.1034	2.366	2.145	.90631	65
10	.4253	.4699	1.1049	2.351	2.128	.90507	50
20	.4279	.4734	1.1064	2.337	2.112	.90383	40
30	.4305	.4770	1.1079	2.323	2.097	.90259	30
40	.4331	.4806	1.1095	2.309	2.081	.90133	20
50	.4358	.4841	1.1110	2.295	2.066	.90007	10
26	.4384	.4877	1.1126	2.281	2.050	.89879	64
10	.4410	.4913	1.1142	2.268	2.035	.89752	50
20	.4436	.4950	1.1158	2.254	2.020	.89623	40
30	.4462	.4986	1.1174	2.241	2.006	.89493	30
40	.4488	.5022	1.1190	2.228	1.991	.89363	20
50	.4514	.5059	1.1207	2.215	1.977	.89232	10
27	.4540	.5095	1.1223	2.203	1.963	.89101	63
10	.4566	.5132	1.1240	2.190	1.949	.88968	50
20	.4592	.5169	1.1257	2.178	1.935	.88835	40
30	.4617	.5206	1.1274	2.166	1.921	.88701	30
40	.4643	.5243	1.1291	2.154	1.907	.88566	20
50	.4669	.5280	1.1308	2.142	1.894	.88431	10
28	.4695	.5317	1.1326	2.130	1.881	.88295	62
10	.4720	.5354	1.1343	2.119	1.868	.88158	50
20	.4746	.5392	1.1361	2.107	1.855	.88020	40
30	.4772	.5430	1.1379	2.096	1.842	.87882	30
40	.4797	.5467	1.1397	2.085	1.829	.87743	20
50	.4823	.5505	1.1415	2.073	1.816	.87603	10
29	.4848	.5543	1.1434	2.063	1.804	.87462	61
10	.4874	.5581	1.1452	2.052	1.792	.87321	50
20	.4899	.5619	1.1471	2.041	1.780	.87178	40
30	.4924	.5658	1.1490	2.031	1.767	.87036	30
40	.4950	.5696	1.1509	2.020	1.756	.86892	20
50	.4975	.5735	1.1528	2.010	1.744	.86748	10
30	.5000	.5774	1.1547	2.	1.732	.86603	60
10	.5025	.5812	1.1566	1.990	1.720	.86457	50
20	.5050	.5851	1.1586	1.980	1.709	.86310	40
30	.5075	.5890	1.1606	1.970	1.698	.86163	30
40	.5100	.5930	1.1626	1.961	1.686	.86015	20
50	.5125	.5969	1.1646	1.951	1.675	.85866	10
31	.5150	.6009	1.1666	1.942	1.664	.85717	59
10	.5175	.6048	1.1687	1.932	1.653	.85567	50
20	.5200	.6088	1.1707	1.923	1.643	.85416	40
30	.5225	.6128	1.1728	1.914	1.632	.85264	30
40	.5250	.6168	1.1749	1.905	1.621	.85112	20
50	.5275	.6208	1.1770	1.896	1.611	.84959	10
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

NATURAL TRIGONOMETRICAL RATIOS

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
0 /							
32	.5299	.6249	1.1792	1.887	1.600	.84805	58
10	.5324	.6289	1.1813	1.878	1.590	.84650	50
20	.5348	.6330	1.1835	1.870	1.580	.84495	40
30	.5373	.6371	1.1857	1.861	1.570	.84339	30
40	.5398	.6412	1.1879	1.853	1.560	.84182	20
50	.5422	.6453	1.1901	1.844	1.550	.84025	10
33	.5446	.6494	1.1924	1.836	1.540	.83867	57
10	.5471	.6536	1.1946	1.828	1.530	.83708	50
20	.5495	.6577	1.1969	1.820	1.520	.83549	40
30	.5519	.6619	1.1992	1.812	1.511	.83389	30
40	.5544	.6661	1.2015	1.804	1.501	.83228	20
50	.5568	.6703	1.2039	1.796	1.492	.83066	10
34	.5592	.6745	1.2062	1.788	1.483	.82904	56
10	.5616	.6787	1.2086	1.781	1.473	.82741	50
20	.5640	.6830	1.2110	1.773	1.464	.82577	40
30	.5664	.6873	1.2134	1.766	1.455	.82413	30
40	.5688	.6916	1.2158	1.758	1.446	.82248	20
50	.5712	.6959	1.2183	1.751	1.437	.82082	10
35	.5736	.7002	1.2208	1.743	1.428	.81915	55
10	.5760	.7046	1.2233	1.736	1.419	.81748	50
20	.5783	.7089	1.2258	1.729	1.411	.81580	40
30	.5807	.7133	1.2283	1.722	1.402	.81412	30
40	.5831	.7177	1.2309	1.715	1.393	.81242	20
50	.5854	.7221	1.2335	1.708	1.385	.81072	10
36	.5878	.7265	1.2361	1.701	1.376	.80902	54
10	.5901	.7310	1.2387	1.695	1.368	.80730	50
20	.5925	.7355	1.2413	1.688	1.360	.80558	40
30	.5948	.7400	1.2440	1.681	1.351	.80386	30
40	.5972	.7445	1.2466	1.675	1.343	.80212	20
50	.5995	.7490	1.2494	1.668	1.335	.80038	10
37	.6018	.7536	1.2521	1.662	1.327	.79864	53
10	.6041	.7581	1.2549	1.655	1.319	.79688	50
20	.6065	.7627	1.2577	1.649	1.311	.79512	40
30	.6088	.7673	1.2605	1.643	1.303	.79335	30
40	.6111	.7720	1.2633	1.636	1.295	.79158	20
50	.6134	.7766	1.2661	1.630	1.288	.78980	10
38	.6157	.7813	1.2690	1.624	1.280	.78801	52
10	.6180	.7860	1.2719	1.618	1.272	.78622	50
20	.6202	.7907	1.2748	1.612	1.265	.78442	40
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
0 /							
30	.6225	.7954	1.2778	1.606	1.257	.78261	30
40	.6248	.8002	1.2808	1.601	1.250	.78079	20
50	.6271	.8050	1.2838	1.595	1.242	.77897	10
39	.6293	.8098	1.2868	1.589	1.235	.77715	51
10	.6316	.8146	1.2898	1.583	1.228	.77531	50
20	.6338	.8195	1.2929	1.578	1.220	.77347	40
30	.6361	.8243	1.2959	1.572	1.213	.77162	30
40	.6383	.8292	1.2991	1.567	1.206	.76977	20
50	.6406	.8342	1.3022	1.561	1.199	.76791	10
40	.6428	.8391	1.3054	1.556	1.192	.76604	50
10	.6450	.8441	1.3086	1.550	1.185	.76417	50
20	.6472	.8491	1.3118	1.545	1.178	.76229	40
30	.6494	.8541	1.3151	1.540	1.171	.76041	30
40	.6517	.8591	1.3184	1.535	1.164	.75851	20
50	.6539	.8642	1.3217	1.529	1.157	.75661	10
41	.6561	.8693	1.3251	1.524	1.150	.75471	49
10	.6583	.8744	1.3284	1.519	1.144	.75280	50
20	.6604	.8796	1.3318	1.514	1.137	.75088	40
30	.6626	.8847	1.3352	1.509	1.130	.74896	30
40	.6648	.8899	1.3386	1.504	1.124	.74703	20
50	.6670	.8952	1.3421	1.499	1.117	.74509	10
42	.6691	.9004	1.3456	1.494	1.111	.74314	48
10	.6713	.9057	1.3492	1.490	1.004	.74120	50
20	.6734	.9110	1.3527	1.485	1.098	.73924	40
30	.6756	.9163	1.3563	1.480	1.091	.73728	30
40	.6777	.9217	1.3600	1.476	1.085	.73531	20
50	.6799	.9271	1.3636	1.471	1.079	.73333	10
43	.6820	.9325	1.3673	1.466	1.072	.73135	47
10	.6841	.9380	1.3711	1.462	1.066	.72937	50
20	.6862	.9435	1.3748	1.457	1.060	.72737	40
30	.6884	.9490	1 3786	1.453	1.054	.72537	30
40	.6905	.8545	1.3824	1.448	1.048	.72337	20
50	.6926	.9601	1.3863	1.444	1.042	.72136	10
44	.6947	.9657	1.3902	1.440	1.036	.71934	46
10	.6967	.9713	1.3941	1.435	1.030	.71732	50
20	.6988	.9770	1.3980	1.431	1.024	.71529	40
30	.7009	.9827	1.4020	1.427	1.018	.71325	30
40	.7030	.9884	1.4061	1.422	1.012	.71121	20
50	.7050	.9942	1.4101	1.418	1.006	.70916	10
	.7071	1.	1.414	1.414	1.	.70711	45
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.