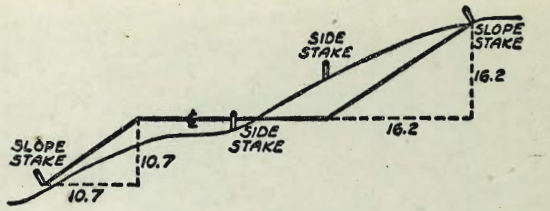


Distances from Side Stakes for Cross-Sectioning

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.

IMPROVED TABLES AND INFORMATION

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	.70	.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	.711	.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	.985	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

1–13 Ties & Grades for Turquoise and La Jolla Blvd from Mission to Colima

14&15 Grades for west side La Jolla Blvd Colima to Midway.

16&17 Stake Storm Drain W. Point Loma Castelar to Seaside

18–20 Stake Thomas St Kendall to Hamont.

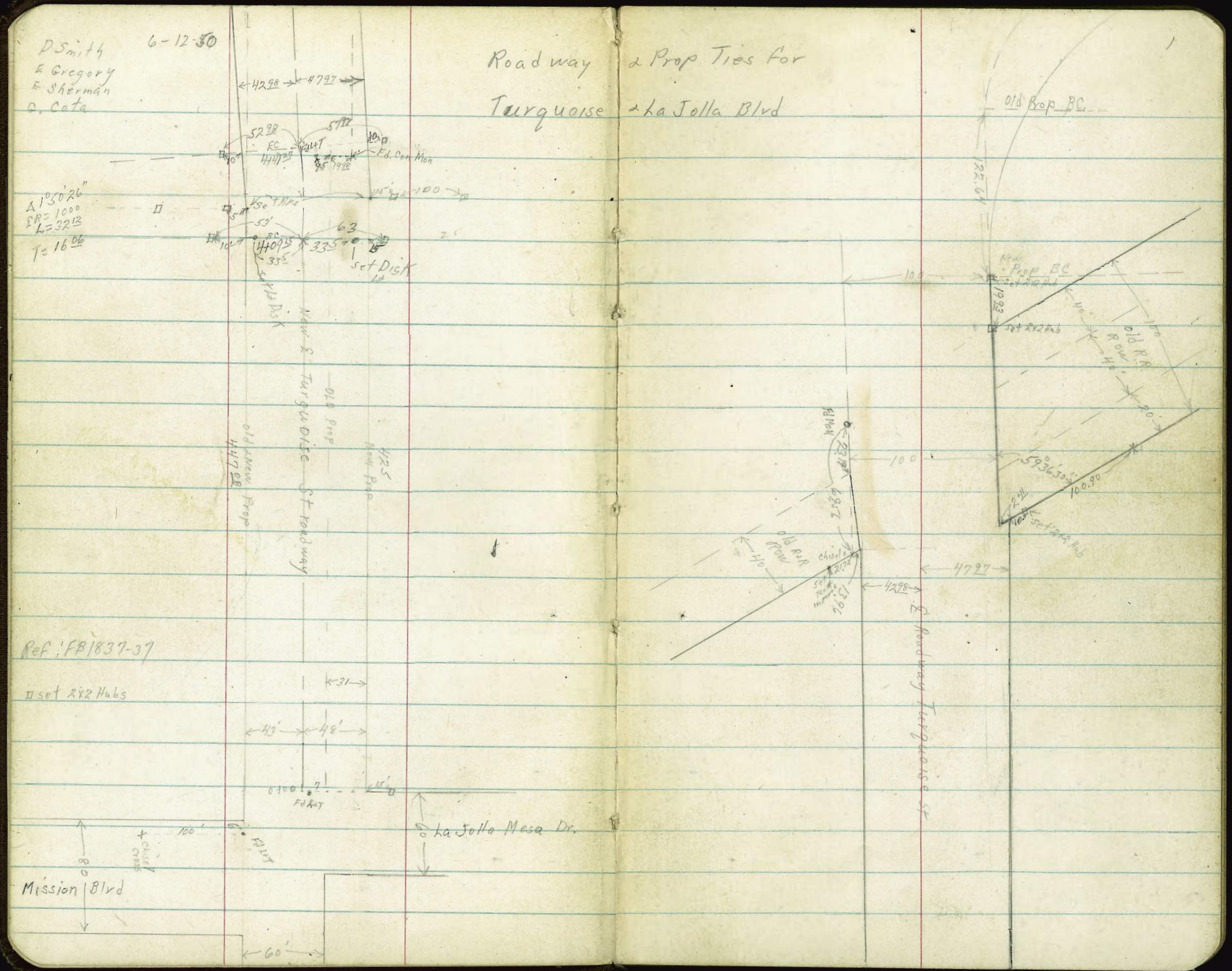
21– Stake 132' of Sewer Chalcedony & Academy

24 Sewer Stakes – upgrade – 28th & Main

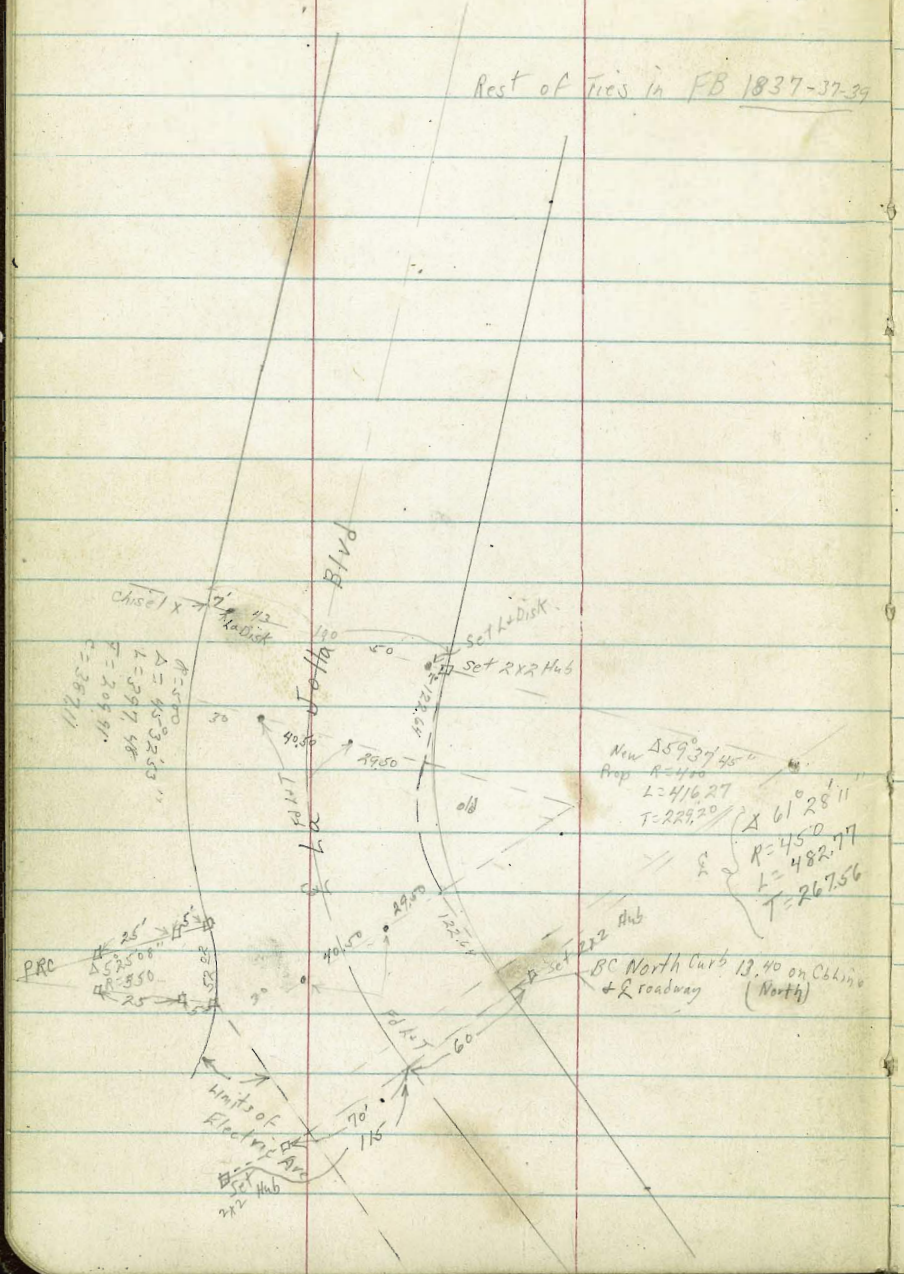
27– 38th – unnie. to Wightman Storm Drain

D Smith 6-12-50
E Gregory
E Sherman
C Cota

Roadway & Prop Ties for Turquoise & La Jolla Blvd

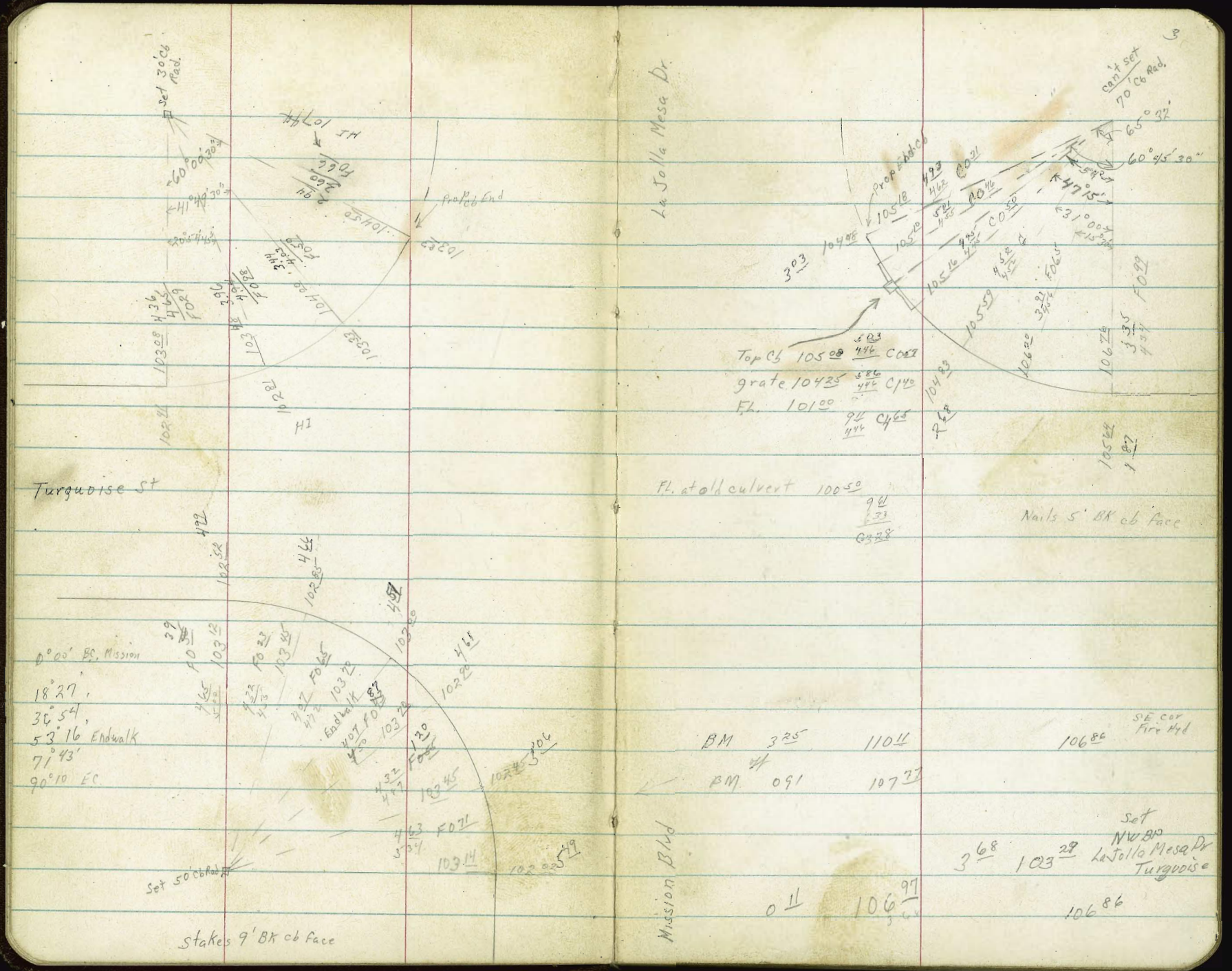


Rest of Ties in FB 1837-37-39



BM 5'± Prop ℄ La Jolla Blvd. 78 23

0.85 79.08 3.12 75 96 Set PK Nail La Jolla & Colima


Set 30' Cb Rad.
Prop Rad End
Turquoise St
0°00' BC Mission
18°27'
36°54'
53°16' End walk
71°43'
90°10' EC
Set 50' Cb Rad
Stakes 9' BK cb Face
La Jolla Mesa Dr.
Top Cb 105.09
grate 104.25
Fl. 101.00
Fl. at old culvert 100.50
BM 110.11
BM 107.77
Mission Blvd
Nails 5' BK cb face
SE cor Fire Hyd
Set NW BP
La Jolla Mesa Dr
Turquoise
106.86
106.97

Sta	South gutter	South curb	South ½	South ℄	North ℄	North ½	North curb	North gutter	rough S	rough N
3+25 26 BCLT	95.83	96.50 / 96.33		96.47			96.46	10.98 / 11.20 / FO 22 - 95.79	3.84 / 37 / C0.1	4.6 / 1.2 / C3.4
TP rough		119 / 100.34	/ .842	99.25						
3+00 26				97.12		97.00	97.12	10.32 / 10.32 / 0 - 96.45		10.7 / 8.1 / C2.6
2+75 26 B.K	97.10			97.73		97.61	97.70	9.74 / 9.80 / FO 06 - 97.03		10.1 / 7.1 / C3.0
2+24 24	98.18			98.81		98.69	98.77	8.67 / 8.60 / C0.07 - 98.11		9.0 / 5.9 / C3.1
1+73 18	99.25 .02/.07			99.88		99.76	99.85	7.59 / 7.73 / FO 14 - 99.18		7.9 / 6.3 / C1.6
1+22 12	100.33			100.96		100.84	100.92	6.52 / 6.65 / FO 13 - 100.26		6.9 / 5.6 / C1.3
0+71 06	101.40			102.03		101.91	102.09	5.44 / 6.16 / FO 72 - 101.33		5.8 / 3.4 / C2.4
0+20	102.48			103.11		102.99	103.08	4.36 / 4.65 / FO 29 - 102.41		4.7 / 3.0 / C1.7
0+00 W Prop La Jolla Mesa Dr				103.52			HI 107.44			
BM	0.91	rough 107.77		106.86	SE Fire Hyd Turquoise & Mission					

Sta	South gutter	South curb	South ℄	North ℄	North curb	North gutter	rough S	rough N
6+00 03	87.58	88.25	8.00 / 8.11 / FO 11 — 88.00 / ~~87.83~~ — ~~8.42~~ 7.57	88.08	~~8.34~~ 7.49	87.81 / ~~87.69~~ — ~~8.96~~ 7.76	87.86 (.032)	9.35 / 9.19 / CO 16	87.19	12.1 / 11.0 / C1.1	12.5 / 9.2 / C3.3
5+50 03	89.08	89.75	6.50 / 6.57 / FO 07 — 89.53 / ~~89.36~~ — ~~7.09~~ 6.04	89.63	~~5.82~~ 5.94	89.40 / ~~89.22~~ — ~~7.23~~ 6.17	89.49	7.72 / 7.72 / C	88.82	10.6 / 9.3 / C1.3	10.9 / 9.3 / C2.4
							90.67 BC	6.54 / 6.62 / FO 08	90.00		
5+00 03	90.58	91.25	5.00 / 5.10 / FO 10 — 91.05 / ~~90.88~~ — ~~5.57~~ 4.52	91.18 (.031)	~~5.27~~ 4.39	90.95 / ~~90.78~~ — ~~5.47~~ 4.62	91.10 END / 90.94 mid	5.11 / 5.18 / CO 20 — 2.7 / 6.37 / FO 09	90.95 / 90.34	9.1 / 7.5 / C1.6	9.2 / 8.9 / C0.3
4+80 03	91.18	91.85 (.070)	4.40 / 4.56 / FO 16 — 91.66 / 91.49 — 4.96 / 3.91	91.80	4.75 / 3.77	91.68 / 91.51 — 4.94 / 3.89	91.74 / 91.80 / 92.15 BC	5.47 / 5.98 / CO 19 — 5.41 / 5.45 / CO 01 — 5.06 / 5.16 / FO 10	91.37 / 91.20 / 91.48	8.5 / 6.7 / C1.8	8.6 / 9.2 / E
4+41 37 EC	92.36	93.03	3.22 / 3.43 / FO 21 — 92.87 / ~~92.68~~ — ~~3.76~~ 2.70	93.01 sub HI 96.45	3.44 / 2.56	92.75 / ~~92.60~~ — 3.85 / 2.82	92.85	4.36 / 4.53 / FO 17			
4+25	92.83	93.50 (.21)	2.75 / 2.75 / C — 93.40	93.51		93.32	93.33	3.88 / 3.91 / FO 03	92.66	6.8 / 7.1 / FO.3	7.0 / 5.5 / C1.5
4+09 15 BC	93.31	93.98	2.27 / 2.49 / FO 22	93.99			93.83	3.38 / 3.20 / CO 18	93.16		
3+86 45	93.98	94.65	1.60 / 1.65 / FO 05	94.68			94.55	2.66 / 2.78 / FO 12	93.88	5.7 / 5.9 / FO.2	5.8 / 3.7 / C2.1
3+47 20	95.14	95.81	0.44 / 0.45 / FO 01	95.84			95.78	1.43 / 1.63 / FO 20	95.11	4.5 / 4.4 / C0.1	4.6 / 2.2 / C2.4
		HI 96.25					HI 97.21				
										100	34

South

Sta	gutter	curb		℄	¼	℄	℄	¼	curb	gutter	rough S / N
Prop int on Lt. 52.02 on prop 53.63 on cb	78.51	79.18	6.84 7.02 FO.18								11.0 10.6 CO.4
End cb on Lt.	79.90	80.57	5.45 6.10 FO.65								96
	9.46	HI 86.02									use walk
8+37.76 Exp Dr	80.59	7.41 81.26				80.09			80.26	6.56 6.89 FO.33 79.59	
8+22.92 Exc	8.54 80.68 81	6.32 81.71		80.58 80.50	7.50 8.17	80.48 80.31 81.19	7.69 8.27	8.21 8.12	7.88 8.54 80.61	6.21 6.33 FO.02 79.94	8.4 8.4 C 9.5 7.5 C2.0
8+00	7.72 81.49	7.5 82.39		81.57 81.49	6.31 7.18	81.40 81.23 81.89	6.77 7.35	81.12 80.96	7.04 7.63 81.36	5.46 5.41 CO.05 80.69	7.8 7.9 FO.1 8.8 8.5 C.3
TP		165 90 4.75		11.85	8.49						
7+50	83.25	83.92		83.59 83.33	4.67 5.16	83.42	4.58	82.93 82.87	5.13 5.82 82.98	3.84 3.86 FO.02 82.31	6.3 6.5 FO.2 7.1 7.0 C.6.2
7+11	84.32	84.99		Sub HI 88.00							15.3 9.8 C.5.5
7+02.89 Rt Elec	84.60	88.75 +2		84.91 84.74	11.71 3.84	84.88	H.57	84.53 84.36	12.09 4.22 84.51	2.31 2.07 CO.24 83.84	15.8 12.4 C2.4
6+73.48 Elec Rt Curb	85.48	86.15							HI 86.82		14.8 12.5 C1.7
6+65.03 Bot	85.63	86.30	9.95 9.91 CO.04	85.85	10.60	86.06	10.39				14.04
6+50.03	86.08	86.75	9.50 9.51 FO.01	86.48 86.31	10.14 9.09	86.53	9.92	86.22 86.05	10.40 9.35 86.24	10.97 10.83 CO.14 85.57	13.6 12.5 C1.1 14.1 11.9 C2.3
		HI 96.25		Sub HI 96.45						97.21	100.34

	West gutter	curb		℄	℄	East curb	gutter	rough
10+55 56	74.36	75.03	3.95 4.10 FO 15	73.86 ~~74.52~~	6.51	74.03	2.53 2.51 CO 02	73.36	6.5 7.6 F 1.1
10+35 56	74.79	75.46	3.52 3.67 FO 15	74.29 ~~74.95~~	6.08	74.46	2.10 2.13 FO 03	73.79	6.1 7.3 F 1.2
10+15 56	75.26	75.93	3.05 3.25 FO 20	74.76 ~~75.42~~	5.61	74.93	1.63 1.64 FO 01	74.26	5.6 7.3 F 1.7
						HI 76 56			
9+95 56	75.78	76.45	2.53 2.62 FO 09	75.28 ~~75.94~~	5.09	75.45	11.37 11.39 FO 02	74.78	5.1 6.6 F 1.5
				Sub HI 80 37					
9+75 56	76.33	77.00	1.98 2.00 FO 02	75.83 ~~76.49~~	12.17	76.00	10.82 10.95 FO 13	75.33	4.5 4.7 FO 2
9+55 56	76.93	77.60	1.38 1.48 FO 10	76.43 ~~77.09~~	11.57	76.60	10.22 10.26 FO 04	75.93	3.9 3.8 CO 1
TP	3 52	81 52		12 14	78 00				81 52
9+47 83 PAC	77.17	77.84	1.14 1.28 FO 14						12.3 12.1 CO 2
		HI	78 28						
9+16 12				77.65 ~~78.31~~	10.35	77.82	9 00 9 07 FO 07	77.15	
8+76 69	79.37	8.63		78.87 ~~79.53~~	9.13	79.04	7.78 7.98 FO 20	78.37	
						HI 86 83			
				Sub HI	88 00				90 14

	west gutter		west curb		℄	℄	½	east curb		east gutter		east rough	
												W	E
13+30 End CL Mt.								71.50	5.06 5.06 C	71.00			
13+24 84 Decel	71.05	3.72	71.72		71.09 71.46			71.25	5.31 5.49 F012	70.50			
13+05 57 EC	71.22 HI 74 77	3.55	71.89	7.09 7.09 existing	71.12 71.60			71.25	5.31 5.17 C014	70.58		9.63	
12+55 57	71.76		72.43	6.55 6.81 F026	71.50 72.07			71.67	4.89 4.82 C007	71.00		9.1 9.1 C	
12+05 57	72.30		72.97	6.01 6.24 F025	71.92 72.53			72.09	4.47 4.50 F003	71.42		8.5 8.6 F01	
11+55 57	72.84		73.51	5.47 5.70 F023	72.34 73.00		8.03	72.51	4.05 3.88 C017	71.84		8.0 8.1 F01	
11+35 57	73.06		73.73	5.25 5.56 F031	72.56 73.82		7.81	72.73	3.83 3.73 C010	72.06		7.8 8.2 F04	
11+15 56	73.32		73.99	4.99 5.07 F008	72.82 73.48		7.55	72.99	3.57 3.48 C009	72.32		7.5 8.0 F05	
10+95 56	73.63		74.30	4.68 4.78 F010	73.13 73.79		7.24	73.30	3.26 3.15 C011	72.63		7.2 7.8 F06	
10+75 56	73.97		74.64	4.34 4.40 F006	73.47 74.13		6.90	73.64	2.92 2.85 C007	72.97		6.9 7.6 F07	
			HI 78 78		S.G. HI 80 37				HI 76 56			8.1 52	

	West gutter	West curb	℄	℄	East curb	East gutter	rough W	rough E
16+88 34	68.36	6.41				68.15	6.62	
16+78 34	68.57 (47) mod 68.	6.20 mod 6.30	69.24					
16+63 34	68.59	6.18		69.94	69.27	68.60	6.17	
16+13 99	68.83	5.94	69.50	70.06	69.51	68.84	5.93	
15+64 64	69.08	5.69	69.75	70.18	69.75	69.08	5.69	
15+15 29	69.33	5.44	70.00	70.30	70.00	69.33	5.44	
14+87 61 Cb 85 21	69.58	5.19	70.25	70.40	70.25	69.58	5.19	
						H1	74.77	
14+46 91	69.95	4.82	70.62	70.67				
14+06 22	70.31	4.46	70.98	70.93				
13+65 53	70.68	4.09	71.35	71.02				
				~~71.20~~				

	West gutter		West curb		℄ ¼		℄ ¼	East curb		East gutter		rough W E
20+32 14	68.93	4.85	69.60			69.67		69.59		69.09	4.69	
19+82 14	69.08	4.70	69.75			69.83		69.75		69.25	4.53	
19+32 14	68.93	4.85	69.60			69.79		69.60		69.02	4.76	
18+82 14 PC LT	6878	5.00	69.45			69.75		69.45		68.78	5.00	
	HI 7328											
18+81 06 BC RT								69.45		68.78	5.00	
										HI 7328		
18+26 20						69.77						
17+72 65						69.78						
17+18 29 BC RT	68.30	4.47	68.97			69.80		68.96		68.29	4.48	
17+04 34	68.39	4.38										
16+94 34	68.28	4.49				69.86		69.11		68.15	4.62	
	HI 7477									HI 7477		

West

	gutter		curb	¼	℄
23+55 29	69.95	3.83	70.62		70.76
23+10 29	69.43	4.35	70.10		70.24
22+65 29	68.91	4.87	69.58		69.72
22+33 29 CRK	68.54	5.24	69.21		69.43
22+15 29 ℄ contact	68.26 / 68.17	5.53 / 5.63 0.11 High / 5.61 / 5.72 0.11 High	69.00		69.33
21+97 29 CRK	68.38	5.40	69.05		69.27
21+65 29	68.50	5.28	69.17		69.28
21+31 06 CC End CRK	68.63	5.15	69.30		69.36
BM				78 23 NE cor hat La Jolla & Colima	
20+82 14	68.78	5.00	69.45		69.51
	HI 73	28			

East

	℄	¼	curb	gutter	rough W ℄
	70.87		8.35 / 8.11 / CO 24	70.20	9.8 / 6.1 / C 3.7
	70.35		8.87 / 8.32 / CO 53	69.68	10.3 / 9.0 / C 1.3
	69.83		9.39 / 8.40 / CO 79	69.16	10.9 / 9.1 / C 1.8
	69.46		9.76 / 9.03 / CO 73	68.79	11.3 / 9.6 / C 1.7
	69.27		9.95 / 8.90 / C 105	68.58	11.5
	69.13		10.09 / 9.95 / CO 14	68.63	11.6 / 9.8 / C 1.8
	69.20		10.02 / 9.85 / CO 17	68.70	11.5 / 9.4 / C 2.1
	69.27		9.95 C / 9.99 C	68.77	5.01 / 11.44 / 11.44 C
	69.43			68.93	4.85
				HI 73.78	

	gutter	West	℄	℄	East	curb	gutter	rough
		Hi 79.22 Curb			℄	℄		W
25+70.29	72.52	73.19	6.03 6.05 FO 02					7.5 8.8 Fl 3
25+65.37					73.47	5.75 5.66 CO 09	72.80	7.2 6.0 C 1.2
25+51.04 Alley Prop					73.17			7.5 4.9 5.7 C 1.6
25+45.29	72.15	72.82	6.40 6.56 FO 16					7.9 9.7 Fl 8
25+35.75 Alley Prop					72.97			7.8 6.1 C 1.2
25+01.59 BCLT	71.64	72.31	6.91 7.42 FO 35	72.53				8.4 10.0 Fl 6
Prop	71.78	72.28	6.94 8.53 Fl 59					
24+87.52					72.41	6.81 6.87 FO 06	71.74	8.3 6.6 C 1.7
Prop	71.56	72.06	7.16 8.49 Fl 33					
24+47.59 BCLT	71.02	71.69	7.53 8.12 FO 59					9.02 9.09
		2.79 ↓						
24+45.29	70.99	71.66		71.80	71.91	7.31 7.25 CO 06	71.24	8.8 6.5 C 2.3
		3.31						
24+00.29	70.47	71.14		71.28	71.39	7.83 7.92 FO 09	70.72	9.3 4.6 C 2.7
		↑			Hi 79.22			
	Hi	73.28						

	West gutter	curb	℄	ℓ	ℓ	℄	East curb	gutter	rough W	rough E
BM	2.48	80.71		78.23 LAT NECor	Colima & La Jolla Blvd					80.71
		HI 79.22								
27+63.30 BC LT	77.33	78.00	1.22 1.17 CO 0.05						2.7 2.2 CO 0.5	
27+41.61	76.86	77.53	1.69 1.65 CO 0.04						3.2 2.9 CO 0.3	
27+11.75	75.96	76.63	2.59 2.47 CO 0.12	77.15					4.1 4.0 CO 0.1	
26+76.96 prep				76.35						
26+60.66 PCHT	74.74	75.41	3.81 3.90 F 0.09	76.93		75.97	3.26 3.89 F 0.64	75.30	5.3 5.8 F 0.5	4.7 3.3 C 1.4
26+29 LT			4.64							
26+13.02			4.71 F 0.07			74.72	4.50 4.73 F 0.23	74.05		6.0 5.5 C 0.5
			5.47						4.0	
25+97.28	73.08	73.75	5.49 F 0.02	74.15					8.2 F 1.2	

Grades for La Jolla Blvd.
Colima to Midway

			curb		gutter	rough
2+93.75			72.68 ~~72.96~~	8.32 8.77 FO 45		9.8 10.6 FO 8
2+51.78			73.22 ~~72.95~~	7.78 8.22 FO 44		9.2 9.3 FO 1
2+09.81			73.76 ~~73.53~~	7.24 7.40 FO 16		8.7 8.4 CO 3
1+67.85			74.30 ~~74.11~~	6.70 6.90 FO 20		8.1 7.2 CO 9
1+25.89			74.84 ~~74.70~~	6.16 6.38 FO 22		7.5 6.4 CL 1
0+83.92			75.38 ~~75.28~~	5.62 6.06 FO 44		6.9 6.1 CO 8
0+41.96			75.92 ~~75.84~~	5.08 5.66 FO 58		6.3 5.5 CO 8
0+00 BC NW Colima			76.45	4.55 5.09 FO 54		5.7 4.7 C1 0
BM	2.77	81.00				
BM	3.95	82.18	78.23 NE cor L+T Colima & La Jolla Blvd.			

End. Ret				69.48	6.45 6.91 FO 46		
Mid pt.				69.99	5.94 6.77 FO 83		
4+64 61 BC c&g ret.				70.49	5.44 6.49 FI 05		
4+49 61				70.68	5.25 6.32 FI 07		
4+13 61				70.64	5.29 5.42 FO 13		
	~~TP~~ 5 38	75 93	10.45	70 55			
Prop End Return 17 21 } at Colima				76.75	4.25 4.00 CO 20		
½ Return 17'				76.62	4.38 4.71 FO 33	HI = 81 00	
3+77 68 End				71.60	9.40 10.45 FI 05		11 0 10 1 CO 2
3+35.72				72.14 ~~71.78~~	8.86 9 37 FO 51		10.4 11 9 F 15
					HI = 81 00		

D Smith
E Gregory
E Sherman
G. Cota

Stake Storm Drain W.O.# 20613
West Point Loma Blvd 7-1450
Seaside St to Castelar

FB 2013-41
Drawing # 8025 "L"

				5+90	14.55 (9.47 / 5.92 / C-3.55)
2+52.82 EC	4°33'30"	18.18 (15.63 / 4.12 / C-11.51)			
				5+50 BrK	15.80 (8.22 / 3.76 / C-4.26)
2+13.58	3°38'50"	18.49 (15.32 / 4.35 / C-10.97)			
				5+38. ΔRt 5°00'	15.90 (8.12 / 3.23 / C-4.89)
1+74.33	2°44'06"	18.81 (15.00 / 4.58 / C-10.42)		TP 0.07 24.02 π↑	9.86 23.95
				4+99.33	16.21 (17.60 / 9.86 / C-7.74)
1+35.08	1°49'24"	19.12 (14.69 / 5.06 / C-9.63)			
				4+60.66	16.52 (17.29 / 7.86 / C-9.43)
95+83	0°54'42"	19.44 (14.37 / 5.64 / C-8.73)			
				4+22 Δ Lt 5°00'	16.83 (16.98 / 6.34 / C-10.64)
0+56.58 PCC	0°00' / 5°04'30"	19.75 (14.06 / 6.26 / C-7.80)			
				3+79 70	17.17 (16.64 / 5.22 / C-11.42)
0+28.29	2°32'15"	19.98 (13.83 / 7.21 / C-6.62)			
				3+37 41	17.51 (16.30 / 4.41 / C-11.89)
0+00	FL	20.20 (13 61 6 58 / 7 03)			
	grate	25.88 (7 93 / 7 03 C 09)		2+95 11	17.84 (15.97 / 4.17 / C-11.80)
	Top c6	26.87 existing (6 84 / 7 03 F 09)			
6 90	33 81 5 60	26 21			
BM 214	32 51	30 32 SE BP W Point Loma & Ebers		π 33 81	

cont

	at inlet Top ch	13.55 ✓	1042 rod. ✓ 1360 Elv
	at inlet gut	12.52	
	existing 12" cor pipe	Top 10.60 Fl. 9.60	
stub 5' East	Top	14.20	982 / 965 / FOLT
7+35.14 ℄ c/l easement	Fl.	10.01	14.01 / 965 / C-4.36
7+10		10.80	13.22 / 10.18 / C-3.04
6+70		12.05	11.97 / 9.15 / C-2.82
6+30		13.30	10.72 / 7.44 / C-3.28

D. Smith
E. Sherman
G. Cota

Ties F.B. 1819 Pg. 66

W.O. # 31376

6-22-50

(18)

North (lt) Stake Thomas St. Kendall to Lamont

South (Rt)

Sta	Rough	gutter	curb	£	£	curb	gutter	rough
1+70	7.4 6.3 C1.1	49.44	50.11 6.57 4.35 C0.22	49.69	49.61	7.07 7.12 F0.05	48.94	7.9 7.7 C0.2
1+50	7.1 6.3 C0.8	49.68	50.35 6.33 6.05 C0.28	49.93	49.85	6.83 6.73 C0.10	49.18	7.6 7.6 G
1+30	6.8 6.1 C0.7	49.99	50.66 6.02 5.90 C0.12	50.24	50.16	6.52 6.33 C0.19	49.49	7.3 7.0 C0.3
1+10	6.5 6.0 C0.5	50.36	51.03 5.65 5.80 F0.15	50.61	50.53	6.15 6.17 F0.02	49.86	7.0 6.9 C0.1
0+90	6.1 5.6 C0.5	50.77	51.44 5.24 5.35 F0.11	51.02	50.94	5.74 6.00 F0.26	50.27	6.6 6.6 G
0+70 B.K	5.6 5.4 C0.2	51.25	51.92 4.76 4.75 C0.1	51.50	51.42	5.26 5.36 F0.10	50.25	6.1 5.5 C0.6
0+20			4.00 3.96 C0.04	52.77		4.49 4.61 F0.12		
0+10 BC	4.0 4.0 G	52.78	53.45 3.23 3.66 F0.43		52.95	3.73 4.04 F0.31	52.28	4.6 3.9 C0.7
Δ 19° 29'								
E. Prof 0+00 Kendall		53.10	53.20 R.98 3.33 F0.35	53.15	53.20	3.48 3.64 F0.16	52.60	
BM 5.11	Cb 56.68							
BM 5.28	57.42		51.51 5.00	NWBP Kendall - Grand.				57.49

North (Lt)

Sta	rough	gutter	curb	℄
4+40 Brk	6.3 5.2 C/L	44 28	45 45 5.86 5.66 CO 20	45 03
4+20	5.4 4.8 CO 6	45 69	46 36 4.95 4.75 CO 20	45 94
4+00	4.6 4.1 CO 5	46 47	47 14 4.17 4.33 FO 16	46 72
3+80	4.0 3.3 CO 7	47 11	47 28 3.53 3.24 CO 29	47 36
3+60	3.5 3.1 CO 4	47 62	48 29 3.02 3.33 FO 31	47 87
TP, 3 78	51 78 ↑		9 49 48 00	
3+40	8.9 7.7 C/2	47 98	48 65 2.66 2.60 CO 06	48 23
TP, cb	2 38	51 31	7 25	48 93
3+20 Brk	8.6 7.5 C/1	48 21	48 88 7.80 6.34 C/1.46	48 46
2+76 66	8.3 7.1 C/2	48 56	49 23 7.45 7.75 FO 30	48 81
2+33 33	7.9 6.6 C/3	48 90	49 57 7.11 6.96 CO. 15	49 15
1+90 Brk	7.6 6.4 C/2	49 25	49 92 6.76 6.54 CO 22	49 50
	4 57 49		56.68	

South (Rt)

℄	curb	gutter	rough
44 95	6.36 6.11 CO 25	44 88	6.8 6.1 CO 7
45 86	5.45 5.50 FO 05	45 19	5.9 5.3 CO 6
46 64	4.67 5.27 FO 60	45 97	5.1 5.3 FO 2
47 28	4.63 4.49 FO 46	46 61	4.5 4.6 FO 1
47 79	3.52 3.75 FO 23	47 12	4.0 4.3 FO 3 51 78 ↑
48 15	3.16 3.20 FO 04	47 48	9.4 9.7 FO 3
5 31 ↑			
48 38	8.30 8.31 FO 01	47 71	9.1 9.1 G
48 73	7.95 8.00 FO 05	48 06	8.8 8.4 CO 4
49 07	7.61 7.26 CO 35	48 40	8.4 8.3 CO 1
49 42	7.26 7.23 CO 03 7 56.68	48 75	8.1 7.8 CO 3 ↑ 57 49

Sta	rough	North (Lt) gutter	curb	℄
TP			10.14	41.64 ✓ SWC6 End Thomas ± Lamont 41.63 ✓ FB 1819-7
℄ C. Lamont.		42.18	42.79	8.52 ✓ 8.52 ✓
Prop Thomas ∠ 64° 29'		41.87	42.54	8.77 8.68 CO 09
5+20				41.31
℄ Return ∠ 45° 00'		41.71	42.38	8.93 8.66 CO 27
5700 W. Prop Lamont (∠ 19° 29')		41.88	42.50	8.81 6.35 C2.46
4490 BC.	8.8 6.9 C1.9	42.32	42.99	8.32 7.91 CO 41
4480			43.40	7.83 7.22 CO 61
4440	51.28 ↑		44.47	6.84 6.85 F0.01
			51.31	

℄	Curb	gutter	rough
	41.38	9.93 ✓ 9.92 ✓ 40.87	
	41.50	9.81 9.55 CO 26 40.88	
	41.65	9.66 9.84 F0.18 40.98	
	42.00	9.31 7.68 C-1.63 41.33	
	42.49	8.82 8.22 CO 60 41.82	9.3 7.9 C1.4
	42.98	8.33 7.80 CO 53	
	43.97	7.34 6.96 CO 38 ↑ 51.31	51.28 ↑

D. Smith
E. Sherman
G. Cota

Stake 132' Sewer

Chalcedony & Academy

6-28-50

5' Rt chisel (X)s (South)

1+32 "connection to existing 4" cast iron		105^{93}	9.90 2.30 C-7.60 — top C6 2' west of connection
1+00		105^{74}	10.09 3.67 C-6.42
0+75	108^{40} Elv. Bottom inside Storm Drain	105^{62}	10.21 4.51 C-5.70
0+50		105^{49}	10.34 4.73 C-5.61
0+25		105^{37}	10.46 4.24 C6.22
0+00 = Existing MH.	67' west of West Line Academy	104^{24} F.L. 105^{24} allow 1' drop	10.59 3.86 C6.73 on MH rim

.005 rate

TP	3^{86}	115^{83}	8^{22}	111^{97}
TP	0^{57}	120^{19}	10^{05}	119^{62}
BM	3^{64}	129^{67}		126^{03} SE Lot Lamont & Chalcedony

D. Smith
Wm Fay
F. Bunch

Stake Sewer Niagra

& Easement

WO # 62184
8-17-50

2+40				15.36 / 167.80 / 16.89 / C-4.47		
TP$_2$	12.12	183.16	0.30	171.04		
2+10				7.14 / 164.20 / 2.32 / C-4.82		
1+80				10.74 / 160.60 / 5.32 / C-5.42		
1+50				14.34 / 157.00 / 8.96 / C-5.38	3+88.87 DE	13.26 / 2.55 / 192.96 / C-5.71
TP$_1$	12.30	171.34	0.25	159.04	TP$_4$ 11.92	2.06.22 / 0.66 / 194.30
1+20				5.89 / 153.40 / 0.97 / C-4.92	3+60	7.99 / 1.83 / 186.97 / C-6.16
0+90				9.49 / 149.80 / 4.66 / C-4.83	3+30	13.97 / 8.16 / 180.97 / 0.83
0+60				13.09 / 146.20 / 8.70 / C-4.39	TP$_3$ 12.24	194.96 / 0.44 / 182.72
0+30				9.16 / 142.60 / 5.19 / C-3.97	2+99.87 MH #1	8.18 / 193 / 174.98 / C-6.25
0+00	& MH Catalina	151.76		139.00	2+70	11.76 / 691 / 171.40 / C-4.85
BM.	1.77	159.29		157.52 Catalina Narragansett		

Stakes 45° Rt. or North

1+90 DE		194.20 12.02 / 6.40 / C-5.62	
1+70		192.20 14.02 / 9.86 / C-4.17	
	HI 206.22		
1+50		190.20 4.76 / 1.43 / C-3.33	
1+20		187.20 7.76 / 5.08 / C-2.68	
0+90		184.20 10.76 / 8.24 / C-2.52	
0+60		181.20 13.76 / 11.19 / C-2.57	
TP	HI 194.96		
0+30		178.20 4.96 / 3.64 / C-1.32	
0+00 = MH #1		175.20 7.96 / 1.93 / C-6.03	
	HI 183.16	State 15 left or East	

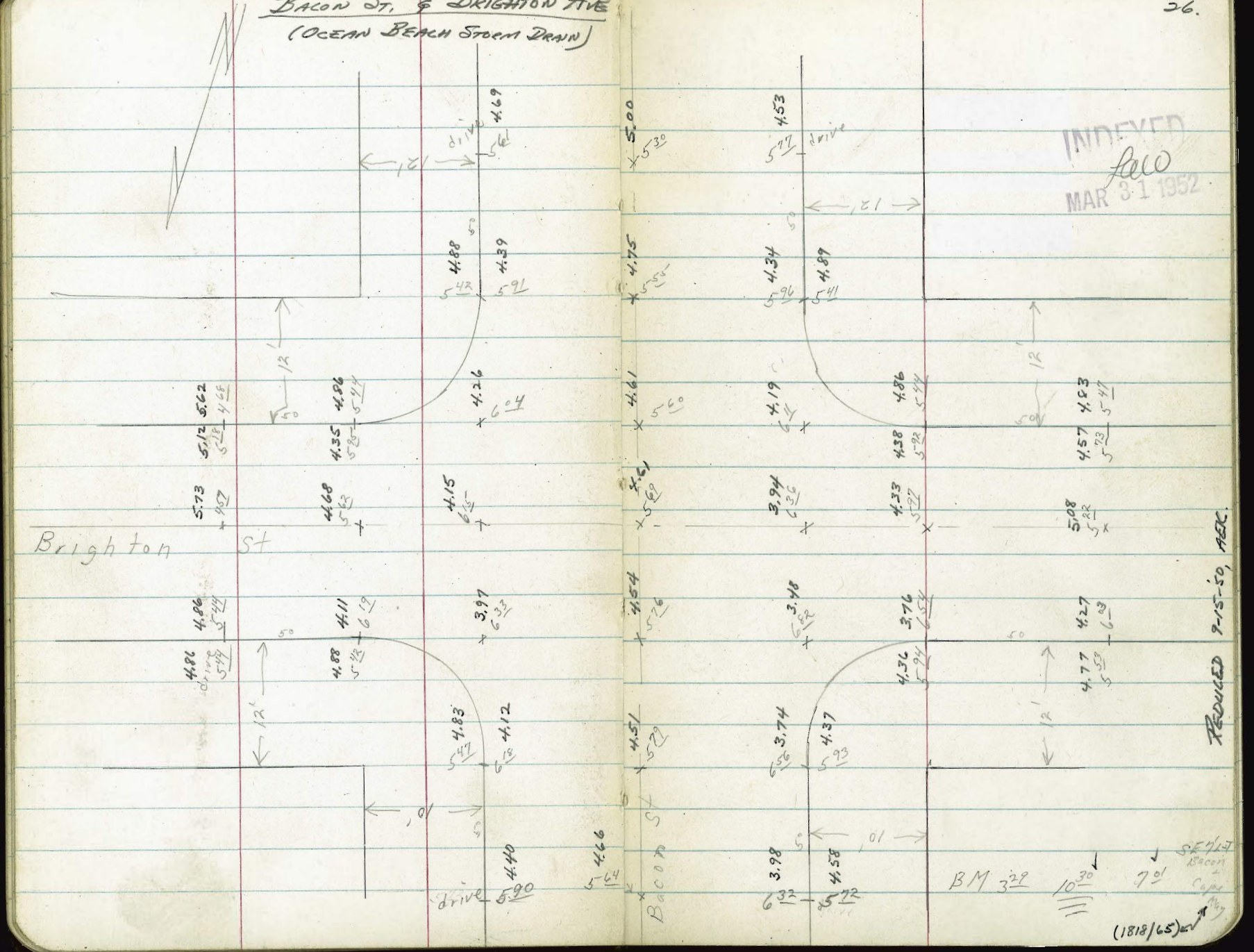
Stake Sewer 28th & Main
Stakes 5' Rt upgrade

			5+18 32	
2+10		9 22	9.47 / 3.31 / C-6.16	10 64 — 18.06 / 7.19 / C-10.87
			4+88 32	10 52 — 18.18 / 9.65 / C-8.53
1+80		9 10	9.59 / 5.98 / C-3.61	
			10 = 22 North 4+58 32 MH #3=1 L. Lt 89°52'	South 18.48 / 9.80 / 10 22 / C-8.68 — West 18.30 / 9.80 / 10 40 / C-8.50
1+56		8 98	9.71 / 7.73 / C 1.98	TP 11 15 — 28 70 — 114 — 17 55
			4+25 63	10 08 — 8.61 / 2.28 / C-6.33
1+20		8 86	9.83 / 7.62 / C-2.21	
			3+93 63	9 95 — 8.74 / 4.06 / C-4.68
0+90		8 74	9.95 / 7.48 / C-2.47	
			(3+10) West 3+61 63 MH #2 L. Rt 63°58'	9 82 — 8.87 / 5.14 / C-3.73
0+60		8 62	10.07 / 6.62 / C-3.45	
			3+30	9 70 — 8.99 / 6.35 / 2.64
0+30		8 50	10.19 / 7.01 / C-3.18	
			3+00	9 58 — 9.11 / 6.59 / C-2.52
5+10 North 0+00 Existing 8" sewer L	Const MH #1	8 38	10.31 / 7.01 / C-3.30 (?)	
			2+70	9 46 — 9.23 / 6.97 / C-2.26
TP 1 14	18 69	10 50	17 55	
			2+40	9 34 — 9.35 / 4.18 / C-5.17
BM 0 70	28 05	27 35	NW 7½ Disk 28th + Main FB 1795-32	

BM starting		061	27^{35}	
TP_3	10^{41}	27^{96}	11^{45}	17^{55}
$6+08^{32}$ DE	52 to BP		11^{00}	17.70 3.94 C-13.76
$5+93^{32}$			10^{94}	17.76 611 C-11.65
$5+73^{32}$ Begin Heavy Pipe			10^{86}	17.84 9.48 C-8.36
$5+48^{32}$			10^{76}	17.94 6.62 C-11.32

BACON ST. & BRIGHTON AVE

(OCEAN BEACH STORM DRAIN)



D. Smith
Wm Kay
E. Sherman

Stake Storm Drain University to 38th st. staked

Wightman

wo # 20659
9-20-50

27

2705.6	333.95	14.06 6.07 C-7.99	8 sc Rt 340.99 ↓	
1+80 BrK	334.68	13.33 5.37 C-7.96	4436 BrK 327.36	13.63 6.29 C-7.34
1+50	335.23	12.78 4.66 C-8.12	4+10.4 328.10	12.89 5.01 C-7.88
1+20	335.78	12.23 3.85 C-8.38	3+84.8 328.83	12.16 4.08 C-8.08
0+90	336.33	11.68 3.10 C-8.58	3+59.2 329.56	11.43 3.17 C-8.26
0+60	336.89	11.12 2.84 C-8.28	3+33.6 330.29	10.70 2.39 C-8.31
0+36.06 EC.	337.33	10.68 1.60 C-9.08	TP 8.67 348.01 ↓ 3+08 331.02	16.99 8.78 C-8.21
0+18.03	337.66	46.13 37.66 C-8.47	2+82.4 331.76	16.25 8.09 C-8.16
0+00	337.99	45.96 37.99 C-7.97 PL	2+56.8 332.49	15.52 7.44 C-8.08
BM	1.70	346.31 NW Rad Pt 38th + Univ.	2+31.2 333.22	14.79 6.73 C-8.06

1.65 339.34

6+85 92 cleanout	311 24	18.68 11.29 C-7.39	B.M. 0 53	320 20 ↓	319 67 NWBP 38M + Wightman FB2066-10
6+61	312 86	17.06 9.37 C-7.69	8+25 Headwall	297 72	22.48 18.24 C-4.24
6+36	314 47	15.45 7.43 C-8.02	8+09 EC	299 52	20.68 14.60 C-6.08
6+11	316 08	13.84 5.49 C-8.35	7+97 48 BC	300 83	19.37 9.38 C-9.99
5+86	317 69	12.23 3.52 C-8.71	TRAVERSE 10 25	329 92 ↓	
5+61	319 30	10.62 1.66 8.96	7+74 48	303 42	26.50 9.40 C-17.10
5+36	320 92	9.00 0.44 C-8.56	7+51 48	306 01	23.97 11.56 C-12.35
TP 11 85	340 99 ↓ 0 78	329 14			
5+11	322 53	18.46 9.60 C-8.86	7+49 98 EC	307 01	22.91 11.56 C-11.35
4+86	324 14	16.85 8.31 C-8.54	7+32 20	308 17	21.73 11.96 C-9.77
4+61	325 75	15.24 7.42 C-7.82	7+15 42 BC	309 34	20.58 11.72 C-8.86

BM	458	32425	31967 NWBP 38th + Wightman
		Wightman	
0+00	℄ Inlet SE Cor 38th	313.00 FL	11.25 / 5.76 / C-6.09
		318.73 grate	5.53 / 5.16 / C-.37
		319.55 TC6	4.70 / 5.16 / FO.46
0+31.86		312.50	11.75 / 4.99 / C-6.76
		312 FL	12.25 / 5.88 C-6.37
0+63.72	℄ Inlet SW Cor 38th	Wightman 318.10 grate	6.15 / 5.88 C-0.27
		318.93 TC6	5.32 / 5.88 FO.56
			46.23
6-63.72		341.50	41.50 / C-4.73
0-31.86		341.00	
			45.96
0+00		340.50	40.50 / C-5.46 FL 18"

Dwight St

WO # 31506

32

	North rough	North Cb Elv	North Cb	Gut Elv	Gut	Dwight & Elv	&	Gut Elv	gut	South Cb	South Cb Elv	South Rough
1+50	5.80 4.80 C1.0	332.36	332.13 FO.23	331.86				331.65		331.72 FO.43	332.15	6.01 1.80 FO.8
1+20	5.71 4.84 C0.9	.332.45	332.08 FO.37	331.95				331.76		332.02 FO.24	332.26	5.90 6.52 FO.6
0+90	5.63 4.36 C1.3	332.53	332.36 FO.17	332.03				331.88		332.34 FO.04	332.38	5.78 6.27 FO.5
0+60	5.54 4.37 C1.2	332.62	332.52 FO.10	332.12				331.99		332.40 FO.09	332.49	5.67 6.13 FO.5
0+30	5.46 4.49 C1.0	332.70	332.34 FO.36	332.20				332.11		332.59 FO.02	332.61	5.55 6.03 FO.5
0+05 BC South Prop Int		332.83 end existing cl	332.78	332.28				332.20		332.24 FO.46	332.20	5.46 5.52 FO.1
0+00 = ℄ Dwight East Prop Euclid		332.81 BC	332.46 FO.35			332.54				332.26 FO.47	332.73 Mid Pt.	
0-05 North Prop Int	5.56 4.67 C0.7	332.80	332.62 FO.18							332.67	332.92 End existing cl	
			5.39	332.77		NWBP Dwight Euclid						
0.17	338.16		10.20	337.99								
BM 7.73	348.19			340.46		NEBP Lantana Euclid						

North

	Rough	C6 Elv	C6	Cut Elv	Cut	Fill Elv.
4+71.07	9.20 / 5.83	329.58	329.17 / FO 3.9	329.03		32.91
	C- 3.4					
4+51.07	8.11 / 5.74	330.67	330.18 / FO 4.8	330.07		330.21
	C- 2.4					
4+31.07	7.43 / 5.20	331.35	330.52 / FO 2.8	330.70		330.91
	C- 2.2					
4+11.07 Brk.	7.16 / 5.23	331.62	330.23 / FO 6.9	330.92		331.18
	C- 1.9					
3+61.07	7.02 / 4.47	331.76	331.66 / FO 1.0	331.09		
	C- 2.6					
3+11.07	6.87 / 4.03	331.91	331.54 / FO 3.7	331.29		
	C- 2.8					
2+61.07	6.73 / 4.27	332.05	331.86 / FO 1.9	331.47		
	C- 2.5					
TP 7.12		338.28			6.50	331.64
2+11.07	5.97 / 4.33	332.19	332.20 / CO 0.1	331.65		
	C- 1.6	5.41				
1+79.86 Brk. L. Prop	5.88 / 4.67	332.28	332.20 / FO 2.8	331.78		331.96
	C- 1.2					
HI	338.14					

South

	Cut Elv	Cut	Fill Elv.	C6 Elv.	Rough
	328.54		329.45 / CO 4.1	329.04	9.74 / 6.91 / C- 2.8
	329.66		330.20 / CO 0.4	330.16	8.62 / 6.51 / C- 2.1
✓	330.37		330.58 / FO 2.8	330.87	7.91 / 6.51 / C- 1.4
	330.65		331.26 / CO 1.1	331.15	7.63 / 6.37 / C- 1.3
	330.84		331.48 / CO 1.4	331.34	7.44 / 6.16 / C- 1.3
	331.03		331.56 / CO 0.3	331.53	7.25 / 6.50 / CO 0.7
	331.22		331.95 / CO 2.3	331.22	9.06 / 7.16 / FO 1.9 / 338.28
	331.41		331.90 / FO 0.1	331.91	6.25 / 6.97 / FO 0.7
	331.53		331.77 / FO 2.4	332.03	6.13 / 6.84 / FO 0.7
				HI	338.16

	North rough	North CL Elv	North CL	North Int. Elv	North Int.	Dwight £ Elv	Dwight £	South Int. Elv	South Int.	South CL	South CL Elv	South rough
5+50 I° BC North	14 02 / 9 75 / C-4 3	324 76	324 53 / F0 23	324.20								
5+39 87	14 04 / 8 60 / C-5 4	324 74	324 73 / F0 02	324.24		323 90						
5+19 87 BC South	13 18 / 7 01 / ? C6 2	325 60	326 08 / C0 48	325.10		325 10		324.50		325 44 / C0 44	325 00	13 78 / 11 54 / C-2 24
4+91 07 E.V.C.	10 71 / 6 56 / C3 4 2	328 07	330 47 / C2 42	327.57		327 59		327.07		328 02 / C0 58	327 51	11 27 / 8 77 / C-2 5
	1 / H. 338 78										1 / H 338 78	

West — Lantana St. — East

	West rough	West CL Elv	West CL	Lantana Cut Elv	Lantana gut	Lantana E Elv	Lantana E	Lantana Cut Elv	East gut	East CL Elv	East rough
1+27 17 BC East						323 69			324 41 CO 39	323 72	307 973 F-67
TP 2 27	326 79										326 79
1+07 17		324 98 Mid PT	324 48 FO 50	324 41 FO 57	11 69	324 52			325 15 CO 39	324 76	
0+94 BC West	1027 708 C-37	325 44	324 86 FO 59			325 24			325 60 CO 16	325 44	1077 1330 F-257
0+59	878 426 C-45	327 43	327 20 FO 23						328 14 CO 89	327 25	886 1209 F-31
0+24	629 163 C-52	329 42	329 30 FO 12	329 18 FO 24					329 64 CO 57	329 07	714 644 CO 7 ?
0+10 84 BK East		330 77 EC	331 06 CO 29	330 77 G					331 79 CO 91	330 88	533 419 C-12
0+10 80 West Sub Line	481 344 C-14	331 40									
0+00 E Sub Line						331 53					
0-01 50 EC East									332 04 CO 52	331 52 EC	
0-10 80 East Sub Line										332 00	421 395 C-D 3 ?
	718	336 21									
TP off page back				9 25	329 03						

West

	rough	cb Elv	cb	gut Elv	gut	Q Elv
BM Starting				542	340	48 ✓ 340 46
TP	6 25	345 90		382	339 65	
TP	6 17	343 47		076	337 30	
TP back	9 03	338 06			329 03	
1+75 36 End	4 75 2 61 C-21	322 04	321 81 FO 23			321 59
1+58 60 PRC west	4 10 2 19 C-19	322 69	322 02 FO 67	.76 N of New Cbg Opening FO 49 5' Rt		322 24
		324 06 w ½ Ret	323 24 FO 12	New 323 67 FO 39		
		323 27 S ½ Ret	322 71 FO 56			
1+47 17						322 45
AI 326 79						

East

	Q	gut Elv	gut	cb	cb Elv	rough
			staked on cb 5' South 318K 23		321 81	1
			W/y inlet	cb 322 13	F0 32	
				gut 321 51	321 81 C0 30	
				FL 314 60	321 81 C7 21	
			E/y inlet	cb 321 66	322 10 C0 44	
				gut 321 03	322 10 C1 07	
				FL 312 60	322 10 C-9 50	
			5' South 0+32	302 55	307 68 C-6 13	
			5' N of Sec V FL 0+64 Headwall	292 50	291 11 F1 38	
				322 10 C0 56	321 54	5 25 12 47 F-7 22
				322 37 C0 18	322 19	
				322 58 F0 05	322 63	
					HI 326 79	

D. Smith
C Allen
Nick
H. Brunner

Grades for Gresham S.T. Pacific Branch Dr. to Graham

	S'BK Prop rough	CS grade elv	Cb	Gutter	1/4	℄ elv.	1/4	Gutter	Cb	West Cb grade elv.	S'BK Prop rough
			19.46								
2+20	8.0 / 5.0 / C3.0	19.80	FO 3.4						18.77 / FO 3.3	19.10	8.6 / 9.1 / FO 5
			19.71						19.07		8.5
1+80	7.8 / 4.5 / C3.3	20.00	FO 2.9						FO 2.3	19.30	9.1 / FO 6
			19.95						19.07		8.3
1+40 Brk	7.6 / 4.6 / C3.0	20.20	FO 2.5	19.50		19.75		19.00	FO 4.3	19.50	8.5 / FO 2
			20.02						19.21		8.2
1+20	7.5 / 4.7 / C2.8	20.31	FO 2.9	19.61		19.86		19.10	FO 3.9	19.60	8.4 / FO 2
			20.11						19.41		8.1
1+00	7.3 / 4.7 / C2.6	20.45	FO 3.4	19.75		19.98		19.20	FO 2.9	19.70	8.1 / C
			20.35						19.58		8.0
0+80	7.2 / 5.0 / C2.2	20.61	FO 2.6	19.91		20.11		19.30	FO 2.2	19.80	7.4 / CO 6
			20.56						19.81		7.9
0+60 Brk	7.0 / 4.8 / C2.2	20.80	FO 2.4	20.10		20.25		19.40	FO 0.9	19.90	6.8 / C1.1
End Ret.	6.5		20.92						21.39		7.6
0+10	4.7 / C1.8	21.30	FO 3.8	20.60		20.63		19.65	C1.24	20.15	6.8 / C1.8
			21.45						20.26		
Stat Pacific Branch Dr. 0+00.		21.40		20.79		20.54		19.66		20.20	

HI 27.78

BM

NWSD
21.19 Pacific & Gresham

HI 27.78

	5'BK Rod rough	East C6 grade elv.	C6	Gutter	℄	¼	Gutter	C6	West C6 grade elv.	5'BK Rod rough
1+40 B.K	5.5 / 3.5 / C2.0	18.30	17.97 / F0.33					17.30 / F0.30	17.60	6.1 / 4.1 / C2.0
1+05	5.3 / 3.0 / C2.3	18.47	18.20 / F0.27					17.52 / F0.25	17.77	6.0 / 3.3 / C2.7
0+70	5.1 / 2.4 / C2.7	18.65	18.45 / F0.20					17.86 / F0.09	17.95	5.8 / 3.3 / C2.5
0+35	4.9 / 2.0 / C2.9	18.82	18.79 / F0.03					18.11 / F0.01	18.12	5.6 / 3.0 / C2.6
									HI 23.24	
S La Palma 0+00	4.8 / 1.3 / C3.5	23.76 / 19.00	18.94 / F0.06		18.55			18.22 / F0.08	18.30	9.5 / 6.8 / C2.7
HI 23.76									EC Ret. 17.50	10.3 / 6.8 / C3.5
3+40 ℄ int	8.6 / 5.1 / C3.5	19.20	19.00 / F0.20							
Int on Plans									EC Ret 18.00	9.8 / 5.2 / C4.6
N La Palma 3+00	8.4 / 5.1 / C3.3	19.40	19.17 / F0.23	18.70	18.95		18.20	18.52 / F0.18	18.70	9.1 / 5.2 / C3.9
2+60	8.2 / 5.0 / C3.2	19.60	19.39 / F0.21					18.76 / F0.14	18.90	8.9 / 8.3 / C0.6
HI 27.28										HI 27.28

	SIBR Prop Rough	East Cb grade elv	Cb	Gutter	V4
4+25	13.20	12.63	12.37	11.93	
4+09.5	7.6 7.0 C06	12.98	F0.26		
4+00 BVC	13.94 C07	13.29	13.06	12.59	
2+73	6.6 5.8 C08	14.02	F0.23		
	15.41 C07	14.69	14.35	13.99	
3+50	5.6 5.0 C06	15.06	F0.34		
EVC 3+00	4.5 4.1 C04	16.09	15.87 F0.22	15.39	
2+80	4.0 3.61 C04	16.62	16.40 F0.22		
2+60	3.5 3.0 C03	17.07	16.82 F0.25		
2+40	3.2 2.5 C07	17.45	17.26 F0.19		
	HI 20.61				
2+20	6.0 5.2 C08	17.74	17.60 F0.14		
2+00	5.9 4.7 C12	17.97	17.65 F0.32		
		23.76 π			
1+80 BVC	5.7 4.5 C12	18.10	17.62 F0.48		

℄	V4	Gutter	Cb	West Cb grade	SIBR Prop Rough
12.03		11.32	11.54 F0.28	12.82 12.28	13.58 C18 7.4 C09
12.70		12.01	12.37 FF0.24	12.51	13.89 C14 7.3 6.2 C14
				13.32	
14.13		13.45	13.69 F0.26	13.95	15.21 C13 6.3 5.2 C14
				14.36	
15.64		14.89	15.03 F0.36	15.39	5.2 4.3 C09
16.17			15.62 F0.30	15.92	4.7 0.20 BK 3.1 C14
16.62			16.01 F0.36	16.37	4.2 0.20 BK 2.7 C15
17.00			16.27 F0.48	16.75	3.9 0.20 BK 2.1 C18 HI 20.61
17.29			16.74 F0.30	17.04	6.7 0.20 BK 5.2 C15
17.52			17.08 F0.12	17.27	6.5 5.3 C12
17.65			17.10 F0.30	17.40	6.4 4.4 C20

40

5' Bk Prop rough	East Cb grade elv.	Cb (Int on Plans)	Gutter	1/4	CL	1/4	Gutter	Cb	West Cb grade elv.	5' Bk Prop rough
								5.94 C0 04	5.90	C1 5
								6.09 C0 01	~~5.39~~	~~7.44~~ ~~C2 1~~
S Graham 6+80								5.74 F0 52	#2 6.08, #1 6.26	7.5 C3 2
BC Ret 6+65 Brk	7.07 C0 2 / 7.1 C1 4	6.90 / 5.70	6.70 F0 20	6.20 / 5.00		6.40		5.95	6.01 F0 44	6.45 / 5.00	7.44 C1 0 / C2 5
~~6+45 Brk~~			5.57		5.82		5.07			
~~6+28.5~~	8.3 C1 6	6.74							6.04 ~~6.04~~	8.2 C2 1
6+50	7.50 C0 3	7.25 ~~8.44~~ 8.4	7.08 F0 17	6.55		6.91		6.27	6.64 F0 13	6.77	8.29 C1 5
~~5+92~~	9.00 C1 2	7.78							~~7.08~~	8.8 C1 7 10' BK
6+00	8.84 C0 4	8.41 ~~9.57~~	7.94 F0 47	7.71		7.90		7.28	7.65 F0 13	7.78	9.03 C1 3 10' BK
~~5+35.5~~	10.2 C1 4	8.82							~~8.12~~	10.0 C1 9
5+50	elv. rod 10.32 C0 8	9.57 ~~10.71~~	9.12 F0 45	8.87		9.04		8.41	8.59 F0 32	8.91	elv rod 10.02 C1 2
~~5+19~~	10.8 / 9.4 C1 7	9.86							~~9.16~~	11.5 / 9.8
5+00	Evc 11.99 C1 3	10.71 ~~11.32~~	10.41 F0 30	10.01		10.16		9.50	9.61 F0 39	10.00	11.34 C1 3
~~4+82.5~~	9.7 / 8.7 C1 2	~~10.90~~							~~10.20~~	10.4 / 9.1
4+75	12.11 C0 8	11.33	11.09 F0 24	10.63		10.74		10.06	10.21 F0 35	10.56	11.96 C1 3
~~4+46~~	8.6 / 8.0 C0 6	~~11.74~~							~~11.24~~	9.4 / 8.0 C1 4
4+50	12.41 C0 5	11.90	11.66 F0 29	11.25		11.39		10.66	10.77 F0 39	11.16	12.68 C1 5

TP Elv 10.69

Grades for Graham

	5-18K Prop rough	cb grade elv.	South cb	Gut elv	℄	℄	Gut elv.	cb	North cb grade elv.	5-18K Prop rough
Riviera BC Met W Prop. 0+00		9.46		9.00		9.35	9.37		9.95	
	8.66 F.0 1									10.50 C 1 3
0+40	8	8.81 ~~8.65~~		8.15		8.80	8.65		9.23 ~~9.15~~	10.5 C 1 4
	7.60 F0 5									8.68 C0 3
0+85	7 / F0 1	8.08 ~~7.75~~							8.42 ~~8.24~~	8.7 C0 5
	6.22 F.1 1									7.51 F0 1
1+30	6 / F0 6	7.36 ~~6.85~~							7.61 ~~7.35~~	7.5 C0 1
	6.29 F0 3									6.98 C-0 2
1+75	6 / C0 4	6.63 ~~5.95~~							6.81 ~~6.45~~	7.0 C0 5
	5.93 Grade								on Rad. P.	7.07 C-1 1
2+20 EP Prop Gresham EC Ret.	5 / C0 9	5.90 ~~5.04~~		4.54		5.19	5.04		6.00 ~~5.54~~	7.1 C 1 5
2+40		4.67		4.17					storm Dra	in
	6.37 C-1 1						F2 36		7.35 NE pipe	4.09 6.58 ~~2.49~~
2+60	6 / C2 0	5.26 ~~7.34~~		3.84			elv cb 5.90		grate	3.26 6.58 ~~3.32~~
							elv grate 5.07 3.54		7.35 SE pipe	0.85 FL. 6.58
2+80		4.07		3.57			F1 53			C6 3.3 FL.
	3.49								0+45 SW endpipe	= 1.50 -0.44
3+00	1.5 / F2 3	4.62 ~~3.84~~		3.34						FL. C-1.04
B.M.				10.08		7' west Riviera Prop North Graham				

41

Grades for Graham - Graham To Riviera Dr

	5' back Prop Rough Gr.	Curb Grade elev.	South Curb-	Gutter elevation	1/4	℄	1/4	Gutter elevation	Curb elevation	North Curb Grade	5' back Prop Rough Gr.
Riviera B.C. Meet W. prop 0+00.		9.45	9.48	8.98		9.35			9.95.		
0+40	8.46 F0.3	8.96	8.76 F0.20	8.46		9.06		8.87	9.37	9.64 C0.29	10.50 C1.1
0+85	7.60 F0.8	8.41	8.24 F0.17	7.91		8.46		8.22	8.72	8.56 F0.16	8.68 Grade
1+30	6.22 F1.6	7.86	7.64 F0.22	7.36		7.86.		7.56	8.06	7.84 F0.22	7.57 F0.5
1+75	6.29 F1.0	7.31	7.12 F0.19	6.81		7.26		6.91	7.41	7.42 C0.01	6.98 F0.4
2+20 - P. prop Gresham E. Ec. - Return	5.97 F0.8	6.75	6.78 C0.03	6.26		6.65		6.25	6.75	6.89 C0.14	7.07 C0.9
2+40											
								NE Ret.			
2+60	6.37 C0.1	6.28	6.35 C0.07					#3	6.79	6.79 C0.09	
								#2	6.73	6.70 F0.03	
2+80		6.41						#1	6.80	6.43 F0.37	
3+00	3.49 F2.3	5.81	4.12 F1.69								
BM.				9' West Riviera No. Prop Graham 2+7		2+T. 10.08					

		West ℄ East 5'BK unless noted	
6+00	69 South Prop hand is	348.10	347.80
5+80	C-1 31	349.22 351.10	349.48 350.21 C-0.72
5+60	C-0.29	350.86 351.15	350.56 350.57 C 0.01

D. Smith
C Allen
R Shepard
Nick

Stake | Alley Blk | 175 City Hts | WO# 31852 | 45

Lt = West ℄ | Rt = East 7-18-5-1

1+55			278.80 C-0.33 278.48	278.78 280.37 C-1.59
1+22.5			277.88 F-0.22 278.10	(X) 0° 1m 278.40 280.28 C-1.88
0+90 EVC			277.56 F-0.16 277.72	280.67 278.02 C-2.65
0+70			1.35 BK Nail 278.67 C-1.30 277.37	280.69 277.67 C-3.02
0+50			287.59 C-0.80 276.79	1.45 BK Nail 281.14 277.09 C-4.05
0+30			276.44 C-0.47 275.97	1.32 BK (X) 279.20 276.27 C-3.43
0+10			275.86 C-0.82 275.04	1.46 BK Nail 278.09 275.24 C-2.85
0+0.0 N. R-o-p Lincoln			3 BK 274.85 C-0.74 274.11	2' BK (X) 276.94 275.07 C-1.87
0-05 end existing 6" AC			273.91	275.02
	used tape elv rod.			
TP.	8.17	276.79 NW BP Lincoln ⊥ Alabama		
BM	0.35 284.96	284.61		

4+60		278.87 FO 2.3	279.12	279.42 Nail 1.22 BK 283.05 C 3.46
4+20		0.31 BK Nail 280.87 C-1 6.3	279.24	279.54 0.05 BK Nail 281.24 C 1.70
3+80		0.51 BK Nail 279.25 CO 5.9	279.36	279.66 280.59 C-O 9.3
3+40		0.54 BK 279.87 C-O 3.9	279.48	279.78 280.41 CO 6.3
3+00 EVC		279.19 FO 4.1	279.60	279.90 281.05 C-1 1.5
2+80		279.54 F-O 0.6	279.63	279.92 280.78 C-O 8.6
2+60		0.81 BK Nail 280.27 CO 2.0	279.57	279.87 280.98 C-1 1.1
2+40		0.80 BK Nail 279.23 CO 2.8	279.45	279.75 280.42 C-O 6.7
2+20 BVC		0.87 Nail 279.92 CO 6.7	279.25	279.55 0.79 BK 280.54 C O 9.9
1+87.5		278.67 FO 1.9	278.86	279.16 282.15 C-2 9.9

6+00 21 South Prop Polk	278 42	279 30
5780	0 26 BK 279 53 C 0 79 278 76	279 06 C 1 81 280 87
5740	1 BK 278 05 F 0 83 278 88	279 18 C 1 40 280 58
5700	21 BK 279 20 C 0 90 279 00	279 30 C 1 00 280 30 1 BK

D. Smith
R. Shepherd
Nick
W.O. Hman

West — Stake 51st St — Polk to Orange — East WO# 31503 48

INDEXED
Law
MAR 25 1952

	Rough	C6 Grade	C6		C6	C6 Grade	Rough
	23 75		24 12				
2+00	FO 1	323 89	CO 23		24 23 FO 13	324 36	26 21 C1 9
	23 53		23 12				
1+60	CO 1	322 86	CO 26		23 27 FO 06	323 33	25 30 C-2 0
	21 81 22 18		21 97				
1+20	CO 4	321 83	CO 14		22 27 FO 01	322 30	23 6 C1 3
E.C. 14	22 64		20 93	321 02	21 37	321 26	21 80
0+80	C1 8	320 80	CO 13	20 69	CO 11		CO 5
	22 89	320 35	20 62	320 53	20 75	320 75	21 18
0+60	C-2 5		CO 27	20 30	G		CO 4
	23 05	320 03	21 11	320 11	20 18	320 23	20 56
0+40	C3 0		C1 08	19 78	FO 05		CO 3
0+20				319 72 19 39			
0+05 BC		319 57	19 81		19 59	319 38	
Rot.			CO 24		C-0 21		
∠ 29° 58'							
M. Prop	22 50	319 50	19 94	318 90	19 42	319 20	19 89
0+00 Polk	C3 0		CO 44	18 57	CO 22		CO 7
BM			31967	1/4 Cor Mon 52nd & Polk			

	West				East			
	Rough	Cb Grade	Cb	℄	Cb	Cb Grade	Rough
5+00	30 74 C-0 3	330 55	30 62 C-0 07	330 83 30 50	31 05 F-0 15	331 20	43 94 C-12 7
4+80	30 35 F-0 2	330 50	30 50 G	330 75 30 42	30 77 F-0 31	331 08	43 93 C-12 8
4+60	30 69 C-0 4	330 21	30 31 G	330 54 30 21	30 82 F-0 03	330 85	42 28 C-11 4
4+40	30 40 C-0 4	330 00	30 14 C-0 17	330 31 29 88	30 70 C-0 19	330 57	40 93 C-10 4
4+20 B.V.C.	29 14 F-0 4	329 53	29 84 C-0 29	329 76 29 43	30 23 C-0 18	330 05	38 76 C-8 7
4+00	28 18 F-0 9	329 04	29 41 C-0 37		30 02 C-0 49	329 53	35 97 C-6 4
3+60	28 05 G	328 01	28 30 C-0 29		28 43 F-0 07	328 50	32 53 C-4 0
3+20	27 05 C-0 1	326 98	27 25 C-0 27		27 56 C-0 10	327 46	31 01 C-3 6
2+80	25 17 F-0 8	325 95	26 08 C-0 13		26 85 C-0 42	326 43	28 79 C-2 4
2+40	24 49 F-0 4	324 92	24 97 C-0 25		25 21 F-0 19	325 40	27 35 C-2 0

	Rough	West C6 Grade	C6		East C6	C6 Grade	Rough
5477 S. Prop. Orange	30 04 ✓	330 04 ✓		330 30 29 97		331 04 ✓	31 04
5757	30 05 FO 1	330 19	30 19 G	330 61 30 28	30 73 FO 37	331 10	41 05 C-10 0
5720 EVC.	30 56 C-0 1	330 41	30 60 GO 13	330 79 30 46	30 62 FO 58	331 20	43 64 C-12 4

Stake Reed

	North Rough	North Cb grade	North Cb stake		Gresham to Ingraham ℄	6" CI water Main	South Cb stake	South Cb grade	South Rough
								Watt 31601 -5'	
2+15'	35.62 C1.7	34.20	34.00 FO.20		33.78	33.81 C3.83 29.98	33.48 FO.22	33.70	33.53 FO.2
1+95'	34.46 CO.7	33.82	33.50 FO.32		33.40	33.53 C3.93 29.60	33.68 CO.36	33.32	33.03 FO.3
1+75' BVC.	34.31 CO.8	33.57	33.23 FO.34		33.15	33.15 C-3.80 29.35	33.48 CO.41	33.07	32.35 FO.1
1+33.25'	33.83 C-0.6	33.21	32.83 FO.38		=32.78	32.45 C3.47 28.98	33.50 CO.79	32.71	31.18 F1.5
0+92.50	33.21 C0.4	32.84	32.23 FO.61		32.41	32.18 C-3.57 28.61	32.99 CO.45	32.34	31.60 F1.3
0+57.25'	33.31 CO.2	32.47	32.05 FO.42		32.04	31.98 C3.74 28.24	32.49 CO.~~42~~ 37	2.12 31.~~77~~	31.35' FO.6
0+30					31.86	31.54 C-3.48 28.06			
RC 0+10	33.24 C1.2	32.10	32.22 CO.12		31.55		32.06 CO.~~46~~ 16	90 31.60	31.0 FO.4
Fly Gresham 0+00		32.00	32.46 CO.46		31.38	31.46 C-3.88 27.58 Mat. con	31.71 ~~CO.21~~ FO.09	80 31.50	
								31.75 inlet end Tc6	
BM				33.15	NE Prop Pipe Gresham Reed FB 1846, 54				

North

	Rough	Cb grade	C6 JT & Kc
3+30	49.46 C-3.9	45.58	45.93 C0.35
2+90	48.84 C-3.0	45.82	45.69 F0.13
2+50	48.38 C-2.3	46.06	45.87 F0.19
2+10	48.06 C-1.8	46.30	46.18 F0.12
1+70	47.37 C-0.8	46.54	46.20 F0.34
1+30	47.58 C-0.8	46.78	46.54 F0.24
0+90	47.83 C0.8	47.02	46.78 F0.23
0+50	48.15 C-0.9	47.26	47.18 F0.08
0+10 EC		47.56	47.23 F0.36
0+00 Ely Haines	47.67 ob	47.56	47.67 ob

South

		C6 Stake	Cb grade	Rough
	41.34 46.37 C-5.03	45.20 C0.12	45.08	48.35 C-3.3
	41.59 46.70 C-5.11	45.31 F0.01	45.32	47.97 C-2.7
	41.83 46.28 C-4.45	45.44 F0.12	45.56	47.63 C-2.1
	42.07 46.64 C-4.57	45.69 F0.11	45.80	47.37 C-1.6
	42.31 46.65 C-4.34	45.88 F0.16	46.04	47.02 C-1.0
	42.56 46.73 C-4.17	46.07 F0.24	46.28	46.91 C0.6
	42.80 46.80 C-4.00	46.20 F0.32	46.52	47.44 C0.9
46.84	43.04 46.39 C-3.35	46.36 F0.40	46.76	47.41 C0.7
47.08		46.44 F0.56	47.00	
47.10	43.30 46.65 C-3.35	47.02 C6	47.00	47.84 C6

	Rough	North C6 grade	C6 stake				South C6 stake	C6 grade	Rough
BM				44.15 ℄ L+T Reed Ingraham					
			44.16 FO 09						
Ret end North 13.34		44.85	44.62 FO 23						
Ret end South 13.20		44.45	44.44 FO 01				44.00	44.00	
4+99.50 Wly Ingraham	46.75 C-2.3	44.50	44.21 FO 29		43.83	40.03 43.56 C 3.53	43.21 FO 29	44.00	45.65 C-1.7
4+90 BC		44.60	44.29 FO 31		44.18		43.27 FO 33	44.10	
						40.62 44.65 C 4.03			
4+50	47.82 C-3.0	44.85	44.52 FO 33				44.41 CO 06	44.35	46.83 C 2.5
						40.86 45.66 C-4.80			
4+10	49.07 C-4.0	45.10	45.27 CO 17				44.76 CO 16	44.60	47.54 C 2.9
						41.10 46.41 C-5.31			
3+70	49.44 C-4.4	45.34	45.33 CO 21				45.07 CO 23	44.84	48.29 C 3.5

North stake Oliver Haines to Ingraham wo # 3160/

	Rough	Cb grade	Cb	℄	South Cb	Cb grade	Rough
1+80	45.83 FO 01	45.94	45.75 FO 19	46.10	46.14 FO 26	46.40	47.80 C-1 4
1+60	45.37 FO 01	45.47	45.28 FO 19	45.61	45.67 FO 23	45.90	47.16 C-1 3
1+40	45.24 CO 2	45.04	44.96 FO 08	45.17	45.09 FO 35	45.44	46.74 C-1 3
1+20	44.95 CO 3	44.67	44.62 FO 05	44.78	44.84 FO 19	45.03	46.46 C-1 4
1+00	44.65 CO 3	44.34	44.19 FO 15	44.36	44.48 FO 20	44.68	46.07 C-1 4
0+80 BVC.	44.36 CO 3	44.05	44.04 FO 01	44.12	44.14 FO 20	44.34	45.94 C-1 6
0+45	44.10 CO 5	43.59	43.80 CO 21	43.59	43.70 FO 05	43.75	45.49 C-1 8
0+10 EC		43.13	43.19 CO 06	43.07	43.07 FO 09	43.16	
0+00 Ely Haines	43.03 Ch'd	43.00		42.71		43.00	43.12 Ch'd
BM				47.36 Con Mon ℄ Oliver w 7' Ingraham			

	North Rough	North Cb grade	North Cb	℄	South Cb	South Cb grade	South Rough
4+00	50.88 C0 1	50.79	50.68 F0 11	50.80	51 22 C0 06	51.16	53 4 C-2 3
3+80	50 71 C0 1	50.83	50 60 F0 23	50.96	51 24 C	51.24	53 42 C-2 3
3+60	50 46 F-0 3	50.71	50.47 F0 24	50.86	51 02 F0 14	51.16	53 40 C-2 2
3+40	50 18 F-0 3	50.45	50 40 F0 05	50.62	50 64 F0 29	50.93	53 24 C 2 3
3+20	49 74 F-0 3	50.04	49 83 F0 21	50.22	50 33 F0 21	50.54	52 90 C-2 4
B.V.C. 3+00	49 08 F-0 4	49.49	49 40 F0 09	49.67	49 78 F-0 21	49.99	52 17 C-2 2
2+70	48 41 F0 1	48.55	48 28 F 0 27	48.73	49 04 F0 01	49.05	51 31 C 2 3
E.V.C. 2+40	46 91 F0 1	47.61	47 63 C0 02	47.79	48 01 F0 10	48.11	50 11 C-2 0
2+20	46 68 F-0 3	47.00	46 63 F0 37	47.18	47 39 F0 11	47.50	49 16 C 1 7
2+00	46 16 F0 3	46.44	46.17 F0 27	46.61	46 72 F 0 21	46.93	48 36 C 1 5

North					South			
	Rough	Cb grade	Cb		℄	Cb	Cb grade	Rough
						47 36		
Retend		48.05	47 39 F0 66			47 35 F0 59 F0 60	47.95	
13 36								
						47 86		
Ret		48.29	47 29 F1 00			47 80 F0 40 F0 46	48.26	
13 36								
						48 08		
4+99 16 Wfy Ingration	48 72 G	48.70	48 02 F0 68		48.46	48 18 F0 62 F0 52	48.70	51 45 C2 8
						48 27		
4+89 16 BC.		48.98	48 66 F0 32		48.93	48 55 F0 47	49.02	
						F0 75		
						49 43		
4+60 E.C.	48 89 F0 2	49.80	49 59 F0 21		49.81	49 88 F0 09 F0 54	49.97	52 37 C2 4
	51 08		50.48			50.54		52 55
4+40	C0 8	50.28	C0 20		50.33	C0 02	50.52	C2 0
	51 42		50 75			51 17		53 25
4+20	C0 8	50.61	C0 17		50.69	C0 26	50.91	C2 3

Smith Allen Rorer Othman

Stake 385 Sewer - S-4 1/2 + Laurel
W.O. # 62227 - Aug 15, 1951

	INV. EL.	Stake	CUT
2+30	267.50	275.06	C-7.56
2+05	266.68	274.15	C-7.47
1+80	265.85	273.23	C-7.38
1+55	265.03	T.P. 272.03	C-7.00
1+30	269.20	271.43	C-7.23
1+05	263.38	270.78	C-7.40
0+80	262.55	269.61	C-7.06
0+55 = MH#1	261.73	268.82	C-7.09
0+27.5	261.35	267.58	C-6.23
0+00 : 220'	EX MH. 260.96	266.88	C-5.92

Check - dist - 22.33 West P.O.T. @ 0+22.90
on Skyline Laurel extended FB. 2035, pp52.
EL = 267.20 .04 high.

Direct elevation Rod.

Elev = 277.89

BM = Brass plug in pvt. SE. Cor. Blacktop + 54'

	INV. EL.	Stake	CUT
3+85 (D.E.)	270.54	278.56	C-8.02
3+45	270.26	277.59	C-7.33
3+05 (MH#2)	269.98	276.85	C-6.87
2+80	269.15	276.09	C-6.94
2+55	268.33	275.64	C-7.31

GRADES for Sewer Extension

111 Hillside Drive

Walker 2-27-52

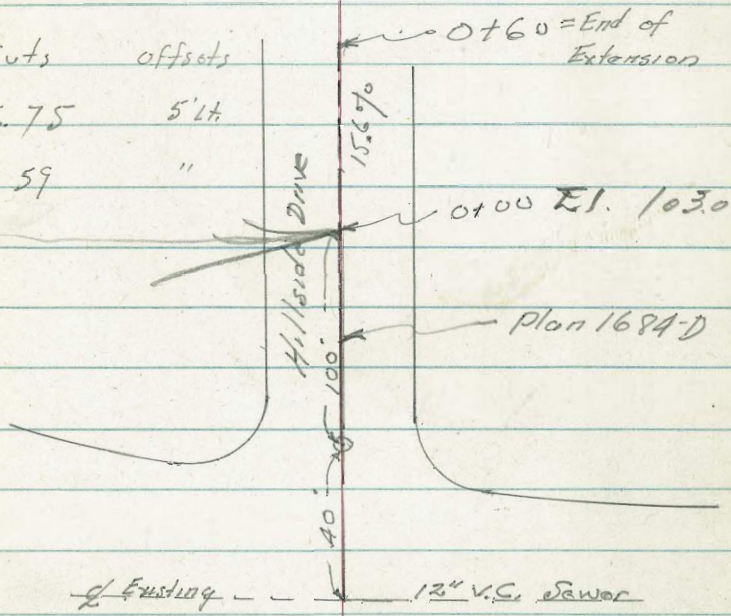
Pope

Huffman

Bishop

WO 20009

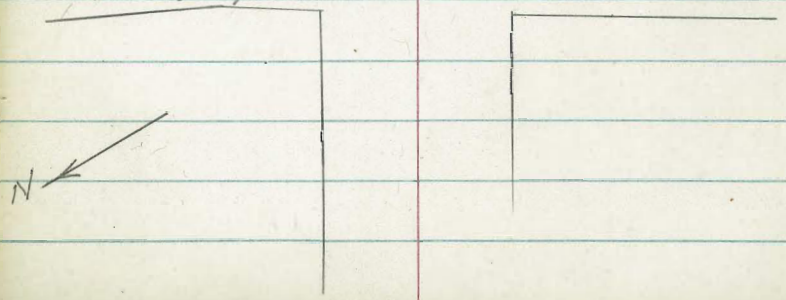
				Invert	Cuts	offsets
0+60			2.56	119.11	112.36	6.75	5' Lt.
TP						
0+30	6.40	12.67	1.40	115.27	107.68	7.59	"
0+00					103.00		



TORREY PINES ROAD

13.67	116.67	103.00

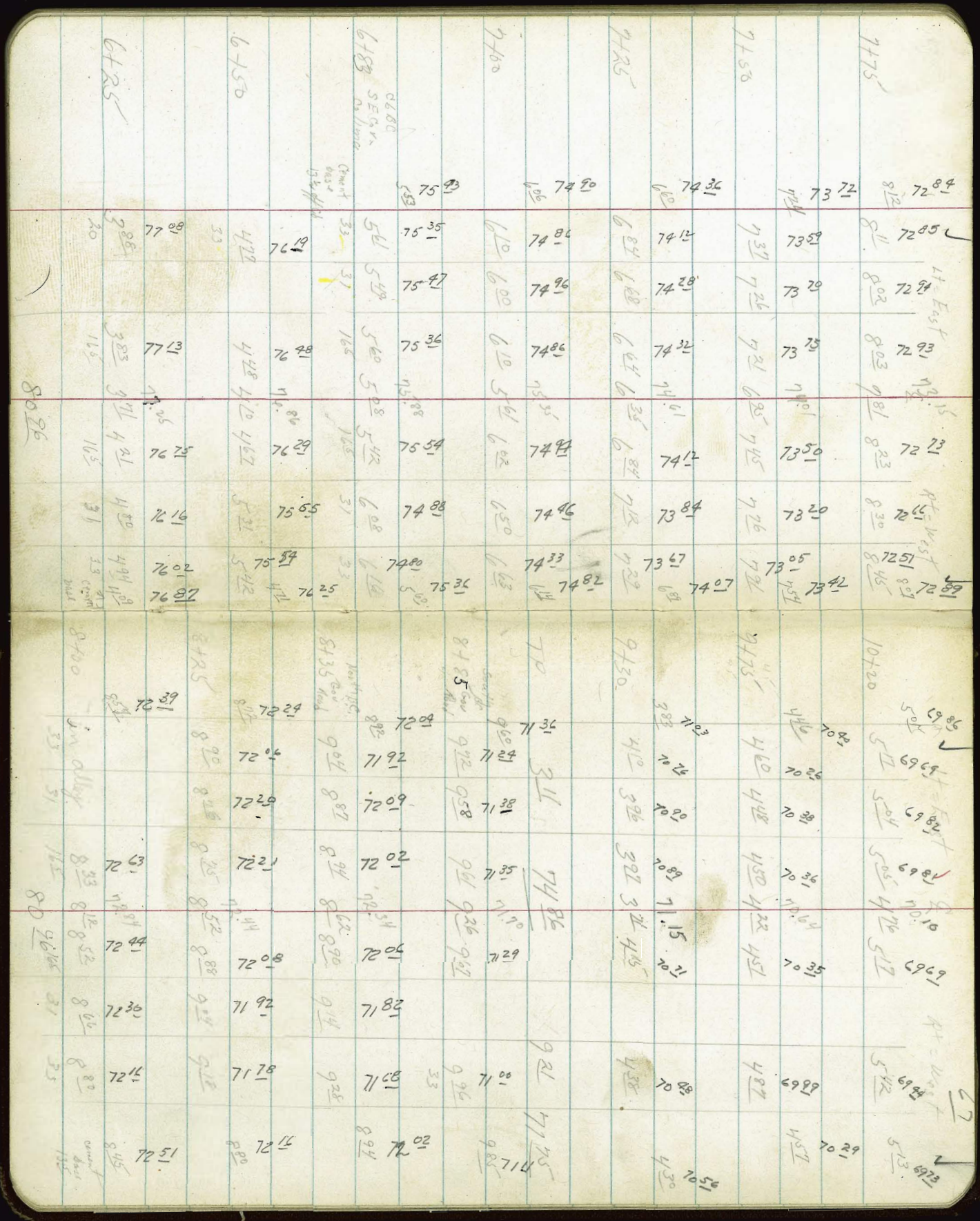
B.M.
Elev. Invert Ply end



	Lt: East				Rt: West															
	20 94t edge 94t	18.5	1/4	18 72.06	℄	1/4	31 edge 94t	33 94t	72.06		20 94t edge 94t	16.5	1/4	℄	16.5	1/4	31 edge 94t	33 94t	65	
	72.04			72.67	72.38		71.62	71.45			74.06			74.22	74.65		74.23	73.89	73.80	74.23
1+25	6.41		6.27	5.78	6.27		6.83	7.00	6.39	3+00	4.39		4.23	3.80	4.22		4.56	4.65	4.22	
	71.74		71.91	72.34			71.82	71.31	71.15	73	73.71		73.93	74.35	73.91		73.58	73.46	73.93	
1+00	6.71		6.54	6.41	6.63		7.14	7.30	6.74	2+75	4.69		4.52	4.10	4.54		4.87	4.96	4.52	
	71.45		71.63	72.04	71.51		70.98	70.86	71.54		73.42		73.41	74.01	73.41		73.29	73.14	73.59	
0+75	7.00		6.82	6.43	6.84		7.47	7.58	7.01	2+50	5.03		4.84	4.41	4.84		5.16	5.31	4.86	
	71.23		71.35	71.67	71.34		70.68	70.53	71.07		73.41		73.32	73.91	73.30		72.84	72.81	73.27	
0+50	7.22		7.10	6.78	7.24		7.77	7.92	7.38	2+25	5.34		5.13	4.74	5.15		5.51	5.64	5.18	
	71.19		71.17	71.25	70.90		70.34	70.20	70.79		72.83		72.98	73.43	73.02		72.66	72.41	72.92	
0+25	7.26		7.28	7.20	7.55		8.09	8.25	7.66	2+00	5.62		5.47	5.02	5.43		5.79	5.98	5.46	
	70.68		70.68	70.60	70.49		69.98	69.90	70.84		72.55		72.68	73.15	72.69		72.30	72.13	72.61	
0+00 CS BC Midway	7.77		7.85	7.85	7.96		8.47	8.55	8.01	1+75	5.90		5.77	5.30	5.76		6.15	6.32	5.84	
								edge concrete 134 4th cb			72.26		72.50	72.93	72.45		71.95	71.77	72.34	
TP	3.82	78.45		75.53	74.63					1+50	6.19		5.95	5.52	6.00		6.50	6.68	6.11	edge concrete back
BM.	3.93	82.16			78.23		NEXT Colima & La Jolla Blvd.													
														78.45						

	20 Sut	Lt			Rt 31 edge Sut	33 Sut								
		16.5 1/4	℄	16.5 1/4										
TP	3.29	80.96		148	76.97	76.14								
	75.28	75.27		74.45	76.04	75.04	76.31							
4+43 BC NW Colima	2.67	2.48		2.00	2.41	2.51	2.65							
	75.53	75.25		76.21	75.87	75.69	75.89							
4+25	2.92	2.20		2.24	2.63	2.24	2.20							
	75.21	75.95		75.97	75.51	75.33	75.53							
4+00	3.24	3.00		2.53	2.94	3.12	3.23							
	74.89	75.11		75.10	75.15	74.95	75.20							
3+75	3.56	3.34		2.85	3.30	3.50	3.60							
	74.62	74.87		75.28	74.81	74.59	74.86							
3+50	3.83	3.58		3.17	3.64	3.86	3.95							
	74.32	74.51		74.97	74.58	74.28	74.53							
3+25	4.13	3.94		3.48	3.87	4.17	4.25							
				78.45										

6+00	77.51	3.45 20	77.54	3.42 165	77.40	3.21	3.56 165	77.12	3.84 31	76.27	3.99 33	77.32	3.64	
5+87 West South CL BC Colima	77.41	3.55 20	77.49	3.47 165	77.37	3.20	3.39 165	77.35	3.51 31	77.32	3.64 33	77.29	3.49	adjacent bank
5+32 End CL South Colima	76.91	4.05 20	77.12	3.84 165	77.62	3.34	3.38 165			77.26	3.20 33 Sut bank	77.27	3.29 30 Sut bank	77.27 3.49 50 Sut
5+16 1/4 South Colima	76.74	4.20 20	76.76	4.00 165	77.41	3.55	3.53 165			77.26	3.30 33	77.23	3.13 50	
5+00 3 Colima	76.55	4.41 20	76.80	4.16 165	77.22	3.34	3.20 165	77.21		77.27	3.39 33		3.17 50	
4+84 1/4 North Colima	76.37	4.59 20	76.58	4.38 165	77.00	3.97	3.96 165	77.00		77.28	3.60 33 Sut bank	77.23	3.43 50	
4+68 CL End Colima	76.14	4.82 Sut 20	76.33	4.63 165	76.74	4.20	4.33 165	76.68		76.53	4.43 33 Sut bank	76.34	4.48 50 Sut bank	76.29 4.67 50 Sut
				80.96										



Lt to East 9 Rt to West

12+46 14+96 TP 11+96 11+63 11+13 10+95 10+65

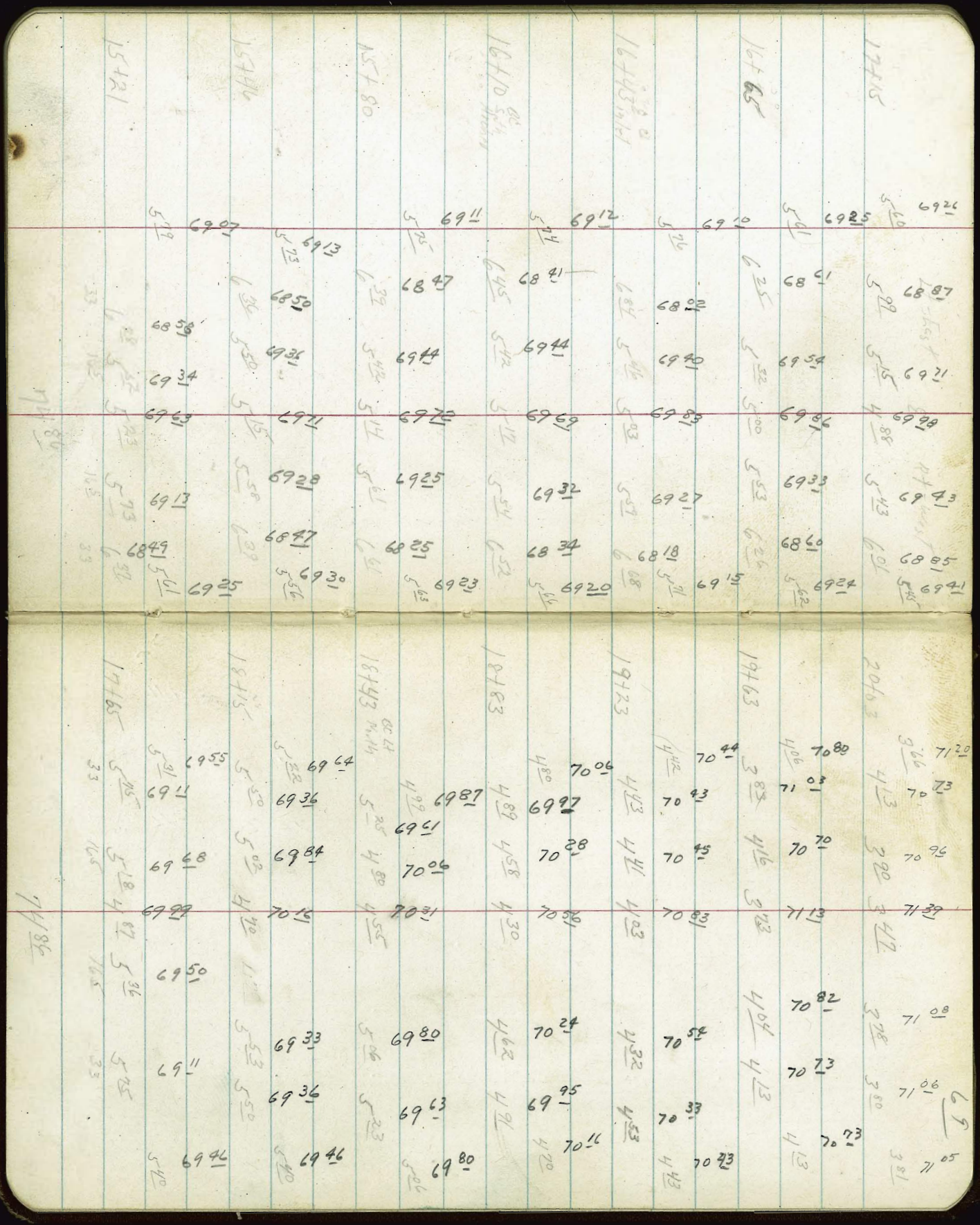
McFetridge Sch East

Turn and deflect

BC Lt North

grade

7/86



71.32

71.86

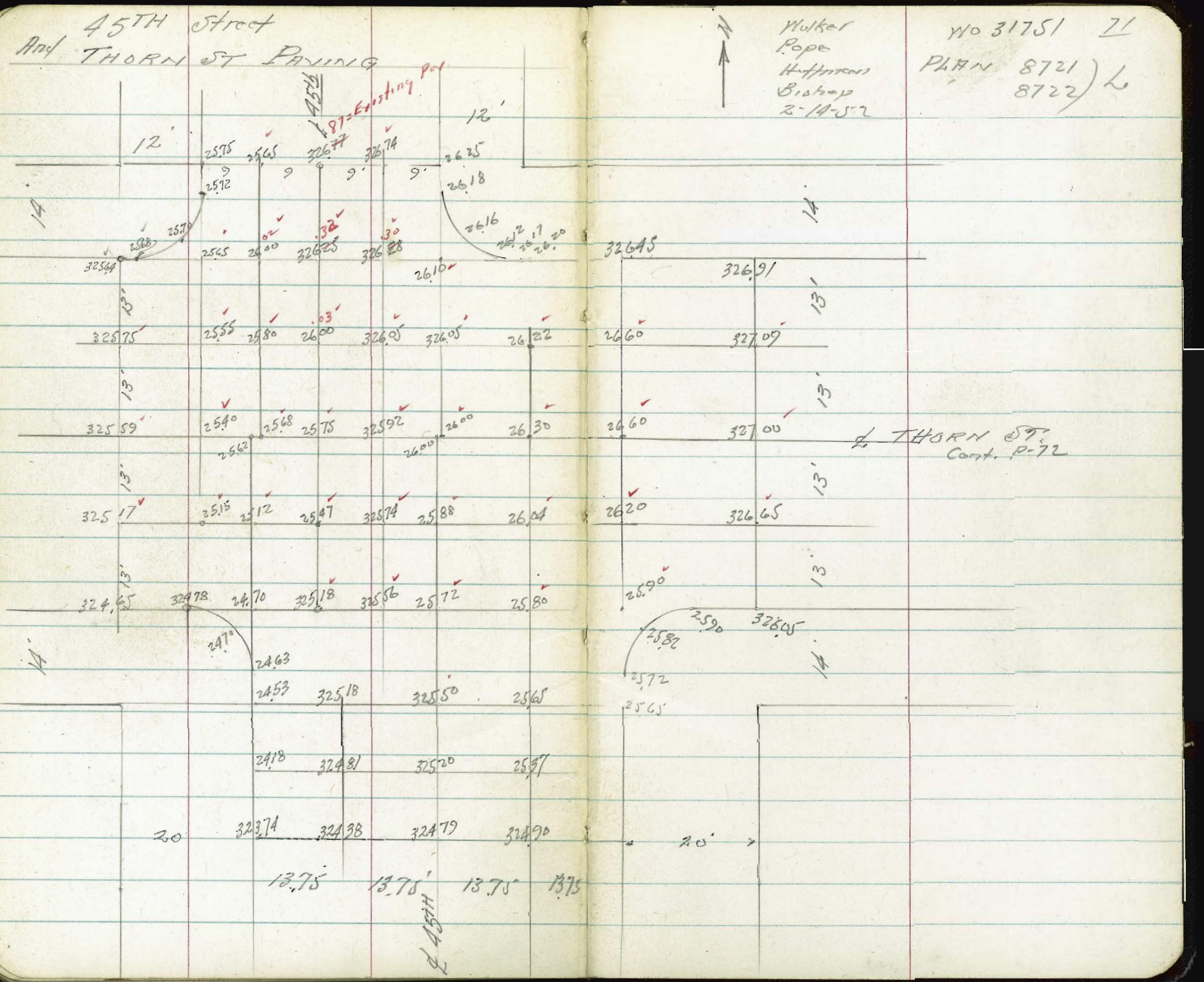
TP 3.00 71.86 71.89 Top cb old End

3.54 70.78 70.86 70.87 71.51 71.26 71.31 71.26

20+22 EC 4.08 4.00 3.89 3.34 3.60 3.55 3.69

33 31

74.86

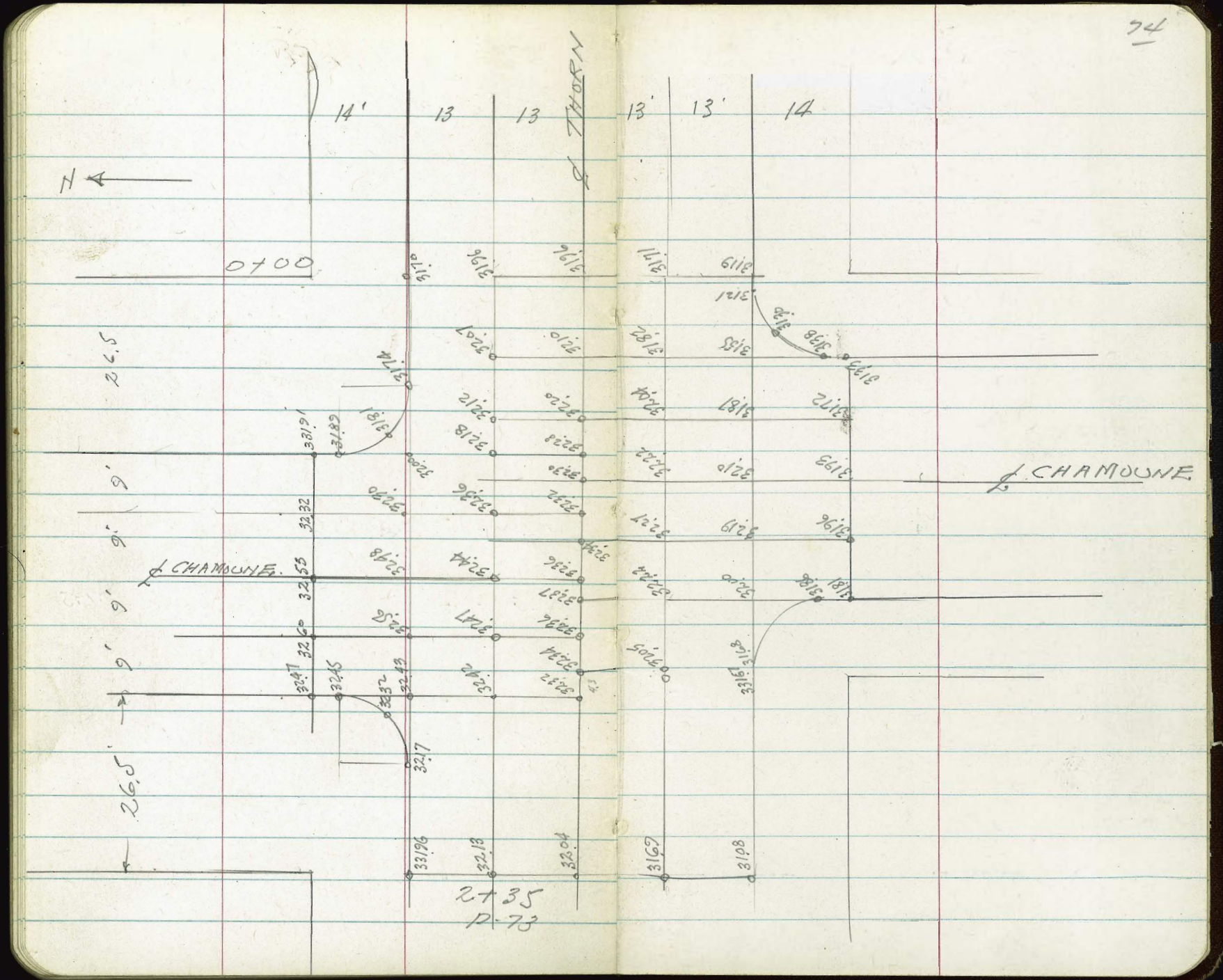

45TH Street
And THORN ST PAVING
87=Existing Pot
12'
14'
13'
9'
2575
2565
2572
2568
2563
2570
2545
2600
2603
2555
2580
2540
2562
2515
2512
2547
2518
2553
2481
2474
2438
2479
2490
13.75
45TH
Walker
Pope
Huffman
Bishop
2-14-5-2
WO 31751
PLAN 8721
8722
2645
2660
2620
2590
2582
2572
2565
20'
℄ THORN ST.
Cont. P-72

	Cut	1/4	℄		Cut
				1/4	
1+43	.18 3021	.28 30.26	.09 30.36	29.70	29.13
~~1+43~~		Left out of this row			
1+24	29.85	29.86	29.65	29.23	28.60
1+12	32.96 60	29.60	29.39	28.96	28.33
Alley					
0+88	32.86 91	.03 29.00	28.87	28.46	27.80
0+63					27.26
0+57	32.87 .23	28.32 .35	28.20	27.80	32.711
0+26.5	32.746 99	32.765	32.754	32.712	32.641
0+00	32.691	27.09	27.00	26.65	32.605

THORN

2+516		Int. Cont P- 74				
2+35	23196	3213	3204	3169	3108	2+35
2+05	3139	3153	3140	3103	3041	
1+74	3086 77	3089	3076	3040	2972 80	

TP 3119


N
14'
13
13
13'
13'
14
℄ THORN
0700
26.5'
9'
9'
9'
9'
26.5'
℄ CHAMOUNE
℄ CHAMOUNE
2T 35
P. 73

THORN St Pave.

from Chamouna to Alley 125'E

PLAN 8721-L

WO 31751

Walker
Huffman
Bishop
2-15-52

Thorn St

		Cut	½	℄	½	Cut
W.L. Alley						
End Project	1+25	329.44	329.83	329.96	329.83	329.44
	0+92.2	330.39	330.39	330.48	330.32	
	0+61.5		330.91	330.97	330.78	
	0+30.7		331.43	331.46	331.24	
	0+00	331.70	331.96	331.96	331.70	331.19

1+98.8 tie in SMH existing 213.11 Elev. to.

38' 12.66%

1+60.8 BRK

26 52.43%

1+34.2 SMH #2

1+06.2 curve adjust

0+76.2

0+46.2 SMH #1

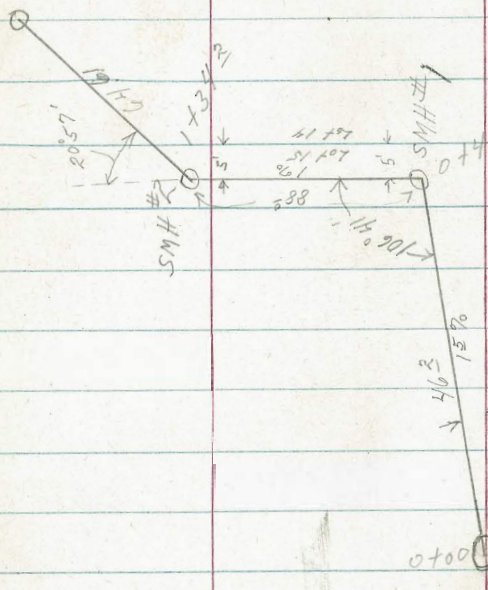
0+23.1

0+00 Elev 234.39 existing

334

248.98 NEDP Hortensia + Hickory

BM



213.61 218.79 C-5 18

218.42 223.09 C-4 67

232.42 239.86 C-7 46

232.20 240.68 C-8 18

233.00 242.08 C9 08

233.30 241.46 C-8 16

233.65 240.53 C-6 88

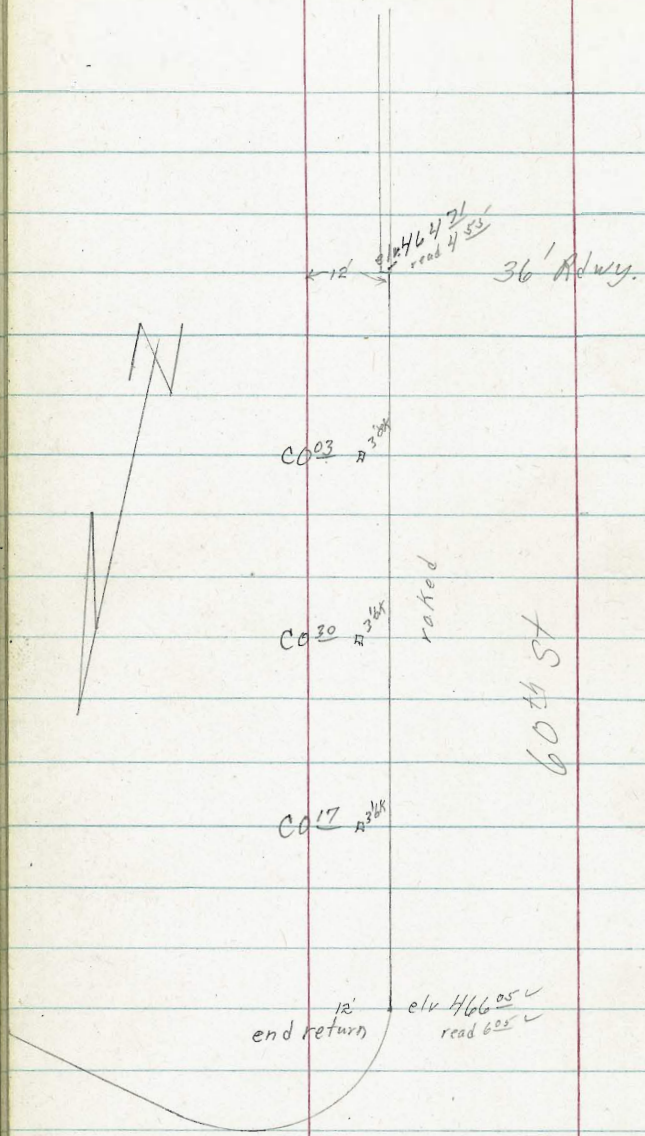
existing 234.39 Elev. 240.32

234.00 C-6 32

45th St. Rev.

Station	E Gut	1/4	℄	1/4	W Gut
2+00	315.15	315.32	315.20	314.82	314.16
1+75	316.48	316.64	316.53	316.16	315.49
1+50	317.81	317.98	317.86	317.48	316.82
1+25	319.14	319.30	319.19	318.81	318.15
1+00	320.48	320.64	320.52	320.14	319.48
0+75	321.81	321.97	321.85	321.46	320.81
0+50	323.14	323.30	323.18	322.80	322.14
0+20 Brk	324.74	324.90	324.79	324.40	323.74
0+10 Brk	325.25	325.34	325.20	324.82	324.18
Shine Thorn 0+00	325.65	325.68	325.50	325.11	324.53

	E Gut	1/2	℄	1/2	W Gut.
3+00	309.84		309.34		308.68
2+90	310.37				309.37
2+80	310.90	311.07	310.95	310.56	309.90
2+60	311.96	312.12	312.01 310.95	311.62	310.96
2+40			~~312.01~~		
2+36	313.23	313.40	313.29	312.90	312.24
2+25	313.82	313.99	313.87	313.49	312.83

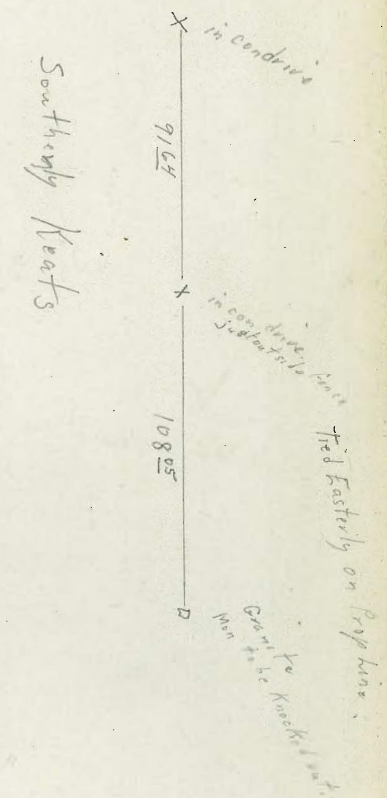


BM 465.27

NWRP
College
El Cajon

water.

4107^{5} 329^{74}	37^{22} C-7^{48}
4132^{5} 330^{20}	40^{37} C 10^{07}
4157^{5} 330^{80}	42^{18} C 11^{38}
4182^{5} 331^{10}	44^{05} C-12^{95}



0+00 BC Midway ℄ 70.74
℄ 70.56

℄ ℄
0+50 71.35 71.79

1. Rake

4+00 75.71 75.97

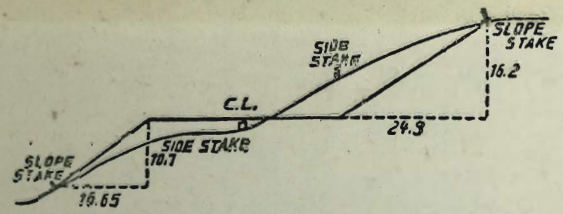
4+43 76.30 76.50

5+00 77.30 77.39

5+50 77.77 77.94

leveling

69.54
23.15
46.37



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ 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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