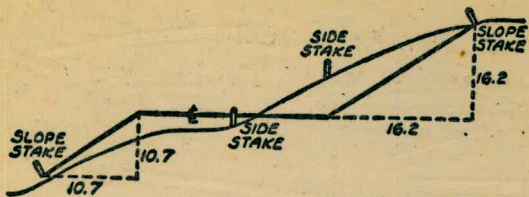


W 842





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

<sup>1</sup> 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.

Please Return to  
City of San Diego Water Dept.  
Room 903 Civic Center

MICROFILMED

JAN 10 1965



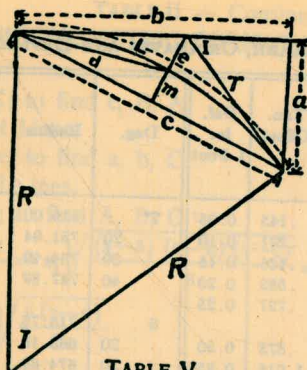


TABLE V  
CURVE FORMULÆ FOR SIMPLE CURVES  
COMPILED BY J. CALVIN LOCKE, C. E.

- (1)  $c = \sqrt{2Ra}$  (2)  $c = \sqrt{a^2 + b^2}$   
 (3)  $c = \sqrt{2R(R - \sqrt{(R+b)(R-b)})} = \sqrt{2R(R - \sqrt{R^2 - b^2})}$   
 (4)  $c = 2\sqrt{m(2R-m)}$   
 (5)  $c = 2R \sin \frac{1}{2} I$  (6)  $c = 2T \cos \frac{1}{2} I$   
 (7)  $e = R \operatorname{exsec} \frac{1}{2} I$   
 (8)  $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$  (9)  $e = T \tan \frac{1}{4} I$   
 (10)  $b = \sqrt{a(2R-a)}$   
 (11)  $b = \sqrt{\left(c + \frac{c^2}{2R}\right)\left(c - \frac{c^2}{2R}\right)} = \sqrt{c^2 - \frac{c^4}{4R^2}}$   
 (12)  $b = R \sin I$  (13)  $b = a \cot \frac{1}{2} I$   
 (14)  $R = \frac{a^2 + b^2}{2a} = \frac{c^2}{2a}$  (15)  $R = \frac{d^2}{2m} = \frac{c^2 + 4m^2}{8m}$   
 (16)  $d = \sqrt{R(2R - \sqrt{(2R+c)(2R-c)})} = \sqrt{R(2R - \sqrt{4R^2 - c^2})}$   
 (17)  $d = \sqrt{2Rm}$  (18)  $d = 2R \sin \frac{1}{4} I$  (19)  $m = \frac{d^2}{2R}$   
 (20)  $m = R \mp \sqrt{\left(R + \frac{c}{2}\right)\left(R - \frac{c}{2}\right)} = R \mp \sqrt{R^2 - \frac{c^2}{4}}$   
 (21)  $m = R \operatorname{vers} \frac{1}{2} I$  (22)  $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$  (23)  $m = \frac{1}{2} c \tan \frac{1}{4} I$   
 (24)  $a = \frac{c^2}{2R}$  (25)  $a = R - \sqrt{(R+b)(R-b)} = R - \sqrt{R^2 - b^2}$   
 (26)  $a = 2R(\sin^2 \frac{1}{2} I)^2$  (27)  $a = R \operatorname{vers} I$  (28)  $a = R \sin I \tan \frac{1}{4} I$   
 (29)  $a = b \tan \frac{1}{2} I$  (30)  $a = T \sin I$  (31)  $T = R \tan \frac{1}{2} I$   
 (32)  $l = \frac{L}{R} \times 57.295780$  (33)  $R = \frac{L}{I} \times 57.295780$   
 (34)  $L = IR \times 0.01745329$  (35)  $L = \frac{8d-c}{3}$   
 (36)  $\text{Area Seg.} = \frac{LR - R^2 \sin I}{2} = \frac{LR - Rb}{2}$

TABLE VI

SINES, COSINES, TANGENTS, COTANGENTS

deg.	sin 0'	tan 0'	sin 10'	tan 10'	sin 20'	tan 20'	sin 30'	tan 30'	sin 40'	tan 40'	sin 50'	tan 50'	deg.
0	0000	0000	0029	0029	0058	0058	0087	0087	0116	0116	0145	0145	89
1	175	0175	0204	0204	0233	0233	0262	0262	0291	0291	0320	0320	88
2	349	349	378	378	407	407	436	436	465	465	494	495	87
3	523	524	552	553	581	582	610	612	640	641	669	670	86
4	698	699	727	729	756	758	785	787	814	816	843	846	85
5	872	875	901	904	929	934	958	963	987	992	1016	1022	84
6	1045	1051	1074	1080	1103	1110	1132	1139	1161	1169	1190	1198	83
7	219	228	248	257	279	287	305	317	334	346	363	376	82
8	392	405	421	435	449	465	478	495	507	524	536	554	81
9	564	584	593	614	622	644	650	673	679	703	708	733	80
10	736	763	765	793	794	823	822	853	851	883	880	914	79
11	908	944	937	974	965	2004	994	2035	2022	2065	2051	2095	78
12	2079	2126	2108	2156	2136	186	2164	217	193	247	221	278	77
13	250	309	278	339	306	370	334	401	363	432	391	462	76
14	419	493	447	524	476	555	504	586	532	617	560	648	75
15	588	679	616	711	644	742	672	773	700	805	728	836	74
16	756	867	784	899	812	931	840	962	868	994	896	3026	73
17	924	3057	952	3089	939	3121	3007	3153	3035	3185	3062	217	72
18	3090	249	3118	281	3145	314	173	346	201	378	228	411	71
19	256	443	283	476	311	508	338	541	365	574	393	607	70
20	420	640	448	673	475	706	502	739	529	772	557	805	69
21	584	839	611	872	638	906	665	939	692	973	719	4006	68
22	746	4040	773	4074	800	4108	827	4142	854	4176	881	210	67
23	907	245	934	279	961	314	987	348	4014	383	4041	417	66
24	4067	452	4094	487	4120	522	4147	557	173	592	200	628	65
25	226	663	253	699	279	734	305	770	331	806	358	841	64
26	384	877	410	913	436	950	4462	986	488	5022	514	5059	63
27	540	5095	566	5132	592	5169	617	5206	643	243	669	280	62
28	695	317	720	354	746	392	772	430	797	467	823	505	61
29	848	543	874	581	899	619	924	658	950	696	975	735	60
30	5000	774	5025	5812	5050	851	5075	890	5100	930	5125	969	59
31	150	6009	175	6048	200	6088	225	6128	250	6168	275	6208	58
32	299	249	324	289	348	330	5373	371	398	412	422	453	57
33	446	494	471	536	495	577	519	619	544	661	568	703	56
34	592	745	616	787	640	830	664	873	688	916	712	959	55
35	736	7002	760	7046	783	7089	807	7133	831	7177	854	7221	54
36	878	265	901	310	925	355	948	400	972	445	995	490	53
37	6018	536	6041	581	6065	627	6088	673	6111	720	6134	766	52
38	157	813	180	860	202	907	225	954	248	8002	271	8050	51
39	293	8098	316	8146	338	8195	361	8243	383	292	406	342	50
40	428	391	450	441	472	491	494	541	517	591	539	642	49
41	561	693	583	744	604	796	626	847	648	899	670	952	48
42	691	9004	713	9057	734	9110	756	9163	777	9217	799	9271	47
43	820	325	841	380	862	435	884	490	905	545	926	601	46
44	947	657	967	713	988	770	7009	827	7030	884	7050	942	45
45	7071	1.0000	7092	1.0058	7112	1.0117	133	1.0176	153	1.0235	173	1.0295	44
deg.	60'	60'	50'	50'	40'	40'	30'	30'	20'	20'	10'	10'	deg.
	cos	cot	cos	cot	cos	cot	cos	cot	cos	cot	cos	cot	

3640  
14560



TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

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

FOR TANGENTS ADD

Central Angle	DEGREE OF CURVE													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.42	.46
15°	.04	.10	.14	.19	.24	.29	.34	.39	.45	.51	.53	.58	.63	.68
20°	.06	.13	.19	.26	.32	.39	.45	.51	.58	.65	.72	.79	.84	.90
25°	.08	.16	.24	.33	.40	.49	.58	.67	.75	.83	.90	.99	1.06	1.14
30°	.10	.19	.29	.39	.49	.59	.69	.79	.89	.99	1.09	1.20	1.29	1.39
35°	.11	.22	.34	.47	.58	.69	.79	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	.13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	.15	.30	.44	.60	.76	.91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	.17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	.19	.38	.57	.76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	.21	.42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	.23	.46	.69	.93	1.16	1.40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	.25	.51	.76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	.30	.61	.91	1.22	1.53	1.84	2.15	2.46	2.78	3.10	3.44	3.78	4.12	4.46
85°	.33	.66	1.00	1.33	1.68	2.02	2.36	2.70	3.05	3.40	3.77	4.14	4.55	4.89
90°	.36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	.39	.79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.85	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

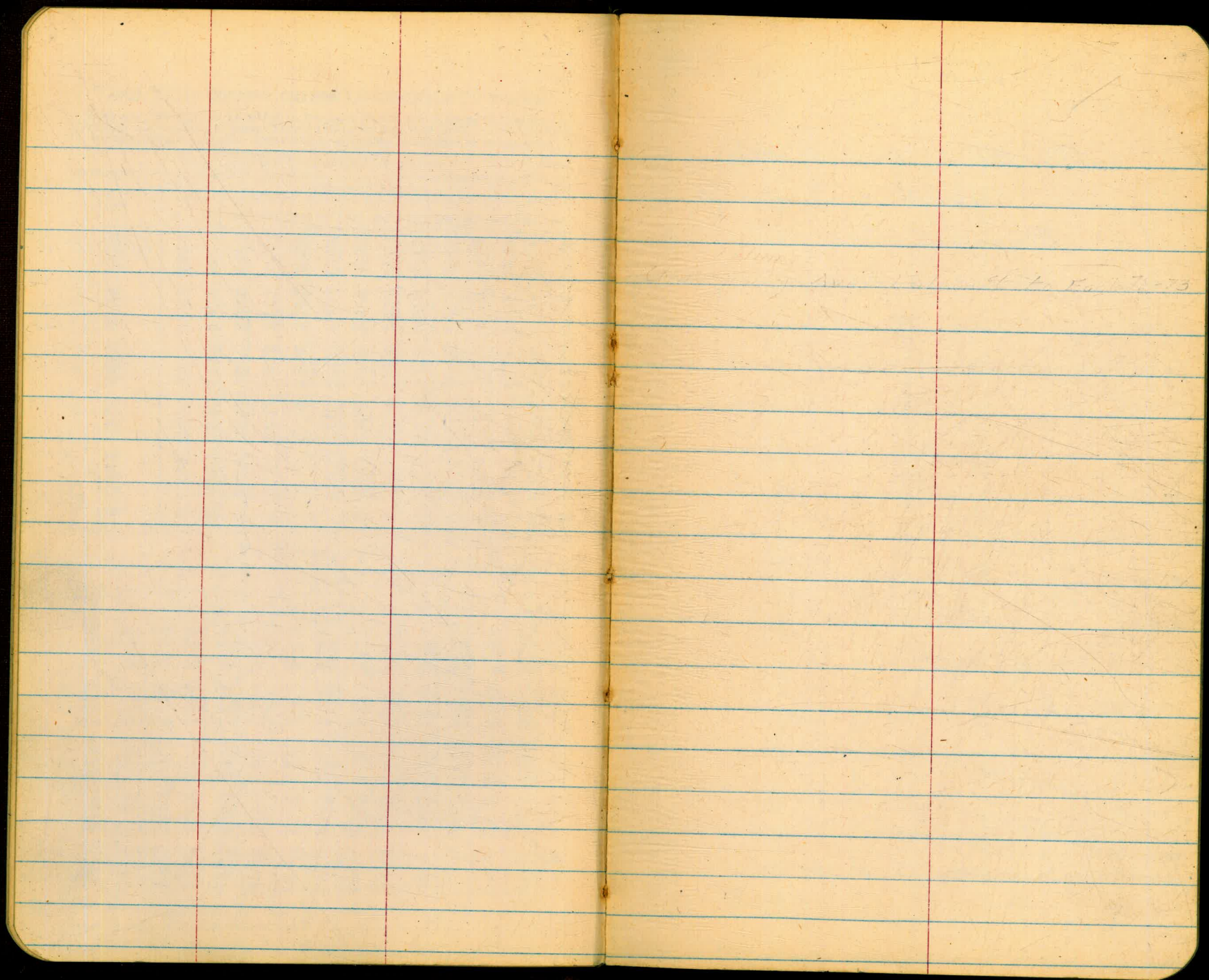
FOR EXTERNALS ADD

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	1.20	1.27	1.35
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.771	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.885	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

INDEX

- Alley BIR (2) East 44th, Olive No. Co Quince 1-4 ✓
- Alley BIR 235-236 Bal Whiting Ct & Verona Ct. 5-7 ✓
- Roanoke Rd. Calle Gaviota to Sabroac 8-10 ✓
- Jupiter St. No. Terminus to So. Terminus corr 11-13 ✓
- (Prelim.) Alley BIR 253. N. Upus - E. Georgia St 14-16 ✓
- " ) Canterbury, No. Palmarcos Rd 17-19 ✓
- (") Alley E of Van Dyke & So. of University 20-22 ✓
- REVISED ALIGNMENT OF CANTERBURY DE. - PROFILE 23 ✓
- STKS. FOR 6" A.C. alice
- ROANOKE ST SEA BREEZE TO CALLE GAVIOTA 24-25 ✓
- Group 19 STKS FOR 6" A.C. com
- Alley BIR 2 East of 44th North of Olive 21 ✓
- STKS FOR 8" A.C. Group 25 alice
- MALLARD ST ALCEDO TO PARADISE 27-29 ✓
- STKS FOR 8" A.C. Group 25 alice
- PARADISE ST TOOLEY TO MALLARD 30-33 ✓
- STKS FOR 8" A.C. Group 25 ✓
- WEAVER ST TOOLEY TO BURIAN 34-37 ✓
- STKS FOR 6" A.C. MAIN ✓
- 50th St Madison to Collier 38-40 ✓
- STKS. FOR 6" A.C. MAIN ✓
- ALTADENA AVE MADISON AVE TO ADAMS AVE 41-41 ✓
- STKS FOR 6" A.C. MAIN ✓
- SPRINGFIELD ST SWAN TO ORIOLE 42-43 ✓
- " T ST Elev 6" C.I. Main at 40th St 44 ✓
- Kearney Villa Rd alice
- STKD Pipe Hyd for Coast Packing Co 45 ✓
- Acre Dr Afton Rd to Kearney Villa Rd 46-50 ✓
- " " " " " 10" A.C. alice
- UNIV. AVE FALCON TO EAGLE, Prelim 72-73 ✓
- alice





4-4-73



WEET  
KEND  
HOLMAN

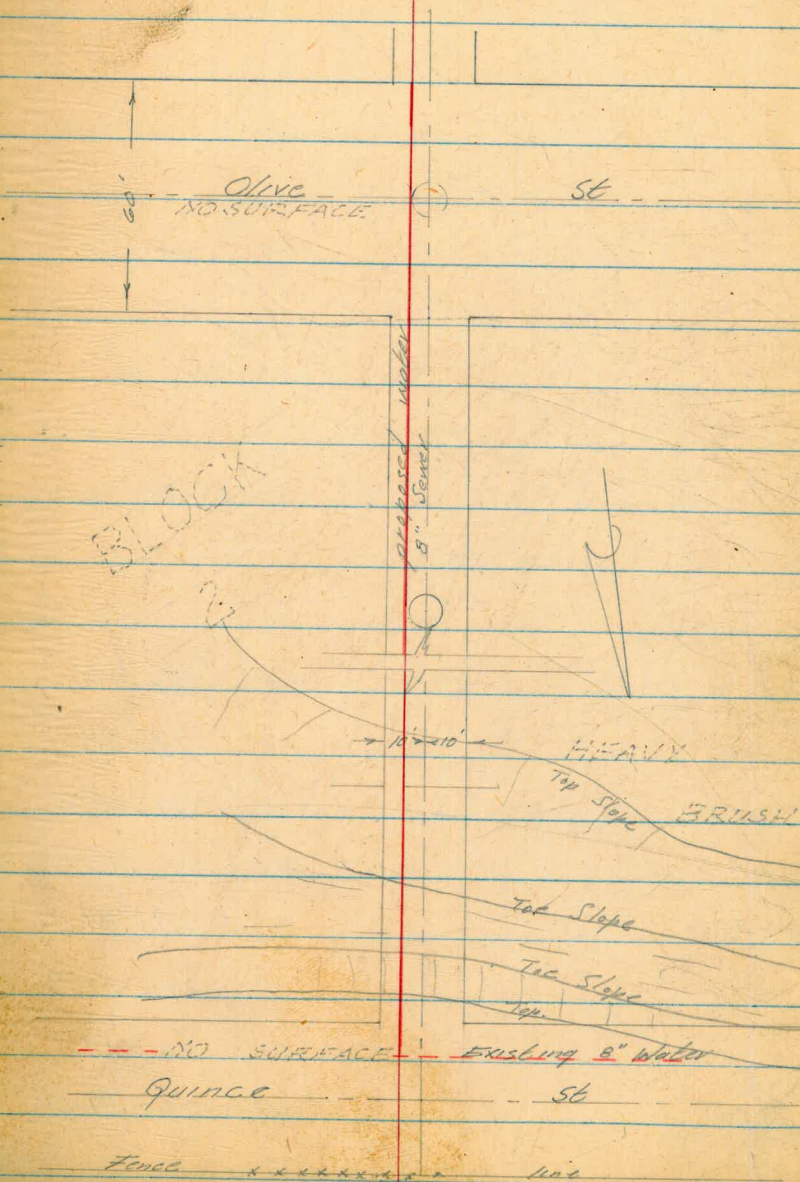
8-26-54

Alley Bk 2, East of 44th  
Olive St to Quince St  
Proposed Water Main

0+00 S/H of Olive  
+30 Sewer M.H. 5' 11"  
+60 N/H of Olive

3+10 Sewer M.H. 5' 11"  
3+20 Sewer Stub

6+55 Existing 8" Water





## Alley Bk 2 Olive &amp; Quince

297.19

B.P. SE Corner Fairmont &amp; Quince

6.10 303.29 ✓

- 4.98 298.31

4.37 302.68 ✓

2.86 299.82

4.76 297.58 ✓

3.04 294.54

2.87 297.41 ✓

T.B.M. Set spike in Power pole SW cor alley 2  
and Olive

0+00

4.8 292.61 ✓

S/H of Olive

+30

4.6 292.81 ✓

of Olive

+30

4.49 292.92 ✓

Sewer M.H. 5' H cut 13.4 to Plow

+50

4.5 292.91 ✓

1+00

4.1 293.31 ✓

+18

4.0 293.41 ✓

Gas crossing

+50

3.7 293.71 ✓

+66

3.9 293.51 ✓

Gas crossing



	297.91		
2100		4.2	293.21 ✓
+50		6.0	291.41 ✓
+74		6.9	290.51 ✓
3100		7.9	289.51 ✓
T.P.		8.60	288.81 ✓
	1.92		290.73 ✓
3150		4.7	286.03 ✓
+75		7.5	283.23 ✓
4100		11.9	278.88 <sup>3</sup> ✓
T.P.		13.24	277.49 ✓
	0.54		278.03 ✓
4135		7.8	270.23 ✓
+50		7.2	270.83 ✓
+82		6.3	271.73 ✓
5100		9.2	268.83 ✓
T.P.		13.32	264.71 ✓
	0.93		265.64 ✓

Gas crossing

Sewer M.H. Sta 3+10 cut 6.6 to flow



	265.64		
5120		2.1	263.54 ✓
+50		12.1	253.54 ✓
T.P.		12.74	252.96 ✓✓
	0.58		253.48 ✓✓
T.P.		11.66	241.82 ✓✓
	11.70		253.52 ✓
5189.56		15.5	238.02 ✓
6106.56		13.7	239.82 ✓
T.P.		0.70	253.32 ✓✓
	11.79		265.11 ✓✓
6199.09		3.6	261.51 ✓
+55		3.5	261.01 ✓
+69.11		3.6	261.51 ✓
+73.92		1.1	264.101 ✓
+75.92		+ 5.0	270.11 ✓ <del>260.11</del> ✓
+80		+ 5.3	270.41 ✓ <del>259.81</del> ✓
	8.84		256.27 ✓✓

Water crossing

Toe of cut

Top of cut

Fence line

= 256.27 T.B.M. spike in power pole

75' 16' of line



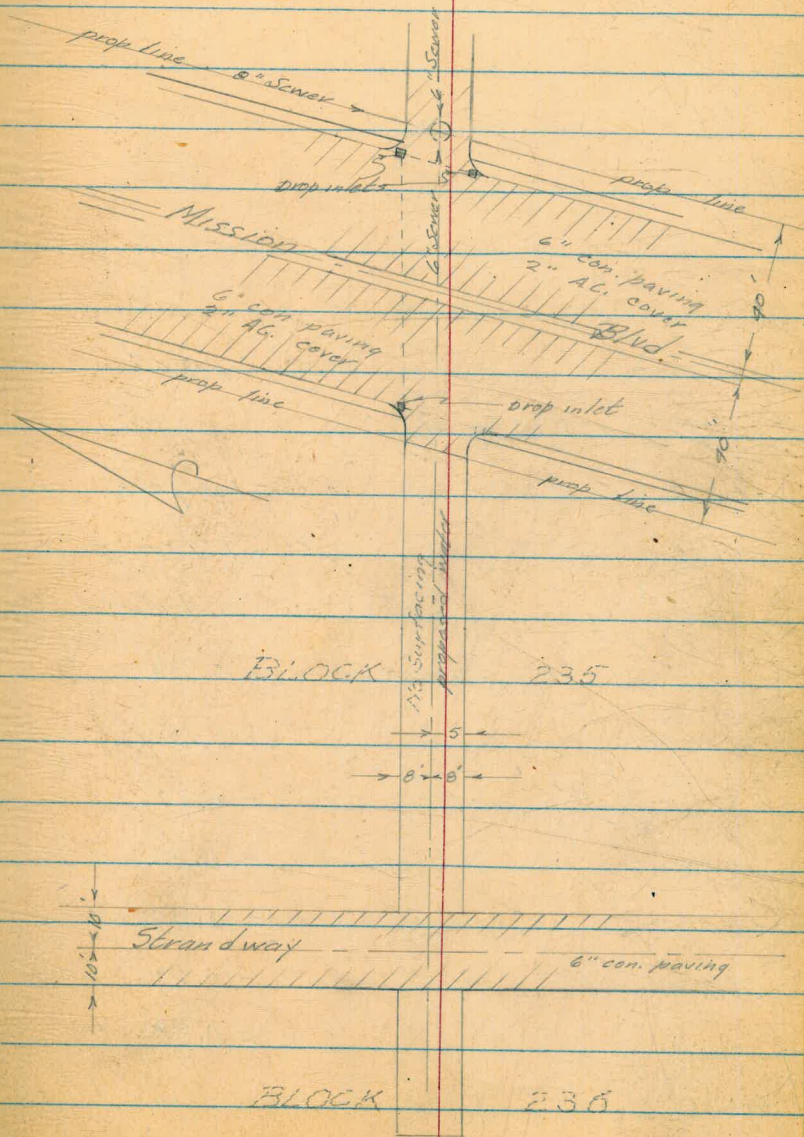
Profile Proposed Water  
 Alley 311 235-236 Between  
 Whiting Co. & Verona Co.

0+00	F/I of Mission & Sewer M.H. 226
+05	Front of 5' sidewalk
+08	curb face
+37.4	curb face center island
+91.4	" " " "
+71	curb face
+82.2	W/I of Mission Blvd
2+71.60	Edge 6" con paving
+91.60	" " "
3+45.10	End of Alley

Werb  
 Kemp  
 Holahan

5

8-30-54





7.13

SW. 3/4 San Rafael Pl. & San Wall

3.94 11.07 ✓✓

10.78 0.29 ✓✓

4.43 4.72 ✓✓

4.42 0.30 ✓

4.28 4.58 ✓

0+00 5.8 - 1.22, <sup>CFW</sup> 78 ✓

E/L Mission Blvd, Sewer M.H. 3' Et. 3.7 to flow

+08 5.7 - 1.12 ✓

E. curb line, 8" Storm Drain cut 2.5 to top

+28 5.0 - 0.42 ✓

Gr. on line

+37.4 4.3 + 0.28 ✓

Top curb center island

+41.4 4.2 + 0.38 ✓

Top " " "

+50 4.9 + 0.32 ✓

+71 5.4 - 0.82 ✓

N. curb line Mission Blvd

+82.2 5.0 - 0.42 ✓

W/L of Mission Blvd

1+00 5.2 - 0.62 ✓

+50 4.9 - 0.32 ✓

2+00 4.4 + 0.18 ✓



4.58 ✓

2150	2.0	+ 2.58 ✓
+ 71.6	0.7	+ <del>4.51</del> <sup>3.88</sup> CFV ✓
+ 81.6	0.9	+ 3.68 ✓
+ 91.6	0.6	+ 3.98 ✓
3+00	0.4	+ 4.18 ✓
+ 45.1	+ 0.4	+ 4.18 ✓
T.P.	0.04	4.54 ✓

5.14 9.68 ✓

3.69 5.99 ✓

5.10 11.09 ✓

3.97 7.12 ✓

±/L con. pave Strandway

± " " "

W/L " " "

Edge con. sidewalk ± W. end Alley

S.W.B.P. = 7.13 ✓



West  
Camp  
Holoani

8

9-3-54

Profile Proposed Water on  
Roanoke Rd, Calle Gaviete  
Sea Breeze

0+00 W/L of Sea Breeze  
+25 Sewer M.H.  
+50 F/L of Sea Breeze

5+91.36 W/L of Calle Gaviete

6+51.36 F/L of Calle Gaviete

F.H.



Sea Breeze

50

No Surfacing

←25→

←5→

Roanoke - Dr  
proposed water

No Surfacing

Calle Gaviete

5

No Surfacing



257.87

T.B.M.

7.74 265.61 ✓

7.72 257.89 ✓

5.57 263.46 ✓

10' RT 5' LT ✓

10' RB

2'

5' LB

0+00

249.16 249.48

14.3

14.0

+25

252.96 252.26

Sewer Cross 11.0

11.2

+30

253.16 252.76

10.3

10.7

+50

255.56 254.96

7.9

8.5

1+00

258.26 258.26

5.2

5.2

+50

258.66 258.46

4.8

5.0

2+00

257.06 258.06

6.4

5.4

+50

257.66 258.16

5.8

5.3

3+00

257.86 258.96

5.6

4.5

T.P

3.42 260.04 ✓

2.81 262.85 ✓

3+50

260.35 261.45

2.5

1.4

4+00

261.75 262.05

1.1

0.8



262.85 ✓

1150

258.15 ✓

258.05 ✓

5400

250.55 ✓

251.45 ✓

150

244.95 ✓

249.65 ✓

496 257.89 ✓

10.24

#  
2d

5' 11"

4.7

4.8

12.3

11.4

$\frac{18.4}{15}$   $\frac{17.9}{70}$   $\frac{15.5}{5}$   $\frac{12.2}{3}$

13.2

T.B.M. = 257.87 ✓

Sta 9160 N/L Road



Webb  
Camp  
Holahan C-24-54

11

Profile Proposed Water  
Jupiter St. So. Terminal to No. Term.

	9.50	6.27	1.77
0+00		7.0	-0.7
+32		6.72	-0.5
+50		7.0	-0.7
1+00		6.8	-0.5
+50		6.7	-0.4
2+00		6.6	-0.3
+50		6.5	-0.2
3+00		6.3	-0.0
+50		6.4	-0.1
4+00		6.4	-0.1
+12		6.4	-0.1
+25		6.1	+0.2
+25		6.10	0.2
+42		6.7	-0.4

NW. Elm. to Salls E Nashville

Sewer M.H. 10.0 to flow

No gutter Nashville

E Nashville

Sewer M.H. 8.6 to flow line

No gutter



6.27

4.50	6.7	-0.4
5.00	6.6	-0.3
7.50	6.7	-0.4
6.00	6.8	-0.5
4.50	6.8	-0.5
7.00	6.8	-0.5
4.50	6.7	-0.4
8.00	6.7	-0.4
7.50	6.7	-0.4
9.00	6.5	-0.2
4.36	6.5	-0.2

4.50 177

FH. La Salle &amp; Nashville



2136

Fence line

4142

No gutter & curb Pace

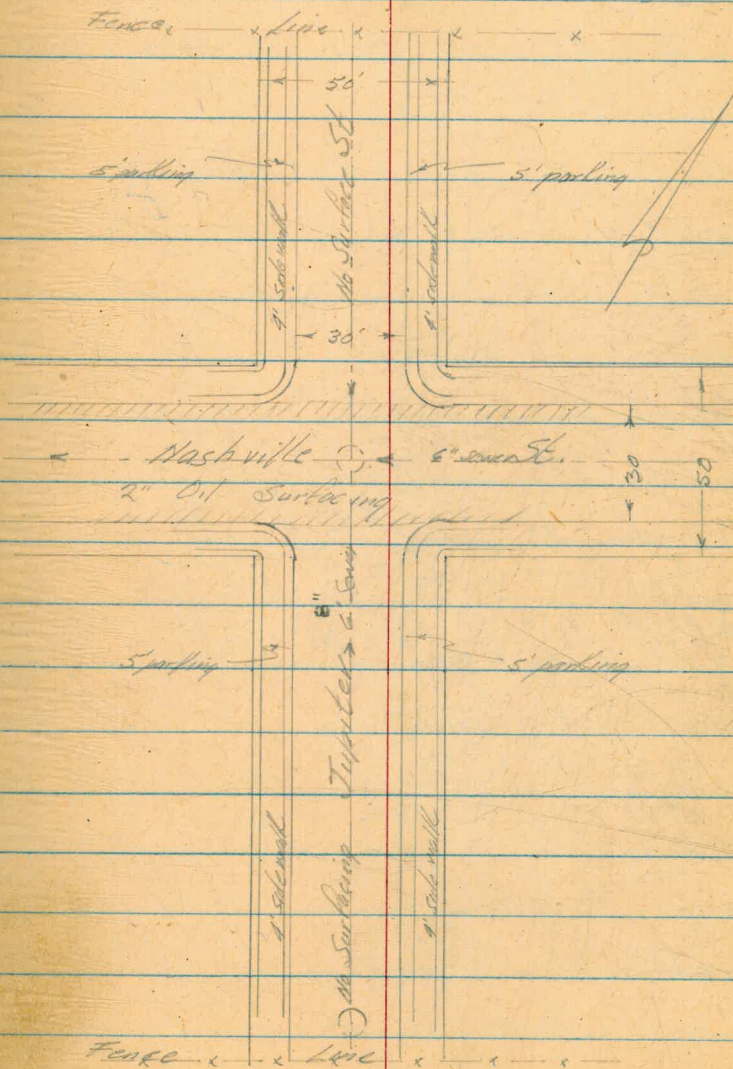
4112

50 gutter & curb Pace

0100

Fence line

13





West  
Camp  
Holohan

14

11-16-54

Profile & Proposed Water Line  
Alley BK 253 N. Upas & E. Georgia Sts

0+00

N/H of Myrtle St

+31

SEWER M.H.

Myrtle

NO Surfacing

St

+80

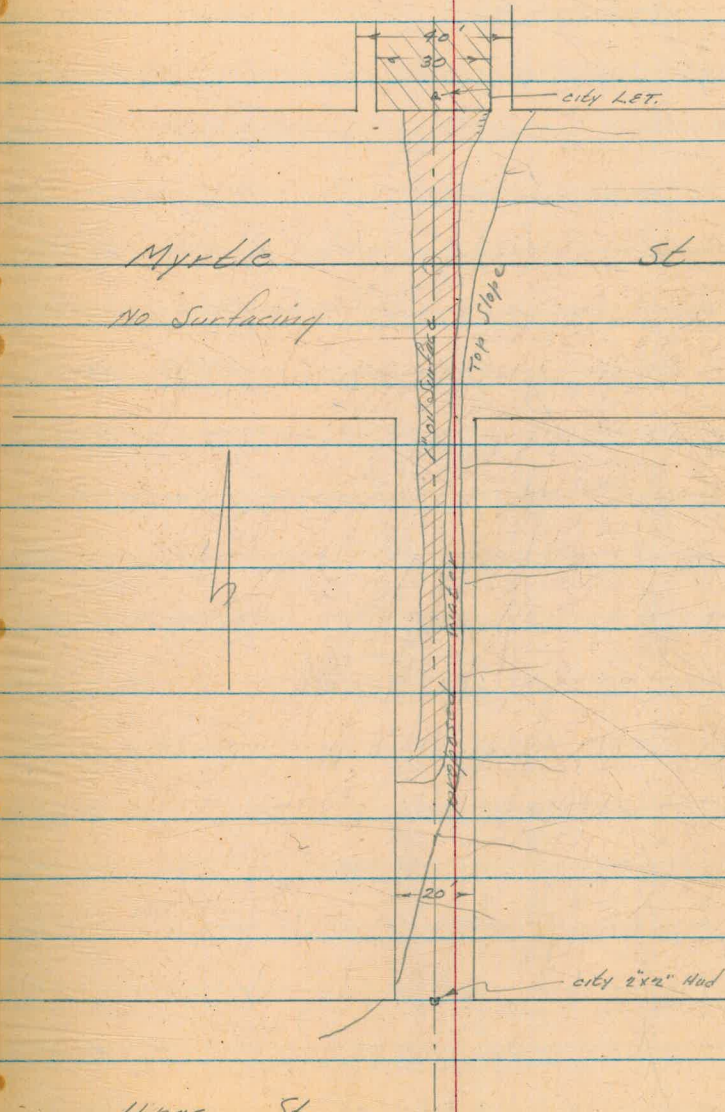
S/H of Myrtle

NOTE:-  
Cannot use  
this survey,  
because the proposed  
main was placed on  
West side of street.  
(see GR. 23) #6883-W,  
& #2630-D).

3+94

N/H of Upas St

Upas St





Alley Bk 253 Cont

236.00

6.08 242.08

0+00 6.2

+31 6.4

+31 6.08

+50 5.7

1+00 5.8

+50 5.9

2+00 5.6

+50 6.2

T.P. 6.44 235.64

9.15 239.79

3+00 4.8

+50 12.6

T.P. 11.99 227.80

0.35 228.15

T.B.M. Rim Sewer M.H. Myrtle & Wilshire Terr.

N/E of Myrtle edge of paving

Sewer crossing

Sewer M.H.

Re	LE	
$\frac{6.1}{5}$	$\frac{7.2}{5}$	$\frac{9.7}{10}$

$\frac{6.1}{5}$	$\frac{5.6}{2}$	$\frac{10.9}{10}$
-----------------	-----------------	-------------------

$\frac{6.1}{5}$	$\frac{5.4}{2}$	$\frac{10.9}{10}$
-----------------	-----------------	-------------------

$\frac{6.1}{5}$	$\frac{6.1}{4}$	$\frac{9.2}{10}$
-----------------	-----------------	------------------

$\frac{4.1}{10}$	$\frac{6.5}{5}$	
------------------	-----------------	--

$\frac{4.6}{5}$	$\frac{8.2}{5}$	
-----------------	-----------------	--

$\frac{10.1}{5}$	$\frac{15.0}{5}$	
------------------	------------------	--



228.15

3+94	8.4	
4+00	10.1	
+30	14.2	
T.P.	12.05	216.10

0.28 216.38

1+35	8.0	
+50	9.7	
+60	10.2	
T.P.	13.11	203.27

0.32 203.59

8.53 195.06

5.95 200.51

2.57 197.94

N/L of Upas

26  
 $\frac{2.0}{5}$

26  
 $\frac{12.3}{5}$

$\frac{8.5}{5}$

$\frac{10.5}{5}$

$\frac{9.0}{5}$

$\frac{12.0}{5}$

= 198.01 SW 8P Florida & Myrtle



Profile & Proposed Water Line  
 Canterbury Dr., N. of Palisades Rd.

	381.11
4.66	385.77
	6.62 379.15
3.76	382.91
0+00	5.1
+18	5.2
+24	5.0
+29	5.18 377.73
+50	4.6
+100	4.4
+104.09 B.C.	4.4
+110	4.4
+20	4.4
+30	4.3
+40	4.2
+50	4.2
+60	4.2

West  
 Kemp  
 Holahan

17

11-17-54

SE BP Palisades Rd. & Marlborough

Elect. crossing cut 3.0 to Tele. cable

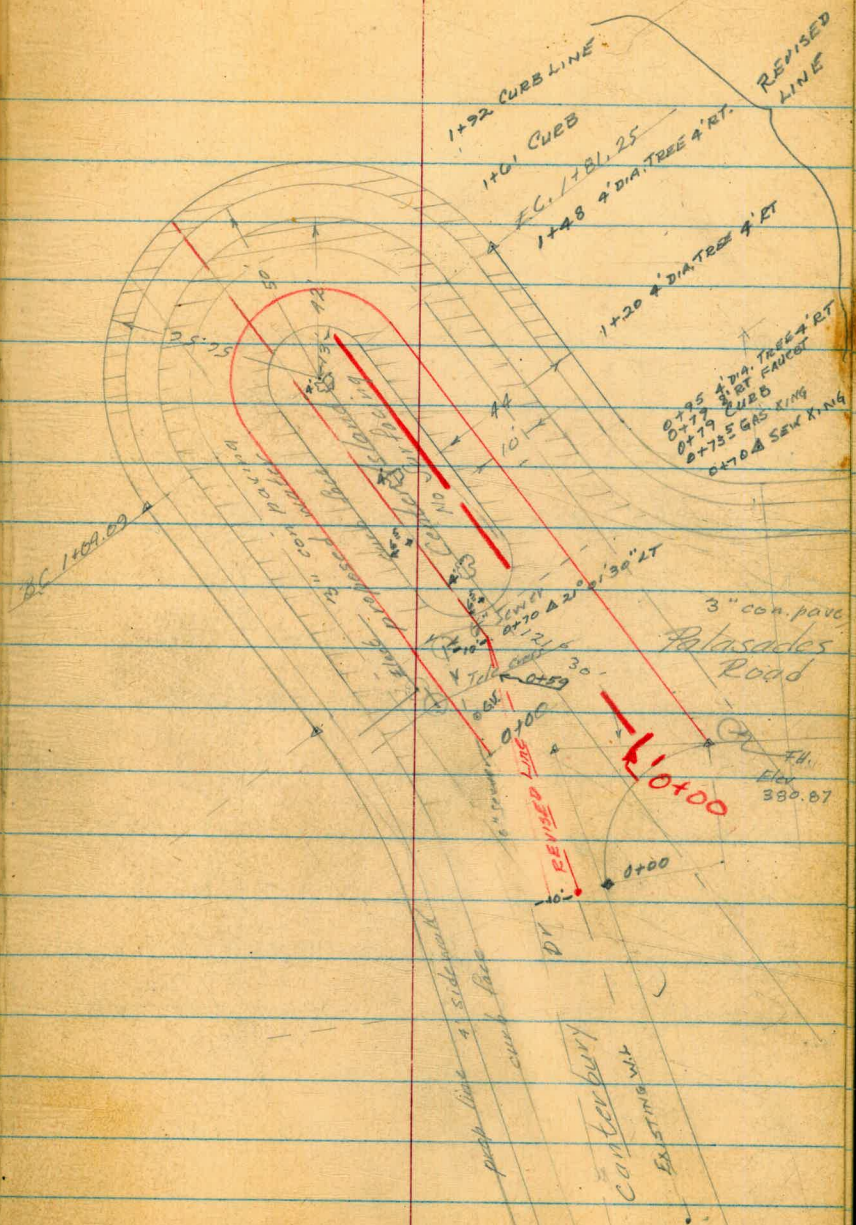
Elect. M.H. 5' left no apparent crossing

Sewer M.H. 10' Rb. no crossing, 5.2 to above



NOTE: REALIGNMENT DETAIL:  
 0+00 TO 0+70 IS LINE 10' ELY OF  
 & CANTERBURY DR. PRODUCED TO 0+70  
 0+70 A 21° 01' 30" LT. ;  
 0+70 TO 2+06" IS 6.5' SWLY OF & OF Island  
 2+06" = PROP LINE  
 SEE PAGE 2,3 FOR PROFILE

Note:-  
 Line put in on N/E/S  
 island - 3' from curb  
 0+00 = curb line





	382.91		
1+70		4.3	
+80		4.3	
1+81.25	EC.	4.3	
2+00		4.5	
T.P.		4.42	378.49
	4.55	383.04	
2+50		4.9	
+71		5.2	
+86		4.8	
3+00		5.1	
+01.7		5.2	
+61.7		4.5	
+15		1.2	
T.P.		2.95	380.09
	5.94	386.03	
		4.92	381.11

possible elect. crossing  
crown in St. Palasades

gutter & so curb line

Top curb

S/H of Palasades

30



12-20-54

Profile & Proposed Water Replacement  
Alley East of Van Dyle & So. of University

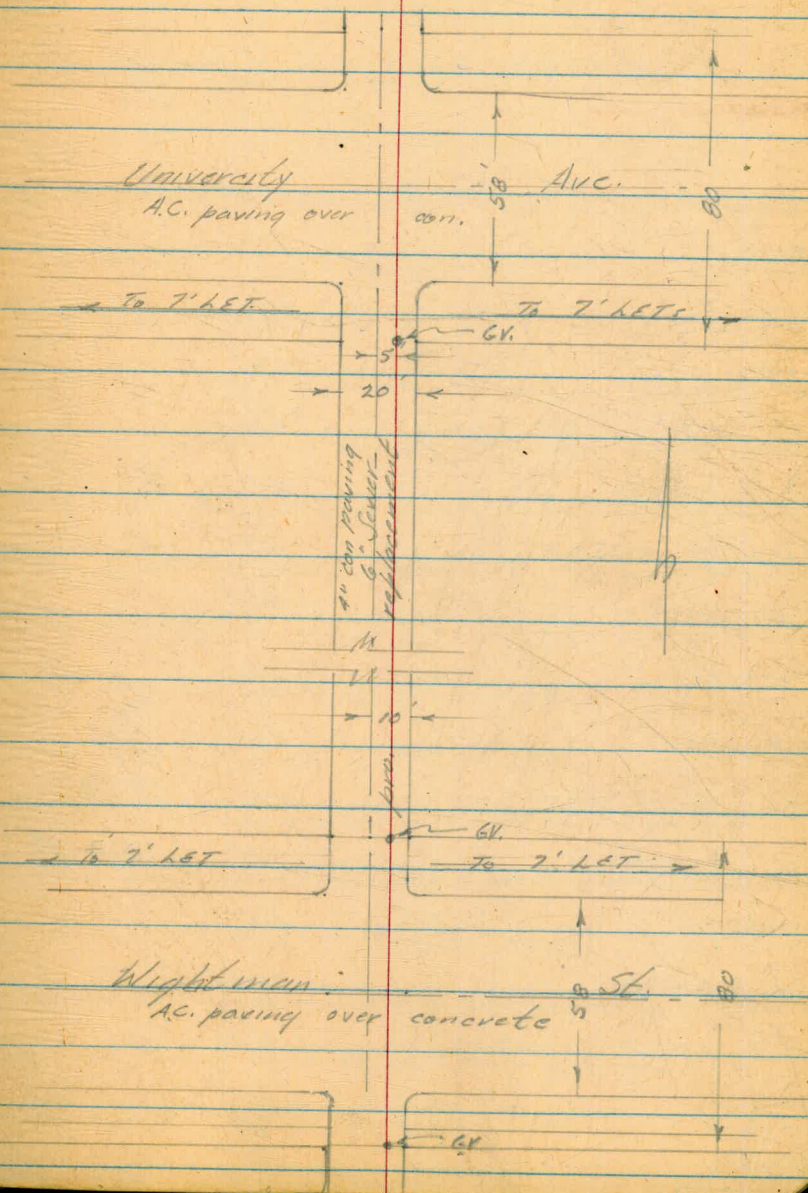
			354.61	N.W. BR. Wightman & Van Dyle
	4.10	358.71		
0+00		5.0	353.71	So. H. of Wightman
+14		5.5	353.21	So. curb line & gutter
+26		5.1	353.61	Existing water crossing
+40		5.1	353.61	& Wightman
+66		5.2	353.51	No. curb line & gutter
+80		4.6	354.11	N.H. of Wightman & E.V. on line
1+00		4.4	354.31	
+50		3.7	355.01	
2+00		3.1	355.61	
+50		2.5	356.21	
3+00		1.9	356.81	
+20		1.67	357.04	Sewer M.H. 5' L6
T.P.		1.67	357.04	
	5.66	362.70		



	362.70		
3+50		5.5	357.2
4+00		5.2	357.5
+50		5.0	557.7
5+00		4.9	357.8
+50		4.7	358.00
6+00		4.5	358.2
+50		4.3	358.4
+59		4.33	358.37
+78		4.1	358.60
+92		4.1	358.60
7+00		3.8	358.90
+18		3.5	359.20
T.P.		0.68	362.02
	0.65	362.67	
T.P.		5.46	357.21

Sewer M.M. 5' H.  
 So. ft of University  
 So. curb & gutter University  
 E of University  
 T.B.M. N.E. FH. on Alley & University  
 B.M. nail in power pole 5' H. 2480







SHOREY 3/25/55  
 MARTEL  
 KELLHOFER

23

PROFILE & PROPOSED WATER LINE

CANTERBURY DR., No. OF PALISADES RD.  
 (REVISED PROFILE)  
 SEE PAGE 18

	5.37	383.10 ✓	377.73
0+00			5.22
0+34			4.97
0+50			5.31
0+70 A 21°01'30" LT			5.46
0+79 GUTTER			5.16
			377.94
0+79 TOP OF CURB			4.58
			378.52
0+87			3.8
1+00			3.7
1+50			3.7
1+61 TOP OF CURB			4.25
			378.85
1+61 GUTTER			4.82
			379.28
1+76			4.40
1+92 GUTTER			4.74
1+92 LIP OF DRIVEWAY			4.85
2+00			4.16
2+04			4.15
2+06"			4.3
CK. TBM			5.37
			377.73

SEW. M. H. (SEE PAGE 17) (SEE PAGE 18 FOR REALIGNMENT)

ON CROWN OF PAVT.

LT

RT

	4.6	3.7	379.4
CB	6.5	6.5	
4.7		3.7	379.4
CB	6.5	6.5	
4.4		3.7	379.4
CB	6.5	6.5	

ON CROWN OF PAVT.



ROANOKE ST. SEA BREEZE DR.  
TO CALLE GAVIOTA  
STKS FOR 6" A.C.

WEST  
WILLIAMS T.  
VARONFAKIS P

24

7/18/55

B.M.	12.56	256.68		244.12		N.W.B.P. SEA BREEZE + WINCHESTER ST
0+00			7.7	249.0	245.5	C3 <sup>5</sup>
+50			5.8	250.9	247.5	C3 <sup>4</sup>
+95 M.S.			0.6	256.1	253.5	C2 <sup>6</sup>
1+00			3.6	253.1	249.0	C4 <sup>1</sup>
T.P.	5.53	261.58	0.63	256.05		
+50			5.9	255.7	250.6	C5 <sup>1</sup>
+89 M.N.			4.0	257.6	256.9	C0 <sup>7</sup>
2+00			4.2	257.4	252.3	C5 <sup>1</sup>
+27 M.N.			3.0	258.6	255.7	C2 <sup>9</sup>
+50			3.4	258.2	254.0	C4 <sup>2</sup>
3+00			2.9	258.7	254.7	C4 <sup>0</sup>
+50			3.7	257.9	254.8	C3 <sup>1</sup>
4+00			5.1	256.5	253.0	C3 <sup>5</sup>
T.P.						
+50	0.28	254.05	7.81	253.77	250.0	C3 <sup>8</sup>
+65			1.5	252.6	248.8	C3 <sup>8</sup>
+65			0.4	253.7	253.1	C0 <sup>6</sup>
5+00			5.4	248.7	246.0	C2 <sup>7</sup>

257.7 C0 <sup>9</sup>

F.H. TEE

F.H. (5)



ROANOKE CONT.

254.05

5+30.92	6.6	247.5	243.0
0-0.2	8.7	245.4	242.4
0+00	8.6	245.5	242.4
+50	5.8	248.3	243.2
+75	4.8	249.3	245.6
1+03	4.8	249.3	246.7

C4 <sup>5</sup> TEE (END LINE ROANOKE)  
 C3 <sup>0</sup> ON CALLE SAVIOTA  
 C3 <sup>1</sup>  
 C5 <sup>1</sup> C3 <sup>2</sup>  
 C2 <sup>6</sup> END WORK

T.P.	8.90	261.23	1.72	252.33
T.B.M.			3.35	257.88

ROANOKE  
 GIN. + GUARD STAKE N.W. COR. CALLE SAVIOTA



Alley Blk 2  
 0.1 mi to 300' North  
 East of 44th  
 Group 19

Meters Set 4<sup>th</sup> of 2<sup>nd</sup> Dec 117672

415	298.69	294.54
0+20	6.5	292.2 288.0
+50	6.3	292.7 288.4
1+00	5.9	292.8 289.2
+50	5.3	293.4 289.4
+89 ME	5.40	293.2 292.3
2+00	5.3	293.3 288.9
+50	8.1	290.6 287.2
+71 ME	8.8	289.9 289.1
3+00	9.4	289.3 284.3
+50	13.7	285.0 279.9
+63	15.8	282.9 279.1
	4.15	294.54

4.94 293.75 292.7

West of  
 Williams X  
 Varonakis  
 Alexander

26

7-25-55

TBM Spike in OP see page 2

C4  $\frac{2}{0}$

C4  $\frac{0}{6}$

C3  $\frac{6}{0}$

C4  $\frac{0}{2}$

C0  $\frac{2}{4}$

C4  $\frac{4}{4}$

C3  $\frac{4}{8}$

C0  $\frac{8}{0}$

C5  $\frac{0}{1}$

C5  $\frac{1}{8}$

C3  $\frac{8}{0}$

C1  $\frac{1}{0}$

2918 Highland

2932

0+00 City eng Office West side 099



MALLARD ST ALCEGO TO PARADISE

STKS For 8" AC

Meters set 12<sup>s</sup> South of A of Pipe

8.38	362.00		353.68
3.89	352.69	13.20	348.80
13+79		10.4	342.3 334.2
+50		9.5	343.2 335.2
+25		8.6	344.1 336.1
+25		8.4	344.3 340.4
13+00		7.7	345.0 337.0
12+50		6.0	346.7 338.9
12+31		5.3	347.4 343.8
12+25		5.0	347.7 340.2
12+00		3.6	349.1 342.0
11+50	12.08	344.38	0.39 352.20 345.9
11+00		9.3	355.1 349.8
10+80	Meter	7.9	356.5 355.4
+50		6.2	358.2 353.7
10+00		2.5	361.9 357.5
9+50		1.0	363.4 359.8
9+00		0.3	364.1 359.8
8+87	Meter	+1.2	365.6 362.3

West  
Williams X  
Voronakis  
Kullhofer +

339.82 Man 27  
0-01 TBM 401.89

SUNNY + WARM

3/2/56

TBM 2x2" Hub 10' North 7+40<sup>s</sup> See FB 913

C8 <sup>1</sup>

end of Work W.

C8 <sup>0</sup>

C8 <sup>0</sup>

F11 To

344.3

C3 <sup>9</sup>

(6") Q FH

336.1

0.2 To F11

C8 <sup>0</sup>

C7 <sup>8</sup>

C3 <sup>6</sup>

Meters South

C7 <sup>5</sup>

C7 <sup>1</sup>

C6 <sup>4</sup>

Turn on Binney

C5 <sup>3</sup>

C1 <sup>1</sup>

6415 Met South

C4 <sup>5</sup>

C4 <sup>4</sup>

C3 <sup>5</sup>

C4 <sup>3</sup>

C3 <sup>3</sup>



364.38

3/2/56

8+75		0.4	364.0	359.8	0.42		
8+50		1.1	363.3	358.5	0.42		
8+00		4.1	360.3	355.7	0.46		
7+50		6.6	357.8	353.0	0.48		
T.P.							
7+00	2.31	356.87	9.82	354.56	350.3	0.43	
CHECK							
T.B.M.			3.30	353.57 = 353.62			
	4.91	358.53		353.62			
7+182		3.0	355.5	351.3	0.42		
6+782		5.7	352.8	348.7	0.42		
+782		1.2	357.3	353.0	0.43		
+50		7.8	350.7	346.8	0.32		
+37		9.1	349.4	346.1	0.33		
6+11	Motor	8.6	349.9	349.5	0.02		
6+00	0.35	345.67	13.21	345.32	340.4	0.49	
5+87		2.3	343.4	338.8	0.46		
5+50		10.2	335.5	330.5	0.50		
5+20	3.32	336.63	12.36	333.31	333.9		11.5
5+00			9.2	327.9	322.4	0.52	23
4+90			11.5	325.1	321.7	0.34	9.2
4+80			14.5	326.1	322.1	0.40	
4+80			7.4	329.2	322.4	0.68	

8" x 6" Wye

Fire Hyd Tee 357.3  
348.7

⑤ d FH 0.8.6 TO 111

Turn on Gunney



## Mallard St (cont)

29

336.63

3/2/56

8	12.96	349.49	0.10	336.53			
8	4+50		10.4	339.1	333.5	C5 6	
	1+25		2.6	346.9	340.9	C6 0	
8	4+25 <sup>9</sup>	13.35	362.26	0.58	348.91		
7	4+00		8.6	353.7	346.50	C7 2	
7	3+75		4.7	357.6	349.6	C8 2	
7	3+50		2.7	359.6	350.9	C8 2	
	3+08	So. Meter	0.6	361.7	357.0	C4 7	
7	3+00	12.94	374.69	0.51	361.75	353.8	C8 0
6	2+50		11.1	363.6	357.7	C5 9	
	2+00		8.4	366.3	361.7	C4 6	
	1+50		3.9	370.8	366.9	C3 9	
	12.49	387.10	0.08	374.61			
6	1+00		10.0	377.1	372.1	C5 0	
6	0+75		5.7	381.4	375.7	C5 2	
6	0+55		2.1	385.0			
6			3.9	383.2	-1.5	381.7	
	13.34	400.37	0.07	387.03			
	7.94	406.12	2.19	399.18			
			4.23	401.89	=	401.84	

Turn on Bunnay

Begin Work  
Nacdo St  
Top stem 4V 0+13±

TBM Nail in power pole 2220100



PARADISE ST  
 Tooley to Mallard St  
 STKs for 8" AC Main

meters Set 30<sup>E</sup> Lt + 10<sup>E</sup> Rt

1.95	464.01	462.06
0+45	1.4	462.6 455.5
0+60	2.4	461.6 455.2
1+00	3.5	460.5 454.3
1+26	3.8	460.2 457.6
+50	5.4	458.6 453.4
+65 BC	6.1	457.9 453.1
+75	6.4	457.6 452.8
2+00	8.4	455.6 451.6
+75	10.8	453.2 449.5
+50	11.8	452.2 447.4
292	454.27	12.66 451.35
+75 (00)	8.7	445.6 445.3
3+00 (10)	10.4	443.9 444.0
= 3+65 <sup>08</sup> AH		
3+22.16 <sup>28</sup> BK (10)	9.4	444.9 444.5
+97	5.5	448.8 446.4
4+00	3.7	450.6 448.4
+12	2.9	451.9 450.3
7.57	461.71	0.13 454.14

West  
 Williams &  
 Varonfakis  
 Kellhofer &

CUT SHEET MADE 30  
 3/7/56

3/6/56 CLEAR + Windy

See FB 1859 P 51

TBM APL on Nly Side Tooley at Paradise

C7	1	Begin Work	No CUT MARKED
C6	4		
C6	2		
C6	6		
C2	6		6456
C5	2		
C4	8		
C4	8		
C4	0		
C4	7		
C3	8		
C4	8		
C0	3	454.3	450.2
F0	1		77 446.6
C0	4		5.9 448.4
C2	4		28 451.5
C2	2		0.4 453.9
C1	1		0.0 454.9



PARADISE CONT.

3/6/56

461.71

A+36 Met South	5.2 456.5	<del>4.3 457.4</del> 454.7
A+37 (15)	9.5 452.2	450.8
A+50 (10)	8.5 453.2	450.7
A+96 JH Teo	4.8 456.9	450.6
A+96 (5) Q	6.6 455.1	<del>7.3 454.4</del> 454.4
5+00	4.8 456.9	450.5
5+49 MWE	5.3 456.4	454.2
+50	5.1 456.6	450.4
+62	5.2 456.5	450.3
6+00	5.4 456.3	449.5
+05 ME	5.0 456.7	5.4 456.3 453.3
+25	5.7 456.0	448.5
+50	6.6 455.1	446.8
+75	7.6 454.1	445.1
7+00	9.1 452.6	442.9
+25	11.0 450.7	440.1
0.59	449.77	125314 9.18
7+50 (10)	1.5 448.3	436.2
8+00 (10)	5.6 444.2	428.2

<del>C2</del> <sup>2</sup> C18	20.34
C1 <sup>4</sup>	4.1 455.6
C2 <sup>5</sup>	5.5 456.2
C6 <sup>3</sup>	
<del>C0</del> <sup>0 002</sup> <del>C5</del> <sup>8</sup> <del>C45</del> <sup>To Ell.</sup>	
C6 <sup>4</sup>	
C2 <sup>2</sup>	
C6 <sup>2</sup>	
C6 <sup>2</sup>	
C6 <sup>8</sup>	
<del>C3</del> <sup>9</sup> C32	21.05
C7 <sup>5</sup>	
C8 <sup>3</sup>	
C9 <sup>0</sup>	
C9 <sup>7</sup>	
C10 <sup>6</sup>	
C12 <sup>1</sup>	
C16 <sup>0</sup>	109. 438.4



Paradise Cont

11/36

338,37

3/6/56

	119.77	8.7	441.1
8+08 Meter East		5.9	<del>442.9</del> 431.9
	0.32	437.25	12.84 434.93
8+30		4.6	432.7422.7
+50		7.9	429.4419.0
	0.78	424.19	13.35 423.90
9+00		4.8	419.9409.9
	0.49	411.85	13.32 411.36
+50		1.9	410.0400.9
+93 FH Tee		10.0	401.9392.7
		5.7	406.7
+93 (5) ↓		4.5	407.4396.6
10+00		11.6	400.3391.1
	0.85	400.36	12.34 399.51
+25		6.0	394.4386.4
+50		12.0	388.4381.5
	0.35	387.48	13.23 387.13
11+00		6.5	381.0371.7
+25		9.8	377.7366.9
	0.51	375.06	12.93 374.55
11+50		1.3	373.8364.5
11+67 Meter East		2.9	372.2366.8

~~C12~~ <sup>0</sup> C9 <sup>2</sup>

C10 <sup>0</sup>

C10 <sup>4</sup>

C10 <sup>0</sup>

C9 <sup>1</sup>

C9 <sup>2</sup>

C10 <sup>9 6 8</sup> C13 <sup>5 7</sup> C14

C9 <sup>2</sup>

C8 <sup>0</sup>

C6 <sup>9</sup>

C9 <sup>3</sup>

C10 <sup>8</sup>

C9 <sup>3</sup>

C5 <sup>4</sup>

Kullbaker Part 500 Add

5.7 431.6

To Ell.

27.05



## Paradise Cont

33

375.06

3/6/56

12+00		7.5	367.6	359.6
+50	0.47	362.51	1302	362.04 354.8
13+00		6.1	356.4	349.9
+50		11.0	351.5	344.9
+62	0.06	350.50	1207	350.44 343.8
14+00		2.9	347.6	340.7
+50		5.7	344.8	338.2
15+00		7.6	342.9	337.1
+50		8.5	342.0	336.0
16+00		8.3	342.2	334.8
+34 = 14+79	Mallard	8.8	341.7	333.6
14+79	Mallard	8.8	341.7	333.6
		12.07	338.43	=

C8  $\frac{0}{1}$ C7  $\frac{2}{1}$ C6  $\frac{5}{1}$ C6  $\frac{6}{1}$ C6  $\frac{6}{1}$ C6  $\frac{9}{1}$ C6  $\frac{6}{1}$ C5  $\frac{8}{1}$ C6  $\frac{0}{1}$ C7  $\frac{4}{1}$ C8  $\frac{1}{1}$ C8  $\frac{1}{1}$ C8  $\frac{1}{1}$ 

338.37

Turn on Ginney

Turn on Ginney

C8<sup>2</sup> No CUT MARKEDTBM Cone Mon 80<sup>±</sup> West Paradise <sup>4 Mallard</sup>



WEAVER ST

FOOLEY to BURIAN

STKS for 8" AE

Meters Set 72' to + 37' RE

13.35 379.52 366.17

3.92 383.27 0.17 379.35

0+87 0.5 382.8 376.8

1+00 2.6 380.7 375.0

+50 11.3 372.0 367.3

0.56 370.66 13.17 370.10

1+98.27 BL 6.0 364.7 360.0

2+25 11.9 358.8 355.7

0.67 358.29 13.04 357.62

2+50 3.2 355.1 351.6 C 3<sup>5</sup>+75 6.8 351.5 348.0 C 3<sup>5</sup>3+00 11.3 348.0 344.2 C 3<sup>8</sup>+25 2.62 347.78 13.13 345.16 341.6 C 3<sup>6</sup>+50 4.9 342.9 338.9 C 4<sup>2</sup>+75 7.1 340.7 337.0 C 3<sup>1</sup>3+85 10 EC 7.9 339.9 336.2 C 3<sup>2</sup>4+00 9.7 338.1 335.0 C 3<sup>1</sup>+37 8.9 339.9 334.0 C 4<sup>2</sup>+50 6.3 341.5 334.3 C 7<sup>8</sup>West  
Williams T  
Varonkakis +  
KellhoferCUT SHEET  
3/9/56

34

3/8/56

Clear + Warm

BC Conc Man AD' RT See EB 811 P 46

Turn on Sunday

9.5 338.3

7.6 340.2



## WEAYER ST. CONT.

35

3/8/56

347.78

4+76 Tee	2.7	346.1	335.0	0.10 <sup>1</sup>	
4+95 <sup>Woot</sup> Wat mat	5.3	348.5	339.1	0.3 <sup>1</sup>	
12.66	360.39	0.05	347.73		
5+00	11.5	348.9	335.5	0.13 <sup>1</sup>	
+50	5.1	355.3	341.0	0.15 <sup>3</sup>	
+87	1.8	358.6	345.3	0.13 <sup>3</sup>	
6+00	1.5	358.9	346.0	0.12 <sup>3</sup>	
4+7 <sup>Woot</sup> Water Mat	8.1	352.3	352.3	0.02	
+50	0.8	359.6	348.6	0.11 <sup>0</sup>	
7+00	3.5	356.9	349.2	0.7 <sup>3</sup>	
+50	4.7	355.7	349.4	0.6 <sup>3</sup>	
8+00	5.3	355.1	349.6	0.5 <sup>5</sup>	
5.49	362.43	3.45	356.94		
8+50	6.8	355.6	349.8	0.5 <sup>8</sup>	
9+00	5.6	356.8	349.9	0.6 <sup>9</sup>	
+50	3.7	358.7	350.0	0.8 <sup>1</sup>	45
+66 <sup>05</sup> BC	3.2	359.2	350.0	0.9 <sup>3</sup>	42
+69 <sup>1</sup> Tee	3.3	359.1	350.0	0.9 <sup>1</sup>	42
8+56 Meter Woot	1.0	348.1	353.4	0.5 <sup>0</sup>	



## Weaver St Cont

36

3/8/56

362.43

9+93 FH 700	3.9	358.5	350.1	084	47
+93 (B) 0FH	+1.0	363.4	359.0	091	013 <sup>3</sup> FH
10+00	4.2	358.2	350.2	080	4.8
+50	4.8	357.6	350.4	073	5.3
11+00	4.8	357.6	350.6	070	5.6
11+10.31 EC	5.2	357.2	350.6	066	5.7
+50	4.8	357.6	350.8	063	5.2
12+00 6.87 347.85	1.45	360.98	351.6	091	3.1
+50 <sup>23</sup> 80	5.2	362.7	352.4	010 <sup>3</sup>	6.6
+75	5.3	362.6	352.7	092	6.9
12+96 <sup>34</sup> EC	4.7	363.2	353.0	010 <sup>2</sup>	6.2
13+25	4.3	363.6	353.4	010 <sup>2</sup>	6.0
+50	4.3	363.6	353.8	093	5.7
14+00	2.5	365.4	354.6	010 <sup>2</sup>	4.4
+50	2.0	365.9	355.3	010 <sup>2</sup>	3.6
+71 <sup>24</sup> 80	2.4	365.5	355.6	091	3.3
+75	2.6	365.3	355.6	091	3.9
15+00	3.4	364.5	355.7	08 <sup>2</sup>	4.2
+25	4.6	363.3	355.7	07 <sup>2</sup>	5.2



## WEAVER ST. CONT.

37

3/8/56

367.85

15+50		6.4	361.5	355.0	C 6 5	68
15+71 <sup>18</sup> 50		8.3	359.6	354.6	C 5 0	86
+75		8.4	359.5	354.4	C 5 1	89
16+00 0.37	357.23	10.99	356.86	352.6	C 4 3	
+25		2.7	354.5	350.9	C 3 4	
+50		4.3	352.9	347.9	C 5 0	
+97 <sup>52</sup> 50		8.7	348.5	342.0	C 6 5	
17+07 Top		9.6	347.6	340.9	C 6 7	
+25		10.1	347.1	338.6	C 8 5	
+50		12.1	345.1	336.4	C 9 7	
+80		14.8				

5.17 352.06 = 352.04

Turn on Ginney

End of Work

Sec. 15 81

Top 2x2 Hub 20' 14' Sta 16+97 <sup>52</sup> 50



50<sup>th</sup> ST  
MADISON TO COLLIER  
STKS FOR 6" AC

	7.76	388.13	380.37
<sup>1st</sup> TP NE	5.94	391.84	223 385.90
0-10		6.8	385.0
0-05		6.7	385.1 381.6
0+00		6.7	385.1 381.7
+50		6.3	385.5 382.0
1+00		6.1	385.7 382.1
+50		5.9	385.9 382.2
2+00		5.8	386.0 382.5
+50		5.7	386.1 382.5
3+00		5.6	386.2 382.7
+50		5.4	386.4 382.8
4+00		5.2	386.6 383.1
+50		5.1	386.7 383.2
5+00		4.9	386.9 383.4
+50		4.7	387.1 383.5
6+00		4.6	387.2 383.7
+50		4.6	387.2 383.9
7+00	FM TEL	4.5	387.3 384.0

West  
Williams &  
Voronfakis  
Kellhofer ↑

3/9/56 SUNNY + WARM

38

BM BP SE Cor. Madison + 49<sup>th</sup>  
MADISON + 50<sup>TH</sup> N.E.L+T.

C To EXISTING Begin Work

5  
C3 4  
C3 5  
C3 6  
C3 7  
C3 5  
C3 5  
C3 5  
C3 6  
C3 5  
C3 5  
C3 5  
C3 6  
C3 5  
C3 3  
C3 3



50<sup>TH</sup> ST. CONT.

39

3/9/50

391.84

7+12		1.1	387.4384.1	C3	<u>3</u>
	3.98	393.97	1.85	389.99	
+50		6.2	387.8384.2	C3	<u>6</u>
8+00		6.2	387.8384.4	C3	<u>4</u>
+50		6.0	388.0384.5	C3	<u>5</u>
9+00		5.9	388.1384.6	C3	<u>5</u>
+50		0.6	388.4384.7	C3	<u>7</u>
10+00		5.5	388.5384.9	C3	<u>6</u>
+50		5.4	388.6385.0	C3	<u>6</u>
11+00		5.2	388.8385.1	C3	<u>7</u>
+50		5.1	388.9385.3	C3	<u>6</u>
12+00		4.9	389.1385.5	C3	<u>6</u>
+50		4.8	389.2385.6	C3	<u>6</u>
13+00		4.7	389.3385.8	C3	<u>5</u>
+50		4.6	389.4385.9	C3	<u>5</u>
14+00		4.4	389.6386.1	C3	<u>5</u>
+50		4.3	389.7386.2	C3	<u>5</u>
+87		4.2	389.8386.4	C3	<u>4</u>
15+00		4.2	389.8386.6	C3	<u>2</u>



50<sup>TH</sup> ST. CONT.

393.97

15+20

4.0 390.00

6.09 394.09

5.97 388.00

4.78 389.31 =

40

3/9/56

C To EXISTING End of Work

389.33 NE BP Adams + Winona



ALTADENA AVE. MADISON AVE To  
ADAMS AVE. STKS. For 6" A.C. MAIN.

WEST +  
WILLIAMS  
VARONEAKIS +  
KELLHOFER

SUNNY + WARM.

41

3/9/56

T.B.M.	5.47	391.37		385.90
0+20			5.4	386.0
+50			5.1	386.3 382.9
1+00			4.7	386.7 383.1
+50			4.5	386.9 383.4
2+00			4.2	387.2 383.7
+50			4.0	387.4 383.9
3+00			3.7	387.7 384.1
+50			3.5	387.9 384.3
4+00			3.3	388.1 384.7
+50			3.0	388.4 384.9
T.P.	6.02	394.86	2.53	388.84
5+00			6.2	388.7 385.1
+50			6.0	388.9 385.3
6+00			5.8	389.1 385.6
+50			5.5	389.4 385.8
7+00			5.3	389.6 386.1
+30			5.0	
T.P.	5.48	393.48	6.86	388.00
CHECK B.M.			4.19	389.29 = 389.33

MADISON + 50<sup>TH</sup>

N.E. L + T. (PAGE 38)

( TO EXISTING BEGIN WORK

~~C3~~ C3 <sup>4</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>5</sup>

~~C3~~ C3 <sup>5</sup>

~~C3~~ C3 <sup>5</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>4</sup>

~~C3~~ C3 <sup>5</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>5</sup>

~~C3~~ C3 <sup>6</sup>

~~C3~~ C3 <sup>5</sup>

( TO EXISTING END WORK

N.E. B.P. ADAMS + WINONA



SPRINGFIELD ST

SWAN TO ORIOLE ST

5TKs Per 6" AC Main

Set metg. 55<sup>LT</sup> 39<sup>RT</sup>

108 407.86 406.78

0+22 5.1 402.5

+50 7.2 400.6 395.7

0+56 Met NY 8.6 399.3 398.6

0+75 11.7 396.2 391.7

0.35 394.90 13.31 394.55

1+00 4.2 390.7 386.4

+37<sup>5</sup> 11.9 383.0 378.6

0.50 382.20 13.20 381.70

1+50 1.2 381.0 376.6

+60 <sup>5.4</sup> split 3.5 378.7 375.0

+50 <sup>NY</sup> wet met 2.6 379.6 383.2

2+00 8.9 373.3 369.4

+95 <sup>NY</sup> wet met 8.9 373.3 376.5

0.39 369.60 12.99 369.21

2+50 4.6 365.0 361.5

3+00 10.8 358.8 353.8

0.42 356.87 13.15 356.45

+50 7.3 349.6 344.7

West  
Williams X  
Varonofokis  
Kellhofer +

42

3/9/56  
SUNNY + WARM

TBM 3/4 IP prop Cor. NE Cor. Swan + Springfield

Begin Work

C 4<sup>2</sup>

C 0<sup>1</sup>

6450

C 4<sup>5</sup>

C 4<sup>3</sup>

C 4<sup>1</sup>

CA<sup>1</sup>

C 3<sup>2</sup>

F 3<sup>6</sup>

6444

C 3<sup>2</sup>

F 3<sup>2</sup>

6434

C 3<sup>5</sup>

C 3<sup>0</sup>

C 4<sup>2</sup>



SPRINGFIELD CONT.

3/9/56

	356.87		
0.37	344.14	13.10	343.77
4+00		6.0	338.1 334.6
+14	Med sly	8.2	335.9 336.5
2.66	334.47	12.33	331.81
+50		6.6	327.9 322.4
+62		9.7	324.8 320.8
+75		11.1	323.4 320.6
+81	Nly Wat Med	5.9	328.6 332.4
5+00		9.8	324.7 322.3
+20		5.7	328.8 324.2
+41	sly Wat Med	4.8	329.7 334.7
+50		3.2	331.3 327.3
+67		0.8	333.7 330.8
3.05	335.87	16.5	332.92
		1.39	334.48 =

0.35  
 $F_0 \frac{6}{e}$   
 0.55  
 0.40  
 0.28  
 $F_3 \frac{8}{e}$   
 0.21  
 0.45  
 $F_5 \frac{0}{e}$   
 0.40  
 0.29

364.15

Delm bank  
 334.48 = 334.14 P63  
 FB 1859



"T" ST @ 40<sup>TH</sup>  
 Elev. Existing 6" C.I. Main

Mar. 19 1956  
 Beatty  
 Martell

44

BM	4.43	54.93	50.50
Top of curb end of existing SW Cor	5.47	49.46	
Top of G.V. Stem 0+05	6.65	48.28	
Top of 6" C.I. 0+29	7.83	47.10	
Top of curb form 0+29	6.13	48.80	
Top 6" C.I. 0+44	7.85	47.08	
Top of curb form 0+44	6.41	48.52	
Top of 6" C.I. 0+58	7.87	47.06	
Top of G.V. Stem 0+60	6.41	48.52	
Top of curb form	6.47	48.46	
CK BM	4.43	50.50	

BR NW Cor 40<sup>TH</sup> & T

0+00 = Wly prop line 40<sup>TH</sup> St ✓

BM	2.85	53.35	50.50
1+32	Ground line	4.6	48.8
	Top 6" C.I.	7.36	45.99
2+30	Ground line	5.4	48.0
	Top 6" C.I.	7.14	46.21
2+60	Inlet # 24" RCP	9.36	43.99
2+60	Outlet # 24" RCP	11.30	42.05
3+20	Ground line	4.2	49.2
	Top 6" C.I.	6.20	47.15
3+86.5	Ground line	1.3	52.1
	Top 6" C.I.	3.24	50.01
CK BM	2.85	50.50	

Mar 22, 1956

25' LT & pipe

20' RT & pipe



STKD Fire Hyd for Coast Parking Co  
Kearny Villa Road

5.36 @ AC pave

5.43 (5) @ FH

36

+ .07

+ .50

50.57

50.6

West  
Williams  
Varonakis  
Kallhofer

45

3/27/56

West Prop Line  
KAY LAB

Kearny Villa Road

1 Fire Hyd Set  
110 North of Line →  
30 West of Prop Line  
Coast Parking Co  
Wly Prop Line

72.08

25.00

FD 3" IP

FD 2" IP



Aero. Dir. AFTON RD to  
Kearny Villa Rd  
Proposed 8" Main

West  
Williams  
Vorontskis  
Kellhofer

3/28/56

46

← 22' →

← 100' →

← 35' →



AERO DIR. 5" AD

Gas 2 1/2' to 3' 11" →

1700 end of pipe

0+27 BV on R

0+22 Gas

AFTON RD

0+20 BV 5' 11"

0+24 BV on R

0+16 1/2 BV on R

0+30

POT

0+00 Fly prop Line AFTON RD.

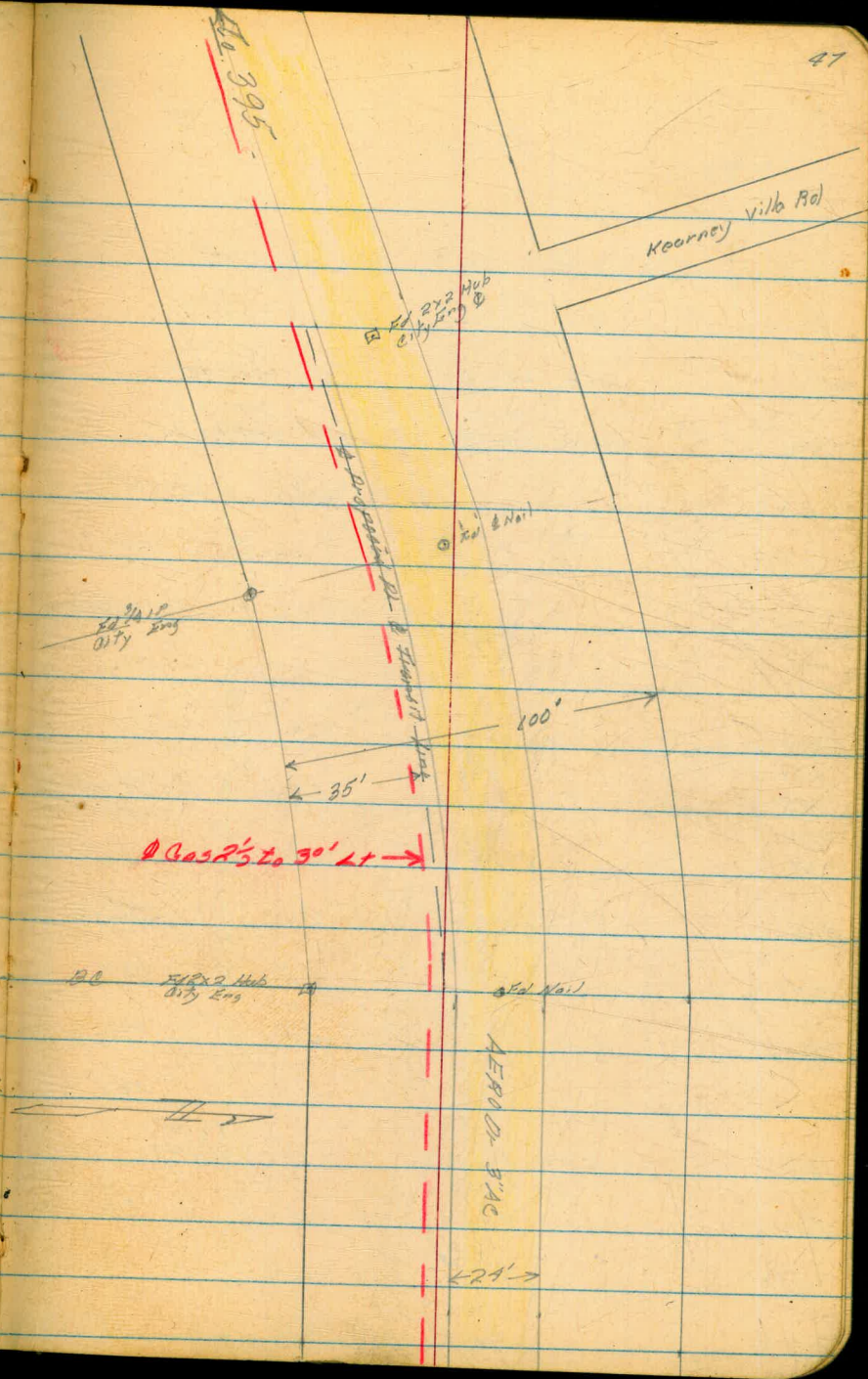


16+45<sup>56</sup> Road to North Kearney Villa

FC 15+87.82

$$\Delta = 8^{\circ}45'$$
$$R = 2498.77'$$
$$L = 381.60$$

BC 12+06<sup>23</sup>





AERO DR.  
 AITON RD. TO KEARNY VILLA RD.  
 PROFILE

WEST  
 WILLIAMS T  
 VARDONAKIS &  
 KELLHOFER

3-28-56

SUNNY

Conv. Max. S.E. COR LOT 24 (FB. 2009-10)

SE CURB RETURN AITON & AERO DR.

A.C. PAVT. BEG. WORK

B.M.	4.18	411.07		406.89
TP	3.37	<del>410.01</del> 408.01	6.43	404.64
TP	3.35	<del>404.27</del> 404.27	7.09	<del>402.92</del> 400.92
T.B.M.	3.19	<del>402.82</del> 400.82	6.64	<del>397.63</del> 399.63
0+00			3.42	397.4
+50			4.0	396.8
1+00			4.54	396.28
+50			5.0	395.8
2+00			5.3	395.5
+07				
+28			5.3	395.5
+31				
+50			5.3	395.5
3+00			5.6	395.2
+50			5.5	395.3
4+00			5.4	395.4
+50			5.1	395.7
TP	6.71	<del>404.78</del> 402.78	4.75	<del>398.07</del> 396.07
5+00			6.6	396.2
+50			6.0	396.8
6+00			5.5	397.3

Reduced by J Gray 3-30-56

EDGE O.L

TOP DRAIN

24" ID. DRAIN KING

TOP DRAIN

LT.      E      RT.

$\frac{4.7}{10}$

$\frac{5.5}{10}$

$\frac{5.5}{10}$

$\frac{6.40}{12}$

$\frac{5.8}{10}$

$\frac{6.3}{10}$

$\frac{6.4}{10}$

$\frac{6.2}{10}$

$\frac{5.9}{10}$

$\frac{7.0}{10}$

$\frac{5.8}{10}$

$\frac{5.1}{10}$      $\frac{5.8}{6}$

$\frac{4.80}{3' OIL}$

$\frac{5.15}{4' OIL}$

$\frac{6.00}{32}$

$\frac{5.21}{3' OIL}$

$\frac{5.43}{3' OIL}$

$\frac{5.29}{3' OIL}$

$\frac{5.15}{3' OIL}$

$\frac{4.86}{3' OIL}$

$\frac{6.48}{4' OIL}$

$\frac{5.90}{4.5' OIL}$

$\frac{5.44}{3.5' OIL}$



Aero De

(CONT)

402.78

404.78

49

				LT.	¢	RT.
2	6+50	5.1	397.7	$\frac{4.9}{10}$	$\frac{5.3}{5}$	$\frac{5.05}{4.01L}$
7	7+00	4.5	398.3	$\frac{3.8}{10}$	$\frac{4.6}{6}$	$\frac{4.40}{4.01L}$
7	+50	4.0	398.8	$\frac{3.4}{10}$	$\frac{4.1}{6}$	$\frac{3.99}{4.01L}$
7	8+00	3.8	399.0	$\frac{3.3}{10}$	$\frac{3.9}{6}$	$\frac{3.73}{3.501L}$
0	+50	3.5	399.3	$\frac{3.0}{10}$	$\frac{3.6}{5}$	$\frac{3.49}{3.501L}$
	9+00	3.3	399.5	$\frac{2.9}{10}$	$\frac{3.4}{6}$	$\frac{3.21}{3.501L}$
1	TP	3.68	403.43 405.43	3.03	399.75 401.75	
	9+50	3.8	399.6	$\frac{3.5}{10}$	$\frac{4.0}{6}$	$\frac{3.67}{3.601L}$
2	10+00	3.8	399.6	$\frac{3.6}{10}$	$\frac{4.0}{6}$	$\frac{3.72}{3.601L}$
	+50	4.0	399.4	$\frac{3.8}{10}$	$\frac{4.3}{6}$	$\frac{3.88}{3.01L}$
	11+00	4.3	399.1	$\frac{4.2}{10}$	$\frac{4.5}{7}$	$\frac{4.17}{3.501L}$
3	+50	4.6	398.8	$\frac{4.5}{10}$	$\frac{4.9}{6}$	$\frac{4.42}{3.801L}$
	12+00	5.2	398.2	$\frac{4.9}{10}$	$\frac{5.4}{7}$	$\frac{5.12}{3.501L}$
4	+50	6.0	397.4	$\frac{5.8}{10}$	$\frac{6.3}{7}$	$\frac{5.93}{3.501L}$
	13+00	6.9	396.5	$\frac{6.6}{10}$	$\frac{7.1}{7}$	$\frac{6.81}{3.501L}$
7	+50	7.9	395.5	$\frac{7.7}{10}$	$\frac{8.1}{7}$	$\frac{7.75}{4.001L}$
5	14+00	8.9	394.5		$\frac{9.0}{10}$	$\frac{8.82}{3.01L}$
	TP	1.60	395.54 397.54	9.49	393.94 395.94	
6	14+50	2.4	393.1	$\frac{2.9}{10}$	$\frac{3.1}{8}$	$\frac{2.27}{3.01L}$



Acco De

(CONT.)

395.54  
397.54

15+00		3.9	391.6
+50		5.5	390.0
15+87.82 EC.		6.8	388.7
16+00		7.2	388.3
16+45.56		8.6	386.9
+76		9.4	386.1
CHK. T.B.M.		6.80	388.74 = 388.77
T.B.M.		4.19	391.35
			393.35
86.8	400.03	1.05	398.98
5.46	404.44	5.14	399.30
1.49	400.79	5.34	395.45
6.89	402.34	3.56	398.78
6.75	405.53	2.71	402.82
6.02	408.84	3.12	405.72
5.30	411.02	4.12	406.90 = 406.89

50

LT.

±

RT.

4.7	3.75
10	3.01L
6.4	5.27
10	3.5 OIL
7.7	6.57
10	4.01L
8.2	7.05
10	4.01L
9.4	8.40
10	3.5 OIL
10.3	9.19
10	3.5 OIL

END WORK

POWER POLE # WP 71242

S. PROP. LINE KEARNEY VILLA & ACCO ROS.

1" EC. PIPE (CITY ENG.) 35' LT 15+87.82

CONC. MEN. S.E. COR. LOT 24 (FB. 2009-10)



AERO DRIVE  
 STR. 5 & Grd. 5  
 for 10" AC.  
 (AFTON Rd to KEARNY VILLA Rd.)

Nov. 27 1956  
 BEATTY  
 PAULSON  
 O'Brien.

51

(7158-W)

B.M.	253	100.16		397.63		
0+77		$\Delta = 5'00$ Lt. 10 x 8 Reducer	✓ 3.5	396.7	392.5	C to existing pipe
1+00			✓ 3.6	396.6	392.2	C14 ✓
1+34.4		$\Delta = 5'00$ LT	✓ 3.7	396.5	391.7	C18 ✓
1+50			✓ 3.8	396.4	391.5	C19 ✓
2+00			✓ 4.2	396.0	390.7	C53 ✓
2+50			✓ 4.3	395.9	390.9	C50 ✓
3+00			✓ 4.5	395.7	391.1	C46 ✓
3+50			✓ 4.3	395.9	391.3	C26 ✓
3+75			✓ 4.3	395.9	391.4	C15 ✓
4+00			✓ 4.2	396.0	391.6	C44 ✓
4+50			✓ 3.9	396.3	391.9	C11 ✓
<sup>P</sup> 5+00	7.58	100.13	✓ 3.61	396.55	392.3	C43 ✓
5+50			✓ 7.0	397.1	392.7	C14 ✓
6+00			✓ 6.6	397.5	393.1	C44 ✓
6+50			✓ 6.2	397.9	393.4	C45 ✓
7+00			✓ 5.6	398.5	393.8	C47 ✓
7+50			✓ 5.2	398.9	394.2	C47 ✓
8+00			✓ 4.8	399.3	394.6	C17 ✓



AERO DR  
(Cont'd.)

11/27/56

52

404.13

8+50		✓ 2.6	399.5	394.9	C16 ✓	
9+00		✓ 4.3	399.8	395.3	C15 ✓	
9+50		✓ 4.1	400.0	395.6	C14 ✓	
10+00		✓ 4.0	400.1	395.3	C18 ✓	
10+50		✓ 4.3	399.8	395.0	C18 ✓	
11+00		✓ 4.7	399.4	394.8	C18 ✓	
① 11+50	1.21	400.34	✓ 5.00	399.13	394.5	C16 ✓
12+00		✓ 1.7	398.6	394.2	C14 ✓	
12+06 <sup>22</sup>	B.C.	✓ 1.8	398.5	394.1	C14 ✓	
12+50		✓ 2.5	397.8	393.3	C15 ✓	
13+00		✓ 3.4	396.9	392.3	C16 ✓	
13+12 <sup>0</sup>	F.H. TEE	✓ 3.6	396.7	392.0	C17 ✓	
	⑤ F.H.			397.7		
13+50		✓ 4.3	396.00	391.3	C17 ✓	
14+00		✓ 5.4	394.9	390.4	C15 ✓	
14+50		✓ 6.8	393.5	388.8	C17 ✓	
15+00		✓ 8.2	392.1	387.3	C18 ✓	
15+50		✓ 9.8	390.5	385.5	C50 ✓	
15+87 <sup>82</sup>	FC.	✓ 11.1	389.2	384.5	C17 ✓	
16+00		✓ 11.6	388.7	384.2	C15 ✓	

(12+793 & Aero Ct. ?)



AERO DR  
(Cont'd)

11/27/56

53

400.3A

16+33 3" B.O. ✓ 12.6 387.7 383.1  
OK BM ✓ 11.66 388.68 = 388.72

C.A. 6 ✓

RR spike (pg. 50)

12/2/56

400.3L

12+24<sup>3</sup> F.H. Tee 2.1 398.2 393.7

C.A. 5

C.F.H. 36<sup>3</sup> 5/4 E ST

⑤ F.H. 1.0 399.3 398.7

C.O. 6 C.5.6



6" AC STUB  
VOLTAIRE AT WEST PT. LOMA

11/27/56  
Beatty  
Paulson  
O'Brien

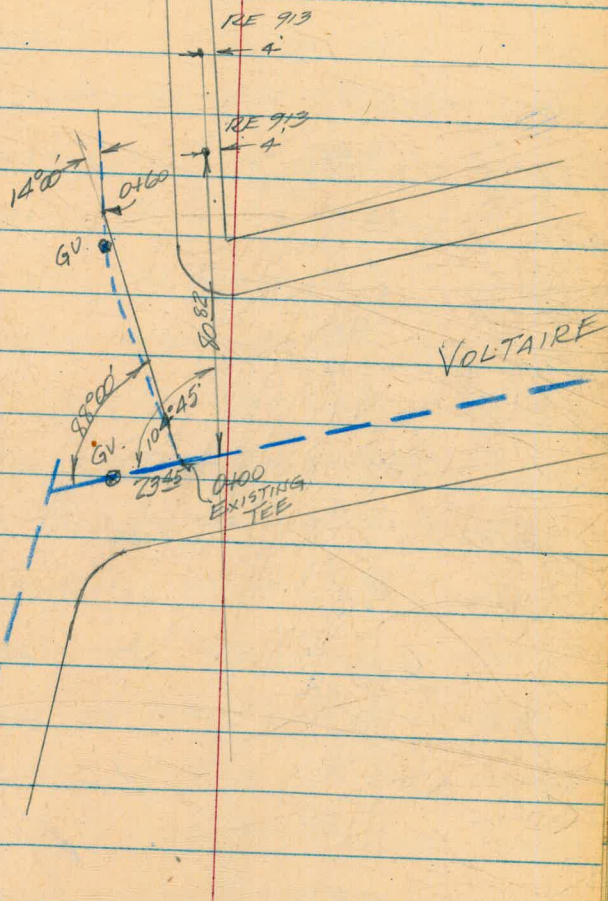
54

(12705-L)

BM	5.74	06.74	01.50	
0+00	Existing Tee?	5.15	01.59	
0+30		5.30	01.44	-02.5 C99
0+60		5.40	01.34	
CK BM	5.74	01.50		

WAT. MET

BM	1.62	06.12	1.50	
WM E (2'50 Alley)	4.9	01.2	0.50	C07
WM E (36'50 Alley)	5.1	01.0	0.60	C04
CK BM				





54<sup>TH</sup> ST  
 STKS & GRDS for 6" A.C  
 Groveland to Naranja

11/28/56  
 BEATTY,  
 PAULSON,  
 O'BRIEN.

55

(GROUP 103)

BM	1.66	160.69	156.03	City Detour	Nail in pole SE Cor		
TBM	0.80	155.19	6.30	154.39			
0+00						2.88	152.3
0+15 @	GV	Begin	3.4	151.8		2.40	151.8
		work					
0+20			3.6	151.6	127.8	2.55	151.64
0+50			4.75	150.9	147.1 127.4	2.30	150.99
1+00			5.90	149.3	145.4 125.7	5.87	149.4
1+50			7.72	147.5	143.7 124.0	7.60	147.6
1+62			8.20	147.0	143.3 123.6	8.08	147.1
2+00			9.92	145.3	141.5	9.80	145.4
2+50			12.30	142.9	139.1 128.5	12.32	142.95
HP	0.13	142.21	13.11	142.08			
3+00			2.54	139.7	135.9 125.6	2.47	139.74
3+15 B.C.			3.48	138.7	134.9 124.7	3.45	138.76
3+37			5.01	137.2	133.4	4.95	137.26
3+50			6.00	136.2	131.8 122.0	5.92	136.3
3+75			7.80	134.4	130.6 121.1	7.72	134.5
3+91	Existing	6" Tee	8.82	133.4		7.77	134.44



54<sup>TH</sup> ST  
(Cont'd)

11/29/50

56

P	12.73	142.21			
		154.34	0.60	141.61	
P	6.32	160.03	0.23	154.11	
OK BM			4.39	156.04 = 156.03	



THRU SH ST.  
LINNET TO SLY. TERMINUS  
STR. 5' & GRADES  
FOR 6" A.C.

11/29/56  
BEATTY  
PAULSON  
O'BRIEN

57

(GROUP 103)

BM	9.50	170.78		161.28
11	12.32	181.52	1.58	169.20
0+35	GV. (City)	12.9	168.6	
0+50		11.75	169.8	166.1
1+00		6.80	174.7	+71.1
1+50		1.80	179.7	+76.2
11	13.28	194.51	0.29	181.23
2+00		9.77	182.7	181.2
2+50		2.82	189.7	186.3
2+63	F.H. TEE	3.65	190.9	
2+93	6" TEE	2.83	191.7	
3+38		2.20	192.3	189.2
3+82.68		1.97	192.5	188.8
X RT	3+91.32	Δ 20°04' LT		
4+00		2.25	192.3	188.7
11	0.61	192.89	2.23	192.28
4+50		2.26	190.4	187.0
5+00		2.45	188.4	185.1
5+50		6.43	186.5	183.2

BD E curb Bridge Merlin Drive				
LT SW Cor Linnet & Thru Sh				
Cut to existing pipe	13.2	168.5		
C37	11.90	169.6		
C36 C37	6.92	174.6		
C35 C37	1.90	179.6		
C35 C37	9.90	184.6		
C34 C37	2.90	189.6		
Cut to existing	2.74	190.8		
Cut to existing	2.83	191.7		
C37 C37	2.37	192.2		
C37	2.07	192.4		
C36 C37	2.32	192.2		
C34 C37	2.54	190.35		
C33 C37	4.57	188.32		
C33 C37	6.47	186.42		



THRUSH ST.  
(Cont'd)

11/29/56

58

	192.89						
6+00		8.34	184.6	+81.2	egg C37	8.43	184.5
6+25		8.88	184.0	180.3	C37	8.96	183.9
6+50		9.07	183.8	+80.2	C36 C37	9.16	183.7
6+70	3" B0	9.18	183.7	+80.1	egg C37	9.27	183.6
IP	0.52	193.27	0.14	192.75			
IP	0.05	180.32	13.00	180.27			
IP	0.18	167.17	13.33	166.99			
CK BM		6.00	161.17	= 161.28	BP Bridge Merlin De		



60TH ST.  
KENWOOD ST. TO BROOKLYN

STKS & GRD.S  
for 8" AC.

BM	6.39	288.52		282.13		
71D	0.15	276.10	12.57	275.95		
674D	0.07	263.14	13.03	263.07		
DK BM	0.88	249.90	13.22	249.72		
7408	0.87	237.37	13.20	236.50		
	GV. (by city)		2.88	234.49	231.9	
			3.7	234.1		
7400			3.65	233.7	231.5	
6183	F.H. TEE		4.27	233.1	230.4	
6+50			5.45	231.9	228.2	C37
					228.7	
6+00			7.46	229.9	226.5	C37
5+50			9.7	227.7	224.3	C37
5+00			11.85	225.5	222.1	C37
4+75	0.09	222.63	12.83	224.54	221.0	C37
4+50			1.2	223.4	219.6	C37
4+00			3.8	220.8	216.7	C37
3+50			7.0	217.6	213.8	C37
3+00			10.7	213.9	210.0	C37
2+50	0.10	211.42	13.31	211.32		
			1.4	209.9	206.2	C37
2+00			5.5	205.9	202.4	
1+50			9.4	202.0	198.6	
1+13			11.9	199.5	195.7	C37
1+00			12.7	198.7	195.0	C37
11D	0.99	199.30	13.11	198.31		

Nov. 30 1956 - Fair & Warm

BEATTY  
PAULSON  
O'BRIEN

59

(Group 103)

SE BR. 60th & Broadway

L & T 10' wly & 60th & Brooklyn = 234.53 FB 867  
29.66

cut to existing.



60<sup>th</sup> ST.  
(Cont'd)

199.30

0+55		2.9	196.4	192.5
0+38		3.9	195.4	191.3
0+10	Existing 8" TEE	5.4	193.9	190.6
RP	0.04	185.99	13.35	185.95
RP	1.75	174.26	13.28	172.71
RP	1.54	166.17	9.83	164.63
CK BM		4.95	161.22	= 161.28

Wat. Scr.

6+67 W	237.37	-	4.3	233.1
6+17 W			6.8	
6+17 E			6.5	
5+76 W			8.7	
5+30 E			9.6	
5+15 W			11.1	
4+75 W			12.5	
4+26 W	224.63	-	2.4	
3+76 W			5.1	
3+53 E			6.3	
3+25 W			8.7	
2+76 W			12.5	
2+57 E	211.42	-	0.1	
2+25 W			3.5	
2+02 E			4.6	
1+75 W			8.0	
1+53 E			8.0	
1+28 W			11.6	
0+89 E	199.30		1.0	
0+09 E			5.6	

11/30/56

60

RP on Bridge MERLIN DR

See pg 57

Edge  
Pavt

4.8	<del>C02</del> C11
7.0	C06
6.9	C08
8.8	C05
10.8	C16
11.4	C02
13.0	C02
2.6	C06
5.4	C07
7.1	C12
9.0	C02
12.0	C09
1.1	C15
3.8	C07
5.6	C12
7.8	C06
9.3	C12
11.5	C03
1.4	C08
	C05

Set & vert riser 28" LT } 4 pipe  
8" RT }



SILVERGATE ST.  
Top Existing 6" C.I. Pipe  
Jennings to Wilcox  
(4081-D)

11/30/56

BETTY  
PAULSON  
O'BRIEN

61

BM	9.62	283.83	274.21
5'5 1/2 S.L. Jennings	{ Top 6" C.I.	12.84	271.0
	{ Ground	9.2	274.6
6'5 1/2 S.L. ALLEY	{ Top 6" C.I.	7.90	275.9
	{ Ground	5.7	278.1
4 1/2 Line WILCOX	{ Top 6" C.I.	4.13	279.7
	{ Ground	2.0	281.8
ck BM.		9.62	274.21



ALLEY BLK 190 City Heights  
 Between Swift & 35th St  
 From Wightman to LANDIS

DEC 5 1956  
 Beatty,  
 Paulson,  
 O'Brien.

62

BM	12.09	349.51		337.02		NWBP Wightman & Swift		
0+00			1.6	347.9	346.7	C12	347.5 2.0	Top pipe -3.50 = 344.00
1+80			6.3	343.2	342.3	C09	342.4 1.1	Top pipe -3.25 = 339.15
2+20	0.32	341.50	8.33	341.18	340.4	C08	340.0 8.7	T/P -3.75 = 336.85
<del>2+60</del> 65			3.2	338.3	337.8	C05	337.4 2.1	T/P -3.42 = 334.0
3+66			10.2	331.3	329.0	C23	329.9 1.6	T/P -3.00 = 326.90
4+19	0.24	328.56	13.18	328.32				
			0.6	328.0	325.7	C23	326.0 2.6	T/P -2.50 = 323.50
5+39			11.6	317.0	315.4	C14	315.8 12.8	314.5 14.1 3 T/P -3.00 = 311.50
5+79	1.85	317.42	12.99	315.57				
			1.85	315.6	311.4	C12	316.8 5.6	309.9 7.5 3 T/P -2.25 = 307.65
5+97			4.1	313.3	309.2	C11	309.1 8.3	308.3 9.1 3 T/P -1.67 = 306.60
			9.76	307.66 = 307.70				\$ 64.00



CUMBERLAND ST.  
CALLE QUEBRADA Ely.  
STK. S & GRADES FOR  
WATER METERS

BM	9.83	314.01	304.18
	9.82	312.01	302.17
0+00	R E.C.		
0+05	(5) FH	6.22	307.8 306.5
0+34	WM, Sly	6.7	307.3 306.2 307.1
0+89	WM, Sly	5.6	308.4 307.6 308.5
1+37	WM Sly	4.8	309.2 308.7 309.6
1+86	WM, Sly	3.5	310.5 310.0 310.9
2+86	WM Sly	1.9	312.1 311.1 312.0
		8.0	306.0 304.9
ck BM		9.83	304.18

Dec 5 1956  
Beatty  
Paulson  
O'Brien

63

(per - 3351-D)

CHS NW Cor NW Cor Cumberland & Tres Lomas  
B.P.

C12 to HANGE

C11 to curb stop

C08 " " "

C05 " " "

C05 " " "

C10 " " "

C11

6201 Cumberland

6211 "

6221 "

6231 "

6251 "

6198 Calle Tres Lomas



BANCROFT ST.  
MYRTLE TO DWIGHT  
STK. 5 & GROSS for 6" A.C

DEC. 10, 1956  
BEATTY,  
PAULSON,  
O'Brien.

64

(Group 103)

BM	9.91	332.38	322.47	Plan Gross	BP NW Cor Upper & Bancroft		
0+25	GV By City	(Dirt piled up here)	325.4	✓		325.88 6.50	Existing Bottom 4' C.I.
0+30		3.00	329.4	325.4	C39	cut to existing	3.03 329.35
0+50		2.99	329.1	325.7	C37		3.03 329.35
1+00		1.90	330.5	326.4	C41		2.06 330.32
1+50		1.32	331.1	326.9	C42		1.55 330.9
2+00		0.91	331.5	327.4	C41		1.06 331.32
P 2+50	1.86	336.61	0.63	331.75	327.9	C39	0.80 331.58
3+00		4.25	332.1	328.5	C39		4.35 332.26
3+50		3.82	332.8	329.0	C38		3.96 332.65
4+00		3.36	333.3	329.5	C38		3.53 333.02
4+12		3.34	333.3	329.6	C37		3.31 3.50 333.1
4+50		3.57	333.0	329.2	C38		3.73 332.88
5+00		4.00	332.6	328.8	C38		4.18 332.43
5+50		4.50	332.1	328.4	C37		4.68 331.93
6+00		4.98	331.6	328.0	C36		5.18 331.43
6+50		5.50	331.1	327.6	C35		5.72 330.9
6+59	F.H. Tee	5.57	331.0	327.5	C35		330.8 5.81
6+80 <sup>45</sup>	6" x 8" Cross	5.60	331.0	327.2	C38	cut to existing	5.72 330.9



BANCROFT ST.  
(Cont'd.)

12/10/56

65

P 356.61  
0.48 331.37 5.72 330.89  
CK BM. 889 322.48 = 322.47

WAT METS

0+88 E  
1+36 E  
1+48 W  
2+02 E  
2+04 W  
2+47 W  
2+53 E  
2+78 W  
2+96 E  
3+31 E  
3+31 W  
3+86 W  
3+93 E  
4+32 E  
4+49 W  
4+73 E  
4+97 W  
5+07 E  
5+50 E  
5+50 W  
5+78 E  
5+99 W  
6+12 W  
6+29 E  
6+47 W  
6+57 E



ALLEY BLK 10  
 DWIGHT To LANDIS  
 Between Fairmount & 44<sup>th</sup>  
 5K.5 & G.R.5  
 For 6'A.C

DEC. 11 1956  
 BEATTY  
 PAULSON  
 O'BRIEN

66

BM	6.27	347.16		340.89 <del>341.20</del>	BP NW Cor DWIGHT & FAIRMOUNT		
0+34.5	Existing G.V.	5.27	341.9	338.3	c36	Cut to existing	4.56
0+75		4.70	342.5	338.7	c38		342.3
1+00		4.03	343.1	339.3	c38		343.0
1+25		3.48	343.7	340.0	c37		343.56
1+50		3.25	343.9	340.3	c36		343.8
2+00		2.60	344.6	340.9	c37		344.44
2+50		2.27	344.9	341.3	c36		344.77
3+00		1.78	345.4	341.8	c36		345.28
3+50		1.24	345.9	342.3	c36		345.85
11) 4+00	9.42	355.27	1.31	345.85	c37		346.35
4+50		8.80	346.5	342.8	c37		346.9
4+87.5		8.26	347.0	343.3	c37		347.29
5+00		7.83	347.4	343.7	c37		347.47
5+50		7.69	347.6	343.8	c38		348.16
6+00		7.06	348.2	344.5	c37		348.92
6+50		6.28	349.0	345.3	c37		349.65
6+75		5.52	349.8	345.9	c37		350.04
6+80		5.13	350.1	346.4	c37		350.07
		5.10	350.2	346.5	c37		



ALLEY BLK 10  
(Cont'd)

12/10/58

67

353.27

6+928 FH Tec 5.42 349.9 346.4 ~~5.42~~ cut to existing 5.42

OK BM 1.57 350.14 6.70 348.57 = 349.15  
N.G.

OK BM 9.26 340.88 = 340.89

Gone  
SE BR LANDIS & Fairmount

starting BM



CALLE Aguadulce  
Top of Existing 6" Water

DEC. 17 1956  
Beatty  
Paulson  
O'Brien

68

BM 13.24 296.93 283.69

CHIS x NW Cor Winchester & Roanoke

9+21 Ground line 1.1 295.8

9+21 Top AC pipe 7.52 289.41

E Roanoke 10+45

4P 12.16 309.06 0.03 296.90

9+61 F.H

4P 11.17 319.63 0.60 308.06

5+83 Ground line 3.85 315.78

5+83 Top AC pipe 9.06 310.57

5+39 G.V.

5+33 F.H

4P 6.37 322.54 3.46 316.17

4+65 S.M.H

2+09 Ground line 3.25 319.29

2+09 Top AC pipe 8.67 313.87

CR TBM 6.66 315.88 = 315.99 Top F.H. SE Cor

0+51 Ground line 9.0 313.5

12.42

0+51 Top AC pipe 14.93 307.61

2.51



SOLITA AVE  
 JEMINOLE DR. TO ARAGON ST.  
 (A) STR. S & GROS. 8" A.C. WATER

JAN. 7 1957  
 BEATTY  
 PAULSON  
 O'BRIEN

69

TBM	520	462.38	457.18		NELY curb Seminole & Solita	
TBM			5.48	456.90 = 456.85	SWly curb " " "	
0+40	Tapping saddle	5.36	457.02	453.4	Cut to Existing	
0+60	45° Bend	5.5	456.9	453.9	C35	
0+60	45° Bend	5.4	457.0		C36	
1+00		5.0	457.4	453.7	C42	
1+50		4.9	457.5	453.0	C45	
2+00		4.4	458.0	452.6	C54	
2+12		4.3	458.1	452.5	C56	
2+50		4.1	458.3	452.9	C54	
3+00		4.0	458.4	453.6	C48	
3+50	5.23	462.08	3.73	458.65	454.3	C44
3+75		5.3	458.8	454.6	C42	
4+00		5.2	458.9	454.6	C43	
4+50		4.7	459.4	454.6	C48	
5+00		4.6	459.5	454.6	C49	
5+49	F.H. TEE	4.7	459.4	454.6	C45	
	(3) F.H.	4.86	459.22	459.2	C00	
5+87		5.1	459.0	454.6	C44	
5+92	9" x 6" Tee	5.1	459.0	454.6	C44	
5+92	16" Nor. ly (edge pavt)	5.2	458.9	454.9	C40	
5+92	25" Nor. ly at. B.O	5.0	459.1	454.9	Cut to Existing	

C45 4-8



SOLITA AVE  
(Cont'd.)

1/8/57

70

6+16.8 BK	464.08				
6+15 AH 45° BEND	5.8	458.3	454.2	C41	
6+50	6.8	457.3	453.2	C41	
7+00	8.1	456.0	452.4	C36	
7+50	8.9	455.2	451.3	C39	
7+60.9 22 1/2° Bend	8.6	455.5	451.0	C25	7+53 BC Orig
7+84.6 22 1/2° Bend	7.2	456.9	450.6	C63	7+50.90 EG Rev
7+94.6 (Begin 6" DC part)					7+60.90 22 1/2° Bend
7+96.9 EC	10.3	453.8	450.0	C38	
8+00 ID 187 256.26	9.9	452.39 = 452.42		ID on end of curb	
8+50	2.65	453.6	449.8	C38	7+82.6 22 1/2° Bend
	2.60	451.7	447.7	C42	7+96.12 Orig. EC
8+87	5.86	450.4	446.1	C43	
9+00	6.06	450.2	446.2 445.9	C43 C40	
9+16.2 GV	6.10	450.2	446.8 445.2	C50 C36	
9+19.2 TEE	6.16	450.1			
(Top of pipe Existing)	8.60	447.66			
Bottom pipe		446.9			
CK 71)	1.87	454.39 = 454.44		S. end of existing curb	7+96.6
		plan			

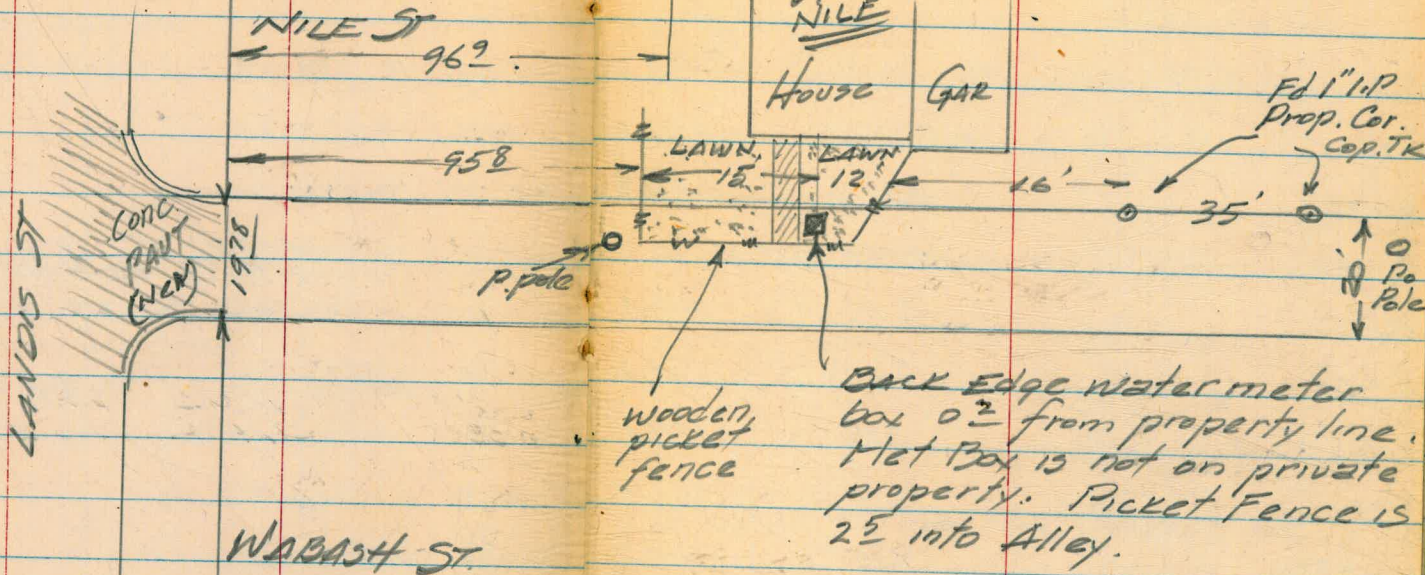


# METER LOCATION

Group 7  
3719 NILE  
5856-W

1/8/57  
Cassidy  
Poulson  
O'Brien

~~71~~



Back Edge water meter  
box 0 2 from property line.  
Met Box is not on private  
property. Picket Fence is  
2 1/2 into Alley.



University Ave Falcon St to Eagle

PRELIM. FOR PROPOSED  
WATER MAIN.

West  
Williams X  
Kellhofer +

72

B.M.	4.90	270.40		
0+00		4.40	266.0	
0+10		4.47	265.9	
0+40		4.25	266.15	
0+50		4.70	265.7	
1+00		6.09	264.3	
+50		7.33	263.1	
2+00		8.54	261.9	
+50		9.75	260.7	
3+00		11.00	259.4	
+20		11.32	259.1	
+50		12.27	258.1	
+60 <sup>82</sup>		12.44	258.0	
T.P.	8.12	266.21	12.31	258.09
T.P.	8.46	271.58	3.09	263.12
CHECK				
B.M.		4.55	267.03 =	

Rede'd  
by  
Rocky

267.06

Eagle 1/31/57 SUNNY

265.56 N.E. B.P. Washington + Falcon

Wly. prop Line Falcon St

10'21 Sly. Rim Sewer MH 7.1 To Flow

2+80.27 15 Wly. Prop. Line Eagle St.

10'66 Top Nly Rim Sewer MH  
8.8 To Flow

Ely. prop. Line Eagle St. end of Work

267.02 N.E. B.P. GOLDFINCH + WASHINGTON

259.05'

250.28'



UNIVERSITY AVE. FALCON ST. TO  
EAGLE  
PRELIM. FOR PROPOSED WAT. MAIN

WEST  
WILLIAMS  
KELLHOFER

1/31/57

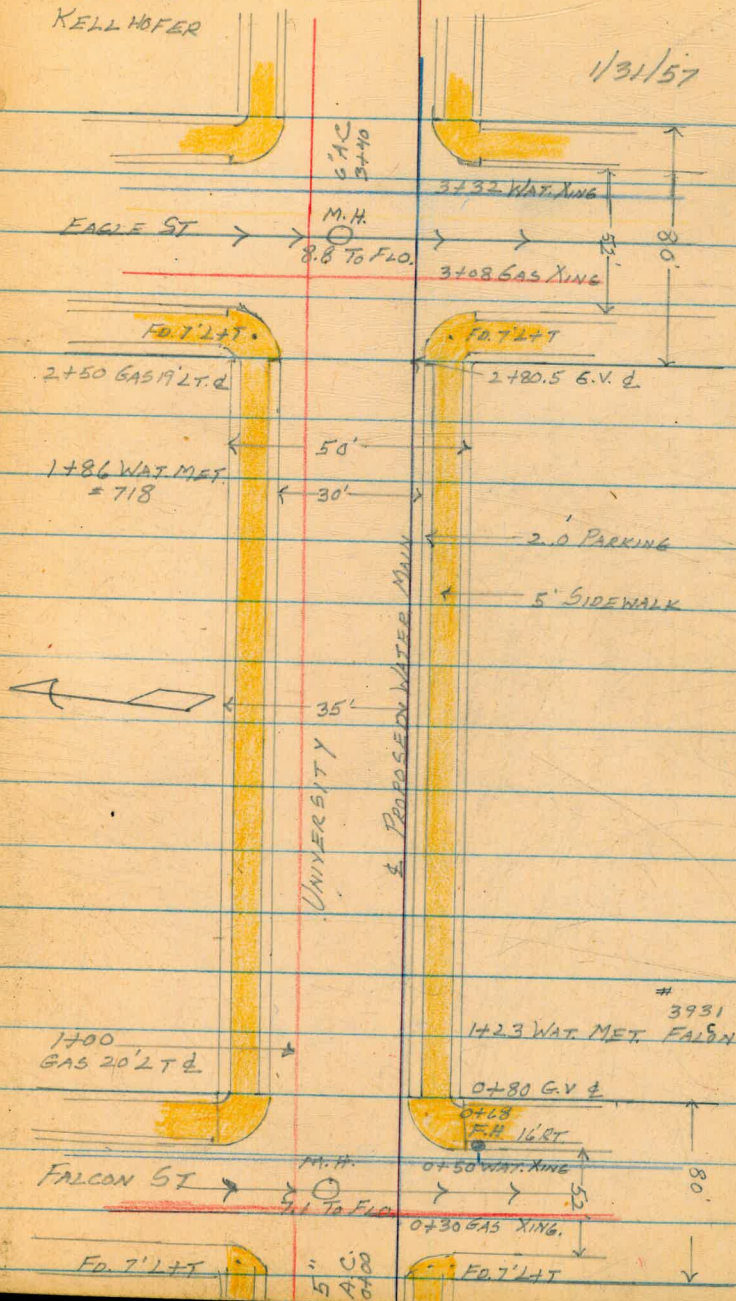
3+60.27 FLY PROP LINE EAGLE. END WORK

3+20 SEWER XING

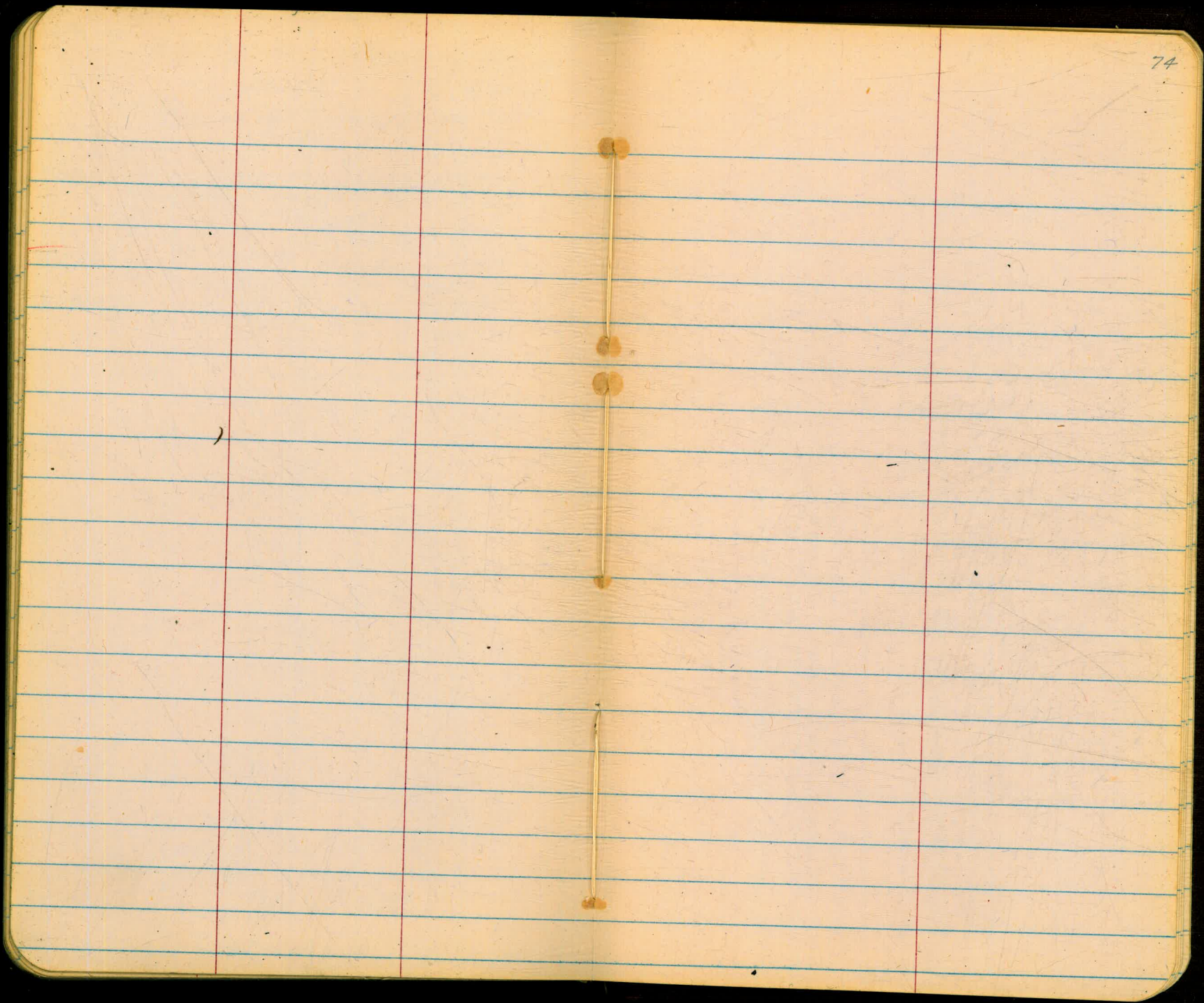
2+80.27 WLY PROP LINE EAGLE

0+40 SEWER XING

0+00 WLY PROP LINE FALCON WORK BEGIN











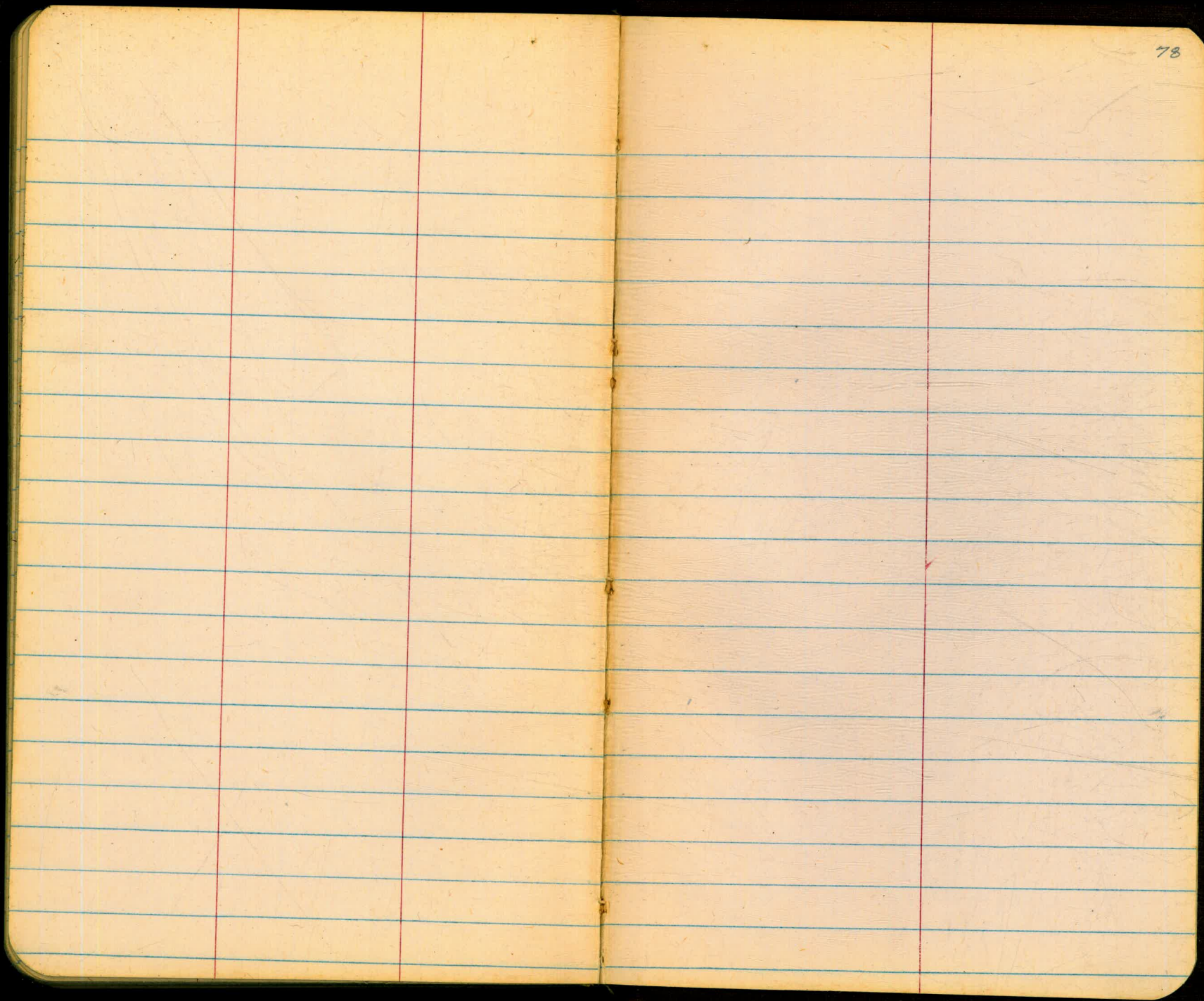








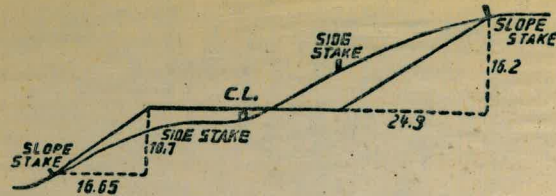
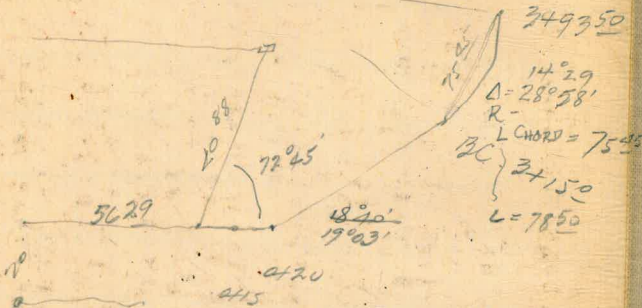






Please Return to  
 City of San Diego Water Dept.  
 Room 903 Civic Center

0+95 1' RT 4' D.A.  
 1+20 " " "  
 1+48 2' RT " "



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.  
 SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.25	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

THE NATIONAL BLANK BOOK COMPANY  
 HOLYOKE MASSACHUSETTS  
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