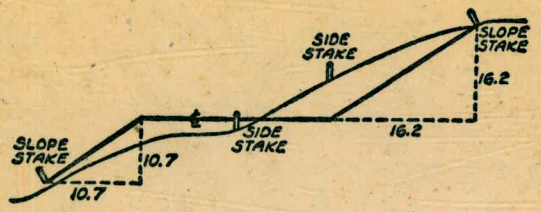

Distances from Side Stakes for Cross-Sectioning

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.

38
35
373
43
416

Cut
41 4

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

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STKS FOR 6" A.C MAIN — alice

LA SALLE ST. NASHVILLE TO EAST TERMINUS 3.5 ✓

STKS. FOR WATER METERS

P.B. DRIVE. LAMONT TO MORRELL 36. ✓

stks for 6" AC Main

TITUS ST PRINGLE TO KEATING 37 ✓

STKS. FOR 6" A.C.

SAN CLEMENTE. TENNYSON TO VOLTAIRE 38. 39 ✓

stks for 6" AC Main

Whittier Catalina to 407' Sly 40-41 alice

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Check Depth of Main

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stks for meters

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STKS. FOR METERS

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Check on Water Meter-Vault

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ALLEY BLK. 148 {NORTH of MONTEREY CT. 6" A.C. MAIN E. of STRANDWAY @STK'S 60 ✓

ALLEY BLK'S 208 & 209 {NORTH of MONTEREY CT. 6" A.C. MAIN E. of MISSION BLVD @STK'S 61 ✓

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WATER METERS - ROSECROFT LANE {CATALINA to SILVERGATE 71 ✓

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COVINGTON ROAD {496' WLY BOUNDARY to TERMINUS @STK'S 4" MAIN 74 ✓

KEW TERRACE - NUTMEG to TERMINUS @STK'S 4" MAIN 75 ✓

OLIPHANT ST., WILLOW to EVERGREE @STK'S 6" MAIN 76 ✓ alice

CUT sheet made 2/11

Pickwick St 34th to 35th
Stks for 6" AC Main

B.M.	0.21	78.10		77.89
0+40			1.6	76.5 71.8
+50			2.1	76.0 71.5
+65			2.8	75.3 71.2
+65			2.8	75.3 74.5
+91 M.N			1.8	76.3 73.9
1+00			4.2	73.9 69.4
+33 M.N			3.4	74.7 72.2
+50			6.4	71.7 67.4
+92 M.N.			6.3	71.8 69.7
2+60			8.3	69.8 65.2
+37 M.N.			7.2	70.9 68.2
+50			9.4	68.7 64.1
+62 M.S.			10.1	68.0 67.0
+90 M.S.			9.8	68.3 66.5
3+00			9.9	68.2 62.9
+16 M.N.			8.9	69.2 66.4
+50			11.4	66.7 61.8
T.P.	0.46	67.54	11.02	67.08

West
Williams
Varontakos ⊼
Kellhofer ϕ

Clear + Warm

2/11/65

See FB 877 Page 42

Top South rim sewer MH 9' Lt 0+30

C4 7
C4 5
C4 1 F.H Tee
C0 8 F.H (5')
C2 4
C4 5
C2 5
C4 3
C2 1
C4 6
C2 1
C4 6
C1 0
C1 8
C5 3
C2 8
C4 9

PICKWICK ST. CONT.

2/11/55

	67.54				
3+95 M.S.		1.7	65.8	64.2	C1 6
4+00		2.0	65.5	60.6	C4 9
+06 M.N.		0.4	67.1	64.4	C2 7
+50		2.6	64.9	59.4	C5 5
+58 M.S.		2.9	64.6	62.8	C1 8
5+00		4.0	63.5	58.2	C5 3
+05 M.S.		4.0	63.5	61.6	C1 9
+02 M.N.		3.1	64.4	62.2	C2 2
+50		6.0	61.5	55.8	C5 7
+65 M.N.		5.2	62.3	60.2	C2 1
6+00		9.2	58.3	53.2	C5 1
+24 M.N.		11.3	56.2	56.4	FO 2
+50		13.2	54.3	49.8	C4 5
T.P.	9.79 64.74	12.59	54.95		
7+00		11.5	53.2	48.6	C4 6
T.P.	10.55 74.75	0.54	64.20		
CHECK					
T.B.M.		7.67	67.08 = 67.04		

F.B 877 PAGE 42 S. RIM M.H 3+60

Island St 32nd to Bancroft

Stks for 6" AC Main

2/11

	7.39 89.41		82.02
0+40		6.9	82.5 78.4
+62.5		7.0	82.4 78.4
1+00		6.6	82.8 78.7
+05 mN		6.4	83.0 82.4
+12 mN		6.5	82.9 82.5
+30 mS		6.5	82.9 82.6
+50		6.1	83.3 79.1
+65 mS		6.0	83.4 82.9
+90 mN		5.4	84.0 83.2
2+00		5.3	84.1 79.6
+06 mS		5.3	84.1 83.3
+25		5.0	84.4 79.8
+50 mS		5.1	84.3 83.1
+50		4.9	84.5 79.5
+75		5.2	84.2 78.2
3+00		6.1	83.3 76.2
	2.27 81.08	10.60	78.81
+31 mS		0.6	80.5 76.4

West
Williams ⊼
Voronfakis
Kellhofer ϕ

2/11/55

BM NW ⊕ Dkt 32nd & Island

C4 1	Begin Work	
C4 0		
C4 1		
C0 6		32089
C0 4		3210
C0 3	white chimney	3211
C4 2		3217
C0 5		3216 ↓
C0 8		
C4 5		
C0 8		3221
C4 6		
C1 2		3225
C5 0		
C6 0		
C7 1		
C4 1		

Island St Cont.

81.08

3+50		2.6	78.5	69.3	C9 2
+65 mS		4.7	76.1	71.6	C4 8
+62 mN		3.9	77.2	72.1	C5 1
+79 mN		6.1	75.0	69.8	C5 2
+87.5		7.9	73.2	64.0	C9 1
4+00		9.6	71.5	63.4	C8 1
+13		11.0	70.1	62.9	C7 2
	9.29	89.17	0.90	80.18	
			7.42	82.02	-82.02

2/11/55

3239

3236

32

end of work

Cut sheet Made 2/11

Logan Ave 35th to Wabash E/W

Stks for 6" AC Main

		11.45	55.64	44.19	
0+60	0.93	53.40	3.17	52.47	48.0
1+00			2.1	51.3	46.6
+27 ms			3.5	49.9	49.5
+50			4.6	48.8	44.9
+73 ms			5.4	48.0	48.0
+91 ms			6.5	46.9	47.3
2+00			6.6	46.8	43.0
+25 mN			7.4	46.0	46.0
+33 ms			7.9	45.4	46.0
+50			8.7	44.7	40.9
+75 mN			9.8	43.6	42.8
+83 ms			10.2	43.2	43.3
3+00			11.0	42.4	38.6
+23 ms	0.63	41.53	12.50	40.90	40.7
+27 mN			1.4	40.1	40.4
+50			2.8	38.7	34.0
+62 mN			4.7	36.8	37.5
+87 ms			6.1	35.1	35.0

West
Williams
Voronfakis

2/19/85 Sunny & Warm

SE Top FH 35th & National

C4	5
C4	7
CO	4
C3	9
CO	0
FO	4
C3	8
CO	0
FO	6
C3	8
CO	8
FO	1
C3	8
CO	2
FO	3
C4	7
FO	7
CO	4

Begin Work

LOGAN AVE. CONT.

41.53.

2/14/55

4+00			7.7	33.8	29.4
	0.66				
+32 mN		29.75	12.44	29.09	30.0
+50			1.9	27.9	23.7
+75 mN			6.2	23.6	25.0
+84 mS			6.3	23.5	24.0
+99 mN			8.4	21.4	22.0
5+00			8.0	21.8	18.0
+19 mS			10.0	19.8	19.7
+38 mN			12.5	17.3	17.5
+50 F.H. TEE			13.3	16.5	12.0
+50 (5') QTH			13.3	16.5	16.0
			7.81	21.91	

C4 4
F0 1
C4 2
F1 4
F0 5
F0 6
C3 8
C0 1
F0 2
C4 5
C0 5

= 21.88 Turn on IR Pick-up Coil

12.48	19.46		36.98	
3.51	52.59	038	49.08	
		7.91	44.68	=
0.83	50 12	330	49.29	
6.19	43.51	12.80	37.32	
		6.52	36.99	= 36.95

SE BP 36th & National.

44.19 Top FH SE Cor. 36th & National

CUT SHEET MADE 2/17

Island St 36th to 300' West

Stks for 6" AC Main

	5.01	125.93	120.92
0+09	4.4	121.5	117.8
+41 EN Tee	4.2	121.7	117.4
+41 (5") FH	5.7	120.2	120.6
+50	4.1	121.8	117.2
1+00	5.1	120.8	116.4
+50	5.6	120.3	115.7
+68 MS	7.2	178.7	118.7
2+00	7.8	118.1	115.0
+18 MN	4.8	121.1	119.0
+50	8.2	117.7	114.2
+90 MN	5.2	120.7	117.5
+95	7.9	118.0	113.4
	5.01	120.92	=120.92

West
Williams T
Yarontakis ϕ

7

2/15/05 HAZY + WARM
Sec 8 P2 Page 23

on conc mon 27' North of south prop line

Begin work

C3	1
C4	3
F0	4
C4	6
C4	4
C4	6
C0	0
C3	1
C2	1
C3	5
C3	2
C4	6

Cut sheet + Maple 2117

Maple Court + 30th St
Stks for 4" AC Main

30th St	1.92	288.78		286.85	
(5) 0+00 North	6.63	282.49	8.92	279.86	276.2
(5) 0+00 East			7.0	279.5	276.2
+50			5.9	280.6	~~276.5~~
1+00			5.2	281.3	~~277.0~~
+50			3.7	282.8	~~278.2~~
+95			2.3	284.2	280.3
	11.79	291.60	6.68	279.81	
Maple Court 0+75			10.0	281.6	277.6
+91 mN			8.6	283.0	283.0
1+00			8.0	283.6	279.3
+10 mS			7.1	284.5	284.3
+25			6.3	285.3	281.0
+29 mS			6.1	285.5	285.5
+33 mN			5.9	285.7	285.5
+50			5.0	286.6	283.0
+66 mS			4.3	287.3	287.1
2+00			3.5	288.1	284.0
+13 mS			3.5	288.1	288.2
+91			3.8	288.8	284.9
			4.72	286.88 =	286.85

West
Williams ⊼
Varonfakis ϕ

2/26/55 RAIN 4:00 P.M.

See FB 877 Page 10

Top South edge Sewer MH

290.79
3.94
286.85

C3 1
C3 3
~~C4 1~~ 277.0 C3 6
~~C4 3~~ 278.0 C3 3
~~C4 6~~ 279.2 C3 6
C3 9 End of 30th St Line

C4 0
C0 0
C4 3
C0 1
C4 3
C0 0
C0 1
C3 6
C0 1
C4 1
FO 1
C3 9 End of Work

Alley Blk 3
50. of Lewis East of Fourth
Out Sheet made
Stks for 6" AC Main

West
Williams
Yurovitakis

2/18/55 PARTLY CLOUDY

SW QP Fourth & Lewis

		1.92	285.04	283.12	
6	0+39		5.3	279.7	275.7	C4 0 Begin Work
6	+50		5.1	279.9	276.3	C3 6
	+76 mw		3.1	281.9	281.6	C0 3
	1+00		2.5	282.5	278.7	C3 8
	+09 mw		1.8	283.2	283.0	C0 2
	+50		1.0	284.0	279.9	C4 1
	+54 mw		0.8	284.2	284.3	F0 1
6		5.91	290.73	0.25	284.79	
	+94 mw		5.5	285.2	285.0	C0 2
1	2+00		5.9	284.8	281.0	C3 8
	+34 mw		5.3	285.4	285.4	C0 0
	+50		5.4	285.3	281.4	C3 9
	+55 mE		5.1	285.6	285.4	C0 2
	+75 mw		5.0	285.7	285.8	F0 1
	3+10		5.2	285.5	281.8	C3 7
	+06 Δ 22½ Lt		5.2	285.5	281.7	C3 8
	+15 mw		5.0	285.7	285.8	F0 1
	+29 Δ 30° Lt		5.3	285.4	281.3	C4 1
	+50		5.9	284.8	280.9	C3 9

Alley Blk 3 Cont

290.73

~~3+79~~
~~3+80~~ 6 | 284.6 | 80.3

1.20 284.98 6.95 283.78

1.87 283.11 = 283.12

2/18/55

C4 3 End of work

Cut sheet made

Neale St Pringle to Keating

	11.06	EA 8.15	237.39
	10.41	258.23	0.63 217.82
0-07 FH Tee		4.2 254	0 250.0
0+00		4.0	254.2 250.1
+50		4.2	254.0 250.0
1+00		9.4	248.8 244.7
	0.29	245.65	12.87 245.36
+50		1.1	244.6 239.6
+75		4.0	241.7 236.2
2+00		10.4	235.3 230.8
	0.28	233.02	12.91 232.74
+25		1.0	229.0 224.2
+50		10.3	222.7 218.0
	0.85	221.81	12.06 220.96
	0.47	210.18	12.10 209.71
3+00		2.1	208.1 202.3
+125		5.9	204.3 197.5
	0.14	197.27	13.05 197.13
+43 FH Tee		1.9	195.4 191.4
+43 ⑤ & FH		+ 1.1	198.4 195.4

West
Williams ↗
Varon Fabris ↗

1/10

2/21/55 CLEAR - WINDY
See FB 980 P 27

SW FH Tom + Pringle

C4 0

Begin Work

C4 1

C4 0

C4 1

C5 0

C5 5

C4 5

C4 8

C4 7

C5 8

C6 8

C4 0

C3 0

Neale St Cont

2/21/55

	197.27			
3+50	3.1	194.2	190.0	C4 2
+80 Tee	4.2	193.1	187.8	C5 3
+80 Tee East (5)	4.6	192.7	187.8	C4 9
4+00	6.8	190.5	186.4	C4 1
+16	8.3	189.0	185.3	C3 7
	2.76	194.51	=	194.44

End of Work

TBM SW city eng Hub

Out shoot Made

Torrence St Pringle to 230' West

Stks for 6" AC Main (41)

West Williams ✕ Varonfakes ¢

2/21/55 Clear Windy

SW FH Torrence & Pringle

	7.28	244.67	237.39	
0+00		7.9	236.8 232.8	C4 0 Begin Work
+50		6.6	238.1 233.7	C4 4
1+00		2.2	242.5 237.9	C4 6
+25		0.7	244.0 239.2	C4 8
+50		0.6	244.1 239.8	C4 3
+75		1.1	243.6 239.0	C4 4
+78 mw		1.7	243.0 242.8	C0 2
2+00		2.6	242.1 237.0	C5 1
+03 mE		2.7	242.0 241.4	C0 6
+27 mE		5.4	239.3 239.2	C0 1
+27 mw		6.1	238.6 238.8	F0 2
+30.		5.5	239.2 234.7	C4 5 End of Work
		7.28	237.39 =	237.39

Out sheet Made

Guy St Pringle to Keating Sticks For 6" AC Main

West
Williams
Varontakis

2/21/95
See FB 897 P54

Top FH Sta Cor Guy + Pringle

Begin Work

	1.92	200.38		198.46			
0+35			3.9	196.6	193.4	C3	2
+50			4.1	196.3	193.0	C3	3
1+00			5.4	195.0	191.4	C3	6
+09 mw			6.0	194.4	194.3	C0	1
+50			8.3	192.1	186.0	C6	1
	0.17	187.92	12.63	187.75			
1+75 PGT			1.1	186.8	181.0	C5	8
+75 mE				186.5	187.5		
2+00			9.9	178.0	174.0	C4	0
	1.14	176.78	12.28	175.64			
+12.5			2.8	174.0	161.0	C13	0
+11 mE			1.2	175.6	165.0	C10	6
+17 mw			3.8	173.0	164.0	C9	0
+50	0.95	164.92	12.81	163.97	153.2	10	8
2+72 mw			7.2	157.7	152.9	C4	8
+75			7.3	157.6	148.0	C9	6
	0.36	152.84	12.44	152.48			
3+00			1.3	151.5	143.0	C8	5
+25			3.8	149.0	137.2	C11	8

F 1°

186.8
4.9
191.7

Moved to 1+75

GUY ST. CONT.

2/21/55

152.84

1.41 141.90 12.35 140.49

3+00 5.1 136.8 131.6 C5 2 End of Work

4.78 137.12 = 137.09 Cor Conc Stop 1' up 75' ± Rt 3+91

136.8

Linwood St
Mission Hills Blvd to Keating

Stks for 6" AC Main

	6.46	169.87 ~~169.50~~	163.41 ~~163.04~~	
1+03			16.6	153.3 151.0
+50			8.1	161.8 155.0
+64 MW			8.8	161.1 160.1
+64 ME			5.3	164.6 161.0
2+00			7.2	162.7 157.4
+50			7.8	162.1 159.3
+52 MW			7.8	162.1 163.8
+96 ME			3.1	166.8 166.3
3+00			6.6	163.3 159.8
+07 ME			2.5	167.9 166.6
+42 MW			5.6	164.3 165.0
+60			6.5	163.4 160.0
4+00			5.2	164.7 160.2
1	6.08	173.71 ~~173.34~~	2.24	167.63 ~~167.26~~
+41 ME			2.6	171.1 167.4
+50			5.5	168.2 160.1
+57 ME			2.1	171.6 167.5
5+00			5.7	168.0 160.0

WEST
WILLIAMS ✕
VARONFAKIS ⊕

16

2/28/55

1+7 NW Cor Pringle & Linwood

C2	3	Begin Work
C6	8	
C1	0	
C3	4	
C5	3	
C2	8	
F1	7	
C8	5	
C3	5	
C0	8	
F0	7	
C3	4	end of work
C4	5	Begin Work
C3	7	
C8	1	
C4	1	
C8	0	

164.32
5.41
169.73
6.37
163.36

LINWOOD ST. CONT.

2/28/55

		173.71				
		~~173.34~~				
5+01 mw			6.3	167.4	166.1	C1 3
+34 mE			5.2	168.5	166.6	C1 9
+25			6.6	167.1	160.0	C7 1
+41 mw			7.5	166.2	16.5.1	C1 1
+50			7.9	165.8	158.8	C7 0
+53 mE			6.3	167.4	165.5	C1 9
+65 mw			9.0	164.7	163.2	C1 5
		162.66		161.44		
6+00	1.22	~~162.29~~	8.27	~~161.07~~	153.4	C8 0
+23 mw			4.9	157.8	153.7	C4 1
+25			6.7	156.0	147.7	C8 3
+37 mE			9.2	153.5	150.3	C3 2
		153.92		153.36		
T.P	0.56	~~153.55~~	9.30	~~152.99~~		
						in back of 6+37 mE
						Turn on Top Cobble Wall
+50			1.3	152.6	142.0	C10 6
+73 MW.			6.5	147.4	141.4	C6 0
+75			8.1	145.8	136.3	C9 5
T.P		141.75		141.29		
+86 ME	0.46	~~141.38~~	12.63	~~140.92~~	137.8	C3 5
7+00			7.1	134.7	131.0	C3 1
		139.30		132.50		
T.P	6.80	~~138.93~~	9.25	~~132.13~~		
				137.16=137.09		=.07
			2.14	~~136.79~~=137.09		=.30 (PAGE 15) (SEE PAGE 18 FOR CHECK LEVELS)

CHECK LEVELS GUY + PRINGLE TO KEATING + PRINGLE

B.M.	0.91	199.37		198.46
T.P	1.07	188.07	12.37	187.00
T.P	0.96	176.31	12.72	175.35
TP	4.35	172.38	8.28	168.03
CHECK T.B.M.			8.97	163.41 = 163.04

WEST WILLIAMS & VARONEAKIS P

F.B. 857 - P. 54

TOP F.H. S.W. COR GUY + PRINGLE

L + T N.W. COR. PRINGLE + LINWOOD

CUT SHEET MADE 3/7

Longbranch St Abbott to Spray
Spray St Longbranch to W PT Loma Blvd.
Stks for 6" AC Main

West
Williams ⊼
Varonfakis ⊄

3/21/35

	3.54	6.85	3.31	
B.				BM NE BP Longbranch & Abbott
T.	0+20	3.1	3.8	-0.3
T.	+50	3.8	3.1	-0.5
T.	1+00	4.8	2.1	-0.8
I.	+15 mN	4.4	2.5	2.8
CH	+27 mS	4.0	2.9	3.6
I.	+50	5.1	1.8	-1.0
	+71 mN	4.5	2.4	2.8
	+64 mS	4.3	2.6	3.3
	2+00	5.0	1.9	-1.2
	+08 mN	4.8	2.1	2.9
	+30 mN	4.5	2.4	2.9
	+37 mS	4.6	2.3	3.1
	+50	4.9	2.0	-1.4
	+72 mS	4.6	2.3	3.2
	+94 mN	3.4	3.5	3.2
	3+00	4.4	2.5	-0.9
	+16 mS	1.9	5.0	3.6
	+16 mN	1.6	5.3	3.3

Begin Work

C 4 1
C 3 6
C 2 9
F 0 3
F 0 7
C 2 8
F 0 4
F 0 7
C 3 1
F 0 8
F 0 5
F 0 8
C 3 4
F 0 9
C 0 3
C 3 4
C 1 4
C 2 0

Longbranch Cont

	4.85				3/2/55
3+49 mN	1.5	5	4	3.4	C_2^{0}
+45 ms	3.4	3.5		3.8	F_0^{3}
+50	3.8	3.1		-0.2	C_3^{3}
+86 ms	1.1	5.8		4.2	C_1^{6}
+92 mN	1.4	5.5		3.5	C_2^{0}
	4.38	7.59	3.64	3.21	
4+00	4.05	3.54		-0.4	C_3^{9}
+50	4.2	3.4		-0.7	C_4^{1}
+64 ms	2.9	4.7		3.8	C_0^{9} NOT 54
+73 mN	5.1	2.5		3.1	F_0^{6}
5+00	4.8	2.8		-1.0	C_3^{8}
+50	5.7	1.9		-1.1	C_3^{0}
6+00	7.4	0.2		-3.2	C_3^{4}
+50	7.2	0.4		-3.2	C_3^{6}
+80 ⅄	7.8	-0.2		-3.2	C_3^{0}
0+25	7.3	0.3		-3.2	C_3^{5}
+50	7.4	0.2		-3.2	C_3^{4}
+63 FH Tuc	7.5	0.1		-2.8	C_2^{9}
+63 (5) ⅄ FH	7.5	0.1		2.2	F_2^{1}
1+00	5.7	1.9		-1.6	C_3^{5}
+34	5.9	1.7		-2.0	C_3^{7}
	4.78	3.31		= 3.31	

Quince St - 30th to 31st

Stks for 6" AC Main

Sta 3+75 to 5+25 replace

	10.53	312.59		302.06	
	1.93	311.99	2.53	310.06	
	0.58	304.29	8.28	303.71	
3+75			1.7	302.6	299.0
4+00	0.37	291.88	12.78	291.51	287.5
+25			11.6	280.3	276.0
	0.73	280.12	12.49	279.39	
+50	0.16	268.60	11.98	268.14	263.0
+75			11.3	257.3	254.8
	1.80	259.00	11.40	257.20	
5+00			1.8	254.2	247.0
+25			6.8	252.2	247.0
			6.7	252.3	247.2

West
Williams ⊼
Varon Fabrics ¢

3/3/55

SWBP 30th & Redwood St

C3	6
C4	0
C4	3
C5	1
C2	5
C7	2
C5	2
247.1	

Cut sheet made 3/14/55

33rd St Data to Elm

Stks for 6" AC Main

West Williams & Varonfaksy

3/4/55 Cloudy

NW 131° Bunaroff & Elm

	4.91	231.44		226.53	
	9.89	240.67	0.66	230.78	
0+50			7.0	233.7	230.0
1+00			4.3	236.4	229.4
+46 mE			6.6	234.1	230.3
+50			6.4	234.3	227.2
+63 mW			7.4	233.3	229.6
+75			8.4	232.3	226.0
2+00	1.31	229.83	12.5	228.52	224.)
+01 mE			2.1	227.7	226.2
+40 mE			4.3	225.5	221.8
+50			5.1	224.7	220.4
+62.5			6.5	223.3	219.4
+98 mW			11.2	218.6	213.0
	10.27	238.22	1.88	227.95	
	1.43	231.61	8.04	230.18	
	0.95	228.90	5.07	226.54 = 227.95	226.53
2+75	0.59	217.41	12.08	216.82	213.4

C 3 Z Begin Work

C 7 Q

C 3 8

C 7 L

C 3 I

C 6 3

C 4 A

C 1 5

C 3 I 99

C 4 3

C 3 9

C 5 6

1719 NW Dir 130X

Turn on one block Reuser

33RD ST CONT.

217.41

3+00			10.7	206.7	204.0	C 2.7
	0.71	202.78	12.64	204.77		
+25			6.7	198.8	193.6	C 5.2
	1.09	194.03	12.64	192.94		
+50			3.7	190.3	184.1	C 6.2
+62.5			7.0	187.0	180.0	C 7.0
+75			7.9	186.1	180.0	C 6.1
4+09			6.2	187.8	185.0	C 2.8

End of work

12.61	205.88	0.76	193.27
12.79	218.42	0.25	205.63
12.05	230.96	0.31	218.11
		3.61	226.55 = 226.53

Dudley St
Silvergate to Catalina

West
Williams
Varonfabris

3/21/55

prolonged easterly
LT on east ob of Silvergate + Dudley

Begin Work

	12.70 30 7.92		295.22
0+20		12.7	295.2
+50		11.4	296.5
+71 FH Tee		10.1	297.8
+71 FH		8.3	299.6
1+00		8.0	299.9
+50		4.3	303.6
+86 MS		2.0	305.9
2+00		1.9	306.0
+50 304	3.27	0.19	307.73
+92 MS		1.8	309.0
3+00		2.2	308.6
+00 MN		1.7	309.1
+50		2.8	308.0
4+00		1.5	306.3
+12 MS		1.5	306.3
+16 MN		5.3	305.5
+50		6.8	304.0
+70 MS		7.5	303.3

DUDLEY ST. CONT.

3/4/55

	310.77		
5+00		9.3	301.5
+13 MN		10.7	300.1
2.67	300.85	12.59	298.18
+50		1.7	299.2
+66 FH IRON		2.8	298.1
+66 ⓒ FH		2.1	298.8
6+00		4.8	296.1
+31 MS		5.7	295.2
+31 MN		8.0	292.9
+50		8.2	292.7
7+00		11.8	289.1
+29 MS		12.8	288.1
0.95	289.67	12.13	288.72
+31 M.N		3.8	285.9
+50		3.9	285.8
+78 M.S.		5.0	284.7
8+00		7.6	282.1
+50		10.1	279.6
T.P. 2.04	279.25	12.46	277.21

DUDLEY ST. CONT.

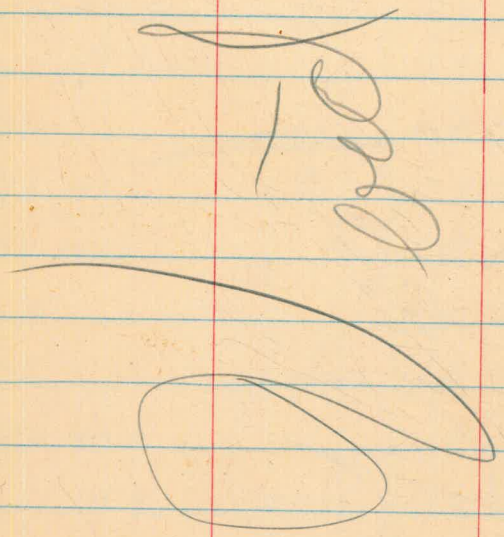
3/4/55

279.25

9+00
T.P.
+50

3.2 276.1

6.32 272.93



CUT SHEET MADE 3/7

Dudley St
Silvergate to Catalina

STKS FOR 6" A.C. MAIN

West
Williams ⊼
Vanderbilt ϕ

3/7/66 SUNNY + WARM
Dudley Project

LFT on east ℄ Silvergate + ℄

	12.99	308.21	295.22		
0+20		12.9	295.3	291.6	C3 1
+50		11.6	296.6	292.0	C4 6
+71 FH Tee		10.3	297.9	293.4	C4 5
+71 (5") FH		9.5	299.7	296.7	C3 0
1+00		8.1	300.1	295.3	C4 8
+50		4.7	303.5	298.6	C4 9
+86 ms		2.4	305.8	305.0	C0 8
2+00		2.3	305.9	301.8	C4 1
+50	3.44	311.02	0.63	307.58	303.8 C3 8
+92 ms			2.2	308.8	308.4 C0 4
3+00			2.7	308.3	304.4 C3 9
+00 mh			2.1	308.9	308.7 C0 1
+50			3.2	307.8	303.2 C4 6
4+00			4.9	306.1	302.0 C4 1
+12 ms			4.8	306.2	305.5 C0 1
+16 mh			0.7	305.3	305.2 C0 1
+50			7.2	303.8	299.6 C4 2
+70 ms			7.9	303.1	302.9 C0 2

Begin work

Dudley St Cont

	311.02				3/7/55
5+00		9.7	301.3	297.2	C4 1
+13 MN		11.1	299.9	300.2	FO 3
	1.90 300.57	12.35	298.67		
+50		1.5	299.1	294.6	C4 5
+66 FN Tee		2.7	297.9	293.6	C4 3
+66 ⑥ FH		2.0	298.6	297.9	CO 1
6+00		4.7	295.9	291.3	C4 6
+31 MS		5.6	295.0	293.5	C1 5
+31 MN		7.8	292.8	292.6	CO 2
+50		8.1	292.5	287.8	C4 1
7+00		11.6	289.0	284.4	C4 6
+23 MS		12.6	288.0	287.2	CO 8
	0.92 288.89	12.60	287.97		
+31 MN		3.1	285.8	285.7	CO 1
+50		3.3	285.6	281.1	C4 5
+78 MS		4.3	284.6	283.5	C1 1
8+00		6.9	282.0	277.6	C4 4
+50		9.5	279.4	274.3	C5 1
	1.94 278.65	12.18	276.71		

Dudley St
Cont

3/7/55

278.65

9+00			2.8	275.92	71.7 C4 2
+25			4.9	273.8	269.0 C4 8
+50	10.89	283.68	5.86	272.79	269.0 C3 8
	11.71	295.05	0.34	283.34	
	12.78	307.74	0.09	294.96	
	1.77	309.10	0.41	307.33	
	5.39	302.27	12.22	296.88	
			7.04	295.23	= 295.22

BEECH ST. FELTON TO GREGORY.

STKS FOR METERS

T.B.M.	6.89	220.82		213.93
2+21 M.S.			8.5	212.3 211.8
3+40 M.E.			4.4	216.4 210.3
CHECK T.B.M.			6.89	213.93 = 213.93

29TH ST. IMPERIAL TO COMMERCIAL

B.M.	4.76	76.81		72.05
T.P	5.98	75.27	7.52	69.29
3+75			5.4	69.9 69.2
T.P	5.37	76.69	3.95	71.32
CHECK B.M.			4.63	72.06 = 72.05

WEST WILLIAMS & VARONFAKIS ℄

3/9/55 SUNNY + WARM

F.B. 892 PAGE 7 (T'L&T.S.E. FELTON BEECH)

Co 5

C 6 1/2 ON GREGORY

S.W.B.P. 29TH IMPERIAL

Co 7 F.H. (5)

GREENE ST + SOTO

LOWERING OF MAIN ON GREENE

B.M.	1.47	35.15		33.68
T.P.	12.24	44.39	3.00	32.15
T.P.	12.53	56.84	0.08	44.31
T.P.	7.72	62.83	1.73	55.11
0-14			8.0	54.8 53.3
0+34			4.1	58.7 ~~55.6~~ 55.2
+39			3.7	59.1 ~~55.6~~ 55.1
+46			3.3	59.5 ~~55.9~~ 55.2
+55			2.55	60.2 ~~56.2~~ 55.7
+67			1.8	61.0 ~~56.6~~
T.P.	1.09	51.73	12.19	50.64
T.P.	1.46	40.17	13.02	38.71
T.P.	4.94	35.58	9.53	30.64
CHECK B.M.			1.90	33.68 = 33.68

T.B.M.	8.23	63.34		55.11
0+46			8.28	55.06
			8.23	55.11 = 55.11

WEST
WILLIAMS ℄
VARONFAKIS ℄

3/9/55

S.W.B.P ETIWANDA + CASTELAR ST

0+00 IS W. PROP. LINE SOTO
(RADIUS HUB N.W.COR) ON TOP PIPE

C1 5	9.79	53.04
~~C3 +~~ C3 5	6.24	56.59
~~C3 2~~ C4 0	6.02	56.81 TEE
~~C3 +~~ C4 4	5.65	57.18 TEE
~~C4 0~~ C5 0	5.10	57.73
~~C4 4~~ C5 3	4.40	58.43

RADIUS HUB N.W. COR. GREENE + SOTO
10' LT. TOP A.C. MAIN ON SOTO

CUT SHEET MADE 3/15

GALVESTON. GARDENA TO ORTEN STKS. FOR 6" A.C. MAIN

WEST.
WILLIAMS
VARONEAKIS
MARTEL
KELLHOFER

3/15/55 CLOUDY

N.W.I.P. GARDENA AVE + GALVESTON ST.

B.M.	11.69	62.94		51.25	
0+40			14.2	48.7	45.2
+75			13.0	49.9	46.0
1+00			12.2	50.7	46.6
+05			12.0	50.9	46.7
+05			11.7	51.2	50.4
+36 M.W.			9.5	53.4	52.1
+50			10.7	52.2	48.5
2+00			8.5	54.4	51.2
+50			5.6	57.3	54.2
+53 M.W.			5.0	57.9	58.5
3+00			2.0	60.9	57.5
T.P.	12.68				
+19 M.W.		75.19	0.43	62.51	63.0
+50			10.7	64.5	60.8
+70 M.W.			8.6	66.6	66.6
4+00			6.8	68.4	64.1
+50			2.8	72.4	67.6
+68 M.W.			1.35	73.8	73.4
T.P.	12.90	87.72	0.37	74.82	

C3 5
C3 9
C4 1
C4 2 F.H. TEE
CO 8 F.H. (5')
C1 3
C3 1
C3 2
C3 1
FO 6
C3 4
FO 5
C3 1
CO
C4 3
C4 8
CO 4

GALVESTON CONT.

3/15/55

	87.72					
5+00		12.3	75.4	71.0	C4 4	
+25		11.3	76.4	72.1	C4 3	
+50		10.1	77.6	73.3	C4 3	
6+00		8.0	79.7	74.8	C4 9	F.H. TEE
+00		8.8	78.9	78.8	Co 1	F.H. (5)
+25		6.8	80.9	75.4	C5 5	
+50		6.2	81.5	75.8	C5 7	
+70 M.E.		4.8	82.9	80.4	C2 5	
+84 M.W.		6.7	81.0	80.7	Co 3	
7+00		4.0	83.7	77.3	C6 4	
+41 M.W.		4.2	83.5	82.0	C1 5	
+50		1.7	86.0	78.0	C8 0	
T.P. 8+00	3.21	90.02	0.91	86.81	78.9	C7 9
+20 M.W.			5.3	84.7	82.9	C1 8
+50			3.5	86.5	78.8	C7 7
+76 M.W.			6.5	83.5	82.8	Co 7
9+00			4.4	85.6	78.9	C6 7
+41 M.W.			8.4	81.6	82.2	Fo 6
+50			6.4	83.6	78.2	C5 4

GALVESTON CONT.

3/15/55 WINDY + CLOUDY

	90.02				
10+00	6.8	83.2	77.1	C5 6	
+35 M.W.	9.5	80.5	81.0	F0 5	
+50	7.4	82.6	77.0	C5 6	
11+00	8.5	81.5	76.4	C5 1	12+50 77.9 + 9.0 = 86.9
+50	10.3	79.7	75.9	C3 8	7.5 = 79.4
+84 M.W	11.7	78.3	79.6	F1 3	12+80 (5) FH
12+00	11.5	78.5	75.7	C2 8	86.9
+35 M.W.	12.7	77.3	79.4	F2 1	7.1 = 79.8
+50	12.1	77.9	75.6	C2 3	
+75	11.5	78.5	75.5	C3 0	
+80		79.4	79.5	2 = F0+	
+83 M.W.	12.2	77.8	79.0	F1	
13+00	10.1	79.9	75.9	C4 0	78.9 (5) FH 6+00
+16	8.4	81.6	76.7	C5 4	+ 6.76 = 85.66 Top Pipe
T.P. 2.03	83.89	8.16	81.86		7+82 6.56 79.1
T.P. 1.47	72.66	12.70	71.19		10+72 8.47 77.19
T.P. 1.48	61.30	12.84	59.82		8+76 2.22 83.44
CHECK B.M.		10.09	51.21 = 51.25		

La Salle St. Nashville To East Terminus. Stks. For 6" A.C. Main

WEST X
WILLIAMS
VARONFAKIS ϕ

3/16/55 Sunny + Cool

N.W.F.H. Nashville + La Salle St.

B.M.	2.62	4.39	1.77	
0+35		4.8	-0.4 - 4.2	C 3 8
+50		4.9	-0.5 - 4.3	C 3 8
1+00		4.6	-0.2 - 4.5	C 4 3
+50		4.5	-0.1 - 4.4	C 4 3
2+00		4.5	-0.1 - 4.4	C 4 3
+50		4.4	-0.0 - 4.3	C 4 3
3+00		4.1	0.3 - 4.2	C 4 5
+50		4.0	0.4 - 4.2	C 4 6
4+00		3.8	0.6 - 4.1	C 4 7
+50		3.8	0.6 - 4.0	C 4 6
CHECK B.M.		2.62	1.77 = 1.77	

WATER METERS STK'D.

PAC. BEACH DR LAMONT TO MORRELL

B.M.	2.83	37.93	35.10
0+67 M.N.		4.2	33.7 34.1
1+01 M.S.		5.6	32.3 33.0
+25 M.S.		5.7	32.2 32.8
+37 M.N.		4.2	33.7 33.4
+81 M.N.		4.6	33.3 33.0
2+54 M.N.		5.5	32.4 32.2
3+37 M.N.		6.6	31.3 30.8
+60 M.N.		7.7	30.2 30.2
+91 M.S.		8.4	29.5 29.2
4+25 M.N.		9.8	28.1 27.9
+37 M.S.		9.8	28.1 27.5
+84 M.N.		12.6	25.3 24.9
CHECK B.M.		2.83	35.10 = 35.10

WEST ℄
WILLIAMS
VARONFAKIS T

3/21/55 CLEAR + WARM

N.E. L+T (7') LAMONT + PACIFIC BEACH DR.

Fo 4
Fo 7
Fo 4
Co 3
Co 3
Co 2
Co 5
Co 0
Co 3
Co 2
Co 6
Co 4

Titus St
Pringle to Keating

Ont short rod 3/24/55

West
Williams ☆
Varonfakis ✓

Clear & Warm

3/24/55 SUNNY & WARM

TP Water Mat East 6+86 See page 17

Turn on end of east Cb Titus & Keating

begin work

	2.12	143.41		141.29	
	6.56	139.24	10.73	132.68	
0+35			6.2	133.0	128.6	C4 4
+50			6.3	132.9	128.8	C4 1
1+00	Cb		5.6	133.6	129.5	C4 1
+50	Cb		4.1	135.1	130.2	C4 2
2+00	St		4.9	134.3	130.0	C4 3
+50	Drive		5.1	134.1	129.7	C4 4
3+00	Cb		5.3	133.9	128.9	C5 0
+47½	Cb EH Tee		6.0	133.2	128.3	C4 9
+47½	(5") S.dp Walk		5.8	133.4	133.2	C0 1
+80			6.8	132.4	126.8	C5 6
	11.10	143.78	6.56	132.68		
			2.48	141.30	=	141.29

End of Work

Cut sheet made 3/24/56

San Clemente
Tennyson to Volturno
Stks for 6" AC

	1.66	128.30		126.64
0+20		2.2	126.1	122.6
+50		2.7	125.6	122.0
1+00		6.0	122.3	118.6
+50		9.1	119.2	114.0
	1.12	116.56	12.86	115.44
2+00		1.9	114.7	109.6
+47 ME		5.9	110.7	109.3
+50		5.9	110.7	105.2
3+00		10.0	106.6	100.9
	0.90	104.95	12.51	104.05
+50 Toe		1.45	103.5	96.5
+65 mE		5.5	99.5	98.9
4+00		6.1	98.9	92.0
+75		11.6	93.4	89.4
	0.77	93.15	12.57	92.38
4+00		2.8	90.4	86.8
+92 mE		6.7	86.5	87.8
5+00		7.6	85.6	81.5 ~~77.0~~

West Williams & Varon Foks & Bleak + Wain

38

3/24/56

Cut Copper disk Bet N 4059 + N 4103 5' West of Tennyson

Qty engr copper disk 5' South prop line

Begin work

C3	5
C3	6
C3	7
C5	2
C5	1
C1	4
C5	5
C5	7
C7	0
C8	6
C6	9
C4	0
C3	6
F1	3
C8	6
C4	1

93.4
- 3.6
90.8

Top of elec duct 4+17

85.6
- 3.6
82.0

4+91 ±

San Clemente Cont

	93.15			
	0.77	91.80	12.12	91.03
5+50			1.9	79.9 76.4
6+00			4.9	76.9 74.0 72.5
+50			8.3	73.5 68.8
7+70			10.2	71.6 68.4
			8.34	73.46 =

91.155

San Clemente Check depth of

	0.56	99.16	98.9
3+96			6.96 92.5
4+10			9.80 89.7
4+18			11.25 88.2
4+20			11.5 88.0
4+30			11.8 87.7
4+40			11.85 87.6
4+50			13.02 86.5
			9.08 90.38

C3 5

C2 9 C4 4

C4 7

C3 2 end of work

73.33 SWL Top FH San Clemente & Voltaire

main under abut Conduit

Sta 4+00

Top of existing 6" Transite

" " " " "

" " " " " at abut Duct

" " " " " edge duct at North

" " " " "

" " " " "

" " " " "

= 90.4 4+50 Binney

Out sheet made

Whittier 57
Catalina Blvd to 407' Sly

	12.94	57.51	44.57	
0+70		10.0	47.5	43.4
+75 FH Tee		9.9	47.6	43.6
+75 ⓒ FH		9.9	47.6	47.8
1+00		7.8	49.7	45.3
+39 ms		1.6	55.9	54.0
+50		2.2	55.3	50.5
	11.01	67.26	1.26	56.25
+70 ms		9.3	58.0	56.3
+87 ms		9.5	57.8	56.8
+92 ms		9.5	57.8	56.9
2+00		9.4	57.9	53.0
+25		8.9	58.4	54.3
+34 ms		8.7	58.6	58.6
+50		8.7	58.6	54.5
+50 2 mots ms		8.5	58.8	58.8
3+00		7.9	59.4	55.1
+25		7.0	60.3	55.5
+50		5.5	61.8	55.0

West
Williams ⊼
Varonfokis ⊲

Clear + Warm

40

3/28/95

P26
Top rim sewer MH 0+35 Sec FB 878

C4 1 Begin Work
C4 0
F0 2
C4 4
C1 9
C4 8

2" PI 1+10
= 56.22 TBM Nail in Tel stab pole

C1 7
C1 0
C0 9
C4 9
C4 1
C0 0
C4 1
C0 0
C4 3
C4 8
C6 8

Whittier Cont

67.26

3+76 ms	4.5	62.8	58.5
4+00	3.3	61.0	54.2
+16 ms	2.7	64.6	56.6
+50	3.1	63.9	52.3
+77	4.1	63.2	51.3
	3.11	63.82	

3/28/55

C4 3
C9 8
C8 0
C11 6
C11 9

End at Work 15" RT 3+60

= 63.78 TBM Nail in Tot stub pole

Temecula St
Check on Depth of Main

1.84	35.52		33.68
2.94	26.14	12.32	23.20
3.56	24.57	5.13	21.01
7.06	30.13	1.50	23.07
1.71	27.14	4.70	25.43
5.49	25.05	7.57	19.57
5.71	26.06	4.71	20.35
5.64	29.25	2.45	23.61
1.15	27.92	2.48	26.77
4.67	26.06	6.53	21.39
10.76	36.58	0.24	25.82
		2.90	33.68 = 33.68
10.73	31.08		20.35
Top Conc Gutter 2+73		10.20	20.88
Top Cb 2+73		9.79	21.29
Top of 6" ci Pipe 2+15		4.96	26.12
Top Cb 2+15		2.33	28.75
9.92	40.69	0.31	30.77
Top Cb 1+15		3.35	37.34
Top of Pipe 1+15		6.13	34.56

West
Williams
Varonfakis

3/30/55

SW BM BP Castellani + E Towanda

Top fill mentone + W Redona

6" from FH Temecula

TBM Sta 2+79 ± yellow □ end of Cb

SW BM BP Castellani + E Towanda

TBM

Temecula Cont

40.69

3.44 32.10 12.03 28.66

2+44.2

1.81 30.79

2+44.2 Top Cb 7.22 21.88

11.76 20.34 = 20.35

3.00 23.35 20.35

end of Cb

2+80

3.71 19.64

3.00 20.35

Ton Stem GV 2+24

cut stake C 5.2 30.3
5.3
25.0

on cut stake F 0.7 19.64
.7
20.34.

Rialto W Pt Loma
Check depth of Pipe for Lowering

7.29 Top Cb	13.15	5.86
4+32	2.42	10.73
4+32 Top pipe	5.90	7.75
4+55 Top Cb	4.42	8.73 5.2
+55 Top of pipe	6.80	6.35
4+82	6.91	6.24 2.7
4+82	8.37	4.78
4+97	9.18	3.97
5+10	9.99	3.16
5+29	10.65	2.50
	8.54	4.61
	7.29	5.86 = 5.86

West
Williams x
Varon Foods +

3/31/55

Top Stem @ V no stem
1+86.31 end of Ab BC
8.7
3.5
5.2

C 3 5

C 3 5

Top of Cb at Fire Hyd
Top of Cone kick Block
Top of pipe
" " "
" " "
edge of Blacktop W ft Loma Blvd

Durant St
33rd to Wabash
Set Meters South Side

Set back of Meter 22.67 From ℄ St

	2.05	24.71	22.66
1+35		5.64	19.1
1+35 MS		5.72	19.0 18.9
1+80		5.82	18.9
1+80 @ Cvs		5.90	18.8 18.9
1+80		5.91	18.8
		2.05	22.66 = 22.66

West
Williams
Varontakis

45

7-7-55

0+00 EH Prop Line Gregory

BM SE EH 33rd & Steel St

Top of Ch N Side St

00½

Top Ch N Side St

01

Top Ch Curbline

Alloy Blk 1 Wilshire PL

E of 43 N of EL Cajon

Books of Meters set 7.25 from ℄ 11061.2

BM	1.72	365.28		363.56	
P	2.86	355.41	12.73	352.55	
0+26 E.			3.8	351.6	352.3
0+78 E.			4.2	351.2	351.3
1+36 W			5.6	349.8	349.7
1+49 E			6.0	349.4	349.2
1+59 E			6.4	349.0	348.9
1+67 W			6.8	348.6	348.7
2+40 W			6.8	348.6	348.1
2+48 E			6.6	348.8	348.3
2+81 W			6.7	348.7	348.0
3+06 E			6.5	348.9	348.4
3+21 W			7.1	348.3	348.8
3+51 E	6.10	355.96	5.55	349.86	349.9
3+76 W			5.5	349.5	350.5 (350.5)
3+78 E			5.1	350.9	350.7
3+92 E			4.9	351.1	351.3
CK			3.93	352.06	351.7
4+19 W			3.9	352.1	351.9
4+74 W			3.9	352.1	352.2

West
Williams
Vuron Fabis
Kuilhofer

7-8-53

0+00 N'ly prop EL Cajon

BM Swap Van Dyke & EL Cajon 363.56

FO 2

FO 1

CO 1

CO 2

CO 1

FO 1

CO 5

CO 5

CO 7

CO 5

FO 5

CO 2

CO 2

CO 2

FO 2

CO 4 - CO 43

CO 2

FO 1

ALLEY
(Cont.d.)

355.96

4+96 E		3.7	352.3	352.6	FO3
5+09 W		3.9	352.1	352.3	FO2
5+30 E		3.9	352.1	352.2	FO1
5+35 E		3.7	352.3	352.1	CO2
5+75 W		3.6	352.4	350.8	C16
5+80 W		3.22	352.74	350.6	C2.14 = C225
6+07 ⑤ GV.		6.03	349.93	349.0	C09
CK TBM.	5.23	355 38	5 81	350.15 = 50:28	PK. in pole NW Cor of Alley (Meade)
⑪	3.46	355.64	3.20	352.18	
CK BM			3.32	352.32 = 352.4	BP NW. Cor 44 & Meade

DELTA ST. 41ST TO 300'
E. OF 42ND.

Book of Meters Set 27' From ℄ St 28340

B.M.	8.14	71.43		63.29
	10.41	81.11	0.73	70.70
0+00	SII M		9.3	71.8 71.9
+05	⑤ FH		9.8	71.3 72.1
+27	M N½		1.6	79.5 72.7
+87	M S½		11.2	69.9 71.3
1+75	M N½		9.6	71.5 71.4
+76	M S½		11.1	70.0 70.6
2+06	M N½		9.9	71.2 71.2
+27	M S½		10.5	70.6 70.1
+76	M S½		9.8	71.3 69.7
+85	M N½		9.5	71.6 70.6
3+06	M S½		10.9	70.2 69.5
+45	M N½		10.2	70.9 70.0
+69	M N½	75.55	10.28	70.83 69.8
+70	M S½		8.2	67.4 69.9
4+24	M S½		7.1	68.5 68.5
+27	M N½		3.6	72.0 69.3
+28	M N½		3.6	72.0 68.9

WEST
WILLIAMS &
VARONFAKIS

7/15/55

N.W.B.R. 40TH + DELTA ST

0+00 S.E. PROP. LINE 41ST

FO 1	4103 - 05
FO 8	℄ F.H. 28' + From ℄
C6 8	4108
F1 4	4111
CO 1	4128
FO 6	4129
CO 0	4138
CO 5	4127
C1 6	4143
C1 0	4144
CO 7	4151
CO 9	4152
C1 0	4162
F2 5	4159
CO 0	4165
C2 7	4168
C3 1	4178

Delta Cont

	75.55			FO 1	
5+26 M Sty.		8.0	67.6	67.7	
5+43 M Sty		5.2	70.4	68.3	C2 1 4185
+79 M Sty		6.6	69.0	67.3	C1 1 4188
6+85 M Sty		9.1	71.5	66.4	C5 1 4191
7+33 M Sty		4.4	71.2	65.6	C5 6 4205
+87 M Sty		6.7	68.9	63.9	C5 0 4211
		5.59	69.96	= 6.994	4223

See Fig 2129 Page 67
West rim Sewer - MH 6+30 75.55
5.59
69.96

Grand Ave · Lee St

Check on Water Meter Vault

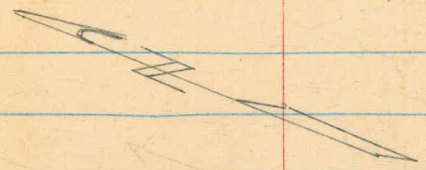
7.68 12.47 9.85

Top Ob NW opp West side Box	6.97	6.00
Top Meter-Vault NW cor	5.97	6.50
" " " SE "	6.12	6.35
" " " SW "	6.10	6.37
" " " NE "	6.09	6.38
Top Ob opp E side box	6.46	6.01
	5.28	7.19 = 7.18

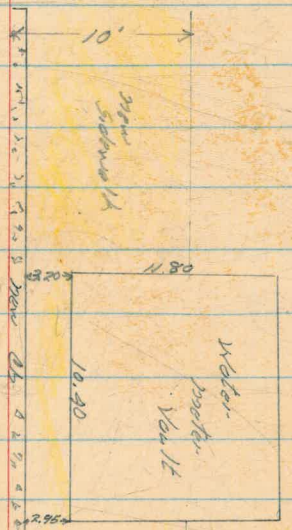
West
Williams
Varonfakis
Alexander

7-26-55

City end PK nail in PP East side bridge



Ec end ct 1-ct

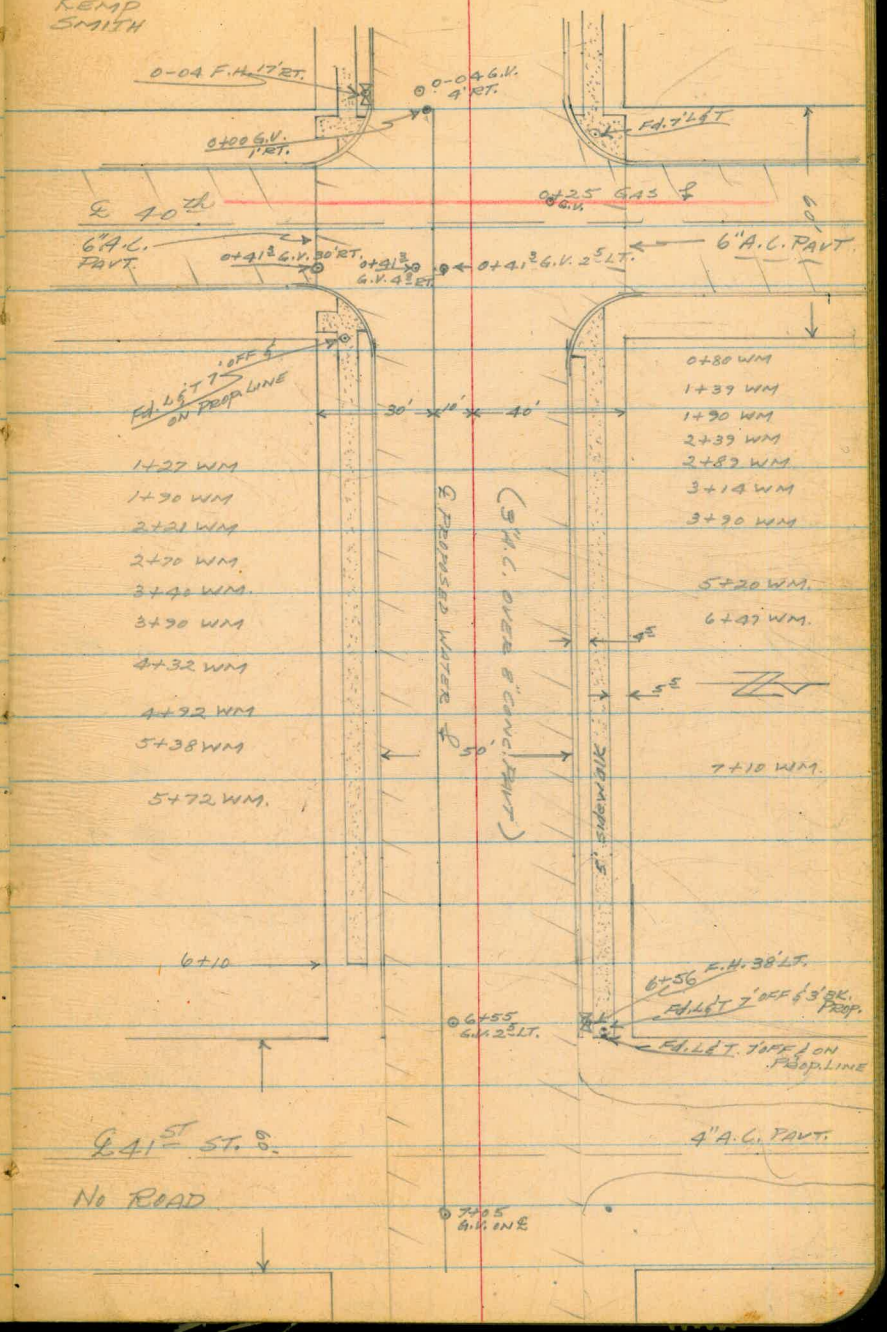


NATIONAL AVE.
40th TO 41st ST.
& PROFILE PROPOSED WATER MAIN
PRELIMINARY

0+00 = W/L 40th ST.

7+20 = E/L 41st ST.

2/20/56
SHOREY
MARTELL
KEMP
SMITH



NATIONAL AVE. (CONT'D)

BM	10.66	45.91		35.25
TP	11.31	56.92	0.30	45.61
TP	10.71	67.45	0.18	56.74
SET TBM	1.00	66.51	1.94	65.51
0+00			2.7	63.81
0+50			4.3	62.21
1+00			6.4	60.11
1+50			8.7	57.81
2+00			11.1	55.41
TP	1.78	55.44	12.85	53.66
2+50			2.5	52.94
3+00			4.7	50.74
3+50			7.0	48.44
4+00			9.3	46.14
4+50			11.6	43.84
TP	2.14	44.72	12.86	42.58
5+00			3.3	41.42
5+50			5.6	39.12
6+00			7.8	36.92
6+50			10.2	34.52
7+00			12.0	32.72
7+20			12.7	32.02
CK. B.M.			9.48	35.24 = 35.25

NWBP 41ST & NATIONAL

SWEH. 40th & NATIONAL

July 9 1956
Beatty
Smith.

ROANOKE ST.
F.H.'s RELOCATED & STAKED

TP	1.02	201.82		200.80	Pk nail in fen. cor post. NW Cor Roanoke & Hopkins
(5) F.H. SW Cor Hopkins & ROANOKE			3.43	198.39	192.70	C 5.69 to flange (F.H. 5 S out from P/L
GV.			8.97	192.85	192.3	C 0.55 to fin. grd.
CK BM			1.02	200.80		
TP	0.61	200.82		200.21	(10+25 C 7.5	
(5) F.H. SE Cor Vesuville St & Roanoke			1.58	199.24	192.2	C 7.0 to flange (F.H. 5 S out from P/L
GV			10.35	190.47	192.2	
BM	13.35	160.39		147.04		B.P. NE Cor Winchester & Rachael
	8.12	168.49	0.02	160.37		
CK TP			4.02	164.47 = 164.45		
(5) F.H. SE Cor Rachael & Roanoke			8.10	160.39	160.7	F 0.2 to flange
GV.			7.71	160.78	160.0	C 0.8 to fin grd.
TP	2.72	219.57		216.85		
			6.2	213.37	210.9	C 2.47 to flange (F.H. 5 S out from P.L.)

Roanoke St
F.H. Cont'd.

TP	1.14	213.61	212.47
⑤ F.H. NE Cor Roanoke & Morningside	4.26	209.35	209.2
ck TP	1.14	212.47	
ck 19+00.88	4.05	209.56	= 208.28

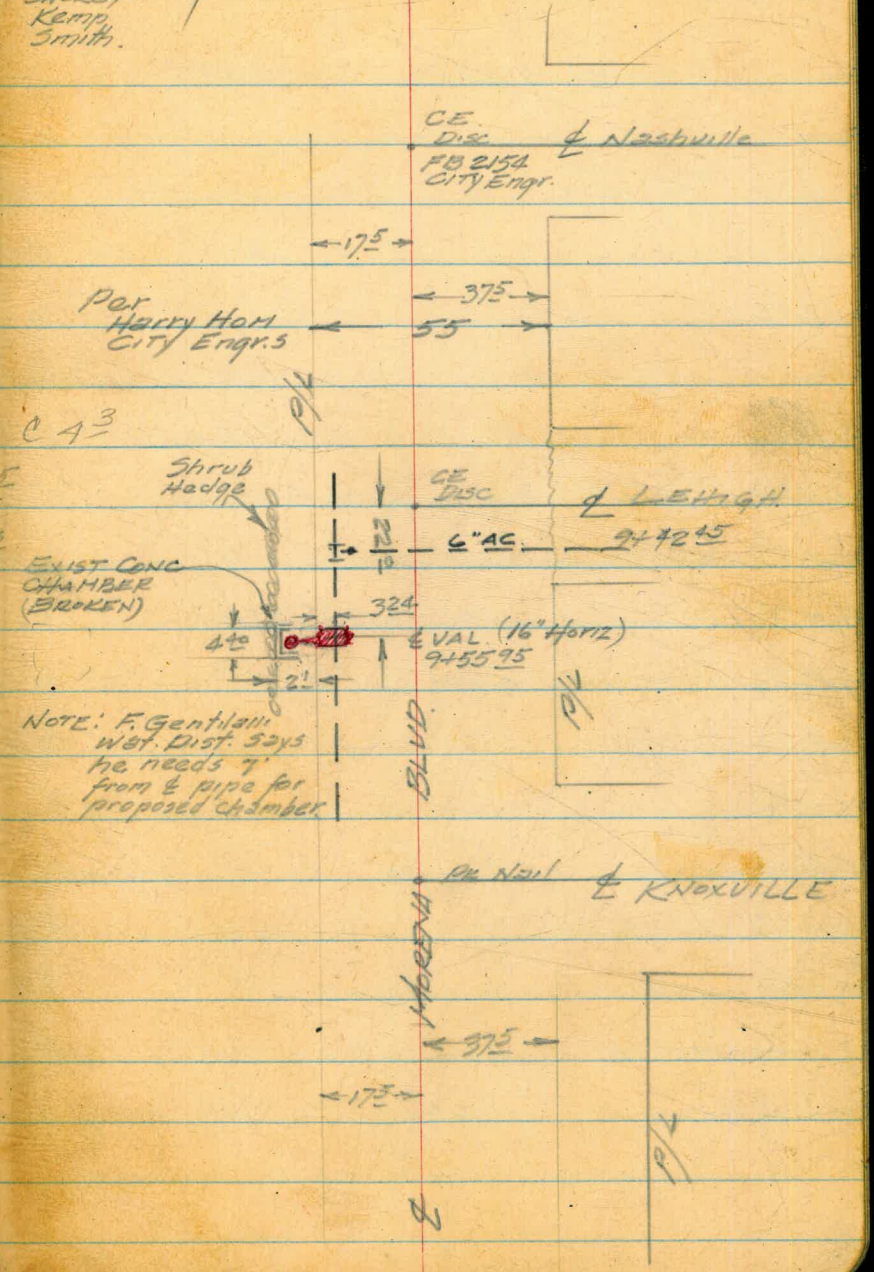
Top exist F.H. NE Cor Morningside & Roanoke
C.O. 15 to flange F.H. 5.5 out from P/L

C12

MORENA BLVD.
16" Horiz GV. at STA 9+55.95
Morena @ LEHIGH ST.

8/6/56
BEATTY
MOREY
Kemp
Smith.

		Tecolote Creek	
4.71	14.73	10.02 BM on	
Lehigh St			
End of Stub (4")	4.0	10.7	6.4
WH. (4") GV Box	5.5	9.2	10.7 F.I.
F.I. (8")	7.3	7.4	10.7 F.I.
	4.71	10.03 - 10.02	



ALLEY BLKS 210-213

NORTH OF SUNSET CT., E. OF STRANDWAY

		4.41	10.80	6.39	
0+05	BEGIN WORK 2" B.O. ASSEM.	4.5	6.3	2.6	C3 7
0+50		4.5	6.3	2.6	C3 7
0+75		4.4	6.4	2.5	C3 9
1+00		6.1	4.7	1.1	C3 6
1+50		8.3	2.5	-1.7	C4 2
1+87	PI 4.90	4.60	11.10	-0.30	-3.9 C3 6
2+00			4.6	0.0	-3.9 C3 9
2+24	6" TAP. CROSS		4.7	-0.1	-3.9 C3 9 ± CUT TO EXIST. MAIN.
2+50			4.9	-0.3	-4.3 C4 0
3+00			4.2	0.4	-4.4 C4 8
3+50			5.0	-0.4	-4.5 C4 1
4+00			5.5	-0.9	-4.6 C3 7
4+25			5.8	-1.2	-4.7 C3 5
4+50			5.3	-0.7	-4.4 C3 7
4+82	END WORK 2" B.O. ASSEM.		4.8	-0.2	-4.0 C3 8
CK. BM			4.34	0.26 =	0.28

11-9-56
KEMP
SMITH
O'BRIEN

FAIR & WARM
58.

SPK. IN P.P. 0+52 2' RT ALLEY BLK 221

NAIL IN P.P. 4+44 4' RT.

ALLEY BLKS 210 TO 213
(CONT.)

WATER METERS

		10.80			
0+093.		4.6	6.2	5.4	CO 8
0+135		4.8	6.0	5.4	CO 6
0+13N		4.9	5.9	5.4	CO 5
0+24N		5.1	5.7	5.4	CO 3
0+95N		5.3	5.5	4.2	C1 3
0+96S		5.8	5.0	4.0	C1 0
1+11N		6.6	4.2	3.0	C1 2
1+19S		6.8	4.0	2.6	C1 4
2+77N.	4.60	4.6	0.0	-1.6	C1 6
3+28N.		4.6	0.0	-1.7	C1 7
3+31S.		4.6	0.0	-1.7	C1 7
3+56S		5.1	-0.5	-1.7	C1 2
3+68N		5.2	-0.6	-1.8	C1 2
3+89N		5.3	-0.7	-1.8	C1 1
4+07S.		5.5	-0.9	-1.9	C1 0
4+09S.		5.5	-0.9	-1.9	C1 0
4+43S.		5.5	-0.9	-1.9	C1 0
4+48S.		5.4	-0.8	-1.8	C1 0
4+76N.		4.8	-0.2	-1.4	C1 2
4+77S.		4.9	-0.3	-1.4	C1 1

11/13/56
SHOREY
KEMP
SMITH

ALLEY BLK. 148

NORTH of MONTEREY CT., E. of STRANDWAY
@ STKS & GRD. 6" A.C. MAIN

TBM	2.67	8.09		5.42	NAIL IN P.P. 0+00 5³ LT.
0+05	6" TEE & PLUG		3.0	5.1 ~~5.0~~	1.8	C3 3± CUT TO EXIST. MAIN
0+25			3.3	4.8 ~~3.3~~	1.2	C3 6
0+50			5.4	2.7 ~~5.4~~	-0.8	C3 5
0+88			7.6	0.5 ~~7.6~~	-3.7	C4 2
1+00			7.3	0.8	-3.6	C4 4
1+28	8"X6" TAPP. CROSS		7.4	0.7	-3.4	C4 1± CUT TO EXIST. MAIN
1+57.5	END WORK. City to Conn. to 2" C.I. MAIN		7.5	0.6	-3.2	C3 8± " " " "
CK. TBM			2.67	5.42	= 5.42	

NOTE: METERS IN THIS ALLEY ALREADY STK'D. FROM IMPROVEMENT SHEET

ALLEY BLKS. 208 & 209 MISSION BEACH
NORTH OF SEAGIRT CT., E. of MISSION BLVD.
@ STKS & GRD. 6" A.C. MAIN

11/25/56
SHOREY
KEMP
SMITH

TBM	3.98	4.10	0.12	
0+00 BEGIN WORK		3.9	0.2	-3.0
0+12		4.5	-0.4	-4.0
0+50 10"X6" CROSS		4.3	-0.2	-4.0
0+75		4.5	-0.4	-4.4
1+00		3.9	0.2	-4.5
1+50		4.6	-0.5	-4.6
2+00		4.8	-0.7	-4.7
2+50		5.2	-1.1	-4.9
2+75		5.1	-1.0	-5.0
3+00		5.0	-0.9	-4.9
3+25 END WORK - 2" B.O. ASSY.		4.9	-0.8	-4.8
CK. TBM		3.98	0.12	= 0.12

WATER METER
4.10

0+82.5.	4.5	-0.4	-1.7
1+00N. 1+06N.	4.3	-0.2	-1.7
1+31N.	4.4	-0.3	-1.7
1+39S.	4.6	-0.5	-1.8
1+66N.	4.6	-0.5	-1.9
1+66S.	4.4	-0.3	-1.9
1+88N.	4.6	-0.5	-1.9
1+91S.	4.5	-0.4	-2.0
2+17N.	4.8	-0.7	-2.0
2+33S.	5.0	-0.9	-2.1
2+33N.	4.8	-0.7	-2.2
2+74S.	5.0	-0.9	-2.2
2+75N	5.3	-1.2	-2.3
3+24S.	5.3	-1.2	-2.3
3+27N.	5.1	-1.0	-2.2
	4.7	-0.6	-2.2

S. EDGE SEW. M.H. 0-01

C2 2/3 - CUT TO EXIST. MAIN
C3 6/-
C3 8/- ± CUT TO EXIST. MAIN
C4 0/-
C4 7/-
C5 1/-
C4 0/-
C3 8/-
C4 0/-
C4 0/-
C4 0/-

C1 3/-
C1 5/-
C1 4/-
C1 3/-
C1 4/-
C1 6/-
C1 4/-
C1 6/-
C1 3/-
C1 2/-
C1 5/-
C1 3/-
C1 4/-
C1 4/-
C1 3/-
C1 6/-

GUY ST.
PRINGLE TO LINWOOD
(5) STK'S FOR LOWERING MAIN
0+95 to 1+55 (0+00 = SELKIRK & PRINGLE)

12/17/56
SHOREY
KEMP
SMITH

TBM	10.63	197.04		186.41		2"x2" HUB MK'D P.O.T. 1+64.00 E
0+95			4.4	192.6	185.4	C7 2
1+00			5.1	191.9	184.5	C7 4
1+25			9.6	187.4	178.0	C9 4
TP	0.02	183.69	13.37	183.67		
1+55			6.4	177.3	170.0	C7 3
TP	9.96	193.14	0.51	183.18		
CK. TBM			6.71	186.43	= 186.41	
		WATER METERS				
		197.04				
0+60 S.			2.5	194.5	194.0	C0 5
1+26 N.			9.6	187.4	182.6	C4 8
		183.69				
1+69 S.			10.5	173.2	169.4	C3 8
2+20 S.			25.0	158.7	156.3	C2 4

TROJAN AVE
VALE WAY TO SHARON PLACE

B.M.	12.56	373.57			361.01	
	10.47	383.54	0.50	373.07		
	3.02	384.57	1.99	381.55		
0+96	CONN. TO EXIST. 8"C.I.				378.8	±
1+00			1.9	382.7	378.5	$C4^{2}$ CUT TO EXIST. PIPE
1+25			2.3	382.3	377.2	$C5^{1}$
1+50			0.9	383.7	376.6	$C7^{1}$
2+00			3.4	381.2	375.4	$C5^{8}$
2+50					374.9	
2+53^{64}	8"x6" TEE		4.9	379.7	374.8	$C4^{9}$
3+00					374.1	
3+08^{53}	B.C.		4.1	380.5	374.0	$C6^{5}$
3+31^{1}	F.H. TEE		5.0	379.6	373.0	$C6^{6}$
(5)			5.1	379.5		$C6^{5}$ $C2^{5}$ FLANGE
3+50			5.3	379.3	372.0	$C7^{3}$
3+71^{46}	PRC.		5.4	379.2	371.5	$C7^{1}$
4+00			5.7	378.9	370.5	$C8^{1}$
4+25			6.7	377.9	369.7	$C8^{3}$
4+46^{23}	E.C.		6.5	378.1	369.0	$C9^{1}$
4+50					368.6	
5+00			7.8	376.8	366.8	$C10^{0}$
5+50 TP		0.38	374.87	10.08	374.49	365.0 $C9^{5}$

TROJAN AVE
(CONT'D)

374.87

6+00		2.9	372.0	363.4	C8.6
6+50		4.8	370.1	361.6	C8.5
6+88		5.3	369.6	360.2	C9.4
7+00		5.5	369.4	360.0	C9.4
7+50		7.3	367.6	359.0	C8.6
7+75		8.7	366.2	358.4	C7.8
8+02.5					
8+07.2	EXIST. TEE.				
P		4.63	369.77	9.73 365.14	
CK. BM				8.80 360.97	=361.01

56th ST. MEADE TO TROJAN AVE.

@ STK'S & GRD. 6" A.C. MAIN.

1/8/57
SHOREY
KEMP
SMITH

NE BP EL CAJON & 56th

NOTE: RESTAKED 3/12/57 IN RED

BM	0.38	438.15		437.77	
TP	3.53	428.54	13.14	425.01	
	CONN. TO EXIST. 6" C.I. MAIN				
0+60			5.5	423.0	418.2
0+75			4.3	424.2	417.6
1+25			4.8	423.7	417.0
1+62 TP	0.07	421.64	6.97	421.57	415.6
RESTAKE TP	1.42	422.99	7.4 / 3.6	421.57 / 419.6	412.3
2+00					
2+50			11.3 / 8.8	411.7 / 412.8	407.9
3+00 TP	0.18	409.87	13.30 / 2.8	409.69 / 407.1	403.3
3+50			8.2 / 5.5	401.7 / 403.7	398.7
4+00 TP	0.79	397.86	12.80 / 4.7	397.07 / 398.3	393.9
4+25 TP	0.26	396.17	3.0 / 13.28	394.9 / 395.91	391.4
4+50			5.4 / 2.5	392.5 / 393.9	389.4
5+00			9.2 / 6.0	388.7 / 390.2	385.3
5+50 TP	2.04	387.38	12.5 / 3.0	385.34 / 384.2	382.1
6+00			4.9 / 4.9	382.5 / 384.3	378.9
TP	4.75	386.04	4.88	384.29	
6+50			7.1 / 4.6	380.3 / 381.2	375.4
7+00±	END WORK		8.4 / 6.4	379.0 / 379.6	374.8
CK.			6.3 / 7.7	379.7 = 379.7	

WATER METERS

C3 3/4	0+50 W.	428.54 / 422.99	1.5 / 6.9	421.5 / 421.6	420.4
C3 8/4	0+84 W.		6.9	421.6	420.1
C3 8/5	1+99 W.	421.64 / 422.99	7.9 / 6.9	415.1 / 416.0	415.9 / 415.5
C3 0/5	2+52 W.		11.2 / 2.8	411.8 / 411.8	410.9
C3 3/4	3+16 W.	409.87	3.0 / 5.4	406.9 / 406.8	404.6
C3 5/4	4+32 W.	397.86	2.2 / 6.6	395.7 / 395.6	393.2
C3 1/5					
C3 4/4					
C3 2/5					
C3 6/5					
C4 2/5					
C4 3/4					

Reset 2+05

4+33 3/21/57 #8.

C4 8/4 ± CUT TO EXIST. MAIN

C6 6/5

C6 7/5

C6 0/5

C1 1/2

C1 5/5

C0 2/5

C2 3/5

C2 5/4

@ 2+53 44 8"x6" TEE TROJAN AVE PG. 63

RADIO DRIVE 8" A.C. MAIN
SPRINGFIELD TO PARADISE
(5) STK'S & GRD.

1/9/57
SHOREY
KEMP
SMITH

BM	1.12	466.29		465.17	
		CONN. TO EXIST. 6" C.I.			
0+72		6"G.V. & 8"x6" RED.	8.6	457.7	449.8
0+75			8.9	457.4	449.4
1+00			10.2	456.1	447.8
+50 TP	0.35	453.81	12.83	453.46	444.5
2 —			4.8	449.0	444.3
+50			8.9	444.9	438.0
3 —			13.8	440.0	434.7
TP	0.13	440.81	13.13	440.68	
+50			5.2	435.6	431.5
4 —			10.7	430.1	428.2
4+33 86		22½° BEND Δ FT.	11.9	428.9	426.2
+50			13.6	427.2	425.3
TP	0.10	427.89	13.02	427.79	
5 —			3.0	424.9	422.3
+73 F.H. TEE			4.1	423.8	421.1
(5)			6.3	421.6	
+50			5.1	422.8	419.2
5+98 44		Δ FT. 22½° BEND	7.9	420.0	416.2
6 —		(OMIT)			416.0
+50			8.9	419.0	413.9

CONC. MON. N.E. COR. 69th & MALLARD

C7.9 ± CUT TO EXIST. MAIN

C8.0

C8.3

C9.0

C7.7

C6.8

C5.3

C4.1

RESET (10) RT. 1/18/57

C1.8

C2.7 C5.6

C1.8 C7.8

C2.6 C8.1

C2.7 C8.4

F1.4 TO FLANGE 60.5 TO BOTTOM

C3.6 C8.6

C3.8 C6.8

C5.1 C9.2

RADIO ROAD

(5) STKS (CONT'D)

427.89

7+00			11.3	416.6	411.7
+50			14.0	413.9	408.5
TP	0.49	415.06	13.32	414.57	
8 ~			4.5	410.6	407.2
+50			5.9	409.2	405.0
9 ~			8.1	407.0	402.7
+50			11.8	403.3	480.5
10 ~			13.6	401.5	398.1
TP	1.58	403.65	12.99	402.07	
10+49 24	Δ PT. 11¼° BEND		2.7	401.0	376.2
10+98 F.H. TEE			0.3	403.4	394.2
11 ~ (5)			6.4	397.3	394.1
+50			9.3	394.4	392.1
12 ~			10.9	392.8	390.0
+50			9.6	394.1	388.6
13 ~			11.6	392.1	387.2
TP	2.70	393.07	13.28	390.37	
13+49 46	Δ PT. 11¼° BEND		5.2	387.9	385.8
14 ~			6.3	386.8	384.4
+50			8.3	384.8	381.6
15 ~			8.6	384.5	380.3
+50			10.6	382.5	378.8
15+52 44	Δ PT. 11¼° BEND		11.0	382.1	378.7

1/9/57
SHOREY
KEMP
SMITH

(10) RT.

C_4^9		C_8^9
C_4^4		C_8^4
C_3^4		C_8^6
C_4^2		C_8^8
C_4^3		C_9^3
C_2^8		C_8^4
C_3^4		C_7^5
C_4^8		C_7^8
C_9^3	C_1^9 TO BOTT. FA ^{1} TO FLANGE	
C_3^2		C_9^3 403.3
C_2^3		C_9^7
C_2^8		C_9^9
C_5^5		C_{10}^4
C_4^9		C_{10}^5
C_2^1		C_7^1
C_2^4		C_9^2
C_3^2		C_{11}^2
C_4^2		C_{10}^2
C_3^1		C_6^2
C_3^4		C_5^3

RADIO ROAD
(5) STK'S (CONT'D)

	393.07			
16+00		12.6	380.5	377.9
+50		13.9	379.2	377.0
TP 2.83	382.56	13.34	379.73	
17 ~		5.2	377.4	375.4
+15 F.H. TEE		5.4	377.2	374.9
(3)		6.3	376.3	
+50		4.9	377.7	373.7
18 ~		5.0	377.6	372.1
+50		5.9	376.7	370.5
18+52.07 Δ PT. 11 1/4° BEND		(5) LT. 6.0	376.6	370.4
		(13) RT. 3.1	379.5	
19 ~		6.8	375.8	368.9
	(13) RT.			
+25		7.0	375.6	368.0
+50		7.2	375.4	367.3
20 ~		8.1	374.5	365.8
+50 TP 1.74	375.25	9.05	373.51	364.6
21 ~		2.4	372.9	363.5
+50		2.7	372.6	362.4
22 ~		3.1	372.2	360.9
+50		4.0	371.3	359.5
23 ~		5.3	370.0	358.0

1/9/57
SHOREY
KEMP
SMITH

(10) RT.

C_2^6	C_9^3
C_2^2	C_7^3
C_2^0	C_6^3
C_2^3	C_5^6
F_3^3 TO FLANGE C_1^4 TO BOTTOM	
C_4^0	C_5^3
C_4^5	
C_6^2	
C_6^2	
C_9^1	
C_6^2	
C_7^6	
C_8^1	
C_8^7	
C_8^2	
C_9^4	
C_{10}^3	
C_{11}^3	
C_{11}^8	
C_{12}^0	

RADIO ROAD
(5) STK'S
(CONT'D)

1/9/57
SHOBEY
KEMP
SMITH

375.25

23+24 (5)	F.H. TEE		6.3	369.0	357.3	C11 2
			11.8	368.5		C1 1 TO FLANGE C6 2 TO BOTTOM
+50			7.4	367.9	356.6	C12 3
24 ~			9.4	365.9	355.1	C10 8
+50			11.5	363.8	353.6	C10 2
25 ~			13.4	361.9	352.2	C9 7
	TP	0.42	362.97	12.70	362.55	
+50				3.1	359.9	350.4	C9 5
26 ~				5.0	358.0	349.3	C8 7
+25						348.6	
+50				7.3	355.7	348.5	C7 2
26+92±	END WORK - CONN. TO EXIST. 8" C.I. 8"x8" TEE			9.3	353.7	348.4	C5 3 ± CUT TO EXIST. MAIN
	TP	2.11	352.31	12.77	350.20		
	CK. BM			5.95	346.36 = 346.32		TOP F.H. AT IX & RADIO (F.B. 709-56)

WATER METERS
382.56

16+80 SLy		4.2	378.4	372.6	F1 2
17+82 NLy		+0.8	383.4	376.5	C6 2
	375.25				
21+49 SLy		9.1	366.2	366.4	F0 3

ELEV. TOP OF MAIN & SERVICES
ROSECROFT LANE
(CATALINA to SILVERGATE)

0+00 = E/L CATALINA

BM	3.77	310.27		306.50	
1+00 S.			6.7	303.6	302.4
1+05.5 Top MAIN			7.6	302.7	305.2
1+12 N.			7.2	303.1	302.0
2+02.5			7.2	303.1	303.1
2+20 N.			6.4	303.9	302.9
2+38 Top MAIN			7.2	303.1	306.3
2+98.5 Top MAIN			5.8	304.5	307.4
3+49 Top MAIN			4.1	306.2	309.2
3+49.5			3.2	307.1	306.0
TP	11.40	321.54	0.13	310.14	
3+69 N.			14.7	306.8	306.8
4+75 S.			8.4	313.1	312.6
5+28 Top MAIN			6.4	315.1	318.7
5+45 S.			4.2	317.3	316.4
5+88 N.			2.3	319.2	318.7
TP	13.17	334.51	0.20	321.34	
6+87 Top MAIN			10.6	323.9	327.3
7+18 S.			8.5	326.0	325.8
8+08 Top MAIN			6.1	328.4	331.6
TP	0.48	321.87	13.12	321.39	
TP	0.63	310.73	11.77	310.10	
CK. BM			4.24	306.49	=306.50

1/16/57
SHOREY
KEMP
SMITH

SPIKE & CATALINA & ROSECROFT LANE

C_1^2	W.M. SERVICE LATERAL "3749"
C_2^5	
C_1^1	" " " "3744"
C_0^0	" " " "3739"
C_1^0	" " " "3734"
C_3^2	
C_2^2	
C_3^0	
C_1^0	" " " "3715"
C_0^0	" " " "3714"
C_0^5	" " " "3651"
C_3^1	
C_0^2	" " " "3641"
C_0^5	" " " "3646"
C_3^4	
C_0^2	" " " "3631"
C_3^2	NOTE: GRD'S FOR LATERALS ARE CURB GRD'S MINUS 3.15

WATER METERS
ROSECROFT LANE
CATALINA BLVD TO SILVERGATE
0+00 = E/L CATALINA BLVD

1/22/57
SHOREY
KEMP
SMITH

BM	7.99	314.49		306.50	
0+17 F.H.			8.2	306.3	306.35
1+00 S.			8.7	305.8	304.7
1+12 N.			9.0	305.5	304.3
2+02 S.			8.0	306.5	305.3
2+20 N.			8.8	305.7	305.0
3+49 S.			5.2	309.3	308.3
3+69 N.			4.4	310.1	309.1
TP	13.07	327.20	0.36	314.13	
4+75 S.			11.7	315.5	314.8
5+45 S.			7.9	319.3	318.6
5+88 N.			5.7	321.5	320.9
7+18 S.			+1.6	328.8	328.0
TP	0.22	315.32	12.10	315.10	
CK. B.M.			8.82	306.50	=306.50

SPIKE & CATALINA & ROSECROFT

FO 1	
C 1 1	"3749"
C 1 2	"3744"
C 1 3	"3739"
CO 7	"3734"
C 1 9	"3715"
C 1 8	"3714"
CO 1	"3651"
CO 1	"3641"
CO 6	"3646"
CO 8	"3631"

"L" ST.
32ND ST. to 245' EAST
(5) STK'S FOR 4" A.C. MAIN

BM	6.08	83.13	77.05	
0+40		5.8	77.3	73.7
0+45	4" G.V.	5.9	77.2	73.7
0+62		6.0	77.1	73.7
1+00		5.5	77.6	73.8
1+50		5.3	77.8	74.1
2+00		5.0	78.1	74.3
2+50		4.8	78.3	74.5
2+62		4.8	78.3	74.6
3+00		5.5	77.6	73.4
3+11 ±	2" B.O. Assy.	5.9	77.2	73.1
CK. BM		6.08	77.05	= 77.05

1/25/57
SHOREY
KEMP
SMITH
PAULSON

S.W.B.P. "L" ST. & 32ND

C3 6 ± CUT TO EXIST. MAIN
C3 5 ±
C3 4 ±
C3 8 ±
C3 7 ±
C3 8 ±
C3 8 ±
C3 7 ±
C4 3 ±
C4 1 ±

WATER METERS
EMERALD ST.; OLNEY & PENDLETON

1/31/57
SHOREY
KEMP
SMITH

BM	060	83.71		83.11	S.W.B.P. DIAMOND & PENDLETON
	1.76	73.29	12.18	71.53	
0+14 F.H.			3.8	69.5	70.9 F1 4
0+15 S.			3.6	69.7	69.8 FO 1
0+59 S.			5.1	68.2	68.1 CO 1 "2209"
0+88 S.			5.7	67.6	67.4 CO 2 "2213"
1+19 S.			6.3	67.0	67.2 FO 3 "2219"
1+73 S.			5.9	67.4	66.9 CO 5 "2227"
2+04 S.			6.2	67.1	66.8 CO 3 "2233"
2+11 N. F.H.			4.7	68.6	68.6 CO 0
2+55 S.			6.4	66.9	66.7 CO 2 "2239"
2+96 S.			6.0	67.3	66.6 CO 7 "2247"
3+40 S.			5.8	67.5	66.5 CI 0 "2255"
3+79 S.			5.8	67.5	66.4 CI 1 "2265"
T.P.	1130	84.22	0.37	72.92	SWBP DIAMOND & PENDLETON
CK BM			1.10	83.12	= 83.11

COVINGTON ROAD

2/1/57
SHOREY
KEMP
SMITH

496' WLY. BOUNDARY ST. TO TERMINUS
@ STK'S 4" A.C. MAIN

S.E.B.P. MAPLE & BOUNDARY

B.M.	6.66	301.78		295.12	
TP	0.84	290.48	12.14	289.64	
4+96			5.8	284.7	281.6
5+00			5.9	284.6	281.3
5+50			7.9	282.6	279.1
6+00			10.3	280.2	276.8
6+20	11¼° BEND		11.2	279.3	275.9
6+69			13.3	277.2	273.5
TP	11.75	301.60	0.63	289.85	
CK. B.M.			6.49	295.11 =	295.12

C_3^1 ± CUT to EXIST. MAIN
C_3^3
C_3^5
C_3^4
C_3^4
C_3^7

KEW TERRACE

NUTMEG ~~to~~ TERMINUS

(5) STK'S 4" A.C. MAIN

2/1/57
SHOREY
KEMP
SMITH

S.E.B.P. MAPLE & BOUNDARY

BM	6.26	301.38		295.12	
FP	0.46	297.43	4.41	296.97	
FP	6.59	294.37	9.65	287.78	
	BEGIN WORK				
0+36	6"x4" REDUCER		8.6	285.8	282.4 C_3^4 ± CUT TO EXIST. MAIN
0+50			8.9	285.5	282.1 C_3^4
1+00			10.0	284.4	280.6 C_3^8
1+50			11.5	282.9	279.1 C_3^8
2+00			13.3	281.1	277.5 C_3^6
2+09	END 4" CAP.		13.0	281.4	277.2 C_4^2
FP	8.37	302.52	0.22	294.15	
CK. B.M.			7.42	295.10	= 295.12

OLIPHANT ST.
WILLOW TO EVERGREEN
(8) STK'S & GRD. 6" A.C. MAIN

BM.	0.28	153.09		152.81	
0+45	8"X6" TAPP. SLEEVE		2.4	150.7	147.1
0+75			3.5	149.6	146.7
0+80	F.H. TEE		4.0	149.1	146.2
(5)			4.3	148.8	
0+90	Δ PT. 5°42'38" RT.		5.1	148.0	144.9
1+00			6.2	146.9	143.6
1+40 25	Δ PT. 5°42'38" LT.		10.7	142.4	138.7
1+50			11.8	141.3	137.4
TP	0.16	140.01	13.24	139.85	
1+75			0.9	139.1	134.3
2+00			1.5	138.5	129.5 ~~130.0~~
2+25			9.8	130.2	123.2 ~~124.0~~
TP	0.58	127.30	13.29	126.72	
2+50			5.7	121.6	116.2 ~~116.7~~
TP	0.22	114.54	12.98	114.32	
3+00			7.1	107.4	102.3 ~~102.3~~
TP	0.11	101.68	12.97	101.57	91.2
3+38			5.1	96.6	~~91.8~~
TP	0.28	89.04	12.92	88.76	
3+88			6.0	83.0	76.4
4+16	CONN. TO EXIST. MAIN		9.6	79.4	76.6
CK. TBM			4.62	84.42 = 84.42	

2/8/57
SHOBEY
KEMP
SMITH

N.W.B.P. OLIPHANT & WILLOW

C_3^{0+} CUT TO EXIST. MAIN

C_2^8

C_2^9

C_2^6 TO BOTTOM FL. TO FLANGE.

C_3^1

C_3^3

C_3^7

C_3^9

C_4^8

C_9^{0-5} ~~C_8^{-}~~

C_7^{0-2} ~~C_6^{-}~~

C_5^{4-9} ~~C_4^{-}~~

C_5^{2-1} ~~C_5^{-}~~

C_5^{4-2} ~~C_4^{-}~~

C_6^6

C_2^{8+}

WATER METERS

153.09

1+25 SLY		8.7	184.4	143.3	C_1^{1-}
		140.01			
1+85 SLY.		1.3	138.7	135.8	C_2^2
2+00 NLY.		1.3	138.7	133.4	C_5^3

RESTAKED 3/25/57

(8) 2+50

	0.20	121.80	121.60	
TP	0.15	109.88	12.07	109.73
3+00		4.3	105.6	102.2 C_3^{4-}
TP	0.04	97.10	12.22	97.06
3+38		2.9	34.2	31.2 C_3^0
TP	2.76	86.81	13.05	84.05
3+88		7.9	78.9	76.4 C_2^5
4+16		7.3	79.5	76.6 C_2^{9+}
CK. TBM		2.34	84.47 = 84.42	

~~Howard~~ Bob:-

1/30/57

Could you boys stake
Kew Terrace + Covington St
on 6-p: 27

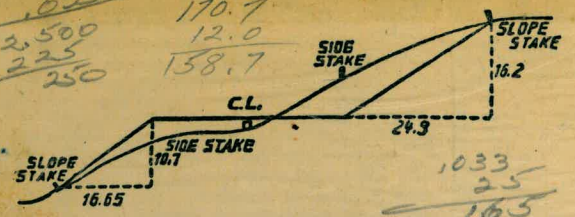
RCP

	W / N
0+05	
0+50	
+75	0+09 S
1+00	0+13 S
1+87	0+13 N
2+00	0+24 N ✓
+24	0+95 N ✓
+50	0+95 S ✓
3+00	1+11 N ✓
+50	1+95 ✓
4+00	2+77 N ✓
+25	3+28 N ✓
+50	3+31 S ✓
+82	3+56 S ✓
	3+68 N ✓
	3+89 N ✓
	4+07 S ✓
	4+09 S ✓
	4+43 S
	4+48 S
	4+76 N
	4+77 S

~~Howard~~ Bob:- 1/30/57

Could you boys stake
Kew Terrace & Covington St
on 6 & P. 27
RCP

	W / N
0+05	
0+50	
+75	0+09 S
1+00	0+13 S
1+87	0+13 N
2+00	0+24 N ✓
+24	0+95 N ✓
+50	0+95 S ✓
3+00	1+11 N ✓
+50	1+19 S ✓
4+00	2+77 N ✓
+25	3+28 N ✓
+50	3+31 S ✓
+82	3+56 S ✓
	3+68 N ✓
	3+89 N ✓
	4+07 S ✓
	4+09 S ✓
	4+43 S
	4+48 S
	4+76 N
	4+77 S



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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