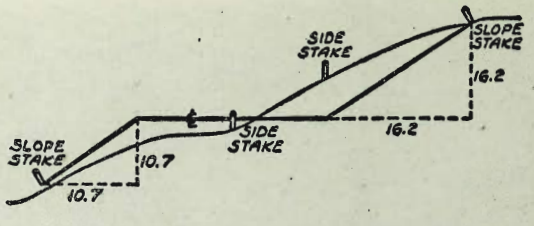
G342

TRANSIT BOOK



Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

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

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

IMPROVED TABLES AND INFORMATION

DIRECTIONS FOR USE OF TABLES

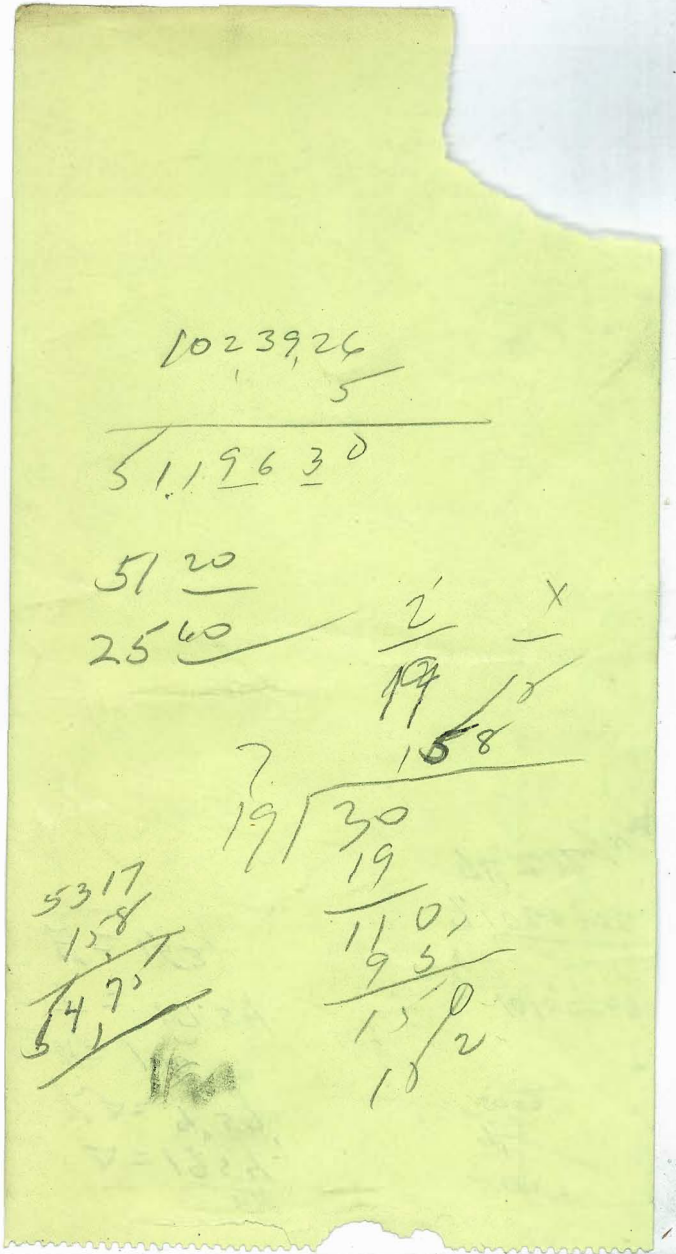
TABLE No. XIV

Distance of slope stake from side or shoulder stake for any width roadway, slope 1½ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. VIII

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.


10239.26
5
51196 30
51 20
25 60
2
19
58
19 30
19
11 0
95
15
10
5317
158
54 71

11.4
$\Delta = 19.54$
$\frac{1}{2}\Delta = 9°57'$
$R = 100$
$t = 17.54$
$E = 1.53$

19.54
7.11
6003

10152708
7
7.10689 56
7.11 to PI of Hwd

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

Index

D. Smith
J. Rorer
R. Taylor
D. Black

Grades Downtown Storm Drain "K" St

Staked 8' (Nly) of ℄

Wo# 32361
1/28/54
staked 8' (Nly) of ℄

		3+00	-6.60 2.48 C 9.08
1+75	-7.13	5.99 C 13.12	3+25 -6.50 2.42 C 8.92
		2+75	-6.70 2.25 C 8.95
1+50	-7.23	6.03 C 13.26	3+00 -6.60 2.12 C 8.72
		2+52.21 New EC. 90°06'	-6.79 2.05 C 8.84
1+25	-7.33	1.90 C 9.23	2+76.21 E.C. -6.69 1.76 C 8.45
1+00	-7.43	1.64 C 9.07	2+68.66 3/4 67°03'45" -6.73 1.67 C 8.40 Δ = 90°08'
			C 8.42 D = 20.50
			-6.86 1.56 L = 32.23
			T = 20.53
0+75	-7.53	1.67 C 9.20	2+60.6° 1/2 45°02'30" -6.76 1.58 C 8.34
0+50	-7.63	1.70 C 9.33	2+52.54 1/4 22°31'15" -6.79 1.44 C 8.23
			-6.92
		2+19.98 New BC & clean out	
0+25	-7.73	1.51 C 9.24	2+44.48 BC #1 -6.82 1.36 C 8.18
			alignment up 44 Nly is now 33.50 Wly of E line 4.44
			FB 2318 - 56 thr 49 was run 30.00 " " " " " "
0+00 Beginning of contract	-7.83	1.48 C 9.31 (2316-44)	
↑ 6.19.24 Ely of W line 3rd St.			
7.15.58 Ely of L in other contract			
		R+25	-6.91 1.56 C 8.47
		2+00	-7.02 5.28 C 13.00
Alignment 3rd & K to 44th & K FB 2318-65			
BM top Fire Hyd. NE cor 44th & K		4.72	
2318/57			

			Staked 8' Hubs o/s 2 4th Ave	
5+50 S		-5.60	4.95	C 10.55
5+75	-5.50		4.85	C 10.35
5+25 S		-5.70	4.73	C 10.43
5+50	-5.60		4.64	C 10.24
5+00 S		-5.80	3.75	C 9.55
5+25	-5.70		4.40	C 10.10
4+75 S		-5.90	4.24	C 10.14
5+00	-5.80		4.13	C 9.93
4+50 S		-6.00	3.96	C 9.96
4+75	-5.90		3.89	C 9.79
4+25 S		-6.10	3.66	C 9.76
4+50	-6.00		3.69	C 9.69
4+00 S		-6.20	2.79	C 8.99
4+25	-6.10		3.44	C 9.54
3+75 S		-6.30	2.50	C 8.80
4+00	-6.20		3.14	C 9.34
3+50 S		-6.40	2.94	C 9.34
3+75	-6.30		2.89	C 9.19
3+25 S		-6.50	2.03	C 8.53
3+50	-6.40		2.66	C 9.06
			BM SE 7x7 ct 4th W Sta.	

7+75	-3.14	7.72 C 10.86
7+50	-3.47	6.84 C 10.31
7+25	-3.80	7.14 C 10.94
7+00	-4.13	6.79 C 10.92
6+75	-4.46	6.46 C 10.92
6+50	-4.79	5.60 C 10.39
6+26.12	-5.10	5.29 C 10.89
6+50.62 ℄ clean out #2	-5.20	5.69 C 10.89
6+00 S		-5.20 4.86 C 10.06
6+25	-5.30	5.39 C 10.69
5+75 S		-5.30 4.54 C 9.84
6+00	-5.40	5.09 C 10.49
		5.07

.01 3/12 adj

2318
55

4th Ave

10+25		0 16	11 35	C-11 19	12+70 36	3 15	14 43 C-11 28
10+00		-0 17	10 41	C 10 58	12+50	2 89	14 67 C-11 78
9+75		-0 50	9 95	C 10 45	12+25	2 60	14 26 C-11 66
9+50		-0 83	9 66	C 10 49	12+00	2 31	13 91 C 11 60
9+33.39 S 74½° E							
9+25	0.13.12 rad	-1 16	9 21	C 11 07	11+75	2 02	12 87 C 10 85
9+00		-1 49	9 11	C 10 60	11+50	1 73	13 14 C-11 41
			9 18 K(L)				
8+75		-1 82	9 32	C 11 14	11+25	1 44	12 82 C 11 38
8+50		-2 15	8 87	C 11 02	11+00	1 12	12 47 C-11 35
8+25		-2 48	7 86	C 10 34	10+75	0 80	12 05 C-11 25
8+00		-2 81	7 98	C 10 79	10+50	0 48	11 07 C-10 59
BM		11 10	NW Corner	Island & 4th	BM		19 90 top N.E. Fire Hyd Market & 4th

0.11.6 rad

0.13.12 rad

4th Ave

	18" elbow on 36" RCP	6 80 ie 76"	C-9 76		
		16 62	C10 51		
For Rt + Lt 18" RCP take offs		6 11 ie 36"			
14+10 38 E Box					
14 43					
13+91 75		5 80	16 56 C10 76		c6 17 04 C0 07
14 62		↑ 5 50	C-11 20		grate 16 21 17 11 C0 90
13+73 13 E cleanout #3	drop	4 50 ↓	16 20 C-12 20 ↓	C6 inlet #3 4' type K	ie 12 10 C5 01
13+46 13		4 15	16 40 C-12 25		
35' E of Wly 4th 10' N of Sly Market					
13+19 13 EC		3 79	15 60 C-11 81		
					c6 17 04 C0 14
13+09 96 Mid Pt		3 67	15 43 C11 76	Rt C6 inlet #2 4' type K-1	C0 27 grate 16 21 17 18
					ie out Swly 11 00 C6 18
13+00 80 BC		3 55	15 23 C-11 68		ie in SEly 11 50 C5 68
12 14					
12+88 66 EC		3 39	14 85 C11 46		
47					c6 16 68 C0 03
12+79 49 Mid Pt		3 87	14 47 C11 20	Lt. C6 inlet #1 4' type K-1	grate 15 85 16 71 C-0 86
54					ie 7 20 C-9 51

44 Ave

16+50	10.06	20.83 C-10.77	44 type K-1 C6, inlet #19	C6 grate 23.07 ie 22.24 19.00	23.25 C-0.18 C-1.21 C-4.25
16+25	9.65	20.42 C10.77	4' type K-1 C6, inlet #18	C6 grate 22.34 out 22.31 IN 17.50 - W/L 18.50 - S.E.L.	23.29 C-0.15 C-0.98 C-5.79 C-4.29
16+00	9.23	19.96 C-10.73	4' type K-1 C6, inlet #17	C6 grate 23.10 ie 22.27 15.00	23.22 C-0.12 C-0.85 C-8.22
15+75	8.82	19.48 C-10.66	17+95.13 Catchment #8 type K	ie 36" 12.49 ie 18" 14.40	22.93 C-10.44 C-8.53
15+50	8.41	19.04 C10.63			
15+25	8.00	18.58 C10.58	17+75	12.15	22.57 C10.42
15+00	7.58	18.07 C10.49	17+50	11.73	22.19 C10.46
14+75	7.17	17.64 C10.47	17+25	11.31	21.88 C10.57
14+50	6.76	17.18 C-10.42	17+00	10.89	21.61 C10.72
14+25	6.35	16.74 C10.39	16+75	10.47	21.25 C-10.78
14.63			BM 2454 SE		for NE Fire 44 & 2 GST 23.22

4th Ave

20+50	15.96	28.14 C-12.18	4' type K C6 inlet #34	C6 grate ie	30.09 29.26 25.20 } 30.25 C-0.16 C-0.99 C-5.05
20+25	15.62	27.64 C-12.02	4' type K-1 C6 inlet #35	C6 grate ie out in	30.16 29.33 24.00 wly 24.90 sly } 30.27 C-11 C-0.94 C-6.27 C-5.37
20+00	15.28	27.11 C-11.83	4' type K-1 C6 inlet #33	C6 grate ie	29.20 28.87 22.00 } 29.75 C-0.05 C-0.88 C-7.75
19+75	14.94	26.61 C-11.67	21+76.32 RC		18.06 29.82 C-11.77
19+50	14.60	26.14 C-11.54	21+74.32 ℄ Lug	18" 18.50 18" 18.00 } 29.82 C-11.32 C-11.82	
19+25	14.26	25.64 C-11.38	21+50		17.46 29.49 C-12.03
19+00	13.92	25.14 C-11.22	21+34.32 ℄ Cleanout Hg (B.K) Type F		17.10 29.44 C-12.34
18+75	13.58	24.63 C-11.05	21+25		16.88 29.27 C-12.29
18+50	13.24	24.11 C-10.87	21+00		16.64 28.92 C-12.28
18+25	12.90	23.59 C-10.69	20+75		16.30 · 28.59 C-12.29
			BM		33.11 Top NE Fire Hyd 44 & F

.0136 mm ϕ

.0225 mm ϕ

44 Ave

23+25			21.45	32.71	C-11 2.6	25+50	26.49	36.94	C10 4.5
23+00			20.87	32.18	C11 3.1	25+25 .0140 rad	26.14	36.56	C-10 4.2
22+75	.0230 rad		20.30	31.67	C11 3.7	25+05.43 ℄ Cleanout #14 type G	27"RM 25.86 / 30"RM 25.61	36.31	C-10 4.5 / C-10 2.5
22+50			19.72	31.18	C-11 4.6	25+00	25.49	36.06	C10 3.7
22+25			19.15	30.69	C11 5.4	24+75	24.91	35.20	C10 3.9
14.42									
22+10.58 EC.	↓ BRK. ↑		18.82	30.42	C-11 6.0	24+50	24.32	35.44	C-11 1.2
22+04.82 Mid Pt.			18.67	30.36	C11 6.7	24+25 .0230 rad	23.75	34.92	C11 1.7
21+99.06 BC.			18.56	30.31	C11 7.5	24+00	23.17	34.36	C11 1.9
11.22									
21+87.84 EC.	.0226 rad		18.31	30.10	C11 7.9	23+75	22.60	33.80	C11 2.0
21+82.08 Mid Pt.			18.18	29.98	C11 2.4	23+50	22.02	33.25	C-11 2.3

44 Ave

26+75		28.24	39.60 C-11.36		
26+50		27.89	39.08 C11.19		
26+25		27.54	38.51 C10.97		
26+00		27.19	37.94 C10.75		
25+75		26.84	37.41 C10.57		
C6 inlet #47 4' type special Rt	C6 grate ie	37.22 36.39 29.50	37.43 C0.21 C10.4 C7.93		
C6 inlet #46 4' type K Lt	C6 grate ie	36.89 36.06 29.00	36.95 C-0.06 C-0.89 C-7.95		
25+62.43 2 Lug	ie 18" 27.04 ie 27' 26.66		37.16 C-10.12 C-10.50		
27'				31.66 31.16	43.85 C12.19 C12.69
28+83.68 ℄ Cleanout #18 type G	21" RCP NL in 27" RCP SL out				
28+75		31.04	43.76 C12.72		
28+50		30.69	43.19 C12.50		
28+25		30.34	42.83 C12.49		
28+00		29.99	42.34 C12.35		
27+75		29.64	41.77 C12.13		
27+50		29.29	41.21 C11.92		
27+25		28.94	40.64 C11.70		
27+00		28.59	40.10 C-11.51		

0.140 on 8

4th Ave @ "C" St

end

Δ = 90°
R = 22'
L = 34.56
T = 8.64

offset R = 30'

30+00		32.83	45.47 C-12.64	32+44.16 B.C. 4.	35.31	47.43 C12.12
29+75		32.58	45.12 C12.54	32+25	35.11	47.36 C12.25
29+50	10 lost ft	32.33	44.66 C12.33	32+00	34.85	47.23 C12.38
	c6 grate	44.68 }	44.74 C0.06 C-0.89 C-4.44	31+75	34.60	47.07 C-12.47
C6 inlet # 59 type Special	1e	43.85 40.30 }		31+50	34.35	46.81 C12.46
T grate	c6 grate	44.21 } 43.80 }	44.79 C0.08 C0.91 C-9.29	31+25	34.09	46.60 C12.51
C6 inlet # 58 type Special Lt	1e	35.50 }		31+00	33.84	46.40 C12.54
	18" RCP Ely 1e 34.50		C-9.89	30+75	33.59	46.19 C-12.60
type G	18" RCP Ely 1e 37.50		44.39 C-6.89	30+50	33.34	45.95 C-12.61
29+37.68 2 Clean out # 24	ie 21" 32.23		C-12.16			
29+10.65	31.94		44.01 C-12.07	30+25	33.08	45.72 C-12.64
27'						

C6 inlet #604' type K-1	C6 Grate Ie	48.06 / 47.23 / 39.50 → 48.16	C.O. 10 C.O. 93 C-8 66		
C6 inlet #61 4' type K-1	C6 Grate Ie	48.06 / 47.23 / 36.12 → 48.17	C.O. 11 C.O. 94 C-12 05		
C6 inlet #62 4" type K	C6 Grate Ie	48.09 / 47.26 / 36.00 → 48.30	C.O. 21 C-10 4 C-12 30		
type G 32+96.22 ℄ clean out #25'	Ely. Ie 18 RCP 36.50 / Sly " Nly 18" RCP Ie 21 RCP 35.85	8'Nly 47.90 C-12 05 / 8'Sly 47.62 Ely C-11 13 Sly C-11 27	C-11 40		
32+78.72 E.C.	35.67	47.69	C-12 02		
32+70.08 3/4	35.58	47.66	C-12 08		
32+61.44 1/2	35.49	47.64	C-12 15		
32+52.80 1/4	35.40	47.53	C-12 13		

"C" St. 37.5		8'Sly	
Mid Pt		40.95	52.20 C-11 25
35+05.33 ℄ clean out #24 type G Ely Nyt wly		40.90 / 38.90 → 52.24	C-11 34 C-13 34
35+00		38.84	52.6 C-13 31
34+75		38.56	51.82 C-13 26
34+50		38.27	51.34 C-13 07
34+25		37.98	50.78 C-12 80
34+00		37.70	50.20 C-12 50
33+75		37.41	49.59 C-12 18
33+50		37.12	48.24 C-11 82
33+25		36.83	48.33 C-11 50
33+00		36.54	

36+00		41 98	52 94 C10 96				
C6 inlet # 65 type Special	C6 grate	52 99 52 16	53 06	C0 09 C0 90			
	ie	47 30		C5 76			
	Nly	47 00	52 47	C-5 47			
35+74 51 type G & CleanOut # 27	E+W	41 69		C-10 78			
35+50		41 41	52 34 C10 93				
35+25		41 13	52 44 C-11 31				
C6 inlet # 63 type Special	C6 grate	52 99 52 16	53 04	C0 05 C0 88			
	ie	47 05		C6 04			
Mid Pt		45 00	52 87	C-7 87			
C6 inlet # 64 4 stack	C6 grate	52 78 51 92	52 87	C0 12 C0 95			
	ie	43 00		C-9 87			

C6 inlet # 67 special	C6 grate	56 65 55 82 46 00	50 68	C0 03 C0 86 C10 68			
Mid Pt		45 70	55 91	8" Nly C10 21			
37+87 36 type G & CleanOut # 28	Nly E+W	45 40 44 95	55 76	C10 36 C-11 61			
37+75		44 01	55 64	C-11 63			
37+50		43 72	55 48	C-11 70			
37+25		43 43	55 20	C-11 67			
37+00		43 14	54 70	C-11 56			
36+75		42 85	54 25	C-11 40			
36+50		42 56	53 79	C-11 23			
36+25		42 27	53 34	C-11 09			

39+25		46 65	57 21 C10 56
39+00		46 36	56 89 C10 53
38+75		46 08	56 39 C10 31
C6 inlet #68 type special	C6 grate ie	56 65 / 55 82 / 47 00	56 75 C0 10 C0 93 C9 75
38+50 86 type C & Cleanout #29	Nly Ely sly	46 60 / 45 80 / 44 91	55 86 C9 26 C10 06 C10 95
38+25		44 60	55 87 C11 27
38+00		44 30	56 02 C-11 72
C6 inlet # 66 type Special	C6 grate ie	56 66 / 55 73 / 46 40	56 66 G C0 83 ✓ C10 26
Mid Pt.		46 20	56 63 C10 43

Mid Pt.		50 65	59 67 C9 02
41+08 28 C6 inlet #71 4' type special	C6 grate ie Ely sly	59 24 / 58 41 / 50 40 / 48 74	59 28 C0 04 C0 87 C8 88 C10 54
40+80 28 E.C.		48 42	59 39 C10 97
40+62 61 Mid Pt		48 18	59 23 C-11 05
40+44 94 B.C.		47 94	58 92 C10 98
40+25		47 71	58 74 C-11 03
40+00		47 52	58 37 C-10 85
39+75		47 23	57 97 C10 74
39+50		46 94	57 60 C10 66

CB inlet #69 (4' type K-1)

	CB	59.58	5-9.67	C 0.09
	grate	58.25		C 0.92
	ie	53.80		C 5.87

CB inlet #70 (4' type K-1)

	CB	59.50	59.56	C 0.06
	grate	58.67		C 0.89
SEly	ie	53.50		C 6.06
Wly	ie	50.90		C 8.66

Market St.

		Staked 8' Rt			
		1994	4' type K-1 c6 inlet #4 c6 grate ie	21.52, 20.68, 12.80 → 21.67	C0 1.15, C0 0.98, C8 8.74
2+00	8.55	C-11.39			
		1934	4' type K-1 c6 inlet #5 c6 grate ie	21.76, 20.53, 12.50 → 21.95	C-0 1.19, C-1 0.92, C-9 7.45
1+75	8.23	C-11.11			
		1873	4' type K c6 inlet #6 c6 grate ie	21.72, 20.89, 12.35 → 22.00	C-0 1.28, C-1 1.11, C-9 7.03
1+50	7.91	C-10.81			
		1812			8' Sty
1+25	7.59	C-10.53	type G ie 18" RCP ie 30" RCP 3+31.50 ℄ cleanout #4	12.20, 10.22 → 21.28	C-7 0.8, C-11 0.6
.0127 adj					
		1753			
1+00	7.28	C-10.25			
		1702	3+25	10.14	21.18, C-11 0.4
0+75	6.96	C-10.06			
		1648	3+00	9.82	21.19, C-11 3.7
0+50	6.64	C-10.04			
0+45 ℄ Ely along Market St			2+75	9.50	21.13, C-11 6.3
		1674			
0+25	6.32	C-10.42			
			2+50	9.18	20.81, C-11 6.3
Ely along Market St 0+00 ℄ cleanout #3	ie 30" RCP 6.00	16.70 C-10.20			
= 13+73.13 4th Ave.	see pg. (4) for 4th St		2+25	8.87	20.48, C-11 6.1
BM	19.90	top NE Fire Hyd. at 4th & Market			

Market St.

Staked 8' Rt unless noted

			6+75	14 86	26 36 C-11 41
5+75	13 53	25 40 C11 87			
			6+50	14 68	26 17 C11 49
5+50	13 19	25 28 C12 09			
			6+25	14 42	25 85 C-11 43
5+25	12 85	25 01 C12 14			
			special type c6 inlet #7 c6 grate	25 61	C009
5+00	12 51	24 53 C-12 02		24 78 } 25 65	C087
			ie	16 40 }	C-9 25
4+75	12 17	24 70 C-11 83	4' type K-1 c6 inlet #8 c6 grate	26 32	C009
				25 49 } 26 36	C087
4+50	11 83	23 46 C11 63	ie	16 10 }	C-10 26
			4' type K-1 c6 inlet # 9 c6 grate	26 27	C009
4+25	11 49	22 96 C11 47		25 26 } 26 18	C092
			ie	16 00 }	C-10 18
4+00	11 15	22 47 C11 32	ie 18" RCP	15 80	8' Sta 75 C-9
			ie 27" RCP	14 28	25 55 C-11 27
6+11 63 ℄ type G Cleanout # 5			ie 30" RCP	14 03	C-11 52
3+75	10 81	22 07 C11 26			
			6+00		25 53 13 87 C-11 68
3+50	10 49	21 60 C11 13			

.0136 ac ft

Market St.

Staked 8' Sly unless noted

	ie 18" RCP	18.80	staked 8' Sly C-8.78	10+00	18.93	28.57 C9.62
	ie 24" RCP	17.53	27.58 C10.05			
8+91.90 & cleanout type C inlet #6	ie 27" RCP	17.28	C-10.30	9+75	18.62	28.34 C9.72
8+75	17.10	27.49 C10.39		9+50	18.29	28.09 C9.80
8+50	16.83	27.30 C10.47		9+25	17.96	27.84 C9.88
8+25	16.56	27.09 C10.53		9+00	17.64	27.64 C10.00
8+00	16.29	26.86 C10.57		4' type K c6 inlet #10 c6 grate 27.18 / 26.36 / ie 19.50		27.31 C0.13 C0.26 C-7.81
7+75	16.02	26.76 C10.74				
7+50	15.75	26.69 C10.94		4' type K c6 inlet #11 c6 grate 27.68 / 26.85 / ie 19.20		27.88 C0.20 C1.03 C-8.65
7+25	15.49	26.59 C11.10		4' type K-1 c6 inlet #12 c6 grate 27.69 / 26.86 / ie 19.00		27.67 F0.02 C0.81 C-8.67
7+00	15.22	26.48 C11.26				
BM	30.38	top NE Fire Hyd 7th & Market				

44 type K-1 cb inlet #13	cb	30.38	C-0.01	
	grate	29.55	30.37	C-0.84
	ie	26.40		C-3.99
71 type K-1 cb inlet # 14	cb	30.45		F0.18
	grate	29.60	30.25	C-0.65
	ie	25.80		C-4.45
			stub Rcb & stub	
	ie 18" RCP	25.50		C-4.91
	ie 21" RCP	21.42	30.41	C-8.99
11+69.95 type C & cleanout #7	ie 24" RCP	21.17		C-9.24
11+50 TP	20.91	29.80		C-8.99
11+25	20.58	29.66		C-9.08
11+00	20.26	29.46		C-9.20
10+75	19.93	29.24		C-9.31
10+50	19.60	29.04		C-9.44
10+25	19.27	28.82		C-9.55

Market St

14+06.32 Brk & 9½ Arc	24.73 ✓	34.03 C-9.30
14+00	24.69	33.95 C-9.31
13+75	24.29	33.70 C-9.41
13+50	23.94	33.32 C-9.38
13+25	23.59	32.92 C-9.33
13+00	23.24	32.47 C-9.23
12+75	22.89	32.03 C-9.14
12+50	22.54	31.53 C-8.99
12+25	22.19	31.09 C-8.90
12+00	21.84	30.65 C-8.81
11+75	21.49	30.18 C-8.69

End Market St
@ 10th Ave

16+26 22	EC	29 01	37 50	C-8 49			
16+11 04	MidPt	28 70	37 46	C8 76			
15+95 16	BC	28 39	37 15	C-8 76			
15+75		28 00	36 75	C-8 75			
15+50		27 51	36 25	C-8 74			
15+25		27 03	35 76	C-8 73			
15+00		26 54	35 28	C-8 74			
14+75		26 06	34 76	C-8 70			
14+50		25 57	34 36	C-8 79			
14+25		25 09	34 13	C-9 04			
BM			33 65				

.01944 ft

NWBP 9th & Market
33 51

	c6	39 22			C0 09
15' type B-2 c6 inlet # 16	grate	38 39	39 31		C0 92
	ie	34 00			C-5 31
	c6	39 12			C0 11
	grate	38 29	39 23	x 3 18K	C0 84
	ie 18" RCP	33 60			C-5 63
					C-8 43
17+19 05 end 7' type K-1	ie 21" RCP	30 80	38 73 PK		C-7 93
17+00		30 43	38 77		C-8 34
16+75		29 94	38 06		C-8 12
16+50		29 46	38 10		C-8 64

Flow T = 14.64
Flow R = 23.00
Δ = 20°
½Δ = 10°
2R = 91.03
T = 16.05
L = 31.76

c inlet # 15

"F" St Storm Drain
4th to 10th

1+75	20^{18}	32^{13} C 11^{95}
1+50	19^{74}	31^{61} C 11^{87}
1+25	19^{30}	31^{12} C 11^{82}
1+00	18^{86}	30^{63} C 11^{77}
0+75	18^{42}	30^{17} C 11^{75}
0+50	17^{98}	29^{79} C 11^{81}
0+25	17^{54}	29^{61} C 12^{07}
0+00 "F" St = s; ℄ cleanout #9 type F	17^{10}	29^{44} C 12^{34}
21+34^{32} 4th st P9 6		

.0176 grade

Used as BM

CB inlet # 22 4' type K — Nwly inlet, outlet Sly — CB grate, IE, IE	34^{18}, 33^{35}, 24^{00}, 23^{10}	34^{35} — C 0^{17}, C 1^{00}, C 10^{35}, C 11^{25}
3+31^{43} ℄ Cleanout #10 type G — 27" RCP, 30" RCP	23^{18}, 22^{93}	8' Nly 33^{71} C 10^{53}, C 10^{78}; 8' Sly 33^{51} C 10^{33}, C 10^{58}
3+25	22^{82}	33^{62} C 10^{80}
3+00	22^{38}	33^{60} C 11^{22}
2+75	21^{94}	33^{64} C 11^{70}
2+50	21^{50}	33^{43} C 11^{93}
2+25	21^{06}	33^{03} C 11^{97}
2+00	20^{62}	32^{57} C 11^{95}

5+00 — 25.73 — 35.95 C-10.22

4+75 — 25.35 — 35.66 C-10.31

4+50 — 24.97 — 35.30 C-10.33

4+25 — 24.60 — 34.91 C-10.31

4+00 — 24.23 — 34.54 C-10.31

.015 / foot

3+75 — 23.84 — 34.23 C-10.39

3+50 — 23.46 — 33.96 C-10.50

C6 inlet #20 — C6 grate ie — 34.25 / 33.42 / 24.50 — 34.37 — CO 12 — CO 95 — C-9.87

4 type K-11

C6 inlet #21 — C6 grate ie — 34.31 / 33.48 / 24.20 — 34.44 — CO 13 — CO 96 — C-10.24

4 type K-11

0+00 → N. Mfg ie 18" RCP.

N. Mfg ie 18" RCP.

6+08.63 ℄ Cleanout #11 ie 27" RCP.

type G

L. 10°24'.

6+00

5+75

5+50

C6 inlet #23 — C6 grate ie — 36.80 / 35.97 / 27.00 — 36.83 — CO 03 — CO 84 — C-9.83

type special 4' wide

0+18' Mfg

=8 0+00 to inlet #23

5+41.80 ℄ Lug — ie 18" RCP. — ie 27" RCP. — 26.74 / 26.36 — 36.35 — C-9.61 — C-9.99

5+25

30.60 — Mfg C5.88 — Sfg 21 C5.90

28.40 — C8.08 — 36.48 — C8.10 — 36.59

27.38 — C9.10 — C9.12

27.24 — 36.36 — C9.12

26.86 — 36.52 — C-9.66

26.48 — 36.49 — C10.01

26.87 — 36.28 — C9.41

Mfg 36.32 — C-9.58 — C-9.96

26.11 — 36.23 — C-10.12

8'N/y

6+50	27.95	37.15 C9.20	
6+25	27.61	36.74 C9.13	
0+43.80 ℄ C6 inlet # 24 type special 4' wide	C6 grate ie	36.85 / 36.02 / 32.30 — 37.08 C0.23 C1.06 C4.78	
0+37.34 EC	32.05	36.92 C4.87	
0	℄ A=40° R=22.50 T=8.19 L=15.71		
0+29.48 Mid Pt	31.74	36.89 C5.15	
0+21.63 BC 18" NWly 15.71	31.44	36.84 C5.40	
C6 inlet # 25 type special	C6 grate ie	36.23 / 36.10 / 30.00 — 36.99 C0.89 C0.06 C6.99	

11'N/y

8+75	31.06	41.06 C10.00
8+50	30.71	40.86 C10.15
8+25	30.37	40.56 C10.19
8+00	30.02	40.45 C10.43
7+75	29.68	39.96 C10.28
7+50	29.33	39.49 C10.16
7+25	28.99	39.06 C10.07
7+00	28.64	38.62 C9.98
6+75	28.30	38.13 C9.83
6+67.72 ∠ 10° Rt	28.20	37.99 C9.79

		11"NV				11"NV	23 8'SY
				℄ cleanout #13 type G	ie 18" RCP	39 40	8'SY
					ie 21" RCP	35 56	45 17 C5 77 C9 60
				11+75 36	ie 27" RCP	35 06	C10 11
9+25		31 72	41 57	C9 85			
				11+50		34 69	44 12 C9 43
9+00		31 40	41 26	C9 86			
				11+25		34 44	43 75 C9 31
	type special	C6 40 65		C0 04			
C6 inlet #26		grate 39 82	40 69	C0 87			
		ie 31 80		C8 89			
				11+00		33 99	43 22 C9 23
				10+75		33 64	43 38 C9 74
	4' type K-1	C6 41 10		C0 15			
C6 inlet #27		grate 40 27	41 25	C0 98			
		ie 31 60		C9 65			
				10+50		33 32	43 08 C9 76
				10+25		33 00	42 75 C9 70
	4' type K	C6 41 20		C0 15			
C6 inlet #28		grate 40 37	41 35	C0 98			
		ie 31 40		C9 95			
				10+00		32 78	42 47 C9 79
				9+75		32 96	42 20 C9 84
			8'SY				
8+92 69	℄ cleanout #12 type G	31 31	41 20	C9 89			
				9+50		32 63	41 89 C9 85

0.133 ac ft

End "F" St
@ 10th Ave

5'BK Sly inside edge

15' type B-2

C6 inlet #31

SEly ie 18" 47.50

Swly ie 21" 43.60

C6 53.27
grate 52.47
ie 18" 47.50
ie 21" 43.60

CO 02
53.29 CO 82
C 5 79
C 9 69

8' Nly

ie 18" RCP 47.50
ie 21" RCP 43.60

53.14 C 5 64
C 9 54

17+22.96

8' Nly

17+03.42 E.C. 43.31 53.08 C 9 77

8' Nly

16+85.75 Mid Pt 43.05 52.92 C 9 87

8' Nly

16+68.08 B.C. 42.79 52.83 C 10 04

11' Nly

16+50 42.53 53.14 C 10 61

11' Nly

16+25 42.17 52.72 C 10 53

11' Nly

16+00 41.81 52.47 C 10 66

5'BK Wly inside edge

C6 inlet #32

15' type B2

C6 53.14
grate 52.31
ie 47.90

CO 06
53.20 CO 89
C 5 30

Broadway

		Staked 8' Sly
1+25	32.20	44.93 C-12.03
1+00	32.65	44.54 C-11.89
0+75	32.41	44.17 C-11.74
0+50	32.16	43.87 C-11.71
0+25	31.81	43.68 C-11.77
C6 inlet # 48 special type	C6 grate 44.94 / ie 44.11 / 35.70	44.95 C-0.01 C-0.84 C-9.25
Mid to inlet #48		8' Nwly 35.20 44.08 C-8.88
to inlet NEly ie 18" RCP	34.70	C-9.15
0+00 Broadway = S	31.66	43.85 C-12.19
28+83.68 4th St E Cleanout #18	43.74	C-9.04
Staked 8' Nwly	8' Sly	C-12.08

C6 inlet #51 type special	C6 grate 48.16 / ie 47.33 / 42.00	48.24	C-0.08 C-0.91 C-6.24
Mid Pt. to inlet #51		41.35 47.33	C-5.98
	NEly ie 18" RCP	40.20	C-6.12
	Nly ie 18" RCP / Wly ie 21" RCP	35.30 46.82	C-11.57
2+84.77 type G & Cleanout #19	ie 18" RCP Ely	34.47	C-12.35
2+75		34.37 46.87	C-12.50
2+50		34.13 46.68	C-12.55
2+43.27 = Wly 18" RCP			
2+25		33.89 46.40	C-12.51
2+00		33.64 46.05	C-12.41
1+75		33.40 45.68	C-12.28
1+50		33.15 45.30	C-12.15

3+50		35.51	47.21 C-11.70		
3+25		35.11	46.82 C-11.71		
3+00		34.71	46.78 C-12.07		
C6 inlet #49 type special	C6 48.07 grate 47.25 ie 39.10	48.11	C0.04 C0.86 C-9.01		
C6 inlet #50 type special	C6 48.18 grate 47.35 ie 42.20	48.18	Grate C0.83 C-5.98		
56' to E Cleanout #20	to inlet #49 ie Wly 38.40 ie Sly 36.20 ie Ely to inlet #50 42.00	47.91	E Nly C-9.51 C-11.71 C-5.91		
Mid Pt to Cleanout #20		35.75	47.40 C-11.65	8' Wly	
5+93.23 type G & Cleanout #21	Nly 40.30 Ely 39.42			50.25	C10.45 C-11.33
5+75		39.11		50.74	C-11.63
5+50		38.71		50.70	C11.89
5+25		38.31		50.39	C-12.08
5+20.23 Wly 7' 6th					
5+00		37.91		49.94	C-12.03
4+75		37.51		49.47	C-11.96
4+50		37.11		49.05	C-11.94
4+25		36.71		48.65	C-11.94
4+00		36.31		48.18	C-11.87
3+75		35.91		47.70	C-11.79

6+75		40 55	51 65	C-11 10	
6+50		40 20	51 33	C-11 13	
6+25		39 85	57 03	C-11 18	
6+00		39 50	50 79	C-11 29	
type Special C6 inlet #52	C6 grate	51 27	51 31	C-0 04	
	50 44			C-0 87	
	ie 43 30			C-8 11	
	Mid Pt.	42 85	51 57	C-8 72	
4' type K-1 C6 inlet # 53	C6 grate	51 63	51 71	C-0 08	
	50 80			C-0 91	
	ie. 42 50			C-9 21	
4' type K-1 C6 inlet #54	C6 grate	51 74	51 79	C-0 05	
	50 21			C-0 88	
Sly outlet	ie 40 70			C-11 09	
NWly inlet	ie 42 40			C-9 39	

type Special C6 inlet # 55	C6 grate	54 81	54 79	F-0 02	
	53 88			C-0 81	
	ie 45 30			C-9 49	
Mid Pt.		44 60	54 58	C-9 98	8' Wly
4' type K C6 inlet # 56	C6 grate	53 75	53 80	C-0 05	
	52 22			C-0 88	
	ie 43 90			C-9 90	
Mid Pt Nly	275				8' Wly
		43 15	53 30	C-10 15	
type G 8+06 61 & cleanout # 22		NE & W	42 40	53 33	C-10 23
8+00			42 30	53 21	C-10 91
7+75			41 95	52 76	C-10 81
7+50			41 60	52 44	C-10 84
7+25			41 25	52 15	C-10 90
7+00			40 90	51 90	C-11 00

End Broadway @ 7th Ave

8'S'ly

type special C6 .54 65

C6 inlet # 57

grate 53 82

ie 48 50

54 67

C-0 02

C-0 85

C-6 67

Nly 46 00

end 43 40

53 63

C-7 63

C-10 23

type G

8+ 78 26 & clearout # 23

8+ 67 26 Ely 7' 7th

8+50 43 00 53 74 C-10 74

8+25 42 65 53 59 C-10 94

4th

E St to 5th

Staked 8' Sly

2+00	28.58	38.88 C-10.30	2+81.96			29.39	37.89	C-10.50
1+75	28.33	38.50 C-10.17	type special CB inlet #37	CB	41.12	41.04	F 0.08 C 0.76	
				grate	40.29			
1+50	28.09	38.23 C-9.84		ie	35.60		C-5.44	
			CB 7+35 grade BK			33.10	40.95 8'Wly	C-7.85
1+25	27.84	37.53 C-9.69						
			CB 1+19 grade BK			31.50	40.91 8'Wly	C-9.41
1+00	27.59	37.02 C-9.43						
			4' type special CB inlet #38	CB	40.85	40.91	C 0.06	
0+75	27.35	36.55 C-9.20		grate	40.02		C 0.89	
				ie	31.20		C-9.71	
0+50	27.10	36.14 C-9.04	Mid Pt			30.75	40.03 8'Wly	C-9.28
0+25	26.86	35.73 C-8.87	type G 2+50.05 & Cleanout #15	18" to W	30.30	39.55	C-9.25	
				18" to W	29.07		C-10.48	
type G 0+00 & Cleanout #14	NEly 18"	29.70	36.13 C-9.42					
	Ely 18"	26.61	C-9.52					
		30.00	36.29 C-6.29 8'NWly	2+25		28.82	39.20 C-10.38	
Mid Pt								
type special CB inlet #36	CB	37.39	C 0.19					
	grate	36.56	37.58 C-1.02					
	ie	30.20	C-7.28					

4+75		32 77	41 70 C-8 93	Mid Pt.		35 55	43 72 (8 44) C-8 17
4+50		32 29	41 47 C-9 18	C6 inlet #41 4'4 type K-1	ie grate ie	43 74 42 91 35 40	43 83 C0 09 C0 92 C-8 43
4+25		31 82	41 12 C-9 30				
4+00		31 34	40 75 C-9 41	C6 inlet #42 (4'4 type K)	C6 grate ie	43 60 42 77 35 20	43 72 C6 12 C0 95 C-8 52
3+75		30 87	40 43 C-9 56	type G 5+94 29 ℄ cleanout #17		35 04	42 29 C-7 25
3+50		30 39	40 11 C-9 72	30 81 5+63 38 2.5° Rt		34 45	42 56 C-8 11
3+25		29 92	39 71 C-9 79	15 88 5+47 44 2.5° Lt		34 14	42 41 C-8 47
type Special C6 inlet #39	C6 41 06 grate 40 23 ie 31 70		41 03 Fo 03 C-8 80 C-9 33	16 5+31 44 2.5° Lt		33 83	42 21 C-8 38
				15 88 tan 5+15 50 2.5° Rt.		33 53	42 09 C-8 56
type G 3+13 88 ℄ cleanout #16	18" NL 31 30 18" Fow 29 71		39 49 C-8 89 C-9 78	5+00		33 24	42 00 C-8 76

7+87.02 B.C. Lt.	37.35	44.21 C-7.36
7+75	37.14 21	44.56 C-7.35
7+50	36.81	44.35 C-7.44
7+25	36.41	44.09 C-7.48
7+00	36.31	43.83 C-7.52
6+75	36.01	43.58 C-7.57
6+50	35.71	43.34 C-7.63
6+25	35.41	42.99 C-7.58
6+00	35.11	42.40 C-7.29
C6 inlet #40 type Special	C6 grate	43.64
		42.81 } 43.76 C0.12
	ie	35.20 } C0.95
		C8.06

4' type K	C6 grate	46.23 } 46.28 C0.05
C6 inlet #43		45.40 } C-0.88
	ie	40.60 } C5.68
	SE/y	C5.93
	ie	40.30
4' type K-1	C6 grate	46.16 } 46.23 C0.07
C6 inlet #44		45.33 } C0.90
	ie	38.60 } C-7.63
Mid Pt		38.35 46.83 C-8.00
	C6 inlet #45	C6 45.69 } 45.64 F0.05
8+50.86 ℄ 4' type K-1		grate 44.86 } C0.78
		ie 38.10 } C-7.54
8+22.36 E.C.		37.77 45.48 C-7.71
8+04.69 Mid Pt.		37.56 45.12 C-7.56

D. Smith
& Taylor
D. Chapman
C. Steffens

Stake Sewer Landis + Altadena

		Staked 5' Ely of ℄ Rt		
1+75'	262.50	7.64 / C 9.14		
			4+00 plug	279.00 C 7.95 / 8695
1+50	261.00	6.98 / C 8.80 ?		
			3+75	276.75 C 8.71 / 85.46
1+25'	259.50	6.75 / C 8.06		
			3+50	274.50 C 9.63 / 8413
1+00 BrK	258.00	6.53 / C 7.37		
			3+25'	272.25' C 10.16 / 8241
0+75'	257.45	6.29 / C 5.46		
			3+00 SMH #1	270.00 C 10.73 / 8073 — 5' Ely; 10' Ely 7858 / C 8.58
0+55' E.C.	257.01	6.86 / C 4.85		
			2+75'	268.50 C 9.89 / 7839
0+45.40 Mid Pt.	256.80	6.57 / C 4.77		
			2+50	267.00 C 9.53 / 7653
0+35.80 BC	256.59	6.44 / C 4.85		
			2+25'	265.50 C 9.50 / 7500
0+00 existing SMH	255.80	C 6.52 from rim		
			2+00	264.00 C 9.29 / 7329
BM:	262.32	▫ on existing SMH rim 0+00		

	Lt-Wly	Rt-Ely	Alley BIK B&C w/o #32337	stake 13' BK Rt
2+64	0.86 BK C-1 2.2 407 387.85	383.07 Co 5.2 359	5+60 BVC, 2' BK Co 3.2 6.72 386.40	386.70 Co 2.0 6.90
2+32	0.80 BK C-1 2.1 383 382.62	383.81 Co 3.8 319 2' BK	5+20 1' BK Co 2.0 6.79 385.80	385.90 G 5.90
2+00	Co 3.3 272 382.39	382.55 Co 9.9 354	5+00 BRK on Rt.	385.50 Co 1.2 5.62 2' BK
1+68	0.36 BK Co 9.4 310 382.46	382.29 Co 4.6 278	4+80 1' BK Co 2.4 5.44 385.20	385.23 Co 8.5 6.08 1.24 BK
1+36	0.25 BK Co 7.9 272 381.93	382.03 Co 5.0 253	4+40 1.50 BK Co 6.0 5.20 384.60	384.69 C.O 1.1 4.80
1+04	0.52 BK C.O 5.3 223 381.70	381.77 C.O 5.9 236	4+00 EVC, Co 0.4 4.04 384.00	384.15 Co 6.7 4.82
0+72	0.50 BK Co 2.5 172 381.47	381.51 C.O 6.9 220	3+80 Co 3.5 4.13 383.78	384.04 FO 1.4 3.90
0+40 EVC,	0.22 BK C-1 1.9 243 381.24	381.25 Co 1.8 143	3+60 BVC, Co 0.2 3.58 383.56	383.84 F-O 3.1 3.53
0+20	0.50 BK C-1 3.2 131 380.99	380.97 Co 0.4 101	3+28 0.25 BK Co 2.1 4.24 383.33	383.58 C.O 4.6 4.04
0+00 Nly El Cajon Blvd	Meet 380.50 80.51	380.33 Meet 80.50	2+96 0.93 BK C-1 0.0 4.19 383.09	383.33 Co 8.9 4.22
BM		379.27 Sw. B.P. El Cajon & Sun Rt		

6707 14 Sly Meade	5 93 Meet 385 93	386 04	6 25 Meet
6700	6 45 C0 39 386 06	386 36	7 10 C0 74
5780	6 86 C0 41 386 45	386 75	6 94 C0 19 2'BK

	Stake 3'BK		Alley	BKD	LT	WO #32337	RT 36
	LT		RT	6+07.08 Sly Meade		387.07	387.22
3+40	5.35 CO 33	385.02	385.02 5.90 CO 88	5+80 2°BK	8.80 CI 52	287.28	387.40 8.20 CI 30
3+20 BVC	5.29 CO 54	384.75	384.75 5.88 CI 13	5+40	8.80 CI 20	287.60	387.66 8.59 CO 93
2+80	0.5°BK 5.52 5.11 CO 82 CI 23	384.29	384.29 5.08 0.63 BK CO 29	5+00 EVC	7.88 FO 04	387.92	387.92 8.37 CO 45
2+40	0.85 BK 4.38 CO 53	383.83	383.83 4.16 2°BK CO 33	4+80	7.94 FO 01	387.95	387.95 8.24 CO 29
2+00 BRK	0.29 BK 4.18 CO 81	383.37	383.37 3.94 CO 57	4+60	0.74 BK 8.61 CO 91	387.70	387.80 8.40 CO 60
1+60	3.57 CO 45	383.12	383.12 3.64 CO 52	4+40	0.74 BK 8.21 CO 91	387.30	387.50 8.31 CO 81
1+20	3.36 CO 48	382.88	382.88 3.46 CO 58	4+20	1.5°BK 6.97 CO 17	386.80	387.00 7.06 2°BK CO 06
0+80 2°BK	2.42 FO 21 ~~FO 19~~	382.63	382.63 3.13 CO 50	4+00	6.41 CO 01	386.40	386.40 7.10 CO 70
0+40 0.80 BK	2.56 CO 18	382.38	382.38 2.79 CO 41	3+80	6.23 CO 48	385.75	385.75 6.17 CO 42
0+00 My El Cajon		381.68	381.71	3+60	5.95 CO 56	385.39	385.39 6.04 CO 65
BM			379.27 SWBP El Cajon & Sunset				

	Lt	Alley BK 3' BK curbs Rt	37 Lt	Rt
3+40	9.56 CO 4.8 379.08	379.28 9.69 CO 4.1		
3+00	9.57 CO 6.5 378.92	379.12 9.30 CO 1.8		
2+60	9.82 C1 0.6 378.76	378.96 9.33 CO 3.7		
2+20	9.37 CO 7.7 378.60	378.80 9.87 C1 1.7	6+07.20 Sly El Cajon 380.03	380.10 3.4 4.6
1+80	9.06 CO 6.2 378.44	378.64 9.45 CO 8.1	0.23 BK 5+70 8.05.8 CO 5.8 380.00	380.20 8.03.7 CO 1.7 0.07 BK
1+40	0.15 BK 9.53 C1 2.5 378.28	378.48 8.87 CO 3.6	5+40 8.01.9 CO 3.1 379.88	380.08 8.00.8 Grade
1+00	8.79 CO 6.7 378.12	378.32 8.58 CO 2.6	0.06 BK 5+00 8.15.9 ? C1 8.7 379.72	379.92 8.01.3 2' BK CO 2.1
0+70	8.70 CO 7.4 377.96	378.13 8.58 1.29 BK CO 4.5	4+60 9.85 CO 2.9 379.56	379.76 8.00.0 CO 2.4
0+40	8.23 CO 5.0 377.73	377.78 8.16 CO 3.8	R BK 9.79 4+20 CO 3.9 379.40	379.60 9.78 CO 1.8
0+00 N'ly Orange Ave	7.88 CO 5.0 377.38	377.22 7.58 CO 3.7	3+80 9.32 CO 0.8 379.24	379.44 9.69 CO 2.5
	9.76 06	37.7.14 C2		
BM		375.93 NW BP Sw 24 Orange		

Stake 33rd St

Lt = Wly

	Rough 1° BK	C6 Grade	C6 Stake	
1+82.5 BK	3.99 C-1.1	12.85	2.99 C0.14	
1+66.67 Nly Inlet		12.80		
1+62.50 E Inlet		12.80		
1+58.33 Sly Inlet		12.80		
1+48.5 BK	7.82 F-5.1	12.97	2.45 F0.52	
1+00	4.14 F-0.3	13.40	3.29 F0.11	
0+60	3.22 Gr.	13.80	3.51 F0.29	
0+20 BK	10° Rt 4.46 C-0.2	14.20	3.97 F0.23	
Ocean View 0+00 Nly Line		14.50	(14.87 F.O.)	
BM			14.92	S.E.B.P. Ocean View & 33rd.

Steel st.

Rt = Ely

WO # 32200
10/11/65

	C6 Stake	C6 Grade	Rough 1° BK
	2.23 F0.62	12.85	4.87 C-2.0
		12.80	
		12.80	
		12.80	
	2.48 F0.56	13.04	2.82 F-0.2
	2.66 F0.96	13.62	3.20 F-0.4
	3.29 F0.87	14.16	4.14 Gr.
55/100 C6 Stake	4.40 F0.30	14.20	4.60 F-0.1
	(14.87 F.O.)		
		15.00	

Lt = Wly

	Rough 1st BK	C6 grade	C6 stake
4+90	4.18 C-0.3	13.93	4.00 C0.07
4+70	3.45 F-0.3	13.77	3.77 Grade
4+50	3.45 F-0.2	13.65	3.21 C0.06
4+30 BVC	3.55 Gr.	13.58	3.56 F0.02
4+22.5	3.50 Gr.	13.56	3.51 F0.05
3+82.5	4.06 C-0.6	13.45	3.01 F0.39
3+42.5	3.56 C-0.2	13.33	2.88 F0.45
3+02.5	3.73 C-0.5	13.21	2.77 F0.44
2+62.5	3.67 C-0.6	13.09	2.59 F0.50
2+22.5	3.60 C-0.6	12.97	2.80 F0.17

Rt = Ely

C6 stake	C6 grade	Rough 1st BK
4.21 C0.28	13.93	4.64 C-0.1
3.74 F0.03	13.79	4.68 C-0.9
3.67 C0.02	13.65	4.49 C-0.8
3.63 C0.05	13.58	4.60 C-1.0
3.53 F0.03	13.56	4.52 C-1.0
3.14 F0.31	13.45	4.76 C-1.3
2.75 F0.58	13.33	4.03 C-0.1
2.35 F0.84	13.21	3.37 C-0.2
2.34 F0.73	13.09	3.39 C-0.3
2.45 F0.52	12.97	3.86 C-0.9

	Rough 12" BK	Cb grade	Cb Stake	Lt & Ly
6+80	6 73 C-0 8	15 97	6 11 C-0 14	
6+40	5 59 Gr.	15 54	5 92 C-0 38	
6+25' EC, St. 83 dia				
6+20 Alley BC	5 48 C-0 1	15 33	5 87 C-0 54	
North End Alley @ Prop				
South End Alley @ Prop				
6+00 EC, Alley	5 20 C-0 1	15 11	5 57 C-0 46	
5+95 BC, St.				
5+55	4 81 C-0 2	14 62	5 08 C-0 46	
5+10 EVC.	4 46 C-0 3	14 13	4 48 C-0 35	

	Rt & Ly Cb Stake	Cb grade	Rough 12" BK	40
	6 05 C-0 08	15 97	7 76 C-1 8	
	5 71 C-0 3	15 54	7 27 C-1 7	
	C-0 16	15 38	6 93 H.L. C-1 5	
	5 54			
	C-0 06	15 48		
36/100 Cb Face	7 18 C-1 40	15 78		
34/100 Cb Face	6 51 C-1 25	15 46		
	C-0 26	15 16		
	5 59 5 42			
	C-0 36	15 06	6 79 C-1 7	
	4 57 F-0 25	14 62	5 36 C-0 7	
	4 40 C-0 27	14 13	4 80 C-0 7	

	Rough 1st BK	CL grade	CL stake
9+60 EVC	8 49 Gr.	18 48	7 66 F0 82
9+40	8 27 F-0 2	18 50	7 59 F0 91
9+20	8 29 F-0 2	18 46	7 83 F0 61
9+00	8 01 F-0 3	18 34	7 92 F-0 42
8+80 BVC	7 95 F-0 2	18 16	7 68 F0 48
8+40	7 63 H.L. F-0 1	17 72	7 51 F0 21
8+00	7 40 C-0 1	17 28	7 36 C0 28
7+60	7 25 C-0 4	16 84	6 77 F0 07
7+20	7 12 C-0 7	16 40	6 37 F0 03

	CL stake	CL grade	Rough 1st BK
	8 26 F-0 22	18 48	9 20 C-0 7
	8 06 F0 44	18 50	8 57 C-0 1
	8 32 F0 14	18 46	8 53 C-0 1
	8 7 F0 13	18 34	8 55 C-0 2
	8 06 F0 10	18 16	8 64 C-0 5
	7 44 F0 28	17 72	8 45 H.L. C-0 7
	7 25 F0 03	17 28	8 41 H.L. C-1 1
	7 01 C-0 17	16 84	8 08 C-1 3
	6 74 C-0 34	16 40	7 94 C-1 5

	Rough 12" BK	C6 grade	C6 Stake	Lt. or Rt. Ely	C6 Stake	C6 grade	Rough 12" BK
	9 01		8 84	7 90	8 88		8 94
E.S. @ Prop	C-0 8	18 20	C0 64	F0 30	C0 58	18 30	C-0 6
	7 90		9 27		8 22		
3/4	F-0 30	18 20	C/07		F0 10	18 32	
	7 88		9 [illegible]	7 99	8 01		
1/2	F0 27	18 15	C/ 00	F0 16	F0 19	18 20	
	7 89		9 11	7 93	8 06		
1/4	F0 23	18 12	C0 99	F0 19	F0 09	18 15	
20' Rad.	9 01	Built 10				12 Built	8 94
10+93 92 BC	C-0 9	18 08				18 08	C-0 8
	8 65		7 99		7 21		9 22
10+63 12	C-0 5	18 18	F0 19		F-0 27	18 18	C-/ 1
	8 43		7 98		8 08		8 89
10+32 32 Brk.	C-0 1	18 27	F0 29		F0 19	18 27	C-0 6
	8 61		8 00		8 15		8 26
9+96 16	C-0 2	18 37	F0 37		F0 22	18 37	C-0 4

	Rough 15 BK	Cgrade	Lt Wly C6 stake		Rt-Ely C6 stake	Cgrade	Rough 15 BK
Meet		19.36 F.O				19.34 (F.O)	
1/2		19.26	9.11 F0.15		8.71 F0.35	19.26	
35' EC6 Rad	9.90 Stk					Rad. Pt 20.19	H.L. 20.20
1+09.48 BC Lt.	C-07	19.20	9.31 C0.11		8.79 F0.41	19.20	C-1.0
1+08.36 Rt B.C.							
0+70	9.20 C-02	19.00	8.93 F0.01		8.86 F0.14	19.00	20.20 C-1.2
0+40	9.35 C-06	18.82	8.45 F0.37		8.79 F0.03	18.82	9.78 C-1.0
20' Rad.							
0+10 E.C. 33.45 Lt.	9.27 C-06	18.65	8.27 F0.38		8.88 C0.23	18.65	9.95 C-1.3
1/4		18.60	8.32 F0.38		8.79 C0.19	18.60	
1/2		18.65	8.97 C0.32		8.93 C0.37.	18.60	
3/4		18.68	8.65 F0.03	8.21 F0.47	9.20 C0.65	18.55	
Extend. BC, Webster	9.27 C-06	18.70	8.51 F0.19	8.42 F0.25.	9.15 C0.63	18.52	9.95 C-1.4

Stake Boundary St
Kalmia to Laurel St

	Rough 10°BK ob face	ob grade	ob stake		ob stake	ob grade	Rough 10°BK Prop
1+40	6°09 C1.7	284°68	84.61 F0.07		84.01 F0.06	284°07	3'75 F0.3
1+10	4'79 C1.1	283°72	83.53 F0.19		83.06 F0.07	283°13	2'16 F1.0
0+84 ⓓ AH				81°87 C-4.17 (276°80 ie)			
0+80	3'63 C0.9	282°76	82.56 F0.20		81.74 F0.45	282°19	1'25 F0.4
0+67 (ⓓ connects Main)				82.53 C-6.25 (276°80 ie)			
0+50	T.P. 2'49 C0.7	281°80	81.50 F0.30		81.10 F0.15	281°25	80'61 F0.6
0+20	1'62 C0.8	280°84	80.60 F0.24		79.98 F0.33	280°31	0'31 G
0+10	1°06 C0.6	280°43	80.06 F0.37		79.66 F0.27	279°93	9'25 F0.7
0+00 N/y Kalmia	80°60 C0.7	279°90	79.63 F0.27		79.04 F0.36	279°40	9'30 C0.1
0-30 ℄ ℄ Kalmia	9°07 C1.0	278°05	78.41 C0.36		77.57 C0.02	277°55	7'77 C0.2
0-60 S/y Kalmia	5°82 F0.4	276°20	76.60 C0.40		75.66 F0.04	275°70	5'14 F0.6
BM			289°34	℄ PK Laurel + Boundary	FB 2261-51 TR		

	Rough 10° BK C6 face	C6 grade	C6 Stake		C6 Stake	C1 grade	Rough 10 BK Prop
Meet. Δ = 73° 38'	9 89 C0 1	289 74					
Mid Pt. Δ = 36° 49'		289 40	89.18 F0.22	6/10 C6 face			
+78 79 = B.C.							
2+75 75 BC Lt 30° 4' 15° C6 Rad	9 89 C0 8	289 06	88.84 F0.22		Meet	288 20 (X) Notes	
2+75 01 Rt					87.69 F0.21	287 80	8 28 C0 4
2+38 03	9 06 C1 2	287 85	87.59 F0.26		86.69 F0.37	287 06	7 72 C0 7
2+18 03	8 36 C1 2	287 19	87.05 F0.14		86.16 F0.32	286 48	7 60 C1 1
1+98 03	8 00 C1 5	286 52	86.31 F0.21		85.88 G	285 88	6 87 C1 0
1+70	7 19 C1 6	285 63	8553 F0.10		84.90 F0.11	285 01	4 12 F0 9

Stake Macaulay St
Willow to Plum

W.O. # 31462
10/31/55

Lt = Nly

	Rough 2° BK	C6 grade	C6	
1+65 (3) Rt				
1+55 (W) Rt				
1+53 88	89 52 C 3 8	85 71	86 21 C0 50	
1+21 66	94 33 C 6 75	87 48	86 97 F0 51	
0+89 44	98 08 C 8 8	89 25	88 84 F0 41	
0+57 22	96 03 C 5 0	91 02	91 06 C0 04	
(E) 32 22				
0+25 EVC.	99 80 C 7 0	92 79	92 42 F0 37	
20' Rad C6 Rt to Sly				
0+13 EC	99 20 C 6 6	93 34	93 18 F0 16	
19' Rad C6 Lt to Nly				
0+02	99 24 C 6 2	93 75	93 80 C0 05	
V4		94 12	94 19 C0 07	
1/2		94 ~~39~~ 48	94 58 ~~C0 23~~ C0 10	
3/4		94 ~~54~~ 95	94 81 C0 27 C0 06	
End Plum St.		94 69	meet. 95 03 exists	
BM			87 22 SWBP Plum & Lowell	

Rt = Sly

C6	C6 grade	Rough 2° BK
		77 07 84 42 C5 35
		84 66 5 10 C0 44
84 71 G	84 71	85 41 C0 7
86 54 C0 06	86 48	88 60 C2 1
88 20 F0 05	88 25	87 18 C0 2
89 25 F0 27	90 02	90 25 C0 2
91 85 C0 06	91 79	91 71 F0 2
92 37 C0 05	92 32	91 83 F0 5
92 74 C0 09	92 65	
92 67 F0 15	92 82	
92 52 F0 40	92 92	
92 47 F0 43	92 20	

	Rough	Lt = My cb grade	Cb stake	
0+46 35 ℄ headwall Fly end pipe		61 17		8° Nds ℄ 65 57
0+30		66 16		64 / 63 30 C3 53 54 (64 40) My
0+15		70 67		5° Rt on ℄ 75 15 C8 99
0+00 = end pipe type II inlet ie		75 17		78 48 C7 81
				80 34 C5 17
+16 64 ℄ end bank ⑤	77 96 F1 7	79 67	79 48 F0 19	
+15 91		80 10	79 48 F0 62	
2+40 ② Lt	78 08 C-2 28	75 80		
+14 57		80 85	80 01 F0 84	
2+30 ⓦ Lt	79 48 F-1 70	81 38		
+9 03 = 2+25	80 87 F0 8	81 65	81 44 F0 21	
+ 8 93		82 15	82 18 C0 03	
2+15 ⑭ Rt				
PRC.		82 64	82 52 F0 12	
2+05 ⓦ Rt				
+15 40		83 08	82 30 F0 78	
1+90 ⑥ Lt		78 71		
1+86 11 BC. 39°02 CRad.	85 38 C-1 5	83 93	83 31 F0 62	
1+80 ⓦ Lt.		84 23		

	Rt = Sly Cb stake	Cb grade	Rough 29.64
83 1/2 % grade ℄ inlet	79 67 C0 72	79 53	
	79 79 F0 16	79 85	
	82 58 C-1 93	80 65	82 10 C-1 5
	81 51 C-0 36	81 15	
		76 25	82 38 C6 13
	82 16 C-0 52	81 64	
		81 69	82 25 C1 24
	81 96 F0 12	82 68	
	83 12 C-0 19	82 83	83 88 C1 0

Stake Sewer in Industrial Area
Kearny Mesa Rd (Magnatron Co)

Staked 6' Horiz'ly up grade

1+00		400 40	13 35 C-12 95	
0+70 EVC,	C-15 39	398 28	400 28	13 27 / 13 39 C-12 99 / C-13 11
0+60	13 27 C-15 13	398 14	400 06	13 21 / 13 27 C-13 15 / C-13 21
0+50	13 21 C-15 31	397 90	399 67	12 99 / 13 21 C-13 32 / C-13 54
0+40	12 99 C-15 43	397 54	399 11	13 29 / 12 99 C-14 18 / C-13 88
0+30	13 29 C-16 17	397 12	398 38	13 68 / 13 29 C-15 30 / C-14 91
0+20	13 68 C-17 10	396 58	397 48	13 73 / 13 68 C-16 35 / C-16 20
0+10	13 73 C-17 79	395 94	396 41	13 96 / 13 73 C-16 55 / C-17 32
0+00 SMH #1		395 12	10' Lt 12 80 C-17 68	6' Lt 12 96 C-17 84
BM			412 80	top 0+00 Hub

Change e/v, made 2° Lower 12-28-53

W.O. #21392
11-4-55

48

3+93		401 57 / 12 62 C-11 05
3+63		401 45 / 12 61 C-11 16
3+33 SMH #2		401 33 / 12 90 C-11 57
3+10		401 24 / 13 24 C-12 50
2+80		401 12 / 12 31 C-11 19
2+50		401 00 / 13 44 C-12 44
2+20		400 88 / 12 53 C-11 65
1+90		400 76 / 13 34 C-12 58
1+60		400 64 / 13 22 C-12 58
1+30		400 52 / 13 58 C-13 06
		411 49

Magnatron Co.

7+00	402.80	12.53 / C-9.73
6+66 SMH #3	402.66	11.32 / C-8.66
6+33	402.53	11.06 / C-8.53
6+03	402.41	11.19 / C-8.78
5+73	402.29	10.93 / C-8.14
5+43	402.17	10.90 / C-8.78
5+13	402.05	12.37 / C-10.32
4+83	401.93	12.24 / C-10.31
4+53	401.81	11.85 / C-10.04
4+23	401.69	11.19 / C-9.50

c/v. change made 2° down 12-28-53

Sewer Cont.

10+00 SMH #4	402.00	404.00 15.66 / C-11.66
9+70		403.88 15.56 / C-11.68
9+65 Sta/mLt		404.76
9+40		403.76 14.81 / C-11.05
9+10	9+15 16" Hdg 402.34 top of existing lateral 401.95 to Hdm	403.64 14.40 / C-10.76
8+80		403.52 13.73 / C-10.21
8+50		403.40 12.96 / C-9.56
8+20		403.28 12.30 / C-9.02
7+90		403.16 12.83 / C-9.67
7+60		403.04 12.42 / C-9.38
7+30		402.92 12.64 / C-9.72

Change c/v. made 2° down 12-28-53

19.27
4.96
14.31

Sewers La Jolla Shores Drive

Camino del Collado to El Paseo Grande

		stake 5° Ely		
		43 12		
2+40	35 81	C-7 31		
		43 41	5+10	44 93
2+10	35 66	C-7 75		40 43 C-4 50
			4+80	44 08
		43 92		39 24 C-4 84
1+80	35 51	C-8 41	4+58 7 (4)	5'SI/L 44 04
				39 59 C-4 54
		43 71	4+50	42 62
1+50	35 36	C-8 35		38 06 C-4 56
		5'SI/L 50 08		
1+32 8 (1)	39 00	C11 08	4+15 4 SMH #2	42 57
		stub		36 69 C-5 82
1+23 4 SMH #1 ∠ Lt 48°33'	35 24	43 54 C-8 30		42 87
		43 91 C-8 47	3+90	36 56 C-6 31
		43 91		
0+90	35 06	C-8 85		42 50
			3+60	36 41 C-6 09
		43 65		5'SI/L 43 48
0+60	34 91	C-8 74	3+52 8 (3)	37 50 C-5 28
			3+30	41 56
		43 49		36 26 C-5 30
0+30	34 76	C-8 93	3+07 8 (2)	5'SI/L 42 89
				38 00 C-4 89
			3+00	41 99
				36 11 C-5 88
0+00 existing SMH	mud 34 61			
			2+70	42 79
		S.W. U.S.G.S.		35 96 C-6 83
BM		42 99 Collado & La Jolla Shores		

Storm Drains W.O. 32391
La Jolla Shores Blvd.

7+80		52 77	57 83 C5 06		
7+50		51 09	57 28 C6 19		
7+20		49 41	56 13 C6 72		
6+90		47 73	54 30 C6 57		
6+77 99	SMH #3	47 06	53 57 C6 45		
6+70 68 (6)		51 50	56 60 C5 10		
6+60		46 35	53 36 C7 01		
6+30		45 17	51 38 C6 21		
6+00		43 28	51 00 C7 02		
5+70		42 80	50 05 C7 25		
5+60 6 (5)		47 00	5' Sly 50 84 C3 89		
5+40		41 61	45 65 C4 04		

39 45 N FO 44
39 56 S FO 33

49+24 ℄ Sta of ℄ 18" Pipe and

15' Type A2 inlet	C6	39 89	(Nly) 36 93	(Sly) 40 07	Staked 10' N & S of ℄ on C6 line CO 18
	grate	39 06	F2 96 F2 13		C1 01
	le	36 30	C0 63		C-3 77

40 28 N FO 33
40 52 S FO 09

7' type K-1 inlet	C6	40 61	(Nly) 41 50 C0 89	(Sly) 41 43	Stake 10' N & S of ℄ on C6 line C0 82
	grate	39 78	C1 72		C1 65
	le	35 40	C-6 10		C6 03

Make connection to existin Box inlet 34 60 41 97 C-7 37

(7)

37+63 47 ℄ Sta type K-1 inlet	C6	29 35	Nly 29 04 FO 31	(Sly) 28 90	FO 45
	grate	28 52	CO 52		CO 38
	le	26 02	C-3 02		C2 88

#7

8+20 99 end lateral	56 50	5' NEly 59 80 C-3 30	

Plug Main

7+92 99 L Rt 62° 46'	53 50	58 21 C5 21	

La Jolla
Comina Del

Lt = W/y

	Rough 20' BK/CB	Cb grade	
3/4		42 97	242 FO 55
E.C. Collado	4255 CO 3	42 85	210 FO 75
+ 25		41 99	
46+01.95 E Collado		42 47	
E.C. Collado	4326 CO 2	43 00	286 FO 14
3/4		43 22	318 FO 04
1/2		43 37	339 FO 07
1/4		43 45	362 CO 17
30' CB Rad. 45+56.28	4326 FO 2	43 47	354 CO 05

Shores
Collado to My El Paseo Grande

Rt = Ely

	Cb grade	Rough 20' BK/AC 52
364 FO 22	43 86	
365 FO 35	44 00	4383 FO 71
	44 40	+ 31 5
	44 61	+ 31 5
413 FO 22	44 35	4476 CO 4
441 CO 09	44 32	
398 FO 31	44 29	
428 CO 02	44 26	
428 CO 04	44 24	4476 CO 5

	Rough 20' BK of C6	C6 grade	Lt. Wly	Rt. Ely	C6 grade	Rough 20' Bk of C6
	36.60		0.11	1.03		41.01
49+00 BVC	F3.4	40.02	C0.09	C0.26	40.77	C0.2
	35.72		0.50	1.27		41.08
48+60	F4.7	40.44	C0.06	C0.08	41.19	F0.1
	35.57		0.74	1.64		41.47
48+20	F5.3	40.86	F0.12	C0.03	41.61	F0.1
	39.71		1.49	2.02		42.26
47+80	F1.6	41.28	C0.21	F0.01	42.03	C0.2
	40.27		1.66	2.37		42.92
47+40	F0.9	41.70	F0.04	F0.08	42.45	C0.5
	41.25		2.23	2.98		43.47
47+00	F0.9	42.12	C0.11	C0.11	42.87	C0.6
	41.85		2.47	3.45		43.90
46+60	F0.7	42.55	F0.08	C0.15	43.30	C0.6
	42.55		2.65	3.44		43.83
46+46.95 EC	F0.1	42.69	F0.04	Grade	43.44	C0.4
			2.73	3.56		
1/4		42.82	F0.07	F0.02	43.58	
			2.67	3.72		
1/2		42.92	F0.25	Grade	43.72	

	Rough 20' 24'/C6	C6 grade					Rough 20' 24'/C6
	44 34	46 26	56 68	2	6 10	06 grade	49 03
51+75	F1 6	~~45 96~~	F0 58	45 91	C0 14	45 96	C3 1
	43 50	~~45 42~~	5 40		5 42		47 24
51+50	F1 7	~~45 83~~	F0 02	45 20	C0 19	45 23	C2 0
		44 57					
	42 03	~~44 51~~	46 9		47 2		46 56
51+25	F2 5		C0 12	44 49	C0 21	44 51	C2 0
	41 80		42 3		40 8		46 76
51+14 40 BC	F2 4	44 20	C0 03	44 20	F0 12	44 20	C2 0
	40 31		36 1		3 59		44 78
50+89 40	F3 2	43 49	C0 12		C0 06	43 53	C1 2
	39 84		2 40		2 01		43 25
50+44 70	F2 4	42 21	C0 19		C0 04	41 97	C1 3
	36 83		1 18		1 50		41 72
50+00 EVC	F4 1	40 93	C0 25		C0 08	41 42	C0 3
			0 77		1 06		
49+75		40 33	C0 44		C0 12	40 94	
	36 45		0 27		0 72		41 67
49+50	F3 5	39 99	C0 28		C0 05	40 67	C0 4
49+24 Ends		39 89				40 61	

	Rough 20' BK CG	CG grade		Finish -067 sub 1/4	Finish -067 sub ℄	Finish -067 sub 1/4		CG grade	Rough 15' BK CG
	50 85		4 05				4 69		57 23 HL
54+43 14	F 3 2	54 17	F 0 12	54 10	54 20	54 10	C O 52	54 17	C 3 2
				41 2	40 2	39 2			
	49 36		2 73				3 32		55 73
54+05 93	F 3 5	52 88	F 0 15	52 78	52 88	52 78	C O 44	52 88	C 2 8
				27 4	27 5	25 2			
	47 84		1 58				1 73		10' BK CG 52 94
53+68 73	F 3 8	51 60	F 0 02		51 60	51 50	C O 13	51 60	C 1 3
					22				
53+43 23 old Base = 0 New									20' BK CG
	47 17		D 82				1 94		54 57
53+41 93 EC	F 3 6	50 80	C O 02		50 80	50 20	C 1 14	50 80	C 3 8
					0 13				
	46 76	~~50 39~~	0 32				0 52		15' BK CG 52 86
53+23	F 3 5	~~50 30~~	F 0 07		50 30		C O 22	50 30	C 2 5
					7 63				
	46 44	~~49 77~~	9 55						10' BK CG 51 39
53+00	F 3 1	~~49 58~~	F 0 22		49 57		9 71 C O 13	49 58	C 1 7
					89°				
	45 81	~~49 15~~	8 81				8 96		10' BK CG 50 80
52+75	F 3 1	~~48 86~~	F 0 34		48 80		C O 10	48 86	C 2 0
					8 13				
	45 41	~~48 53~~	8 23				8 45		52 34
52+50	F 2 7	~~48 13~~	F 0 30		48 03		C O 32	48 13	C 4 2
					7 34				
	45 26	~~47 91~~	7 57				7 82		50 64
52+25	F 2 2	~~47 34~~	F 0 34		47 36		C O 41	47 41	C 3 2
					6 69				
	47 20	~~47 09~~	6 90				6 87		15' BK CG 48 79
52+00	C O 5	~~46 68~~	F 0 19		46 58		C O 29	46 68	C 2 1
					67				
					45 91				

	Rough 20' BK CL	CL grade		
		Blue grade changed 3/6/54 per Eng.		
CL end 56+02.24	+76.5'	51.35' 50.20	1.45 CO 0.45	51.00 F0.35'
Mid Pt. 55+75.66	51.55' G. EQ.	52.35 51.60	2.05 CO 0.46	51.76 F0.49.
519'K. 55+49.08 BC. CL Rt.	3/4	53.90 53.0	3.05 CO 0.05	53.17 F0.73
55+08.61	1/2	55.02 54.05	4.12 CO 0.07	54.11 F0.91
54+68.14	1/4	55.40 54.60	4.61 CO 0.01	54.62 F0.78
54+65.78 BC (Lt) 30' CL Rad only	51.55 F.32	55.15' 54.75	4.84 CO 0.09	54.81 F0.34

	CL grade	Rough 15' BK CL
4.13 CO 2.3	64.0	65.44 C1.3
2.45 CO 1.3	62.32	63.61 C1.3
0.95 CO 0.40	60.55	61.70 C1.2
8.31 CO 3.34	57.97	59.12 C1.1
5.82 CO 0.42	55.40	56.45 C3.2

54.90 5.17

55.05' 5.05

54.95' 4.74

	Rough 20' Rt CL	C&grade		Left Ely
38+50	27 19 F1 6	28 79	8 80 CO 01	
38+25		28 65	8 58 FO 07	
38+00	26 91 F1 6	28 51	8 53 CO 02	
37+75		28 37	8 37 Grade	
30' Rad 37+64 17 EC	27 26 F1 L	28 31	8 33 CO 02	
1/4		28 16	8 10 FO 05	
1/2		27 93	8 18 CO 25	
3/4		27 67	7 74 CO 07	
EC. Gro.	27 26 FO 1	27 38	7 24 FO 14	
+24 57		26 63		

	Rt=Ely	C&grade	57 Rough 20' Rt CL
	9 49 FO 32	29 81	29 63 FO 2
	9 32 FO 36	29 68	
	9 08 FO 48	29 56	29 17 FO 4
	9 18 FO 25	29 43	
			37+59 30
		29 35	
	8 90 FO 45	29 35	1/2
		29 40	Meet

	Rough 26 Xs	C6 grade	Lt = Wty
41+50	33 28 F18	35 05	5 05 Grade
41+00	32 03 F12	33 26	3 02 FO24
40+75	30 99 F15	32 54	2 65 CO11
40+37.5	29 82 F19	31 67	1 85 CO18
40+00	29 14 F17	30 80	0 94 CO14
39+75	28 85 F15	30 30	0 51 CO21
39+50	28 68 F12	29 84	30 04 CO20
39+25	28 17 F12	29 38	9 44 CO06
39+00	27 94 F11	29 06	9 03 FO01
38+75	27 19 F11	28 93	8 24 CO01

	Rt = Ely	C6 grade	58 Rough 20 Xs C6
	5 93 FO12	36 05	36 40 CO4
	4 04 FO22	34 26	34 67 CO4
	3 12 FO42	33 54	33 82 CO3
	2 16 FO51	32 67	32 71 G
	1 63 FO17	31 80	32 04 CO2
	1 30 FO10 Grade	31 30	31 58 CO3
	0 29 FO45	30 84	30 94 CO1
	0 34 FO04	30 38	30 93 CO6
	9 90 FO16	30 06	30 11 CO1
	9 83 FO10	29 93	

	Rough 20' Bk C6	C6 grade	Lt. Wky
30' Rad E.C. 43+96.20			
43+75	40.30 F1.7	41.95	1.88 Fo.07
43+50	39.80 F1.5	41.36	1.27 Fo.09
43+25	39.81 Fo.9	40.69	0.67 Fo.02
B.C. 30' Rad 43+06.20			
43+00	38.66 F1.3	39.94	3.988 Fo.06
42+68.75	37.55 F1.4	38.93	3.896 Co.03
42+37.50	36.66 F1.3	37.93	7.25 Fo.18
42+06.25	35.29 F1.6	36.93	0.81 Fo.02
41+75	34.40 F1.3	35.93	1.54 Fo.39

	Rt. Ety	C6 grade	58A Rough 20' Bk C6
	3.44 Co.25	43.19	43.58 Co.4
	Co.23 3.33	43.10	1/4
	Co.20 3.28	43.08	1/2
	Co.19 3.34	43.15	3/4
	Fo.19 3.11	43.30	E.C. Curve 0.3
	Fo.14 3.38	43.42	+19.5
		43.88	+31.5
		43.08	+31.5
	Fo.71 1.64	42.35	Ec Curve Fo.2
	Fo.44 1.58	42.02	3/4
	Fo.29 1.40	41.69	1/2
	Co.09 1.46	41.37	1/4
	Co.10 1.14	41.04	42.17 C.1.5
	Fo.8	40.83	41.87 C.1.0
	Co.14 3.99	39.85	40.83 C.1.0
	Co.18 9.06	38.88	39.74 Co.? ?
	Co.08 7.98	37.90	38.64 Co.7
	Fo.04 6.89	36.93	37.35 Co.4

	Rough 20'Rt&Lt	Cbgrade	Lt&Wly	Rt&Ely	Cbgrade	Rough 20'Rt&Lt
	Cont.	see page 52				
45+56.95'	43.26 F0.2	43.49	35.4 C0.05	42.8 C0.04	44.24	44.76 C0.5
45+25'		43.57	36.8 C0.11	44.4 C0.10	44.34	
45+00	42.01 F1.5	43.52	35.0 F0.02	45.4 C0.25	44.29	44.69 C0.4
44+75		43.38	33.2 F0.06	43.2 C0.16	44.16	
44+50	41.40 F1.8	43.16	31.4 F0.02	39.3 F0.01	43.94	44.12 C0.2
44+25'		42.85	26.9 F0.16	37.2 C0.08	43.64	
44+00	40.29 F1.7	42.44	23.8 F0.06			

Mission Beach

Storm Drain Bayside Lane

Cohasset Ct.

	6" N/y	4's 1/y 4 E
		6's 1/y
1+56 68 end	-4 20 C 1 10 -6 00	-4 76 C 1 24
1+13 13 EC,	-5 12	-1 45 C-3 67
1+05 27 MidPt	-4 84	-0 86 C-4 08
0+97 42 BC	-4 76	-0 21 C-4 55
0+75	-4 30	-0 20 C-4 10
0+50	-3 78	-0 16 C-3 62
0+25	-3 25	-0 04 C-3 21
0+00	-0 65 rim	-0 57 C 0 08
	-2 72 12"	C-2 15

9+84 catch Basin dead Ct. grate	-0 80	-0 40 C 0 40
0+00 catch Basin Baltra Ct. grate	1 33	1 43 C 0 12
7+00 05	-0 40	0 01 C 0 41
5+08 ℄ SMH	-0 35	0 59 C 0 24
2+92 ℄ SMH	1 16	1 80 C 0 64
1+00 ℄ SMH	1 90	2 25 C 0 35

D. Smith
E. Boggs
D. Chipman
R. Taylor
C. Stephens

Stake Long Branch St
Abbott to Spray St.

wo# 3219/1 1/2 4/5/55

	5 BK Rough	C6 grade	C6		2	Rt = Mty	C6	C6 grade	69 5 BK Rough
Rt. 1+60 Brk	2.26 FO 9	3.13	3.11 FO.02		2.00 FO.48	2.48	2.68 FO.22	2.90	177 F1.1
1+40		3.19	3.07 FO.12		2.14 FO.46	2.60	2.73 FO.13	2.875	
1+20	2.72 FO.5	3.25	3.15 FO.10		2.30 FO.50	2.80	2.825 FO.03	2.85	2.13 FO.7
1+00		3.31	3.17 FO.14		2.43 FO.49	2.92	2.915 CO.09	2.825	
2 BK 0+80	2.90 FO.5	3.37	3.27 FO.19		2.52 FO.48	3.00	2.735 FO.07	2.80	2.44 FO.4
0+60		3.43	3.12 FO.31		2.59 FO.46	3.05	2.52 FO.26	2.775	
0+40	3.47 G	3.49	3.27 FO.22		2.53 FO.55	3.08	2.57 FO.18	2.75	2 BK 2.43 FO.3
0+25 (N) Lt.	3.70 G5.20 ←	-1.50							
0+20		3.55	3.47 FO.08		2.54 FO.54	3.08	2.675 FO.05	2.725	
6+15 (W) Lt	3.61 CO.05 ←	3.56							
0+00 Wly Abbott St	3.61		3.63 CO.02			3.06	2.80 CO.10	2.70	
BM				3.31	N.E.B.R. Long Branch + Abbott				

	5'BK Rough	C6 Grade	C6	Lt - Sly	1'sly	Q	Rt - Nly	C6	C6 grade	470 5'BK Rough
	7.59		3.74		3.12			3.25		5.92
3+60	C 3.6	4.03	FO 2.9		FO 5.4	3.66		FO 1.2	3.37	C 2.6
	5.34		3.49		3.29			3.42		6.40
3+30 EVC	C 1.2	4.18	FO 6.9		FO 5.2	3.81		FO 1.0	3.52	C 2.9
			3.53		3.21			3.36		
3+20		4.16	FO 6.3		FO 5.9	3.80		FO 1.7	3.53	
	5.31		4.11		3.19			3.39		5.33
3+10 BVC	C 1.3	4.13	FO 3.2		FO 6.0	3.79		FO 1.4	3.53	C 1.8
	5.30		3.82		2.94			3.28		5.28 1'sly
2+80	C 1.5	3.82	G		FO 5.3	3.47		FO 1.2	3.40	C 1.8
	4.88 HL		3.47		2.64			3.05		5.43 3'sly
2+50	C 1.9	3.51	FO 0.4		FO 5.2	3.16		FO 2.3	3.28	C 2.2
	2.38 HL		3.15		2.35			3.08		3.34
2+20 EVC Lt	FO 9	3.20	FO 0.5		FO 5.0	2.86		FO 0.7	3.15	CO 2
	2'Mod				2.17					
2+10 EC		3.07	3.24 CO 1.7	3.28 CO 2.9	FO 4.8	2.62				
2+08 Alley Ex.		3.05	CO 1.9	2.99 alley @ Prop 39 Tee Cd Face						
Alley 47				2.97 alley @ Prop 37 Tee						
2+02 Alley Ex.	2.40	3.00		2.60 FO 3.7	2.07			2.85		
2+00 BVC Lt	FO 0.8	3.00	3.28 CO 2.1		FO 4.6	2.53		FO 2.2	3.07	
BC 2'Mod Lt										
			3.19		1.99			2.71		2.16 1'sly
1+90		3.03	CO 1.6		FO 5.0	2.49		FO 3.2	3.03	FO 0.9
			3.24		1.90			2.69		
1+80		3.06	CO 1.8		FO 5.3	2.45		FO 3.0	2.99	

	SIBK Rough	CL grade	CL	Lt=Sly	½ Sly	℄	Rt=Nly	CL	CL grade	71 Sign Rough
	-0.13		2.86		2.07			2.38		-0.47
5+60	F3.32	3.02	FO.16		FO.59	2.66		CO.01	2.37	FZ.8
	-0.16		3.09		2.14			2.53		-0.08
5+30	F3.3	3.17	FO.08		FO.67	2.81		CO.03	2.52	FZ.6
	1.25		FO.10					FO.10		0.32
5+02 EC. 2'Rad	FZ.1	3.31	3.21					2.56	2.66	FZ.1
Alley BC.		3.36	FO.15					FO.15	2.71	
	.15/100 CL Face		2.88		2.23			2.53		.15/100 CL Face
5+00 @ Prop		3.46	FO.48		FO.73	2.96		FO.28	2.81	
	.23/100 CL Face		3.47		2.24			2.84		.23/100 CL Face
4+85 @ Prop		3.54	FO.07		FO.78	3.035		FO.05	2.89	
Alley EC.		3.44	FO.13					FO.07	2.79	
	2.45		3.31					2.72		1.82
4+83 BC 2'Rad	F.08	3.41	FO.10					FO.04	2.76	F1.5
℄ Rt	5.56									2.39
4+67.5 ℄ Lt	C.7.36	← -1.80							-2.15 →	C.4.54
	4.25									2.38
4+57.5 (W) Rt & Lt	C1.40	← 3.53							2.89 →	FO.51
	3.93		3.53		2.64			3.07		2.45
4+50	CO.4	3.58	FO.05		FO.57	3.21		CO.15	2.92	FO.5
4+25 (D) Rt									-2.20 →	2.52
	5.19		3.41		2.92			3.00		C.4.72
4+20	C.5.57	3.73	FO.32		FO.44	3.36		FO.07	3.07	2.42
4+15 (W) Rt									3.05 →	FO.6
	6.04		3.92		3.03			3.21		omitted
3+90	C2.2	3.88	CO.04		FO.48	3.51		FO.01	3.22	6.76
	7.93									C.3.5
3+75 (W) Rt & Lt	C3.98	← 3.85							3.29 →	5.81
										C.2.52

	Rough	Cb Grade	Cb 185 staked	Lt-Sly Spray 18'wyd Ecb		Q	150° Wly Rt-Nly	Cb	Cb Grade	Rough
0+86.97 meet cb	Rt. 33° 21' 12"								1.80	1.77 Rod
0+70 47 1/3	22° 14' 08"					1.73		1.33 F0.53	1.86	
0+66 (w) Rt									1.89	1.81 → F0.28
0+53 98 1/3	11° 07' 04"		1.01 F0.97	1.98	0+61.75	1.97	1.54 F0.43	1.72 F0.20	1.92	
					(2.26)					
0+37.49 CB 85' Rad. BCAt	1.42 F0.8	2.18	1.18 F0.90	2.08	0+37.49	2.20	1.76 F0.44	1.71 F0.28	1.99	0.39 F1.6
0+23 (w) Rt			1.07 F-1.12	2.19	0+13	2.30	1.81 F0.49		2.05	-0.39 → F2.44
EC. 20' Rad. 0+13 Spray St	0.24 F2.1	2.30	1.10 F1.16	2.26	0+00	2.34 14	1.85 F0.49	1.78 F0.92	2.11	-0.43 F2.5
0-25'			1.24 F1.17	2.41	0-25'	2.49	2.01 F0.48			
0-50 Spray	0.11 F2.4	2.54	2.02 F0.55	2.57	0-50	2.64	2.21 F0.43	2.01 F0.13	2.14	2.3
Returns		2.45' out	2.38 F0.27					1.46 F0.71	2.17	1.13
C+7.25		2.35	2.55 F0.20		1.41 F0.56 F0.69	2.10 1.97				
5+94.50 BC. 20' Cb Rad. -1.28	F4.1	2.86	2.68 F0.18					1.60 F0.60	2.20	-0.43 F2.6
5+80		2.91	2.70 F0.21		1.66 F0.80	2.56 2.27		1.90 F0.28	2.27	

Navy Field & Harbor Dr Downtown Storm Drain Outlet

	Lt = Ely	Egrade	Rt = wly		Lt = Ely	Egrade	Rt = wly
Staked @ 12' Ely				6+75	C-12 3.19 6.1	-9.42	
8+50.14	C-12 1.3 2.34	-9.79	2.47 C-12 2.6				
				7+00	C-12 3.08 5.3	-9.47	
8+62.64	C-12 0.2 2.20	-9.82	2.27 C-12 0.9				
				7+25	C-12 2.96 4.8	-9.52	
8+75.14	C-12 1.4 2.29	-9.85	2.53 C-12 3.8				
12.5				7+50	C-12 2.93 5.0	-9.57	
8+87.64	C-11 1.7 1.30	-9.87	1.24 C-11 1.1				
44.51				7+75	C-12 2.67 C-12 3.7 2.76	-9.62	2.93 C-12 5.5
9+32.15 ℄ Harbor	C-11 1.87 1.91	-9.96	1.91 C-11 1.87	7+87.64	C-12 3.0 C-12 3.6 2.68 2.74	-9.65	2.83 C-12 4.8
43.49							
				8+00.14	C-12 2.61 C-12 4.1 2.73	-9.68	2.75 C-12 4.3
9+75.64	C-11 5.5 1.51	-10.04	1.57 C-11 1.61				
17.04				8+12.64	C-12 3.4 2.64	-9.70	2.62 C-12 3.2
9+92.68	C-11 1.4 1.07	-10.07	1.18 C-11 2.5				
17.04				8+25.14	C-12 2.39 C-12 2.5 2.52	-9.73	2.56 C-12 2.9
10+09.72 end @ bulkhead	C-9 5.8 -0 5.3	-10.11	0.92 C-11 0.3				
				8+37.64	C-12 2.29 C-12 0.5 1.2 2.3	-9.76	2.55 C-12 3.1
BM pot stub 7+23.27			3.07 2.318 74				

12' LT

4+25	33 / 12.28 - 8.73
4+50	34.8 / C-12.44 - 8.98
4+75	35.7 / C-12.59 - 9.02
5+00	36.7 / C-12.69 - 9.07
5+25	35.7 / C-12.69 - 9.12
5+50	37.8 / C-12.85 - 9.17
5+75	36.9 / C-12.91 - 9.22
6+00	36.0 / C-12.92 - 9.29
6+25	35.8 / C-12.90 - 9.32
6+50	34.1 / 12.78 - 9.37

1+50	1.84 / C-9.72 - 8.38
1+75	1.90 / C-10.33 - 8.43
2+00	2.31 / C-10.79 - 8.48
2+25	2.50 / C-11.03 - 8.53
2+50	2.77 / C-11.36 - 8.58
2+75	2.43 / C-11.06 - 8.63
3+00	2.33 / C-11.01 - 8.68
3+15 Eclegnout #2	2.48 / C-11.19 - 8.71
3+25	2.45 / C-11.38 - 8.73
3+50	4.13 / C-12.90 - 8.78
3+75	3.13 / 11.96 - 8.83
4+00	3.07 / 11.95 - 8.88

PK shiner on ℄ ext.
50' Nly tie to ℄ on Sly Bayward Line -8.00 1.27 G 9.27

Hub on ℄ ext.
+30' Nly tie to ℄ on Sly Bayward Line -8.04 1.15 G 9.19

L-Lt +18.40'
0+09.64 ℄ Cleanout #1 -8.10

Stub on ℄
0+19.64 -8.12 1.40 G 9.52

stub on ℄
0+24.64 -8.13 1.41 G 9.54

1+47.64 -8.38

BM 1.41 on 35 XP Hub to Lt ℄ Ely extended (W)

	C6 grade	Stake 33rd to Chollas Channel / Durant St		C6 grade	C6 stake
2/3 47° 01' 10"		19 05	9 16 CO 11 C6 stake	3+45	18 56	9 22 CO 66
1/3 23° 30' 35"		19 17 to	9 27 CO 17 CO 10	3+20	18 63	8 94 CO 81
1+60 04 15° C6 Rad PC		19 15	9 33 CO 18	2+95	18 71	8 98 CO 27
1+32 59		19 33 17	9 78 CO 45	2+70	18 79	9 05 CO 26
1+05 15		19 50	9 95 CO 40	2+45	18 87	9 — CO 13
0+77 21 Brk		19 68	9 93 CO 25	2+20 04 15° Rad C6 EC	18 95	9 20 CO 23
0+51 35		19 59	9 81 CO 22	1/3	19 —	9 40 CO 40
0+25 meet	F.O.	19 50	9 53 CO 03	1/3	18 95	9 19 CO 24
0+10 E Prop 33rd to Sly				C6 end	18 90	8 78 FO 12
0+00 E Prop 33rd to Nly				C6 end 70° 31' 44"	18 95	9 51 CO 56

	CL grade	CL stake	
4+19 85	CL end	18 33	8 58 CO 25
3+95		18 41	8 63 CO 22
3+70		18 48	8 81 CO 33

Stake Alley BK 41

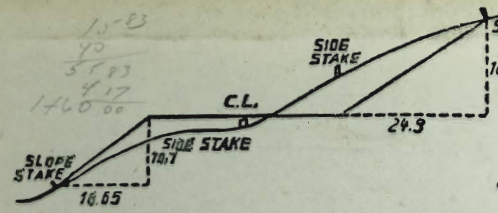
	Cl Cy Hts	
	H. Sly	H. Sly
1+90	386 CO 15 353 81	441 353 20 CO 51
1+60	042 BK 500 C1 08 353 92	443 354 09 CO 36
1+40	042 BK 557 C1 55 353 99	461 354 22 CO 39
1+10	19 BK 581 C1 72 354 09	475 354 41 CO 34
0+80	065 BK 603 C1 85 354 20	462 354 60 CO 02
0+60	035 BK 555 C1 25 354 30	462 354 67 FO 05
0+40	050 BK 533 CO 23 354 40	465 354 74 FO 09
0+20	467 CO 37 354 30	474 354 50 CO 24
0+00	wly 41/3rd St. FO 06 CO 19 439 354 45 out 354 20	Cross to Fairway 445 Grade 354 40 CL 354 20 out CO 28
0-12 / 0-14	2 Cls Rad Pt. CO 10 436 354 26 354 23	413 354 25 354 21 FO 12
B.M		351 93 N.W. Cor. Univ. + Central

Btwn. University Park 41st + Central

W.O. # 32081
11-14-55

At 2' BK pavedge

3+14 / 3+12	2 Cls Rad Pt.	352 82 / 352 85 CO 01
3+00 12	Ely Central Ave 306 CO 06 CO 15 353 60 cb 352 91 gut	352 89 / 352 93 Grade 293 352 12 cb 311 352 91 gut FO 01 CO 20
2+80	028 BK 420 C1 30 353 20	394 353 20 CO 74
2+60	028 BK 400 C-0 57 353 43	415 353 43 CO 72
2+40	045 BK 439 C-0 79 353 60	428 353 60 CO 68
2+20	401 CO 30 353 71	440 353 71 CO 69



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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