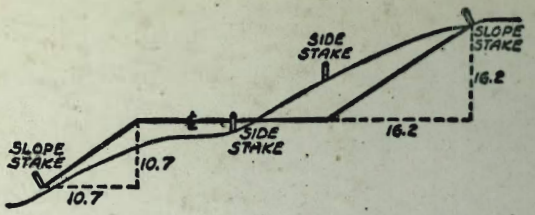

Distances from Side Stakes for Cross-Sectioning

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.

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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Clark
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6-1-54
W.O. 31652

IMP'S LOGAN AVE: 39th to 40th

STA.	(N'ly) LT. P.L	CB.	℄	(S'ly) RT. CB.	P.L
1+50				83.63 83.43 C0.20	84.16 83.43 C0.73
1+25				84.36 84.40 F0.04	
1+00 = Grd Brk				85.52 85.58 F0.06	86.46 85.58 C0.88
0+75				86.35 86.52 F0.17	
0+50				87.02 87.44 F0.42	87.90 87.44 C0.46
0+25				88.38 88.37 F0.01	
0+08 = CB BC				88.51 89.00 F0.43	89.06 89.00 C0.06
(0+00 E'ly line 39th) #1				88.98 89.20 F0.22	89.20
B.M.	Dir. Elev. Rod			83.05: S.W. B.P NATIONAL & 39th	

(Meet Exist. CB Lt. N'ly; Set CL-'s for Rt grades only)

Ref: DWG: 11095-L
F.B. 2202

STA.	LT. P.L	CB.	℄	RT. CB.	P.L
3+75				73.95 73.78 C0.17	
3+50				74.92 74.85 C0.07	80.00 74.85 C5.15
3+25				75.94 75.92 C0.02	
3+00				76.86 76.99 F0.13	83.04 76.99 C6.05
2+75				78.12 78.07 C0.05	
2+50				79.22 79.14 C0.08	85.79 79.14 C6.65
2+25				79.75 80.21 F0.46	
2+00				81.48 81.28 C0.20	82.05 81.28 C0.77
1+75				82.60 82.36 C0.24	

(Meet Exist CB grade N'ly; Set CL-'s on CB's)

LOGAN AVE. (CONT.)

STA.	P.L (LT.)	CB.	℄	CB (RT)	P.L
				(Set Conn-Feet for Gutters)	
ChK! 71.07 = 71.06 = CB. END at Prop. E.L. Alley Beg. EXIST CB.					
4+51.33 E.L. ALLEY	(Set ch-'s on CB ℄)				
Alley at P.L				71.84 71.74 C0.10	71.91 71.74 C0.17
4+31.26 = W.L. ALLEY = Alley E.R. (4+80)				71.55 71.68 F0.13 (14)	
4+27.70 = CB. B.C. Alley-RT CB. R = 4.0'				71.55 71.73 F0.18 (19)	71.73
4+20				71.77 72.00 F0.23	75.00 72.00 C3.00
4+00				72.98 72.76 C0.22	72.76
3+80 = B.V.C.				73.78 73.57 C0.21	79.11 73.57 C5.54

STA.	P.L	CB	℄	CB	P.L
6+58.20 LT. N.E. Corn LOGAN & 40'L (ALLEY)				68.75	73.33 68.75 C4.58
S.E'ly Ret: LOGAN & 40'L					
#2 (END CB)				68.51 68.00 C0.51	68.56 68.00 C0.56
#1				68.13 67.92 C0.21	
B.C (40'L ST.) S.E'ly (20' CB RAD.)				67.99 67.80 C0.19	68.03 67.80 C0.23

Clark
Shephard
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5-1-54
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FLORENCE ST.
38th to 40th

REF: FB # 2262
DWG: 11097-L
11096-L

STA.		(N'ly) LT. (EX. CBS) GUTT.	℄	RT. (S'ly) (EX. CBS) GUTT.
1+60 = B.V.C		89.10		89.50
1+35		88.54		88.87
1+10		87.98		88.25
0+85		87.42		87.62
0+60		86.86		87.00
0+35		86.29		86.37
0+10		85.73		85.87
0+00 = E. LINE 38th		85.50		85.50
B.M.	DR. ELEV. ROD:			91.89 = S.E.B.P. 38th & T ST.

(Note: Set crow-feet on Ex. CB ft. etc.)

STA.		GUTT.	℄	GUTT.
3+40		90.94		91.44
3+15		90.77		91.27
2+90		90.60		91.10
2+65		90.44		90.94
2+40 E.V.C		90.27		90.77
2+20		90.50		90.64
2+00		89.84		90.34
1+80		89.51		89.96

FLORENCE ST. (CONT.)

STA.	GUTT.	℄	GUTT.
5+40	90.95		91.24
5+20	91.30		91.66
5+00	91.53		91.95
4+80	91.66		92.12
4+60	91.69		92.18
4+40 = B.V.C	91.60		92.10
4+15	91.43		91.93
3+90	91.27		91.77
3+65	91.10		91.60

STA.	GUTT.	℄	GUTT.
6+10 = E.C. CB.	89.30		89.51
mid pT. Ret.	89.38		89.48
6+00 = CB.B.C. = W. Line 39th	89.46		89.50
5+80			
5+60 = E.V.C	90.50		90.70

(CONT. Pg 5)

FLORENCE ST (39th L to 40th L)

LT (N'LY) (CB's EXISTING. LT. RT) RT. (S'LY)

STA.	LT. GUTT	℄	RT. GUTT
1+20 = B.V.C	86.26		85.54
1+00	86.61		86.02
0+75	87.05		86.65
0+50	87.46		87.27
0+25	87.93		87.88
(0+30 W. CONN. LT.)			
0+10.	88.19		88.25
(0+00 = E. LINE 39th L) = CB.BC	88.37		88.35
mid-pt Ret.	88.48		88.41
0-10 = E.C	88.46		88.48

STA.	LT. GUTT	℄	RT. GUTT
3+50	84.61		83.77
3+25	84.80		83.90
3+00	84.93		84.03
2+75	85.06		84.16
2+50	85.19		84.29
2+25	85.32		84.42
2+00	85.45		84.55
1+80 = E.V.C (WATER RT.)	85.55		84.65
1+50	85.80		84.94

FLORENCE: 39+40 to 40+40 (CONT.)

STA.	LT. GUTT.	℄	RT. GUTT.
5+40	81.58		80.66
5+20	82.43		81.52
5+00	83.14		82.24
4+80	83.65		82.75
4+60	84.50		83.12
4+46 = B.V.C	84.20		83.30
4+25	84.28		83.38
4+00	84.41		83.51
3+75	84.54		83.64

STA.	LT. GUTT.	℄	RT. GUTT.
CHK: 75.94 = 76.00 - TP OB LT. (6+53.48			
6+53.75' RT. / 6+53.48 LT. } = P.L. Line ℄ END PAV. 'GUTT.'S	75.49		74.51
6+25	77.03		76.07
6+00	78.38		77.43
5+75	79.73		78.77
5+60 = E.V.C.	80.54		79.61

Clark
Bruner
O'Neil
Powell
6-14-54
W.O. 32146

IMP'S Congress ST. - TRIAS to HORTENSIA - ETC.

REF: F.B. 2317-1
F.B. 1710-44

DWG: 11087-L
11088-L
11089-L

(W'ly) LT.

STA.	P.L	CB
1+80 = W.S. RT.		
1+25		70.86 70.26 C0.60
1+00	72.56 69.77 C2.79	69.93 69.77 C0.16
0+80 W.S. RT.		
0+75		69.86 69.29 C0.57
0+50	72.18 68.81 C3.37	70.95 68.81 C2.14
0+30 W.S. RT.		
0+25		68.97 68.33 C0.64
H 1 = END CB. (TRIAS ON)	68.00	68.55 68.00 C0.55
0+08 = CB. RAD. = B.C. Congress	68.00	69.80 68.00 C 1.80
0+00 = E'ly LINE TRIAS (E STATIONING)	71.43 67.81 C3.62	
B.M. (DIV. Elev. Rod:)		

E	CB	P.L
		71.06 69.85 TRIAS C1.21
	69.84 67.76 C0.08	
		Knocked out 67.69 68.23 69.27 F1.04 F1.58 66.57 68.88 TRIAS F2.37
	68.85 68.79 C0.06	
	68.46 68.31 C0.15	67.83 68.31 F0.48 66.94 67.92 TRIAS F0.98
	67.80 67.83 F0.03	
	67.22 66.78 C0.24	(ON TRIAS)
	67.55 67.50 C0.05	
		65.18 67.31 F2.13

65.13 = L+T W'ly CB SAN DIEGO AVE Y approx. ℄ HORTENSIA

(W'ly) LT.

STA.	P.L	CB
E.C. (Hortensia St.)	74.00	74.04 74.00 C0.04
H 1 = mid-RT		73.96 73.74 C0.22
2+91.96 = CB. B.C. Congress	74.43 73.48 C0.95	73.62 73.48 C0.14
2+75		73.24 73.15 C0.09
2+50	73.40 73.44 72.67 C0.77 C0.73	~~72.31~~ ~~72.56~~ 72.67 ~~F0.11~~ F0.36
2+25		71.85 72.19 F0.34
2+00	73.49 71.70 C1.79	71.69 71.70 F0.01
1+80 = W.S. RT.		
1+75		71.58 71.22 C0.36
1+50	72.35 70.74 C1.61	70.77 70.74 C0.03

E	CB.	P.L.
	72.75 72.91 F0.16	72.91
	72.98 73.03 F0.09	73.05
	73.07 72.98 C0.09	73.82 72.98 C0.84
	72.98 72.65 C0.33	
	72.18 72.17 C0.01	72.55 72.17 C0.38
	71.78 71.69 C0.09	
	71.16 71.20 F0.04	71.79 71.20 C0.59 66.74 70.81 TRIAS F4.07
	70.51 70.72 F0.21	
	70.25 70.24 C0.01	69.09 70.24 F1.15

CB. GRADES - Congress : HORTENSIA
E'LY to TURNAROUND

STA.	LT. P.L	LT. CB	℄	RT. (5'4) CB	RT. (5'4) P.L
1+25		76.70 76.72 F.002		76.18 76.22 F0.04	
1+00	Knocked-out 77.34 76.24 C1.10	75.97 ~~76.21~~ 76.24 ~~F0.03~~ F0.27		75.71 75.74 F0.03	76.85 75.74 C1.11
0+75		75.68 75.77 F0.09		75.12 75.27 F0.15	
0+50	76.26 75.29 C0.97	75.29 75.29 grade		74.71 74.79 F0.08	75.77 74.79 C0.98
0+215		74.77 74.82 F0.05		74.27 74.32 F0.05	
E.C =(HORTENSIA ST.)	74.50	74.77 74.50 C0.27		73.44 73.41 C0.03	73.41
# 1 = mid-pt.		74.60 74.40 C0.20		73.95 ~~73.69~~ Knocked-out 73.70 ~~F0.01~~ C0.25	
0+08 = CB. B.C Congress	75.40 74.50 C0.90	74.50 74.50 grade		73.88 74.00 F0.12	74.78 74.00 C0.78
0+00 = E'LY LINE HORTENSIA					

STA.	LT. P.L	LT. CB	℄	RT. (5'4) CB	RT. (5'4) P.L
CLK:			65.14	= 65.13	(see B.M)
CLK: 0+62. 25.8 LT ℄ 3.5 Con WALK 76.42 = 76.43 FB 2317-					
		78.56 77.30 (℄ Grade) C 1.26			
#5 (=1+85 ℄ STA.) = ℄ midpt. (E'LY) TURNAROUND	Knocked out →	77.88 ~~77.95~~ 77.30 CB grade ~~C0.65~~ C0.58			
#4 =	77.35	Hit ↘ 77.96 77.35 ~~C0.56~~ C0.61		77.16 ~~77.13~~ ← Knocked out 77.17 ~~F0.04~~ F0.01	77.17
# 3		77.68 77.40 C0.28		76.89 ~~76.95~~ Knocked out 77.00 ~~F0.05~~ F0.11	
# 2 =(1+60.50 ℄ STA.) ℄ Radius	78.86 77.29 C 1.57	Knocked out 78.17 ~~78.37~~ 77.29 ~~C1.08~~ C0.88		77.71 76.85 ~~F0.14~~ C0.86	77.73 76.85 C0.88
#1 = P.R.C.	Knocked-out →	77.13 ~~77.12~~ 77.10 ~~C0.02~~ C0.03		76.40 76.60 F0.20	
1+40.35 = B.C. TURNAROUND	77.80 77.02 C0.78	77.16 77.02 C0.14		76.48 76.52 F0.04	77.51 76.52 C0.99

CB. GRADES HORTENSIA & Congress

N'ly to TURNAROUND

STA.	LT. P.L	LT. CB	℄	RT. CB	RT. P.L
1+01.67	81.60	81.60 81.60 grade		82.12 82.10 C0.02	82.10
0+80 = E.V.C	78.16 78.81 F0.65 ~~78.54~~ Knocked out 78.81 F0.27	78.73 78.81 F0.08		79.29 79.31 F0.02	85.69 79.31 C6.38
0+70	77.93 77.18 C0.75	77.47 77.18 C0.29		77.96 77.68 C0.28	77.68
0+50	77.70 ~~77.84~~ Knocked out 75.74 ~~C2.10~~ C1.96	75.79 75.74 C0.05		75.96 76.24 F0.28	75.30 76.24 F0.94
0+30	77.33 74.70 C2.63	74.71 74.70 C0.01		75.09 75.20 F0.11	75.20
0+20	77.11 74.28 C2.83	74.36 74.28 C0.08		74.89 74.78 C0.11	75.51 74.78 C0.73
℄ 0+08 = CB.E.C	76.39 74.00 C2.40 =B.V.C	74.04 74.00 C0.04		74.77 74.50 C0.27	75.40 74.50 C0.90
Note: See Pgs 7-8 E.V. Cs Ref's Congress & Hortensia					
0+00 = N'ly line Congress (8 STATIONS)					
B.M.				65.13 = Lft. & Hortensia N'ly CB San Diego (approx.)	

STA.	LT. P.L	LT. CB	℄	RT. CB	RT. P.L
1+70	(rough grade only) 96.6 86.85 C9.75				91.52 86.85 C4.67
℄ 5 (℄) = Mid. P.T. Turnaround (N'ly) = 1+68		94.61 86.85 7.76 ~~94.54~~ Knocked out ~~86.85~~ (rough grade) C7.69 87.01 86.85 ca. f. grade C0.16			
℄ 4	86.80	86.46 86.80 Fo.34		87.63 86.72 Fo.09	86.72
℄ 3	86.60	86.46 86.60 Fo.14		86.91 86.55 Co.36	86.55
℄ 2 = 1+43.50 (℄ RAD. PT)	87.51 86.10 3.41 ~~90.34~~ Knocked out 86.10 C4.29	86.46 86.10 C0.36		86.44 86.20 C0.24	89.86 86.20 C3.66
℄ 1 = P.R.C	85.00	84.77 85.00 Fo.23		85.41 85.45 Fo.04	85.45
1+23.35 = B.C Turnaround	84.80 84.40 Fo.4 ~~88.26~~ Knocked out 84.40 F1.14	84.29 84.40 Fo.11		84.83 84.90 Fo.07	90.91 84.90 C6.01
1+10 W.S Lt.	79.93 82.66 F2.73 ~~94.92~~ Knocked out 82.66 Tr. CB C2.26				

CB. GRADES = HORTENSIA : CONGRESS ST. to SAN DIEGO AVE.

STA.	LT. P.L.	LT. CB.	℄	RT. CB.	RT. P.L.
		67.97		67.53	
1+75	68.00	68.00		67.50	67.50
		F0.03		C0.03	
	71.00	68.76		68.32	67.77
1+50	68.80	68.80		68.30	68.30
	C2.20	F0.04		C0.02	F0.53
		69.52		69.06	
1+25	69.60	69.60		69.10	69.10
		F0.08		F0.04	70.00
1+20 M.S. RT.					69.38 TP.CB.
					C0.62
	72.76	70.47		69.94	70.82
1+00	70.42	70.42		69.93	69.93
	C2.34	C0.05		C0.01	C0.89
		70.94		70.68	
0+75	71.24	71.24		70.74	70.74
		F0.30		F0.06	71.77
0+70 M.S. RT.					70.90 TP.CB.
					C0.87
	74.24	71.84		71.56	73.42
0+50	72.05	72.05		71.55	71.55
	C2.19	F0.21		C0.01	C1.87
		72.57		72.10	
0+25	72.86	72.86		72.36	72.36
		F0.29		F0.26	
	74.69	73.44		72.75	73.70
0+08 = CB E.C.	73.41	73.41		72.91	72.91
See Pg's 7-8 For CB. Data	C1.28	C0.03		F0.16	C0.79
(0+00 = 5½ Line Congress)					
B.M.	(See Preced. Pg.)				

STA.	LT. P.L.	LT. CB.	℄	RT. CB.	RT. P.L.
# 2 = CB. END (CONTRACT.)			(END CB.)	65.10 65.05 C0.05	65.05
#1				64.90 65.20 F0.30	65.20
2+80.18 = CB. B.C. R.T.	66.11	66.09 66.11 F0.02		64.75 65.50 F0.75	65.70 65.50 C0.20
2+60.18	66.22	66.27 66.22 C0.05		65.62 65.66 F0.04	65.66
2+40.18 = E.V.C.	68.98 66.33 C2.65	66.46 66.33 C0.13		65.70 65.83 F0.13	66.81 65.83 C0.98
2+30.18	66.44	66.70 66.44 C0.26		65.67 65.94 F0.27	65.94
2+20.18	69.48 66.61 C2.87	66.70 66.61 C0.09		65.94 66.11 F0.17	67.14 66.11 C1.03
2+10.18	66.85	66.91 66.85 C0.06		66.20 66.35 F0.15	66.35
2+00.18 = B.V.C.	69.80 67.15 C2.65	67.14 67.15 F0.01		66.44 66.65 F0.21	67.49 66.65 C0.84

SEWER : CONGRESS ST.

EXIST M.H @ Congress + @ TRIAS, ±44, 200'

STA.	LT. P.L	LT. CB	LT. ℄	RT. CB	RT. P.L
E.C SAN DIEGO AVE = #2	66.09	CLR 66.10 = EXIST CB 66.09			
#1	65.98	65.77 65.98 Fo. 21			
3+17.44 CB.BC LT.	66.20 65.90 Co. 30	65.71 65.90 Fo. 19			
3+00.17 LT. only	66.00	65.86 66.00 Fo. 14			
E.C SAN DIEGO AVE = #4 RT. only				CLR 64.68 = EXIST. CB. 64.66 E.C San Diego	
#3 RT only				65.22 64.92 Co. 30	

B.M. (See Pg 7)

STA.	Elev's ℄	Prop.
2+00 = J. END	70.90 63.40 C 7.50	
1+80 = ~~SEW LAT #3~~ RT.	69.03 62.94 C 6.09	69.03 ~~62.70~~ ~~C 6.33~~
1+60	70.40 62.52 C 7.88	
1+30 = ~~SEW LAT #2~~ RT.	70.71 61.84 C 8.87	70.71 ~~62.14~~ ~~C 8.57~~
1+20	69.51 61.64 C 7.87	
0+80 = ~~SEW LAT #1~~ RT	68.67 FL 60.76 C 7.91	68.21 ~~60.54~~ ~~C 7.67~~
0+40 (STUBS OUT & RT E)	67.78 FL 59.88 C 7.90	
0+00 = EXIST. M.H @ TRIAS + @ CONGRESS		59.00 FL existing

B.M. (See Pg 7)

Deleted from plans by engr.

2.22

SEWER LAT.'S HORTENSIA
Congress St'y to San Diego Ave.

STA.	Elev's ℄	Elev's Prop.
	(?) (Service Stat. Area)	
2+45 = Sew Lat #6 - Rt.	61.16	61.96
	67.84	67.84
1+45 = Sew. Lat #5 - Rt	63.50	64.21
	C 4.34	C 3.63
	70.85	70.85
0+95 = Sew Lat #4 - Rt.	64.64	65.44
	C 6.21	C 5.41
(0+00 = St'y Line Congress)		
B.M. (See pg 7)		

WATER LINE: CONGRESS ST.
Exist Gate = St'y 15" Line Hortensia — E'ly for 170' to Turnaround

STA.	Elev's
Note: Alignment not as shown on plan ℄ Water Line = 20.2' S'ly of N'ly Line Congress	
	78.19
1+90 = End = 2" Blowoff Valve.	73.40
	C 4.79
	77.32
1+60	72.84
	C 4.48
	76.52
1+20	72.09
	C 4.43
	75.70
0+80	71.34
	C 4.36
	74.95 Rod
0+40	70.60 F.L.
	C 4.35
(stubs set 5' Rt ℄)	
0+00 = Exist Gate (St'y 15" Line Hortensia)	(meet)
B.M. (See pg 7)	

WATER: HORTENSIA - EXIST GATE (N'Ly 15' Line Congress) to N'Ly 170'

STA.		Elev's
1+70 = END = 2" BL-OFF.		89.14 82.70 C 6.44
1+38.35		87.80 81.40 C 6.40
0+95		81.92 75.81 C 6.11
0+65		77.29 72.74 C 4.55
0+35		75.37 71.28 C 4.09

Stubs set 5' RT ℄

0+00 = EXIST. GATE (N'Ly 15' Line Congress)

B.M. (See pg 7)

STORM DRAIN: EXIST CLEANOUT TYPE G (-S'Ly 20' Line Congress) to EXIST 18" R.C.P. - W'Ly Line LINWOOD

STA.	Elev's	
~~1+58.94~~	~~87.16~~ ~~77.25~~ ~~C 9.91~~ (See Pg 14)	
1+48.18 = E.C.	86.33 76.35 C 9.98	86.55 76.35 C 10.20
~~1+43.94 = g'd Brk = B.V.C.~~ Δ = 8.89 arc = 11' Δ = 1°4'30" ch = 10.99'	~~85.94~~ ~~75.96~~ ~~C 9.98~~ (See Pg 14)	
1+33 = B.C. RT Δ = 4° 21' R = 200' T = 7.59 E = .15'	84.97 74.94 C 10.03	84.73 74.94 C 9.79
1+20	83.33 73.73 C 9.60	82.95 73.73 C 9.22
0+80	77.94 70.01 C 7.93	77.61 70.01 C 7.60
0+43.94	75.56 66.66 C 9.10	75.37 66.66 C 8.71
0+33.94 (Stubs set 10' RT ℄)	74.98 65.97 C 9.01	74.81 65.97 C 8.84
0+00 = N'Ly Edge of EXIST TYPE G CLEANOUT S'Ly 15' Line Congress	64.39 = F.L. 18" Pipe	
BM (See Pg 7)	(63.64 = F.L. Box) (PLAN = 67.39 in-Flow Pipe, 18")	

Knocked-out 7-1-57

Reset 7-5-57

STA.		Elev's	
chk	117.03 = 117.01 = F.L. END EXIST. Pipe		
3+27	Meet F.Line EXIST. 18" R.C.P. 32' N'LY of END OF EXIST 18" R.C.P. (to be removed by city Forces)	133.26 Rod stub Meet	"PLAN" (120.72 F.L.)
3+20	Not set	118.90	
2+97 =	℄ CUT-OFF WALL		119.38 112.97 F.L.
2+80		114.21 108.58	
2+40		103.78 98.26	
2+00		94.04 87.94 C 6.10	
1+73.94	= E.V.C.	88.71 81.23 C 7.48	
1+63.94		88.15 78.91 C 9.24	

Note: Grade / Plans changed by Lockhead / DeHass 7-16-54
FROM 1+43.94 to 3+27.92 See opp. for NEW grades

STORM-DRAIN - GRADE CHANGE

chk: 117.03 = 117.01 = F.Line END EXIST 18" Pipe

STA. Chk		Elev's 117.03 = 117.01 = F.L. EX. Pipe	
3+27.92	Meet EXIST 18" R.C.P. 32' Ahead EX. END Pipe.	120.72 (PLAN Elev.)	
2+97.92 = ℄ CUT-OFF WALL	Stubs 10' & 20' RT. ℄	119.38 111.97 C 7.41	117.19 111.97 C 5.22
2+80		114.21 106.73 C 7.48	109.82 106.73 C 3.09
2+40		103.78 95.07 C 8.71	103.73 95.07 C 8.66
2+09 (2+08.94)	= E.V.C.	96.99 86.06 C 10.93	96.93 86.06 C 10.87
1+99		93.75 83.35 C 10.40	94.27 83.35 C 10.92
1+89		90.26 81.14 C 9.12	91.98 81.14 C 10.84
1+79		88.93 79.43 C 9.50	90.31 79.43 C 10.88
1+69 = B.V.C. (1+68.94)	(Stubs set 6' RT ℄)	88.57 78.28 C 10.29	89.00 78.28 C 10.72

Knocked out 7-1-54

Reset 7-5-54

Clark
Shephard
Bruner
O'Neil
6-23-54
W.O. 21211

STORM DRAIN: 69th & IMPERIAL
EXIST N'Wly Fc. Hdwall
Ref: F.B.# 2239-33
DWG.# 11271-L

STA.		Elev's.	
chk:	249.32	= 249.31	(See B.M.)
1+42.01 = END Const.		245.35 244.81 C 0.54	
1+02.01		245.47 245.37 C 0.10	
0+62.01 = E.C		246.75 245.93 C 0.82	
0+49 = mid-pt.			
0+36 = B.C. RT. Δ = 33°52'30" ℄ R = 44' T = 13.40	1.42	247.88 246.30 C 1.58	
0+18			
0+00 = {N'WLy FACE OF Hdwall - IMPERIAL}	(Stubs set 6' RT. (W'Ly) ℄)	251.91 246.80 C 5.11 F.L. Pipe	
B.M.	Dir. Elev. Rod:	249.31 = Tp. Fire HyD.	S.W. 69th & IMPERIAL

Clark
Shepherd
Bruner
O'Neil
6-30-54
W.O. 21233

STORM DRAIN - LOT 13
BLK 498 - DOUGHERTYS : MAP 49

REF: DWG: 52.54-B
FB# 2214-?

STA. Elev's

CHK: 38.76 = 38.76 = F.L. SLY END EXIST. 36" R.C.P. EPSILON ST.

0+31.36 = END CONST. 39.14
38.13 F.L.
C 1.01

0+15.36 39.35
= E.C. 38.45
Co. 90

(stubs set 8' RT &)

0.25' BK
SLY END -
EXIST. 36" R.C.P.
= 0+00 = B.C.

(MAKE Collar Connection)

(Meet) 38.76 = F.L. EXIST.

Δ = 20°
T = 7.76
R = 44'

B.M: DIR: Elev. Rod: 26.34 TP. SE F. HYD. 42nd & NORDICA

Clark
Shephard
Bruner
O'Neil
7-1-54
W.O. 32280

IMP'S - BIRCH ST: UNA to THOR

CB'S EXIST. Set GUTT. (TYPE G) GRADES - W. Services
& S'ly Ret. THOR & BIRCH.

STA.	(S'ly) LT. CB. (GUTT.)	℄	RT. (N'ly) CB (GUTT.)	Chk:
6+00 RT. only			4.61	5.10 = 5.11 = tp CB. At 6+00 RT.
5+95 = N'ly End EXIST. inlet = CB. B.C	4.13 gut.		(Raked)	
5+91.5 = E'ly End EXIST. INLET	4.13 gut.			
5+81 LT. only	4.68 gut.			
	(Raked)			
1+50 = Grade Brk:	6.57 gut.		7.09 gut.	
	(Raked)		(Raked)	
0+00 = N'Wly Line UNA	8.92 gut.		9.92 gut.	

B.M. Dir. Elev. Rod. 13.58 = N.W. Lot. UNA & COTTONWOOD

Ref: DWG: 11221-L
T.S.# 423

S'ly CB. Ret. Birch & Thor

STA.	CB.	GUTT.
		-
#1 (At. Prop.)	5.07 5.13 F 0.06 to CB	5.07 4.15 C 0.92 Gut
5+95 = CB. B.C LT. (S'ly Birch)	Meas. EXIST. CB. 5.11	4.13

Δ = 17° 06' 16
R = 17'

Clark
Shephard
Bruner
O'Neil
7-6-54
W.O. 32292

SEWER: LAUREL ST. - 44'4", MAPLE ST. - ET. AL.

Ref: F.B. #2269
DWG'S: #2184D-85D-85AD-86D-86A-D

SEWER: Alley Blk 20 Swan's
Exist. M.H #2 N'Ly to M.H. #21

STA.	Elev's
1+60	226.45 209.65 C 16.80
1+50	223.93 208.01 C 15.92
1+40 = Beg Conc. Cradle	221.53 206.64 14.89
1+30 = B.T.C.	218.51 205.53 C 12.98
0+97.5	211.30 202.36 C 8.94
0+65	206.40 199.19 C 7.21
0+32.5	203.10 196.02 C 7.08
0+00 = EXIST. M.H #2 N'Ely 10" Line Fairmount 4 Ely 8" Line Alley	192.85 = F.L. EXIST. (Stubs set 5' RT & upgrade)
B.M. DIV. ELEV. ROD:	280.17 = N.W. B.P.

9.35 ↑

20.35 ↑

STA	Elev's
CAK:	280.27 = 280.17 (See B.M.)
3+00 = M.H #21	252.58 238.00 = F. Line C 14.58
2+67.5	246.86 231.39 C 15.47
2+35	241.65 224.77 C 16.88
2+02.5	236.53 218.16 C 18.37
1+70 = E.V.C	229.11 211.55 C 17.56
FAIRMOUNT & MAPLE	

SEWER: - ALLEY BLK 19 - SWAN'S ADD.
S'Ly Line Swan's N'Ly 604.04' (See Pg 18 For Ref.'s)

STA.		Elev's	
2+12.04	= M.H. # 13	209.88	
		206.02	F.L.
		C 3.86	
(1+80 = ℄ Cut-off Wall)	↑		
1+74.70	2.430%	201.30	
		198.06	
		C 3.24	
(1+40 = ℄ Cut-off Wall)			
1+37.37		194.23	
		190.09	
		C 4.14	
1+00.04 = M.H. # 14	(Stubs set 11.18' 4 20' Rt. on Diagonal)	188.38	
Δ ~ 53° 07' 30 Rt.		182.12	F.L.
(=12+49.88 F.B. # 2.69) ℄ Alley 19		C 6.26	
(0+82 = ℄ Cut-off Wall)			
0+75.96	↑	175.73	
		169.11	
		C 6.62	
(0+64 = ℄ Cut-off Wall)	5.4%		
0+51.89		163.31	
		156.11	
		C 7.20	
(0+46 = ℄ Cut-off Wall)			
0+27.82 = M.H. # 15		147.18	
		143.12	F.L.
		C 4.06	
	↑ 0.42%	146.44	
0+00 = N'Ly End Exist Sewer (8") [not built this date]	(Beg. Conc. Encase.)	143.01	F. Line
(S.Ly Line Swan's Add.)	(Set stubs 10' Rt.)	C 3.43	
B.M.	Dir. Elev. Rod	148.05	B.P. = E'ly Corner Box Culvert Fairmount & Home

STA.			Elev's
5+40.04			256.39
			236.51
			C 19.88
5+08.04			251.74
			234.00
			C 17.74
4+76.04	7.82%		246.75
			231.50
			C 15.25
4+44.04 = M.H. # 12		(Beg. Conc. Cradle)	243.44
			229.00
			C 14.44
4+05.34			238.93
			225.17
			C 13.76
3+66.68			235.26
			221.34
			13.92
3+28.02			231.30
			217.51
			C 13.79
2+89.36	9.91%		226.09
			213.68
			C 12.41
2+50.70			219.43
			209.85
			C 9.58

Alley Blk 19 (CONT.)

CHK:	280.92	= 281.02 = 2x2 HUB	3+80 "B" Line F.B 2269 -19
6+04.04	= 2 END (Plug)	260.29 241.51 F.L C 18.78	
5+72.04		258.59 239.01 C 19.58	

SEWER: (HOME AVE.) (M.H #9) N'WLY to M.H #7+
hence, N'ly to DEND ALLEY BLK 15 - SWAN'S
(For Refs. see Pg 18)

STA.		Elev's
2+70		177.25 168.20 C 9.05
2+35		176.69 166.01 C 10.68
2+00	6.32% →	174.64 163.80 C 10.84
1+65		169.96 161.59 C 8.37
1+29.13 = M.H # 8 Δ = 90° LT.	(Stubs set 14.14' & 20' RT. ℄ on DIAG.)	163.25 159.32 C 3.93
1+05		165.60 158.51 C 7.09
0+70	3.39%	165.00 157.32 C 7.68
0+35		163.41 156.13 C 7.28
	(Stubs set 10' RT. ℄)	
0+00 = M.H. #9 (W'ly 13.5' Line 45' Lh) (120.13' S'ly S.Line Laurel)		161.97 154.94 = F.Line M.H C 7.03
B.M.	DIV. Elev. Rod:	159.51 = 2x2 HUB =

STA.		Elev's
5+35		240.75 232.61 C 8.14
5+00		235.05 223.51 C 11.54
(4+92.8 = ℄ WALL)		
4+65		225.73 214.41 C 11.32
(4+52.8 = ℄ WALL)		
4+30		216.05 205.31 C 10.74
(4+12.8 = ℄ WALL)		
3+95		204.87 196.21 C 8.66
(3+72.8 = ℄ WALL)	26% →	
3+60 (3+32.8 = ℄ Wall)		193.19 187.11 C 6.08
3+25		183.99 178.01 C 5.98
Chks: 182.69 - 182.70 = 2x2 HUB (6+70.8 ℄) (6+67±'0') FB #2269-24		
Δ = 90° RT.	(Stubs set ℄)	
2+92.80 = M.H # 7 [= 0+00 N'WLY to ALLEY BLK 14 / M.H #4] See Pg 23		177.45 169.63 C 7.82
	6.32% →	
{FB #2269-32-42 (STA. 10+66 Pg 7 #2269 & 10+615 Pg 34 #2269)		

Alley
Home N'ly: Blk. 15' (Cont.)

STA.		Elev's
8+08.03	↑ 3.4%	276.20 266.04 C 10.16
(35') 7+73.03 = M.H. #11		274.55 264.85 = F.L. C 9.70
7+55		273.47 262.51 C 10.96
7+20		269.18 257.96 C 11.22
6+85		264.37 253.41 C 10.96
6+50	↑ 13.%	258.87 248.86 C 10.01
6+15		253.66 244.31 C 9.35
5+80		248.92 239.76 C 9.16
(34.97) 5+45.03 = M.H. #10	26.%	243.58 235.21 C 8.37

Chk: 277.63 = 277.67 = 2x2 HUB = 0+00 Dline FB# 2269-25

STA.		Elev's
9+23.03 = D. END.		278.24 269.95 C 8.29
9+13.03		278.20 269.61 C 8.59
8+78.03		277.95 268.42 C 9.53
8+43.03	3.4%	277.47 267.23 C 10.24

SEWER: EASEMENT - BLKS 15 & 14
M.H # 7 (Alley 15) N'WLY to M.H #4 BLK 14-E Alley

STA.		Elev's
2+45		192.79 183.10 C 9.69
2+10		189.78 181.18 C 8.60
1+75		187.67 179.25 C 8.42
1+40		185.37 177.33 C 8.04
1+05	↑	183.77 175.40 C 8.37
0+70	5.52 ℰ	181.80 173.48 C 8.32
0+35		179.53 171.55 C 7.98
	(Stubs set 5' RT ℄)	
0+00 = M.H # 7 [=2+92.80 Alley Blk 15 See Pg 21]	(Stubs set 11.03' + 20' RT ℄) (ahead 5.51 + 20)	177.45 169.63 F.L. C 7.82

(See Pg 18 For Ref's.)

STA.		Elev's
3+45		213.50 201.68 C 11.82
5+10		211.34 199.41 C 11.93
4+75		208.98 197.13 C 11.85
4+40	↑ 6.50 ℰ	206.84 194.86 C 11.98
4+05		203.32 192.58 C 10.74
3+70		201.02 190.31 C 10.71
32.72		
[=0+00 For 91' FT. S'Ly - Pg 24] 3+37.28 = M.H #6 Δ = 15° 35' RT.	(Stubs set 5.01 + 17' RT ℄)	198.84 188.18 = F.L. C 10.66
3+15		197.99 186.95 C 11.04
2+80	↑ 5.52 ℰ	195.71 185.03 C 10.68

EASEMENT BLKS 15 + 14 (CONT.)

STA.		Elev's

Chk'g NAIL - W'ly Pole # 227.52 = 227.57 {FB # 2269 Pg 9}

Alley Blk # 14
[= 0+00 N'ly + S'ly Pgs. 25 N'ly + 28 S'ly]

6+92.93 = M.H. #4	Alley Blk 14 (Stubs set 10' + 20' RT M.H)	224.81 215.00 C 9.81
6+80		223.54 213.76 C 9.78
6+45	↑ 97.2	219.83 210.36 C 9.47
6+10		216.96 206.97 C 9.99
(32.87)		
5+77.13 = M.H. # 5 Δ = 8° 38' LT.	(Stubs set 10.02 + 18' RT M.H)	215.22 203.77 F.L C 11.45

SEWER - HIGHLAND AVE MH # 6 (12.9' W'ly Line HIGHLAND) S'ly 91' ∥ to HIGHLAND

0+91 = Δ END		217.50 207.00 C 10.50
(0+80 = ℄ wall)		
0+70	↑ 20.68	213.35 202.66 C 10.69
(0+40 = ℄ wall)		
0+35		205.54 195.42 C 10.12
0+00 = M.H. #6 [= 3137.28 See Pg 23) EASEMENT LINE]		188.18

Alley Blk. "14" + Blk B" + Blk "2" to MH #20
(M.H #4) N'ly
For Refs See Pg 18

STA.		Elev's
1+80 = B.V.C		257.95 252.12 C 5.83
(1+78 = ℄ Wall)		
1+65		254.38 247.71 C 6.67
(1+58 = ℄ Wall)		
(1+38 = ℄ Wall)	↑ 2.94%	
1+30		244.97 237.41 C 7.56
(1+18 = ℄ Wall		
0+98 = M.H #16	(Stubs 10' & 20' Rt ℄ M.H.)	238.57 228.00 C 10.57
0+70	↑ 1.27%	231.45 224.28 C 7.17
0+35	(Stubs 5' Rt ℄)	227.70 219.64 C 8.06
0+00 = M.H #4 Alley Blk. 14 (= 6+92.93 Easement Line-Blks 14 + 15 See Pg. 24)	(See Pg 24)	215 = F.L
B.M.	Dir Elev. Rod	280.17 = N.W.B.P Fairmount Ave & Maple St

STA.			Elev's
3+95	↑ 3.56%		285.38 271.32 C 14.06
3+50 = M.H #17		(Stubs set 10' & 20' Rt ℄ M.H)	283.64 270.00 F.L C 13.64
3+25			279.30 267.49 C 11.81
2+90	↑		275.02 264.83 C 10.19
2+55	1.59%		270.75 262.17 C 8.58
2+20 = E.V.C.			265.38 259.52 C 5.86
2+10			263.92 258.49 C 5.43
2+00			262.01 256.91 C 5.10
1+90			260.12 254.79 C 5.33

ALLEY BLK 14 - N'LY OF M.H #1 (CONT'D)
to M.H #20 - BLK 2

STA.		Elev's
6+85		290.81 279.80 C 12.01
6+50		290.21 278.52 C 11.69
6+15	0.19	289.28 278.25 C 11.03
(32') 5+83 = M.H. #18 (stubs set 10'+15' RT &)		288.15 278.00 C 10.15
5+70		287.88 277.54 C 10.34
5+35		286.08 276.30 C 9.78
5+00		284.82 275.06 C 9.76
4+65		285.20 273.81 C 11.39
4+30	3.56	286.18 272.56 C 13.62

STA.		Elev's
9+65		293.41 281.00 C 12.41
9+30		293.42 280.72 C 12.70
8+95		293.40 280.45 C 12.95
8+60	1.96	293.31 280.17 C 13.14
8+25		292.57 279.90 C 12.67
(21') 8+08 = MH #19 (stubs set 10'+20' etc)		292.15 279.78 12.37
7+90		292.42 279.63 C 12.79
7+55		292.13 279.36 C 12.77
7+20		291.64 279.07 C 12.57

Alley Blk 14 - N'ly MH #7 (Cont.)

STA		Elevs
Chk:	280.19	= 280.17 (See B.M Pg 25)
Chk:	285.27	= 285.39 on 2x2 Hub (10+00 F.B.S. 2269 Pg-54)
10+88 = MH #20	(Stubs set 10' RT & LT ℄)	288.62 282.00 = F.L C 6.62
10+70		289.74 281.85 C 7.89
10+35		291.07 281.57 C 09.50
10+00		293.03 281.28 C 11.75

ALLEY BLK 14 (M.H #4) S'LY to LAUREL
(M.H #2) W'LY TO 44 46 (M.H #1) N'LY
TO D. END. FOR REF: SEE PG 18

STA.		ELEV'S
		250.80
2+45		242.49
		C 8.31
		248.45
2+10		238.55
		C 9.90
		245.04
1+75		234.63
		C 10.41
		240.19
1+40		230.70
		C 9.49
		235.13
1+05		226.77
		C 8.36
		229.64
0+70		222.85
		C 6.79
		225.79
0+35		218.92
		C 6.87
0+00 = M.H #4 ℄ ALLEY BLK 14		215.00 = F. LINE
(= 6+92.93 EASEMENT BLKS 15 & 14 Pg 24)		

STA.		ELEV'S
		266.85
5+41		251.97
		C 14.88
5+06 = M.H #2 Δ = 90° RT	(stubs set 14.14' RT ON Split ℄)	265.13
(N'LY 4' LINE LAUREL + E. ALLEY)		250.50
		C 14.63
		264.42
4+85		250.08
		C 14.34
		263.34
4+50		249.38
		C 13.96
		262.22
4+15		248.67
		C 13.55
		260.49
3+80		247.97
		C 12.52
		258.07
3+45		247.26
		C 10.81
		255.86
3+10		246.56
		C 9.30
		256.15
2+75 = M.H #3	(stub 10' RT ℄)	245.86
		C 10.29

Alley Blk 14 (MH #4) S'ly to Laurel –
W'ly to 44th – N'ly to D. END (CONT.)

STA.		Elev's
8+65		280.17 269.87 C 10.30
8+30		278.85 267.56 C 11.29
7+95	↑ 6.6%	275.07 265.25 C 9.82
7+60		272.34 262.94 C 9.40
7+25		268.89 260.63 C 8.26
6+86 – M.H. #1	Δ = 90° RT. (Stubs 14.14 RT & 20 RT of ℄)	266.46 258.06 C 8.40
6+46	↑ 4.2%	266.62 256.38 C 10.24
6+11		268.58 254.91 C 13.67
5+76		268.28 253.44 C 14.84

STA.		Elev's
chk		280.97 = 281.02 = 2x2 HUB = 3+80 "B" FB # 2269-19
9+21 = D. END (℄ 44th)		280.78 273.57 F.L. C 7.21
9+00		280.66 272.18 C 8.48

WATER: Laurel - {Alley BLK 15} to 44th, N'ly. to MAPLE

Ref's: See Pg 18

STA.		Elev's
1+85 = (℄ 6" CROSS) grd BRK (= 0+00 S'ly HIGHLAND - Pg 32)		knocked out 234.34; 234.37; 231.40; C 2.97; C 2.94
(1+70 = ℄ WALL)		
1+40 = grd BRK	(℄ WALL)	220.89; 215.00; C5.89
1+20 = grd BRK	(℄ WALL)	214.01; 203.00; C11.01
(1+00 ℄ WALL)		
0+80	(℄ WALL)	195.39; 190.4; C 4.99
(0+60 ℄ WALL)		
	(Stubs 5' RT ℄)	
0+40	(℄ WALL)	180.75; 177.8; C2.95
0+00 = PT. (5' W'ly E. Line Alley BLK 15) (+30' N'ly S'ly Line LAUREL) (Also = 0+00 N'ly BLK 15 - Alley - See Pg)		184.38; 178.60; C 5.78
B.M. Dir. Elev. Rod:		240.68 = 27' Con. Mon S.W. Laurel & HIGHLAND FB 2269 - 48

STA.		Elev's
4+53.32		263.79; 252.52; C11.27
4+16.66		263.69; 251.06; C12.63
(36.66)		
3+80 = (℄ 6" Tee) (= 5+72 Alley BLK 19 See Pg 33)	(Stub 7' x 17 RT ℄)	263.09; 249.60; C13.49
3+38.33		261.56; 247.73; C13.83
2+96.66		256.35; 245.86; C10.49
(41.66)		
2+55		249.59; 244.00; C5.59
2+50 = ℄ F.HYD. LT. Stub set (S.W. Return) ([illegible] 15' RT) CB Fc.	knocked out 249.21; 248.2 = Tp CB; C 1.01	250.17; 248.20 - TP.CB; C 1.97
2+20		243.26; 237.7; C 5.56
(1+95 ℄ 6" GATE Valve)		

WATER - Laurel - 4"4L (Cont.)

STA.		Elev's
7+57.05 grd Brk		280.35 274.00 C 6.35
(30) 7+27.05		279.58 273.00 C 6.58
(30) 6+97.05		277.65 272.00 C 5.65
6+58.71		274.40 269.13 C 5.27
6+20.38		270.83 266.26 C 4.57
6+17 = Fire Hyd. RT. NELY Ret Maple & Laurel (38.33) (Stubs set 12' & 22' Bk CB Fc.)	Elev. TP. CB = 273.48 269.40 C 4.08	
5+82.05 = ∠ RT 45°	(Stubs 5.41 & 10 RT & PT. ℄)	267.76 263.39 C 4.37
5+50 grd Brk		266.46 261.00 C 5.46
5+20		264.92 257.5 C 7.42
4+90 = ∠ RT 45°	(Stubs 5.41 & 10' RT ℄)	263.70 254.00 C 9.70

chk's 286.75	= 286.80 = SPIKE Swly Pole 44 3/4" & MAPLE - F.B. 2269 Pg 47
11+97.05 = 8"x6" cross (Meet EXIST. to N'LY) (= 5+55 - Maple ST. see Pg. 34)	275.93 273.00 C 2.93
11+57.05	275.90 272.25 C 3.65
11+17.05	275.81 271.50 C 4.31
10+77.05	273.95 270.75 C 3.20
10+37.05 = grd Brk	272.76 270.00 C 2.76
9+97.05	273.64 271.50 C 2.14
9+57.05 = grd Brk	276.89 273.00 C 3.89
(50) 9+07.05	277.92 273.60 C 4.32
(50) 8+57.05 grd Brk	279.74 274.20 C 5.54
(50) 8+07.05	280.50 274.10 C 6.40
(40)	

WATER: HIGHLAND AVE - LAUREL (1485) S'LY
FOR 105'
REF'S: Pg 18

STA.	ELEV'S
CHK:	240.68 = 240.68 (See B.M)
1405 (2" BLOWOFF)	240.05 236.6 C 3.45
0+80	240.33 237.0 C 3.33
0+40	239.4 235.4 C 4.0
(0+30 = ℄ WALL) ✓	
(0+10 = ℄ WALL) ;	
0+00 = PT. (30' W'LY S'LY LINE LAUREL (+30' W'LY E. LINE HIGHLAND (= 1485 LAUREL) See Pg 30	234.34 231.4 C 2.94
B.M. DH. ELEV. ROD:	27' 240.68 CON MON S.W. LAUREL & HIGHLAND

WATER: ALLEY BLK. 19 - N'Ly to LAUREL

Ref's Pg. 18

STA.		Elev's
2+48		233.37 217.56 C 15.81
2+08		228.73 213.07 C 15.66
1+68		223.10 208.58 C 14.52
1+28		214.30 204.09 C 10.21
(40')		
0+88 = grd Brk		205.24 199.60 C 5.64
(0+80 = E Wall)		
0+44		195.92 190.10 C 5.82
	(Stubs 5' RT E)	
(0+40 = E Wall)		
0+00 = PT. { 572' S'Ly of S'Ly 30' Line Laurel 45' W'Ly of E. Line Alley		186.29 180.60 C 5.69
B.M. Dio: Elev. Rod:		165.82 = 2x2 HUB = 13+10.35 Line "A" F.B 2269-16

STA.		Elev's
CHK:		281.06 = 281.02 : 2x2 HUB = 3+80 "B" Line FB 2269-19
5+72 = 6" Tee = (3+80 Laurel See Pg 30)		263.09 249.60 C 13.49
5+28 = grd Brk		261.65 249.00 C 12.65
4+88		259.57 244.50 C 15.07
4+48		257.13 240.01 C 17.12
4+08		251.87 235.52 C 16.35
3+68		246.63 231.03 C 15.60
3+28		241.67 226.54 C 15.13
2+88		237.83 222.05 C 15.78

WATER - MAPLE ST. - ALLEY BLK #15 W'ly through HIGHLAND; 44'4L, to ALLEY BLK 13

STA.		Elev's
2+95	263.12 / 259.00 / C 4.12 ; ~~263.99~~ 259.00 ~~4.99~~	~~263.10~~ knocked out / ~~259.00~~ / ~~C 4.10~~
2+45	(Stubs 5' LT. ℄ From here on)	268.72 / 265.00 / C 3.72
1+95 = grd Brk		274.62 / 271.00 / C 3.62
(1+85 = 8"x 6" Tee)		
1+55 = grd Brk		278.99 / 271.6 / C 7.39
1+47 = ℄ F. HyD. (Stubs 10' +20 BK CB Fa)	279.86 / 274.90 TP.CB. / C 4.96	
1+25		280.92 / 271.30 / C 9.62
0+95 = grd Brk		281.47 / 271.0 / C 10.47
0+47.5	(Stubs 5' RT. ℄)	279.87 / 270.30 / C 9.57
0+00 = PT. (30' N. S'ly Line Maple) (5' E'ly Line Alley Blk #15) = 8"x6" Crss (= 6+80 Alley Blk #15 pg 36)		277.47 / 269.60 / C 7.87
B.M.		277.67 = 2V2 = 0+00 "D" Line F.B. #2269-25

STA.		Elev's
grd Brk 5+55 = 8"x6" Cross - E'ly 20' Line 44'4L - (N'ly Tract Exist.) (= 11+97.05 Alley 44'4L) See Pg 31		See Pg 31 273.00
5+25		270.19 / 266.70 / C 3.49
(5+09 = ℄ WAll) 5		
4+95		263.02 / 260.40 / C 2.62
(4+69 = ℄ WAll) 4		
4+55		252.97 / 249.00 / C 3.97
(4+49 = ℄ WAll) 3		
(4+29 = ℄ WAll) 2		
4+25	(Stubs 5' RT ℄ From here on)	233.07 / 229.00 / C 4.07
4+05		239.99 / 229.00 / C 10.99
(3+79 = ℄ WAll) 1		
3+75		248.53 / 244.00 / C 4.53
3+35		257.71 / 253.00 / C 4.71

WATER - MAPLE ST. (Cont.)

STA.		Elev's
C/L	286.73	286.80 = Spike - SW'ly P/L - 44th MAPLE (FB 2269-47)
7+35 = E Line Alley Blk 13	Make Connect. #1	286.95 282.0 C 4.95
6+95 = grid Brk		287.94 282.00 C 5.94
6+65		288.25 280.80 C 8.25
6+35 = grid Brk		286.91 279.60 C 7.31
6+10 F. HYD LT. (Stubs 10' & 20' BK CO FC.)	285.94 281.80 TR CO. C 4.14	
5+95		283.41 276.3 C 7.11

WATER - ALLEY BLK 15 LAUREL N'LY to MAPLE ST.

STA.	Elev's
2+00	238.25 228.0 C 10.25
1+60 = grid Brk	228.58 222.00 C 6.58
(1+39 ℄ WALK) 4	
1+20	217.80 212.60 C 5.2
(0+99 ℄ WALL) 3	
0+80 grid Brk	205.41 203.20 C 2.21
(0+59 ℄ WALL) 2	
0+50 grid Brk (Stubs 5' Rt & ℄)	196.47 190.00 C 6.47
(0+19 = ℄ WALL) 1	
0+00 = PT. 5' W of E'ly Line ALLEY BLK 15 & 30' N of S'ly LINE LAUREL (= 0+00 N'ly on LAUREL See pg 30) (Stub 10' Rt ℄)	182.81 178.60 C 4.21
B.M.	159.51 = 2x2 # (10+66.39 Rt) FB 2269-32

WATER: ALLEY BK 15 (Cont.)

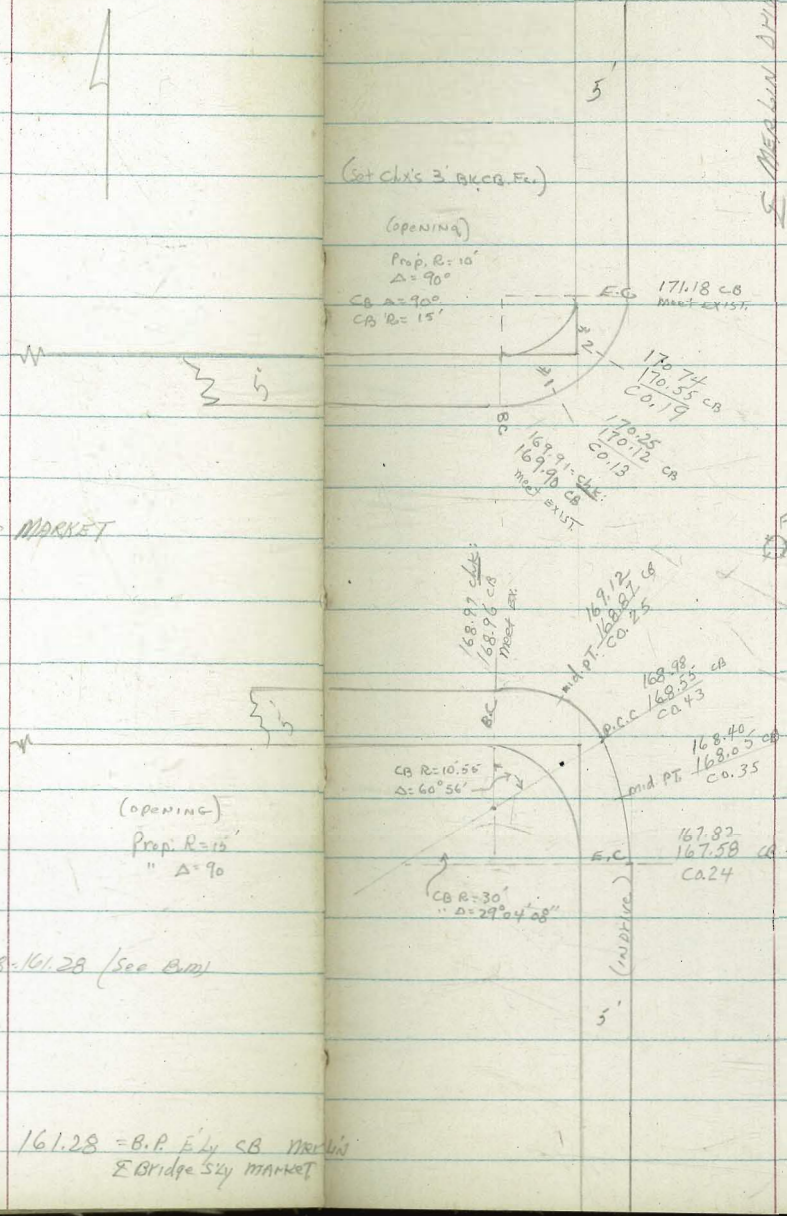
5+60		277.78 272.7 C 5.08
5+20		277.17 271.60 C 5.57
4+80 girder		275.66 269.00 C 6.66
4+40		273.40 263.16 C 10.24
4+00		268.85 257.33 C 11.52
3+60		263.41 251.50 C 11.91
3+20		257.38 245.46 C 11.92
2+80		251.24 239.83 C 11.41
2+40		245.84 234.00 C 11.84

STA.		Elev's
Chk:	277.78	- 277.67 = 0+00 ℄ LINE FB 2269-25
6+80 = { ≈ ℄ 8"x6" "T" / S'ly 30' Line Maple (= 0+00 E'ly Maple See pg 34)		269.60 (See pg 34)
6+40		277.87 270.63 C 7.24
6+00		277.94 271.66 C 6.28

Clark
Shephard
Bruner
O'Neil
9-13-54
W.O. 21265

CB. GRADES: MERLIN DRIVE AT MARKET ST.

Ref: DWG: 5287-B



Chk'd 161.28 - 161.28 (See B.M.)

B.M. Dir. Elev. Reds: 161.28 = B.P. E'ly CB Merlin
E Bridge S'ly Market

Clark Shephard Brunner ONeill

10-21-54

W.O. 21127

MAPLE ST.
GRADES-WATER-MAIN & FAIRMOUNT - Ely to ALLEY BLK 13 SWAN'S ADD.

Ref: DWG: 10902-L
F.B. #2269

STA.		Elev's
chk:	280.17	= 280.17
2+24.61	= E. LINE ALLEY 13 & 13 EXIST. Stub end 8" C.I.	Meet. 282.00 - F.L. EXIST
1+84.61		285.74 280.82 C 4.92
1+44.61		285.60 279.65 C 5.95
1+04.61		284.86 278.48 C 6.38
(+0)		
0+64.61	= E. Line Fairmount.	283.25 277.31 C 5.94
0+32.30	(stubs - Ext 5' RT. ℄)	281.29 276.36 C 4.93
0+00 - EXIST 8" MAIN 64.61' W'ly of E. Line Fairmount.		275.41 ± = F.L. EXIST. 8" C.I.
B.M.	(FB 2269 - 8)	280.17 NWBP Fairmount & Maple

Clark
Shephard
Bruner
O'Neil
10-21-54
W.O. 21127

SEWER:

HOME AVE: W'LY HIGHLAND
-(ALLEY BLK 19 - SWAN'S ADD.)
{EASEMENT}

Ref: F.B. #2269-35-43
DWG: 16902-L

STA.			Elev's
chk:	(F.L. M.H. approx 1' high)	144.04	= 143.12 = F.L. M.H. #15 see DWG: 2185AD
chk: {Fd. grade stub 10' RT ℄ M.H. #15 Also Fd. cut-stake marked (C 4.06)		147.21 = 147.18 (on stub)	= C 4.06 to F.L. M.H. 15 (See pg 19 this Book)
chk:		150.66	150.66 = B.M. EXIST. M.H. #26 (F.B. 2269-45)
0+70.18 {= EXIST. ℄ END = END of Conc. Encasement.		↑ 0+70	143.01 Meet.
0+58.18 = Beg. Conc. Encasement			148.05 142.96 C 5.09
0+29.09			150.99 142.85 C 8.14
0+00 = ℄ EXIST. M.H. #26 DWG 890-D		141.90 = F. Line EX. M.H.	150.66 142.73 = F. Line 8" Sewer At M.H. C 7.93
B.M.	Dir. Elev. Rod.	(F.B. 2269-45)	142.91 = F. Line EXIST. M.H.

J.M.C.
10-21-54

Sewer: HOME AVE - 454L ST.

Ref: F.B. #2269-34
DWG: 10902-L

STA.			Elev's
chk: STG B.M.		159.51	= 159.51
chk: on EXIST M.H. #9 (See DWG 2184-D)		155.00	= 154.94
0+73.61 = ℄ EXIST M.H. #9 DWG: 2184D	↑ 38.6'		154.94 meet
0+50			160.79 154.03 C 6.76
0+25			161.23 153.06 C 8.17
0+00 = {Const. M.H. ℄ EXIST. 15" Sewer DWG 890-D} (127.59' E'ly EXIST M.H. #28) DWG 890-D		159.33 151.27 = F.L. C 8.06 M.H.	159.33 152.10 = F.L. 8" Sewer C 7.23
B.M.		(10+61.5	159.51 = 2x2 (-34 F.B. 2269 -42)

Clark
Shephard
Bruner
O'Neil
10-27-54
W.O. 21263

STORM-DRAIN: 47'L + MARYLOU RD.

Ref: F.B. 2245-19
DWG: 5427-B

STA.		Elev's
1+05.36		196.87 183.68 C 13.19
0+98.16	= ℄ CUT-OFF WALL	198.82 187.12 C 11.70
0+74.16	= ℄ CUTOFF WALL	207.64 201.52 C 6.12
0+70.96		209.12 203.08 C 6.04
0+67.54		210.68 204.06 C 6.62
0+64 = BRK		211.90 204.43 C 7.47
0+40	(Stubs set 10 s'ly ℄)	213.76 204.91 C 8.85
0+00 = (E. Line 47'L) = W'ly End EXIST 24" R.C.P.	meet	205.71 = F.L. EXIST.
T.B.M.	DIR. Elev. Rdg:	211.86 = (chk 0+40 Pg 20 F.B. 2245)
B.M.		228.05 = INT. ℄ 47'L + Federal

(Set Tie Pav. Nail 10' RT ℄ (N'ly) AT 0+40)

STA.		Elev's:
chk:	211.87	= 211.86 = STG B.M.
1+41.06 = W'ly ℄ CURTAIN WALL		190.52 178.82 C 11.70
1+13.06		194.99 181.54 C 13.45

Clark
Shephard
Bruner
O'Neil
11-29-54
W.O. 20631

IMP'S: MARLBOROUGH Drive & MARLBOROUGH AVE at MONROE

Ref. F.B. 2295-38
Dwg: 5482-B

S'Wly Ret.

STA.		CB. Elev.
E.C (MONROE)	(Meet Exist.)	368.96
M.d.PT	Stak 3' off 368.78 368.38 GUTT. C.O. .40	368.78 368.93 F.O. .15
B.C (S.W. MARLBOROUGH)	ch:	368.89 368.90 Meet EXIST.
(Note: 0.55' CB Fc on SW'ly Ret.)		
B.M. (Dir. Elev. Rod.)		366.07 = N.W.B.P. MEADE & MARLBOROUGH

N'E Ly Ret.

STA.	GUTT Elev.	CB. Elev's.
E.C (ON MONROE)	369.26	369.75 Meet EXIST.
#3 = P.C.C	369.91 369.29 C.O. .62	369.91 369.71 C.O. .20
# 2	369.93 369.33 C.O. .60	369.93 369.67 C.O. .26
# 1	369.81 369.36 C.O. .45	369.81 369.64 C.O. .17
B.C. (N.E. ON. Marlborough)	369.39	369.61 chk 369.61 Meet Exist.

Clark
Shephard
Brunner
Oneil
12-15-54
W.O. 32278

ALLEY (S. ARLINGTON) BLK J BLK 255 HOCKS SUBDIVISION
VESTA to WODEN — bet. MAIN & DALBERGIA

REF: E.B.# 2177-17
Dwg: 11466-L

STA.	LT. Elevs	RT. Elevs
1+40	14.93 14.81 C 0.12	14.73 15.01 F 0.28
1+20	15.00 15.00 Grade	15.04 15.20 F 0.16
1+00	15.70 15.29 C 0.41	15.59 15.49 C 0.10
0+80 = B.V.C.	16.22 15.68 C 0.54	15.97 15.88 F 0.01
0+60	17.11 16.12 C 0.99	18.12 16.32 C 1.80
0+40	17.69 16.56 C 1.13	18.28 16.76 C 1.52
0+20	17.97 17.00 C 0.97	~~18.54~~ ~~16.70~~ C 1.84 or F stub RT. 18.54 17.20 C 1.34
0+00 = E/y LINE VESTA	Meet EXIST 17.34	17.32 = EXIST Meet 16.37 (2) Bad grade Meet EXIST 17.66
B.M. DIP. Elev. Rod:		14.89 = S.E.B.P. VESTA & MAIN

STA.	LT.	RT.
3+60	16.80 14.32 C 2.48	15.68 14.52 C 1.16
3+35	16.24 14.37 C 1.87	14.97 14.57 C 0.40
3+10	15.27 14.42 C 0.85	15.41 14.62 C 0.79
2+85	14.84 14.47 C 0.37	15.10 14.67 C 0.43
2+60	14.83 14.52 C 0.31	15.22 14.72 C 0.50
2+35	1460 14.57 C 0.03	14.76 14.77 F 0.01
2+10	14.42 14.62 F 0.20	14.81 14.82 F 0.01
1+85	14.89 14.67 C 0.22	14.91 14.87 C 0.04
1+60 = E.V.C.	14.61 14.72 F 0.11	14.76 14.92 F 0.16

ALLEY BLK 255 - (CONT.)

STA.	LT.	RT.
5+60	15.35 13.12 C 2.23	15.43 13.32 C 2.11
5+40	15.27 13.51 C 1.76	15.69 13.71 C 1.98
5+20	15.37 13.80 C 1.57	15.39 14.00 C 1.39
5+00	15.60 13.99 C 1.61	14.30 14.19 C 0.11
	→ Sew. stub Set 5 F.C. on Prop. At. Alley 14.96 18.24 E C 6.72	14.96 9.28 prop 5.68
4+80 = {= Sew LAT #1 - RT. B.V.C	15.72 14.08 C 1.64	14.73 14.28 C 0.45
4+60	16.06 14.12 C 1.94	15.03 14.32 C 0.71
4+35	16.02 14.17 C 1.85	15.88 14.37 C 1.51
4+10	17.64 14.22 C 3.42	16.92 14.42 C 2.50
3+85	16.59 14.27 C 2.32	16.08 14.47 C 1.61

STA.	LT.	RT.
Chk:		14.89 = 14.89 - STC B.M.
Chk: Tp CB. LT. END. 12.20 = 12.20 F.B. 2177-24		
6+00.52 = W. Line WODEN	12.04 Set V on CB.	12.81 11.84 C 0.97
5+80	15.54 12.64 C 2.90	14.95 12.84 C 2.11

Clark
Garber
Brunner
Owen L

12-29-54
W.O. 31986

OLIVERA AVE & BONITA DR.

Ref: F.B # 2130
DWG: 11294-L
11295-L

OLIVERA AVE : S'LY CB GRADE

STA.	RT. (S'LY) CB	RT. (S'LY) Prop	STA.	RT. (S'LY) CB	RT. (S'LY) Prop
				276.61	= 276.61 = STG B.M.
1+43.43	280.07 279.96 C0.11	277.43 279.96 F2.53	2+75.08	284.46 284.05 C0.41	277.22 284.05 F4.83
1+21.95	279.04 279.15 F0.11	279.15	2+62	283.94 283.78 C0.16	278.70 283.78 F5.08
1+00.48	278.65 278.35 C0.30	278.86 278.35 C0.51	2+40.47	283.31 283.31 Grade	283.31
0+85.48 = B.C. OLIVERA LT.	27829 277.90 C0.39	279.35 277.90 C1.45	2+18.95	282.72 282.84 F0.12	276.87 282.84 F5.97
0+70.48	278.08 277.75 C0.33	279.41 277.75 C1.66	2+03.95	282.40 282.38 C0.02	276.88 282.38 F5.50
0+50	277.86 277.50 C0.36	280.00 277.50 C 2.50	1+88.95	282.03 281.84 C0.19	281.84
0+25	277.46 277.20 C0.26	277.20	1+73.43	281.01 281.16 F0.15	273.53 281.16 F7.63
0+00 = C.B.E.C.R (S'LY OLIVERA & BONITA DR.) (S'LY CB LINE STATIONING CB.R = 220)	276.85 276.90 F0.05	279.35 276.90 C1.45	1+58.43	280.62 280.53 C0.09	280.53
B.M. DIR. ELEV. ROD:	276.61 = C.T.R. BONITA DR. & OLIVERA AVE				

BONITA DRIVE

(E'ly & S'ly) LT.

STA.	Prop	CB
0+68.78	275.43	275.59
	275.28	275.28
	C0.15	C0.31
0+58.78	275.50	275.75
		275.50
		C0.25
0+50.07	278.29	275.94
	275.70	275.70
	C2.59	C0.24
0+41.36	275.82	275.92
		275.82
		C0.10
0+31.36	278.32	276.17
	276.00	276.00
	C2.32	C0.17
0+21.36	276.10	276.43
		276.10
		C0.33
0+11.36 = B.C. BONITA DR.	278.04	276.54
	276.20	276.20
Δ = 51°13'30" Rt.	C1.84	C0.34
0+00 = CB. B.C LT (SE'ly BONITA & OLIVERA)	277.98	276.68
	276.35	276.35
	C1.63	C0.33
(SE'ly CB. STATIONING)		

B.M. DIV. ERR. NO D: 276.61 = C.TR. OLIVERA & BONITA

(E'ly & S'ly) LT.

STA.	Prop.	CB.
CAL:		= 276.61 = STG. B.M.
	268.27	268.93
2+42.36	269.20	269.20
= End Const	Fo. .93	Fo. .27
		269.85
2+25	269.83	269.83
		C0.02
	271.05	270.88
2+00	270.72	270.72
	C0.33	C0.16
		271.90
1+75	271.62	271.62
		C0.28
	272.66	272.65
1+50	272.51	272.51
	C0.15	C0.14
		273.76
1+25	273.41	273.41
		C0.35
	274.52	274.45
1+00	274.30	274.30
	C0.22	C0.15
	274.70	274.81
0+88.78	274.70	274.70
= E.C BONITA DR.	Grade	C0.11
	275.20	275.20
0+78.78	275.00	275.00
	C0.20	C0.20

S'ELY CB. Return
/ BONITA DR. & OLIVERA AVE

Clark
Shepherd
Brunner
O'Neil
1-12-55

GRADES, Proposed For Study - 61ST S'LY OF BENSON ST.

W.O. 62410
Ref: F.B. 2093-37-60
DWG: 11951-L

STA.	(E4) LT.	℄	RT (N'LY)
1+40 = E.V.C	323.57 318.80 C 4.77		330.60 319.80 C 10.80
1+20	325.50 320.44 C 5.06		331.70 321.44 C 10.26
1+00	327.59 321.25 C 6.34		333.05 322.53 C 10.52
0+80	328.37 321.60 C 6.77		333.46 323.06 C 10.40
0+60 (35 E'LY OF EXIST. E. LINE 61'ST.) LT. ONLY	322.59 321.80 C 0.79		
0+60 (AT S'ELY CORN. (BENSON & 61'ST.)	327.26 321.70 C 5.56		332.87 323.03 C 9.84
0+40 RT. ONLY			328.91 322.55 C 6.36
0+30 LT. ONLY	320.72 320.16 C 0.56		
0+20 RT. ONLY			323.30 321.32 C 1.98
= B.V.C. RT. 0+00 = N'LY LINE BENSON	318.61		321.00 319.61 C 1.39
B.M. DIV. ELEV. Rod:		F.B. 2093-61	317.26 = R.E. 491 N'LY BENSON & 61'ST

CB. E.C
(ON OLIVERA AVE.)
Δ = 84° 45'
Ch.

276.90

# 1	276.60	277.98
	276.55	276.55
Δ =	C 0.05	C 1.43
Ch. =		

CB. B.C
(ON BONITA DR.)

276.35

61ST (CONT.)

	(ELV) LT.	℄	RT.
CHK:		317.29 = 317.26 = STG B.M.	
2+60 = END grade	306.82 307.29 F 0.46		309.20 308.28 C 0.92
2+20	312.95 311.12 C 1.83		317.40 312.12 C 5.28
1+80	318.49 314.96 C 3.53		323.18 315.96 C 7.22

Clark
Shephard
Bruner
O'Neil
4-1-55
W.O. 21278

52nd ST. DRAIN - OAK PARK - Pirotte

℄ EXIST. 33" R.C.P. to N.E'ly OAK PARK & 52nd

STA:		Elev's:	
1+70.93 = F.C. C.B. Type "K" 7' - INLET. (Set chk. 6' Bk. C.B. F.C.)	246.62 T.P. C.B. = 246.46 C 0.16	246.62 F.L. Inlet: 240.64 C 5.98	246.62 Gutt. = 245.63
1+58.47 = E.C.		246.02 240.25 C 5.77	
1+34.91 = Mid-PT.		245.95 239.54 C 6.41	
(1+12 to meet Rad. PT. on 60° L. From P.I.) 1+11.35 = B.C. Δ = 60° RT. R = 45'	↑ 3%	245.78 238.84 C 6.94	
0+80		245.53 237.90 C 7.63	
0+40	(Set Nails 12' E'ly ℄)	245.21 236.70 C 8.51	
0+00 = ℄ EXIST 33" R.C.P. (Lots 30 & 31 Clearview Manor)	F.L. 18" Pipe S'ly = 244.76 232.59 C 12.17	244.76 235.50 = F.L. 18" Pipe N'ly C 9.26	
Type "H" Cleanout.	244.76 244.40 = T.P. Box C 0.36	228.5± meet EXIST. F.L. 33" R.C.P.	
B.M.		244.53 = |X| = 0+00 F.B. 2246-19	

Ref: F.B. # 2246-17
DWG: 2769-D
T.P. 3603

℄ EXIST 33" R.C.P. S'ly to N.E'ly KALMIA & 52nd

STA:		Elev's:	
0+38 E'ly of 1+39.25 = ℄ 7' Type K Inlet	T.P. C.B. 243.90	244.11 Gutt. 243.07	244.11 238.00 = F.L. Inlet. C 6.11
0+00 (See 1+39.25 below)			237.00

GRADES ABOVE For 38' Pipe & Inlet AT N.E'ly LAUREL & 52nd
Note: Cont. ℄ Grades 18" Pipe S'ly - Pg 49

STA:		Elev's:	
1+39.25 = ℄ Type "G" Cleanout. (= 0+00 E'ly to Inlet.)	243.48 243.30 = T.P. Box C 0.18 (Set stub 10' & Nail 20' LT ℄ Box)	243.48 237.00 = F.L. 18" Pipe E'ly to Inlet. C 6.48	243.48 233.56 = F.L. Box C 9.92
1+20	↑ .7%		243.69 233.43 C 10.26
0+80			243.96 233.15 C 10.81
0+40			244.39 232.87 C 11.52
0+00 = ℄ EXIST 33" R.C.P. (See opp. pg.)			232.59 = F.L. 18" S'ly

E38"R.C.P S'ly to KALMIA

STA.	Elev's
3+92.40 = mid-pt.	241.44 235.33 C 6.11
3+74.73 = B.C Δ = 45° LT R = 45'	241.56 235.21 C 6.35
3+60	241.66 235.11 C 6.55
3+20	241.94 234.83 C 7.11
2+80	242.27 234.55 C 7.72
2+40 (set NAILS 12' E'ly of E)	242.60 234.27 C 8.33
2+00	243.05 233.99 C 9.06
1+60	243.43 233.71 C 10.72
(Resume Grades E 18" Pipe S'ly)	

STA.	Elev's
Ck: TP CB NELY Ret E, KALMIA 45 bnd	241.52 = 241.52
4+47.35 = W'ly Edge 7' "K" INLET.	241.65 235.70 = FL INLET C 5.95
4+10.07 = E.C	241.27 235.46 C 5.81

DRAIN- Pirotte Dr. -
EXIST. 18" R.C.P. W'ly Line Lot 178 (EXIST. CB INLET)
O.D. Arnold's Westwood E'ly to N'E'ly
Pirotte & 52nd.

STA.		Elev's.
1+19.75 = B.V.C.		235.35 229.67 C 5.68
0+75.75		235.12 229.40 C 5.72
0+31.75 = E.C.		234.97 229.14 C 5.83
0+25.86 = mid pt.		
0+19.97 B.C Δ = 30° RT R = 22.5'	(Set nails 8' Lt ℄)	234.98 229.07 C 5.91
0+00 = N'ly Edge Exist Box - (CB Inlet)		228.95 = F.L. meet
B.M.		258.08 = B.P. N'ly End S.E Corn. 54'/4L & P

ISLAND
Pirotte

STA		Elev's.
2+42.58 = E.C.	(Nail 8' Lt ℄)	236.72 231.88 C 4.84
2+30.80 = mid-pt.		231.82
2+19.02 = B.C Δ = 60° LT. R = 22.5'		236.51 231.76 C 4.75
2+07.75 = E.V.C		236.37 231.70 C 4.67
1+99.75		
1+91.75 = B.V.C		236.21 231.48 C 4.73
1+63.75		235.87 230.69 C 5.18
1+35.75 = END. Vert. Curve		235.53 229.91 C 5.62
1+27.75		

Drain - Pivotte (cont.)

CB's (Type G) 52nd ST. 51
N Line O.D. Arnold's Westwood Hills Unit #1
S'ly to CB. B's CS - Pivotte Dr.

STA.	LT. CB	LT. GUTT	℄	RT GUTT	RT CB.
E.C	237.28 237.26 C0.02	237.28 236.91 C0.37		235.90	236.37 236.40 F0.03
# 3	237.16 237.18 F0.02				
#2=mid-pt.	237.40 237.21 C0.19	237.40 236.38 C 1.02		236.20	236.67 236.70 F0.03
# 1	237.33 237.33 Grade				
0+84.64 LT. & 0+84.64 RT. CB. B.O's	237.40 237.50 F0.10	237.40 237.00 C0.40		236.50	237.01 237.00 C0.01
0+75	237.65 237.69 F0.04				237.14 237.19 F0.05
0+50	238.08 238.18 F0.10				237.61 237.70 F0.09
0+25	238.40 238.67 F0.27				238.17 238.20 F0.03
(0+04.4=E.C Easement CB - meet)	239.15 chk' meet				
0+00=N. Line Westwood Hills #1	239.16				239.30 238.70 C0.60

B.M. Dik. Elev. Rod. (See pg. 50)

chk: TP. CB & NE'ly Ret. 237.21 = 237.21 F.B. 224/6-27
52nd & Pivotte

2+65.28 = CB Fc & Inlet NE'ly Pivotte & 52nd — 237.21 TP. CB. (Nail & Lte) — 237.03 / 232.00 = F.L. Inlet — 236.38 Gutt. 5.03

Ref: Dwg: 2769-D
F.B 2246-17

CB's. TYPE "C" - PIROTTE DR
W'ly LINE LOT 178 to CB. BC's 52nd

STA.	CB (N'ly LT.)	GUT.	E	GUT. (RT)	CB
1+77.4± = CB. BC	236.37 236.40 FO.03				235.91 Meet.
1+72.4± = Prop. B.C	236.39 236.32 CO.07				235.78 235.68 CO.10
1+47.5	236.07 235.92 CO.15				235.48 235.44 CO.04
1+22.5±	235.73 235.71 CO.02				235.18 235.21 FO.03
0+95	235.66 235.57 CO.09				234.95 235.07 FO.12
0+70	235.50 235.45 CO.05				234.84 234.94 FO.10
0+45	235.34 235.32 CO.02				234.78 234.82 FO.04
0+20	235.20 235.20 Grade 235.20 chk 235.21	235.70		234.20	234.45 Knocked out ~~234.70~~ 234.70 ~~CO.03~~ FO.25 234.69 chk 234.69
0+05.5 Meet Exist alley end inlet		C.H 234.69		234.13 Meet	
0+00 = W'ly Line Lot 178 (Projected)		234.55			

Clark
Shephard
Bruner
O'Neil

4-13-55

W.O. 21055

DRAIN - 47th & FRANKLIN to SOUTH CHOLLAS CREEK

Ref:

STA.		Elev's
1+61.39 (84")		52.95 / 48.67 / C 4.28
1+27.39 = E.C		50.44 / 46.97 / C 3.47
1+03.69 mid-pt.	5% →	48.75 / 45.78 / C 2.97
0+80 = grd Brk = B.C Δ=30° Rt. R=90.5' T=24.25		47.90 / 44.60 / C 3.30
0+64 = grd Brk		47.15 / 43.80 / C 3.35
0+48 = grd Brk	2.5% → stubs set 5' Rt.	46.37 / 43.15 = F.L / C 3.22
0+24		45.62 / 42.57 / C 3.05
0+00 = W'ly Fc. Gravity-type Hdwall		45.10 / 42.00 = F.L 30" Pipe / C 3.10
B.M: Dir. Elev. Rod:		112.17 = S.E.B.P 47th & IMPERIAL

STA.		Elev's:
4+40 (omit)	2.5% →	
= 3+97.14 = End Pipe (4' stub) 1'st. Section (415.38' omitted on this Contract, Change order #1)		
3+93.14 = ℄ Cleanout #1 Type F = ∠ Lt. 18°09'52" stubs set 10' & 25' Rt ℄ Box		66.75 / 58.32 = F.L Box / C 8.43
3+55.23		71.94 / 57.01 / C 14.93
3+17.31		70.83 / 55.71 / C 15.12
2+79.39 = grd Brk		59.57 / 54.41 / C 5.16
2+63.39 = grd Brk	5% →	59.07 / 53.77 / C 5.30
2+29.39		60.44 / 52.07 / C 8.37
1+95.39		58.19 / 50.37 / C 7.82

DRAIN - 47th FRANKLIN to Chollas Creek

STA.	Elev's:		
8+00			
7+60			
7+20			
6+80			
6+40			
6+00			
5+60			
5+20			
4+80			

(Omit on this Contract)

258 →

STA	Elev's:	
10+27.00 = ℄ Cleanout #2 Stubs 8"+16" RT & Box	81.68 74.07 = F.L. C 7.61 W'ly	81.68 74.32 = F.L. E'ly C 7.36
10+01.50		78.35 73.86 C 4.49
9+61.50 = E.C def = 22° 28' 07.5" ch = 17.71'		77.15 73.14 C 4.01
9+43.76 Line only def = 16° 51' 06" Ch = 17.71'		
9+26.01 = mid. pt. def = 11° 14' 04" ch = 17.71'		75.88 72.51 C 3.37
9+08.27 Line only def = 5° 37' 02" Ch = 17.71		
8+90.52 = B.C Δ = 44° 56' 15" LT. R = 90.5 T = 37.43' E = 7.42'	1.785 →	74.32 71.88 F.L C 2.44
8+80		74.06 71.69 C 2.37
8+40		73.06 70.98 C 2.08
8+14.42 = Beg. Pipe (Change order #1 See Pg 53)	= grade change as per Change Order #1	72.53 70.27 C 2.26

DRAIN: FRANKLIN to CHOLLAS CREEK

STA.		Elev's
12+64.30		83.13 80.22 C2.91
12+24.30 = E.C deF = 20° 11' 22" Ch = 15.91'		82.13 79.22 C 2.91
12+08.35 Line only deF = 15° 08' 30" Ch = 15.91		
11+92.40 = Mid-pt. deF = 10° 05' 40" Ch = 15.90		81.30 78.42 C2.88
11+76.45 Line only deF = 5° 02' 50" Ch = 15.91		
11+60.51 = B.C Δ = 40° 22' 45" LT. T = 33.28' R = 90.50' E = 5.92	23.9	80.20 77.62 C2.58
11+47		79.98 77.31 C2.67
11+07		79.32 76.32 C3.00
10+67		84.93 75.31 C9.62

STA.	Elev's:	
15+45		94.25 87.52 C6.73
20 FT. - 12" Pipe 45° E'ly of N'ly alignment of 24" Pipe Pynchon (Beg. at Cleanout #3 E'ly side Box)	96.49 91.09 F.L. at Box C5.40 (off stub 8' RT ℄)	94.69 93.50 F.L. End 12" pipe C1.19
15+00.52 = ℄ Cleanout #3 = ∠ LT 89° 56' stubs set 8' + 30' RT. ℄ Box	96.49 86.09 = F.L W'ly C10.40	96.49 86.34 = F.L N'ly C10.15
14+80		94.52 85.60 C8.92
14+40		88.95 84.60 C4.35
13+99.42 = E.C		86.71 83.60 C3.11
13+74.18 = mid-pt.		85.68 82.97 C2.71
13+48.94 = B.C Δ = 65° RT T = 28.35 R = 44.50' E = 8.26'		85.00 82.34 C2.66
13+04.30		83.75 81.22 C2.53

(41.84)

18+37.08 = grid Brk

102.85
95.19
C 7.66

18+02.41

101.01
94.28
C 6.73

17+67.74

(39.6)

100.21
93.36
C 6.85

17+33.08 = E.C

99.10
92.45
C 6.65

17+15.81 = mid PT

98.32
92.00
C 6.32

16+98.55 = B.C
Δ = 89°56' RT
T = 21.97'
R = 22'

(56.65 = RT Δ)

97.51
91.55
C 5.96

16+80

97.51
91.07
C 6.44

16+35

97.73
89.88
C 7.85

15+90

96.90
88.70
C 8.20

Brk

112.15 = 112.17 = S.E.B.P.
IMPERIAL
#7746

20+87.54 = ℄ CLEANOUT #5
(N'ELY Ref P.I.)

109.13
109.05 = Elev Tp.
C 0.08

109.13
100.25 F.L. to #3 INLET
C 8.88

109.13 F.L.
105.00 to #1 INLET
C 4.13

109.13
100.25 = F.L.
C 8.88 BOX

20+67.07 = ℄

108.92
100.04 = F.L.
C 8.88

20+46.32 = ℄ CLEANOUT #4
(S.ELY Ref. P.I.)
±

108.67
108.73 = Elev Tp.
F 0.06

108.67
102.50 = F.L. to #1 INLET
C 6.17

108.67
99.84 = F.L. to #2 INLET
C 8.83

108.67
99.34 = F.L. BOX
C 9.33

20+04.46

108.25
98.51
C 9.74

19+62.62

108.50
97.68
C 10.82

19+20.77

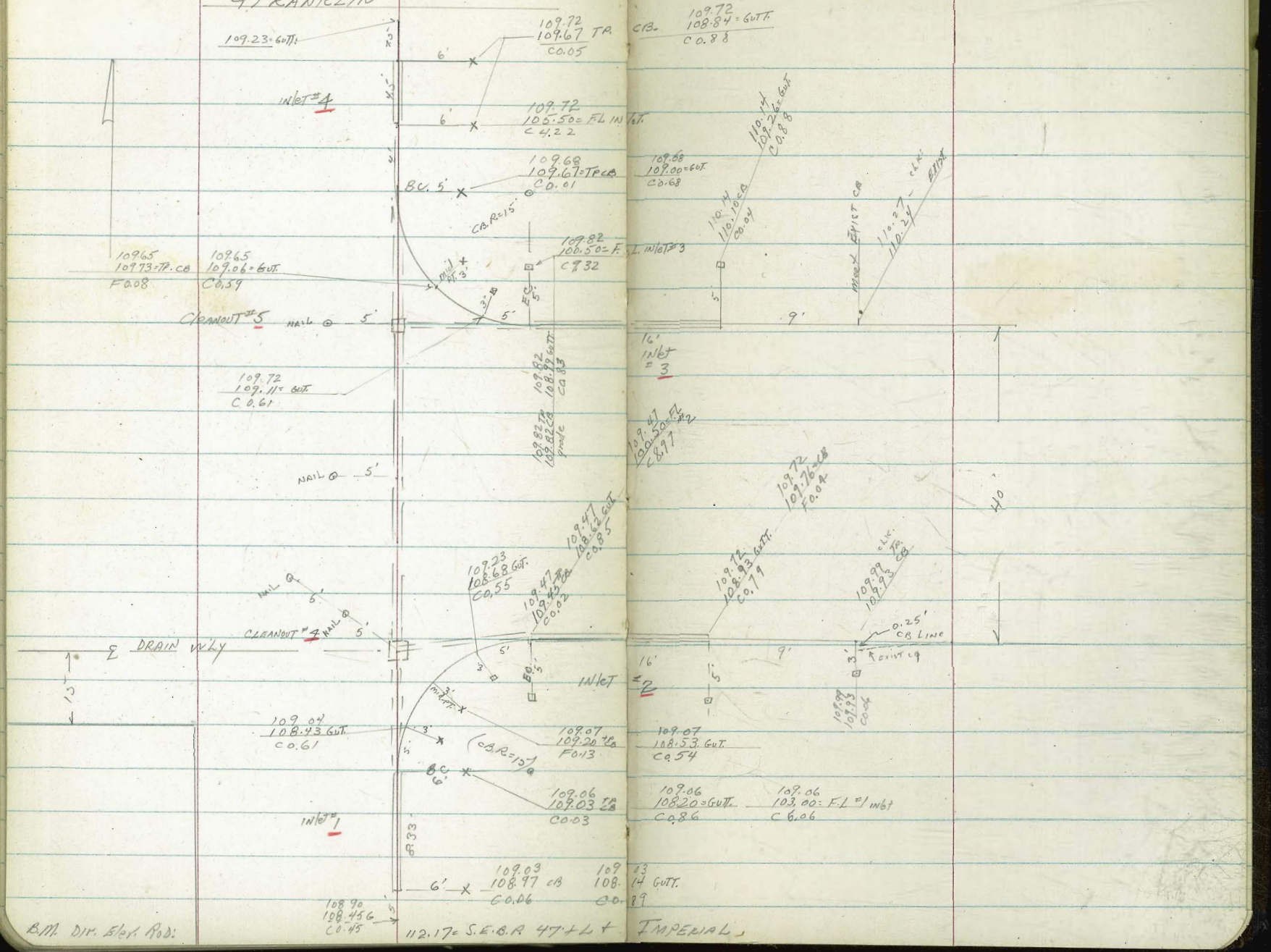
(stubs 5' RT)

107.91
96.85
C 11.06

18+78.92

105.23
96.02
C 9.21

INTERSECTION DETAIL - 47th & FRANKLIN



Clark
Shepherd
Brunner
O'Neil

5-25-55
W.O. 31627

Imp's AKRON ST. - HILL ST.

N'ly to Pt. 95'± S'ly of S'ly Line ULLMAN ST.

AKRON - HILL to TRUMBULL

Note: EXIST. CB's & WALKS.

STA.	CB	℄	CB
2+50	155.47	154.48	
2+46.3± RT only			153.98
2+30		156.19	
2+26.5±			156.17
0+20			
0+07 ±			167.50
0+00 = N'ly Line HILL	168.30	167.70	
B.M. DIV. ELEV. Rod:			156.11 = S. AKRON

(CB's EXIST. between HILL & TRUMBULL)

Ref: DWG: 11800-L
F.B: 2255-28

Note: EXIST CB's on RT (E24) (Pg 58)

CB. GRADES

AKRON - TRUMBULL to ULLMAN

STA.	P.L	CB	GUTT.	℄	CB (EXIST.)
1+50	153.69 151.55 C 2.14	151.31 151.55 F 0.24			
1+40 LT. CHK. TP. CB	147.81 CHK. 147.86				
1+30 B.V.C	152.85 151.80 C 1.05	152.25 151.80 C 0.45			
1+25		151.95 151.87 C 0.08			
1+00	152.68 152.22 C 0.46	152.11 152.22 F 0.11			
0+75		152.44 152.56 F 0.12			
0+50 CHK.	152.91 EXIST. 152.90	152.91 CHK. 152.90 EXIST			
0+27.5					
0+05					
Conc. GUTT.					
-0+00 = Orig. Prop. Line 70' N'ly of S'ly Line TRUMBULL		154.20 = EXIST F.C			
E.O.P. TRUMBULL ST's					

LT.

STA.	P.L	CB.	GUTT.	℄
2+51.20 GUT. only-LT			146.61	
2+41.20 GUT. LT. only			147.30	
2+39.92 existing	147.8; dik: 147.80	147.80		
2+25 meet EXIST CB & Beg Conc. Gutt.				
2+20 Beg. Conc. Walk-RT.				
2+19.92	151.89 148.48 C 3.41	148.54 148.48 C 0.06		
1+95	149.84	150.00 149.84 C0.16		
1+70 = E.V.C.	153.53 151.20 C 2.33	150.95 151.20 F 0.25		

AKRON - TRUMBULL to ULLMAN

WATER & SEWER LAT'S

STA.	P.L LT.	℄	P.L RT.
2+16.75 = W.S RT.			
2+11.75 = Sew LAT #3 RT.		148.09 132.90 ℄ C 15.19	148.09 133.60 Beg 14.49
2+03 = W.S. LT.	152.50 144.50 C 8.00		
1+98 = Sew LAT #2 LT.	151.95 144.00 PL C 7.95	151.95 143.5 ℄ C 8.45	
1+66.75 = Sew LAT. #1 RT.		149.34 133.30 ℄ C 16.04	149.34 133.90 PL C 15.44
1+61.75 = W.S RT. (stubs set on P. Line)			
0+00 = old-Line TRUMBULL (Only SLYLine TRUMBULL)			

Clark Shephard Bruner

IMP'S: ALLEY BLK 10 · NORMAL HT'S
Copley to ARTHUR

7-1-55
W.O. 32457

Ref: F.B. 2268-36
DWG: 11903-L

STA.	LT.	℄	RT.
1+50	395.55 394.27 C 1.28		396.12 394.27 C 1.85
1+25	395.00 394.19 C 0.81		396.06 394.19 C 1.87
1+00	395.09 394.12 C 0.97		395.42 394.12 C 1.30
0+80	395.28 394.06 C 1.22		395.42 394.06 C 1.36
0+60	395.18 393.97 C 1.21		395.30 393.97 C 1.33
0+40	394.79 393.83 C 0.96	394.79 393.47 C 1.32 off stub LT	396.24 393.82 C 1.42
0+20	394.89 393.62 C 1.27		394.89 393.62 C 1.27
0+00 = N. Line Copley	393.35	393.09 (Meet Pat.)	393.33
B.M.: Dim. Elev. Rod.			392.13 =

STA.	LT.	RT.
3+60 : Brk	395.26 394.90 C 0.36	395.47 394.90 C 0.57
3+40	395.38 394.84 C 0.54	395.92 394.84 C 1.08
3+20	395.07 394.78 C 0.29	395.22 394.78 C 0.44
3+00	395.26 394.72 C 0.54	395.68 394.72 C 0.96
2+75	394.95 394.64 C 0.31	395.64 394.64 C 1.00
2+50	395.70 394.57 C 1.13	395.62 394.57 C 1.05
2+25	395.60 394.49 C 1.11	395.68 394.49 C 1.19
2+00	395.62 394.42 C 1.20	395.13 394.42 C 0.71
1+75	395.61 394.34 C 1.27	395.09 394.34 C 0.75
S.E.B.P. 34414 Copley		

ALLEY BLK 10 (CONT.)

STA	LT.	℄	RT.
5+80	396.67 395.25 C 1.42		396.41 395.25 C 1.16
5+60	396.83 395.67 C 1.16	396.83 395.32 C 1.51℄ (OFF stub LT.)	396.78 395.67 C 1.11
5+40	396.61 395.90 C0.71		397.71 395.90 C 1.81
5+20 = B.V.C.	396.05 395.98 C0.07		397.53 395.98 C 1.55
5+00	396.07 395.84 C0.23		396.58 395.84 C0.74
4+75	395.72 395.68 C0.04		396.26 395.68 C0.58
4+50	395.60 395.51 C0.09		395.95 395.51 C0.44
4+25	395.57 395.34 C0.23		395.64 395.34 C0.30
4+00	395.62 395.17 C0.45		395.75 395.17 C0.58
3+75	395.30 395.00 C0.30		395.58 395.00 C0.58

STA.	LT.	℄	RT.
ChK: TP. CB - END RT.		394.82 =	394.81 FB #2268-40
6+00.70 = S. LINE ARTHUR	395.08 394.63 C0.45	395.08 394.41 C0.67 (OFF stub LT.)	395.15 394.65 C0.50

Clark
Shephard
Brewer
O'Neil

7-12-55
W.O. 21306

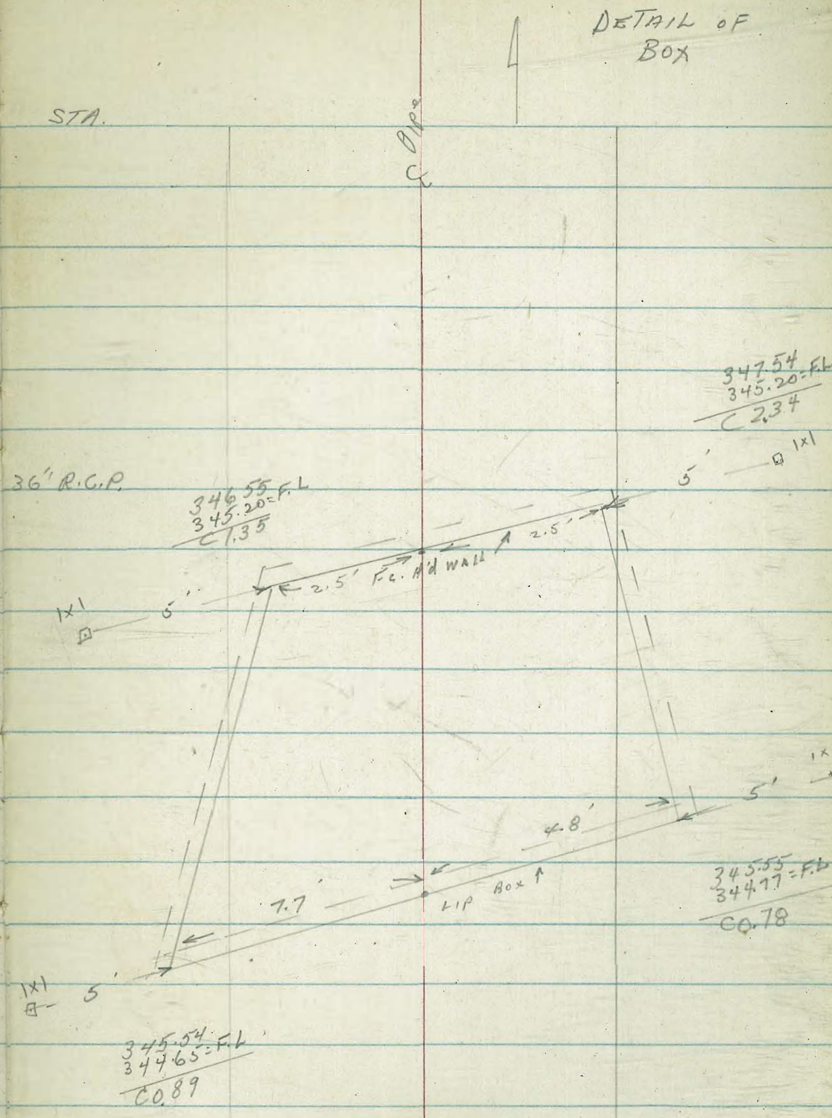
STORM DRAIN - SE'ly UNIVERSITY & ROLANDO - LOT 19
RANCHO MISSION

Ref: F.B. 2270-55
DWG: 5609-B

STA.			
		Chk:	349.06 =
1+11.80 = End Exist 36" R.C.P.			349.08 = F.L. Exist. 36" R.C.P.
0+77.12			351.32 347.79 C 3.53
0+42.46			348.02 346.49 C 1.53
0+12.13 = Pt. Int. S. Line Lot 19 - Rcho Mission & ℄ Drain			
0+07.8 = Fc. Headwall Box at ℄		(See grades opp. pg.)	345.20
0+00 {= Pt. 111.11 Ft. E'ly E. Line Rolando & 12.13' S'ly (on ℄ Drain) of S. Line Lot 19 Rcho Mission; = Lip Box at ℄			344.72
	(For Pipe Stubs set 10' Lt. ℄)		
B.M. Dir. Elev Rod:	(For detail Box See Pg Opposite) →		343.50 = E'ly End Box Culvert under Rolando Blvd (Assumed As per F.B. 2270)

DETAIL OF BOX

STA.



Clark
Shephard
Bruner
O'Neil

7-19-55
W.O. 21371

Imps "E" ST - ADJACENT LOT 7 - BLK #3
Culverwells (16 + E - NE'Ly)

Ref: DWG: 12448-L

STA.		WALK
1+00 Beg Steps		64.84
0+80		62.92
0+60		61.01
0+40		59.09
0+20 = grd Brk		57.18
0+12 = Beg 16' Drive		
0+00 = E. Line 16th = E.C. CB. Ret.		55.90 = EXIST. WALK E.C.

STA.	WALK	CB.
1+12 End Steps & meet EXIST WALK	73.42	
1+00 Beg Steps	64.84	

B.M. Div. Elev. Rod: 55.89 = S.W.B.P. 16th & Bidway

Clark
Shephard
Bruner
O'Neil
8-12-55
W.O. 21038

STORM-DRAIN - LOTS 17 & 18
BLK "D" MONT CLAIR
(B'DRY & THORN)

ReF: F.B. # 2365-32
DWG: 5754-B

STA.		Elev.
0+40		270.75 265.80 C 4.95
0+00	= PT. 128' S'ly of End Exist. 36" R.C.P. on ℄ Survey as Per F.B. # 2365-32 + DWG: 5754	267.79 264.60 F.L. C 3.19
Chk:	End Exist. 36" pipe	270.90 = F.Line
	(Stubs set 10 W'ly ℄)	
B.M:	Dir. Elev. Rod:	274.16 = Ch. □ Tp. End Exist 36" R.C.P. = 0+00 F.B. 2365-33

Clark
Garber
Oneil
Steffens

10-25-55

W.O. 20819

Culvert & Cleanout - Macaulay St. N'ely of Rosecrans St.

Culvert Grades:

STA.

0+68 meet EXIST 48" R.C.P. meet 9.85 = F.L. EXIST. 48"

0+34

13.13
9.42
C3.71

(Stubs set 8' RT ℄)

0+00

15.88
9.00
C6.88

B.M.

25.33 SE. B.P. Lowell Evergreen

Ref: F.B. 2135.1
DWG: 12614-L

65

EXIST 48" R.C.P.

℄

Box

Shot on Top Box.
13.98
15.10 = El. Top Cleanout
Fl. 12

13.50' ℄ 8'
15.88
9.00 = F.L. Box
C6.88
1X1
13.50
1X1 1X1
8.89 = F.L. Box
1.0'
11.9'
(Line only) 1X1
℄
1X1 (Line only)
EXIST 36" R.C.P.
℄

MACAULAY ST.
ROUGH - GRADES: S'ELY-half-ST. From S'LY
LINE LOCUST top T. 110' SLY

STA.	Prop. { C.B. Elev. / Stobs Set on Prop. LINE
1+10 = END grading	14.87 14.59 = Tr. CB C 0.28
0+75	16.40 15.36 C 1.04 "
0+50	14.29 15.91 F 1.62 "
0+25	14.40 16.45 F 2.05 "
0+00 = S'ELY CORN. MACAULAY & LOCUST	17.00 = Tr CB

Clark
Garber
Bruner
O'Neil

12-7-55
W.O 24594

Sewer: Exist. D.E. Sunset Cliffs Blvd - N'ly 160 to D.End - Hill St.

Ref: Dwg: 5863-B
" 2634-L

1+60 -- End-Plug		40.63 37.12 C 3.51	1.Elv.
1+20		39.74 36.84 C 2.90	
0+80		39.81 36.56 C 3.25	
0+40		39.82 36.28 C 3.54	
Stubs (Pav. Nails)	set 5' Lt. ℄		
(Const. M.H. #1) 0+00 = Exist. D. End Δ = 4° 14' RT		39.66 36.00 C 3.66	1. Elev.
B.M. = S.E.B.P. Sunset Cliffs & Hill St.	(Dir. Elev. Rod:	41.40	

Clark
Garber
Oneil
Pullen

1-10-56
W.O. 62912

Storm-Drain-Lot 29

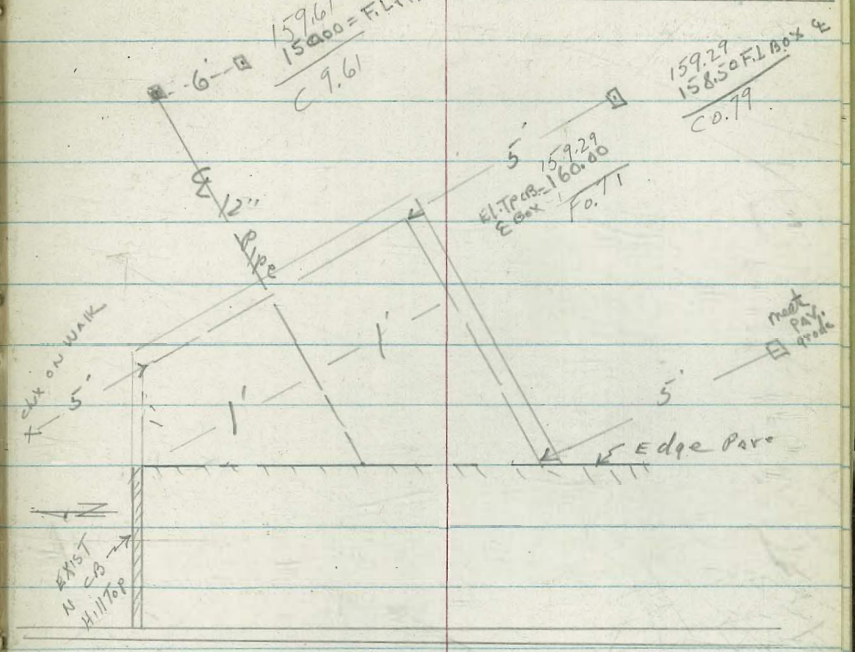
Ex-Mission Lands

[N'ly Hilltop - E'ly of 494N]

Ref: Dwg: 5312-B
No F. Book!

N'ly CB Line

Culvert - Hilltop



Culvert Lot 28

Stubs on Box 8' Exist. ℄ Box on Line inside Box

0+86.60 = N'ly edge Type H cleanout

144.53
143.11
C 1.42 = F.L. Box

143.09 = F.L. Exist. 30" Pipe Lot 29

0+57.73

145.83
143.84
C 1.99

Stub is set 6' Rt ℄

0+28.86

145.74
144.57
C 1.17

0+00 = End Exist 30" Gn. Pipe E'ly Line Lot 28

145.30 = Exist. F.L.

B.M. = F.L. Exist End Pipe Lot 28 = 145.30

Clark
Garber
O'Neil
Pullen
1-13-56
W.O. 32522

IMP'S: TOURMALINE:
MISSION BLVD; W'LY to E'LY LINE R.R.W

STA.	LT. Prop	LT. CB	℄	RT. (N'Ly) CB	RT. Prop
1+35	84.80	84.84 84.80 Co.04		86.22 86.10 Co.12	86.10
1+10	85.71 85.26 Co.45	85.31 85.26 Co.05		86.63 86.56 Co.07	89.13 86.56 C2.57
0+85	85.72	85.82 85.72 Co.10		86.90 87.02 Fo.12	87.02
0+60	85.98 86.18 Fo.20	86.17 86.18 Fo.01		87.53 87.48 Co.05	89.16 87.48 C1.68
0+35	86.64	86.53 86.64 Fo.11		87.98 87.94 Co.04	87.94
0+10=CB.BC	86.98 87.10 Fo.12	87.42 87.10 Co.32.		88.44 88.40 Co.04	89.78 88.40 C1.38
(0+00=E.Line Tourmaline)					
#1 Meet Exist.	meet	Chk: 87.30 87.31		88.55 88.57	Chk: meet
B.M. (Dir.Elev. Rod)		T'NWly Lt TK. Tourmaline & Mission Blvd.			89.12

Ref: F.B. 2157-59
DWG: 12056-L

STA.	LT. Prop.	LT. CB	℄	RT. CB.	RT. Prop
3+15		79.72 79.68 Co.04		81.12 80.99 Co.13	80.99
3+11.83=Prop LT.	80.16 79.79 Co.37				
2+90	81.25 80.53 Co.72	80.70 80.53 Co.17		81.94 81.84 Co.10	83.65 81.84 C1.81
2+65	81.39	81.72 81.39 Co.33		82.84 82.69 Co.15	82.69
2+40=E.V.C	83.12 82.24 Co.88	82.35 82.24 Co.11		83.59 83.54 Co.05	85.38 83.54 C1.84
2+20	82.88	83.00 82.88 Co.12		84.20 84.18 Co.02	84.18
2+00	83.77 83.44 Co.33	83.60 83.44 Co.16		84.79 84.74 Co.05	86.36 84.74 C1.62
1+80	83.93	84.03 83.93 Co.10		85.28 85.23 Co.05	85.23
1+60=B.V.C.	84.42 84.34 Co.08	84.57 84.34 Co.23 84.85 84.57 TP CB		85.77 85.64 Co.13	87.29 85.64 C1.65
1+47.50=W.S. LT.		Co.28			

CB. GRADES

STA.	LT. Prop	LT. CB	℄	RT. CB	RT. Prop
3+52.40= Prop. RT.					82.38 79.71 C2.67
3+43.59= End CB. RT.				79.99 80.01 F0.02	80.01
3+40 RT only				80.11 80.13 F0.02	83.02 80.13 C2.89
3+20.33= End CB. LT.	79.50	79.65 79.50 C0.15			

CLARK
GARBER
O'NEIL
ABRENILLA
3-7-56
W.O. 31926

GRADES - ALLEY BLK 2
F.T. SCRIPPS

REF: DWG: 12243-L
F.B 2266-64

STA	LT. (N'LY)			RT. (S'LY)
1+00	75.48 76.46 F0.98			75.86 76.46 F0.60
0+90	75.43 76.11 F0.68			75.67 76.11 F0.44
0+70	74.48 75.06 Fa 58			75.07 75.09 F0.02
0+50	73.43 73.33 C0.10		£ 72.99	74.23 73.45 C0.78
0+31	70.36 71.00 F0.64		£ 73.23 71.26 C1.97	73.23 71.00 C 2.23
0+13	meet PAV EXIST. 69.49	CB = 70.13	meet EXIST. £ 69.60	72.69 69.84 C2.85
0+00 RT only			CB = 70.54	69.69

B.M. Dir. Elev. Rod: 70.18 = N.E. B.P LA JOLLA BLVD & GENTER

Note: 0.25' EXCEPTION each side alley IN PAV.
total width PAV. = 19.50

71

STA.	LT. (N'LY)			RT.
3+25	84.89 85.00 F0.11			85.30 85.00 C0.30
3+00	84.19 84.00 C0.19			83.99 84.00 F0.01
2+75	82.83 83.00 F0.17			83.07 83.00 C0.07
2+50	81.86 82.00 F0.14			81.93 82.00 F0.07
2+25	81.44 81.00 C0.44			81.04 81.00 C0.04
2+00	80.08 80.00 C0.08			80.13 80.00 C0.13
1+75	78.98 79.11 F0.13			78.82 79.11 F0.29
1+50	77.95 78.23 F0.28			77.94 78.23 F0.29
1+25	77.31 77.34 F0.03			76.62 77.34 F0.72

	LT. (only)		RT.	
	Meet EXIST. PAV			
4+44 LT. only	88.10			
			CHK:	88.16 = EXIST. PAV
442±RT only				88.14 = EXIST. PAV
	89.66		88.83	
4+20	88.05	& 87.66	88.07	
	C 1.61		C 0.76	
	88.17		87.96	
4+00	87.81		87.82	
	C 0.36		C 0.14	
	87.06		87.33	
3+80 BYC	87.20		87.20	
	F 0.14		C 0.13	
	86.53		86.81	
3+65	86.60		86.60	
	F 0.07		C 0.21	
	85.84		86.53	
3+50	86.00		86.00	
	F 0.16		C 0.53	

CLARK
GARBER
O'NEIL
ABRENILLA
5-1-56
W.O. 62467

IMP'S POE ST.
EVERGREEN N'LY 100' (Orig - N. Line EVERGREEN)

WATERLINE

STA		ELEV'S	
Note: F. CB grade stubs (3' BK CB) are grade stubs for water line at 0+50 & 1+00 := 8' LT of ℄ Water-Line			
1+00		128.56 124.9 C 3.66	F.L
0+50		114.39 110.6 C 3.79	F.L
0+18		101.4	
0+00 = END EXIST water-pipe 10' SW'ly ℄ Poe & 35' NW'ly ℄ EVERGREEN		96.30 ±	(meet EXIST) F.L
T.B.M. SW'ly MON EVERGREEN & POE		(105.82) F.B 105.72	
B.M.	DIR. Elev. ROD:	40.67 S'LY DISC NEWELL & EVERGREEN	

Ref: F.B. 1806-49
DWG: 6082-B

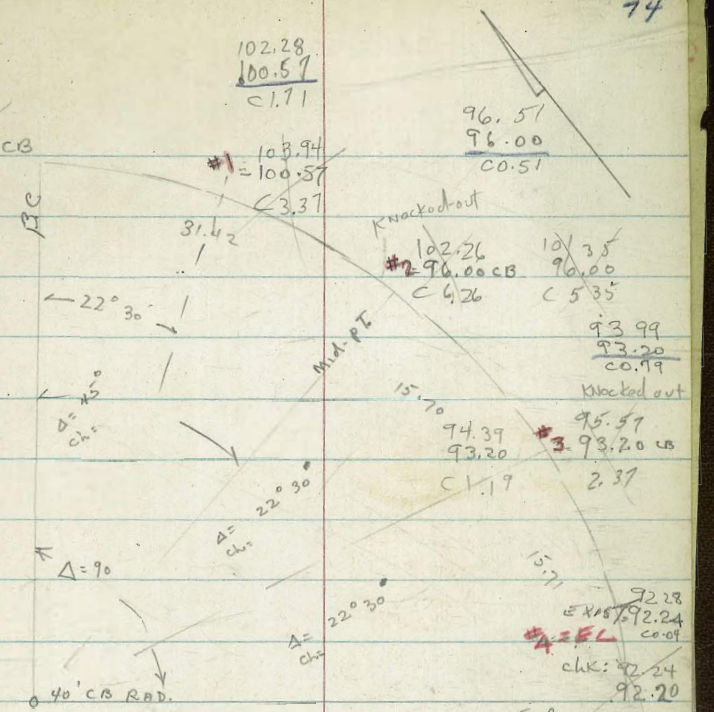
CB. GRADES

STA	LT. Prop.	LT. CB	℄	RT (NE'ly) CB	RT (NE'ly) Prop.
		104.80 105.15 F 0.35			
0+18 = {End Berm RT. By CB RT (= CB. BC LT.	110.60 105.15 C 5.45	105.46 105.15 C 0.31 (Knocked out)		105.41 106.15 F 0.74	106.02 → 106.15 F 0.13
0+00			101.07 101.00 ← C 0.07	100.18 101.00 F 0.82	110.2 101.0 C 9.2
0-10			98.35 98.62 ← F 0.27	98.18 98.62 F 0.44	
0-20 RT			96.37 96.93 ← F 0.56	96.65 96.93 F 0.28	104.60 96.93 C 7.67
0-22 = CB. EC LT. (meet EXIST.) See pg 74 For RT.	92.20				(Knocked out by CONT.)
0-30 RT			95.28 95.70 ← F 0.42	95.39 95.70 F 0.31	
(0-35 = ℄ Evergreen)		Chk: 94.06 94.04 = EXIST Pvm			
0-40 = B.C Berm RT. mid-PT Berm RET. RT.			95.69 94.90 ← C 0.79	95.04 94.90 C 0.14	96.90 94.90 C 2.0
0-55 = Berm E.C RT meet EXIST CB.					94.24 = EXIST CB end
(0+00 = ORIG. NW'LY LINE EVERGREEN)			(℄ CB stubs 3' BK)		

R. grade stubs set Prop-Line

CB. GRADES:

STA	Prop LT.	CB	℄	CB	Prop RT. (ELY)
			CB LT. / CB RT. (stubs Re-set)		
(Set tie 1X1 25 LT of Prop. At 1+00)					
1+00 = END CONST.	131.00 128.60 C 2.40	128.58 128.60 F0.02	129.79 / 129.76 128.60 / 129.60 C1.19 / C0.16	131.26 129.60 C1.66	137.6 129.60 C 8.0
0+75	121.45	121.57 121.45 C0.12	121.38 / 122.30 121.45 / 122.45 F0.07 / F0.15	123.26 122.45 C0.81	122.45
0+50	118.50 114.30 C 4.2	114.39 114.30 C0.09	114.27 / 114.78 114.30 / 115.30 F0.03 / F0.52	115.22 115.30 F0.08	123.20 115.30 C 7.9
0+25	107.15	107.41 107.15 C0.26	106.31 / 107.74 107.15 / 108.15 F0.84 / F0.41	107.60 108.15 F0.55	108.15
(stubs Knocked-out by Cont.)					



Stubs - Knocked out 3 times by Cont. meet EXIST CB

EXIST CB Type C EVERGREEN

Water & Sewer Services – Poe St

STA	LT.	Grade	RT.
0+70 = W.S. LT.		122.10 120.02 = CB Elev C 2.08	
0+60 = S. Service LT.	Prop. 115.50	120.2 stub [illegible] ℄ (Approx.)	
0+10 = S. Service LT + RT	Prop 101.5	108.4 stub ℄ (Approx.) A 0+10	115.3 stub ℄ A 0+00 } 98.7 Prop
0+05 = W.S. RT			113.50 102.43 = CB. Elev. C 11.07

Note: See office change in Sew LAT grades on RT Pg 75

office change Sewer Laterals

③ Prop Sewer

Sta. 0+63 109.2 / .84 / 110.1 — 108.4 0+48 / .8 / 109.2

stub 120.5 / C– 10.4 — 120.5 / C–11.3

Knocked-out Reset

106.85 / 95.9 / 10.95 P.L — 106.85 / 95.1 / C 11.75 C.L

① Rt. 0+10 Stub 115.3 / P.L. 97.7 / C– 17.6 — 0+00 115.3 Inv. ℄ / 96.95 / C– 18.35

② Lt. 0+10 Stub 108.4 / P.L. 95.9 / C– 12.5 — 0+05 108.4 Inv. ℄ / 95.1 / C– 13.3

~~③ Lt. 0+60 Stub 120.2 / P.L. 109.2 / C– 11.0 — 0+45 120.2 Inv. ℄ / 108.4 / C– 11.8~~

OFFICE CHANGE:

Pete

For Garber
Thurs AM

#1 - 10° down Gr
#3 & 4 - 15° down Gr

Geo

	Invert of main	E
①	96.65	97.7
②	94.78	95.9
③	108.13	109.2

add .3'
for i.e. of lat.

CLARK
GARBER
O'NEIL
ABRENILLA
5-7-56
W.O. 21376

Imp's GRANT ST.
From SHERMAN E'ly

STA	LT. Prop	LT. CB	℄	RT. CB	RT. Prop
0+60	8.59 8.76 Fo.17	7.94 8.76 Fo.82			
[Sew. LAT #1 LT. 0+60] Stub 5' EAST at P.Line	8.63 3.8 Prop 4.83		8.63 1.3 ℄ 7.33		
0+35	8.69	7.40 8.69 F1.29			
0+20 Brk (=P.L.E.C.)	8.64	7.70 8.64 Fo.94			
0+15 = CB.B.C.LT.	8.59 8.62 Fo.03	7.70 8.62 Fo.92			
# 1	8.60	8.53 8.60 Fo.07			
# 2	8.57	8.72 8.57 Co.15			
# 3	8.58	8.35 8.58 Fo.23			
CB.E.C. SHERMAN (meet EXIST.)	8.69	8.65 8.69 Fo.04			
(0+00 = E.Line SHERMAN)					

B.M. Dir. Elev. Rod. 14.84 = CLX. INlet S.E MORENA & LINDA VISTA Rd

Ref: { Sheets 1-3 L.Loaf Notes; INDEX E-17

STA	LT. Prop	LT. CB	℄
2+85	9.44	8.07 9.44 F1.37	
2+60	7.92 9.36 F1.44	8.15 9.36 F1.21	
2+35	9.29	8.37 9.29 Fo.92	
2+10	8.45 9.21 Fo.76	8.45 9.21 Fo.76	
1+85	9.14	8.37 9.14 Fo.77	
1+60	8.35 9.06 Fo.71	8.32 9.06 Fo.74	
1+35	8.99	8.44 8.99 Fo.55	
1+10	8.43 8.91 Fo.48	8.34 8.91 Fo.57	
0+85	8.84	8.22 8.84 Fo.62	

STA	Prop	CB	℄	
chk''			9.10 −	9.09 = ch x at 3+00
3+10	7.23	7.90		
	9.51	9.51		
	F. 2.28	F 1.61		

CLARK
GARBER
O'NEIL
ABRENILLA
5-15-57

W.O. 20020

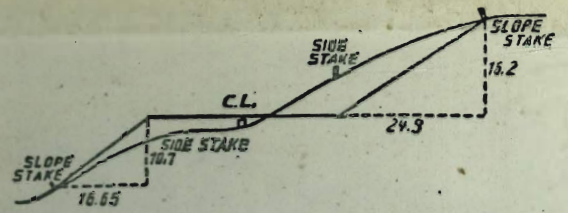
CB (W'ly Side) LOTS 13-14
BIK 28 . LOMA ALTA #2
FAMOSA ST.

Ref: Grade Ord #12440 (Sheet #2414)

78

STA:		W'ly CB Elev:
CHK: N'E'ly CB BC RIALTO & FORMOSA = 9.81 = 9.80 (PLANS)		
Alley AT Prop		6.09 = TP CB 2.76 Rod (Direct.) F-3.33
0+50.26 = Alley EC (S'ly Alley)		5.83 = TP CB 1.36 Rod (Dir.) F 4.47
0+48.04 = Alley BC		5.81 = TP CB 1.36 Rod (Dir.) F-4.45
0+25		6.05 = TP CB 1.80 Rod (Dir.) F 4.25
0+00 = Proj. of S'ly Line Lot 14		6.32 = TP CB 2.22 Rod (Dir.) F-4.10

BM Dir. Elev. Rod: 1.39 = NAIL Pole #2603
FAMOSA & MONTALVO



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	35
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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