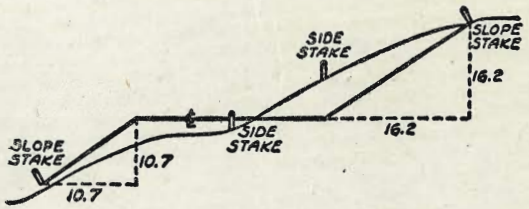
G-278



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.

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10.
11	11.
12	12.
13	13.
14	14.
15	15.
16	16.
17	17.
18	18.
19	19.
20	20.
21	21.
22	22.
23	23.
24	24.
25	25.
26	26.
27	27.
28	28.
29	29.
30	30.
31	31.
32	32.
33	33.
34	34.
35	35.
36	36.
37	37.
38	38.
39	39.
40	40.
41	41.
42	42.
43	43.
44	44.
45	45.
46	46.
47	47.
48	48.
49	49.
50	50.

Distance
ground is n
column and
side stake t
side stake a
cut or fill a
If it does no

IMPROVED TABLES AND INFORMATION

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

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

FOR TANGENTS ADD

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	.34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	.26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

FOR EXTERNALS ADD

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	036	.046	.056	.065	.074	.083	.093	.106	120	127	135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.985	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

Index

Roberts
Clark
Lochhead
Aug. 6, 1950
W.O. 31568

Grade Stakes Hornblend St.

Dawes to Everts Contractor's Wish
7538L
[Rough] (Gutter Grade)

2+10	28.77 / 6.25	28.04 / 6.98 / 60 / C1.0
1+60	28.07	27.38 / 7.64 / 68 / C 0.8
1+10	27.37	26.72 / 8.30 / 77 / C0.6
0+60	26.67	26.06 / 8.96 / 86 / C0.4
0+10 EC	25.97	25.40 / 9.62 / 94 / C0.2
0+0 WL Dawes		

T.P	8.26	35.02π	1.71	26.76	Prvt. S.I. Tack 2001 N.E. Hornblend & Dawes
TP	4.38	28.47	4.85	24.09	Fire plug SE Cor. Hornblend & Cass
BM	1.69	28.94		27.85	SE BP Garnet & Cass

1

	Lt	Rt
Everts 4+80 BC	32.35 / 2.67 / 15 / C 1.2	31.60 / 3.42 / 32 / C0.2
4+60	32.27 / 2.75 / 15 / C 1.3	31.34 / 3.68 / 35 / C 0.2
4+10	31.57 / 3.45 / 23 / C 1.2	30.68 / 4.34 / 38 / C 0.5
3+60	30.87 / 4.15 / 28 / C1.3	30.02 / 5.00 / 42 / C 0.8
3+10	30.17 / 4.85 / 40 / C 0.9	29.36 / 5.66 / 45 / C1.2
2+60	29.47 / 5.55 / 45 / C 1.1	28.70 / 6.32 / 52 / C 1.1

LS
35.02π

Hornblend Cont'd
Evrets to Fanuel
7539L
(Better Grades)

2+30	37.53 6.98 57 C 1.3	36.78 7.73 63 C 1.4
1+80	36.61 7.90 62 C 1.7	35.86 8.65 70 C 1.7
1+30	35.69 8.82 70 C 1.8	34.94 9.57 77 C 1.9
0+80	34.77 9.74 77 C 2.0	34.02 10.49 87 C 1.8
0+30	33.85 1066 88 C 1.9	33.10 11.41 97 C 1.7
Evrets 0+10 EC	33.48 1103 93 C 1.7	32.73 1178 106 C 1.2

T.P. 10.64 44.51 ⊼ 1.15 33.87 SERP

	Lt	Rt
5+00 BC Fanuel East	40.39 412 4.11	39.75 476
4+80E	40.22 4.29 16 C 2.7	39.53 498 25 C 2.5
4+40	39.94 4.57 23 C 2.3	39.24 5.27 21 C 3.2
4+00	39.67 4.84 26 C 2.2	38.95 556 3.2 C 2.4
3+60	39.40 5.11 34 C 1.7	38.67 5.84 41 C 1.7
3+20	38.99 5.52 43 C 1.2	38.24 6.27 49 C 1.4
3+00	38.78 5.73 47 C 1.0	38.03 6.48 .51 C 1.4
2+80	38.46 6.05 50 C 1.1	37.71 6.80 53 C 1.5

44.51 ⊼

Hornblend Cont'd
Fanvel to Gresham
7539L
Gutter Grade

2+70	42.94	42.22	check		1.28 47.10 = 47.09
	544	6.16			
	40	54	T.P.		0.21 48.17 Nail in Fence SE Cor. Grush & Horn
	C 1.4	C 0.8			
2+20	42.64	41.94	Gresham 4+90 BC	45.83	45.33
	5.74	6.44		2.55	3.05
	40	60		16	30
	C 1.7	C 0.4		C 1.0	Grd
1+70	42.35	41.66	4+50	44.93	44.37
	6.03	6.72		3.43	4.01
	45	63		24	34
	C 1.5	C 0.4		C 1.0	C 0.6
1+20	42.05	41.38	4+10	44.07	43.42
	6.33	7.00		4.31	4.96
		61		32	44
		C 0.9		C 1.1	C 0.6
0+70	41.76	41.10	3+90	43.73	43.00
	6.62	7.28		4.65	5.38
		60		32	41
		C 1.3		C 1.5	C 0.9
0+40	41.54	40.93	3+70	43.53	42.79
	6.80	7.45		4.85	5.59
		67		36	50
		C 0.8		C 1.3	C 0.6
0+0 Fanvel EC Exist	41.41	40.58 7.80	3+20	43.23 5.15	42.50 5.88
				39	53
				C 1.3	C 0.6
T.P. 6.95	48.36 T 3.08	41.43 NW T'CT	Fanvel & Hornblend		

Aug 8, 1950

Hornblend Cont'd
Gretham to Haines
(Gutter Grades)
9540'

		51.71	51.21		
1+80		858	908	3+80	59.92
		46	84		8.65
		C 2.0	C 0.7		63
					C 2.4
		51.03	50.53		
1+60		9.26	976	3+60 PVC	59.17
		70	86		9.40
		C 2.3	C 1.2		70
					C 2.4
		50.45	49.95	TP	9.57 68.57 π
1+40		9.84	1037		57.51
		81	93	3+20	2.78
		C 1.7	C 1.0		0.2
					C 2.6
		49.98	49.48		
1+20 PVC		1031	1081	2+80	55.84
		86	98		445
		C 1.7	C 1.0		18
					C 2.7
		49.80	49.30		
0+65		1149	1199	2+40	54.17
		96	113		6.12
		C 1.9	C 0.7		38
					C 2.3
EC		47.63	47.13		
0+10 Gretham		1266	1316	2+00 EVC	52.50
		101	122		7.79
		C 2.6	C 1.0		55
					C 2.3
TBM	12.12	60.29 π	48.17		60.29 π

INDEXED
APP 27 1951

27 4

3+80	59.92	59.42	
	8.65	915	
	63	74	
	C 2.4	C 1.8	
	59.17	58.67	
3+60 PVC	9.40	990	
	70	76	
	C 2.4	C 2.3	
TP	9.57 68.57 π	1.29 57.00	
	57.51	57.01	
3+20	2.78	328	
	0.2	14	
	C 2.6	C 1.9	
	55.84	55.34	
2+80	445	4.95	
	18	34	
	C 2.7	C 1.6	
	54.17	53.67	
2+40	6.12	662	
	38	53	
	C 2.3	C 1.3	
	52.50	52.00	
2+00 EVC	7.79	8.29	
	55	74	
	C 2.3	C 0.9	
	60.29 π		

Hornblend Cont'd

check

		Haines & Hornblend SW7 Mon
	5.71	62.86 = 62.87
BC 4+90 Haines	61.83 674 37 C3.0	61.33 724 58 C1.4
4+40 EVC	61.27 730 50 C2.3	60.77 780 60 C1.8
4+20	60.97 760 54 C2.2	60.47 810 64 C1.7
4+00	60.53 804 57 C2.3	60.03 854 71 C1.4

68.57 π

Haines to Ingraham

	Lt	Rt
2+60	60.72 786 67 C1.2	60.19 839 72 C1.2
2+10	60.90 768 61 C1.6	60.38 820 75 C0.7
1+60	61.09 749 59 C1.6	60.56 802 80 GRD
1+10	61.27 731 57 C1.6	60.75 783 74 C0.4
0+60	61.45 713. 49 C2.2	60.94 764 61 C1.5
EC 0+10 Haines	61.63 695 43 C2.7	61.13 745 57 C1.8

68.58 π

Hornblend Cont'd

Ingraham & Hornblend

Check	655	60.16 = 60.16 ck. [illegible]
4+80 BC Ingraham	59.92 679 59 C 0.9	59.37 734 31 C 4.2
4+60	59.99 6.72 54 C 1.3	59.44 727 31 C 4.2
4+10	60.17 654 54 C 1.1	59.63 708 29 C 4.2
3+60	60.35 6.36 47 C 1.7	59.82 689 37 C 3.2
3+10	60.53 618 47 C 1.5	60.00 671 45 C 2.2
TP 5.19	66.71 ⊼ 7.06	61.52

Ingraham & Jowell

(Gutter Grades)

	754 L	
1+30	63.80 517 10 4.2	63.14 583 58 GRD
1+10	63.39 558 15 C 4.1	62.79 618 57 C 0.5
0+90 PVC	62.81 616 20 C 4.2	62.29 668 47 C 2.0
0+55	61.68 7.29 48 C 2.5	61.29 768 53 C 2.4
0+20	60.55 8.42 32 C 5.2	60.29 868 8.8 F 0.1
0+10 BC Ingraham	60.30 8.67 32 C 5.5	60.01 896 886 C 0.1
TBM	8.81 68.97 ⊼	60.16

Hornblend Cont'd

				Horn. & Sewell Sw. P'ct	
			TBN	818	60.20 = 60.21
3+10	62.48 6.29 30 C 3.3	61.13 7.84 55 C 2.3			
2+60	63.32 5.65 12 C 4.5	62.57 6.40 52 C 1.2			
2+10 Evc	63.98 4.99 03 C 4.7	63.23 5.74 47 C 1.0	Jewel 4+90 BC	60.38 8.00 57 C 2.3	59.63 9.34
1+90	64.16 4.81 04 C 4.4	63.42 5.55 48 C 0.8	4+60	60.96 7.62 5.1 C 2.5	60.01 8.96
1+70	64.19 4.78 07 C 4.1	63.46 5.51 50 C 0.5	4+10	61.40 6.98 46 C 2.4	60.65 8.32
1+50	64.87 4.90 10 C 3.9	63.38 5.59 53 C 0.3	T.P. 3+60	6.60 68.38π 62.04 6.93 43 C 2.6	7.19 61.78 61.29 7.68 66 C 1.1
	68.97π			68.97π	

Roberts
Moose
Clark
9-19-50
WO 31568

Rough Grades For Haines
Garnet to Hornblend
(Gutter Grades)
7546L

2+06	63.06 766 57 C 2.0	63.48 724 51 C 2.1
1+44.71 So. Line Alley	64.24 648 42 C 2.3	64.66 606 42 C 1.9
1+24.71 No. Line Alley	64.63 609 47 C 1.4	65.03 569 38 C 1.9
0+70	65.71 501 41 C 0.9	66.03 469 23 C 2.4
0+20	66.66 406 34 C 0.7	66.98 374 140 C 2.34
0+00 Exist Haines	67.07 3.65	67.36 334 322

BM 7.85 70.72 ⊼ 62.87 SW 7' Mon Haines Hornblend

2+59.42 B.C. Hornblend	62.03 8.69 64 C 2.3	62.53 819 59 C 2.3

Haines Cont'd
(Hornblend to Grand)
(Gutter Grades)

2+59.18 BC Grand	54.53 11.21 89 C 2.3	54.23 11.51 90 C 2.5
2+01	55.91 983 78 C 2.0	55.79 995 77 C 2.3
1+44.59 So. Line Alley	57.29 845 58 C 2.7	57.35 839 62 C 2.2
1+24.59 No. Line Alley	57.77 797 59 C 2.1	57.89 785 53 C 2.6
0+67	59.15 659 46 C 2.0	59.46 628 39 C 2.4
0+10 BC Hornblend	60.53 5.21 28 C 2.4	61.03 471 30 C 1.7
BM 2.87	65.74 ⊼	62.87 SW ? Horn. & Haines

Roberts
Moore
Clark
T-20-50
WI 31568

Rough Grade Dawes
Hornblend to Grand
Gutter Grades

7543L

	22.34	21.40
BC	5.44	5.98
2+58.63 Grand	42	58
	C 1.2	C 0.2
	22.28	22.33
2+01	4.90	5.45
	39	53
	C 1.0	C 0.2
	23.42	22.87
1+44.31	4.36	4.91
	31	44
	C 1.3	C 0.5
	23.60	23.05
1+24.31	4.18	4.73
	28	39
	C 1.4	C 0.8
	24.13	23.59
0+65	3.65	4.19
	29	30
	C 0.8	C 1.2
BC	24.66	24.14
0+10 Hornblend	3.12	3.64
	21	27
	C 1.0	C 0.9
TBM 1.02	27.78 ↗	26.76 ↗

check 7.08

Grand to Thomas Gutter Grades

7544L

	BC	15.83	15.33
2+60.02	Thomas	6.14	6.64
		49	50
		C 1.2	C 1.6
		16.89	16.39
2+02		5.08	5.58
		53	37
		C 1.8	C 1.9
T.P.	2.13	21.97 ↗	7.94 19.84
		17.95	17.45
1+45.01		9.83	10.33
		68	88
		C 3.0	C 1.5
		18.33	17.82
1+25.01		9.45	7.96
		77	88
		C 1.8	C 1.2
		19.38	18.87
0+67		8.40	8.91
		71	82
		C 1.3	C 0.7
0+10 BC		20.43	19.93
Grand		7.35	7.85
		66	77
		C 0.8	C 0.2
		27.78 ↗	

14.89 = 14.84 SET Mon Thomas & Dawes 10

INDEXED
ADD 27 inc

Robert Moore Clark 9-21-50 WO 31568

Rough Grades Hornblend Cass to Dawes

Gutter Grades

7538L

2+50	23.46 471 36 C 1.1	22.99 520 51 C 0.1			
2+00	23.23 494 39 C 1.0	22.72 545 52 C 0.3	4+99.75 P.C. Dawes	24.58 3.59 19 C 1.7	24.25 392 31 C 0.8
1+50	23.01 516 44 C 0.8	22.47 570 59 GRD	4+50	24.36 3.81 25 C 1.3	23.98 419 34 C 0.8
1+00	22.78 Exist	22.22 5.95 61 F 0.1	4+00	24.13 4.04 30 C 1.0	23.72 445 45 GRD
0+50	22.56 C 0.1	21.97 Exist	3+50	23.91 426 37 C 0.6	23.47 470 51 F 0.4
0+0 Exist (Cass)	22.27	21.72	3+00	23.68 449 39 C 0.6	23.22 495 50 GRD
TBM 4.08	28.17 T	24.09 See Pg. 1		28.17 T	

Roberts
Moore
Clark
9-22-50
via 3156d

INDEXED
APR 27 1951

Rough Grades on Thomas to Reed

(Gutter Grades)

Dawes

7544

Roberts
Cota
Moore
Clark 9-25-50

check

Dawes (Reed to Oliver) Cont'd

(Gutter Grades)

12

7545

699 = 2.99 ← 2.98 NW 7' Hub Oliver & Dawes

INDEXED
APR 27 1951

TP		7.25	9.680 ← Left Tie mark Dawes & Reed SW Loc.			
2+59.70 Reed	9.83 7.16 57 C 2.0		9.83 7.10 67 C 0.7	2+60.28 BC Oliver	3.04 6.94 48 C 2.6	2.75 7.23 56 C 1.6
2+01	10.84 6.09 51 C 1.0		10.72 6.21 48 C 1.4	2+02	4.23 5.73 35 C 2.2	4.03 5.95 43 C 1.7
1+44.70 57	11.85 5.08 41 C 1.0		11.62 5.31 48 C 0.5	1+45.14	5.47 4.51 25 C 2.0	5.32 4.66 36 C 1.1
1+24.70 2.69 40	12.20 4.73 35 C 1.2		11.93 5.00 41 C 0.3	1+25.14	5.89 4.09 24 C 1.7	5.77 4.21 34 C 0.8
0+67	13.21 3.72 28 C 0.9		12.83 4.10 27 C 1.4	0+77	6.90 3.08 13 C 1.8	6.81 3.17 20 C 1.2
				0+30	7.71 2.07 12 C 1.9	7.86 2.12 13 C 0.8
BC 0+10 Thomas	14.23 2.70 13 C 1.4		13.73 3.20 16 C 1.6	BC 0+10 Reed	8.25 1.73 01 C 1.6	8.33 1.65 07 C 1.0
B.M	2.09	16.93 T	14.84 SE Nail Thomas & Dawes		0.30 9.98 T	9.68

9-25-50

Dawes Cont'd

(Gutter Grades)

Station		
2+46.60 BC Pad Bdy, 20' Pad. Dr.	0.90 Exist, 6.14, − 0.89, 703, 62, C 0.8	0.74 = NW Prop hub Pac. Bch. & Dawes, 6.14, − 0.56, 6.70, 51, C 1.6
2+16	6.14, − 0.63, 677, 59, C 0.9	6.14, − 0.32, 646, 50, C 1.5
1+71	6.14, − 0.25, 639, 59, C 0.5	6.14, 0.01, 6.13, 48, C 1.3
1+37.30	0.12, 602, 51, C 0.9	0.35, 579, 51, C 0.7
15' alley on W, 20 .. .. on E		
1+17.30	0.33, 581, 47, C 1.1	0.53, 561, 50, C 0.6
0+63	0.92, 522, 42, C 1.0	1.04, 510, 35, C 1.6
T.P. 0+10 BC Oliver	1.02, 6.14 ⊼, 1.52, 846, 668, C 1.8	7.86, 2.12, 1.55, 8.43, 662, C 1.8

9.98 ⊼

IBM

Rough Grades on Haines

(Fortuna to Roosevelt)

(Gutter Grades)

9-25-50

75.92 =

Station		
2+52	37.24, 6.60, 29, C 3.7	36.92, 6.92, 11.5, F 4.6
2+02	37.51, 6.33, 18, C 4.5	37.15, 6.69, 11.1, F 4.4
1+52	37.79, 6.05, 27, C 3.4	37.38, 6.46, 10.6, F 4.1
1+02	38.06, 5.78, 32, C 2.6	37.61, 6.23, 10.5, F 4.3
0+52	38.34, 5.50, 29, C 2.6	37.84, 6.00, 6.8, F 0.8
0+02 5' BC Fortuna	50.03 ⊼ surg 15, 38.62, 11.41, 90, C 2.4	50.03, 38.07, 11.96, 11.4, C 0.6

4.42 43.84 ⊼

39.42 Hub @ Haines No. 71 Roosevelt

Haines Cont'd

5+52	35.59 8.25 27 C 5.6	35.54 8.30 64 C 1.9
5+02	35.86 7.98 26 C 5.4	35.77 8.07 76 C 0.4
4+52	36.14 7.70 28 C 4.9	36.00 7.84 84 F 0.6
4+02	36.41 7.43 27 C 4.7	36.23 7.61 88 F 1.2
3+52	36.69 7.15 28 C 4.4	36.46 7.38 115 F 4.1
3+02	36.96 6.88 27 C 4.2	36.69 7.15 12.1 F 4.9

43.84 ⊼

Set TBM			2.17	41.31	{hub {℄ Haines / No 7 Fortuna
T.P.	6.71	43.48	7.07	36.77	
5+95.12 BC Roosevelt		35.34 8.50 28 C 5.7		33.34 8.50 585 C 2.6	

43.84 ⊼

9-26-50

Heines Cont'd

Padic Beach Dr. to Fortuna

(Gutter Grade)

		7549L		
1+20 EVC	49.34 6.80 31 C 3.7	48.84 7.30 46 C 2.7	4+20	41.86 8.17 46 C 3.6	41.36 8.67 70 C 1.7
1+00	49.79 6.35 25 C 3.9	49.29 6.85 48 C 2.0	3+70	43.09 6.94 40 C 2.9	42.59 7.44 63 C 1.1
0+80	50.14 6.00 25 C 3.5	49.64 6.50 42 C 2.3	3+20	44.33 5.70 35 C 2.2	43.83 6.20 58 C 0.4
			TP	3.04 50.03 T	9.15 46.99
0+60	50.41 5.73 23 C 3.4	49.91 6.23 39 C 2.3	2+70	45.56 10.58 90 C 1.6	45.06 11.08 105 C 0.6
0+40 PVC	50.58 5.56 15 C 4.1	50.08 6.06 41 C 2.0	2+20	46.80 9.34 78 C 1.5	46.30 9.84 88 C 1.0
0+00 BC Pa. Bch.	50.83 5.31 10 C 4.3	50.33 5.81 44 C 1.4	1+70	48.03 8.11 52 C 2.4	47.53 8.61 71 C 1.5
TBN 2.48	56.14 T	53.66 Rim MH Sec HFB 1871 P965		56.14 T	

Haines Cont'd

Elev. of Cb & Walk in Lots 11 & 12 Blk. 2 on = Middle of Lots as Built.

# 5322		
W.O. 20006	6-5-51	7.0.
3+00 =		
2+61.5' = Conc. Walk to House		
2+50 = N.L. Lot 11		49.36 Floor House
0+00 = S.L. Pac. Beach Dr.		Sleeping
CK	8.70	41.33 = 41.31 14
5+22.64 BC Fortuna	39.39 10.64 .64 C 1.2	38.89 11.14 .93 C 1.8
4+70	40.62 9.41 .57 C 3.7	40.12 9.91 .83 C 1.6
	50.13 T	

E. Side Haines – Bet. Pac. Beach Dr. & Fortuna

16

E. cb. Line

47.64	47.1	46.7	46.54	46.29	45.48	
floor	37.5 along House	17.5 E.L.	10	5 walk		
47.62		47.55	47.52			
27.3		17.5	10			
47.6	47.8	47.77	47.55	46.80		
32 along E House	17.5 E.L.	10	5 walk	Top cb from Profile		

Roberts
cota
Moore
Clark
9-27-50
W.O. 20610

Stake Reed St. Storm Drain
(Grand to Gresham)

8151 L

FB2067, 1739 & 2083

6+50
43.01
13.81
471
C 9.10

6+0
44.46
12.36
400
C 8.36

5+50
45.90
10.92
326
C 7.66

5+0
47.33
9.47
211
C 7.36

4+50
48.79
8.03
2.00
C 6.03

4+32 Beginning @ Inlet NE. Cor. Ingraham & Grand
30' R.P. & 15'
56.82 T
55.83 Top Cb.
0.99
0.71
C 0.28
49.30
7.52
0.71
C 6.81

T.P. 0.99 56.82 T 1.55
BM 5.54 51.38
55.83 = 56.95 NWB
51.84 Jewell & Grand

check
T.P. 3.14 51.14
INDEX
9+0
EM 8.31 52.46 T
cleanout & Grade
8+75.12 Junction Box Break
= 0+00 E. anthemas

8+50
37.23
19.59
856
C 11.03

8+0
38.68
18.14
795
C 10.19

7+50
40.12
16.70
668
C 10.02

7+0
41.57
15.25
578
C 9.47

56.82 T

6.99 44.15 = 44.15
8.82 48.00
17
Est. Reed & Ingraham

35.85
16.61
454
C 12.07

44.15
In 24" 36.50 20.32 882 C 11.50
Out 30" 36.00 20.82 882 C 12.00

Grand & Ingham NE & P.

Reed Storm Drain Cont'd

11+50		34.34 18.12 722 C 10.90
11+0		34.64 17.82 685 C 10.97
10+50		34.94 17.52 606 C 11.46
10+43.12 cleanout & Junction Box =0+00 E. on Alley Blk 270		34.98 17.48 599 C 11.49
10+0		35.25 17.21 575 C 11.46
9+50		35.55 16.91 526 C 11.67
	52.46 ℄	

Inlet →

	Cb Grd. 44.00	Fl. Line 38.00
	8.46	14.46
	8.19	8.19
	C 0.27	C 6.27
13+0		33.41 19.05 777 C 11.28
12+76.24 cleanout & Junction to Inlet	To Inlet 35.50 16.96 907 C 7.89	33.58 18.88 907 C 9.81
12+58.24 EC Reed St.		33.70 18.76 868 C 10.08
12+23.67 Midpoint Curve		33.91 18.55 835 C 10.20
11+89.11 BC Reed St.		34.11 18.35 760 C 10.75
11+87.11 cleanout & Junction Box =0+02 E. on Reed		34.12 18.34 747 C 10.87
	52.46 ℄	

Reed St. Storm Drain Cont'd

Station		
16+0		31.31 21.15 524 C 15.91
15+50		31.66 20.80 493 C 15.87
15+0		32.01 2045 486 C 15.59
14+50		32.36 20.10 428 C 15.82
14+0		32.71 19.75 476 C 14.99
13+50		33.06 19.40 579 C 13.61

52.46 ⊼

check

52.66 ⊼
4.68

47.98 = 47.98

Station				
19+0 Grade Break				5266 29.21 23.45 532 C 18.13
BM	2.59	50.57 ⊼ Next Page		47.98 } NE T'Mon Reed & Haines
18+50				29.56 23.10 549 C 17.61
18+0				29.91 22.75 485 C 17.90
17+50				30.26 2240 526 C 17.14
17+0				30.61 22.05 524 C 16.81
T.P.	5.58	52.66 ⊼	5.38	47.08
16+50				30.96 21.50 538 C 16.12

52.46 ⊼

Reed St. Storm Drain Cont'd

				36.92℄			
				Flo. 28"	Top Curb	F. Line 30"	
				23.50	31.64	21.76	
			23+90.32 ℄ Inlet #	13.42	4.26	14.14	
			Junction Box	5.18	4.16	4.16	
		24.65		9.24	C 10	C 9.98	
22+0		13.31	For cb. Inlets only				
		4.68	BM 5.32 36.92℄		31.60 S.W. 7'MON. Gresham & Reed		
		C 8.63					
			23+88.57 EC			21.79	
		25.41					
21+50		12.55					
		3.64					(SW 7'MON Gresham & Reed
		C 8.91	TP 4.30 35.90℄	6%	(36.24℄)	31.60	
			23+73.21 BC. Gresham street		22.02	22.02	
		26.17			1.32	1.54	
21+0		11.79			C 10.02	6.55	
		1.79				C 9.39	
		C 10.00					
						22.37	
TP 0.34	37.96 ℄	12.95	37.62	23+50		15.59	
			26.93			6.15	
20+50			23.64			C 9.44	
			11.68				
			C 11.96				
			(50.57)			23.13	
			27.69	23+0		14.83	
20+0			22.88			5.61	
			8.71			C 9.22	
			C 14.17				
	50.57℄						
			(52.66)			23.89	
			28.45	22+50		14.07	
19+50			24.21			5.15	
			7.16			C 8.92	
			C 17.05				
	52.66℄			37.96℄			

Reed St. Storm Drain

See Page 35 (also 34)

26+00		18.47 17.43 810 C 9.33				
25+50		19.23 16.67 724 C 9.43				
25+00		19.99 15.91 638 C 9.53				
24+50		20.75 15.75 524 C 9.91				
24+17.05 EC		21.35 14.55 466 C 9.89				
24+01.69 BC	36.26 T 21.59 14.67 496 C 9.71					
Cb. Inlet #10	F.L. 24" Pipe 36.92 T 23.50 13.42 475 C 8.67	Top Cb. 36.92 T 31.92 5.00 4.75 C 0.25				
	35.90 T					

29+00						14.01 14.59 450 C 10.09
28+50						14.77 13.83 426 C 9.57
28+00						15.53 13.07 408 C 8.99
Cb. Inlet #12 SW. Cor. Gresham & Oliver		29.39 T 19.00 F.L. 10.39 4.43 C 5.96		29.39 T 24.83 Top Cb. 4.53 4.43 C 0.13		
T.P.	2.87	28.60 T				
27+43.65	Cleanout			Top C.O. 24.00 11.90 10+7 C 1.73	25.73 Invert 16.39 19.51 10+7 C 9.34	
(S.E. Cor. Gresham & Oliver) Cb. Inlet #11		29.39 T 19.00 F.L. 10.39 3.98 C 6.41		29.39 T 24.40 Top Cb. 4.39 3.98 C 1.01		
27+00						17.05 18.85 1011 C 8.74
26+50						17.71 18.19 934 C 8.85
					35.90 T	

Roberts
Cota
Moore
Clark
9-28-50
WO 31658

Curb Stakes Dawes St.

Alley Blk 223 to Pac. Beach Dr.

Station	Lt	.75 @ L Rt
Dawes 1+18.28 BC	↑	25.90 5.09 4.65 C 0.44
0+89.21	Existing	26.57 4.42 4.32 C 0.10
0+60.14		27.24 3.75 3.40 C 0.35
0+31.07		27.91 3.08 2.39 C 0.69
0+02 Rd. Pt.	B.C. Alley 28.61 2.38 3.16 F 0.78	EC Street 28.59 2.40 3.16 F 0.76
0+00 So. Alley Line } End Rd.	↓	28.83 2.16 2.50 F 0.34
TBM 4.23	30.99 ⊼	26.76 Pg 1

Change from 30' to 35' Rad. Per Tucker Oct 2, 1950

Station	Lt		Rt
#1	25.50 5.49 5.98 F 0.49	30.57 25.50 5.07 5.41 F 0.34	
#1 #2	25.65 5.34 5.48 F 0.14	30.57 25.65 4.92 4.96 F 0.04	24.69 6.30 5.90 C 0.40
#2 #3	25.80 5.19 4.79 C 0.40	30.57 25.80 4.77 4.52 C 0.25	24.75 6.24 5.90 C 0.34
EC Hornblend EC	25.90 5.09 5.00 C 0.09	30.57 ⊼ 25.90 4.67 4.57 C 0.10	24.75 6.24 5.87 C 0.37
EC on Hornblend	↑		25.25 5.74 5.05 C 0.69
#2	Existing		25.45 5.54 5.02 C 0.52
#1	↓		25.72 5.27 4.73 C 0.54
	30.99 ⊼		

Lt. Dawes Rt

1+24.31 End Alley Rad

24.55
3.48
308
C 0.40

23.75
7.24
714
C 0.10

BC 2+58.63 Dawes

23.09
4.94
559
F 0.65

22.30
2.48
261
F 0.13

1+20.31 BC Rad
1+20.31 Alley pt.

street	Alley
24.39	24.55
3.64	3.68
397	397
F 0.33	F 0.29

Street	Alley
23.59	23.59
7.40	7.40
729	729
C 0.11	C 0.11

T.P. 2.32 2+31.05

24.78 Rt 853

23.35
4.68
534
F 0.66

22.46
22.56
8.43
853
F 0.10

0+91.74
0+92.74

24.64
3.39
369
F 0.30

23.84
7.15
678
C 0.37

2+03.47

23.61
4.42
486
F 0.44

22.82
8.17
822
F 0.05

0+63.16
0+65.16

24.89
3.14
334
F 0.20

24.10
6.89
646
C 0.43

1+75.89

23.87
4.16
459
F 0.43

23.08
7.91
794
F 0.03

0+34.58
0+37.58

28.03
25.14
2.89
308
F 0.19

24.37
6.62
630
C 0.32

Rad 1+48.31 Pt

Street	Alley
24.13	24.21
3.90	3.82
422	422
F 0.32	F 0.40

Street	Alley
23.33	23.41
7.66	7.58
738	738
C 0.28	C 0.20

TBM 1.27
BC on Dawes 0+06
BC 0+10
15

28.03 Lt
25.40
2.69
307
F 0.38

30.57
25.40
5.17
553
F 0.36

26.76
24.64
6.35
601
C 0.34

1+44.31 End Alley Rad

24.37
3.66
333
C 0.33

23.57
7.42
761
F 0.19

30.99 Rt

28.03 Lt

30.99 Rt

Dawes

#1	21.27 6.76 732 F0.56	20.81 3.97 371 C 0.26		End Alley 19.19 Rd. 2.49 156 C 0.93	18.69 609 584 C 0.25
#2	28.03 21.50 6.53 718 F 0.65	21.04 3.74 511 F 1.37	1+21.01	Street / Alley Rd. 19.06 / 19.08 Ft. 2.62 / 2.65 Alley 305 / 305 F 0.43 / F 0.40	Street / Alley 18.56 / 18.53 6.22 / 6.25 518 / 518 C 1.04 / C 1.07
#3 End cb Grand	21.73 6.30 602 C 0.28	21.17 3.61 413 F 0.52	0+93.25	19.57 2.11 202 C 0.09	19.07 5.71 518 C 0.53
#3 End cb Grand	23.00 5.03 503 F 0.02	22.15 2.63 300 F 0.37	0+65.50	20.08 1.60 154 C 0.06	19.58 5.20 481 C 0.39
#2	22.97 5.06 508 F 0.02	22.20 2.58 305 F 0.47	0+37.75	20.59 1.09 116 F 0.07	20.09 4.69 421 C 0.48
#1	23.00 5.03 568 F 0.65	22.23 2.53 255 F 0.07	T.P. 1.04 B.C. Dawes 0+10	21.68 π Lt 21.10 6.93 739 F 0.76	7.39 20.64 20.60 4.18 422 F 0.04

28.03 π Lt 24.78 π Rt

28.03 π Lt 24.78 π Rt

Dawes

BC 2+60.02 Dawes	16.50 5.18 498 C0.20	16.00 878 794 C0.84	#1	15.16 6.58 653 C0.05	14.55 10.23 989 C0.34
2+32.26	17.01 4.67 435 C0.34	16.51 827 882 F0.55	#2	15.30 6.38 635 C0.03	14.80 998 1050 F0.52
2+04.51	17.52 4.16 381 C0.35	17.02 7.76 855 F0.79	#3 End CO Thomas	15.48 6.20 615 Exist C0.05	14.96 9.82 1000 F0.18
1+76.76	18.03 3.65 336 C0.29	17.53 7.25 610 C1.15	#3 End CO Thomas	16.00 5.68 Exist 555 C0.13	15.58 9.20 956 F0.36
1+49.01 Rad Pt Alley	Street 18.55 3.13 310 C0.43 Alley 18.66 3.02 310 F0.08	Street 18.05 673 563 C1.10 Alley 18.16 662 563 C0.99	#2	16.08 5.60 539 C0.21	15.70 9.08 895 C0.13
1+44.01 End Alley Rt	18.82 2.86 070 C2.16	18.32 646 580 C0.66	#1	16.28 540 535 C0.05	15.85 8.93 800 C0.93

28.03 T Lt 24.78 T Rt 24.68 T Lt 24.78 T Rt

check →

Dawes
Rt 234 14.88 = 14.84 Mon Dawes + Thomas
Lt 680 14.88 =

1+24.70 End Alley Rt	13.09 1.71 126 C 0.45		12.80 4.39 494 F 0.55	B.C. 2+59.40 Dawes	10.50 4.28 451 F 0.23
	10.50 6.69 620 C 0.49				
1+20.70 Rad. Pt. Alley	Street 12.94 1.84 196 F 0.12	Alley 12.91 1.87 196 F 0.09	Street 12.66 453 417 C 0.36	Alley 12.64 455 417 C 0.38	2+31.73 10.99 3.79 400 F 0.21
	10.93 6.26 585 C 0.41				
T.P. 1.22	14.78 Rt Lt 13.43 8.25 812 C 0.13	8.12	13.56 13.09 410 363 C 0.47		2+04.06 11.48 3.30 341 F 0.11
	11.36 5.83 545 C 0.38				
0+93.04					
0+65.36	13.92 7.76 782 F 0.06		13.53 3.66 304 C 0.62		1+76.38 11.97 2.81 295 F 0.14
	11.79 5.40 505 C 0.35				
0+37.68	14.41 7.27 739 F 0.12		13.92 3.23 252 C 0.71	Rad. Pt. Alley 1+48.70	Street 12.45 2.33 252 F 0.19
	Alley 12.56 2.22 252 F 0.30		Street 12.23 4.96 456 C 0.40	Alley 12.33 4.86 456 C 0.30	
TP 2.02	17.19 Rt Lt	9.61	15.17		
BC Dawes 0+10	14.90 6.78 685 F 0.07		14.40 10.38 961 C 0.77	End Alley Rt 1+44.70	12.72 2.06 189 C 0.17
	12.49 4.70 502 F 0.32				

21.68 Lt ⇒ 14.78 Rt

14.78 Lt

17.19 Rt Lt

Dawes

				14.78℄
#1	9.17	9.18	End 6.76	Exist 6.64
	5.61	2.59	1+25.14 Alley 8.02	Pav. 8.14
	571	260	Rot 711	850
	F 0.10	F 0.01	C 0.91	F 0.36
			street Alley	street Alley
#2	9.31	9.35	Rot. 6.64 6.60	6.52 6.48
	5.47	2.42	1+21.14 pt. 8.14 8.18	5.25 5.29
	546	242	Alley 822 8.22	475 475
	C 0.01	Grade	F 0.08 F 0.04	C 0.50 C 0.57
#3	9.42	9.46	0+93.35 7.23	7.14
Rt ⌀ 4 Exist Road	5.36	2.31	7.55	4.63
Rt ⌀ 4 End cb	461	210	732	430
Rt ⌀ 4 Road	C 0.75	C 0.21	C 0.03	C 0.33
		Rt 10.00		
		1.77		
		0.96		
Check 205	14.78℄ Rt 7.47	C 0.81 9.72 = 9.68 Road @ Dawes		
#3	10.02	10.05	7.82	7.76
	4.76	7.14	0+65.56 6.96	4.01
	418	611	763	499
	C 0.58	C 1.03	F 0.67	F 0.76
				8.38
				3.39
#2	10.13	10.18	8.41	241
	4.65	7.01	0+37.78 6.37	C 0.98
	397	606	622	
	C 0.68	C 0.95	C 0.15	
#1	10.31	10.34	BK 9.00	9.00
	4.47	6.85	Dawes 0+10 5.78	2.77
	459	616	588	268
	F 0.12	C 0.69	F 0.10	C 0.09
	14.78℄ Rt	17.19℄ Rt	14.78℄ Rt	11.77℄ Rt

Dawes

2+60.28 BC Dawes	3.71 3.83 349 C 0.34	3.42 8.35 746 C 0.89	#3	2.56 4.98 360 C 1.38		2.46 306 260 C 0.46	
T.P	2.76	5.52 Rt		9.01	2.76	2.53 Exist	
2+32.49 #4 E.C Oliver on Rt	4.30 3.24 282 C 0.42	4.04 7.73 703 C 0.70				9.24	
2+04.70 #4 E.C Oliver on Rt	4.89 2.65 236 C 0.29	4.66 7.11 682 C 0.29				3.20 8.57 Exist	
1+76.92	5.48 2.06 186 C 0.20	5.28 6.49 623 C 0.26	#3	3.37 4.17 295 C 1.22		3.15 8.62 821 C 0.41	
T.P 1.39	7.54 Rt Lt	8.63	6.15				
	street Alley		street Alley				
1+49.14 Rad pt Alley	6.06 6.18 8.72 8.60 863 8.63 C 0.09 F 0.03		5.91 6.03 5.86 5.74 473 473 C 1.13 C 1.01	#2	3.40 4.14 389 C 0.25		3.18 859 833 C 0.26
1+45.14 End Alley Rad	6.34 844 721 C 1.23		1478 6.19 8.59 839 C 0.20	#1	3.53 4.01 383 C 0.18		3.28 849 765 C 0.84

14.78 Rt Lt 11.77 Rt

7.54 Rt Lt 11.77 Rt

Dowels

Lt	Rt	Lt	Rt
0+85.60	1.33	1.48	1+87.33	0.38	0.46
0+87.48	6.21	4.04	1+86.50	7.16	5.06
	622	320		767	465
	F 0.01	C 0.84		F 0.51	C 0.41
0+60.40	1.61	1.72	1+63.06	0.56	0.67
0+61.66	5.93	3.80	1+61.40	6.98	4.85
	595	423		722	475
F	0.02	F 0.43		F 0.24	C 0.10
				Street	Alley	Street	Alley
0+35.20	1.89	1.96	1+38.80 Rad.	0.74	0.83	0.98	1.06
0+35.82	5.65	3.56	Ret.	6.80	6.71	4.54	4.46
	553	281	1+36.30 Alley	682	682	345	345
C	0.12	C 0.75		F 0.02	F 0.11	C 1.09	C 1.01
BC Panels 0+10	2.19	2.28	1+34.80 Cb End	0.99	1.22
	5.35	3.32	1+32.30 Alley	6.55	4.30
	530	265		647	
C	0.05	C 0.67		C 0.08	
#1	2.30	2.27	1+14.80 Cb End	1.20	1.40
	5.24	3.25	1+17.30 Alley	6.34	4.12
	515	255		609	435
C	0.09	C 0.70		C 0.25	
				Street	Alley	Street	Alley
#2	2.42	2.36	1+10.80 Rad.	1.06	1.04	1.24	1.24
	5.12	3.16	PC	6.49	6.50	4.28	4.28
	362	276	1+13.30 Alley	662	662	367	367
C	1.50	C 0.40	F	0.13	F 0.12	C 0.61	C 0.61
7.54 ℄ Lt	5.52 ℄ Rt	7.54 ℄ Lt	5.52 ℄ Rt

Dawes

	Lt.		Rt
Exist at 2+51.60 Pac. Bch. Dr.	− 0.70 8.24 7.85 C 0.39		− 0.10 5.62 Exist 547 15
2+41.60 BC Dawes at Pac. Bch. Dr.	− 0.40 7.94 7.92 C 0.02	0.00 7.54 7.92 F 0.38	0.00 5.5 2 540 486 486 C 0.66 0.54
2+11.60 BRK	0.20 7.34 7.74 F 0.40		0.35 5.17 4.85 C 0.32
7.54 Lt	552 Rt		

Oct 3, 1930

Rough Grades Haines
Grand to Thomas

Gutter Grades 75472

1745 10 Alley	61.58 54.79 4'BK 6.79 31 C 3.7	61.58 54.24 734 5'BK 66 C 0.7			
1725 10 Alley	61.58 54.83 4'BK 6.75 39 C 2.9	61.58 54.33 725 5'BK 68 C 0.5			
1705	61.58 54.94 6.64 33 C 3.3	61.58 54.39 719 Nail in Wall 53 C 1.9			
0+85	61.58 54.87 671 32 C 3.5	61.58 54.32 Nail in Wall 726 54 C 1.9	BC 2+60 20 30'RP ~~Haines~~ Thomas	61.58 52.85 8.73 42 C 4.5	61.58 52.30 9.28 70 C 2.5
0+47 5	61.58 54.61 6.97 38 C 3.2	61.58 54.06 Nail in Wall 752 64 C 2.1	2+12 60	61.58 53.66 7.92 38 C 4.1	61.58 53.11 8.47 64 C 2.1
0+10 BC Powers at Grand	61.58 X 54.35 723 37 C 3.5	61.58 53.80 7.78 80 FO.2	1+65 10	61.58 X 54.47 7.11 31 C 4.0	61.51 53.92 766 3'BK 66 C 1.1
BM 5.54	61.58 X	56.04 NE	"T" Mon Thomas & Haines	61.58 X	

Oct 3, 1950

Haines
Thomas to Reed
Gutter Grade

2+59.6 E.C. 30'R.P. Haines & Reed	5682 47.33 9.49 80. C 1.5	5682 47.33 9.49 80 C 1.5
2+02 ±	5682 48.36 8.46 55 C 3.0	5682 48.25 8.57 62 C 2.4
1+44.80 Alley	5682 49.40 7.42 53 C 2.1	5682 49.17 7.65 56 C 2.1
1+24.80 Alley	5682 49.76 7.06 47 C 2.4	5682 49.49 7.33 55 C 1.8
0+67.47	5682 5079 6.03 34 C 2.6	5682 5041 6.41 41 C 2.3
0+10 BC Haines at Thomas	5682 51.83 4.99 232 C 2.7	5682 51.33 5.49 36 C 1.9
BM 0.78	56.82 T	56.04

Oct. 3. 1950

Gutter Grade
Reed to Oliver

2+59.89 BC Haines at Oliver	4961 42.53 7.08 57 C 1.4		4961 42.03 7.58 56 C 2.0
BRK 2+39.89	4961 42.81 6.80 56 C 1.2		4961 42.35 7.26 57 C 1.6
1+92.41	4961 43.47 6.14 52 C 0.9		4961 43.11 6.50 51 C 1.4
1+44.94 Alley	4961 44.14 5.47 47 C 0.8		4961 43.87 5.74 45 C 1.2
1+24.94 Alley	4961 44.42 5.19 42 C 1.0		4961 44.19 5.42 43 C 1.1
0+67.47	4961 45.22 4.39 37 C 0.7		4961 45.11 4.50 36 C 0.9
0+10 BC Haines at Reed	4961 46.03 3.58 22 C 1.4		4961 46.03 3.58 31 C 0.5
BM 6.13	49.61 T		43.48 S 27° W on Haines & Oliver

Oct. 4, 1950

Haines
Oliver to Pac. Bch. Dr.
(Gutter Grades) 7548L

2+22²		47.76 / 921 / 34 / C 3.8	47.26 / 971 / 101 / F 0.4
1+78⁶		46.68 / 1029 / 50 / C 5.3	46.18 / 1079 / 106 / C 0.2
T.P.	9.20	56.97 ⊼ 4.33	47.77
1+35 Alley		45.60 / 650 / 25 / C 4.0	45.10 / 7.00 / 78 / F 0.8
1+15 Alley		45.11 / 6.99 / 43 / C 2.7	44.61 / 7.49 / 80 / F 0.5
0+62⁵		43.82 / 8.28 / 65 / C 1.8	43.52 / 8.58 / 87 / F 0.1
0+10 BC Haines		42.53 / 9.57 / 77 / C 1.9	42.03 / 10.07 / 93 / C 0.8
BM	8.62	52.10 ⊼	43.48

3+09⁵⁰ BC Haines at Pac. Bch. Dr.	49.93 / 7.04 / 12 / C 5.8	49.43 / 7.54 / 76 / F 0.1
2+65⁸	48.84 / 8.13 / 21 / C 6.0	48.34 / 8.63 / 88 / F 0.2
	56.97 ⊼	

Oct 4, 1950

Reed St. Storm Drain
Alley Blk 270
81/51 L

see pg 17-21

1+47.75 Catch Basin		Top Catch Basin 47.71 39.99 7.72 720 C 0.52	F.L. 47.71 37.00 10.71 720 C 3.51
1+14.64 EC		47.71 36.77 10.94 677 C 4.17	
c = 17.47 Δ/2 = 2°23' 10' offset So.			
0+98 EC Lt.		47.71 36.68 11.03 612 C 4.91	
0+49		47.71 36.34 11.37 300 C 8.37	
0+10			36.07 C 10.03
0+00 = 10+43.12 cleanout	34.98 30" → C = 11.49	36.00 34.98 1.02 C = 10.47	
See pg 17 to 21			
BM 3.56	47.71 ⊼	44.15 ℄s Ld & ct	

Reed Ave. to the East

1+52 Curb Inlet		F.L. 47.65 35.68 11.97 592 C 6.05
1+00		47.65 35.32 12.33 445 C 7.88
0+50		47.65 34.97 12.68 346 C 9.22
0+00 = 11+87.11 cleanout	34.12 30" → C = 10.87	34.62 C = 10.37
Ingraham & Reed 3.50	47.65 ⊼	44.15

Reed St. Storm Drain
Cont'd From Page 21

NWBP Pac. Bch Dr. & Gresham } 21.04

See page 49

(5' Bk) 28.59 ⊼ Break 21.70 / 6.99 / 6.47 / C 0.42

28.59 ⊼ End 21.80 / 6.79 / 5.88 / C 0.91

Cb. N.E. Cor. Pac Beach & Gresham

30+50 — 11.26 / 16.43 / 6.53 / C 9.90 — 33+50 — 6.70 / 20.99 / 5.29 / C 15.70

End cb. on Gresham (EC) — 21.30 / 5.57 / 5.24 / C 0.33

Begin. of cb. transition — 21.14 / 5.73 / 5.76 Exist

Cb. Inlet #14 — Top Cb. 21.19 / 5.68 / 5.28 / C 0.40 — F.L. 18" Pipe 15.50 / 11.37 / 5.28 / C 6.09 — 33+00 — 7.46 / 20.23 / 5.38 / C 14.85

For Cb Inlet only

BM 583 26.87 ⊼ — 21.04 N.W. B.P. Gresham & Pac. Beach Dr.

30+01.15 ℄ Curb Inlet #13 — Top cb. 21.75 — In 30" 12.47 / 15.22 / 6.66 / C 8.56 — Out 36" 12.00 / 15.69 / 6.66 / C 9.03 — F.L. 18" Pipe 15.00 / 12.69 / 6.66 / C 6.03 — 32+50 — 8.22 / 19.47 / 4.99 / C 14.48

29+91.18 EC — 12.62 / 15.07 / 4.01 / C 11.06 — 32+00 — 8.98 / 18.71 / 4.94 / C 13.77

B.M. 6.65 27.69 ⊼ — 21.04 N.W. BP Gresham & Pac. Beach Drive

check 7.52 — 21.08 = 21.04

29+79.66 B.C. — 12.80 / 15.80 / 4.78 / C 11.02 — 31+50 — 9.74 / 17.95 / 5.29 / C 12.66

29+50 — 13.25 / 15.35 / 4.27 / C 11.08 — 31+00 — 10.50 / 17.19 / 4.91 / C 12.28

28.60 ⊼

Roberts
Cota
Moore
Clark
W.O. 3.1568
Oct. 13, 1950

Curb Grades Hornblend

Cass to Dawes

				2+75	24.23 5.04 5.14 F-0.10 ✓
1+25		23.56 5.71 exist cb.	22.84 5.56 5.79 F-0.23 ✓		
				2+50	24.12 5.15 5.22 F0.07 ✓
1+00		23.45	22.72 5.68 6.09 F-0.41 ✓		
				2+25	24.00 5.27 5.28 F0.01 ✓
0+75		23.34	22.59 5.81 6.30 F-0.49 ✓		
				2+00	23.89 5.38 5.46 F-0.08 ✓
0+50 End exist cb on Rt.		23.23	22.47 Exist Cb. 6.03		
				1+75	29.27 23.78 5.49 5.50 F-0.01 ✓
0+30 BRK		23.14	22.37		
				1+50	29.27 ℄ 23.67 5.60 5.81 F-0.21 ✓
0+00 P.I. Cass		23.00	22.22		
T.B.M.	1.61	28.40 ℄ Rt.	26.76 Tack Pk. Hornblend & Dawes N.E. Cor.		29.27 ℄ Lt
TBM	2.51	29.27 ℄ Lt	26.76		Tack L.S. # 2001 N.E. Hornblend & Dawes

	23.59 4.81 4.94 F 0.13 ✓
	23.47 4.93 5.22 F 0.29 ✓
	23.34 5.06 5.19 F 0.13 ✓
	23.22 5.18 5.55 F 0.37 ✓
	23.09 5.31 5.57 F 0.26 ✓
	22.97 5.43 5.99 F-0.56 ✓
	28.40 ℄ Rt

Hornblend Cont.

Cass to Dawes
cb. grades

	Lt (North)	Rt. (South)	North (Lt)	South (Rt.)
			0+50 27.27	26.42 7.76 7.86 F 0.10 ✓
4+25	27.89 A 38 A 43 F-0.05 ✓	24.34 A.06 A.04 C 0.02 ✓		
			0+25 ✓ 26.94	26.10 8.08 8.17 F 0.09 ✓
4+00	24.78 A.49 4.80 F 0.31 ✓	24.22 A.18 A.41 F 0.23 ✓	TBM 9.42 34.18 Rt 26.76 Tack Lt. Hornblend & Dawes	
			BC 26.74 0+15 Rt Dawes 0+10 Lt	28.40 Rt 25.90 2.50 2.41 C 0.09 ✓
3+75	24.67 A.60 A.93 F 0.33 ✓	24.09 A.31 A.60 F 0.29 ✓	TBM 8.12 34.88 Lt 1.01 26.76 Tack Lt. S #2001 N.S. Hornblend & Dawes	
3+50	24.56 A.71 5.05 F-0.34 ✓	23.97 A.43 5.04 F 0.61 ✓	PL. 25.25 5200 Dawes A.02 3.33 C 0.69 ✓	24.75
3+25	24.45 A.82 5.26 F 0.44 ✓	23.84 A.56 A.97 F 0.41 ✓	4+75 25.12 A.15 3.93 C 0.22 ✓	24.60 3.80 3.67 C 0.13 ✓
3+00	24.34 4.93 5.03 F-0.10 ✓	23.72 A.68 5.04 F 0.36 ✓	4+50 25.00 A.27 4.25 C 0.02 ✓	24.47 3.93 3.96 F 0.03 ✓
	29.27 Tk Lt.	28.40 Rt.	29.27 Tk Lt.	28.40 Rt

Hornblend Cont.

Dawes to Everts
Cb. stakes

	North (Lt)	South (Rt)		North (Lt)	South (Rt)
2+08	29.25 5.23 exist. Cb.	28.34 5.84 5.88 F 0.04 ✓	3+50	31.23 3.65 3.84 F 0.19 ✓	30.26 3.92 3.92 Grade ✓
1+75	28.92	28.02 6.16 6.16 Grade	3+25	30.90 3.98 4.27 F-0.29 ✓	29.94 4.24 4.23 C 0.01 ✓
1+50	28.59	27.70 6.48 6.37 C 0.11 ✓	3+00	30.57 4.31 4.71 F-0.40 ✓	29.62 4.56 4.63 F 0.07 ✓
1+25	28.26	27.38 6.80 6.77 C 0.03 ✓	2+75	30.24 4.64 4.91 F-0.27 ✓	29.30 4.88 5.06 F 0.18 ✓
1+00	27.93	27.06 7.12 7.24 F 0.12 ✓	2+50	29.91 4.97 5.31 F 0.34 ✓	28.98 5.20 5.28 F 0.08 ✓
0+75	27.60	26.74 7.44 7.50 F 0.06 ✓	2+25	29.58 5.30 5.53 F 0.23 ✓	28.66 5.52 5.62 F 0.10 ✓
	π 34.88 Lt.	34.18 π Rt.		π 34.88 Lt.	34.18 π Rt.

Hornblend Cont.

Dawes to Everts
cb. Grades

	Lt. (North)	Rt (South)		North (Lt)	South (Rt)
4+90 BC Everts	33.10 1.78 2.26 F 0.48 ✓	32.10 2.08 2.21 F 0.13 ✓	#1	34.0 1.48 1.42 C 0.06 ✓	33.27 9.50 9.01 C 0.49 ✓
4+75	32.88 2.00 2.47 F 0.47 ✓	31.86 2.32 2.39 F 0.07 ✓	#2	33.92 0.96 1.37 F 0.41 ✓	33.10 9.67 9.58 C 0.09 ✓
4+50	32.55 2.33 2.59 F 0.26 ✓	31.54 2.64 2.71 F 0.07 ✓	#3	33.78 0.90 0.80 C 0.10 ✓	32.93 9.81 9.22 C 0.62 ✓
				T.P. 10.39	12.17 π Rt 1.80 32.38
4+25	32.22 2.66 2.83 F 0.17 ✓	31.22 2.96 2.96 Grade ✓	#3 T.L. Everts	33.30 1.58 1.71 F 0.13 ✓	32.38 1.80 1.80 Grade ✓
4+00	31.89 2.99 3.08 F 0.09 ✓	30.90 3.28 3.10 C 0.18 ✓	#2	33.24 1.64 2.08 F 0.44 ✓	32.36 1.82 2.05 F 0.23 ✓
3+75	31.56 3.32 3.43 F 0.11 ✓	30.58 3.60 3.38 C 0.22 ✓	#1	33.17 1.71 2.19 F 0.48 ✓	32.23 1.95 2.12 F 0.17 ✓
	π 34.88 Lt.	34.18 π Rt.		π 34.88 Lt.	34.18 π Rt.

Hornblend Cont

Ererts to Fanuel
Cb. Grades

	No. (Lt.)	So. (Rt.)		No. (Lt.)	So. (Rt.)
1+25	36.27 7.00 7.00 Grade ✓	35.52 7.25 7.13 C 0.12 ✓	2+80 PVC	39.13 4.14 5.11 F 0.97 ✓	38.58 4.39 5.52 F 1.13 ✓
1+00	35.81 7.46 7.36 C-0.10 ✓	35.06 7.71 7.62 C 0.09 ✓	2+50	38.57 4.70 4.76 F-0.06 ✓	37.82 4.95 5.00 F 0.05 ✓
0+75	35.35 7.92 7.77 C-0.15 ✓	34.60 8.17 8.30 F 0.13 ✓	2+25	38.11 5.16 5.25 F-0.09 ✓	37.36 5.41 5.17 C 0.24 ✓
0+50	34.89 8.38 8.30 C-0.08 ✓	34.14 8.63 8.46 C 0.17 ✓	2+00	37.65 5.62 5.74 F-0.12 ✓	36.90 5.87 5.56 C 0.31 ✓
0+25	34.43 8.84 8.87 F 0.05 ✓	33.68 9.09 8.87 C 0.22 ✓	1+75	37.19 6.08 6.20 F-0.12 ✓	36.44 6.33 6.17 C 0.16 ✓
TP 9.40	43.27 Rt. 1.01	33.87			
B.C. 0+10 Ererts to Hornblend	34.15 9.73 1.01 F 0.28 ✓	33.40 9.37 9.19 C 0.18 ✓	1+50	36.73 6.54 6.60 F 0.06 ✓	35.98 6.79 6.69 C 0.10 ✓
	34.88 Rt Lt	42.77 Rt Lt		43.27 Rt Lt	42.77 Rt Lt

Hornblend Cont.

Everts to Faniel
- Cb. Grades

	No. (Lt)	So. (Rt)
4+25	40.37 2.90 2.75 C 0.15 ✓	39.65 3.12 3.28 F 0.16 ✓
4+00	40.20 3.07 2.82 C-0.25 ✓	39.48 3.29 3.29 Grade ✓
3+75	40.03 3.24 2.93 C-0.31 ✓	39.30 3.47 3.32 C 0.15 ✓
3+50	39.86 3.41 3.32 C-0.09 ✓	39.12 3.65 3.51 C 0.14 ✓
3+20 EVC	39.66 3.61 3.72 F 0.11 ✓	38.91 3.86 3.87 F 0.01 ✓
3+00	39.45 3.82 4.09 F.0.27 ✓	38.70 4.07 4.30 F 0.23 ✓
	43.27 ⊼ Lt.	42.77 ⊼ Rt.

Horn. & Fanuel
NW 9' < T
41.45 = 41.43

Check	No (Lt)	
0+20	42.21	41.32 6.93 7.21 F 0.28
0+00 E. PL. Fanuel st.		70.6 Lt.
B.M. 6.82 48.25 ⊼	41.43	
		132 41.45 ⊼ N.W. 7' Tack Hornblend & Fanuel = 41.43
5+00 Exist P.L. Fanuel	40.89 2.38 2.21	Exist Cb. 40.20 2.40
4+80	40.71 2.56 2.63 F-0.07 ✓	40.00 2.76 2.83 F 0.07 ✓
4+50	40.54 2.73 2.83 F 0.10 ✓	39.83 2.94 3.26 F 0.32 ✓
	⊼ 43.27 Lt.	42.77 ⊼ Rt.

Hornblend Cont.

Fanuel to Gresham
Cb. Grades

	No. (Lt)	So. (Rt)		No. (Lt)	So. (Rt)
1+50	42.98 5.27 5.44 F 0.17	42.05 6.39 6.32 F 0.02	3+00	43.87 4.38 4.61 F 0.23	42.89 5.36 5.25 C 0.11
1+24.50 end east Cb. on North	42.83 5.42 5.31 C 0.13	41.90 6.35 6.22	2+75	43.72 4.53 4.85 F 0.32	42.75 5.50 5.20 C 0.30
1+00		41.76 6.49 6.61 F 0.12	2+50	43.57 4.68 4.89 F 0.21	42.61 5.64 5.67 F 0.03
0+75		41.62 6.63 7.24 F 0.61	2+25	43.43 4.82 4.94 F 0.12	42.47 5.78 6.05 F 0.27
0+60		41.54 6.71 7.40 F 0.69	2+00	43.28 4.97 5.09 F 0.12	42.33 5.92 6.46 F 0.54
0+40 B.K.	42.33	41.43 6.82 7.04 F 0.22	1+75	43.13 5.12 5.34 F 0.22	42.19 6.06 6.06 Grade
	48.25 A			48.25 A	

Hornblend Cont.

Fanuel to Gresham
Cb. Grades

	No. (Lt)	So. (Rt)		No. (Rt)	So. (Rt)
	45.34	44.44		47.31	46.26
A+30	3.01	3.81	#3 Rt	0.94	1.99
	3.69	3.91		1.32	1.70
	F 0.68	F 0.10		F 0.38	C 0.29
	44.82	43.92		47.07	46.29
A+10 E.V.C.	3.43	4.33	#2	1.18	1.96
	3.64	4.27		1.74	2.40
	F 0.21	C 0.06		F 0.56	F 0.44
	44.48	43.50		46.75	46.19
3+90	3.77	4.75	#1	1.50	2.06
	4.18	4.54		1.83	2.32
	F 0.41	C 0.21		F 0.33	F 0.26
	44.28	43.29		46.50	46.00
3+70 B.V.C.	3.97	4.96		1.75	2.25
	4.25	4.87	A+90 B.C.	1.82	2.72
	F 0.28	C 0.09	Hornblend & Gresham	F 0.07	F 0.47
	44.17	43.17		46.08	45.48
3+50	4.08	5.08	A+70	2.17	2.77
	4.22	5.06		2.15	2.95
	F 0.14	C 0.02		C 0.02	F 0.18
	44.02	43.03		45.66	44.96
3+25	4.23	5.22	A+50	2.59	3.29
	4.41	5.08		2.61	3.05
	F 0.18	C 0.14		F 0.02	C 0.24
	48.25 T			48.25 T	

Hornblend Cont.

Gresham to Haines
cb. Grades

	No.(LH)	So.(RH)		No.(LH)	So.(RH)
0+	49.15 7.55 7.83 F 0.28	48.65 8.05 8.87 F 0.82	1+80	52.38 1.32 1.39 F 0.07	51.88 1.82 1.50 C 0.32
0+25	48.62 8.08 8.25 F 0.17	48.12 8.58 7.67 C 0.91	1+60	51.70 5.00 5.31 F 0.31	51.20 5.50 5.36 C 0.14
0+10 BC Hornblend & Gresham	48.30 8.40 8.65 F 0.25	47.80 8.90 8.30 C 0.60	1+40	51.12 5.58 6.11 F 0.53	50.62 6.08 6.23 F 0.15
#1	48.08 8.62 8.85 F 0.23	47.33 9.17 8.37 C 0.80	1+20 P.C.	50.65 6.05 6.34 F 0.29	50.15 6.55 6.13 C 0.42
#2	47.90 8.80 8.95 F 0.15	47.27 9.43 9.83 F 0.40	1+00	50.32 6.48 6.82 F 0.34	49.72 6.98 6.78 C 0.20
#3 P.I.	47.88 8.82 9.70 C 1.12	47.08 9.62 10.11 F 0.49	0+75	49.69 7.01 7.35 F 0.24	49.19 7.51 7.04 C 0.47
T.P. 9.35	56.70T 0.90	47.35		56.70T	

Hornblend. Cont.

Gresham to Haines
cb Grades

	Lt. (North)	Rt. (South)		Lt. (North)	Rt. (South)
				67.16 T	
3+25	58.37 8.79 8.95 F 0.16	57.87 9.29 8.97 C 0.32	4+65	62.22 4.94 4.98 F 0.04	61.72 5.44 5.29 C 0.15
3+00	57.33 9.83 10.09 F 0.26	56.83 10.33 10.41 F 0.08	4+40	61.94 5.22 6.01 F 0.79	61.44 5.72 5.10 C 0.62
T.P.	11.16 67.16 T	0.70 56.00			
2+75	56.29 0.41 0.70 F 0.29	55.79 0.91 1.23 F 0.32	4+20	61.64 5.52 5.70 F 0.18	61.14 6.02 5.60 C 0.42
2+50	55.25 1.55 1.87 F 0.32	54.75 1.95 2.22 F 0.27	4+00	61.12 6.04 6.26 F 0.22	60.70 6.46 6.65 F 0.19
2+25	54.21 2.49 2.75 F 0.26	53.71 2.99 2.77 C 0.22	3+80	60.59 6.57 7.35 F 0.78	60.09 7.07 6.96 C 0.11
2+00 E.V.C.	53.17 3.53 3.91 F 0.38	52.67 4.03 3.93 C 0.10	3+60 P.V.C.	59.84 7.32 8.29 F 0.97	59.34 7.82 7.17 C 0.65
	56.70 T			67.16 T	

Hornblend Cont.

Gresham to Haines
cb. Grades

	North (L)	South (R)	North (L)	South (R)
	62.42 3.78 3.95 F 0.17	61.69 4.53 4.49 C 0.04	61.98 4.29 4.35 F 0.01	61.47 4.75 4.69 C 0.06
#2			1+00	
T.B.M. 3.35	66.22 T	62.87		
T.B.M. check	4.29	62.87		
		3.W.T. Mon. Hornblend & Haines		
	66.22 T	66.22 T		
	62.57 3.65 3.24 C 0.32	61.47 4.75 4.70 C 0.05	62.07 4.15 3.90 C 0.25	61.56 4.66 4.45 C 0.21
#3 P.L. Hornblend & Haines			0+75	
#4 E.C. East	66.22 T 62.70 3.52	66.22 T 61.70 4.52	66.22 T 61.20 5.02	
#4 E.C. West	E.C. East on Left C 1.51	66.22 63.20 3.02 3.60 C 0.50 C 1.17	4.03 61.70 5.46 4.39 E.C. West on Rt.	4.97 E.C. C 0.05 East on Rt.
	F 0.58	E.C. West on Rt.		
	66.22 T	67.16 T	62.16 4.06 4.00 C 0.06	61.65 4.57 4.42 C 0.15
#3 P.L. Hornblend & Haines	63.03 3.19 4.09 F 0.70	61.92 5.24 4.09 C 1.15	0+50	
	66.22 T			
	62.83 3.39 4.33 F 0.94	62.08 5.08 4.11 C 0.97	62.25 3.97 3.96 C 0.01	61.74 4.48 4.31 C 0.17
#2			0+25	
	62.63 4.53 4.74 F 0.21	62.08 5.08 5.14 F 0.06	62.30 3.92 4.04 F 0.12	61.80 4.42 2.35 C 2.07 Nail in Pole
#1			0+10 BC Hornblend & Haines	
				66.22 61.80 4.42 4.41 C 0.01
	62.50 4.66 4.56 C 0.10	62.00 5.16 4.99 C 0.17	62.34 3.88 4.15 F 0.27	
4+90 BC.			#1	
	67.16 T			66.22 T

Hornbland Cont.

Haines to Ingraham

cb. Grades

	North (Lt)	South (Rt)		North (Lt)	South (Rt)
2+50	61.44 478 498 F 0.20	60.94 528 505 C 0.23	4+00	60.90 532 546 F 0.14	60.41 581 624 F 0.43
2+25	61.53 469 498 F 0.29	61.02 519 554 F 0.35	3+75	60.99 523 557 F 0.34	60.50 572 569 C 0.03
2+00	61.62 460 510 F 0.50	61.12 510 543 F 0.33	3+50	61.08 514 538 F 0.24	60.59 563 571 F 0.08
1+75	61.71 451 497 F 0.46	61.21 501 541 F 0.40	3+25	61.17 505 561 F 0.56	60.68 554 538 C 0.16
1+50	61.80 442 466 F 0.34	61.29 493 525 F 0.32	3+00	61.26 496 519 F 0.23	60.77 545 541 C 0.04
1+25	61.89 433 453 F 0.30	61.38 484 506 F 0.22	2+75	61.35 487 492 F 0.05	60.85 537 529 C 0.08
	66.22 T				66.22 T

Hornblend Cont.

Haines to Ingraham
Cb. Grades

	Lt	Rt
	60.52	59.92
	5.70	6.30
#2	5.83	6.00
	F 0.13	C 0.30
	60.55	60.00
	5.67	6.22
#1	6.12	4.99
	F 0.45	C 1.23
	60.59	60.04
	5.63	6.18
1+90 BC. Hornblend & Ingraham	6.34	6.03
	F 0.71	C 0.15
	60.66	60.12
	5.56	6.10
1+70	5.97	5.72
	F 0.11	C 0.38
	60.74	60.22
	5.48	6.00
1+50	5.47	5.94
	C 0.01	C 0.56
	60.82	60.31
	5.40	5.31
1+25	5.49	5.72
	F 0.09	C 0.19
	66.22 T	

	Lt (North)	Rt (South)
		SEE PAGE 58
0+10 BC. Hornblend	60.97	60.51
	7.14	7.60
	7.32	7.88
	F 0.18	F 0.28
	60.65	60.22
	7.46	7.89
#1 E. Pl. Ingraham	7.53	7.91
	F 0.07	F 0.02
	60.40	60.08
	7.71	8.03
#2	7.90	7.99
	F 0.19	C 0.04
	60.46	60.00
	7.65	8.11
#3 Pl. Hornblend	7.57	8.07
& E. Cb. Line Ingraham	C 0.08	C 0.04
B.M. 7.93	68.11 T	60.16 & tuck Ingraham & Hornblend
B.M. check		6.05 60.17 & Ingraham & Hornblend 4 T = 60.16
	60.67	59.75
	5.60	6.47
#3 Pl. Hornblend	5.56	5.98
	C 0.04	C 0.49
	66.22 T	

REED ST. STORM DRAIN

Cont. from pg. 35

35+40 Grade break			1.88 19.65 4.68 C 14.97
35+00			3.35 18.18 1.64 C 16.54
34+50.92 ℄ Cleanout #8	Top 17.76 3.77 0.36 C 3.41		Fl. 5.16 16.37 6.36 C 16.01
TP 0.99	21.53 A	7.15	20.54 T/Mon. La.
34+48.92 EC			5.19 22.50 6.41 C 16.09
34+14.76 Md. pt. Curve			5.71 21.98 5.95 C 16.03
33+80.60 BC			6.23 21.40 5.31 C 16.15
	27.69 A		

APR 27 1951

38+00			-2.42 12.64 4.02 C 8.62
37+50			-2.07 12.29 3.93 C 8.36
37+00 Grade Break			-1.72 11.94 3.36 C 8.58
Palma & Gresham			
T.P. 1.87	10.22 A	13.18	8.35
36+60			-1.12 22.65 13.18 C 9.47
36+20 Grade break			-0.52 22.05 10.46 C 11.59
36+00			0.08 21.45 9.52 C 11.93
	21.53 A		

REED ST. STORM DRAIN

CONT.

40+31.81 EC.
-4.04
12.82
4.91
C 7.91

39+97.65 Mid Pt. Curve
-3.80
12.58
4.19
C 8.39

T.P. 2.07 8.78 ⊼ 3.51 6.71

39+63.48 BC.
-3.56
13.78
3.91
C 9.87

39+50
-3.47
13.69
4.15
C 9.54

39+00
-3.12
13.34
4.15
C 9.19

38+50
-2.77
12.99
4.13
C 8.86

10.22 ⊼

3.81 21.05 — 21.04 N.W. B.P.
T.P. 6.33 24.86 0.81 18.53 Gresham & Pacific Beach Drive

42+40.85 END
7.21 ⊼
-5.84
13.05
12.65
C 0.40

41+92.85 E.C.
7.21 ⊼
-5.50
12.71
9.00
C 3.71

T.B.M. 0.23 7.21 ⊼ 6.98 N.E. 7' Lt. La Palma & Fanuel

41+70.86 B.C.
7.21 ⊼
-5.35
12.56
5.90
C 6.66

T.B.M. 12.36 19.34 1.80 6.98 N.E. 7' Copper Tack La Palma & Fanuel

41+25±43 Cb. Inlet
End 36" Pipe, Start 48" Pipe
-4.69
13.47
6.27
C 7.20
Top Cb.
2.49

41+00
-4.52
13.30
6.58
C 6.72

40+65.91
-4.28
13.06
5.74
C 7.32

8.78 ⊼

F.O.

Reed St. Storm Drain

Contid From Pg 17

2+00
37.90
43.54
C 5.64

1+85.2 cleanout #2
37.80
43.2
C 5.52

1+50
37.55
43.05
C 5.50

1+00
37.20
44.42
C 7.22

0+50
~~36.85~~
46.14
C 9.29

0+00 Thomas & Ingraham Cleanout #3
36.50
C 11.50

4+44.4 BC
39.61
46.20
C 6.59

4+42.9 cleanout #1 top →
5.12.1 T
15.54
8.70
8.04
C 0.66
39.60 F.L.
46.18
C 6.58

4+00
39.30
45.58
C 6.28

3+50
38.95
44.62
C 5.67

3+00
38.60
44.09
C 5.49

2+50
38.25
43.45
C 5.20

Reed st Storm Drain

Roberts
Cota
Moost
Clark
Oct. 2nd, 1950
W.O. 20610

Stake Reed St. Storm Drain Inlets.

INDEXED APR 27 1951

6+35.06 curb Inlet #2	40.94 46.42 C5.48		curb Inlet # 4	Rt (South) 53.06 43.60 9.46 1000 F0.54
5+86.89 EC	40.61 46.24 C5.63	1+80.2 west Thomas		43.60 946 971 F0.25
5+58.4	40.41 46.29 C5.88	1+90.2 East	curb Inlet # 5	Lt. (North) 53.06 44.10 8.96 870 C0.26
5+29.9	40.21 46.45 C6.24	1+85.2 west Thomas		
5+01.4	40.01 46.48 C6.47	1+95.2 East		44.10 896 870 C0.26
4+72.9	39.81 46.45 C6.64	1+80.2 clean out #2		53.06 43.10 9.96 1000 F0.04
		check T.P. 6.43 53.06	5.45 46.63	1.22 51.84
		BM 0.24 52.08		51.84 NW BP Jan '11 Grad

Reed St Storm Drain
Inlets Cont'd

Curb Inlet # 2 Lt (west)

6+35.06 So.		5208 / 46.00 / 608 / 581 / C 0.27
Jewell		
6+45.06 No.		46.00 / 608 / 578 / C 0.30

Curb Inlet #3 Rt (East)

6+35.06 So.		5208 / 46.00 / 608 / 624 / F 0.16
Jewell		
6+45.06 No.		46.00 / 608 / 619 / F 0.11

BM 0.24 52.08⊼ 51.84 NWBP Jewell Grand

Curb Inlet #6 Lt (North)

1+35 From west E.P.L. Ingraham	47 45 / 41.21 / 6.24 / 635 / F 0.11
Reed	
1+45 East	41.21 / 6.24 / 654 / F 0.30

Curb Inlet #7 Rt (South)

1+35 west	47 45 / 41.52 / 5.93 / 529 / C 0.64
Reed	
1+45 East	41.52 / 5.93 / 488 / C 1.05

BM 330 47.45⊼ 44.15 ℄ Ldbct Reed Ingraham

Curb stakes Evergreen,
Carleton to Dickens

	North (Lt.)	South (Rt.)
1+50	21.36 4.00 4.22 F -0.22	20.86 4.50 4.94 F 0.44
1+25	21.92 3.44 3.70 F 0.26	21.42 3.94 4.15 F 0.51
1+00	22.49 2.87 3.09 F 0.22	21.99 3.37 3.96 F 0.59
0+75	23.06 2.30 2.69 F 0.39	22.56 2.80 3.12 F 0.32
0+50	23.63 1.73 2.24 F 0.51	23.13 2.23 2.51 F 0.28
0+25 BC Evergreen	24.20 1.16 1.40 F 0.24	23.70 1.66 1.97 F 0.31
#1	24.50 0.86 0.93 #1 F 0.07	23.82 1.54 1.70 F 0.16 #1
0+00 N. Pl. Carlton	25.00 0.36 0.46 ← Exist. Cb →	24.00 1.36 1.40
B.M. 6.86	25.36 ⊼	18.50 7' Disc. S'ly Corner Emerson & Evergreen

	North (Lt.)	South (Rt.)
2+18 E.C. Dickens	23.50	
#4	22.41	
#3	21.36	19.62 5.74 5.75 Exist. Cb. → F 0.01
#2	20.60	19.82 5.54 5.65 F 0.11
#1	20.50	20.05 5.31 5.40 F 0.09
1+75 B.C. Evergreen	20.80 4.56 4.53 F -0.03	20.30 5.06 5.29 F 0.23
	25.36 ⊼	

Cb. Stakes Evergreen, Dickens to Emerson

	North (Lt.)	South (Rt.)		North (Lt.)	South (Rt.)
	19.88			19.97	
	5.48			5.37	
0+50	5.70		2+00 So. Pk. Emerson	5.40	Exist cb.
	F 0.22				
			#1	19.42	
				5.94	
				6.24	
				F 0.30 #1	
	20.00			19.30	
	5.36			6.06	
0+25 B.C. Evergreen	5.40		1+75 B.C. Evergreen	6.31	
	F 0.04			F 0.25	
	20.10				
#1	5.26				
	5.19				
	C 0.07				
	20.35	EXIST. PIPE		19.42	EXIST PIPE
#2	5.01		1+50	5.94	
	3.11			6.31	
	C 1.90			F 0.37	
	21.25			19.53	
	4.11			5.83	
#3	2.61		1+25	6.20	
	C 1.50			F 0.37	
	22.43			19.65	
	2.93			5.71	
#4	3.01		1+00	6.10	
	F 0.08			F 0.39	
	23.50			19.76	V
	1.86			5.60	
E.C. Dickens st.	2.21		0+75	5.86	
	F 0.35			F 0.26	
	25.36 ℄			25.36 ℄	

Ch. stakes Evergreen, Emerson to Fenelon

	North (Lt.)	South (Rt.)
	23.36	22.82
1+25		2.07
		3.95
		C - 0.12
	22.77	22.24
	4.12	4.65
1+00	Exist ch. → 4.08	4.63
		C 0.02
	22.18	21.66
	4.71	5.23
0+75	4.76	5.44
	F 0.05	F 0.21
	21.59	21.08
	5.30	5.81
0+50	5.37	5.86
	F-0.07	F-0.05
	21.00	20.50
	5.87	6.39
0+25 B.C. Evergreen	20.85 5.84	5.84 20.10 6.39 6.64
	6.01	6.78 F-0.25
#1	C-0.03	F 0.19
	20.96	19.66
	5.93	7.23
0+00 No. P.L. Emerson st.	5.90	Exist ch. → 7.21
B.M. 8.39	26.89 T	6.86 18.50 7" Tack Sly Cor Emerson & Evergreen

	South (Rt.)
	25.08 24.01
	2.88
7+00 So. P.L. Fenelon st.	24.10 2.87 Exist ch.
	2.79
	3.15
#1	#1 F 0.36 on Rt.
	24.53 24.06
	2.89
1+75 B.C. Evergreen	3.22
	F 0.33
	23.95 23.40
	3.49
1+50	3.47
	C 0.02

Cb. stakes Dickens St.
Evergreen to N.W'ly line Lot 3 Blk 40

	Lt.	Rt.
	35.79	35.10 1.02 1.00 C 0.02
1+50		
	32.92	32.30 3.82 4.21 F 0.39
1+30		
	30.81	30.30 5.82 6.24 F 0.42
1+10		
	28.98	28.80 7.32 7.93 F 0.61
0+90		
	25.61	25.53 10.59 11.26 F 0.67
0+50		
	23.50	23.50 12.62 12.97 F 0.35
0+25 E.C. Dickens		
T.B.M. 12.97	36.12 ⊼ Rt	23.15 E.C. cb. stake N'ly Cor. Dickens & Evergreen

57

T.P. 1.72 24.57 ft 4.05 18.52 = 18.50 (7" Tack S'ly Cor. Emerson & Evergreen)
T.P. 0.39 35.51 ft 12.11 22.85
12.87 35.12
Check

	Lt.	Rt.
T.B.M.		6.79 41.20 N.W. Cor. Perch 3326. Dickens
	46.25	45.50 2.49 3.21 F 0.72
2+00		
	43.85	43.10 4.89 5.49 F 0.60
1+90		
	39.43	38.70 9.29 9.90 F 0.11
1+70		
T.P. 1.87	42.99 ⊼ Rt 1.00	35.12 See top of page for Check.

Cb. stakes Hornblend
Ingraham to Jewell

Cont. from pg. 48

	North (Lt)	South (Rt.)
1+50	64.82 3.29 4.00 F 0.71	63.88 1.23 3.84 C 0.39
		68.30 T Out
1+30	64.55 3.56 4.11 F 0.55	63.64 68.64 1.68 4.47 1.88 4.56 F 0.22 F 0.09
1+10	64.11 3.97 4.58 F 0.61	63.29 4.82 5.32 F 0.50
0+90 P.V.C.	63.56 4.55 5.01 F 0.46	62.79 5.32 5.34 F 0.02
0+55	62.13 5.68 6.45 F 0.77	61.79 6.32 6.32 Grade
0+20	61.30 6.81 6.80 C 0.01	60.97 7.14 7.68 F 0.54
	68.11 T	

	North (Lt)	South (Rt.)
2+75	63.90 4.21 4.50 F 0.29	62.90 5.21 5.05 C 0.16
2+50	64.22 3.89 4.02 F 0.13	63.22 4.89 4.49 C 0.40
		68.30 T Out
2+25	64.54 3.57 3.69 F 0.12	63.54 63.54 5.28 4.71 3.69 F 0.52 C 0.88
2+10 P.V.C.	64.73 3.38 3.17 C 0.21	63.73 4.38 3.67 C 0.71
		68.30 T Out
1+90	64.91 3.20 3.32 F 0.12	63.92 63.97 4.58 4.19 4.55 3.71 F 0.17 C 0.48
1+70	64.94 3.17 3.63 F 0.46	63.96 4.15 3.92 C 0.23
	68.11 T	

Cb. stakes Hornblend
Ingraham to Jewell

	North (Lt.)	South (Rt.)
4+25	61.98 6.13 6.25 F 0.12	60.98
4+00	62.30 5.81 6.04 F 0.23	61.30 6.81 East Cb. → 6.77
3+75	62.62 5.49 5.95 F 0.46	61.62 6.49 6.77 F 0.28
3+50	62.94 5.17 5.83 F 0.66	61.94 6.17 6.24 F 0.07
3+25	63.36 4.85 5.26 F 0.41	62.26 5.85 5.79 C 0.06
3+00	63.58 4.53 5.15 F 0.62	62.58 5.53 5.34 C 0.19
	68.11 A	

	North (Lt.)	South (Rt.)
#3 Rt. Hornblend	61.30 6.81 6.59 C - 0.22	59.80 8.31 7.98 C - 0.33
#2	61.10 7.01 7.20 F 0.19	59.90 8.21 8.42 F 0.21
#1	61.04 7.07 7.16 F 0.09	60.00 8.11 7.98 C - 0.13
4+90 B.C. Hornblend	61.13 6.98 7.33 F 0.35	60.13
4+75	61.33 6.78 6.95 F 0.17	60.33
4+50	61.62 6.46 6.51 F 0.05	60.65
	68.11 A	

Cb. & Sidewalk Grades Hornblend
Jewell to Kendall - North only
Sidewalk Grades in Ink

INDEXED
APR 27 1954

NORTH ONLY

	Curb		Sidewalk
1+10		60.55 2.81 1.92 C 0.89	59.36 Meet 4.00 3.96
0+30			
0+25	60.30 4.19 4.07 C 0.12		
1+00		58.38 6.11 5.25 C 0.86	
0+10	61.01 2.35 1.37 C 0.98	60.69 3.80 3.66 C 0.14	South 59.69 4.80 East 4.75
0+10 BC Hornblend			
0+00	61.22 (0+00) 2.14 1.24 C 0.90		
0+90			59.79 3.57 3.33 C 0.24
0-04		61.30 (0-04) 2.06 1.24 C 0.82	
#1 E'ly line Jewell		60.92 3.57 3.45 F 0.08	South 59.85 4.64 4.64 Grade
0+75		59.02 5.47 4.99 C 0.48	
#2		61.12 3.97 3.45 F 0.08	South 59.90 4.59 4.45 C 0.14
0+70			60.07 3.29 2.80 C 0.49
#3 N'ly line Hornblend		61.30 3.19 2.83 C-0.36	South 59.82 4.67 4.53 C-0.14
0+50		59.66 4.83 4.70 C 0.13	60.26 3.10 2.34 C 0.76
3.34	63.36 ↑	60.02	SW. 30° Rad. Pt. Hornblend & Jewell
check		4.29 60.20	SW. 7' tack Hornblend & Jewell = 60.21
T.P.	147 64.49 ↑	8.09 60.02	30° Rad. Pt. S.W. Cor. Hornblend & Jewell
		64.49 ↑	

Cb. 4 Sidewalk Grades Hornblend-Cont.
Jewell to Kendall - North only.
Sidewalk Grades in Ink

	Curb	Sidewalk
	55.00	
	9.49	
2+40	8.69	
	C-0.80	
	55.35	
	9.14	
2+20	8.89	
	C 0.25	
	55.81	
	8.68	
2+00 P.V.C	7.78	
	C 0.90	
	56.15	
	8.04	
1+75	7.76	
	C 0.28	
	57.09	
	7.40	
1+50	6.63	
	C 0.77	
	57.73	
	6.76	
1+25	6.09	
	C-0.67	
TP Sidewalk only	3.48 58.29 ℄	-855 54.81
	64.49 ℄	

	Curbs	Sidewalk
	54.32	
	3.80	
3+75	2.82	
	C 0.98	
	54.41	
	3.71	
3+50	2.65	
	C 1.06	
	54.50	
	3.62	
3+25	2.58	
	C 1.04	
	54.59	
	3.53	
3+00	2.32	
	C 1.21	
TP	2.39 58.12 ℄	8.76 55.73
	54.66	
	9.83	
2+80 E.C.	8.76	
	C 1.07	
	54.77	
	9.72	
2+60	8.54	
	C 1.18	

Cb. & Sidewalk Grades Hornblend - Cont.
Jewell to Kendall - North only
Sidewalk Grades in Ink

4+50 4+50	54.05 4.07 3.98 C 0.09	2.98 P 1/2 3.1 1/2 54.67 3.62 3.12 C 0.50	N'ly line Hornblend #3 N'ly line Hornblend	No. 54.17 3.95 4.33 F 0.38	54.43 3.86 3.37 C 0.49	South #3 52.82 5.30 5.04 C 0.26
			#2	53.91 4.21 4.89 F 0.68	South #2 52.84 5.28 5.13 C 0.15	
4+30		55.05 3.24 2.98 C 0.26				
			W'ly line Kendall #1 W'ly line Kendall	53.82 4.30 4.59 F 0.29	54.26 4.03 3.37 C 0.66	South #1 52.86 5.26 5.19 C 0.07
4+25	54.14 3.98 3.33 C 0.65					
4+10		55.32 2.97 2.89 C 0.08	4+90 4+90 D.S.	53.88 4.24 4.22 C 0.02	54.20 4.09 3.82 C 0.27	58.12 π 52.88 5.24 Exist → 5.26
4+00	54.23 3.89 3.12 C 0.77		4+75	53.96 4.16 4.16 Grade		
3+90	58.39 π (Walk only) 58.12 π	55.53 2.76 2.70 ~~2.8~~	4+70 58.12 π			54.36 3.93 3.46 C 0.47

Cbs. & Sidewalk Grades Kendall st
Hornblend to 0+80 (0+00 = N'ly P.L. Hornblend)

Sidewalk Grades in Ink (North Only)

	West (Lt.)	East (Rt.)
0+56	56.64 1.48 1.63 F 0.15	56.64 1.48 1.46 C 0.02
0+50	52.86 Meet 1.43 1.39	52.86 Meet 1.43 1.39
0+33	55.57 2.55 2.84 F 0.29	55.57 2.55 2.71 F 0.16
0+30	55.84 2.45 2.18 C 0.27	55.84 2.45 2.21 C 0.24
0+10	54.82 54.50 3.47 3.62 2.89 4.07 F 0.45 C 0.58	54.82 54.50 3.47 3.62 3.50 4.23 F 0.03 F 0.01
0+10 E.C. Kendall		

58.29 T (Walk Only)

58.12 T

Cbs. & Sidewalk Hornblend-Cont.
Kendall to Lamont

	No.	So.
	~~54.43 N'ly line Hornblend~~	
	54.27 4.02 3.95	
0+10	C 0.07 53.95	52.95
0+10 B.C. Hornblend	4.17 3.99 C 0.20	5.17 Exist. 5.23
		58.29 T
	~~54.28 E'ly line Kendall~~	54.43 N'ly line
0+00	4.01	3.86 Hornblend
Rad. pt.	3.16	3.15
	C 0.85 3.80	C 0.70
	4.32	52.91
#1 E'ly P.L. Kendall	4.06	5.21
	C 0.32	5.17
		C 0.04
	53.99	South 52.87
	4.22	5.25
#2	4.23	5.15
	F 0.01	C 0.10
	54.18	South 52.83
	3.94	5.29
#3 N'ly line Hornblend	3.94 Grade	5.12 C 0.17
	57.75	57.75
0+80 Exist. Cb.	0.37 0.36	0.37

58.12 T

Cbs & Sidewalks Hornblend - Cont.
Kendall to Lamont

	No.		No.	
			check 566	51.47=51.57 NW.B.P. Kendall & Grand
0+70	55.41 2.88 3.39 F-0.51		F.P. 44.7 57.13 5.46	52.66
0+65	54.53 3.59 3.69 F0.10		1+60 Exist	55.38 2.71 2.76
0+60	55.24 3.05 3.10 F-0.05		1+40	55.38 2.84 2.86 F0.02
0+37.5	54.24 3.83 3.88 Grade		1+20	55.11 3.01 2.88 C 0.13
0+30	54.60 3.69 3.67 C 0.02		0+92.5	54.82 3.30 2.98 C 0.32
0+20	54.41 3.88 3.75 C 0.13		0+80	55.47 Meet 2.82 2.89
	58.12 ℄	58.29 ℄ (Walk Only)		58.12 ℄

Cbs. Hornblend Kendall to Lamont - Cont

	No.	So.
EC Lamont exist.	60.00 3.91 3.90	59.56 4.35 4.36
#3 N'ly Pl. Hornblend	59.90 4.01 4.01 Grade	C39.1T 59.82 4.09 4.08 C-001.
#2 chisel cross	59.80 4.11 3.97 C 0.14	59.90 4.01 3.94 C 0.07
#1	59.70 4.21 3.98 C 0.23	59.82 4.09 4.14 F 0.05
4+90 B.C. Hornblend Exist	4.33	59.67 4.24 4.17
TP 3.95	63.91T 1.73	59.96
B.M. 11.32	61.69	58.37 W.H. BP Grand & Lamont

Cb. & Sidewalk Grades Hornblend Lamont to Morrell Sidewalk in Ink.

	No	So.
0+10 BC, Hornblend Exist		59.72 4.18 4.15
#1	C39.1 59.82 4.89 4.01 C 0.08	59.63 4.38 4.30 59.79 4.17 4.09 C 0.03
#2	C39.1 59.86 4.05 3.95 C 0.10	59.90 4.01 3.99 C 0.02
#3 N'ly Pl. Lamont	59.89 4.02 4.01 C-001	59.75 4.16 4.18 F-002
EC. Lamont	60.00 3.91 3.85	59.45 4.26 4.18
	63.91T	

Cb. & Sidewalk Grades Hornblend, Wamont to Morrell

	No.	So.
		59.80 T
	56.75	55.79
	7.16	4.01
1+80 P.V.C.	635	4.14
	C -0.81	F-0.13
	57.47	
	6.34	
1+50	593	59.80 T
	C 0.51	56.51
		3.29
1+47.5 South only		3.28
		C 0.01
	58.19	
	5.72	
1+20	546	
	C 0.26	
1+15 ex. cb So. only		57.22 exist
	58.60	
	5.31	
1+00	521	
	C -0.10	
	58.91	
0+80 Exist cb		

	No.	So.
	55.27	
	3.68	
3+00	262	
	C 1.06	
2+90 South Only		54.35 exist cb.
	55.43	
	3.52	
2+75	345	
	C 0.07	
		59.80 T
	55.53	54.58
	3.73	5.22
2+60	322	5.14
	C 1.20	C 0.08
		59.80 T
	55.70	54.75
	3.23	5.05
2+40	2.52	4.95
	C 0.73	C 0.10
		59.80 T
	55.97	55.02
	2.98	478
2+20	288	484
	C 0.09	F 0.06
T.P. 252	58.95 T	-7.48 56.43
		59.80 T
	56.32	55.37
	7.59	4.43
2+00	665	4.45
	C 0.94	F 0.02

cb. & Sidewalk Grades Hornblend, Lamont to Morrell
Sidewalk in Ink (North Only)

					No.		50. 59.71T
				W'ly line Morrell	53.95	54.31	53.00 54.27
4+00	54.63	55.63			5.00	5.40	5.95 5.44
4+00	4.32	4.08		#1	4.77	3.55	5.70 3.55
	4.32	4.11			C 0.23	C 1.85	C 0.38 C 1.89
	C 0.30	F 0.03				N'ly line Hornblend	W'ly line Morrell
3+75	54.79	56.06		4+90	54.00	54.32	53.07
3+75	4.12	3.65		4+90 BC	4.95	5.39	5.88
	4.25	3.92			4.83	4.17	5.96
	F 0.09	F 0.27			C 0.12	C 1.22	
3+50	54.95	56.18			54.15		
3+50	4.00	3.23		4+75	4.80		
	2.90	3.13			4.91		
	C 1.10	C 0.10			F 0.11		
	56.75					54.50	
3+30	2.96			4+70		5.21	
	3.11					4.21	
	F 0.15					C 1.00	
	55.11			4+50	54.31	54.78	
3+25	3.84			4+50	4.64	4.93	
	3.93				4.63	4.15	
	F 0.09				C 0.01	C 0.48	
	56.91 Med			4+25	54.47	53.21	
3+10	2.80			4+25	4.48	4.50	
	2.85				4.08	4.38	
					C 0.40	C 0.12	
	59.71T (Walk Only)						
	58.95T				58.95T		

N'ly line Hornblend #3	54.17 4.78 2.98 C 1.80	~~51.27~~ 59.71 T 54.31 5.40 3.55 C 1.85
#2	53.98 4.97 4.53 C 0.44	
	58.95 T	

Cb. Grades Haines
Grand to Thomas

	East	West
0+60	55.44 54.58 F 0.86	54.64 54.66 C 002
0+35	55.27 54.51 F 0.76	54.47 54.70 C 023
0+10 B.C.	55.10 54.54 F 0.56	54.30 54.43 C 013
#1	54.95 54.55 F 0.40	54.20 54.44 C 024
#2	54.81 54.36 F 0.45	54.12 54.25 C 013
#3	Grade Elev. 54.79 C Stake Elev. 53.60 1.19	54.03 54.09 C 006

B.M. 7' Mon.
N.E. Corner HAINES & THOMAS

56.04
DIRECT ELEVATION - Rod

	East		West	
	on Alley	on st.	on Alley	on st
1+49.10 4° Rad. Pt.	55.58 54.18 F 1.40	55.18 54.18 F 1.30	54.78 54.90 C 012	54.68 54.90 C 022
End curb So.	55.71 58.45 C 2.71	55.74 56.10 C 0.36		54.94 54.95 C 001
End Curb No. (knocked out)	55.80 57.74 C 1.94	55.83 57.67 C 1.84		55.03 ✓ 54.58 F 045
1+21 Lt 4° Rad. Pt.	on st. 55.64 54.41 F 1.23	on alley 55.67 54.41 F 1.26	on st 54.89 5511 C 027	on Alley 54.87 5511 C 024
1+05	55.69 54.82 F .87		54.89 54.99 C 010	
0+85 P.V.C.	55.62 54.90 F .72		54.82 54.76 F 006	

Cb. Grade Haines, Thomas to Reed

	East	West
#2	53.53 56.07 C 2.54	52.49 53.34 C085
#1	53.49 54.46 C0.97	52.63 53.63 C100
2+60 20 B.C.	53.60 54.62 C 1.02	52.80 53.87 C107
2+28.50	54.14 54.55 C0.41	53.34 54.10 C076
1+96 80	54.68 54.66 F0.02	53.88 54.28 C040
# H65 40 E.V.C.	Grade Elev. 55.22 Stake Elev. 55.46 C0.24	54.42 54.54 C012
		56.04 DIRECT ELEVATION

	East	West
0+10 BC	52.50 52.27 F0.23	52.00 52.38 C038
#1	52.69 52.43 F0.26	52.10 52.72 C062
#2	52.90 52.74 F0.16	52.00 54.46 C246
#3	53.10 55.38 C 2.48	51.84 53.91 C2.07
#3	53.63 56.67 C 3.04	52.22 53.56 C134
		56.02 DIRECT ELEVATION.

Cb. Grades Haines, Thomas to Reed

	East	West
1+76 50	49.50 49.46 F 0.04	49.33 49.42 C 009
1+48 80 4 Rad. pt.	Alley 50.11 / 49.87 / F 0.24 St. 50.00 / 49.87 / F 0.13	Alley 49.88 / 49.85 / F 003 St. 49.78 / 49.85 / C 007
End Cb.	No. 50.63 52.17 C 1.54	So. 50.27 / 51.54 / C 1.27 No. 50.31 / 51.37 / C 101 So. 50.44 / 51.26 / C 122
1+20.80 4 Rad. pt.	on St. 50.36 / 51.03 / C 0.67 on Alley 50.47 / 51.03 / C 0.56	on St. 50.32 / 50.77 / C 045 on Alley 50.20 / 50.77 / C 057
1+00	50.88 50.59 F 0.29	50.56 50.67 C 011
0+70	51.42 51.27 F 0.15	51.04 51.37 C 033
0+40	Grade Elev. 51.96 Stake Elev. 51.75 F 0.21	51.52 51.91 C 039
		Direct Elevation 56.01

	East	West
#3	47.56 47.96 C 0.40	47.35 47.94 C 059
#2	47.69 48.17 C 0.48	47.62 49.56 C 1.94
#1	47.83 48.31 C 0.48	47.83 48.40 C 057
2+59 60 BC	48.00 48.30 C 0.30	48.00 48.44 C 044
2+31 90	48.50 48.59 C 0.09	48.44 48.72 C 028
2+01 20	49.00 48.98 F 0.02	48.89 48.94 C 005
		Direct Elevation 56.01

Cb. Grades Haines, Reed to Oliver

	East	West		East	West
0+70	45.86 45.92 C006	45.74 45.97 C023	1+79.25	44.33 44.76 C013	43.99 44.40 C041
0+90	46.28 46.59 C031	46.22 46.83 C061	1+89.24 1° Rad Pt.	on st. on Alley 44.75 44.85 44.85 44.85 C010 GRADE	on st. on Alley 44.48 44.58 44.70 44.70 C022 C012
0+10 BC	46.70 46.90 C020	46.70 47.49 C079	End Cb. So.	45.01 45.90 F011	44.74 45.09 C035
#1	46.81 46.55 F026	46.88 47.93 C105	End Cb. No.	45.29 45.40 C011	45.06 45.31 C025
#2	46.93 47.08 C015	46.95 48.26 C131	1+20.24 1° Rad Pt.	on st. on alley 45.15 45.13 45.16 45.16 C001 C003	on st. on Alley 44.92 44.90 45.00 45.00 C008 C010
#3	Elev. Grade 47.00 Elev. Slate 47.54 C054	46.84 48.09 C175	1+00	45.44 45.40 F004	45.26 45.33 C007
BM 7" Mon. N.E. Cor Reed & Haines		47.92 Direct Elevation			

Cb. Grades Haines, Reed to Oliver

	East.	West.
#3	42.98 43.53 C060	42.24 42.41 C017
#2	42.98 43.42 C044	42.20 43.06 C066
#1	43.08 43.39 C031	42.52 43.33 C078
2+59 89 B.C.	43.20 43.86 C066	42.76 43.50 C080
2+39 89 Break	43.48 44.11 C063	43.02 43.99 C097
2+09 57	43.91 Grade Elev. 44.37 Stake Elev. C046	43.51 44.08 C057
B.M. 7" Mon. NE of Reed & Haines		47.92 DIRECT ELEVATION.

Cb. Grades Haines, Oliver to Pacific Beach Dr.

	East.	West.
0+70	44.68 45.11 C 0.43	44.17 44.03 F 0.14
0+40	43.94 44.42 C 0.48	43.43 43.46 C 0.03
0+10 BC	43.20 44.45 C 1.25	42.70 43.00 C 0.30
#1	43.00 44.67 C 1.67.	42.44 42.94 C 0.50
#2	42.90 44.25 C 1.35	42.13 43.01 C 0.88
#3	43.00 43.95 C 0.95 Direct Elev. Rod.	41.83 43.89 C 1.06
5.46 44.32		on S.E. 30° Rad. Pt. Oliver & Haines
B.M. 1.86 49.78	47.92	

cb. Grades Haines, Oliver to Pacific Beach Dr.

	East	West	East	West
1+70	47.14 48.13 C 0.99	46.63 46.21 F 0.42	#1 51.02 51.27 C 0.25	50.17 49.58 F 0.59
1+39.00 1° cb. Rad.	on st. 46.38 / 46.89 C 0.51; on Alley 46.31 / 46.89 C 0.58	on st. 45.87 / 45.24 F 0.63; on Alley 45.81 / 45.24 F 0.57	3+09.33 B.C. East 50.60 / 51.65 C 1.05 3+09.67 B.C. West	50.10 50.12 C 0.02
End Cb. P.L. (South)	46.47 49.58 C 3.11	45.97 44.23 F 1.74	2+90 50.11 51.13 C 1.02	49.60 49.43 F 0.17
End Cb. P.L. (North)	45.99 47.76 C 1.77	46.48 44.07 F 2.41	2+60 49.36 51.11 C 1.75	48.83 48.54 F 0.29
1+11.00 1° Rad. P.L.	on st. 45.29 / 46.03 C 0.34; on Alley 45.82 / 46.03 C 0.21	on st. 45.18 / 44.57 F 0.61; on Alley 45.32 / 44.57 F 0.75	2+30 48.62 49.72 C 1.10	48.10 48.07 F 0.03
1+00	45.42 45.75 C 0.33	Elev Grade 44.90 Elev. Stake 44.46 F 0.44	2+00 47.88 49.01 C 1.13	47.73 47.35 F 0.38

Cb. stakes Haines, Pacific Beach Dr. to Fortuna

	East	West		East	West
# 2	51.59 / 52.75 / C 1.16	50.20 / 50.73 / C 0.53	1+00	50.46 / 51.94 / C 1.48	49.96 / 50.56 / C 0.60
E.C. Pacific Beach Dr.	51.71 / 55.40 / C 3.69	49.24 / 51.14 / C 1.90	0+80	50.81 / 51.62 / C 0.81	50.30 / 50.80 / C 0.50
End of Curb (So. Cors. Haines & Pac. Beach Dr.)	51.87 / 56.05 / C 4.18	49.09 / 51.05 / C 1.96	0+60	51.08 / 49.82 / F 1.26	50.58 / 50.69 / C 0.11
E.C.	51.87 / 53.66 / C 1.79	48.59 / 48.29 / F 0.30	0+40	51.25 / 52.39 / C 1.14	50.78 / 51.17 / C 0.42
#3.	51.60 / 52.76 / C 1.16	49.35 / 49.00 / F 0.35	0+00 B.C. (T.P.)	51.50 / 52.58 / C 1.08	51.00 / 51.70 T.P. / C 0.70
#2 T.P.	51.30 / 51.96 / C 0.66	Grade Elev. 49.88 / State Elev. 49.39 / F 0.49	#1	51.55 / 53.40 / C 0.85	50.80 / 50.69 / F 0.11

Haines, Pacific Beach Drive to Fortuna
Cb. Grades

	East	West
2+70	46.29 45.72 F 0.57	45.79 45.77 F 0.02
2+40 TP	47.03 46.74 F 0.29	46.53 46.41 F 0.12
2+10	47.78 47.14 F 0.64	47.28 47.40 C 0.12
1+80	48.52 48.72 C 0.20	48.02 48.25 C 0.23
1+50	49.27 49.49 C 0.22	48.77 49.03 C 0.26
1+20 E.V.C	50.01 50.64 C 0.63	Grade Elev. 49.51 Stake Elev. 50.02 C 0.51

	East	West
4+50	41.82 41.40 F 0.42	41.32 42.10 C 0.78
4+20 (T.P.)	42.57 42.67 C 0.10	42.06 43.17 TP C 1.11
3+90	43.31 44.63 C 1.32	42.81 43.67 C 0.86
3+60	44.05 44.68 C 0.63	43.55 43.33 F 0.22
3+30	44.80 45.15 C 0.35	44.30 44.84 C 0.54
3+00	45.54 45.45 F 0.09	45.04 44.97 F 0.07

Cb. Grades Haines, Pacific Beach Dr. to Fortuna

TP 20° Rad Pt. S.E. Cor. Haines & Fortuna Elev = 41.05

	East	West
#3	40.00 40.96 C 0.96	38.45 37.76 F 0.69
#2	39.90 40.38 C 0.48	38.91 37.40 F 1.51
#1	39.90 39.87 F 0.03	39.25 37.88 F 1.37
5+23.64 BC	40.06 40.21 C 0.15	39.56 38.90 F 0.66
5+00	40.59 40.53 F 0.06	40.09 39.97 F 0.12
4+80	41.08 41.00 F 0.08	40.58 40.61 C 0.03

Cb. Grades Haines, Fortuna to Roosevelt

	East	West
0+60	39.04 39.63 C 0.59	38.47 38.77 C 0.30
0+30	39.17 39.90 C 0.73	38.61 38.90 C 0.29
0+02.5 BC	39.29 40.81 C 1.52	38.71 39.19 C 0.48
#1	39.33 40.94 C 1.61	38.65 39.15 C 0.50
#2	39.40 40.93 C 1.53	38.39 38.79 C 0.40
#3	39.57 41.28 C 1.71	Grade Elev. 37.95 Stake Elev. 38.58 C 0.63

T.B.M. 20° Rad. Pt. S.E. Cor. Haines & Fortuna Elev. = 41.05
Direct Elev. Rod

Cb. Grades Haines, Fortuna to Roosevelt

	East	West		East	West
2+40	38.23 39.14 C 0.91	37.66 37.31 F 0.35	4+20	37.42 38.66 C 1.24	36.81 36.65 F 0.19
2+10	38.36 39.43 C 1.07	37.79 37.45 F 0.34	3+90	37.55 38.78 C 1.23	36.98 36.52 F 0.46
1+80 T.P	38.50 39.44 T.P. C 0.94	37.93 37.93 Grade	3+60	37.69 39.16 C 1.47	37.12 36.62 F 0.50
1+50	38.63 39.28 C 0.65	38.07 38.21 C 0.14	3+30	37.87 39.81 C 1.99	37.26 36.78 F 0.48
1+20	38.77 39.35 C 0.58	38.20 38.46 C 0.26	3+00	37.96 38.89 C 0.93	37.39 36.98 F 0.41
0+90	38.90 39.34 C 0.44	38.34 38.55 C 0.21	2+70	38.09 39.19 C 1.10	Grade Elev. 37.53 Stake Elev. 37.11 F 0.42

Direct Elev. Rod

Cb. Grade Hamas, Fortuna to Roosevelt

	East	West
5+97.62 B.C.	36.60 36.18 F 0.42	36.61 39.75 3.14
5+68.21	36.75 36.90 C 0.15	36.14 36
5+40	36.88 37.18 C 0.30	36.27
5+10	37.01 36.75 F 0.26	36.43
4+80	37.15 37.55 C 0.40	36.56
4+50	37.28 37.94 C 0.66 C 0.66	Grade Elev. 36.70 Stake Elev

Direct Elev. Rod.

82
N
E

	East	West
#1 End Cb.	36.60 36.11 F 0.49	36.00

(con't. from front)

Index

5+92

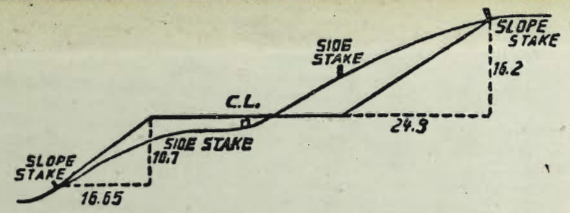
5+68

5+40

5+10

4+80

4+50



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

THE NATIONAL BLANK BOOK COMPANY
HOLYOKE MASSACHUSETTS
NEW YORK CHICAGO BOSTON SAN FRANCISCO