

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6 + (20 - 16) \div 2$ or 2 ft. added to $30.6 = 32.6$. For slopes of 1 on 1½ see inside of back cover.

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G-199

CITY ENGINEER

The paper stock of this book is made of a **high grade 50% rag** paper having a **water resisting surface** and is sewed with **Bing Special Enamel Waterproof Thread**.

Made in U. S. A.

MICROFILMED

APR 12 1965

Paving Gravel Alley Block 6 Hartleys North Park
 Block C M. Fadden & Benton North Park
 Leads to Highway between 21st St Hartman

~~Indexed~~

May 19-41
 Mission
 North Park
 Moore
 #1517

2+50 348.86 ⁴⁶⁵_{3.14} c1.01 465
^{5.66}_{0.99}

2+6 348.72 ⁵²⁹_{5.35} c1.06 529
^{4.20}_{0.06}

1+50 347.59 ⁵⁹⁹_{5.17} c0.81 599
^{5.63}_{0.24}

1+0 346.96 ^{6.55}_{5.77} c1.11 6.55
^{5.09}_{0.55}

TP 6.01 353.51 2.76 347.50

0+80 = PVC 346.71 ^{4.55}_{4.22} c0.33 346.71
^{6.80}_{6.34} c0.46

0+60 346.31 ^{4.95}_{3.47} c1.48 346.33
^{4.19}_{0.97}

0+40 345.65 ^{5.61}_{4.95} c0.66 345.71
^{5.55}_{3.02}

0+20 344.71 ^{6.55}_{4.98} c1.57 344.85
^{6.41}_{3.85} c2.56

0+0 - M. Landis 343.48 ^{7.78}_{7.78} 343.74
^{7.52}_{7.50}

BM 9.38 351.26 341.88
 SFRP
 Landis
 31st St

6+00.56 - S. L. W. Highway 350.93 ^{7.32}_{7.36 on Pav} 350.61 7.64
^{7.67 on Pav}

5+80 351.99 ^{6.26}_{5.06} c1.20 351.86 6.29
^{5.87}_{0.12}

5+60 352.52 ^{5.73}_{5.16} c0.57 352.49 5.76
^{4.17}_{0.39}

TP 4.55 358.25 2.48 353.70

5+40 = PVC 352.52 ^{5.73}_{5.37} c0.36 352.52 3.66
^{4.69}_{0.97}

5+0 352.01 ^{4.17}_{3.06} c1.11 352.01 4.17
^{2.75}_{0.92}

4+50 351.38 ^{4.80}_{4.54} c0.26 351.38 4.80
^{3.87}_{0.93}

4+0 350.75 ^{5.43}_{4.40} c1.03 350.75 5.43
^{4.83}_{0.60}

3+50 350.12 ^{6.06}_{5.93} c0.13 350.12 6.06
^{6.00}_{0.06}

TP 5.97 356.18 3.00 350.21

3+0 349.49 ^{1.02}_{0.30} c0.72 349.49 6.69
^{6.81}_{F.O.B.}

352.51

Paving Grader Alley Block 190 S D L & T Co.
From Front to Sampson Bk Salient Kearny

	H		S	
2+60	78.84	4.12 2.83 C1.25	78.64	4.32 2.17 C0.15
2+40	78.86	4.89 2.71 C1.18	78.66	4.30 2.74 C0.46
TP	3.82	82.96	3.81	79.14
2+20 = PVC	78.74	3.71 2.27 C0.44	78.54	3.91 2.62 C1.29
1+80	78.38	4.07 3.09 C0.98	78.18	4.27 3.31 C0.96
1+40	78.01	4.44 2.08 C0.36	77.81	4.64 1.08 C0.56
1+0 = FVC	77.65	4.80 2.64 C0.16	77.45	5.00 3.99 C1.01
+80	77.50	4.93 2.92 C0.03	77.30	5.15 2.02 C1.13
TP	4.79	82.45	4.32	77.66
+60 = PVC	77.40	5.05 3.72 C1.30	77.20	4.78 2.68 C0.20
+30	77.30	4.68 2.19 C0.49	77.10	4.88 2.79 C0.74
0+0 = FL Front	77.20	4.78 3.82 C0.94	77.00	4.98 2.53 C0.39
BM	998	81.98	72.00	NW BP Kearny + Front

May 21 1909
S.D.L. & T. Co.
Indexed

6+0 = H.L. Sampson	76.00	6.96 6.98 on Pav	75.70	7.26 7.29 on Pav
5+80 = Bk	76.15	6.81 2.76 C2.65	75.95	7.01 4.81 C2.40
5+35	76.26	6.70 5.02 C1.61	76.06	6.90 5.17 C1.71
4+90	76.38	6.58 6.39 C0.19	76.18	6.78 7.12 C0.34
4+45	76.49	6.47 6.34 C0.13	76.29	6.67 6.49 C0.18
4+0 = FVC	76.60	6.36 6.80 C0.44	76.40	6.56 6.90 C0.56
3+80	76.75	6.21 5.30 C0.91	76.55	6.46 6.76 C0.34
3+60 = PVC	77.11	5.85 4.61 C1.18	76.91	6.05 6.75 C0.70
3+20 = FVC	78.04	4.92 3.33 C1.59	77.84	5.12 4.08 C1.06
3+0	78.44	4.52 3.17 C1.35	78.24	4.72 3.38 C1.34
2+80	78.71	4.25 3.40 C0.85	78.51	4.45 3.50 C0.95
	82.96			

Grades Parking Lot North of Stadium
Bakbo Park

Indexed
DB

May 31-21
Summer
North 1977
North
1900's
1916-17

4

177.5	177.6	177.8	177.8	177.8	177.8
4.69 177.2 4.61 Co.08	4.49 177.4 4.54 Fo.05	4.39 177.6 4.49 Fo.20	4.29 177.8 4.31 Fo.02	4.29 177.8 4.23 Fo.14	3.87 177.6 3.79 Co.03
5.89 176.0 5.80 Co.09	5.69 176.2 5.69 Co.02	5.49 176.4 5.42 Co.07	5.29 176.6 5.24 Co.05	5.19 176.7 4.87 Co.32	4.69 176.8 4.50 Co.32
7.19 176.6 6.87 Co.42	7.09 174.8 7.17 Fo.08	6.89 175.0 6.89 0.6	6.49 175.4 6.40 Co.09	6.09 175.8 5.86 Co.23	5.49 176.0 5.17 Co.31
8.89 173.0 9.17 Fo.28	9.09 172.8 9.13 Fo.03	9.69 172.2 9.69 0.6	9.19 172.7 9.91 Fo.78		
10.49 171.4 11.06 Fo.57					

176.90
 4.99
 18.13
 5.83
 176.06
 5.36
 181.42

BN
 BRN 201
 Gym SDH School

177.8	177.6	177.2	177.0	177.2
3.82 177.6 3.79 Co.06	4.02 177.4 4.25 Fo.23	4.41 177.0 4.33 Fo.11	4.62 176.8 4.83 Fo.21	4.11 177.0 4.32 Co.10
4.77 176.7 4.77 Co.45	4.91 176.5 4.63 Co.32	5.07 176.0 4.97 Co.45	5.62 175.8 5.29 Co.39	5.21 176.0 5.21 Co.39
5.82 175.8 5.36 Co.27	6.19 175.3 6.09 Co.02	6.82 174.6 6.63 Co.13	6.82 174.6 6.52 Co.30	6.12 175.0 5.82 Co.60
8.77 172.0 8.72 0.06	9.22 172.2 9.15 Co.07	8.62 172.0 8.60 Co.02	8.22 172.2 8.20 Co.02	8.22 172.2 8.20 Co.02
10.42 171.4 10.15 Co.27				

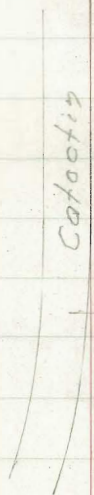
177.0 177.0 177.0 177.0 177.0

0+07

Water Line Across Lots #7 & 8
La Mesa Colony

B Sheet 2459

Stakes 5' off of E Easement



Lot 7
10-11-78
15-12-81

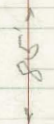
E Waterline 2

m

Indexed
28

May 23 41 5
S 1959
W 1960
M 1961
H 1962

Waterline 2
#1527 P62



10-11-78
15-12-81

270'

10-11-78
15-12-81

AD 2169

Maple St Paving Grader
32nd St to 33rd St.

May 27 41
Simon
Moore
Albio

S.L. Sta.					
2+10	HL Bancroft		295.48	6.31	
2+0		6.5 7.10 6.4 0.1	295.22	6.60 6.0 6.2 0.8	295.72
1+65		5.9 6.18 5.9 0.0	295.84	5.3 5.97 5.2 0.2	296.35
1+30	FVC on N	5.86 5.2 5.2 0.0	296.46	5.35 4.7 5.2 0.5	296.97
1+10	FVC on S	5.23 4.9 5.0 0.1	296.80	4.4 5.0 5.5 0.9	297.32
0+90		5.27 4.6 4.6 0.0	297.05	4.62 4.0 4.1 0.6	297.90
TP	337		301.69	11.25	298.32
0+70	PVC	5.17 4.5 4.5 0.0	297.15	4.4 4.19 4.6 0.8	298.13
0+20		5.08 4.5 4.5 0.0	297.24	4.03 4.0 4.2 0.1	299.29
0+0	F.L. 32nd St on South	4.41	297.28	9.83	299.75
BM	846		309.571		301.11
	121		302.32		301.11

S.W.P.P.
Maple St 32nd St

Farce Staker

Indexed

BM			11.58	280.32	5.18 6 5.18 32nd St
S.L. Sta.				5	
2+20	HL 33rd St				
2+10		5.33 11.90 0.76 10.6 0.76 0.73	280.00	11.40 4.83 6.5 0.49	280.50
1+90		5.24 12.5 0.72 9.3	281.39	11.40 4.6 5.0 0.50	281.87
TP	324	1.44	285.33	11.83	288.89
1+50		11.56	284.16	7.7 7.3 6.9 4.1 0.8 3.2	284.60
1+10		8.80	286.92	5.0 8.40 3.9 4.6 0.17 0.7	287.32
TP	89	0.94	291.90	10.73	290.96
0+70		6.03	289.69	12.0 11.6 11.8 10.8 0.2 0.8	290.05
0+30	FVC	3.26	292.46	9.2 8.94 8.0 8.9 0.2 0.2	292.78
0+20		2.57	293.15		293.47
0+10		1.87	293.85		294.15
0+0	F.L. Bancroft on South	1.80 incl			294.23
TP		1.36	295.72	7.84 7.46 7.8 incl	294.36
			301.69		302.32

Maple St 32nd to 33rd St

Bancroft

St

29522 94.56 9498 9520 9623 95.05 29572 240

29646 95.79 9623 9641 9647 9630 29697 1430

29680 96.13 9656 9679 9683 96.65 29732 1410

29705 96.38 9684 9710 9717 9703 29770 0490

29715 96.48 9703 9737 9752 9746 29813 0470

29724 96.57 9758 9798 9838 98.58 29929 0420

29728 96.74 99.03 29975 046

32nd St

Guthrie Fine Gravel
Sept 28-11

7

33rd St

280.00 79.63 80.14 280.50 2110

30/11 2M S&BP
263 11/10/11
208.74 7.32
8.38 SE 21T
274.36 Maple St
1.30 Bancroft
295.66

8106 8148 8170 8172 81.54 1490

292.46 92.13 9251 9269 9267 92.45 29298 0430

9305 29397 0420

9346 29415 0410

293.85

9362 29423 0400

Bancroft

St

Paving Grader Alley Block 12 Sub Lots 20 to 50
 Bk A Heralla Between 28th & 39th St
 From Polk to Orange

2+40	$\frac{3.98}{3.89}$ Co.09	361.26	361.56	$\frac{3.78}{3.72}$ Co.06
2+0	$\frac{4.60}{3.67}$ Co.09	360.64	360.94	$\frac{4.50}{4.45}$ Co.02
1+60	$\frac{5.22}{3.78}$ E.114	360.02	360.22	$\frac{4.96}{4.54}$ Co.08
1+40	$\frac{5.50}{4.91}$ Co.09	339.74	360.04	$\frac{5.20}{4.65}$ Co.05
1+20	$\frac{5.77}{5.13}$ Co.07	359.52	359.82	$\frac{5.47}{4.81}$ Co.06
1+0	$\frac{5.99}{5.60}$ Co.08	359.22	359.62	$\frac{5.62}{4.99}$ Co.08
0+80	$\frac{6.10}{4.96}$ E.114	359.14	359.44	$\frac{5.80}{5.07}$ Co.03
0+50	$\frac{6.17}{5.09}$ E.108	359.07	359.37	$\frac{5.89}{5.36}$ Co.07
0+20	$\frac{6.24}{5.30}$ E.104	359.00	359.30	$\frac{5.91}{5.62}$ Co.08
0+0	$\frac{6.30}{6.30}$ X.1 Polk	358.74	358.90	$\frac{6.34}{6.34}$ Co.01

Sub 10-41
 S13307
 North Star
 W. Moor

Indexed
 W

BM	2.94	371.05	368.11	$\frac{4.89}{4.89}$ Co.09
5+73.05	$\frac{5.05}{31.13}$ Co.01	366.80	366.03	$\frac{5.05}{5.05}$ Co.01
5+60	$\frac{5.32}{5.12}$ Co.02	365.74	365.54	$\frac{5.46}{4.99}$ Co.18
5+40	$\frac{5.71}{5.29}$ Co.02	365.54	365.74	$\frac{5.91}{5.97}$ Co.06
5+20	$\frac{6.05}{6.02}$ Co.03	365.00	364.79	$\frac{6.28}{6.26}$ Co.01
5+0	$\frac{6.37}{5.28}$ E.112	364.73	364.51	$\frac{6.51}{6.28}$ Co.02
4+55	$\frac{6.88}{6.40}$ Co.08	364.17	364.08	$\frac{6.97}{6.86}$ Co.11
4+10	$\frac{7.44}{7.43}$ Co.01	363.61	363.86	$\frac{7.39}{7.86}$ Co.03
3+65	$\frac{7.99}{7.55}$ Co.04	363.06	363.23	$\frac{7.82}{7.33}$ Co.09
3+20	$\frac{8.55}{7.58}$ E.097	362.50	362.80	$\frac{8.25}{8.22}$ Co.03
2+50	$\frac{9.17}{8.68}$ Co.09	361.88	362.18	$\frac{8.87}{8.45}$ Co.02
TP	2.84	365.24	362.40	

Upas St Grade India text of State

	N	S	
0+65 = Brk	$\frac{3.9}{96}$ F0.7 126.50	127.00	$\frac{3.4}{2.9}$ C1.1
0+32.5	$\frac{8.2}{92}$ F1.0 122.25	122.75	$\frac{7.7}{5.7}$ C2.0
2+75 = F.L. Columbia	$\frac{12.4}{126}$ F0.2 118.00	118.50	$\frac{11.9}{9.7}$ C2.2
2+37.50 = L	115.25 = Paring	115.75	$\frac{3.0}{0.2}$ C2.8
2+0 = H.L. Columbia	$\frac{6.3}{2.1}$ F0.2 112.50	113.00	$\frac{5.8}{1.2}$ C2.6
1+50	$\frac{3.1}{0.6}$ C3.5 104.65	105.15	$\frac{13.6}{9.3}$ C4.3
1+0	$\frac{10.9}{11.2}$ F0.3 96.80	97.30	$\frac{10.4}{9.2}$ C1.2
0+50 = Brk	$\frac{6.7}{6.8}$ F0.1 89.30	89.80	$\frac{7.2}{4.3}$ C2.9
0+0 = F.L. India	84.00	84.00	

Indexed

Suppl. 11
Saves
Hordbans
Moore
11619

BM 8393 S.F. 80
C1.00 X
12.08 India
96.01 X
0.22
95.77
11.96
107.73 X
0.52
107.15
11.61
118.76 X
0.21
118.55
11.28
130.43 X
0.93
129.51
11.95
141.46 X
0.49
140.97
9.40
150.37 X

1+65	$\frac{7.9}{1.2}$ C0.5	142.50	142.00	$\frac{7.4}{1.2}$ C5.3
1+15	$\frac{7.0}{7.3}$ F0.3	134.50	135.00	$\frac{6.5}{4.0}$ C2.5

Kurtz St. Grader
At 196t to Hitbarby

75' wide
18' C65

6.50
Stops
5.27 1370x

370 = EL Bordini

2194 - C6 BC Co. 4
12.0
11.6
1.67
4.8
2.2
Co. 3
4.1
2.9
C. 1.7
2.42
11.2
9.2
C. 2.0

2150
10.9
11.9
Fol. 1
2.80
2.7
3.1
Co. 2
2.8
1.7
C. 1.7
3.70
10.9
9.9
C. 1.0

210
9.6
10.1
Fol. 5
4.07
3.4
4.0
Co. 2
9.6
7.0
C. 2.6
5.16
8.5
8.4
C. 0.1

TP
10.55
14.74
2.81
4.19

1750
8.4
9.5
F. 1
5.34
8.4
8.1
C. 0.7
8.6
6.6
C. 1.8
6.62
7.1
6.8
C. 0.3

170
7.1
8.1
F. 1
6.61
8.1
8.6
Fol. 5
6.7
6.0
C. 0.7
8.08
5.6
4.8
C. 1.1

0750
5.9
7.0
F. 1
7.88
6.8
7.2
Fol. 4
5.2
5.2
C. 1.7
9.54
4.2
4.2
C. 1.3

0706 = C6 BC F2
4.7
6.7
9.00
5.7
6.1
Fol. 1
3.9
1.8
C. 2.0
10.82
2.9
2.2
C. 0.6

070 = H. L. Wright

BM
8.15
5.25
11.00
SET OFF
Wright
Spec. Higgins
5.25

Feb 16-43

51500
315
899
BM
BM

M

416
5.48
6.50
7.82

Indexed

10.08
N

10

L+D S. 4.
Kurtz F. 7
Coutt

370 = EL Coutt

2194 = C6 BC
7.7
7.7
0.0
2.40
4.1
4.1
Fol. 5
3.15
4.7
5.2
Fol. 6
6.9
5.2
C. 1.7

2150
7.9
7.6
0.3
5.6
2.22
4.3
4.3
Fol. 2
2.97
4.9
5.4
Fol. 5
7.6
6.9
C. 2.2

210
8.1
8.2
Fol. 1
2.01
1.5
1.5
Fol. 2
2.76
5.1
5.1
Fol. 2
7.3
5.1
C. 2.2

1750
8.3
8.2
0.1
6.0
1.80
4.7
4.7
C. 6
2.55
5.3
5.7
Fol. 4
7.5
4.6
C. 2.9

170
8.5
8.2
0.3
6.2
1.59
4.9
4.9
C. 0.5
2.34
5.5
5.5
C. 0.7
7.7
4.3
C. 2.7

0750
8.7
8.3
0.4
6.4
1.38
5.1
5.1
C. 0.7
2.13
5.7
5.7
C. 0.3
8.0
7.4
C. 1.4

0706 = C6 BC F2
8.9
8.2
0.7
2.6
1.20
5.3
5.3
C. 0.6
1.95
5.9
5.9
C. 0.6
8.1
7.4
C. 0.7

070 = H. L. Bordini

TP
9.31
13.70
5.69
4.39

Kortz

Restated Nov. 8-41

June 14-41

11

		stakes of cblinc	N	
	2.60 + 90	7.93		4.3
3+75	2.80	④	3.50	4.6
3+50	2.91	4.9 4.2 4.1 co.1	3.6	4.6 4.7 4.7
3+0	3.12	4.7 5.2 5.2 Fo.5	3.86	4.8 4.8 4.8 4.8
2+80 = Brk	3.20	4.6 5.2 Fo.8	3.95	4.0 4.9 4.9
2+50	3.09	4.7 5.3 Fo.6	3.84	4.1 3.8 3.8
2+0	2.91	4.7 4.8 co.1	3.66	4.1 4.1 4.1
TP	1.70	7.78	4.74	3.08
1+50	2.73	5.1 5.0	3.48	4.3 4.4 4.5
1+0	2.55	5.3 5.3 5.0	3.30	4.5 4.6 4.6
0+50	2.36	5.5 5.3 co.2	3.11	4.7 4.8 4.8
TP	6.21	10.08	4.06	3.87
0+06 - C6BC	2.20	7.9 5.6 5.3 co.3	2.95	4.9 4.9 5.7 4.1
0+0 = W.L. Courts				
7 Courts			3.05	4.8 5.0 Fo.2
	7.82 TD			

BM	0.53	28.26		27.73	B.P.C.C. From H.T.W. Viaduct Mooreck
TP	0.92	17.18	12.00	16.26	
TP	1.83	7.93	11.08	6.10	
TP	6.21	10.08	4.06	3.87	
BM		7.61		2.47	S.F.L.D. E.L. Courts S.L. Kortz
BM	5.74	8.21		2.47	S.F.L.D. E.L. Courts S.L. Kortz

San Diego He Grader
Between Aristo And Ampudia

NE

SW

210 = Ampudia

210 $\begin{matrix} 96 \\ 64 \\ \hline 092 \end{matrix}$ 48.00 47.50 $\begin{matrix} 42 \\ 73 \\ \hline 115 \end{matrix}$

1750 $\begin{matrix} 16 \\ 27 \\ \hline 019 \end{matrix}$ 47.13 46.63 $\begin{matrix} 51 \\ 100 \\ \hline 151 \end{matrix}$

170 $\begin{matrix} 55 \\ 27 \\ \hline 082 \end{matrix}$ 46.27 45.77 $\begin{matrix} 60 \\ 98 \\ \hline 158 \end{matrix}$

0750 $\begin{matrix} 63 \\ 52 \\ \hline 001 \end{matrix}$ 45.40 44.90 $\begin{matrix} 68 \\ 38 \\ \hline 106 \end{matrix}$

0715.69 $\begin{matrix} 74 \\ 74 \\ \hline 148 \end{matrix}$ 44.04

0710 = Fly Aristo $\begin{matrix} 77 \\ 75 \\ \hline 152 \end{matrix}$ 44.54 43.75 out

Indexed

Jan 19-41

12

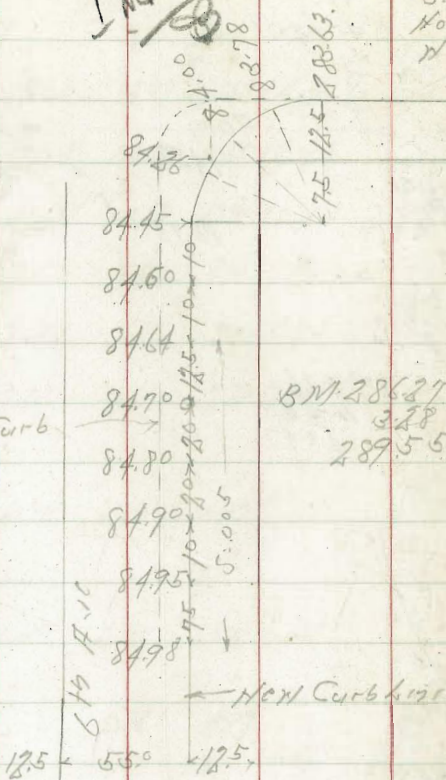
SFBP
BM 35.48 Aristo
6.70 La Bolla Hill
42.187
1.44
40.74
10.98
51.727
7.90
44.42
13.20
57.627

Indexed

Aug 29 41
Sisson
North St
W Moor

Robinson

Existing Curb



288.63 83.78 84.00 84.26 84.45 SDIC
5.92 old 5.77 5.55 5.29 5.10 EC

84.60 84.64 84.70 84.80 84.90 84.95
4.95 4.91 4.85 4.75 4.65 4.60
5.35 5.05 5.00
FO.60 FO.40 FO.40

84.98
4.57

M

Sept 10 41
Sisson 14

Indexed

94.00
6.67
5.62
01.00

94.50 2100
6.17
5.12
01.00

F.B. 1575 Page 44

BM 97.39 S.W. Curb
328 End
100.67 A

94.83
5.84

95.25 1755
5.34

95.66
5.01

96.16 1710
4.51

96.49 418

389.99 0765

115 x 40

97.33 323
C&R 20 97.45 322
97.39

385.97.83 0780
98.00 0710
267 98.15 0707

Mission Blvd

Storm Drain Across Block 9 Toralta And
Block 1 North Highland Park
Flow Line Grades Station off Set 16.11

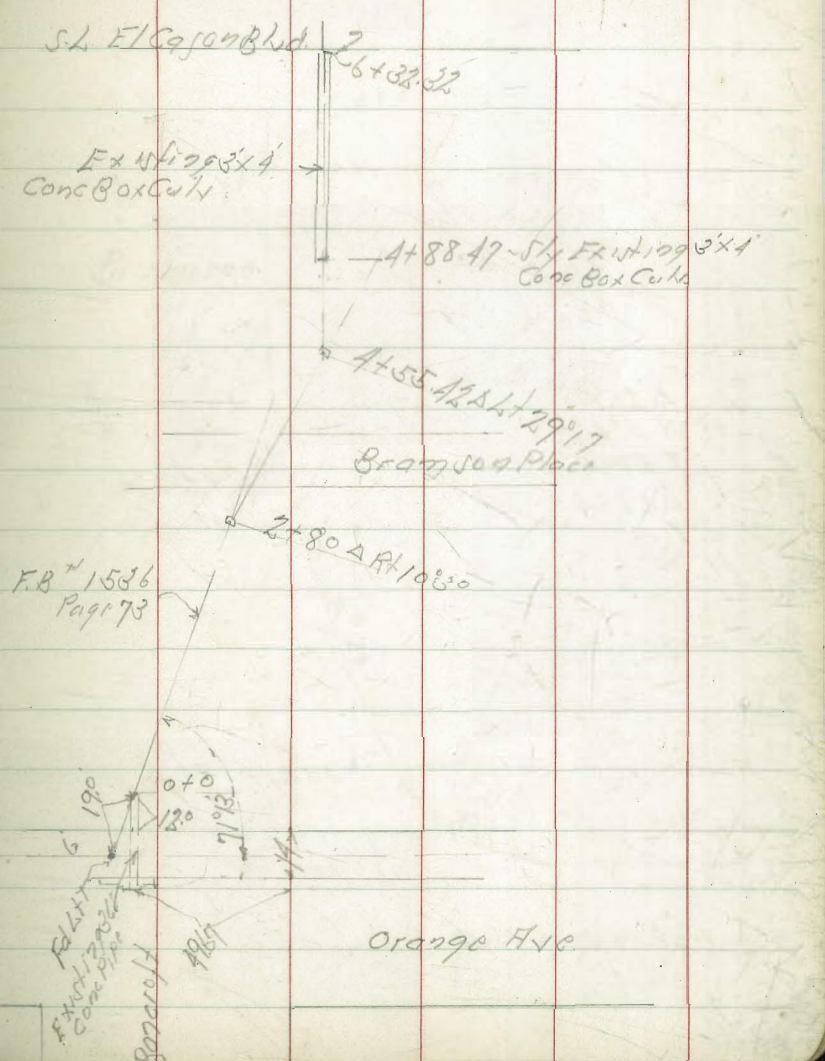
BM	8.18	366.29	358.11	
0+0	Ny 36' Conc Culv.		351.77	
				358.11
+50	11.19 10.86 c 0.83	1319 593 c 7.7	352.60	367.91
+70	10.27 9.58 c 0.79	1287 607 c 6.80	353.42	
+50	9.65 8.70 c 0.85	1205 447 c 7.58	354.21	
+20	8.72 7.53 c 7.39	1121 488 c 6.54	355.07	
+50	7.80 6.95 c 1.14	1039 427 c 5.92	355.90	
+80	7.40 7.52 c 0.13	990 469 c 5.83	356.39	
+30		957 508 c 4.47	356.72	
TP	7.59	371.27	261	363.68
+50			13.77 7.62 c 6.10	357.55
+10			12.90 5.90 c 7.00	358.07

NWBR
Orange +
Banchoff
358.11
5.68
367.91
5.01649

Bottom Grade
Nov. 8-91
Indefinite

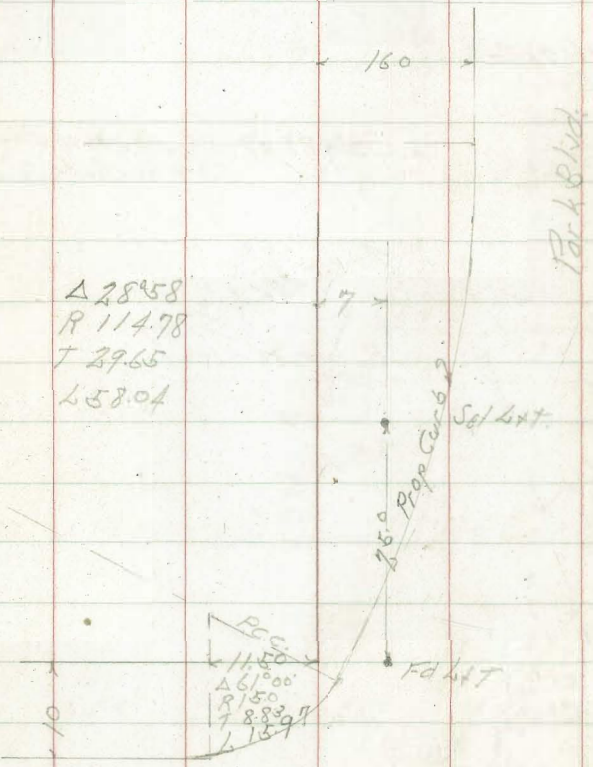
Sept. 11-41
Sisson
Hartman
H Moore
15

4+5542	Δ St. 29°17'	11.99 4.20 c 7.69	359.28
4+8847	Sly Box Culv.		359.82
			11.45 11.36 on FL Culv.



Northwest Return
 Park Blvd. + Robinson Ave

~~Indexed~~
 B
 Sept. 25-41



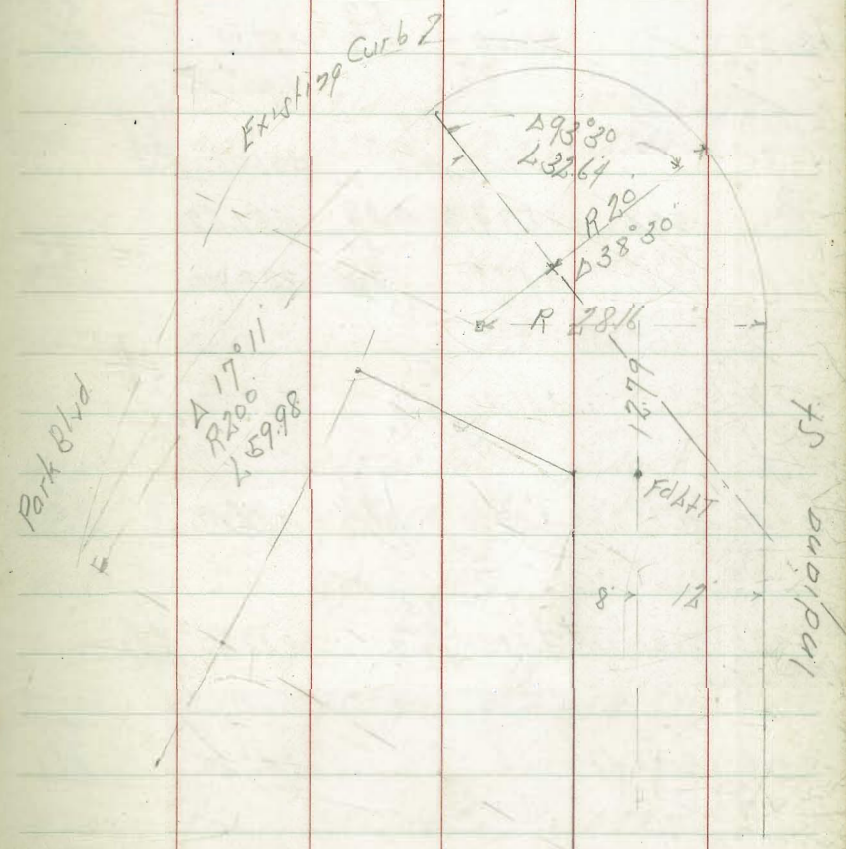
$\Delta 28.58$
 $R 114.78$
 $T 29.65$
 $L 58.04$

$\Delta 11.50$
 $\Delta 61.50$
 $\Delta 21.50$
 $\Delta 78.83$
 $\Delta 13.99$

Curve Return
 Park Blvd + Indiana St.

M

~~Indexed~~
 B



$\Delta 17.01$
 $R 200$
 $L 59.98$

$\Delta 93.30$
 $L 32.64$

$R 2816$

8
 12

Shiloh Road Grader
University to Rex H.C

m

Indexed
R

18

BM 11.25 329.17 317.82 117.2 Shiloh
Scb of Univ.
#1553 P28

cb 317.73 10.92 318.82-03 10.92
2+70.25 = SL Univ. 318.25 11.44 318.75 10.25

2+50 319.87 $\begin{matrix} 9.3 \\ 9.1 \\ \hline 60.2 \end{matrix}$ 320.37 $\begin{matrix} 8.8 \\ 5.3 \\ \hline 63.5 \end{matrix}$

2+0 323.87 $\begin{matrix} 5.3 \\ 8.1 \\ \hline 60.8 \end{matrix}$ 324.37 $\begin{matrix} 4.8 \\ 3.6 \\ \hline 61.2 \end{matrix}$

1+50 327.87 $\begin{matrix} 1.3 \\ 2.5 \\ \hline 61.2 \end{matrix}$ 328.37 $\begin{matrix} 0.8 \\ 2.1 \\ \hline 61.3 \end{matrix}$

TP 12.11 341.03 0.25 328.92

1+0 331.87 $\begin{matrix} 9.2 \\ 8.8 \\ \hline 60.4 \end{matrix}$ 332.37 $\begin{matrix} 8.7 \\ 8.9 \\ \hline 60.2 \end{matrix}$

0+50 335.87 $\begin{matrix} 5.2 \\ 4.8 \\ \hline 60.4 \end{matrix}$ 336.37 $\begin{matrix} 1.7 \\ 3.7 \\ \hline 61.0 \end{matrix}$

0+0 = H.L. RCH. 339.87 $\begin{matrix} 1.2 \\ 3.4 \\ \hline 62.2 \end{matrix}$ 340.37 $\begin{matrix} 11.6 \\ 10.6 \\ \hline 61.0 \end{matrix}$

07 Rex 340.25 341.15 $\begin{matrix} 10.8 \\ 10.6 \\ \hline 60.2 \end{matrix}$

TP 11.18 351.95 0.26 340.77

Paving Grader Alley Block A Torralta Heights
 From Meade Hill to Monroe Hill
 Between 3515 St & Wilson

			5.58 4.86 c 0.72		5.58 5.29 c 0.31
2+40		390.82			
1+90		390.59	5.81 5.05 c 0.76		5.81 5.29 c 0.52
1+40		390.36	6.04 5.37 c 0.67		4.19 4.06 c 0.19
TP	6.44	396.401	4.59	389.96	
0+90		390.13	4.29 3.81 c 0.48		4.22 4.10 c 0.12
0+40 = P.V.C.		389.90	4.65 4.26 c 0.39	389.90	4.65 4.06 c 0.59
0+30		389.70	4.85 4.29 c 0.56	389.70	4.85 4.08 c 0.77
0+20		389.30	5.25 4.77 c 0.48	389.30	5.25 4.54 c 0.71
0+10		388.60	5.95 5.26 c 0.69	388.70	5.85 5.05 c 0.80
0+0 = N.B.		387.59	6.96 6.88 on Pav	387.70	6.85 6.86 on Pav
BM	6.35	394.551		388.20	N.M.B.P. Meade Wilson

Indexed
 82

			5.17 5.25 on Pav		5.20 5.17 on Pav
6+0 = S. Monroe		391.54			
5+90		391.85	4.86 4.37 c 0.49	391.85	4.86 4.34 c 0.52
5+80		392.10		392.10	4.61 4.35 c 0.26
5+70		392.30	4.41 4.24 c 0.17	392.30	4.41 4.31 c 0.10
5+60 = P.V.C.		392.30	4.10 3.52 c 0.58	392.30	4.46 4.14 c 0.32
TP	3.86	396.711	3.55	392.85	
5+40		392.21	4.19 3.82 c 0.36		4.19 3.56 c 0.63
4+90		391.98	4.42 4.06 c 0.36		4.42 3.76 c 0.66
4+40		391.75	4.65 4.50 c 0.15		4.65 4.55 c 0.10
3+90		391.52	4.88 4.74 c 0.14		4.88 4.68 c 0.20
3+40		391.28	5.17 4.65 c 0.49		5.17 4.51 c 0.66
2+90		391.05	5.35 4.95 c 0.40		5.35 5.10 c 0.25
		396.401			

Oct 10-41
 S.M.S.P.
 No. 23 117
 J.M. Moore
 F

19

Grades Alley Block 6 Wothman Biddle
 130 W of W 42nd St Oct. 14 + Suiper

Oct 16-41

Indexed
 8

BM	2.72	296.50		292.58	SFBP Suiper + Bancroft
TP	0.73	288.92	8.11	288.19	
TP	3.82	287.41	5.20	283.62	
1+20 - PVC		5 281.95	5.19 5.87 10.38	N 282.25	5.19 2.92 Co. 26
0+95		282.67	4.74 4.22 Co. 55 282.41	282.97	4.11 2.15 Co. 82
0+60 - F.V.C.		283.40	5.62 5.49 Co. 63	283.70	5.22 4.25 Co. 97
0+40		283.66	5.26 5.05 Co. 21	283.96	4.96 4.25 Co. 70
0+20		283.65	5.27 5.21 Co. 21	283.95	4.07 4.53 Co. 94
0+0 = W 42nd St		283.37	5.55 5.17 Co. 38	283.67	5.25 4.15 Co. 17
0-2900 ft - W 42nd St		283.26		283.59	5.00
		288.227			

Upas St Grades
From Alabama to Pershing Dr

	Gutter	South Curb Grade	
	276.33		
2+80.5 = H.L. Mississippi	5.92 5.05 0.87	272.33	273.00 5.0 0.3
2+50	6.67 6.11 0.56	271.58	272.25 4.1 0.0
2+20 = Elk	7.42 6.52 0.88	270.83	271.50 4.8 0.3
H.E.B.P. Upas + Louisiana	278.09 8.16 278.25 A		
1+85	8.65 7.36 1.29	269.60	270.27 6.1 0.8
1+50	9.87 8.22 1.65	268.38	269.05 7.3 0.8
1+15	11.10 9.79 1.31	267.15	267.82 8.5 0.6
0+80 = F.V.C.	12.32 11.02 1.30	265.93	266.60 9.7 0.6
0+60	13.12 12.04 1.08	265.13	265.80
0+40	14.22 12.83 1.39	264.03	264.70 11.6 0.8
0+0 = F.L. Alabama	16.92 15.62 1.30	261.33	262.00 14.3 0.8

Indexed
Gutter Grades
60 Wide
Dec. 5-11

	Gutter	South Curb Grade	
	282.57 A		
BM 0+0 3+32 = E.L. Louisiana	7.69 6.78 0.91	4.48	278.09 276.83 277.50
3+02 = L	7.94 7.65 0.29	276.58	277.25 5.0 0.2
2+72 = H.L. Louisiana	1.92 0.67 1.25	276.33	277.00 5.6 0.7
BM 278.09 H.L. Louisiana	2.56 6.43 5.27		
2+176 284.52 T	6.85 0.91	275.69	276.36 6.7 0.3
1+63.2	3.30 1.45 1.75	275.05	275.72 6.8 0.7
1+08.8	3.84 1.57 2.27	274.41	275.08 7.5 0.7
0+54.4	4.48 3.27 1.21	273.77	274.44 8.1 0.6
TP 0.23	276.33	6.47	276.10
0+0 3+40.5 = F.L. Miss	5.17 3.68 1.49	273.13	273.80 2.5 0.9
3+10.5 = S	5.57 5.48 0.06	272.73	273.40 2.9 0.3

Oct 16-41
S. 1000
North
W. 1000
21

Gutter South Carb Grad

South Carb Grad M.W.B.P. Uper Arizona

		281.81			
		284.52			
3+32.5 = FL Texas	4.69 2.16 00.53	279.83	280.50		
3+02.5 = Z	4.54 2.56 00.29	279.98	280.25	1.6 1.8 00.2	
2+72.5 = W.L. Texas	5.19 2.48 00.71	279.33	280.00	1.8 1.6 00.2	
TP 241		282.57	1.65	280.16	
2+18	5.69 2.88 00.61	278.83	279.50	3.1 2.8 00.3	
1+62.5	6.19 3.52 00.66	278.33	279.00	5.6 3.6 00.0	
1+09	6.69 5.80 00.89	277.83	278.50	11 3.8 00.3	
0+54.5	7.19 4.28 00.91	277.33	278.00	4.6 4.2 00.4	
0+0 = F.L. Louisiana		276.83	277.50	5.1 4.7 00.4	

BM	11.86	281.81			
		284.52			
3+05 = Z	11.46 2.06 1.20 274.241	269.58	270.25		
2+75 = W.L. Arizona	4.43 3.45 00.98 00.20	269.83	270.50	11.3 11.0 00.2	
2+31.25	12.65 11.46 01.79	271.87	272.54	9.2 8.7 00.5	
1+87.50	10.61 9.07 01.54	273.91	274.58	7.2 6.4 00.8	
1+43.75	8.56 7.02 01.47	275.96	276.63	5.2 4.8 00.9	
1+0 = F.L.C.	6.52 5.30 01.22	278.00	278.67	3.1 2.9 00.8	
0+80	5.70 2.86 01.34	278.82	279.49	2.3 1.8 00.7	
0+60	5.42 01.78	279.41	280.08		
0+40	4.74 3.77 00.97	279.78	280.45	1.4 1.1 00.8	
0+20	4.60 3.99 00.61	279.92	280.59		
0+0 = F.L. Texas		279.83	280.50	1.3 1.0 00.8	

			South Curb Grad	
2+75	W.L. Arnold	^{12.93} ^{10.97} c1.96	261.33	262.00
2+31.25	274.25	^{12.15} ^{10.58} c1.57	262.11	262.78
1+87.50	BM 269.95	^{11.30} ^{11.00} ^{11.36} ^{11.25} c1.39	262.90	263.57
1+43.75		^{10.58} ^{9.66} c0.92	263.68	264.35
1+0	P.V.C.	^{9.79} ^{8.87} c0.92	264.47	265.14
0+80		^{9.24} ^{7.67} c1.57	265.02	265.69
0+60	P.V.C.	^{8.30} ^{7.22} c1.08	265.96	266.63
0+30		^{6.62} ^{5.17} c1.45	267.64	268.31
0+0	E.L. Arnold	^{4.93} ^{3.90} c1.03	269.33	270.00
BM			269.95	

NX RP
Upas
Arizona

			N Curb	S Curb	
2+72	W.L. Lillote				
2+62	C.B.C.	^{5.0} ^{4.8} c2.2	289.50	289.00	^{5.5} ^{4.2} F1.9 2.9 out
2+40		^{7.8} ^{7.7} c0.1	286.75	286.25	^{8.3} ^{9.8} F1.5 2.3 out
TP	12.16	^{2.0} ^{2.9} c0.9	294.54	282.38	0.14
1+90		^{2.0} ^{2.7} c0.7	280.50	280.00	^{2.5} ^{2.5} c0.0 0.0 S.L.
TP	12.03	^{3.0} ^{3.7} c0.7	282.52	270.49	0.79
1+40	E.V.C.	^{3.0} ^{3.7} c0.7	274.25	273.75	^{8.8} ^{8.0} c0.8 0.5
1+0		^{1.6} ^{1.9} c0.3	269.69	269.19	^{2.1} ^{2.5} F4.4 1.6 out
0+60		^{5.8} ^{7.2} c1.4	266.00	265.50	^{5.8} ^{7.2} F1.9 2.9 out
0+20	P.V.C.	^{8.1} ^{7.4} c0.7	263.19	262.69	^{8.6} ^{8.2} c0.4 5' out
E.L. Arnold			262.06	261.45	^{9.8} ^{14.8} F5.0 7.5 South 9.8
BM	133		271.28	269.95	NX RP Upas Arizona

BM			4.01	331.00	NEBP Upper + 331.00
TP	6.22	335.01	3.98	328.79	
TP	5.48	332.77	0.77	327.29	
2+72.74	W.L. Pershing	323.70	4.36 1.13016	322.70	5.4 2.1 0.13 5.0
2+30				319.43	8.6 0.1
TP	10.74	328.01	0.50	317.82	
1+80			5.076	315.60	2.2 0.8 0.7 5.0
1+33	= Brk			312.0	5.8 4.8 0.8 5.0
1+0				307.32	10.5 8.0 2.2 5.0
TP	12.14	317.82	0.17	305.68	
0+50			5.1417	300.23	5.4 3.9 0.7 5.0
0+15				295.27	19.5 1.2 0.4 5.0
TP	11.68	305.85	0.87	294.17	
E.L. Villa Torr				293.40	1.1 0.4 0.7 5.0
		294.54			

Upper Grader
Arnold St to Villa Torr
Established Grade

Oct 18.41
S. No. 24

Indexed
B

2+72 =	290.00		289.00		
2+62 =	BC only 288.25	4.0 0.2 0.2 0.7 0.7	287.25	5.0 2.1 0.1 5.0	
2+20	280.84	11.4 12.4 16.0 3.0	279.90	12.3 7.6 4.7 5.0	
TP	12.29	292.22	0.09	279.93	
1+80 =	Exc 273.80	6.2 0.5 0.5 0.5	272.90	7.1 1.5 0.6 5.0	
1+40	268.40	11.6 12.4 10.8 1.2	267.40	12.6 5.1 7.5 5.0	
TP	11.07	280.02	2.05	268.95	
1+0 =	Pxc 265.60	5.4 5.6 0.2 0.3	264.70	6.0 6.0 0.0	
0+50	263.80	7.2 7.2 0.00011	263.10	7.9 8.1 0.2	
0+0 =	262.00		261.50		
BM	1.05	271.00		269.95	NEBP Upper + 411500

Brooklyn H₂O Water Line Grades

66.15 ST to 69.74 ST

Location is South of St. Station offset 5' N of Ditch

2+80		279.46	10.53 8.7 0.76
TP	11.71	289.74	0.42 278.03
2+40 = PVC		272.73	5.7 0.4 0.3
3+0:		263.13	15.3 8.7 0.6
TP	12.19	278.45	0.46 266.26
1+60		253.53	13.2 4.8 0.4
TP	11.58	266.72	0.24 255.14
1+20		243.93	11.4 6.6 0.4
TP	11.74	255.38	0.14 243.64
1+0		239.87	3.9 1.5 0.4
0+80 = PVC		237.30	6.3 5.1 0.4
0+45		234.09	9.7 9.1 0.6
0+10		230.88	12.9 10.6 0.3
0+0 = EL 66.15 ST		230.23	13.53 11.00 0.6
BM	11.28	243.78	232.50 Mon X Brooklyn 20' N of EL 66.15

Indexed
B

M		267.84	10.53 8.7 0.76	289.24	7.3 4.9 0.24
		2+46.4		289.24	
		2+06.4		289.40	7.1 4.6 0.5
		1+66.4		289.23	7.3 4.9 0.31
		1+26.4 = PVC		289.05	7.5 4.3 0.2
		0+84.30		288.64	7.9 4.5 0.34
		0+42.15		288.24	8.3 5.6 0.7
		0+0 = EL 67.74		287.83	8.7 6.6 0.2
	7.11	296.53	0.32	289.42	
		1+35.6 = EL 67.74 ST		286.83	7.9 5.3 0.6
		3+77.2		284.60	5.1 2.4 0.7
		3+20		282.37	7.1 4.6 0.28

Oct 22-41
S. J. V. 27
25
cuts Nov. 1-41

289.741

6+9306		280.80	^{1.5} 15.05 c2.5
TP 1130	286.27	11.56	284.97
6+464 F.V.C.	282.78	^{13.8} 11.6	c2.2
6+06.4	284.28	^{18.0} 10.0	c2.3
5+66.4	285.36	^{11.2} 8.3	c2.7
5+26.4 = P.V.C.	286.04	^{10.5} 7.8	c2.7
4+78.4	286.61	^{9.0} 6.9	c2.0
4+30.4	287.18	^{9.3} 6.7	c2.9
3+82.4	287.74	^{8.8} 8.8	c2.8
3+34.4	288.31	^{8.2} 5.6	c2.6
2+86.4 F.V.C.	288.88	^{7.6} 5.5	c2.5
	296.53		

3+57.25 F.V.C.	277.93	^{8.3} 6.1	c2.2
3+17.25	278.79	^{7.5} 5.4	c2.1
2+77.25 = P.V.C.	278.63	^{7.6} 5.2	c2.3
2+21.80	278.17	^{8.1} 5.4	c2.7
1+66.35	277.71	^{8.6} 5.9	c2.7
1+10.90	277.25	^{9.0} 6.2	c2.8
0+55.45	276.79	^{9.5} 6.2	c2.9
0+0 = F.V.C. 6874.54	276.33	^{9.9} 7.1	c2.8
871	684	279.43	^{2.107} Brooklyn +6874.54 279.43
7+86.40 = W.L. 6874.11	276.83	^{9.1} 7.5	c2.9
7+39.75	278.82	^{7.5} 5.7	c2.8
	286.271		

5+9022 259.33 $\begin{matrix} 15.9 \\ 9.8 \\ \hline 6.1 \end{matrix}$

5+3725 266.81 $\begin{matrix} 8.9 \\ 4.2 \\ \hline 4.7 \end{matrix}$

4+9725 270.56 $\begin{matrix} 4.5 \\ 4.2 \\ \hline 0.3 \end{matrix}$

TP 0.67 275.19 11.95 274.52

4+5725 273.69 $\begin{matrix} 12.6 \\ 10.3 \\ \hline 2.3 \end{matrix}$

4+1725 P.V.C. 275.83 $\begin{matrix} 10.4 \\ 8.6 \\ \hline 1.8 \end{matrix}$

3+8725 276.88 $\begin{matrix} 9.4 \\ 7.6 \\ \hline 1.8 \end{matrix}$

28627A

Brooklyn Ave Water Grades
60th St to 63rd St

Indexed
B

3+47.2 = FL 61 st out	Bottom Ditch 2.87	Below 5 CB	
3+392 - CB FC out	231.13	1.7 2.9 01.8	
3+096	229.43	6.4 4.4 02.0	
2+80 = E.V.C.	227.73	8.1 5.8 02.3	
2+40	225.92	9.9 7.6 02.9	
2+10	225.09	10.8 7.8 03.2	
1+60	225.25	10.6 7.9 02.7	
1+20 = P.V.C.	226.39	9.5 7.3 02.2	
0+68	228.50	7.5 4.8 02.5	
0+16 - CB FC	230.63	5.3 2.2 03.0	
0+0 = FL 60 th out			
B.M. 128	235.85		147.7 Brooklyn Ave 110th St

Nov 4-41 28

2	Fergus	240.73	14.2 10.6 04.2	
TP	11.06	254.88	0.72	243.82 Mail Pole Sw. Pole Brooklyn Fergus
3+14.60	= FL 61 st out			
2+06.60 - CB FC		239.84	4.7 1.8 02.9	
2+56.25		238.89	5.7 3.5 02.2	
2+07.08		237.94	6.6 4.6 02.0	
1+57.31		236.98	7.6 4.6 03.0	
1+07.54		236.03	8.5 3.7 04.8	
0+57.77		235.08	9.5 4.8 04.7	
0+08 = CB FC out		234.13	10.4 7.3 03.1	
0+0 = FL 61 st out				
TP	9.38	244.54	0.67	235.18 2.5 0.4 02.8
2	61 st	232.63		2.1 1.7
		235.85		

3+28.20 246.10 $\frac{8.8}{5.1}$
c3.7

2+88.20 247.81 $\frac{7.1}{5.7}$
c3.7

2+48.20 248.61 $\frac{6.3}{3.0}$
c3.3

2+08.20 PVC 248.50 $\frac{6.1}{3.2}$
c3.2

1+78 = FVC 248.08 $\frac{6.8}{3.7}$
c3.1

1+38 247.27 $\frac{7.6}{2.8}$
c2.8

0+98 245.99 $\frac{8.9}{3.0}$
c2.9

0+58 = PVC 244.23 $\frac{10.9}{6.9}$
c2.8

0+08 = CBBC 241.63 $\frac{13.2}{8.1}$
c5.2

0+0 = FL Fergus out

B/M 10.34 244.54

254.881

7 Mon
Brooklyn
Fergus
244.54

1+61.26

TP 11.96 266.01 0.83 254.05

1+10.17 249.27 $\frac{5.6}{3.1}$
c2.5

7.51-09

0+59.08 245.20 $\frac{9.7}{4.5}$
c2.2

0+08 = CBBC out 241.13 $\frac{13.8}{12.2}$
c1.6

0+0 = FL 62nd

2 62nd 241.38 $\frac{13.5}{11.8}$
c1.7

4+00.20 = FL 62nd

3+92.20 = CBBC out 241.63 $\frac{13.5}{9.4}$
c3.9

2+68.20 = FVC 243.48 $\frac{11.4}{7.1}$
c4.3

254.88

BM	535	271.20	52 Top Hyd Brooklyn 63rd St 271.41
----	-----	--------	---

FL 63rd St.	269.23	$\frac{7.3}{4.3}$ c 3.0
-------------	--------	----------------------------

Z	269.58	$\frac{7.0}{6.5}$ c 3.5
---	--------	----------------------------

3+75.60 - W.L. 63rd	269.93	$\frac{6.6}{2.2}$ c 4.1
---------------------	--------	----------------------------

3+65.60 - B.L.	269.63	$\frac{6.9}{2.1}$ c 4.8
----------------	--------	----------------------------

3+14.58	265.56	$\frac{11.0}{6.8}$ c 4.2
---------	--------	-----------------------------

TP 1097	276.55	0.43	265.58
3+63.43	261.49	$\frac{1.5}{1.2}$ c 3.1	

2+12.34	257.42	$\frac{8.6}{2.7}$ c 2.4
---------	--------	----------------------------

266.01 X

Sassafras State to Union
 Union Sassafras to born

L 18361^{1/2} Rt

2476 = E Conk 172.00 ^{11.8}
_{60.8}
 TP 4.57 176.49 11.69 171.92
 2452 32°15.53 171.00 ^{5.5}
_{60.8} 170.75 ^{5.7}
_{FO.4}

2435 28°01.53 170.80 ^{5.7}
_{60.6} 170.90 ^{5.6}
_{FO.1}

2415 171.00 ^{5.5}
_{61.0}

1495.5 171.20 ^{5.3}
_{61.0}

1493.5 17°41.25 171.10 ^{5.4}
_{FO.4}

1477 171.45 ^{5.0}
_{FO.0}

1457 = B.C. 07 Lt 171.70 ^{4.8}
_{FO.9}

1452 7°20.93 171.55 ^{4.8}
_{FO.1}
 029.42

1422.5 = B.C. Lt 173.10 ^{3.1}
_{01.7} 172.70 ^{3.2}
_{01.7}

~~Indexed~~

Nov 5. 91 31
 S. 5503
 No. 2604
 25 Wood

T 305.7

5128.142

Union

225.15 15 225

FC 3103.14

290°
 BR 115
 180.64
 149.47

224.96

State

R 702

Sassafras
 0702

20.20
 1422.5 B.C.

1457

Pacific Highway M
 52 Market to 398 South

BM 6.00 / 18.30 12.30

SE Topcb
 Pacific +
 Market

Indexed

B

Topcb
 1393

Gutter
 12.26

12.22

1192

Cb
 1163 12.30

Market H

0+0

1+0

12.23

2+0

13.31

13.70

3+0

504655

14.79

14.12

14.08

13.78

13.49

14.16

3+98 = 5/4 Cb

46.5

13.90

14.57

4.87

Paving Grader Alley Block L F Hodona
From Redwood to 438.6 North
Bet. 32nd Bancroft N

5+0		305.76	4.94 5.06 Fo.06	306.06	4.64 2.46 c2.18
TP	386	310.70	4.95	306.84	4.35 2.40 c1.95
2+80 = PVC		306.05	4.65 4.02 c0.63	306.25	4.35 2.40 c1.95
2+68 = Sewer Lateral #3		301.15	10.64 2.37 c8.27		
2+38 = Hwy Exposed			5.34 4.22		5.04 4.22 c0.75
2+36		306.45	c0.72	306.75	
2+20 = Sty Exposed			4.95 5.41 Fo.46		4.65 4.24 c0.41
1+92		306.84		307.14	
TP	490	311.99	5.67	306.89	
1+78 = Hwy Exposed			5.32 4.86		5.02 4.82 c0.18
1+48		307.24	c0.52	307.54	
1+33 = Sty Exposed			2.97 4.20		
1+08 = Sewer Lateral #4		302.59			4.63 4.07 c0.56
1+04		307.63	4.93 5.67 Fo.74	307.93	
0+60 = F.V.C.		308.03	4.63 4.81 Fo.08	308.23	4.33 4.13 c0.08
0+56 = Hwy Exposed			4.57 3.68		4.17 3.57 c0.60
0+40		308.09	c0.92	308.39	
TP	401	312.58	5.01	308.55	
0+38 = Sty Exposed			5.85 4.76		5.35 4.27 c1.08
0+20		307.71	c1.09	308.21	
0+0 = NW Redwood		307.09	6.52	307.80	5.76 5.78 c0.02
TP	531	313.56	10.35	308.25	NW RP Redwood +330
BM	699	318.60		311.61	

Indexed
PB

Nov 18-41 34
J. J. 3307
Northwood
St. Moore

4+38.60 = End Project		298.16	12.54 11.87 c0.67	298.46	12.24 10.43 c1.81
4+30 = PVC		298.75	11.95 11.02 c0.93	299.05	11.65 9.65 c2.00
4+0 = F.V.C.		301.00	2.70 2.74 Fo.04	301.30	2.40 2.44 c0.96
3+80		302.39	8.31 8.14 c0.17	302.69	8.01 6.90 c1.11
2+60		303.57	7.13 6.81 c0.32	303.87	6.83 4.86 c1.97
3+48 = Sewer Lateral #1		299.05	11.65 6.23 c4.92		
2+40		304.52	6.18 6.14 c0.04	304.82	5.88 1.77 c4.11
3+20		305.25	5.45 5.23 c0.02	305.35	5.15 4.01 c1.14
3+08 = Sewer Lateral #2		300.60	10.10 5.22 c4.88		
		310.70			

Winona Hse		Curb Grader			
University		to Park			
	M	9.65 9.65 0.0	E	9.15 9.83 Fo.68	
3+0		333.24		333.74	
		10.16 10.37 Fo.16		9.66 10.16 Fo.50	
2+80		334.73		333.23	
		10.63 10.78 Fo.15		10.13 10.53 Fo.40	
2+60		334.26		334.76	
TP	10.85	344.89	0.47	334.04	
		0.66 0.44 Co.22		0.16 0.47 Fo.67	
2+40 = PVC		333.85		334.35	
		1.43 1.12 Co.31		0.93 0.91 Co.02	
2+0		333.08		333.58	
		2.20 2.75 Co.05		1.70 1.75 Fo.05	
1+60		332.91		332.81	
		2.97 2.76 Co.21		2.47 2.44 Co.05	
1+20		331.51		332.04	
		3.74 3.66 Co.08		3.20 2.97 Co.27	
0+80 = EVC		330.77		331.27	
		4.18 4.09 Co.09		3.63 3.43 Co.20	
0+60		330.33		330.88	
		4.72 4.54 Fo.23		4.06 3.78 Co.28	
0+40		329.79		330.50	
		5.36 5.31 Fo.05		4.99 4.79 Co.10	
0+20		329.15		330.22	
0+0 = H.C. or H.C.W.					
BM	4.36	434.51		330.15	

Feb. 17-42					
S. Moore BM					
		6.04		342.71	100' PA 07 Feb 42 343.73
		4.25 3.60 Co.65		E	325 3.57 Co.68
HL		345.50		346.50	
		4.22 3.33 Co.70		346.45	337 3.49 Co.70
	C.B.F.C.	345.52			
		4.15 3.56 Co.57		346.60	
1/2 Curve		345.60			
5+99.20 = H.C. end				346.09	346 3.46 Fo.20
		4.25 4.11 Co.14			
5+96.70 = C. end		345.50			
TP	5.47	349.75	0.61	344.28	
		1.15 1.15 Fo.05		344.29	0.60 0.61 Fo.01
5+48.24		343.79			
		2.76 2.89 Fo.13		342.63	2.21 2.54 Fo.28
5+01.18		342.13			
		3.43 4.27 Co.16		340.96	3.93 4.10 Fo.17
4+54.12		340.46			
		6.09 6.10 Fo.01		339.30	5.89 5.47 Co.12
4+07.06		338.80			
		7.76 7.80 Fo.04		337.63	7.26 7.56 Fo.30
3+60 = EVC		337.13			
		8.45 8.43 Co.02		336.94	7.95 8.60 Fo.65
3+40		336.94			
		9.07 9.03 Co.04		336.32	8.57 9.68 F.1.11
3+20		335.82			
		344.89			

Florence St. Paving Grades
3715 St to 3815 St

BM 8.61 77.53 68.92
JE 7247
Florence
+ 3715 St

TP 8.73 85.10 1.16 76.37

BM 10.71 79.63 68.92

TP 7.40 86.38 0.65 78.98

Indexed

3815 St.

Gutter Nov-19-41

Fine Grade " 24-41

Set to Sub-Grade

37

5499.52 84.21 84.42 84.49 84.38 84.10
684.88 84.87cb

5479.52 83.89 84.17 84.26 84.14 83.82

2+20 77.80 77.88 77.76 77.43 76.91

77.40 77.47 77.34 77.00 76.47

76.90 76.97 76.83 76.50 75.96

76.28 76.35 76.22 75.88 75.35

75.56 75.63 75.50 75.17 74.64

74.72 74.80 74.68 74.36 73.84

1+0 73.78 73.87 73.77 73.47 72.96

0+07 68.78 68.96 68.94 68.72 68.30

3715 St.

Curb Stake Dwight St
92' East of Granada Ave

m ~~Indexed~~

BM	6.15	341.70	335.55	S.W. BP Dwight St Granada
BM		5.93	335.77	S.F. BP Dwight St 335.89

335.76
29' 6" St.

336.00
335.82

335.75 1+0
335.61 0+46

335.50
335.62
Granada Ave

Granada Ave

Curb Stake West Side 22nd St
130' N of N.L. St

~~Indexed~~

Dec 16. 38

BM	5.16	148.58	145.42	S.W. BP 22nd St
----	------	--------	--------	--------------------

0+0 = N.L. St 145.00

0+15 144.55

0+80 144.20

1+20 143.80

1+40 C.B. O.K. 143.80

3.58
3.84
70.26

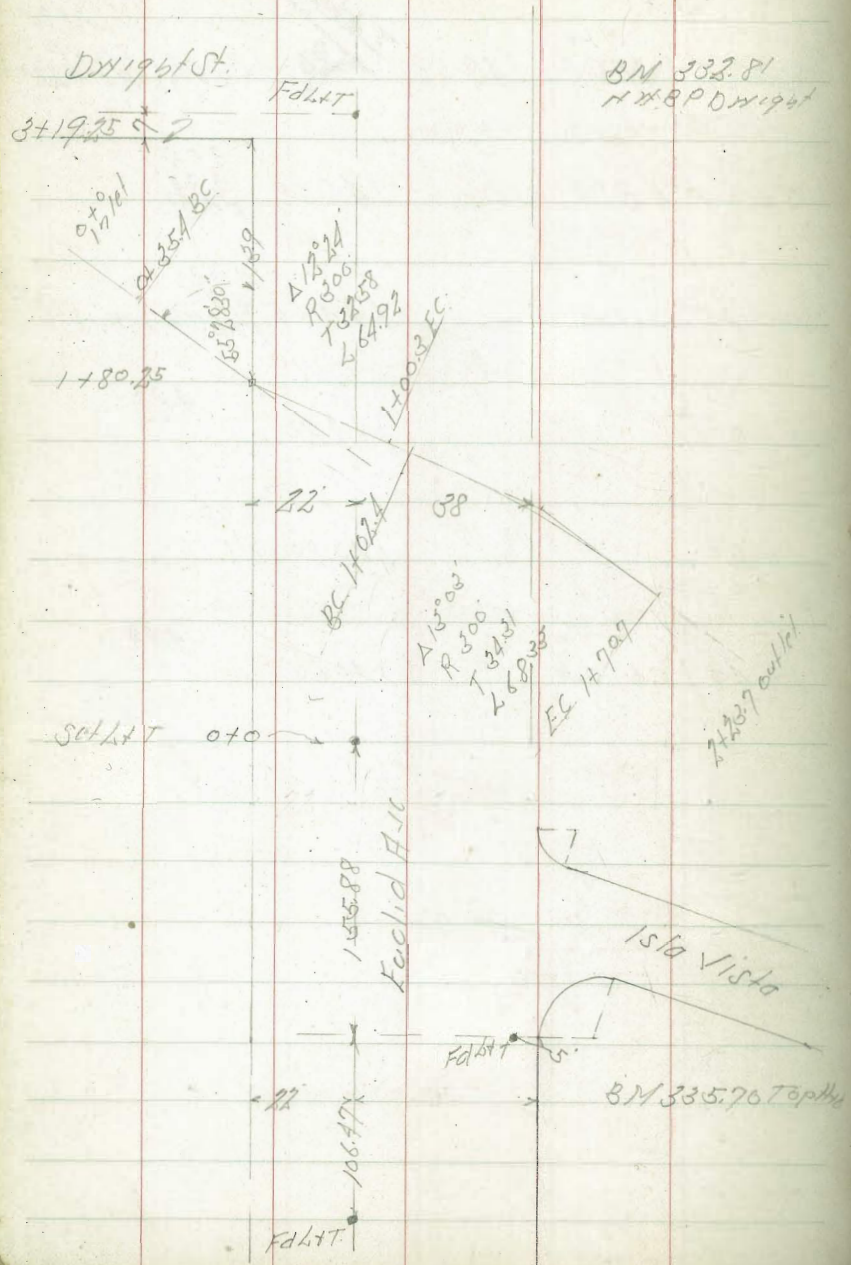
4.03
5.30
11.27 on wall

4.28

4.78

4.98

Euclid Ave. Improvement
Between Isla Vista Drive & Dix 196 St.



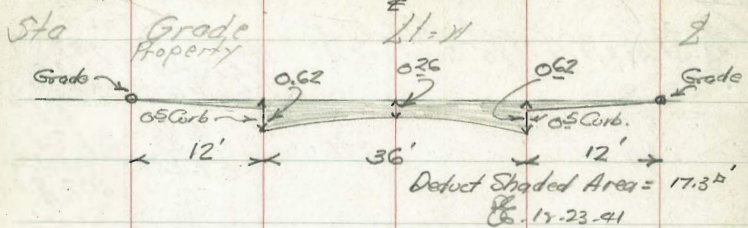
Indexed

3" Cast Pipe Culvert 14.5
Stabs off sect 10' South of E

Station	Curve Data	Stationing	Notes
0+0	Inlet	296.00	8.81 292.31 c1.33 302.817
0+35.40	BC Lt	294.30	8.51 4.53 c3.98
0+57.04	2°04'	293.22	9.59 6.13 c3.46
0+78.68	4°08'	292.15	10.66 9.99 c0.70
1+00.3	EC 6°12'	291.07	11.74 10.74 c1.00
1+02.4	BC RB	290.97	out
1+25.18	2°10.5'	289.85	5.10 3.91 c1.19
1+47.96	4°21'	288.73	5.47 5.48 c0.54
1+70.7	EC 6°21.5'	287.60	7.35 8.03 c0.68
1+97.2		286.50	8.65 8.68 c0.37
2+23.7	Outlet	285.00	9.95 9.79 c0.79

Dec 19-41 39

Sisson
Northey
H Moore
Mon. BM 292.87
E. L. Field 2.08
H. L. Moore 294.51
2.64
2.81
292.31
c1.33
210.50
302.817



RI = F

Areas

Cubic Yds

Roadway - Go. 1/2 - 1/2 - 1/2
 Cuts Vertical.

Sta	Grade	12'	36'	12'	5.0	5.0
0+39	331.55	0.5	0.0	0.0	0.0	0.0
0+30	331.52	1.5	0.0	0.0	0.0	0.0
0+24	331.52	1.6	0.0	0.0	0.0	0.0
0+10	331.52	1.3	0.0	0.0	0.0	0.0

30 South of Old Bridge End. See Pg. 39

Emb	Exc.	Emb	Exc.
			38.1cy
0		509.0	0.9
369.70	6.75		
563.70			
		47.4	3.0
56.99	20.65		
		26.0	39.2
1.40	56.35		

BM 0.86 336.58 335.70
 SET OFF 1510 Yds
 Euclid

Field A-10

Sta Grade Property

Lt

L

TP

Areas

Cubic Yds

Embank

Embank

1491.5 ✓

1+20	331.89	-18.9 +3.2 -13.6 58.4	-18.9 4.7 23.6 30	-18.9 18.0 -28.9 15	-18.9 14.8 -33.7	-18.9 19.2 -38.1 18
------	--------	--------------------------------	----------------------------	------------------------------	------------------------	------------------------------

-18.9 22.4 -41.3 30	-18.9 24.6 -43.4 50	-18.9 27.6 -46.7 70	-18.9 24.9 -43.8 95.7
------------------------------	------------------------------	------------------------------	--------------------------------

3714.46 ✓

TP 0.22 313.01 1220 31279

2992.1 ✓

1+0	331.81	-6.8 3.4 -10.2 45.3	-6.8 9.2 -16.0 30	-6.8 15.3 -22.1 15	-6.8 21.7 -27.9	-6.8 26.3 -33.1 15
-----	--------	------------------------------	----------------------------	-----------------------------	-----------------------	-----------------------------

-6.8 20.3 -26.1 30	-6.8 25.7 -41.9 65	-6.8 32.1 -45.9 98.9
-----------------------------	-----------------------------	-------------------------------

3014.30 ✓

5:00 AM
Roadway 60' Full Slopes - 1 1/2:1

2398.9 ✓

0+75	331.70	-6.7 -6.1 39.3	-6.7 4.9 -11.4 23	-6.7 8.7 -15.6 17	-6.7 10.7 -17.4 10	-6.7 12.8 -19.5 3
------	--------	----------------------	----------------------------	----------------------------	-----------------------------	----------------------------

-6.7 18.6 -25.3 20	-6.7 25.7 -33.4 45	-6.7 32.6 -39.3 75	-6.7 34.8 -41.5 92.3
-----------------------------	-----------------------------	-----------------------------	-------------------------------

2166.14 ✓

1461.7 ✓

TP 0.60 324.99 1217 324.89

0+50	331.60	5.0 -1.5 32.3	5.0 -2.1 21	5.0 2.6 -2.6 10	5.0 14.3 -9.3	5.0 19.0 -14.0 10
------	--------	---------------------	-------------------	--------------------------	---------------------	----------------------------

5.0 21.4 -16.4 30	5.0 27.0 -21.6 45	5.0 31.3 -26.3 55	5.0 32.1 -27.4 71.1
----------------------------	----------------------------	----------------------------	------------------------------

991.18 ✓

336.58

Sta Grade Lt R Rt Areas Cubic Yds

Roadway Co. Fill Slopes. 1 1/2:1

1+80 332.14 $\begin{matrix} -22.3 \\ 88 \\ 73.7 \end{matrix}$ $\begin{matrix} -22.3 \\ 11.6 \\ 33.9 \\ 55 \end{matrix}$ $\begin{matrix} -22.3 \\ 15.7 \\ 32.0 \\ 30 \end{matrix}$ $\begin{matrix} -22.3 \\ 7.1 \\ 32.1 \\ 15 \end{matrix}$ $\begin{matrix} -22.3 \\ 15.8 \\ 38.1 \\ 15 \end{matrix}$ $\begin{matrix} -22.3 \\ 13.6 \\ 35.9 \\ 30 \end{matrix}$ $\begin{matrix} -22.3 \\ 22.7 \\ 31.5 \\ 50 \end{matrix}$ $\begin{matrix} -22.3 \\ 28.2 \\ 26.0 \\ 69.0 \end{matrix}$ 3899.16 ✓

2667.9 ✓

2933.9 ✓

1+60 332.05 $\begin{matrix} -22.2 \\ 21.4 \\ 44.6 \\ 66.9 \end{matrix}$ $\begin{matrix} -22.2 \\ 10.2 \\ 32.4 \\ 45 \end{matrix}$ $\begin{matrix} -22.2 \\ 12.8 \\ 35.5 \\ 30 \end{matrix}$ $\begin{matrix} -22.2 \\ 17.8 \\ 40.0 \\ 20 \end{matrix}$ $\begin{matrix} -22.2 \\ 17.0 \\ 39.8 \\ 15 \end{matrix}$ $\begin{matrix} -22.2 \\ 22.2 \\ 29.8 \\ 30 \end{matrix}$ $\begin{matrix} -22.2 \\ 26.8 \\ 38.7 \\ 55 \end{matrix}$ $\begin{matrix} -22.2 \\ 16.8 \\ 33.2 \\ 79.8 \end{matrix}$ 4077.36 ✓

3010.9 ✓

TP 5+00 1/2 7.92 309.81 11.12 301.89

1+40 331.97 $\begin{matrix} -19.0 \\ 11.0 \\ 20.0 \\ 60.0 \end{matrix}$ $\begin{matrix} -19.0 \\ 6.3 \\ 25.3 \\ 45 \end{matrix}$ $\begin{matrix} -19.0 \\ 12.0 \\ 31.0 \\ 30 \end{matrix}$ $\begin{matrix} -19.0 \\ 16.5 \\ 35.5 \\ 15 \end{matrix}$ $\begin{matrix} -19.0 \\ 22.5 \\ 41.5 \\ 15 \end{matrix}$ $\begin{matrix} -19.0 \\ 23.1 \\ 42.1 \\ 30 \end{matrix}$ $\begin{matrix} -19.0 \\ 22.8 \\ 41.8 \\ 50 \end{matrix}$ $\begin{matrix} -19.0 \\ 23.2 \\ 41.3 \\ 70 \end{matrix}$ $\begin{matrix} -19.0 \\ 20.5 \\ 39.5 \\ 89.3 \end{matrix}$ 4052.0 ✓

4069.5 ✓

1509.9 ✓

1+30 331.93 $\begin{matrix} -18.9 \\ 11.1 \\ 22.8 \\ 56.7 \end{matrix}$ $\begin{matrix} -18.9 \\ 8.4 \\ 26.3 \\ 30 \end{matrix}$ $\begin{matrix} -18.9 \\ 12.1 \\ 24.0 \\ 10 \end{matrix}$ $\begin{matrix} -18.9 \\ 17.5 \\ 35.7 \\ 10 \end{matrix}$ $\begin{matrix} -18.9 \\ 21.1 \\ 40.0 \\ 8 \end{matrix}$ $\begin{matrix} -18.9 \\ 22.9 \\ 42.6 \\ 30 \end{matrix}$ $\begin{matrix} -18.9 \\ 25.8 \\ 44.7 \\ 50 \end{matrix}$ $\begin{matrix} -18.9 \\ 23.9 \\ 42.8 \\ 70 \end{matrix}$ $\begin{matrix} -18.9 \\ 23.4 \\ 39.5 \\ 93.5 \end{matrix}$ 4069.16 ✓

312.01

Sta Grade Lt. L Rt. Areas Cubic Yds

Roadbed 60' Fill Slopes 1 1/2:1

2+60 332.46 $\begin{matrix} -0.3 \\ 30.6 \\ -30.9 \\ 76.4 \end{matrix}$ $\begin{matrix} -0.3 \\ 29.1 \\ -29.4 \\ 55 \end{matrix}$ $\begin{matrix} -0.3 \\ 26.7 \\ -27.0 \\ 36 \end{matrix}$ $\begin{matrix} -0.3 \\ 24.2 \\ -24.5 \\ 15 \end{matrix}$ $\begin{matrix} -0.3 \\ 15.0 \\ -15.3 \\ 15 \end{matrix}$ $\begin{matrix} -0.3 \\ 10.4 \\ -10.7 \\ 15 \end{matrix}$ $\begin{matrix} -0.3 \\ 5.5 \\ -5.6 \\ 2.5 \end{matrix}$ $\begin{matrix} -0.3 \\ 1.2 \\ -1.5 \\ 32.3 \end{matrix}$ 1563.97 ✓

819.4 ✓

2+40 332.38 $\begin{matrix} -0.2 \\ 36.3 \\ -36.5 \\ 84.8 \end{matrix}$ $\begin{matrix} -0.2 \\ 37.7 \\ -37.3 \\ 60 \end{matrix}$ $\begin{matrix} -0.2 \\ 35.7 \\ -35.9 \\ 35 \end{matrix}$ $\begin{matrix} -0.2 \\ 33.3 \\ -33.5 \\ 20 \end{matrix}$ $\begin{matrix} -0.2 \\ 23.8 \\ -24.0 \\ 15 \end{matrix}$ $\begin{matrix} -0.2 \\ 16.4 \\ -16.6 \\ 15 \end{matrix}$ $\begin{matrix} -0.2 \\ 8.3 \\ -8.2 \\ 30 \end{matrix}$ $\begin{matrix} -0.2 \\ 4.9 \\ -4.2 \\ 36.3 \end{matrix}$ 2424.56 ✓

1477.2 ✓

TP 11.70 332.21 0.72 330.51

1934.2 ✓

2+20 332.30 $\begin{matrix} -1.1 \\ 25.0 \\ -25.1 \\ 84.2 \end{matrix}$ $\begin{matrix} -1.1 \\ 25.2 \\ -25.3 \\ 60 \end{matrix}$ $\begin{matrix} -1.1 \\ 27.5 \\ -27.6 \\ 35 \end{matrix}$ $\begin{matrix} -1.1 \\ 23.1 \\ -23.2 \\ 15 \end{matrix}$ $\begin{matrix} -1.1 \\ 18.0 \\ -18.1 \\ 15 \end{matrix}$ $\begin{matrix} -1.1 \\ 10.9 \\ -10.7 \\ 15 \end{matrix}$ $\begin{matrix} -1.1 \\ 4.3 \\ -4.5 \\ 30 \end{matrix}$ $\begin{matrix} -1.1 \\ 1.6 \\ -1.5 \\ 41.3 \end{matrix}$ 2797.67 ✓

2280.0 ✓

TP 12.10 331.23 0.68 309.13

2+0 332.22 $\begin{matrix} -22.4 \\ 10.1 \\ -22.5 \\ 78.8 \end{matrix}$ $\begin{matrix} -22.4 \\ 12.9 \\ -22.3 \\ 60 \end{matrix}$ $\begin{matrix} -22.4 \\ 17.1 \\ -22.5 \\ 30 \end{matrix}$ $\begin{matrix} -22.4 \\ 15.2 \\ -22.5 \\ 15 \end{matrix}$ $\begin{matrix} -22.4 \\ 14.6 \\ -22.4 \\ 15 \end{matrix}$ $\begin{matrix} -22.4 \\ 7.8 \\ -22.4 \\ 15 \end{matrix}$ $\begin{matrix} -22.4 \\ 4.1 \\ -22.5 \\ 30 \end{matrix}$ $\begin{matrix} -22.4 \\ 2.9 \\ +2.8 \\ -19.6 \\ 59.4 \end{matrix}$ 3357.93 ✓

309.81

Sewer Grader Watch Sub
140' N of N.H. 43rd St. 211' N of S. Newton

Feb 18 42
S. 5000

BM	Indexed		M		H.W.B.P. Keeler & 3rd St
BM	2.47	74.94		72.47	
TP	3.31	66.66	11.59	63.85	
0+0	- M.H. of Newton			55.90	10.76 1.67 c 5.85
0+52.75				56.27	10.89 6.18 c 4.21
1+05.50				56.64	10.02 7.87 c 2.41
1+58.25				57.01	9.65 4.89 c 4.76
2+11.0 = D.F.				57.38	9.28 6.26 c 5.98

Sewer Grader Block 202 Pacific Beach
Between Garnet - Felspar - Ingraham - Sewell

North 2-42
S. 5000 **45**

BM			Indexed		H.W.B.P. Garnet & Sewell
BM	4.50	73.13		68.63	
0+0	= M.H. #163 Existing			61.13	61.00
1+45	= Ely 8" Pipe			62.15	10.98 5.06 c 5.92
1+95				62.50	10.63 4.87 c 5.82
2+45				62.85	10.38 4.75 c 5.63
2+90	= M.H. 164 of Sewell To Be Constructed			63.16	9.97 3.91 c 6.06

Cross Section Euclid Ave Fill
Between Island Vista Dr + Dwyer St

Indexed
off

March 24
Sisson
Hortberg
H. H. Hart

Emb.
End Area. Cu Yds.

1+40 331.97
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$
 $\begin{array}{r} 5.2 \\ 5.2 \\ 10.6 \\ 47 \\ 43.7 \end{array}$

718.59

Stops 1/2 i. 28.60'

1012.7

1+0 331.81
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$
 $\begin{array}{r} 5.0 \\ 4.0 \\ 9.0 \\ 44 \\ 43.5 \end{array}$

648.55

TP 2.45 326.77 11.51 324.32

491.12

See p. 20 for Ratched Section.

0+75 321.70
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$
 $\begin{array}{r} 4.2 \\ 10.3 \\ 6.3 \\ 37 \end{array}$

412.53

292.9

0+40 331.55
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$
 $\begin{array}{r} 4.4 \\ 5.4 \\ 1.0 \\ 2.3 \end{array}$

39.20

29.0

0+0 Same as Original

0.0

BM 0.23 335.98 335.70

5 FT Top of
Island Vista
Euclid

Euclid Hill

(Macco Construction Co.)

79
 2+80 = 332.53
 114 Fill
 -5.8
 5.8
 -11.6
 11.6
 -10.2
 10.2
 -10.5
 10.5
 -3.2
 3.2
 -1.1
 1.1
 -1.9
 1.9
 47.4
 25

2+60 332.46
 -30.9
 30.9
 -5.7
 5.7
 -11.9
 11.9
 -11.6
 11.6
 -10.7
 10.7
 -5.2
 5.2
 -1.5
 1.5
 46
 20
 15
 25
 32.3

2+20 332.30
 -5.3
 5.3
 -11.2
 11.2
 -10.5
 10.5
 -5.8
 5.8
 -5.7
 5.7
 -9.8
 9.8
 48.3
 20
 20
 41

1+80 332.14
 -5.4
 5.4
 -11.1
 11.1
 -10.7
 10.7
 -5.1
 5.1
 -10.0
 10.0
 46.7
 25
 25
 48
 45

326.77

Emb.
 End Area

Cu Yds

19393.6

Cu Yds.

Fill in Place February Estimate.

77% Complete.

25131.0

Total Fill. See Page 44

5737.9

Total Fill Remaining to be Made. Mar 3, 1942

131.9 (From Pg. 44)

562.10

450.9

718.07

1125.3

801.15

95
 443

1132.6

727.80

1071.9

Euclid A/c. Imp.
Babcock Isla Vista Dr + Dr 1941

BM 4.67 337.481 332.81 NWBP
Dr 1941 +
Euclid

3423.25 332.52 - Euclid
3192.52 332.51/2
2199.25 332.47
2189.25 326.00 FL 332.45
2180 332.43 332.43
332.54
332.80 FL
332.48
332.43

0430 331.40 331.40
0420 325.80 FL 325.00 FL
0410 10.97 11.77
5.48 5.97
0.54 0.58
040 331.40 331.40

BM 1.07 336.777 333.70 JF Top Fire
Isla Vista

March 66

48

24 =
332.43 332.45 332.47 332.52
5.05 5.03 5.01 4.96
0.4 1.0 1.79 5.19
FO.57 FO.22 FO.23

F 332.43 332.48 332.54 332.69
5.05 5.00 4.94 4.79
5.22 5.56 5.19
FO.22 FO.02 FO.10

340
31.40
31.40
31.40
5.37 5.37 5.37 5.37
5.49 5.37 5.21 5.19
FO.12 FO.09 FO.04 FO.24

F 5.37 5.37 5.37 5.37
5.4 March 5.75 6.06 5.95
FO.38 FO.69 FO.58

33 Paving Grades Alley Block J Alameda
From Redwood to Thorn Between 33rd & Fallon

Paving 14' Wide	W	E
TP	5.20	320.52
2+20	314.66	4.03
1+80	314.40	315.32
1+40	314.12	314.73
1+0 = E.V.C.	313.87	314.50
0+80	313.70	314.26
0+60	313.45	314.03
TP	5.27	314.08
0+40	313.14	313.87
0+20	312.74	313.62
0+0 = N.L. Redwood	312.31	313.27
BM	4.65	312.82

March 17-42
Sisson
Harkness
H. M. Earl

Indexed
79

5+84.5 = S.L. Thorn	318.07	4.22	317.94
5+40 = B.V.C.	317.50	4.79	317.50
4+90	317.02	5.27	317.02
4+40	316.54	5.75	316.54
3+90	316.07	6.22	316.07
TP	5.60	315.59	316.69
3+40 = E.V.C.	315.59	6.83	315.59
3+0	315.23	7.29	315.23
2+60 = P.V.C.	314.93	7.79	314.97
	320.521		

Paving Grader Alley Block 106 University Hts
 From E/W Alley to Meade Hts Paving 1971
 Between Hamilton & Oregon

379287

2+80 374.40 ^{4.88}_{4.25} ^{4.88}_{3.85}
 01.22

1+80 374.25 ^{5.03}_{4.55} ^{5.03}_{4.44}
 00.28 00.81

TP 5.50 379.77 5.01 374.27

1+50 374.10 ^{5.67}_{5.59} ^{5.67}_{5.18}
 00.08 01.79

0+80 373.95 ^{5.82}_{5.38} ^{5.82}_{5.40}
 00.52 00.42

0+30 = Bk 373.80 ^{5.97}_{5.87} ^{5.97}_{5.74}
 02.10 00.83

0+0 = E/W Alley 373.50 ^{6.27}_{6.35 on Pav} ^{6.07}_{6.10 on Pav}
 373.70

6.5 Accepted on East-West

March 18-42
 515500
 1101300
 1114000

50

Indexed

Levels Backed in

BM 3.21 380.44

377.23

J.E.B.P.
 Meade +
 Oregon

4+49.7 = S.W. Meade 374.84

5.60
 5.64 on Pav

374.83

5.61
 5.63 on Pav

4+30 = Bk

375.00

5.44
 4.96
 00.48

375.00

5.44
 3.68
 01.76

3+80

374.85

5.59
 4.65
 01.54

5.59
 4.48
 01.11

TP

4.00

379.28

5.16

375.28

3+30

374.70

5.80.111
 5.63
 00.11

4.58
 4.18
 00.40 on Pav

2+80

374.55

4.73
 3.74
 00.99

4.73
 4.19
 00.54

Paving Grades Alley Block 89 University Hts
 From Meade Ave to Macrae Ave
 Between Hamilton & Oregon

3+8	N 1/2 Excp on W				
3+30		375.48	5.17 4.54 c0.63	5.17 4.40 c0.77	
3+15	S 1/2 Excp on W				
3+0	N 1/2 Excp on W	375.38	5.27 4.54 c0.67	5.27 4.26 c1.23	
2+50	N 1/2 Excp on W	375.28	5.27 4.26 c1.15	5.27 4.26 c1.37	
2+0	S 1/2 Excp on W	375.18	5.27 4.26 c1.09	5.27 4.26 c1.21	
TP	4.78	380.65	4.99	375.87	
1+50	N 1/2 Excp on W	375.08	5.57 4.89 c0.68	5.28 4.26 c0.99	
1+0	S 1/2 Excp on W	374.98	5.88 4.89 c1.53	5.88 4.89 c1.83	
0+75	N 1/2 Excp on W				
0+50	S 1/2 Excp on W	374.88	5.98 4.89 c1.11	5.98 4.89 c1.96	
0+20	Bk	374.82	6.04 4.89 c1.21	6.04 4.89 c1.21	
0+0	N Meade	374.75	6.11	6.06 6.10 on Pav	
BM	363	380.81		S.F.B.P. Meade & Oregon	

Paving 19.5' wide

~~Indexed~~
 JB

March 18, 42

51

BM		4.59	377.00		247 11' E of 2 1/2' W of S 7 Line Monroe 377.05 41565-70
6+0.4	S.M. Monroe	376.66	4.99 4.26 c0.66 c0.64	376.80	4.79 4.26 c0.00 c0.64
5+80		376.78	4.81 4.81 c0.0	376.82	4.77 4.26 c0.23
5+60	P.V.C.	376.70	4.89 4.26 c0.57	376.70	4.89 4.26 c1.89
5+20		376.39	5.29 4.26 c0.97	376.30	5.29 4.26 c0.93
5+10	Exc. on E N 1/2	381.597	4.56	376.09	
4+80	P.V.C.	375.90	4.75 4.26 c1.15	375.90	4.75 4.26 c0.59
4+60		375.74	4.91 4.26 c1.33	375.74	4.91 4.26 c0.56
4+59	S 1/2 Excp on E				
4+40	P.V.C.	375.66	4.99 4.26 c0.20	375.66	4.99 4.26 c0.12
4+23	N 1/2 Excp on E				
4+03	S 1/2 Excp on E				
4+0		375.58	5.07 4.26 c0.91		5.07 4.26 c0.12
		380.657			

Paving Grader Alley Block 45 Normal Mt.
39th to East Mt. View Between Adams & Edno Place

Apr 16-48
Sisson
North 4th
W Moore

Indexed
88

0+81.48	PVC = 374.28		374.08	
	195 No. 712 391.55			
0+71.48	End Proj 374.33	5.33 4.93 0.40	374.15	5.53 4.93 0.60
0+61.48	374.39	5.29 4.85 0.44 67 Conc Dr.	374.21	5.47 4.93 0.54
0+41.48	374.15	5.53 4.76 0.81	374.04	5.61 4.72 0.91
0+21.48	373.58	6.10 4.70 1.40	373.56	6.19 4.69 1.49
0+0 =	End of Proj 372.52	7.10	372.79	6.90 5.60 1.30
RM	6.75	377.68	372.93	Top of 6' on N & E of Mt. View

47th Curb Grades on East
274 ft of N.L. Hilltop
80' wide 12' Curb

March 8 42
S. 5000
North 4000
at West

Sept. 15-43 53
S. 5000
8100
8099

~~Indexed~~
100

East

4+50

188.78

2.87

2+74 = N.Y. Walk + 37
As Cont.

188.16

4.59
4.81
Fo. 13

4+0

188.66

4.05

2+25.5

188.00

4.85
5.06
Fo. 21

3+50

188.43

4.22

1+77

187.83

5.03
5.23
Fo. 11

3+0

188.26

4.89

1+28.5

187.66

5.17
5.46
Fo. 27

0+80 = Beg. of Walk

187.50

5.35
5.78
Fo. 07

2+57 = N.Y. End Wall

188.11

4.54
4.6 on wall

0+0 = N.L. Hilltop

187.22 out.

0+0 = N.L. Hilltop

BM 6.04 192.85

186.81

2.247
Hilltop
4975.8

BM 5.84 192.65

186.81

2.247
Hilltop
4975.8

Paving Grader Fill Block 158 Univ. Ht.
From Park Ave to Howard Ave Paving 190 Yds.
Between 32nd + 10th

3+80		358.92	578 522 co.12	358.63	608 522 co.87
3+60 = PVC		358.72	599 538 co.31	358.42	639 496 co.137
TP	5.85	364.71	5.40	358.86	
3+40		358.53	373 252 co.120	358.23	403 359 co.74
3+20		358.06	470 370 co.150	357.76	430 414 co.36
2+40		357.59	467 321 co.146	357.29	497 410 co.24
1+90		357.12	514 494 co.200	356.82	511 423 co.121
TP	496	362.26	2.25	357.30	
1+40		356.64	291 262 co.38	356.34	321 225 co.76
0+90		356.17	338 324 co.14	355.87	368 249 co.89
0+40 = R-k		355.70	385 274 co.87	355.40	415 372 co.43
0+0 = N.L. Pk		355.08	447	354.92	463
BM	6.57	359.55		353.04	5.87 5.87 Pb 1k + 32nd St

April 15-42
Sisson
Northey
H. Street

~~Indexed~~

Top 6 on East		3.03		364.19	364.16
5+99.94 = S.L. Howard		363.50	3.72 cb cut	363.80	3.42 cb cut
5+60 = PVC		362.20	5.02 4.42 co.80	362.00	492 476 co.87
5+40		361.67	5.55 5.84 co.29	361.65	5.57 5.86 co.29
5+20		361.22	6.00 6.20 co.20	361.03	6.19 6.27 co.08
5+0		360.79	6.43 6.47 co.04	360.52	6.70 6.47 co.23
TP	6.49	367.22	5.98	360.73	
4+80 = PVC		360.43	4.28 4.38 co.20	360.13	4.58 4.38 co.27
4+40 = PVC		359.77	4.94 4.89 co.35	359.47	5.14 3.93 co.131
4+20		359.43	5.28 4.87 co.67	359.13	5.58 5.01 co.58
4+0		359.17	5.54 4.97 co.57	358.87	5.84 5.32 co.75
		364.71			

Paving Grades Alley Block N Terolla
From Polk Ave to Orange Ave Between Central & 41st St

3+14.7	11	6.72 5.85 cl. 0.7	360.50	6.72 6.56 cl. 0.16
3+10	5.00	355.46	360.88	11.76 5.68
TP	7.00	367.22	360.22	3.36
2+64.7		358.22	360.00	3.58 2.22 cl. 1.34
2+19.2	5.00			
2+14.7		4.08 3.92 cl. 0.14	359.50	4.08 3.72 cl. 0.36
1+64.7		4.58 4.42 cl. 0.17	359.00	4.58 4.04 cl. 0.54
1+14.7		5.08 4.83 cl. 0.25	358.50	5.08 3.62 cl. 1.39
0+64.7	5.00	358.00	358.00	5.58 5.10 cl. 0.27
0+50	11.00			
0+44.7		5.83 4.57 cl. 1.26	357.75	5.83 5.27 cl. 0.58
0+24.7		6.18 5.62 cl. 0.56	357.40	6.26 5.40 cl. 0.86
0+0	11.00	6.76 6.77 cl. 0.01	356.82	6.77 6.96
BM	6.78	363.58	356.80	Top of 9th St N.E. Polk & E. of Alley

May 4 1942
Sisson
Hortberry
H Moore
Indexed
B

5.2. Orange			4.56	362.66	362.66
Top of on East					
5+74.7	5.00		362.80	1.41 1.42 2.00 cl. 0.41	362.80 4.62 4.62 cl. 0.00
5+54.7			362.63	1.53 3.40 cl. 1.79	362.57 4.65 cl. 0.08
5+34.7	5.00		362.46	1.76 3.77 cl. 0.99	362.46 4.76 cl. 0.31
5+18.8	11.00				
4+94.7				5.08 4.72 cl. 0.36	362.14 4.87 cl. 0.21
4+54.7				5.40 5.05 cl. 0.35	361.82 4.80 cl. 0.60
4+40	5.00				
4+14.7	5.00		361.50	5.71 5.31 cl. 0.41	361.50 5.71 5.45 cl. 0.27
3+75.2	11.00				
3+64.7				6.22 5.87 cl. 0.35	361.00 6.22 5.54 cl. 0.68
3+24.2	11.00				
3+22.2	1.45 to 2.15				
			367.22A		

Paving Grader East + West 7 1/2 x 128 U. H.			
From Hobbs to Mississippi			
Bet. El Cajon + Howard			
BM	270	322.86	319.16
2+99.62 = H.L. Hill		318.90	318.70
2+80 = Brk		317.34	317.24
2+40		314.78	314.48
2+0		312.02	311.72
TP	106	311.67	310.61
1+60 = F.L. Hill + 10		309.26	308.96
1+40 = H.L. Hill		307.88	307.58
1+20 = P.V.C.		306.50	306.20
0+70		303.65	303.35
0+20 = Brk		300.80	300.50
0+0 = F.L. Hobbs		299.87	299.34

North + South Alley			
From Howard to E.H. Hill			
May 12-42			
S.S. 503 56			
Last Day → Northbern			
E.H. Hill			
		311.67	Brk Ford
1+75 = N.V. Excess		307.58	308.91
1+60 = S.V. Excess		307.74	308.66
1+40 = Brk on E		307.81	308.26
1+20 = P.V.C. on H		307.56	307.86
TP	243	310.72	308.31
0+80		306.76	307.06
0+40 = E.V.C. on H		305.96	306.26
0+20 = E.V.C. on E		305.38	305.86
0+0 = F.L. Hobbs		304.38	305.71

~~Indexed~~

9 Grades North & South 5 1711y Block 125
2 Units

57

May 19 42
S. J. H. H.
Moore

B.M. 2.38 311.38

309.00

To p. Conc. 1/20
S. L. F. W. H. H.
H. L. H. H. H. H.
307.58
2 1.42
309.00

1475 = S. L. F. W. H. H. 308.12

326

1440 307.74

369

1420 307.41

397

0780 306.61

477

0740 305.81

557

0730 305.32

606

070 - H. H. Howard 304.63

675
on 1/20

Paving Grady Alley Block D Terrell Hts
 From Meade to Monroe between
 Cherokee & 27th St

2+40 = Brk	383.10	5.05 1.67 c0.38	382.90	5.25 5.15 c0.10
2+0	Cover 1.63 382.98	5.17 1.29 c0.88	382.78	5.37 5.15 c0.22
1+60	382.86	5.29 1.94 c0.35	382.66	5.40 5.15 c0.36
1+30	Cover 2.1 382.74	5.41 1.98 c0.4	382.54	5.61 4.95 c0.68
1+17.5 = Water	382.22	9.92 2.96 c0.75		
1+10 = Sewer #2 on W	382.22			
0+80 = F.V.C.	Cover 2.15 382.62	5.53 1.16 c1.37	382.42	5.73 5.64 c0.87
TP	4.98	388.15	3.84	383.17
0+60	382.53	4.48 1.27 c0.81	382.33	4.68 1.94 c0.72
0+40	382.39	4.62 1.22 c1.40	382.19	4.82 3.45 c1.37
0+20	Cover 2.1 382.20	4.81 1.85 c1.86	382.00	5.01 3.18 c1.83
0+0 = H.L. Meade	381.96	5.05 5.03 on Pav.	381.76	5.25
B.M.	2.87	387.01	384.14	H.L. & P. Meade & Cherokee

May 28-43
 S.W. 100
 W. Meade
 Hazard

~~Indexed~~

58

5+99.67 = S.L. Meade	384.54	4.88 4.87 on Pav.	384.23	
TP	5.38	389.42	6.01	384.04
5+80	Cover 2.25 384.66	4.76 1.13 c1.63	384.48	5.57 2.96 c0.61
5+76.8 = S.L. Exc on W	384.70	5.35 1.99 c1.36	384.50	5.55 5.18 c0.37
5+40	Cover 3.0 384.60	5.45 5.00 c0.45	384.40	5.65 5.28 c0.37
4+90	Cover 1.75 384.35	5.70 5.00 c0.70	384.15	5.90 5.70 c0.20
TP	5.10	390.05	3.20	384.95
4+40	Cover 1.6 384.10	4.05 2.84 c1.51	383.90	4.35 3.43 c0.82
3+90	Cover 1.67 383.85	4.30 2.64 c0.76	383.65	4.50 3.70 c0.80
3+55 = Water on W				
3+40	Cover 1.5 383.60	4.53 1.20 c0.35	383.40	4.75 3.19 c1.58
3+25 = Sewer #1 on W	379.46	8.60 2.29 c1.40		
2+90	Cover 1.7 383.35	4.80 1.05 c0.76	382.15	5.00 4.76 c0.24
		388.15		

Cipos St. North Curb Grades
Arnold to Lila Terrace

2+72 = H.V. Water 290.00 ^{1.27} 16.30⁰⁹ C6
Fo. 86

2+62 = EC. on H 288.25 ^{3.04}

TP 869 291.27 0.60 282.58

2+20 280.84 ^{2.24}

1+80 = EC 272.80 ^{9.38}

TP 11.52 282.18 0.31 271.66

1+60 270.70 ^{1.27}

1+40 268.40 ^{3.57}

1+20 266.60 ^{5.37}

1+0 = PVC 265.60 ^{6.37}

0+50 262.80 ^{8.17}

0+0 = FL Arnold 262.0 ^{9.97} 10.00⁰⁹ C6

TP 9.01 271.97 7.48 262.96

BM 0.49 270.44 269.95

NHBP
upst
11-13070

Sept 12-42
J. S. S. Co
Box 1-2

Indexed
JB

Dwyg St. 12" Water Grader
 Alley west of 38th St. to Alley East of Boundary
 offset 7' South of $\frac{1}{2}$ Ditch

Indexed

July 30-42
 Sidson
 Bowlin
 Hazard

30

3+95		314.40	15.9 10.8 c 5.6
3+55		316.00	14.3 8.8 c 5.5
3+15 - P.V.C.		317.05	12.2 7.6 c 5.2
2+75		317.72	12.6 7.3 c 5.3
2+35 = H.L. 1/150		318.40	11.9 7.1 c 4.8
1+95 - $\frac{1}{2}$		318.60	11.70 7.2 c 4.5
1+55 = H.L. 1/150		318.80	11.50 7.1 c 4.4
1+0333		319.52	10.8 6.7 c 4.1
0+ 51.66		320.24	10.1 6.2 c 3.9
0+0 = 5' E of 1/2 Alley Head of 38th St.		320.97	9.3 5.3 c 3.8 N.W. BP
BM 2.75	38000	327.55	D.W. 2.75 3825.04

7+0

6+79.14 A.H. 1/34

RP
 5' 0" 6"
 BM 25892

6+50

TP

4+25

TP

6+0

TP

TP

5+59.56

Bck

5+34.56 = F.L. 35' 1/2
 Prod. South

TP

5+15 = F.V.C.

4+75

4+25

TP

TP

11341

28

20

11341
 11341
 11341

251.70

253.00

255.50

264.88

259.50

276.38

270.90

287.73

299.16

295.10

302.10

311.75

305.25

308.90

311.95

322.87

14.1
8.5
c 5.6

12.8
7.5
c 5.3

10.9
7.5
c 3.8

17.5
9.1
c 7.8

17.4
9.2
c 8.1

16.6
8.6
c 8.6

8' 10" Spt. 10
 9' 0" ground
 11' 10" H.L.

9.3
1.2
c 8.1

17.6
11.9
c 8.9

14.0
5.7
c 7.8

10.9
2.5
c 6.4

Dwight St 12" Water List

TP	1102	26790	0.20	256.88	
9+50	Brk			250.00	$\frac{7.8}{0.8}$
9+25	"			247.80	$\frac{9.0}{0.3}$
9+0	"			246.80	$\frac{10.0}{0.7}$
8+75	"			246.20	$\frac{10.9}{0.58}$
8+50	"			246.0	$\frac{11.1}{0.50}$
8+25	"			246.10	$\frac{11.0}{0.42}$
8+0	"			246.60	$\frac{10.5}{0.39}$
7+75	"			247.50	$\frac{9.6}{0.57}$
TP	355	257.08	12.29	253.50	
7+50 = Brk				248.80	$\frac{12.0}{0.7}$

265.82

Cont Page 65

12+688 = FL Mile				312.65	$\frac{16.1}{0.40}$
12+28.8 = FL Mile				312.40	$\frac{16.3}{0.39}$
11+78.8				312.00	$\frac{16.7}{0.47}$
11+28.8 Brk				311.70	$\frac{17.3}{0.37}$
BM 11.65	328.70			317.05	N.E. BP
11+03.8		3.34		317.07	$\frac{17.5}{0.34}$
10+78.8				310.40	$\frac{18.1}{0.69}$
TP 1101	320.41	0.63		309.40	$\frac{18.2}{0.68}$
10+58.8 Brk				297.80	$\frac{18.4}{0.69}$
TP 1160	310.03	0.44		298.43	$\frac{18.5}{0.69}$
10+29.4				280.40	
TP 11.65	298.87	0.47		287.22	
TP 11.32	287.69	0.20		276.37	
10+0	Brk			262.00	$\frac{13.6}{0.55}$
TP 8.94	276.57	0.27		267.63	$\frac{14.1}{0.55}$
9+75	"			253.80	$\frac{14.1}{0.55}$

267.90

Alley Block 1 City Heights
 12" Water Line Grades
 From D Wright to Landl's Bk. Boundary & N. 1/2

4+0			$\frac{8.0}{2.5}$ c 7.8	320.38	$\frac{11.5}{1.5}$ c 5.0
3+60 = F.V.C.			$\frac{9.2}{5.5}$ c 8.7	319.53	$\frac{12.1}{3.5}$ c 4.9
TP	9.74	331.89	6.55	322.15	
3+20			$\frac{9.9}{6.2}$ c 8.7	318.99	$\frac{9.9}{1.2}$ c 2.7
2+80			$\frac{10.1}{2.1}$ c 3.3	318.26	$\frac{10.4}{7.8}$ c 3.1
2+40 = P.V.C.			$\frac{10.7}{8.4}$ c 2.3	317.95	$\frac{10.7}{8.2}$ c 2.5
1+92			$\frac{11.8}{8.9}$ c 2.1	317.72	$\frac{11.6}{8.9}$ c 2.1
1+44			$\frac{11.0}{8.3}$ c 2.7	317.49	$\frac{11.2}{8.7}$ c 2.5
0+96.				317.26	$\frac{11.4}{6.5}$ c 4.9
B.M. 2nd	11.64	328.69		317.05	HERP D Wright & N. 1/2
0+48				317.08	$\frac{11.7}{4.6}$ c 7.1
0+0 = H. D. Wright				316.80	$\frac{11.9}{4.2}$ c 7.6

328708 Ford Page 61

1st July 31-22 62
 2nd Feb. 6. 23

Stakes off Set 5 W of Ditch

Indexed
 92

B.M.		282		329.07	N.E. B.P. Landl's Boundary 329.04
6+40 = X Landl's				322.15	$\frac{9.7}{5.6}$ c 4.1
6+0 = S L Landl's				322.14	$\frac{9.7}{5.4}$ c 4.3
5+60				322.68	$\frac{6.0}{1.5}$ c 4.5
5+20				322.64	$\frac{6.0}{1.9}$ c 4.9
4+80 = P.V.C.				322.07	$\frac{6.6}{1.7}$ c 4.9
4+40				321.22	$\frac{7.5}{1.3}$ c 5.8
				321.89	$\frac{10.7}{5.9}$ c 5.3

Alley Block 187 City Heights

12" Water Grades

From Landis to Wright man Box Boundary W. 1/2

Stakes off set 5' W of Ditch

~~Indexed~~

3+80				319.00	$\frac{10.6}{2.6}$ c41
3+40				320.31	$\frac{8.8}{4.7}$ c41
3+0				321.13	$\frac{8.0}{3.2}$ c48
2+60 = F.V.C.				321.49	$\frac{7.7}{3.4}$ c48
2+0.5				321.65	$\frac{7.5}{2.9}$ c4.6
1+50				321.82	$\frac{7.3}{2.8}$ c4.5
TP	292	329.14	4.94	326.22	$\frac{9.2}{4.9}$ c4.3
0+95				321.98	$\frac{9.0}{2.7}$ c4.3
0+40 = F.V.C.				322.15	$\frac{9.0}{2.5}$ c4.1
0+0 = H.L. Landis				323.15	$\frac{9.0}{2.7}$ c4.3
BM	312	331.16		329.04	N.E.P. Landis Boundary

TP			1.79	305.37	$\frac{0.9 \text{ cu ft}}{5.17 \text{ ft}}$ 6+40
6+40 = Wright man				312.45	$\frac{-5.20}{1.79}$ F7.08
6+0 = S.L. Wright man				312.65	$\frac{-5.10}{4.95}$ -10.49
5+80				312.80	$\frac{-5.64}{2.84}$ F8.48
TP	0.25	307.16	11.34	306.91	$\frac{5.25}{2.76}$ F1.61
5+40 = F.V.C.				313.00	
5+0				313.68	$\frac{4.5}{3.2}$ c1.4
TP	1.12	318.25	12.01	317.13	$\frac{13.8}{2.1}$ c4.7
4+60 = F.V.C.				315.31	
4+20 = F.V.C.				317.25	$\frac{11.9}{7.4}$ c4.5
				329.14	

High Block 194 City Heights
 12" Water Line Grader
 From University Ave to Highman - Bet Boundary 1/4

3+0				321.02	$\begin{matrix} 12.2 \\ 9.2 \\ \hline 09.6 \end{matrix}$
2+50				322.54	$\begin{matrix} 11.7 \\ 2.2 \\ \hline 09.5 \end{matrix}$
2+0				324.07	$\begin{matrix} 10.2 \\ 5.5 \\ \hline 04.7 \end{matrix}$
1+50				325.60	$\begin{matrix} 8.6 \\ 4.1 \\ \hline 04.5 \end{matrix}$
1+0 = F.V.C.				327.12	$\begin{matrix} 7.1 \\ 2.3 \\ \hline 04.8 \end{matrix}$
0+80				327.4	$\begin{matrix} 6.8 \\ 1.7 \\ \hline 05.1 \end{matrix}$
0+60		$\begin{matrix} 327.05 \\ 5.70 \\ \hline 332.75 \\ 2.15 \\ \hline 334.9 \end{matrix}$		327.05	$\begin{matrix} 7.2 \\ 1.5 \\ \hline 05.7 \end{matrix}$
0+40			$\begin{matrix} 8.85 \\ 2.41 \\ \hline 06.4 \end{matrix}$	326.05	$\begin{matrix} 8.2 \\ 1.9 \\ \hline 06.3 \end{matrix}$
TP 291	334.24		0.43	331.33	
0+20			$\begin{matrix} 10.5 \\ 5.1 \\ \hline 05.1 \end{matrix}$	324.41	$\begin{matrix} 9.3 \\ 1.5 \\ \hline 08.8 \end{matrix}$
0+0 = S.V. University			$\begin{matrix} 17.8 \\ 2.5 \\ \hline 04.5 \end{matrix}$	322.13	$\begin{matrix} 9.6 \\ 5.5 \\ \hline 04.1 \end{matrix}$
BM 9.61	331.76			322.15	$\begin{matrix} 5.4 \\ 1.0 \\ \hline 4.4 \end{matrix}$

Restaked
 Feb 26.43
 Sisson
 Blinn
 Bupp

~~Indexed~~

Aug 3-42 64
 Sisson
 Bopp
 Hazard

BM	6.70			305.42	$\begin{matrix} 0.7 \\ 5.1 \\ \hline 6.8 \end{matrix}$
TP	0.20	312.12	12.07	311.92	
4+80.85		H.L. Highman		312.25	$\begin{matrix} 11.7 \\ 4.6 \\ \hline 07.1 \end{matrix}$
4+60				314.29	$\begin{matrix} 9.7 \\ 2.2 \\ \hline 07.5 \end{matrix}$
4+40				315.93	$\begin{matrix} 8.1 \\ 2.4 \\ \hline 06.7 \end{matrix}$
TP	1.43	323.99	11.68	322.56	
4+20				317.15	$\begin{matrix} 17.1 \\ 11.6 \\ \hline 05.4 \end{matrix}$
4+0 = P.V.C.				317.99	$\begin{matrix} 16.3 \\ 11.1 \\ \hline 05.2 \end{matrix}$
3+50				319.50	$\begin{matrix} 14.7 \\ 10.9 \\ \hline 03.8 \end{matrix}$

D Wright St 12" Water Line Grader

65

14+53.80 = 5' SW of E L F 1/4

316.53

12.8
12.8
c 7.5

14+05.46

315.32

13.4
13.4
c 6.5

13+57.12

3-42.32

314.11

14.4
14.4
c 3.5

13+08.8 = W L H 1/4

312.90

13.8
13.8
c 3.7

228.70

From Page 61

C St North Gutter Grades
 20' W of W L State St
 Cuts on Top of Curb

Aug. 15-42
 S. W. 200
 Boylston
 Hazard

BM	807	28.47	20.40	NXP CST Columbia
W L State			23.10	5.37 4.86 0.97
10' W			23.06	5.41 4.89 0.84
20' W			23.02	5.45 4.92 0.95
30' W			22.98	5.49 4.97 0.92
40' W			22.93	5.54 5.02 0.69
50' W			22.89	5.58 5.09 0.59
60' W			22.85	5.62 5.08 0.57
70' W			22.81	5.66 5.16 0.50
75' W			22.79	5.68 5.18 0.40

~~Indexed~~
 92

Commercial St N Curb 2170 Gutter Grades
 W L 30th St to 90' W
 0.67 Gutter M

Sept. 5-42
 S. W. 200
 Hazard

66

BM	836	78.33	74.97	NXP Imperial 30th St
TP	4.26	76.05	6.54	71.79
W L 30th St Top	4.26			71.79
" " " Gutter	4.68			71.87
10' W of W L 30th St	4.70			71.35
45' W of W L 30th St			71.80-03	71.13 4.92 4.45 0.47
90' W of W L 30th St			71.60-06	70.93 5.15 4.70 0.92

~~Indexed~~
 92

Banding St Grades
Pacific Highway to Kurtz

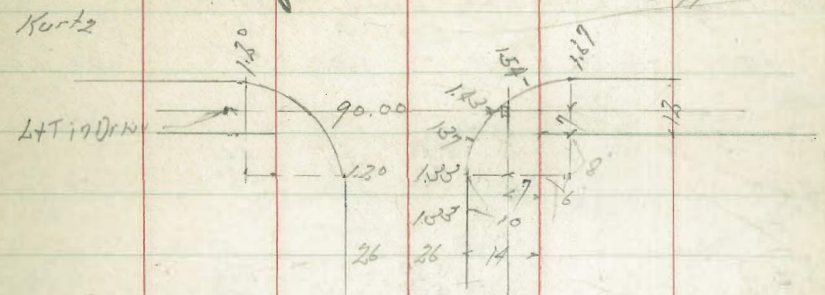
Stakes & Back on F
" " 07 W L. 21

	14		F	
			1.67	
340 = SL Kurtz	1.20	$\frac{6.3}{5.7}$ 0.11	1.30	$\frac{6.10}{5.2}$ 0.07
		②		②
249A = C6BC	1.20	$\frac{6.2}{4.2}$ $\frac{7.2}{6.28}$ 0.09	1.20	$\frac{6.2}{4.2}$ $\frac{7.1}{6.13}$
2450	1.03	$\frac{6.1}{5.1}$ $\frac{7.1}{6.10}$ 0.08 0.09	1.43	$\frac{6.1}{5.7}$ $\frac{7.0}{6.14}$ 0.10
240	1.48	$\frac{5.0}{7.0}$ F.11 0.70 in F.0.5	1.58	$\frac{5.9}{4.9}$ $\frac{6.8}{5.9}$ 0.09
1475	1.55	$\frac{5.8}{5.8}$ 0.0 0.7 Kurt	1.55	$\frac{5.8}{5.8}$ 0.0.8
1450	1.63	$\frac{6.8}{7.0}$ F.0.2	1.73	$\frac{6.7}{5.7}$ 0.14
140	1.78	$\frac{5.6}{5.6}$ 0.0 0.1 Kurt F.0.6	1.88	$\frac{5.6}{5.1}$ $\frac{6.5}{7.0}$ F.0.5
0460 = Brk	1.90	$\frac{5.5}{6.2}$ F.0.3 St.13 F.0.6	2.00	$\frac{5.5}{6.2}$ F.0.7 F.0.6
0413 = C6FC	1.74	$\frac{5.7}{6.6}$ F.0.9 0.16	1.78	$\frac{5.7}{6.6}$ F.0.4
040 = HL Pacific	1.70	$\frac{5.70}{6.1}$ F.0.1 Kurt	1.70	$\frac{5.70}{5.8}$ F.0.1 Kurt
BM ②	6.07	841 T	2.34	
BM	5.06	740	2.34	SL Kurtz

5.003017

Indexed
for

Feb. 13. 43
S. 1150
B. 155
8499



Kurtz St. Grades From Culvert N.W. of Mason St to Raceway St Grades Not Established				
150	Gutter 5.39 2.10	1.90	4.36 4.10	Gutter 5.09 1.90 Co. 50
410	5.49 2.00	1.80	4.46 4.20	1.90 5.69 5.19 Co. 50
150	5.59 5.09 Co. 50	1.90	4.56 4.30	1.70 5.79 5.29 Co. 50
210	5.69 5.19 Co. 50	1.80	4.66 4.50	1.60 5.89 5.39 Co. 50
+50 Smiths	5.79		4.76	
+50 Brkann	1.70	1.50		1.50 5.99
TP#2	5.81	7.49	4.60	1.68
210	4.63 1.68	1.40	4.86	1.40 4.86
1+50	4.63 1.65	1.30	4.96	1.30 4.98
110	4.66 1.62	1.20	5.06	1.20 5.08
+50	0.20 Crown 4.89 1.59	1.40	5.16	1.10 5.18
010 = Culvert	4.72	1.1	5.26	
N.W. of Mason	1.56 1.20	1.0		1.0 Grading 1.26 Top of C6 at inlet
BM	5.93	6.26	2.32	
	2.95	6.28	2.32	

Included		Gutter Grades April 1-43		March 4-43	
1045 - Brk	3.20	3.67	3.00	4.17	5.50 5.11 8.59 3.00 Foot 387
+50	3.10	3.77	2.90	4.27	2.90 3.97
910	3.00	3.87	2.80	4.37	2.80 4.07
TP#3	3.99	6.87	4.61	3.88	
+50	2.90	4.59	2.70	4.47	2.70 4.79
810	2.80	4.69	2.60	4.57	2.60 4.89
+50	2.90	4.79	2.50	4.67	2.50 4.99
710	2.60	4.89	2.40	4.77	2.40 5.09
+50	2.50	4.99	2.30	4.87	2.30 5.19
TP#1	4.26	7.17	3.95	3.21	
610 = Wallace	2.40	5.09 4.59 Co. 50	2.20	4.06 3.93	2.20 5.29 4.79 Co. 50
+50	2.30	5.19 4.69 Co. 50	2.10	3.16 3.00	2.10 5.39 4.89 5.00
510	2.20	5.29	2.00	4.26 4.05	2.00 5.49 5.29 Co. 50
		6.26 7.49			

HFTopCb
Bandini x
Pacific
1632-49

West East

BM 490 6.517 1.61

Culvert 0+33 at HCB.
0+20 at W inside Box Culvert

0+0 1/2 let at Cb line -1.56 ^{8.07} _{5.56} c 2.51

0+0 7.5 8" GI Water Pipe -2.72 ^{9.23} _{6.51} c 1.50

0+3 5.6 W inside Box Culv 9.53 -3.02

Culvert 1+58 at HCB
1+48 at W inside Box Culv

0+0 1/2 let at Cb line -1.56 ^{8.07} _{4.79} c 3.30

0+3 4.5 W inside Box Culv 9.33 -2.82

13+0 = Approx E.L. Reservoir ^{4.33} 2.54 2.34 4.98 2.84 4.53

+50 ^{4.22} 2.65 2.45 4.87 2.45 4.42

12+0 ^{4.11} 2.76 2.56 4.76 2.56 4.31

+50 ^{4.00} 2.87 2.67 4.65 2.67 4.20

11+0 ^{3.89} 2.98 2.78 4.54 2.78 4.09

10+50 ^{3.78} 3.09 2.89 4.43 2.89 3.98

TP#1 5.04 ^{7.32} 4.89 2.28 _{5.87} _{7.17}

Sewer Grader Blocks 22 + 23 San Diego Property M
 Union Fir St between Bancroft + 33rd St.
 Location Sec # 1121-P140

BM	1.25	261.10		259.85	0.10
0+0 = DE				255.00	0.47
+2.5				251.25	0.49
+5.0				247.50	0.52
+7.5				243.75	0.55
TP	0.16	249.26	12.00	249.10	
1+0 = MH				240.00	0.09
+17.5				231.50	0.63
TP	0.52	237.65	12.13	237.13	
+3.5 = Brk				233.00	0.75
TP	0.39	224.97	13.07	224.58	
+58.47				221.88	0.69
+81.94				220.76	0.66
2+05.42 - Fronting DE				219.63	0.34

March 11, 43
 S15500
 8155
 8199

Extension of Sewer 10 Block
 22 San Diego Property Union

BM	10.10	269.95		259.85	0.10
0+0 = DE = Brk				255.00	0.47
47' N of DE				258.30	0.50
94' N of DE - 111' of New 50' N of 1st lot of S2 20' of 18 - 81422				265.60	0.68

Indexed
 B

Grades Alley Block 60 Normal Hts
 From Monroe to Madison Bet. Boundary + 1000
 stakes off Set points Alley or 1 Foot Hts.

March 21 43

73

Indexed
 93

0+47.	384.88	5.19 4.19 00.98	
0+23.5	384.72	5.03	
0+0 = 1/2 Monroe	384.55	5.50 07.91	
B.M.	4.84	390.05	385.21 SE CP Monroe Boundary

Curb Grader Jaws
 Meade Hill to Monroe Hill

	M		F	
4+05	M	384.06	5.45	
4+0		384.05	5.46 out	383.75 5.76 out
3+89A				383.72 5.79
450		383.95	5.56	383.63 5.88
3+0		383.85	5.61	383.50 6.01
450		383.75	5.76	383.38 6.13
2+0		383.65	5.86	383.25 6.26
450		383.55	5.96	383.13 6.38
1+0		383.45	6.06	383.00 6.51
450		383.35	6.16	382.88 6.63
0+0 = N.W. Meade		383.25	6.26	382.75 6.76
B.M.	6.29	389.51		383.22

N.W. B.P.
 Meade x
 Iowa

March 31-43
 8155
 8099

~~Indexed~~

	M		F	
6+0 = S.W. Monroe		384.45		384.25
450		384.35	5.16	384.13 4.96
540		384.25	5.26	384.00 5.09
4+50		384.15	5.36	383.83 5.21
TP for E	4.54	389.09	4.96	384.55
		389.51		

Brooklyn Bet. 13-14
North Gutter Grades

Sept 14 43
S. 5107
Bliss
8199

Indexed
~~88~~

75

			Elev	Gut. Grade
0+75		4.85	57.08	57.24 ^{4.90}
0+56				4.82
0+50		4.62	57.31	57.34 ^{4.80} _{out}
0+25	Brk	4.48	57.45	57.45 ^{4.69}
0+15		4.49	57.44	
0+10		4.59	57.34	
0+0	= E.L. 10 ¹⁴⁵¹	4.70	57.23	57.50 ^{4.64}
	5.56	62.14	56.58	Set box 57.27
TP	5.35	61.93	2.49	56.58
BM	8.12	59.07	50.95	N.W. B.P. E + 1 ¹⁴⁵¹

		Elev	Gut. Grade
2+0	= E.L. 14 ¹⁴⁵¹		56.70
1+98		5.42	56.51 ^{5.47}
+95			5.46
1+89			5.40
1+85		5.25	56.68
1+75		5.17	56.76 ^{5.23} _{out} 56.81
1+50		5.06	56.87 ^{5.22} 56.92
1+33			5.15
1+25		5.10	56.83 ^{5.12} _{out} 57.02
1+02			5.02
1+0		4.96	56.97 ^{5.01} _{out} 57.13
0+83		4.92	57.01

62.14
61.93

Filly Block 38 City HTs
From University to Polk Bat. 38th + 39th St

Oct 18-43
515.50
81.00
8099

Indexed
B

76

3720				352.10	6.6 2.1 c4.5
370				351.40	7.3 2.4 c4.9
2750				350.24	8.1 3.2 c5.2
270		0.262		349.08	9.6 4.5 c5.1
1466				348.29	10.4 4.3 c5.8
1432 = Brk				347.50	11.7 6.0 c5.7
170				46.60 346.90	12.07 5.95 c6.7
0750		0.379		45.20 345.95	13.47 7.86 c5.9
TP 8-12	358.67	1.11		350.55	
070 = N.L. University		7.86		48.80 Fl. EXIST 345.00	
B.M. 442	351.66			347.24	N.W. 8P. University 4397

670 = 56 Polk Ex N L 129 Pipe				355.75	2.9 6.85 EXIST 6" CIPR
5750				355.17	7.4 4.2 c3.2
570				354.59	8.0 4.5 c3.4
4775 = Brk				354.30	8.3 5.2 c3.1
4750				353.97	8.6 5.3 c3.4
TP 586	362.61	1.92		356.75	
470				353.32	5.4 1.8 c3.6
3760 = Brk				352.80	5.5 2.8 c2.7
	358.67				

Grade's Narragansett St. Extension
 Chatsworth to Macaulay St.
 Sketch Page 1 Lt. Rt.

2+40		123.88	¹¹¹ _{8.3} c 2.8	123.88	^{10.6} _{6.3} c 4.1
2+20	out	123.87		124.37	
3+01.91	PVC	124.50	^{10.9} _{8.2} c 1.5	125.00	^{9.5} _{6.7} c 2.8
2+67.34		125.98	^{8.5} _{2.5} c 0	126.48	^{8.0} _{2.0} c 1.0
2+32.74		127.47	^{7.0} _{2.5} F 1.5	127.97	^{6.5} _{2.0} F 0.5
1+98.14	EC	128.95	^{5.5} _{2.1} F 2.6	129.45	^{5.0} _{2.0} F 3.0 - End of C
2+57.5	4/c 33-41		^{7.8} _{4.4} F 3.4		
1+73.55	1°24'30"	130.09		130.59	
2+57.5			^{5.5} _{2.0} F 3.5		
1+48.99	2°49'00"	131.23		131.73	
2+57.5			^{3.1} _{6.7} F 3.6		
1+24.42	4°13'30"	132.37		132.87	
0+99.34	5°38'	132.50	^{1.0} _{5.8} F 4.8	134.00	
BM	139°	134.49		133.10	Max RP Chatsworth St Narragansett St

Station offset 40' to 1/2 Prop 4:1
 33' ft of 2.5' 80' 4' 1/2

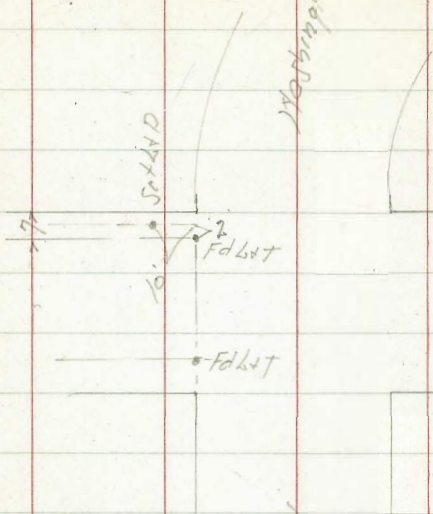
Indexed

April 8-44
 Station
 81.14
 0.50
 RT

7.7

4+09.85	FC 11°21'09"	130.00		130.50	^{4.5} c 1.0
5+76.82	9°27'37"	128.97		129.47	^{5.1} _{5.6} F 0.5
5+43.80	7°34'05"	127.95		128.45	^{6.1} _{6.9} F 0.8
5+10.78	5°40'24" 9°	126.92	^{7.6} _{2.5} F 0.9	127.42	^{7.1} _{7.2} F 0.1
4+77.75	8°47'02" 10°	125.90	^{8.6} _{9.1} F 0.5	126.40	^{8.1} _{7.6} c 0.5
4+44.73	1°53'31" 38°	124.87	^{9.7} _{9.8} F 0.1	125.37	^{9.2} _{7.7} c 1.5
TP	7.75	134.53		126.78	
6-33.02				10.25	
4+11.71	BCRT 38°	123.85	^{10.6} _{10.3} c 0.3	124.35	^{10.1} _{9.7} c 0.4
4+0	out	123.55		124.05	
3+80		123.20	^{11.3} _{9.2} c 2.0	123.70	^{10.8} _{9.2} c 1.6
3+60	out	122.15		123.65	Low Point
		134.19			

Washington + Pringle
R.P. & M. Cor



BM Changed

BM 5.20 270.27

265.07

NWBP
Pringle +
Washington

Set
BM 4.26

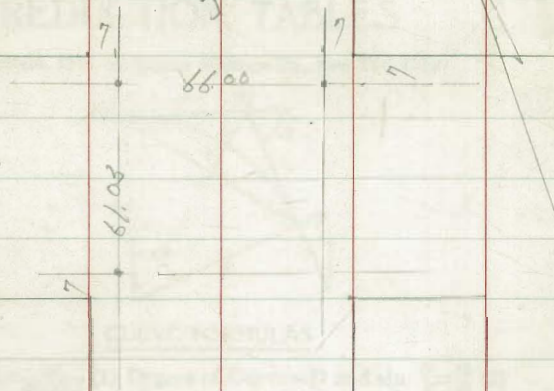
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NEBP
Pringle +
Washington

March 7-42
Sisson
Hortyren
H Moore

79

Moore



Fdlst

4586

Robinson Hill

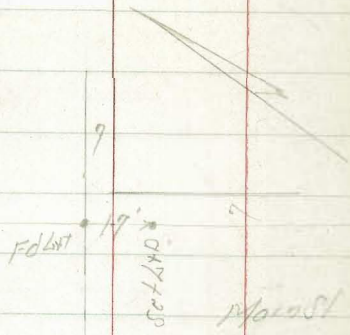
Fdlst
0.06

476 F. H. C.

Lat. N. E. Cor
Pennsylvania

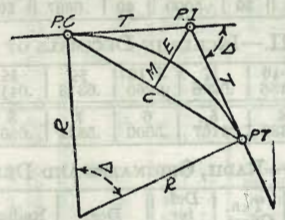
Moist + 59560
R.P.

59560



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)
- External= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)
- Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta =$ Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161 + 60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. — $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance = 158 — Sta. P. C. = 54.50, hence offset = $7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. = (in minutes) $.3 \times C \times D^\circ$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 91.27$ and from Table V correction = .10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

100
12
88

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.