Grade 17.

DEPO

FIELD BOOK

No. 385

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DIETERICH-POST CO.

75 NEW MONTGOMERY ST.

SAN FRANCISCO, CALIF.

AGENTS FOR

"BERGER" TRANSITS and LEVELS

"GURLEY" SURVEYING and HYDRAULIC INSTRUMENTS

"CHICAGO" STEEL TAPES, etc.

PACIFIC Beach B.M.'s

LAMONT ST

Garnet	SW BP	45.83
Felspar	NE Cob Tack 7' PT.	88.11
Emerald	SE " " 7' PT	99.04
Diamond	SW BP	105.82
Missouri	SE 10' Cop Tack RP	116.00
Chalcedony	SE cop. Tack 7' PT.	126.03
Law	SW " " 10' RP	142.36
Beryle	NE 7' cop. Tack	167.09
Wilbur	SE " " "	186.06

CASS ST

Grand	NE Mon.	17.80
Garnet	NE BP	28.55
Felspar	SW 10' cop. Tack RP	32.08
Emerald	NW BP	38.00

Bayard ST

Diamond	NW BP	37.55
Law	NW BP	58.89

Allison + Law CT. IN CURB NW Cor 53.82

Law + Dixie C.T. W S/W NW Cor (S. PC. on R.P. Law) 41.80

Ocean Blvd + Loring SE BP 45.99

Loring + Shoreline 1" pipe (approx. 40' North of OUTFALL) 7.96

Found
HH

Index

Pac. Beach Sewers
& Chalcedony '57

BM 12603 S.E. of Pac. & Chalcedony Pk. Element

F.L.

40' E of EL LAMONT = DE = 00	120.60
0+50	120.25
1	119.90
+50	119.55
N	119.20
+50 = M.H. # 677	118.85
3	116.70
+50	114.55
J	112.40
+50	110.25
5 = MH # 676	108.10
D	107.14
E 45.6 N = 4 TIMES	106.18
F	105.22
G 10+89.5 = MH # 665	104.27

0+00 DE	0+50	1+00	1+50	2+00
120.60	120.25	119.90	119.55	119.20
10.37	10.72	11.07	11.42	11.77
409	566	596	625	976
C6.33	C5.06	C5.08	C5.17	C7.01

2+50 Mn Hole # 677	3+00	3+50	4+00
118.85	116.70	114.55	112.90
1217	1417	1692	1857
547	704	741	724
C6.65	C7.23	C9.01	C11.33

4+50	5+00 Mn Hole # 676	#1	#2	#3	#4 Mn Hole # 665
110.95	108.10	107.14	106.18	105.22	104.27
2072	1244	1340	1436	1532	1628
1095	520	855	892	858	815
C7.77	C7.24	C4.85	C5.44	C6.74	813

& Law '57

40' E of EL LAMONT = DE = 00	133.93
0+50	132.68
1	131.43
+50	130.18
N	128.93
+50 = M.H. # 679	127.68
3	125.18
+50	122.68
J	120.18
+50	117.68
K = MH # 678	115.18
D	119.83
E 49 N = 4 TIMES	119.98
F	119.15
G 6+98.5 = M.H. # 667	113.79

0+00	0+50	1+00	1+50	2+00	2+50 Mn Hole # 679
9.95	11.20	12.45	13.70	14.95	16.20
943	565	739	363	1007	1072
C5.52	C5.65	C5.11	C5.07	C9.88	C5.48

3+00 TP	3+50	4+00	4+50	5+00 Mn Hole # 678	#1
18.70	11.87	1937	16.87	1937	12.86
11.45	2491	288	612	1285	849
C7.25	C9.39	C11.49	C10.75	C6.52	C4.37

#2	#3	#4 Mn Hole # 667
13.21	13.56	13.91
947	635	883
C3.74	C7.21	C5.08

192.36	1	5	7	4	
1488					
345					
132.43 TP					
212					
134.55					
1285					
121.70 TP					
599					
127.69					
279					
124.90					
1289					
137.79					
291					
135.38					
357					
138.95					
691					
132.54					

E Missouri

F.L.

No E of El Lamont = DE = 00 — 109.44

0+50 — 108.94

1 — 107.94

1+50 — 106.44

2 — 105.94

2+50 = MH # 675 = Δ No 07 — 104.44

3 — 102.94

4 — 101.94

5 — 99.94

5+00.70 = MH # 674 Δ No 03 — 98.93

6 — 96.94

6+83.2 = MH # 66 — 96.33

7 — 95.74

8 — 95.15

9 — 94.55

Missouri West of Olney from Mn Hole # 690 to DE

0+00 Mn Hole # 690 — 109.95

5' 58.5

#1 — 109.85 — 0.40 ft

#2 — 105.26

#3 — 105.67

#4 — 106.07

#5 2+90 Mn Hole # 693 — 106.98

4' 52.5

#1 — 106.89

#2 — 107.21 — 0.36 ft

#3 — 107.58

#4 — 107.95

BM SE Cor TK 107.12 out Missouri Cement
116.00
3.72
119.72
-10.33
109.39 + 1.69
109.08 ✗

BM 109.79
10.84
120.18

SE Cor TK BM 116.00
3.72
119.72

HI 119.72

0+00	0+50	1+00	1+50	2+00
109.94	108.94	107.94	106.94	105.94
10.28	11.28	12.28	13.28	14.28
2.24	9.02	5.86	8.18	7.09
C5.04	C7.26	C6.42	C5.10	C7.19

2+50 Mn Hole # 693 Δ	#1	#2	#3	#4
109.94	102.94	101.94	99.94	98.93
15.48	16.78	15.28	19.78	21.78
7.21	7.50	5.09	8.83	12.33
C8.07	C9.28	C10.24	C10.95	C8.95

HI 109.08

#5 Mn Hole # 679	#1	#2	#3	#4
96.92	96.33	95.74	95.15	94.55
12.16	12.75	13.34	13.93	14.52
5.19	6.54	6.98	7.37	8.53
C6.97	C6.21	C6.36	C6.56	C5.99

Missouri West of Olney

2+90 Mn Hole # 690

0+00	#1	#2	#3	#4	#5
	104.85	105.26	105.67	106.07	106.98
	13.33	14.92	14.52	14.11	13.71
	8.36	7.86	5.85	4.75	5.54
	C6.97	C7.06	C8.67	C9.36	C8.15

#1	#2	#3	#4
105.84	107.21	107.55	107.95 DE
13.38	12.97	12.60	12.23
9.60	5.47	6.20	6.37
C8.73	C7.50	C6.31	C5.86

Beryl to Diamond
east of Lamont

F.L.

℄ Beryl = MH # 669 — 137.60 — check od 0.05 low

1 — 129.79

2 — 44.05 4 times — 126.88 — 176.70

3 — 129.02

4 = 1+72.4 = MH # 668 — 121.15

5 — 119.31

6 — 44.12 4 times — 117.47 — 216.48

7 — 115.63

8 = 3+97.7 = MH # 667 — 113.79

9 — 44.3 3 times — 112.25

10 — 110.71

11 = 5+18.6 = MH # 666 — 109.17

12 — 107.95

13 — 43.75 4 times — 106.72

14 — 105.50

15 = 7+03.6 = MH # 665 — 104.27

16 — 102.88

17 — 49.57 7 times — 101.99

18 — 100.10

19 — 98.71

20 — 97.32

21 — 95.93

22 10+50.6 = MH # 664 — 94.55

23 10+86.6 = MH # 663 — 93.64

24 — 48.08 7 times — 92.93

138.95 HI
10 3.42
128.59
0.95 +
129.04
12.33 —
116.71 T.P.

A — 91.22
B — 90.01
C — 88.80
D — 87.59
E — 86.39
F = 13+88.6 = MH # 657 — 85.19 — JUNCTION

0.59 +
117.30
8.73 —
108.57
0.95 +
109.52
2.46 —
96.36 T.P.
2.45
98.81
8.17
90.64

95's of NE Diamond ST

200 MH Hole # 669 ℄ Beryl

	#1	#2	#3	#4 MH Hole 667	#5	#6 MH #668
132.60	129.79	126.88	120.02	113.79	121.15	121.15
6.35	9.21	12.07	19.93	15.25	17.79	17.79
6.91	3.57	6.32	8.68	10.19	10.36	10.36
0.05	C5.64	C5.72	C6.25	C5.06	C7.43	

	#1	#2	#3	#4 MH Hole 667	#5	#6 MH #666
119.31	117.47	115.63	113.79	112.25	110.71	
7.73	11.57	13.41	15.25	16.75	18.33	
9.80	6.68	7.74	10.19	11.05	12.33	
C4.93	C4.89	C5.67	C5.06	C5.70	C6.00	

	#3 MH Hole #666	#1	#2	#3	#4	#5 MH Hole #665
	109.17	107.95	106.72	105.50	104.27	109.17
	8.13	9.35	10.58	11.80	13.03	13.03
	2.92	3.84	5.51	6.11	7.77	7.77
	(5.21)	C5.46	C5.07	C5.69	C8.06	

	#1	#2	#3	#4	#5
	102.88	101.99	100.10	98.71	97.32
	6.14	7.53	8.92	10.31	11.70
	.945	1.83	3.26	4.95	5.62
	C5.69	C5.70	C5.66	C5.84	C6.08

	#1 10+56 #664	10+56 #663	#1	#2	#3
#6	99.53	93.64	97.93	94.32	90.01
95.93	19.98	15.39	6.38	7.59	8.80
13.09	8.50	9.04	2.45	3.91	5.78
7.14	C5.98	C6.35	C3.93	C3.68	C3.02
C5.90					

	#4	#5	#6	#7 MH Hole #657
	88.80	87.59	86.39	85.19
	10.01	11.22	12.43	13.63
	6.94	7.88	7.85	8.77
	C3.07	C3.34	C4.98	C5.76

Diamond St
Lamont to 0+50 E of Noyes St

	Fl.
EL LAMONT = 00 Ex. Sewer	99.60
0+00	99.05
1	98.51
	97.96
+50	
2	97.42
1+50 = MH. #659	96.87
	95.59
3	94.21
58' 4 TIMES	
4	92.88
	91.59
5	90.20
5+40 = MH 658 Morrell	
	88.95
6	87.70
5.5 4 TIMES	
	86.44
7	
7+08 = MH. #657 JUNCTION	85.19
	84.96
8	83.74
45°-45° 4 TIMES	
	83.01
9	
9+39 = M.H. #656	82.09
	81.97
10	81.65
45°-45° 4 TIMES	
	81.33
11	81.02
11+20 = Ex. MH. E Noyes	
	83.22
12	85.92
50 3 TIMES	

BM SW of Lamont & Diamond 105.82 + 3.00 = 108.82 − 12.02 = TP 96.80 + 1.68 = 98.48

set BM. SE to Mh Morrell & Diamond 96.80 − 1.50 = 95.30 − 9.72 = TP 88.76 + 10.34 = 99.10

set BM. S Post. 1.32 = 97.78

℄ = DE STA. 1247+

97.0 N

0+00 - ℄ line of Lamont	0+50	1+00	1+50	2+00
99.60	99.05	98.51	97.96	97.42
9.72	9.81	10.35	10.90	11.94
	376	909	927	98
	CC.05	CC.31	CC.63	C6.62

MH. #659

1+50	#1	#2	#3	#4
	95.59	94.21	92.88	91.59
96.87	13.32	14.65	15.98	17.31
11.99	7.42	8.92	10.55	12.02
5.83	C5.90	C5.67	C5.43	C5.29
C6.16				

T.P. 88.98

MH #658

5+40	#1	#2	#3	#4 MH. # 657
90.20	88.95	87.70	86.44	85.19
8.28	9.53	10.78	12.03	13.28
2.60	3.45	9.86	6.34	7.75
C5.68	C6.07	C5.92	C5.69	C5.53

MH. #656

9+39	#1	#2	#3	#4	#5
	84.46	83.74	83.01	82.09	81.97
	14.00	14.73	15.45	16.18	17.23
	8.57	9.00	9.33	9.72	10.72
	C5.43	C5.73	C6.12	C6.46	C6.51

MH. #655

11+20	#1	#2	#3	#4 MH. 11+20 E Noyes	#5
	81.65	81.33	81.02	83.22	85.92
	17.95	17.77	18.09	15.89	13.69
	11.13	11.53	9.63	10.78	7.81
	C6.35	C6.24	C8.46	C5.71	C5.88

MH. #654

12+00	#3	#4	#5
	87.62	89.82	92.02
	11.49	9.29	7.09
	5.58	3.22	30
	C5.91	C5.57	C4.08

Alley Block 167 168 169 170
From the E. Line of Lamont to W. Line of Pendleton

BM SW BP Lamont & Dermondy 105.82

	F.L.	
E Line of Lamont = 00	95.96	+ 1.46
0+50	94.86	↑ 107.28
"	94.26	— 12.93
1+50	93.66	TP 95.35
2	93.06	+ 2.54
2+50 Mn Hole # 653	92.46	↑ 97.89
5-58's		— 12.18
#1	90.66	TP 85.69
#2	88.86	+ 3.19
#3	87.06	↑ 88.88
#4	85.26	— 7.95
#5 Mn Hole # 652 5+90	83.97	TP 80.93
5'58's		+ 2.46
#1	82.59	↑ 83.39
#2	81.61	— 12.90
#3	80.68	TP 70.49
#4	79.75	+ 9.96
#5 8+30 Mn H/ # 651	78.82	↑ 80.45
5'58's		— 0.50
#1	77.93	TP 79.95
#2	77.09	+ 9.96
#3	76.15	↑ 89.91
#4	75.26	
#5 Mn Hole # 650 Exist. Mn Hole & #650' N 7+20 Noyes Tobacconist.	74.36	
5'58's		
#1	73.92	
#2	73.98	
#3	73.09	
#4	69.54	
#5 N 19+10 Mn Hole # 649	72.15	
5'58's		
#1	71.51	
#2	70.87	
#3	70.23	
#4	69.59	
#5 17+00 Mn Hole # 648	68.96	

F1 9.87

0+00: 93.96 / 12.32 / 310 / C7.42
0+50: 94.86 / 12.92 / 54 / C7.50
1+00: 94.26 / 13.52 / 57 / C7.79
1+50: 93.66 / 13.12 / 973 / C9.34
2+00: 93.06 / 14.72 / 57 / C8.98
2+50 Mn Hole 653: 92.46 / 15.32 / 7.88 / C7.99

1+80: 97.67
#2: 88.86 / 18.92 / 12.92 / C6.68
#3: 87.06 / 10.81 / 9.18 / C6.63
#4: 85.26 / 12.61 / 544 / C7.17
5+90 #5 Mn Hole #652: 83.97 / 14.91 / 683 / C7.58
#1: 82.59 / 15.38 / 794 / C7.91

#2: 81.61 / 16.27 / 9.55 / C6.72
#3: 80.68 / 17.20 / 10.58 / C6.62
#4: 79.75 / 18.13 / 12.18 / C5.95
8+30 #5 Mn Hole #651: 78.82 / 10.06 / 949 / C5.57
#1: 77.93 / 1095 / 501 / C5.94
#2: 77.09 / 11.84 / 554 / C6.30

#3: 76.15 / 12.73 / 618 / C6.55
#4: 75.26 / 13.62 / 657 / C7.05
#5 Mn Hole #650 Exist.: 74.36 / 14.51 / 745 / C7.06
11+20 #1: 73.92 / 1668 / 913 / C7.55
#2: 73.98 / 17.12 / 8.75 / C8.37
#3: 73.09 / 17.56 / 578 / C11.78

#2: 72.60 / 15.00 / 305 / C14.92
#5 Mn Hole #649 N 19+10: 72.15 / 17.83 / 990 / C13.43
#1: 71.51 / 18.47 / C10 / C12.37
#2: 70.87 / 19.11 / 57 / C8.39
#3: 70.23 / 19.75 / 7.10 / C12.65
#4: 69.54 / 20.39 / 40.41 / C9.98

#5 Mn Hole #648 17+00: 68.96 / 21.03 / 12.90 / C8.13

Alleys. Block 167, 68 - 69, 70
E. Line of Lamont to Drop Mn. Hole & Pendleton

F.L

Mn. Hole #698 17+00 — 68.96 — T. 81.84
5'58's — 547 — 76.37
#1 — 68.55 — BM Pk & S. Side Alley
#2 — 68.14
#3 — 67.73
#4 — 67.32
#5 Mn. Hole #697 19+90 — 66.93
5'58's
#1 — 66.58
#2 — 66.23
#3 — 65.88
#4 — 65.53
#5 22+90 W.L. Pendleton — 65.18

	Mn. Hole #698 & Noyes 0.91				Mn. Hole #697
0+00 T	#1	#2	#3	#4	#5 19+90
68.96 81.84	65.55	68.14	67.73	67.32	66.93
21.03	13.29	13.70	14.11	14.52	14.93
12.90	7.95	8.30	5.64	4.73	4.91
C8.13	C5.34	C5.40	C8.47	C9.79	C10.02

50's — 0.35

#1	#2	#3	#4	#5 End Line W. Line of Pendl.
66.58	66.23	65.88	65.53	65.18
15.28	15.63	15.98	16.33	16.68
5.08	4.96	4.70	4.78	5.55
C10.20	C10.67	C11.28	C11.55	C11.13

65.53 + 11.55 = 77.08

65.18 + 11.13 = 76.31

T 90.60 — 0+00 Mn. H/H — Noyes St. from Mn. Hole ± 35's of the N. line of Diamond to Mn. Hole #650 & Noyes & Alley. 1.665.

0+00	#1 (El. no)	#2	#3	#4
81.02	79.35	77.69	76.02	74.36
9.58	11.24	12.91	14.57	16.23
1.71	3.96	5.44	7.33	9.16
5.46	C7.28	C7.47	C7.24	C7.57
4.05				

Diamond St. ℄ line of Pendleton
76.250 W. of Olney to D.E.

0+00 Mn. Hole # 2 Pendleton	FL		
0+38	76.25		
# 1 0+58	76.55		
	76.71		
# 2	77.17	0.46	
# 3	77.63		
# 4	78.09		
#5 2+90 Mn. H/# 687	78.56		
5'58's			
# 1	78.96	0.41	
# 2	79.37		
# 3	79.78		
# 4	80.19		
#5 5+80 Mn. H/ Junction # 688	80.59		
5'50's			
# 1	82.19	1.60	
# 2	83.79		
# 3	85.39		
# 4	86.99		
#5 8+30 D.E.	88.59		

sec page 8

T 91.30
— 1.59
T.P. 89.71
+ 11.29
T 101.00
— 3.22
97.78

0+00	# 1	# 2	# 3	# 4
176.25	76.71	77.17	77.63	78.09
150.5	19.59	19.13	13.67	13.21
	8.55	8.10	7.65	7.21
	C6.04	C6.03	C6.02	C6.00

#5 Mn. H/ # 687	# 1	# 2	# 3	# 4
78.56	78.96	79.37	79.78	80.19
12.75	12.34	11.93	11.52	11.11
6.72	6.25	5.78	5.31	4.84
C6.03	C6.09	C6.15	C6.21	C6.27

9.69

T 88.75

Mn H/O #688 Olney + D.O.

0+38 12.20 C6.08

#5	# 1	# 2	# 3	# 4
80.59	82.19	83.79	85.39	86.99
10.70	9.10	7.50	15.61	14.01
4.53	3.33	1.59	9.69	8.09
C6.17	C5.77	C5.91	C5.92	C5.92

#5 D.E.
88.59
12.41
6.42
C5.99

Olney St. from Mn Hole # 688 25' of the N. Line of Diamond to DE 500' W. of Mn Hole # 691. Alley Block 131

		F.L.	
0+00	Mn Hole # 688	80.59	
#1	0+30	82.93	
#2	0+70	86.05	
#3	1+10	89.17	
#4	1+60 Mn Hole # 689	93.07	
4'43.75			
#1	38.75	95.26	
#2	43.75	98.10	
#3	53.75	100.94	
#4	3+35 Mn Hole # 690	104.95	
4.93.75			
#1	38.75	106.64	
#2	43.75	109.48	
#3	53.75	112.32	
#4	5+10 Mn Hole # 691	115.8 ~	
5'58.5'			
#1		116.5 ~	
#2		117.~1	0.69
#3		117.90	
#4		118.60	
#5	8+00 Mn Hole # 694	119.30	
4-52.5's			
#1		119.93	0.63
#2		120.56	
#3		121.18	
#4	10+00 DE	121.8 ~	

Back sight off Mn Hole 688: 86.76 + 13.20 = 99.96 − 2.30 = 97.66 + 12.68 = 110.48 − 0.70 = 109.78 + 12.98 = 122.26 − 0.97 = 121.29 + 11.32 = 132.61

	0+00	0+30	0+70	1+10	1+60
	80.59	82.93	86.05	89.17	93.07
	19.37	17.03	13.91	10.79	6.89
		8.93	6.80	5.34	2.86
		C 8.10	C 7.11	C 5.45	C 4.53

Mn Hole # 689

	#1	#2	#3	#4 3+35 Mn Hole # 690
	95.26	98.10	100.94	104.95
	15.72	12.38	9.54	4.04
	9.60	5.68	3.40	0.70
	C 5.12	C 6.70	C 6.14	C 5.34

	#1 122.26	#2	#3	#4 Mn Hole # 691 5+10
	106.64	109.48	112.32	115.8 ~
	15.62	12.78	9.94	6.44
	10.40	7.59	5.06	0.97
	C 5.22	C 5.19	C 4.88	C 5.47

115.8 ~ 5.97 121.8

	#1 132.61	#2	#3	#4
	116.5 ~	117.21	117.90	118.60
	16.09	15.39	14.69	13.99
	9.90	9.98	7.98	5.63
	C 6.19	C 5.91	7.21	C 8.36

	#5 Mn Hole # 694 8+00	#1	#2	#3	#4
	119.30	119.93	120.56	121.18	121.8 ~
	13.31	12.66	12.03	11.40	10.77
	5.76	5.10	5.01	4.75	3.81
	C 7.55	C 7.56	C 7.02	C 6.65	C 6.96

Alley Block 140 West of Olney
From Mn.Hole # 689 500' West to DE

0+00 = Mn.Hole # 689
5'58'
#1
#2
#3
#4
#5 2+90 Mn.Hole # 692
9'55'5
#1
#2
#3
#4 5+00 DE
↑107.80

F.L
93.07
99.00 0.93
99.93
95.86
96.79
97.71
9855
99.39 0.84
100.23
101.07

BM 97.60
+ 10.20
↑ 107.80
− 1.56
TP 106.24
9.13
↑ 110.37
− 3.51
TP 106.86
11.24
↑ 118.10
check on Mas ourt DE − 4.28
113.82

#1	#2	↑110.37 #3	#4	#5
9900	9993	9586	9679	9771
1380	1287	1451	1358	1265
518	156	555	639	435
C8.62	C11.31	C8.96	C7.19	C8.30

#	#2	#3	#4
9855	9939	10023	10107
1181	1097	1013	929
395	909	389	351
C8.36	C6.90	C6.24	C5.78

Chalcedony W of Pendleton

from Mn Hole # 116 E of Pendleton to DE West of Olney

	FL		
0+00 Mn Hole # 116	122.48		+ 1319 BM 613
5'58"			1381.0
#1	123.81		TP 1292
		0.906	
#2	123.99		
#3	123.90		
#4	129.30		
#5 2+90 Mn Hole # 695	129.71		
5'58"S			
#1	125.11	0.906	
#2	125.52		
#3	125.93		
#4	126.33		
Junction			
#5 5+80 Mn Hole # 696	126.79		BM: 1319
5'58"S			+ 82
#1	128.98	1.74	ℸ 1401
			− 316
#2	130.22		TP 1370
			1092
#3	131.96		ℸ 1480
			− 270
#4	133.70		TP 1453
			+ 737
#5 8+70 Mn Hole # 697	135.94		ℸ 1528
4°52'50"S		1.575	− 304
#1	137.01		1498
			+ 389
#2	138.59		ℸ 1537
			− 1240
#3	140.16		+ 1413
			0.67
#4 10+80 DE	141.74		ℸ 1420
			− 1319
			DE 8.81

2+90 Mn Hole #695

0+00	#1	#2	#3	#4	#5
122.68	123.81	123.99	123.90	124.30	129.71
1592	1501	1961	1920	1380	1339
852	685	569	498	522	462
C6.60	C8.16	C8.92	C9.22	C8.58	C8.77

ℸ 1381.0

5+80 DE Olney

#1	#2	#3	#4	#5 Mn Hole #696
125.11	125.52	125.93	126.33	126.79
1248	1258	1217	1177	1136
511	538	660	639	613
C7.87	C7.20	C5.57	C5.38	C5.23

ℸ 1401.9

ℸ 1400.19

8+70 Mn Hole # 697

#1	#2	#3	#4	#5
128.98	130.22	131.96	133.70	135.94
1171	997	823	1431	1257
697	594	310	175	379
C4.74	C4.03	C5.13	C6.56	C8.78

ℸ 1528.8

ℸ 1537.3 10+80 #4 DE 90 E of the E. line of Noyes

#1	#2	#3	#4
137.01	138.59	140.16	141.74
1100	1467	1271	1199
270	567	304	197
C6.30	C8.62	967	C10.02

Olney N. of Chalcedony from Mn Hole #696. & chalcedony & D.E 525' N. of Mn Hole #695

F.L

0+00 = Mn Hole #696 — 126.74

4°43 25"

#1 — 128.23 (1.49)

#2 — 129.72

#3 — 131.21

#4 1+75 Mn. Hole #698 — 132.69

4°43 25"

#1 — 134.88 (2.19)

#2 — 137.07

#3 — 139.26

#4 3+50 Mn. Hole #699 — 141.44

4°43 25"

#1 — 144.94 (3.50)

#2 — 148.44

#3 — 151.94

#4 D.E 5+25 — 155.44

BM. Mn. Hole #696
Elev. St. 121.29
+ 12.87
133.96
− 1.90
T.P. 131.37
+ 12.98
144.35
− 1.37
T.P. 143.54
1.30
T 15.62
0.35
T.P. 156.27
+ 9.05
T 165.32
3.7 = 2.55
BM. N.E. Stamp 162.77

T 133.96

#0+00	#1	#2	#3	#4 1+75
0+00	128.23	129.72	131.21	132.69
126.74	16.72	15.23	13.74	12.25
7.22	10.59	9.08	7.85	5.77
1.99	C6.13	C6.15	C5.89	C6.48
C5.23				

T 144.95

#1	#2	#3	#4 3+50 Mn. Hole #699
134.85	137.07	139.26	141.44
10.06	7.87	17.36	15.17
3.83	1.37	10.78	8.30
C6.23	C6.50	C6.58	C6.87

T 156.6 Mn. Hole #699

T 165.32

#1	#2	#3	#4
144.94	148.44	151.94	155.44
11.67	8.17	13.38	9.88
4.93	0.35	5.85	3.48
C6.74	C7.82	C7.53	C6.40

Pendleton from N Line of Diamond
to D.E N of Chalcedony

0+00 = Mn Hole 25'S of the N Line of Diamond
0+25 N Line of Dia
#1 0+90' N of the N Line Diamond
#2 0+80
#3 1+20
#4 7+60 Mn Hole # 113
9.93 75'
#1
#2
#3
#4 3+35 Mn Hole # 114
9.93 75'
#1
#2
#3
#4 5+10 Mn Hole # 115
9.93 75'
#1
#2
#3
#4 6+85 Mn Hole # 116 ℄ Chalcedony
9.9 50'
#1
#2
#3
#4 8+60 D.E

4/27/09
5 line 5.15
0+00 Garnet.

Server Eastern Interceptor 42.29

F. Line Elevations

76.90	0.225
77.12	0.60
77.72	0.60
78.32	0.42
78.93	3.41
82.34	
85.75	
89.16	
92.58	3.375
96.99	
101.32	
105.695	
110.08	3.15
113.23	
116.38	
119.53	
122.68	1.575
124.25	
125.83	
127.40	
128.98	

BM 1+29 721 13649 − 12.15 12439 + 0.06 129.93 − 11.97 TP 112.46 + 0.37 ℸ 112.83 − 12.68 TP 100.15 + 0.48 ℸ 100.63 − 12.51 TP 88.12 + 0.63 ℸ 88.75

Crossing Garnet at Pendleton

42.24 37.09 5.15

0+00 = 1+60 Mn Hole # 113

0+00	0+25	0+90	0+80	1+20	1+60
	76.90	77.12	77.72	78.32	78.93
	11.84	11.62	11.02	10.92	9.82
	993	950	700	959	29
	C6.91	C7.38	C6.02	C5.88	C6.90

#1	#2	#3	#4 3+35 Mn Hole # 114	#1 ℸ 129.93
82.34	85.75	89.16	92.58	96.99
18.28	14.87	11.46	8.05	15.88
12 51	979	633	179	10 18
C5.77	C5.08	C5.13	C6.31	C5.70

#2	#3	#4 Mn Hole # 115	#1	#2
101.32	105.69	110.08	113.23	116.38
11.51	18.72	19.33	11.20	8.05
567	11.97	838	525	193
C5.84	C6.75	C5.97	C5.95	C6.12

#3	#4 6+85 Mn Hole # 116	#1 ℸ 136.49	#2
119.53	122.68	124.25	125.83
16.96	13.81	12.23	10.66
1062	721	4.90	978
C6.34	C6.60	C7.33	C5.88

#3	#4 8+60 D.E
127.40	128.98
9.05	7.51
232	043
C6.73	C7.08

MI		
42.29	42.24	42.24
9.26	7.60	6.29
33.04	34.64	36.00
27.44	29.04	30.64
C5.60	5.60	5.36

East Interceptor from the S. Line of Garnet South to Pumping Plant #2

Flow Line Elevations

0+00 S Line of Garnet — 27.49
3. 45°
#1 — 25.64 — 1.80
#2 — 24.84
#3 1+35 Mn. Hole # 105 — 22.04
+ 43.75°
#1 — 20.89
#2 — 19.74 — 1.15
#3 — 18.59 — 1.27
#4 3+14.80 Mn. Hole #104 & Ren & Hornblende — Δ L 90.00 rod 7.32
4. 46.12°
#1 — 16.08 — 1.24
#2 — 14.84
#3 99.90 — 13.60
#4 4+94.80 Mn. Hole # 103 — 12.35
4. 46.12°
#1 — 11.11 — 1.24
#2 — 9.87
#3 6+83.99 — 8.63
6+79 — Δ R 90°-00-00"
#4 Mn. Hole # 102 & Quincy & Hornblende — 7.38
4-93.75°10
#1 — 6.72 — 0.66
#2 — 6.06
#3 58.90 — 5.90
#4 8+54 Mn. Hole # 101 — 4.75
4-49.37°
#1 — 4.01 — 0.74
#2 — 3.27
#3 58 5½ — 2.53
#4 10+54.5 Mn. Hole # 100 & Ivy & Quincy — 1.79
4-49.37°
#1 — 1.05 — 0.74
#2 — 0.31

BM & W & P
Garnet & Olney
95.10
+ 0.65
95.75
− 12.79
33.05
+ 0.32
33.37
− 12.80
P. 20.57
+ 2.17
22.74
− 1.96
P. 9.75
+ 1.17
X 10.95
− 8.60
P. 2.35
+ 3.66
X 6.01

HI 95.75 — 0+00 S Line of Garnet

#1	#2	#3	#4 Mn Hole #105
27.49	25.64	24.84	22.04
18.31	7.73	9.53	11.33
12.70	-1.88	3.36	
C5.21	C5.85	C6.17	

HI 33.37

#1	#2	#3	#4 Mn Hole #104
20.89	19.74	18.59	17.37
12.48	13.63	14.78	16.05
.957	6.96	9.10	9.67
C7.91	C6.67	C5.68	C6.38

HI 22.74

#1	#2	#3	#4 Mn. Hole #103
16.08	14.84	13.60	12.35
17.29	18.53	19.77	10.39
10.55	11.63	12.80	3.50
C6.74	C6.90	C6.97	C6.89

HI 22.74

#1	#2	#3	#4 Mn. Hole #102
11.11	9.87	8.63	7.38
11.63	12.87	14.11	15.35
4.47	5.89	6.97	9.06
C7.16	C6.98	C7.69	C6.29

T 22.74

HI 22.74

#1	#2	#3	#4 Mn. Hole #101
6.72	6.06	5.40	4.75
16.01	16.67	17.33	17.99
9.27	10.25	11.04	11.89
C6.74	C6.92	C6.29	C6.10

T 22.74 HS

HI 10.95

#1	#2	#3	#4 Mn Hole #100 A Ivy
9.01	3.27	2.53	1.79
18.73	7.68	8.41	9.16
12.96	2.60	-2.40	2.46
C5.77	5.08	C6.02	C6.70

Elec Flow Line

#3 12+56 08
#4 Mn Hole # 99
4-93.75
#1
#2
#3 08
#4 Mn Hole # 98 & Thomas
4-93.29
#1
#2
#3 16+06 08
#4 Mn Hole # 97
4-90.12
#1
#2
#3 90 58
17+83 80
#4 Mn Hole # 96
4-90.23
#1
#2
#3 95 08
19+68
#4 Mn Hole # 95 & Randleton "Alley 4 L 90-00-00"
4-93.75
#1
#2
#3
21+93
#4 Mn Hole # 94 & Reed
4-92.75
#1
#2
#3
23+18
#4 Mn Hole # 93

-0.93
+1.17 0.175
-1.34
-1.52
-1.69
-1.87
-1.97 0.105
-2.08
-2.18
-2.29
-2.40 0.125
-2.51
-2.63
-2.79
-2.85 011
-2.96
-3.07
-3.18
-3.28 0.105
-3.39
-3.49
-3.60
-3.70 0.105
-3.81
-3.91
-4.02

#1 1.05 990 962 C5.48
#2 0.31 10.69 529 C5.35
#3 -0.93 11.38 579 5.59
#4 Mn Hole # 99 -1.17 1212 691 C5.21

#1 -1.34 12.29 750 C4.75
#2 -1.52 12.97 850 C3.97
HI 1045
#3 -1.69 12.64 860 C4.04
HI 601
#4 Mn Hole # 98 -1.87 7.88 925 C3.63

#1 -1.97 798 927 3.76
HI 601
#2 -2.08 809 961 C4.08
#3 -2.18 8.19 947 C3.72
#4 Mn Hole # 97 -2.29 830 923 C3.37

π 9.94

#1 -2.40 734 3.89 C3.45
#2 -2.51 X 745 381 3.58 C3.69
#3 -2.63 756 X 903 C3.69 3.53
#4 Mn Hole # 96 -2.79 767 X 947 C3.32 3.20

#1 -2.85 X 779 915 C3.75 3.64
#2 -2.96 790 926 C3.55 3.99
#3 -3.07 801 931 C3.51 3.70
#4 Mn Hole # 95 -3.18 812 869 C4.64 4.93

#1 -3.28 822 953 C3.80 3.69
#2 -3.39 833 965 C3.79 3.68
#3 -3.49 844 992 C3.62 3.52
#4 Mn Hole # 94 -3.60 854 997 C3.78 3.57

Mn. Hole #93
9-9.375
#1 -9.02
#2 -9.12
#3 -9.32
#4 Mn. Hole #92 & clive. -9.42
9-9.425
#1 4.52
#2 4.62
#3 4.72
2.6+66.65
#4 Mn. Hole # 91 Δ 90-00-00R -4.81
5-58.5
#1 4.95
#2 5.09
#3 5.23
#4 5.37
#5 Mn Hole # 90 -5.51
5-58.5
#1 5.65
#2 5.79
#3 5.93
#4 6.07
#5 Mn. Hole # 89 & Olney -6.20
5-58.5
#1 6.34
#2 6.48
#3 6.62
#4 6.76
#5 Mn. Hole # 88 -6.90
#1, 5-58.5 -7.04
#2 -7.18

0.10
0.10
0.14
0.14
0.14

HI 994

#1	#2	#3	#4
-3.70	-3.81	-3.91	-4.02
8.64	8.75	8.85	8.96
5.08	5.41	5.53	5.69
C3.56	C3.39	C3.32	C3.27

700 / 528 / 1.71
700 / 533 / 1.67
495 / 395 / 1.00

HI 9.13

HI 994

#1	#2	#3	#4
-4.12	-4.22	-4.32	-4.42
9.06	8.35	8.95	8.55
5.41	9.58	4.76	4.95
C3.65	C3.77	C3.69	C3.60

Mn Hole #92

HI. 413

#1	#2	#3	#4
-4.52	-4.62	-4.72	-4.81
8.65	8.75	8.85	8.95
4.84	4.71	4.66	4.64
C3.81	C4.04	C4.19	C4.31

Mn Hole #91 Δ

HI 9.13

Mn. Hole # 90

#1	#2	#3	#4	#5
4.95	-5.09	-5.23	-5.37	-5.51
9.09	9.23	9.37	9.51	9.65
4.92	4.96	5.11	5.18	5.51
C4.17	C4.27	C4.26	C4.33	C4.14

HI. 3.51

HI 3.51 & Olney

Mn Hole # 89

#1	#2	#3	#4	#5
-5.65	-5.79	-5.93	-6.07	-6.20
9.16	9.30	9.44	9.58	9.71
4.79	4.92	5.63	6.95	5.26
C4.37	C4.38	C3.81	C3.13	C4.86

3.51
C.20

HI 3.51

Mn. Hole # 88

#1	#2	#3	#4	#5
-6.34	-6.48	-6.62	-6.76	-6.90
9.85	9.99	10.13	10.27	10.41
5.75	5.92	6.35	6.80	5.86
C4.10	C4.07	C3.78	C3.47	C4.55

5.00

	Elev Flow Line
#3	-7.3~
#4	-7.96
#5 Mn Hole # 87. Δ 75°-00-00	-7.60
4-90s	
#1	
#2	
#3	
#4 Mn Hole #86 & Pacific	-7.98
5-99s	
#1	
#2	
#3	
#4	
#5 Mn Hole #85 Δ 19°-51'-00	-8.51
For Grades South to Pump House see Grade Book 139-PP 2-5	

HZ 473

#1	#2	#3	#4	#5 Mn Hole # 87
-7.04	-7.18	-7.32	-7.96	-7.60
11.71	11.91	12.05	12.15	12.33
7.99	7.62	7.96	7.95	7.86
C4.28	C4.29	C4.09	C4.29	C4.47

Alley - North of Felspar.
Lamont to Pendlton.

	+	T	−	Elev. S.E. Cor. Lamont & Emerald. 99.02	Grade & 7' Point.	Cut.
	0.37	99.39				
0+00 Dead End East Line Lamont St.			6.49	92.90	84.86	8.04
#1			9.41	89.98	83.76	6.52
#2 T.P.			11.44	87.95	82.06	5.89
	2.04	89.99				
#3			3.80	86.19	80.66	5.53
#4			4.94	85.05	79.26	5.79
M.H. #645 2+50			5.54	84.45	77.86	6.59
#1			5.47	84.52	76.24	8.28
#2			5.50	84.49	74.61	9.88
#3			8.00	81.00	72.99	8.01
#4 T.P.	4.41	83.31	11.09	78.90	71.36	7.54
M.H. #644 5+40 ℄ Morrell			4.83	78.48	69.74	8.74
#1			3.35	79.96	69.16	10.80
#2			5.43	77.88	68.58	9.30
#3			7.62	75.69	68.00	7.69
#4			7.14	76.17	67.42	8.75
M.H. #643 8+30			5.80	77.51	66.84	10.67
#1			8.09	75.23	66.34	8.89
#2 T.P.	0.37	74.49	9.19	74.12	65.84	8.28
#3			0.82	73.67	65.34	8.33
#4			1.81	72.68	64.84	7.84
W. Line Noyes St. 10+80 ℄ Noyes St.			3.43	71.06	64.34	6.72
Extra M.H. 11+20			3.92	70.57	63.94	6.63

		H.I.				Cut.
		74.49				
11+80 E. Line Noyes St.			4.33	70.16	63.42	6.72
#1			6.15	68.34	62.77	5.57
#2			7.00	67.49	62.12	5.37
#3			7.75	66.74	61.47	5.27
#4			8.75	65.74	60.82	4.92
14+10 M.H. #641			7.36	67.13	60.17	6.96
#1 T.P.	1.42	72.68	3.23	71.26	58.60	12.66
#2			2.67	70.01	57.04	12.97
#3			4.35	68.33	55.47	12.86
#4	T.R. 3.52	68.93	7.27	65.41		
			2.15	66.78	53.91	12.87
17+00 M.H. #640	℄ Olney		3.17	65.76	52.34	13.42
#1			5.23	63.70	52.11	11.59
#2			9.09	59.84	51.88	7.96
#3 T.P.	10.28	67.33	11.88	57.05	51.65	5.40
#4			11.29	56.04	51.42	4.62
19+90 M.H. #639			9.74	57.59	51.18	6.41
#1			9.28	58.05	50.98	7.07
#2			8.34	58.99	50.78	8.21
#3			8.00	59.33	50.58	8.75
#4			6.31	61.02	50.38	10.64
West Line #5 Pendleton			3.27	64.06	50.18	13.88
T.P.	3.95	58.30	12.98	54.35		
	3.30	49.63	11.97	46.33		
			1.56	45.07	B.M. Garnett & Olney 45.10	

Alley - North of Garnet St. - Lamont to Pendleton.

BM. Garnet & Morrel. 66.30

	+	H.I.	-	Elev.	Grade	Cut.	
	6.68	72.98	0.51	72.47			
	6.90	79.37					
0+00 East Prop. Line Lamont St.			3.14	76.23	65.28	10.95	
#1 +50			4.81	74.56	64.93	9.63	
#2 1+00			5.72	73.65	64.58	9.07	
#3 1+50			6.30	73.07	64.23	8.87	
#4 2+00			5.75	73.62	63.88	9.74	
2+50 M.H. #637			5.80	73.57	63.53	10.04	
#1			6.03	73.37	63.16	10.18	
#2			5.59	73.78	62.79	10.99	
#3			6.69	72.68	62.42	10.26	
#4			7.50	71.87	62.05	9.82	
#5 T.P.	1.36	71.71	9.02	70.35	61.68	8.67	
5+90 Drop M.H. #636 ℄ Morrell St.			3.62	68.09	61.32 / 59.82	6.77 / 8.27	Drop M.H.
#1			5.93	65.78	59.48	6.30	
#2			7.62	64.09	59.14	4.95	
#3			7.25	64.46	58.80	5.66	
#4			6.32	65.39	58.46	6.93	
#5			7.18	64.53	58.12	6.41	
8+30 M.H. #635 T.P.	7.80	73.24	6.27	65.44	57.79	7.66	
#1			4.29	68.95	57.44	11.52	
#2			3.57	69.67	57.09	12.59	
#3			4.25	68.99	56.74	12.25	
#4			8.59	64.65	56.39	8.26	
10+80 W. Line Noyes St.			10.91	62.33	56.04	6.29	
Ext. M.H. 11+20 ℄ Noyes St.			10.01	63.23	55.76	7.47	

	+	H.I	−	Elev	Grade	Cut.
		73.24				
East Line Noyes St.						
11+60 T.P.	0.81	62.17	11.88	61.36	54.68	6.68
#1			1.46	60.71	53.33	7.38
#2			3.15	59.02	51.98	7.04
#3			4.67	57.50	50.63	6.87
#4			5.88	56.29	49.28	7.01
14+10 M.H. #633			6.97	55.20	47.93	7.27
#1			7.57	54.60	46.37	8.23
#2			9.03	53.14	44.80	8.34
#3 T.P.	1.96	52.10	12.03	50.14	43.24	6.90
#4			3.92	48.18	41.67	6.51
17+80 T.P. M.H. 632 & Olney St. 7.18		52.25	7.03	45.07	40.10	4.97
#1			8.37	43.88	39.76	4.12
#2			9.11	43.14	39.42	3.72
#3			9.40	42.85	39.08	3.77
#4			9.35	42.90	38.74	4.16
#5 T.P. 19+90	7.31	51.50	8.06	44.19	38.40	5.79
M.H. #631			4.83	46.67	38.07	8.60
#1			4.04	47.46	37.72	9.74
#2			4.97	46.53	37.37	9.16
#3			7.13	44.37	37.02	7.35
#4			9.22	42.28	36.67	5.61
22+40 T.P. #5 W.L. Pendleton St	12.11	51.45	9.16	42.34	36.32	6.02
East Line Pendleton			9.27	45.18	36.64	8.54
#1			5.63	48.82	37.42	11.40

~~42.51.50~~ H.I
~~1.84~~
~~49.66~~ 7

42.34 TP
1.84
~~40.50~~
44.18
5.72
36.08

24

		H.I.				Cut.
		54.45				
#2	1.00		3.49	50.96	38.20	12.76
#3			2.71	51.74	38.98	12.76
#4			1.89	52.56	39.76	12.80
#5 W.L. P.L. 1797	2+60		1.51	52.94	40.54	12.40
T.P.	1.32	43.06	12.71	41.74		
			6.98	36.08		
			BM. Pendlton 36.05.			

BM's

Garnet & Lamont - 65.83

Garnet & Morrel - 66.30

" & Noyes - 62.02

" & Olney - 45.10

" & Pendlton - 36.05

Alley - North of Hornblend.
Haines to Rendtorn.

Overmit Jacobson

	+	H.I.	−	BM. Haines & Garnet Elev.	Grade	Cut.
	2.17	70.62 69.21		68.45		
D. End. 4+60			5.01	65.61 64.20 64.73	60.12	5.49
#4	(5-42)		5.99	63.32 64.46	59.82	4.91
#3			6.16	63.69 64.07	59.53	4.93
#2			6.55	62.66 63.85	59.23	4.84
#1			6.77	62.44	58.94	4.91
M.H.# 630. 2+50	3.39	66.66 65.25	7.35	63.27 61.86	58.65	4.62
#4			3.96	61.29 62.70	58.80	4.70
#3 0.70	(5-50)		4.80	60.45 61.86	57.95	3.71
#2			4.86	60.39 61.80	57.60	4.20
#1			4.91	60.34 61.75	57.25	4.50
0+00 West Line Ingraham St.			5.43	59.82 61.23	56.90	4.33
E.L. Ingraham St. 40+20			4.79	60.46 61.87	56.39	5.48
#4 T.P.	2.36	68.08 66.67	0.94	65.72 64.31	56.19	9.53
T.P.	10.36	72.90	5.54	62.54 61.13	BM. Ingraham.	
#3			4.91	67.99	55.99	12.00
#2 0.80	(5-50)		3.56	69.34	55.79	13.55
#1			3.14	69.76	55.59	14.17
M.H.# 629 37+70			2.73	70.17	55.39	14.78
#4 T.P.	2.00	70.96	3.94	68.96	55.15	13.81
#3			3.37	67.59	54.92	12.67
#2	(5-58)		3.99	66.97	54.69	12.28
#1			4.76	66.20	54.96	11.74
M.H.# 628 34+80 & Jewell St.			5.82	65.14	54.23	10.91
#4	(5-58)		6.97	63.99	53.99	10.00

	+	H.I.	−	Elev.	Grade	Cut.
		70.96				
#3			7.78	63.18	53.76	9.42 ✓
#2 T.P.	5.29	67.08	9.17	61.79	53.53	8.26 ✓
#1			7.52	59.56	53.30	6.26 ✓
31+90 M.H. #627			8.64	58.44	53.07	5.37 ✓
#4	(5-58)		8.66	58.42	52.83	5.59
#3			8.58	58.50	52.60	5.90
#2			8.20	58.88	52.37	6.51 ✓
#1			7.61	59.47	52.14	7.33 ✓
29+00 M.H. #626 ℄ Kendall St.			7.79	59.29	51.91	7.38 ✓
					Elev. BM.	
T.P.	0.92	66.76	1.23	65.85	65.84	
#4			7.34	59.42	51.67	7.75
#3	(5-58)		8.14	58.62	51.44	7.18
#2			7.93	58.83	51.21	7.62
#1			7.84	58.92	50.98	7.94
26+10 M.H. #625			7.38	59.38	50.75	8.63 ✓
#4 T.P.	6.61	66.85	6.52	60.24	50.51	9.73 ✓
#3			6.54	60.31	50.28	10.03 ✓
#2	(5-58)		5.97	60.88	50.85	10.03 ✓
#1			5.08	61.77	49.82	11.95 ✓
23+20 M.H #624 ℄ Lamont St.			4.75	62.10	49.59	12.51 ✓
					BM. Lamont.	
T.P.	1.62	67.45	1.01	65.89	65.83	
#4			5.21	62.24	49.35	12.89
#3	(5-58)		4.82	62.63	49.12	13.51
#2			4.88	62.57	49.89	13.68
#1			5.02	62.43	49.66	13.77

	+	H.I.	−	Elev	Grade	Cut
		67.45				
20+30						
M.H. #623			5.57	61.88	48.43	13.45
#4 T.P.	4.46	65.94	5.97	61.48	48.19	13.29
#3	(5-58)		4.94	61.00	47.96	13.04
#2			4.92	61.02	47.73	13.29
#1			5.48	60.46	47.50	12.96
17+40						
M.H. #622	℄ Morrell St.		5.82	60.12	47.27	12.85
#4			6.91	59.03	47.03	12.00
#3	(5-58)		9.84	56.10	46.80	9.30
#2 T.P.	3.95	57.11	12.78	53.16	46.57	6.59
#1			5.22	51.89	46.34	5.55
14+50						
M.H. #621			5.33	51.78	46.11	5.67
#4			4.84	52.27	45.87	6.40
#3	(5-58)		3.79	53.32	45.64	7.68
#2 T.P.	8.01	64.29	0.83	56.28	45.41	10.87
#1			6.18	58.11	45.18	12.93
11+60						
M.H. #620	℄ Noyes St.		6.60	57.69	44.95	12.74
#4			8.82	55.47	44.08	11.39
#3	(5-58)		11.08	53.21	43.21	10.00
#2 T.P.	1.41	52.73	12.97	51.32	42.39	8.98
#1			2.28	50.45	41.47	8.98
8+70						
M.H. #619			3.28	49.45	40.60	8.85
#4			5.14	47.59	39.39	8.20
#3	(5-58)		7.14	45.59	38.17	7.42
#2			9.18	43.55	36.95	6.60
#1 T.P.	6.40	47.78	11.35	41.38	35.73	5.65

	+	H.I	-	Elev	Grade	Cut.
		47.78				
	0.65	45.75	2.66	45.12	BM. Olney St. 45.10	
5+80 M.H. # 618	℄ Olney St.		5.83	39.92	34.51	5.41
#4			6.73	39.02	33.64	5.38
#3	(5'-5")		7.77	37.98	32.77	5.21 ✓
#2			9.29	36.51	31.90	4.61 ✓
#1	152.8'		9.10	36.65	31.03	5.62 ✓
2+90 M.H. # 617	T.P. 0.29	36.71	9.33	36.42	30.16	6.26 ✓
#4			2.27	34.44	28.54	5.90 ✓
#3	2.80.8' (5'-5")		4.18	32.53	26.91	5.62 ✓
#2			5.96	30.75	25.29	5.46 ✓
#1			6.34	30.37	23.66	6.71 ✓
0+00 M.H. # 105	℄ Pendleton		7.57	29.14	22.04	7.10 ✓
			0.64	36.07	Pendleton 36.05 BM	

Alley - North of Grand & Ivy Sts.
Quincy to Ingraham

		+ H.I	−	Elev	
		0.64 36.69		36.05 - B.M. Pendlton	
		0.61 24.14	13.16	23.53	
0+00					
M.H.#101	∧			4.75	5.75 ± or 6' East
#1			11.72	12.42	5.75	6.67 - 6' South.
#2	(5-36°)		11.08	13.06	6.75	6.31
#3	2.20%		9.89	14.25	7.74	6.51
#4			8.74	15.40	8.74	6.66
1+82.2						
M.H.#602			7.82	16.32	9.73	6.59
#1			7.19	16.95	10.73	6.22
#2	(5-36°)		6.29	17.85	11.73	6.12
#3			5.49	18.65	12.72	5.93
#4			4.46	19.68	13.72	5.96
3+69.2	∨	9.81				
M.H.#603	∧ Pendlton	30.30	3.65	20.49	14.71	5.78
#1			9.04	21.26	15.92	5.34
#2	(5-58)		7.86	22.44	17.14	5.30
#3	2.10%		6.07	24.23	18.36	5.87
#4			4.39	25.91	19.58	6.33
6+59						
M.H.#604			3.22	27.08	20.80	6.28
#1	(5-58)		2.23	28.07	22.02	6.05
#2 T.P.	12.77	42.04	1.03	29.27	23.24	6.03
#3			10.50	31.54	24.46	7.08
#4			8.20	33.84	25.68	8.16
9+79	∨					
M.H.#605	E Olney		5.94	36.10	26.99	9.21
#1	(5-58)		3.83	38.21	27.93	10.28
#2	1.80%		2.16	39.88	28.97	10.91
#3 T.P.	9.79	51.50	0.33	41.71	30.01	11.70

29

4.75
6.10
10.85
5.22
16.07
5.37
10.5 @
4.75
5.75

	+	H.I	-	Elev.	Grade	Cut
		51.50				
#4			6.19	45.31	31.06	14.25
12+39 M.H.#606			4.46	47.04	32.11	14.93
#1		(5-58)	4.70	46.80	32.80	14.00
#2			5.84	45.66	33.50	12.16
#3			6.75	44.75	34.19	10.56
#4			6.24	45.26	34.89	10.37
15+29 ℄ Noyes St. M.H.#607 T.P.	3.95	49.50	5.95	45.55	35.59	9.96
#1			3.82	45.68	35.93	9.75
#2		(6-48.33)	5.47	44.03	36.27	7.76
#3			5.38	44.12	36.61	7.51
#4			6.21	43.29	36.95	6.34
#5			5.69	43.86	37.29	6.57
18+19 M.H.#608			5.11	44.39	37.62	6.77
#1		(6-48.33)	4.94	44.56	37.96	6.60
#2			4.90	44.60	38.30	6.30
#3			4.44	45.06	38.64	6.42
#4	8.05	53.07	4.46	45.01	38.98	6.06
#5			7.59	45.50	39.32	6.18
21+09 M.H.#609 ℄ Harriet			6.98	46.11	39.65	6.46
#1			7.31	45.78	39.99	5.79
#2		(6-48.33)	5.93	47.26	40.33	6.93
#3			5.49	47.60	40.67	6.93
#4			4.97	48.12	41.01	7.11
#5			4.82	48.27	41.35	6.92
23+99 M.H.#610			4.12	48.97	41.68	7.29

	+	H.I.	−	Elev	Grade	Cut.
		53.09				
#1			3.84	49.25	42.02	7.23
#2 T.P.	8.74	59.40	2.43	50.66	42.36	8.30
#3			6.37	53.03	42.70	10.33
#4	(6-48.33)		5.30	54.10	43.04	11.06
#5			4.56	54.84	43.38	11.46
26+89						
M.H. #611 ℄ Kamont.			4.90	54.50	43.71	10.79
#1	6.52	62.77	3.15	56.20	43.90	12.35
#2			2.69	60.08	44.09	15.99
#3	(6-48.33)		5.43	57.34	44.28	13.06
#4			7.48	55.29	44.47	10.82
#5 T.P.	3.34	57.69	8.42	54.35	44.67	9.68
29+79						
M.H. #612			4.30	53.39	44.87	8.52
#1	(6-48.33)		4.69	53.00	45.06	7.94
#2			5.11	52.58	45.25	7.33
#3			5.46	52.23	45.45	6.78
#4			5.63	52.06	45.64	6.42
#5			5.74	51.95	45.83	6.12
32+69 T.P.						
M.H. 613 ℄ Karlal	3.71	56.11	5.29	52.40	46.03	6.37
#1			4.61	51.50	46.22	5.28
#2	(6-48.33)		5.95	50.16	46.41	3.75
#3			6.24	49.87	46.61	3.26
#4			5.97	50.14	46.80	3.34
#5			4.91	51.20	47.00	4.20
35+59						
M.H. #614			4.12	51.99	47.19	4.80
#1	(6-48.33)		3.11	53.00	47.53	5.47

	+	H.I.	-	Elev.	Grade	Cut.
		56.11				
#2			2.06	54.05	47.87	6.18
#3 TP.	6.93	61.65	1.39	54.72	48.21	6.51
#4			6.51	55.14	48.55	6.59
#5			6.05	55.60	48.89	6.71
38+49 ℄ Jewell						
M.H. #615			5.80	55.85	49.22	6.63
#1			5.43	56.22	49.56	6.66
#2	(6-43.33)		5.00	56.65	49.90	6.75
#3			4.35	57.30	50.24	7.06
#4			3.24	58.41	50.58	7.83
#5	5.93	65.02	2.56	59.09	50.92	8.17
41+39						
M.H. #616			5.79	59.23	51.25	7.98
#1			5.53	59.47	51.54	7.93
#2.	(5-42)		4.77	60.25	51.84	8.41
#3			5.02	60.00	52.13	7.87
#4			5.13	59.89	52.43	7.46
43+49 N						
#5 Dead End.			5.20	59.82	52.72	7.10
T.P.	7.01	65.44	6.59	58.43		
			2.91	62.53	Ingraham 57 62.54 BM.	

Alley - North of Chalcedony
Ingraham St. to Alley West of Allison St.

	+	H.I.	−	Elev.	Grade	Cut.	
	10.04	108.96		98.92	Nail in Lone Tree bet Chalcedony & Allison		
M.H. # 265							
0+00			3.07	105.89	98.02	7.87	Reset 8.01: 6' South.
#1			5.84	103.12	96.80	6.32	
#2 (5-33) 2.11%			7.67	101.29	95.57	5.62	
#3 T.P.	2.16	102.70	8.42	100.54	94.35	6.19	
#4			3.76	98.94	93.12	5.82	
2+90							
M.H. # 264			4.31	98.39	91.90	6.49	
#1			5.03	97.67	91.56	6.12	
#2 (6-28.33) 0.70%			4.97	97.73	91.22	6.51	
#3			4.79	97.91	90.88	7.03	
#4			4.71	97.99	90.54	7.45	
#5			4.54	98.16	90.20	7.96	
5+30 T.P.	3.81						
M.H. # 263 & Haines St.		102.12	4.39	98.31	89.87	8.44	8.37 Reset.
#1			4.19	97.93	89.52	8.41	
#2 (6-49.33) 0.73%			4.90	97.22	89.17	8.05	
#3			5.04	97.08	88.81	8.27	
#4			5.15	96.97	88.46	8.51	
#5			5.56	96.56	88.11	8.45	
8+70							
M.H. # 262			5.85	96.27	87.75	8.52	
#1			5.86	96.26	87.39	8.87	
#2 (5-50) 0.72%			6.39	95.73	87.03	8.70	
#3 (5)	5.47	100.91	6.68	95.44	86.67	8.77	
#4			5.43	95.48	86.31	9.17	
Connect to Sewer 11+20 E. Line Gresham			6.81	94.10	85.95	8.15	
Connect to Sewer W. Line Gresham 12+00			7.26	93.65	85.67	7.98	
#1 0.74%			6.43	90.48	85.29	10.19	

115.09 H.I.
9.01
106.03
98.02
8.01

97.93
5.27
103.20
4.96
98 24
89.87
C 8.37

	+	H.I. 100.91	−	Elev.	Grade	Cut.
0.76% (5-49.82)						
#2			6.40	94.51	84.91	9.60
#3			6.17	94.74	84.53	10.21
#4			6.64	94.27	84.15	10.12
14+49.82	X					
M.H. # 260	T.P. 4.63	98.62	6.92	93.99	83.77	10.22
#1			4.65	93.97	83.24	10.73
1.06% (5-50)						
#2			4.80	93.82	82.71	11.11
#3			5.17	93.45	82.18	11.27
#4			5.31	93.31	81.65	11.66
16+99.30	V					
E. Line Fanuel St. Connect to existing Sewer			9.21	89.41	81.12	8.29
17+79.30						
W. Line Fanuel St.			9.96	88.66	80.72	7.94
#1	T.P. 1.61	92.75	7.48	91.14	80.18	10.96
1.09% (5-49.82)						
#2			2.37	90.38	79.64	10.74
#3			3.69	89.06	79.09	9.97
#4			4.76	87.99	78.55	9.44
20+28.60						
M.H. # 258			7.09	85.66	78.00	7.66
#1			8.41	84.34	77.46	6.88
#2			8.55	84.20	76.91	7.29
1.09% (5-50)						
#3			8.87	83.88	76.37	7.51
#4	T.P. 3.18	86.59	9.34	83.41	75.82	7.59
22+78.60	V					
E. Line Everts St. Connect to Sewer			4.37	82.22	75.28	6.94
23+58.60						
W. Line Everts St.			4.95	81.64	74.74	6.90
#1			3.60	82.99	73.86	9.13
#2			5.02	81.57	72.97	8.60
1.77% (5-50)						
#3			6.11	80.48	72.09	8.39
#4			7.00	79.59	71.20	8.39

	+	H.I. 86.59	−	Elev.	Grade	Cut.
26+08 60 M.H. # 256						
#1			7.18	79.41	70.32	9.09
#2			8.65	77.94	69.30	8.64
#3 (6-58) 1.76 ϕ			1.98	76.68	68.28	8.40
#4			3.15	75.51	67.26	8.25
29+98 60 M.H. # 255 & Dance			4.18	74.48	66.24	9.24
#1			5.61	73.05	65.22	7.83
#2			6.29	72.37	64.41	7.96
#3 (5-58) 1.40 ϕ	T.P. 2.51	72.48	7.00	71.66	63.60	8.06
#4			8.69	69.97	62.79	7.18
31+88 60 M.H. # 254			4.45	68.03	61.98	6.05
#1			4.79	67.69	61.16	6.53
#2			4.71	67.77	60.46	7.31
#3 (5-58) 1.40 ϕ			5.14	67.34	59.76	7.58
#4			5.80	66.68	59.06	7.62
34+38 60 E. Line Cass St.	connect to Existing Sewers (?)		6.52	65.96	58.36	7.60
35+19 60 W. Line Cass St.	T.P. 1.36	65.12	7.55	64.93	57.66	7.27
#1			8.72	63.76	56.54	7.22
#2			2.54	62.58	55.84	6.74
#3 (5-50)			3.38	61.74	55.14	6.60
#4			4.09	61.03	54.44	6.59
37+68 60 M.H. # 252			4.70	60.42	53.74	6.68
#1			5.46	59.66	53.04	6.62
#2 (5-58) 1.20 ϕ			6.41	58.71	52.34	6.37
#3	T.P. 3.24	60.65	7.26	57.86	51.65	6.21
			7.71	57.41	50.95	6.46

60.65
− 1.75
58.90 El. at Law & Bayard.

36

	+	H.I. 60.65	−	Elev	Grade	Cut.
# 4			4.13	56.52	50.26	6.26
40+58 60						
M.H. #251. E Bayard St.			4.58	56.07	49.56	6.51
#1			5.20	55.45	48.86	6.59
#2 (5'-6") 1.20%			5.75	54.90	48.17	6.73
#3			6.05	54.60	47.47	7.13
#4 T.P.	3.12	56.84	6.93	53.72	46.78	6.94
43+48 62						
M.H. #250			3.71	53.13	46.08	7.05
#1			4.00	52.84	45.73	7.11
#2 (5'-0") 0.70%			3.31	53.53	45.88	8.15
#3			4.58	52.26	45.03	7.23
#4			5.22	51.62	44.68	6.94
45+98 60				68		35
E. Line Allison St. } Connect to Existing Sewers } ?			5.85	50.~~99~~	44.33	6.66
46+78 60				48		52
W. Line Allison St.			7.06	49.~~78~~	42.96	6.~~82~~
#1 (2'-0") T.P.	2.48	51.25	8.07	49.23 ~~48.77~~	41.48	75 7.~~89~~
#2 (4'-10")			3.14	48.11	40.00	8.11
#3			4.00	47.25	38.52	8.73
			4.93	46.82	37.	
48+63 60					37.04	9.78
M.H. #248						
#1			5.64	45.61	35.60	10.01
#2 (5'-4") 3.20%			8.42	42.83	34.16	8.67
#3 T.P.	7.34	47.98	10.61	40.64	32.72	7.92
#4			10.17	37.81	31.28	6.53
50+88 60						
M.H. #23 West Interceptor.			11.90	36.08	29.84	6.24
Drop M.H.					24.41	11.67
T.P.	8.04	55.21	0.81	47.17		
			1.41	53.80	53.82 BM.	N.W. Cor. Allison & Law.

Reset Dec. 7 #(8) (Bliss Kiernan)

54.89	54.80
2.50	6.60
61.39	61.40
7.66	.12
53.73	59.88
3.24	
56.97	
8.17	
48.80	

Alley - North of Law - E. Line Allison to D.E. West of Ingraham.

		+ H.I.		−	Elev.	Grade	Cut.
					53.82	BM. Allison & Law.	
		7.44	61.26				
E. Line Allison.					56.95		
0+00				4.04	~~57.32~~	50.57	6.~~57~~ 38 Gone ← (Reset Dec. 7th 1918)
#1				4.15	57.11	51.02	6.09
#2				3.32	57.94	51.47	6.47
#3	(5'-6")			2.44	58.82	51.92	6.90
#4	T.P.	9.04	68.79	1.51	59.75	52.37	7.38
2+00 M.H. #287				8.02	60.75	52.82	7.93
#1				6.81	61.98	53.34	8.64
#2	(5'-3")			4.66	64.13	53.86	10.27
#3				5.18	63.61	54.38	9.23
#4				6.09	62.70	54.90	7.80
5+70 ℄ Bayard M.H 288				5.91	62.88	55.43	7.45
#1	T.P.	6.68	69.56	5.91	62.88	55.95	6.93
#2	(6'-3")			5.89	63.67	56.47	7.20
#3				5.24	64.32	56.99	7.33
#4				5.05	64.51	57.51	7.00
8+30 M.H. #289				4.97	65.09	58.04	7.05
#1				3.90	65.66	58.89	6.77
#2	(5'-6")			3.65	65.91	59.74	6.17
#3	T.P.	7.93	74.59	2.90	66.66	60.59	6.07
#4				6.41	68.18	61.44	6.74
10+80 W. Line Cass St.	Connect to existing Sewers	?		5.14	69.45	62.29	7.16
11+60 E. Line Cass St.				4.80	69.79	63.65	6.14
#1	(5'-3")			4.72	69.87	64.50	5.37
#2				4.07	70.52	65.35	5.17

		+	H.I. 74.59	-	Elev	Grade	
#3	T.P.	8.70	81.65	1.64	72.95	66.20	6.75
#4				6.80	74.85	67.05	7.80
14+10 M.H. # 291				5.65	76.00	67.90	8.10
#1				5.20	76.45	69.06	7.39
#2				4.88	76.77	70.22	6.55
#3				3.65	78.00	71.38	6.62
#4				2.27	79.38	72.54	6.84
17+00 & Dawes M.H. # 292	T.P.	9.72	90.00	1.37	80.28	73.70	6.58
#1				8.88	81.12	75.02	6.10
#2				6.36	83.64	76.34	7.30
#3				3.98	86.02	77.66	8.36
#4	T.P.	8.43	96.02	2.41	87.59	78.98	8.61
19+90 M.H. # 293				7.28	88.74	80.31	8.43
#1				6.57	89.45	81.45	8.00
#2				5.51	90.51	82.59	7.92
#3				3.80	92.22	83.73	8.49
#4				2.32	93.70	84.87	8.83
22+40 W. Line Events St.				3.81	92.21	86.02	6.19
23+20 E. Line Events St.	T.P.	10.14	103.05	3.11	92.91	86.70	6.21
#1				5.41	97.64	87.35	10.29
#2				5.63	97.42	87.99	9.43
#3				4.94	98.11	88.64	9.47
#4				4.50	98.55	89.29	9.26
25+70 M.H. # 295				3.30	99.75	89.93	9.82
#1	T.P.	7.62	108.23	2.44	100.61	90.58	10.03

Gone
Reset 12/7/28 Bliss Keenan

	+	H.I.	-	Elev.	Grade	Cut
		108.23				
#2			6.38	101.85	91.23	10.62
#3 (5-49 3/4)			5.77	102.46	91.80	10.58
#4			5.51	102.72	92.53	10.19
28+19 30 W. Line Fanuel St			6.54	101.69	93.18	8.51
28+99 30 E. Line Fanuel St	T.P. 9.23	111.52	5.94	102.29	93.66	8.63
#1			5.67	105.85	94.31	11.54
#2 (5-50) 1.30%			5.15	106.37	94.96	11.41
#3			5.28	106.24	95.61	10.63
#4			5.58	105.94	96.26	9.68
31+49 30 M.H. #297			5.40	106.12	96.91	9.21
#1	T.P. 5.82	111.89	5.45	106.07	97.18	8.89
#2 (5-49 3/4)			5.50	106.39	97.45	8.94
#3 (5- 0.53%)			5.32	106.57	97.72	8.85
#4			4.94	106.95	97.99	8.96
33+98 60 W. Line Gresham			6.29	105.60	98.25	7.35
34+78 60 E. Line Gresham	T.P. 6.49	111.85	6.53	105.36	98.45	6.91
#1			6.25	105.60	98.71	6.89
#2 (5-50) 0.52%			5.80	106.05	98.97	7.08
#3			5.26	106.59	99.23	7.36
#4			4.49	107.36	99.49	7.87
37+28 60 M.H. #299			3.93	107.72	99.75	8.17
#1	#53 30.73		3.12	108.73	100.00	8.73
#2 (6-49 3/4)	6.20	115.56	2.49	109.36	100.25	9.11
#3			5.77	109.79	100.50	9.29
#4			5.20	110.36	100.75	9.61

	+	H.I. 115.56	−	Elev	Grade	Cut.
#5			4.87	110.69	101.00	9.69
40+18.60 ℄ Hain St.						
M.H. #300			5.73	109.83	101.25	8.58
#1			3.90	111.66	101.57	10.09
#2 (5'-4.5')			4.30	111.26	101.88	9.38
#3			4.48	111.08	102.20	8.88
#4	5.90	117.51	3.95	111.61	102.51	8.80 9.70 ← 5 gone
42+43.60						← Reset (Dec. T.B. 26)
M.H. #301 0.70%			5.69	111.82	102.83	8.99 (Bliss Kiernan)
#1			5.75	111.76	103.15	8.61
#2 (5'-4.5')			5.15	112.36	103.46	8.90
#3			4.97	112.54	103.78	8.76
#4			4.68	112.83	104.09	8.74 ← Reset
44+68.60						9.01
#5 Dead End	West of Ingraham St.		3.96	113.77	104.40	9.15
T.P.	1.29	117.58	1.22	116.29		
	0.98	106.96	11.60	105.98		
			8.07	98.89	98.92	

B.M. in Lone Tree bet Chalcedony & Missouri.

117.91 / 5.06 / 112.85 / 115.62 / 3.79 / 111.83

112.54 / 5.37 + / 117.91 / 4.50 / 113.41

111.76 / 3.86 / 115.62 / 4.31 / 111.31

111.31 / 102.51 / 8.80

Alley - North of Thomas St. - Quincy to D.E. West of Olney.

	+	H.I.	-	Elev.	Grade	Cut	
				15.75 BM. Olney & Thomas			
	0.53	16.28					
	5.94	11.55	10.67	5.61			
	2.86	12.17	2.24	9.31			
			8.92	3.25		4.42	6' East.
0+50 M.H.#99 Quincy St.			8.13	4.04	-1.17	5.21	6' West.
#1			6.92	5.25	- 0.66	5.91	6' North.
#2 (5-36 90)			5.97	6.20	+ 0.14	6.34	
#3			4.92	7.25	+ 0.37	6.88	
#4			4.52	7.65	+ 0.89	6.76	
1+94 ± M.H. ± 598			4.30	7.87	1.40	6.47	
#1			3.64	8.53	1.92	6.61	
#2 (5-36 90) T.P.	8.91	18.22	2.86	9.31	2.43	6.88	
#3			8.05	10.17	2.95	7.22	
#4			7.10	11.12	3.46	7.66	
3+69 ± Position M.H. #599 X			5.63	12.59	3.98	8.61	
#1			4.81	13.41	5.26	8.15	
#2 (5-58)			4.03	14.19	6.53	7.66	
#3 T.P.	9.57	24.83	2.96	15.26	7.81	7.45	
#4			8.17	16.66	9.08	7.58	
6+59 M.H. #600			6.69	18.14	10.36	7.78	
#1			5.46	19.37	11.64	7.73	
#2 (5-58)			4.81	20.02	12.91	7.11	
#3			3.49	21.34	14.19	7.15	
#4 T.P.	8.12	29.62	3.33	21.50	16.46	6.04	
9+49 ± Olney. M.H. #601 X			5.65	23.97	16.74	7.23	
#1			3.59	26.03	18.24	7.79	
#2 (6-50)	9.24	37.92	0.94	28.68	19.74	8.94	
#3			6.78	31.14	21.24	9.90	

	+	H.I.	−	Elev.	Grade	Cut.
		37.92				
#4 (5+00)			3.96	33.96	22.74	11.22
#5 (6+00)			2.54	35.38	24.24	11.14
12+49 #6 Dead End W. of Olney St.			1.20	36.72	25.74	10.98
T.P.	0.55	29.31	9.16	28.76		
	2.04	23.96	7.39	21.92		
			8.22	15.74	15.75 BM. S.E. Cor. Olney & Thomas	

15.75
11.04
26.79
2.81
23.98
5.29
17.69

26.79
5.29
21.50

Alley - North of Reed St. - Pendleton to E. of Noyes

		+	H.I	-	Dead End Elev.	Grade	Cut.
		0.53	16.28		15.75	B.M. S.E. Cor. Olney & Thomas.	
	T.P.	3.18	8.79	10.67	5.61		
& Pendleton 0+00 M.H. #595				7.56	1.23	-3.18	4.41
#1				6.22	2.57	-2.48	5.05
#2 (5-59)				4.44	4.35	-1.78	6.13
#3 (5-59) 1.20%				3.18	5.61	-1.09	6.70
#4	T.P.	7.05	14.13	1.71	7.08	-0.40	7.48
2+90 M.H. #595				6.26	7.87	+0.30	7.57
#1				5.38	8.75	1.69	7.06
#2 (5-58) 2.40%				5.08	9.05	3.08	5.97
#3				4.05	10.08	4.47	5.61
#4	T.P.	8.06	20.78	1.41	12.72	5.86	6.86
5+80 & Olney O.M.H. #596				4.96	15.82	7.26 E. 10.50 W.	8.56 5.32
#1	T.P.	11.33	30.24	1.87	18.91	12.41	6.50
#2 (5-58) 3.30%				7.39	22.85	14.33	8.52
#3				5.83	24.41	16.24	8.17
#4				3.91	26.33	18.16	8.17
8+70 M.H. #597	T.P.	5.84	32.95	3.13	27.11	20.07	7.04
#1				5.33	27.62	20.49	7.13
#2 (5-42) 1.00%		12.0 11.0		5.03	27.92	20.91	7.01
#3				4.71	28.24	21.33	6.91
#4				5.02	27.93	21.75	6.18
10+80 #5 D.E. East of Noyes				4.76	28.19	22.17	6.02
	T.P.	1.00	25.15	8.80	24.15		
				11.56	13.59	13.58 B.M. S.E. Cor. Olney & Reed.	

Alley - North of Oliver St - & Pendlton to D.E. West of Olney and East to Quincy

	+	H.I	-	Elev	Grade Reed & Olney 13.58 B.M.	Cut.
	0.38	13.96				
	3.73	4.18	12.91	1.05		
	5.72	4.86	5.04	-0.86		
West of Quincy #6 D.E.			4.85	+ 0.01	- 2.82	2.83
#5			4.97	-0.11	- 3.02	2.91
#4			5.07	-0.21	- 3.22	3.01
#3 (6-50) 0.42			5.24	-0.38	- 3.42	3.04
#2			5.14	-0.28	- 3.62	3.34
#1 T.P.			5.31	-0.45	- 3.82	3.37
3+00 M.H. # 93 East Interceptor			5.63	- 0.77	- 4.02	3.25
#1 T.P.	5.01	4.15	5.72	- 0.86	- 3.83	2.97
#2 (6-49 23)			4.91	- 0.76	- 3.64	2.88
#3			4.83	- 0.68	- 3.84	2.76
#4			5.00	- 0.85	- 3.25	2.40
#5			4.99	- 0.84	- 3.06	2.22
5+90 M.H. # 593 0.40			5.28	- 1.13	- 2.86	1.73
#1			5.32	- 1.17	- 2.67	1.50
#2			4.46	- 0.31	- 2.48	2.17
#3 T.P. (6-49 23)	12.71	13.76	3.10	1.05	- 2.29	3.33
#4			10.44	3.32	- 2.09	5.41
#5			8.12	5.64	- 1.90	7.54
8+80 & Olney M.H. # 594			7.09	6.67	- 1.70	8.37
#1			6.04	7.72	- 1.30	9.02
#2 0.80			5.31	8.45	- 0.90	9.35
#3 (7-50)			4.74	9.32	- 0.50	9.82
#4			4.41	9.35	- 0.10	9.45

-0.76 Oliver & Pendlton

44

13.58
42
14.00 H.I.
12.96
1.04 T.P.
2.88
4.92 H.I.
4.70
0.22 T.P.
5.42
5.64 H.I.
5.42
0.22

	+	H.I.	−	Elev.	Grade	Cut
		13.76				
#5	0.80%		3.20	10.56	+0.30	10.26
#6			1.73	12.03	+0.70	11.33
#7 D.E. 12+30 350' W. of Olney.			0.45	13.31	+1.10	12.21
			0.18	13.58	13.58 B.M. Reed & Olney.	

Alley - North of Pacific - & Pendlton east to Quincy St.

					Pendlton & Olives B.M. −0.76	
	5.23	4.47				
& Pendlton 0+00 M.H. #91			4.98	−0.49	−4.81	4.32
#1			5.34	−0.87	−4.69	3.82
#2			5.32	−0.85	−4.57	3.72
#3	0.24% (6−50)		5.82	−1.35	−4.45	3.10
#4			5.27	−0.80	−4.33	3.53
#5 W. of Quincy			5.38	−0.91	−4.21	3.30
#6 D.E.			5.54	−1.07	−4.09	3.02

Alley - North of Missouri - Ingraham to Alley west of Allison -

	+	H.I.	−	Elev.	Grade	Cut.	
				98.92 BM. Nail in Tree bet. Chicadon & No.			
	0.19	99.11					
℄ Ingraham M.H. #242				3.01	96.10	87.20	8.90 6' South
#1				5.33	93.78	86.21	7.57
#2 (5-58)	1.70%			6.83	92.28	85.23	7.05
#3	T.P. 2.60	92.69		9.02	90.09	84.24	5.85
#4 2+90 M.H. #241				3.64	89.05	83.26	5.79
#1				4.14	88.55	82.27	6.28
#2	0.70%			4.81	87.88	81.86	6.02
#3 (5-58)				5.03	87.66	81.46	6.20
#4 5+80 ℄ Haines M.H. #240				5.15	87.54	81.05	6.49
				5.91	86.78	80.65	6.13
	4.41	91.73		5.37	87.32	80.24	7.08
#1				4.58	87.15	79.82	7.33
#2	0.73%			4.59	87.14	79.40	7.74
#3 (5-58)				4.98	86.73	78.97	7.78
#4 8+70 M.H. #239				5.74	85.99	78.55	7.49
				6.45	85.28	78.12	7.16
#1				6.35	85.38	77.76	7.62
#2 (5-58)	0.72% T.P.			6.43	85.30	77.40	7.90
#3	9.24	94.54		9.45	85.09	77.04	8.05
#4 10+20 Connect to #5 E.L. Gresham	T.P. Exist. Sewer			8.88	85.66	76.68	8.98
				11.40	93.14	76.32	6.82

94 54
0.94
93 60

Noyes Street from Alley North of Thomas Ave to Alley North of Pacific Ave.

	+	HI	-	Elev.
BM SW R W Hub Oliver & Noyes	4.94	7.80		3.36
TP	11.86	17.76	1.90	5.90
TP	12.95	30.37	0.34	17.42
TP	9.76	39.04	1.09	29.28

200' East of Noyes Alley N of Thomas

0+00	0+50	1+00	1+50	2+00 DF
22.35	23.50	29.65	25.80	26.95
16.69	15.59	19.39	13.24	12.09
16.98	5.09	3.18	1.93	1.61
C10.48	C10.95	C11.21	C11.81	C10.98

250' East of Noyes on Reed

0+00	0+50	1+00	1+50	2+00	2+50 DF
6.91	8.61	10.31	12.01	13.71	15.41
17.19	15.44	13.74	12.04	10.34	8.64
10.41	7.93	5.56	2.84	1.90	2.66
6.73	C7.51	C8.18	C9.20	C8.44	C6.56

BM 13.64
+10.41
24.05

BM. 3.45
+12.50
15.95

150' East of Noyes Alley N of Oliver

0+00	0+50	1+00	1+50 DF
-1.14	-0.39	0.36	1.11
	16.32	14.59	19.84
	10.15	6.54	4.69
	6.19	C8.05	C10.16

Mn Hole # 561

0+00	#1	#2	#3	#4 # 560
	.040	.098	.095	.057
22.35	21.95	21.47	20.89	20.92
16.69	17.09	17.57	18.05	9.95
6.94	6.80	7.28	8.17	1.09
C10.21	C10.29	C10.29	C9.88	C8.86

#1	#2	#3	#4 Drop Mn Hole # 5.59		#1
	.040	.038	.057		.078 .0875
20.02	19.54	19.06	18.99	10.41	9.67
10.35	10.83	11.31	11.88	19.96	20.71
1.90	2.89	3.55	3.75	3.75	6.60
C8.45	C7.99	C7.76	C8.13	C16.21	C14.11

#2	#3	#4 Mn Hole # 5.58 & Reed	#1	#2
.0875	.101	.169	.201	.201
3.79	7.49	6.81	5.22	3.21
24.58	9.84	10.85	12.59	14.55
9.55	0.34	4.12	7.06	9.27
C12.03	C9.50	C6.73	C5.48	C5.28

#3	#4 Mn Hole # 5.57	#1	#2	#3
.133		.070	.083	.083 .097
1.20	- 1.19	-1.84	2.67	3.50
6.60	8.99	9.69	10.97	11.30
1.90	4.35	5.01	5.68	5.61
C4.70	C4.59	C4.63	C4.78	C5.59

#4 Mn Hole # 5.56	#1	#2	#3	#4
.078	.078	.078	.078	.079
9.47	-5.25	- 6.03	- 6.81	- 7.60
12.27	13.05	13.83	14.61	15.40
5.64	6.72	8.20	9.28	10.99
C6.63	C6.33	C5.63	C5.33	4.46 -

Alley North of Illinois
from Noyes West to Harney Ext. 400

Mn. Hole #561

0+00	#1	#2	#3
0.52	0.52	0.52	0.52
22.35	22.87	23.39	23.91
16.69	16.17	15.65	15.13
6.48	10.20	11.39	11.94
10.21	C5.97	C4.26	C3.69

#4	#5	#1	#2
0.53	Mn Hole 0.52	0.52	0.52
24.43	29.96	25.98	26.00
14.68	19.15	13.63	13.11
8.92	5.68	9.33	3.36
C5.74	C8.47	C9.30	C9.75

#3	#4	#5 & Morrell #566	#1
0.52	0.53	Mn Hole 0.52	0.52
26.52	27.04	27.57	28.09
12.59	12.07	17.77	17.25
4.69	6.18	9.70	7.59
C7.90	C5.89	C8.07	C9.66

#2	#3	#4	#5 Mn Hole # 585 1565
0.52	0.52	0.53	
28.61	29.13	29.65	30.18
16.73	16.21	15.69	15.16
5.09	5.03	6.55	8.42
C11.64	C11.18	C9.14	C6.74

#1	#2	#3	#4
1565	1565	1565	1565
31.74	33.31	34.87	36.44
13.60	19.00	12.44	10.87
9.08	9.29	6.85	4.60
C4.52	C4.71	C5.59	C6.27

#5 Mn Hole # 586 & Lamont	#1	#2
0.23	0.24	0.23
38.00	38.23	38.47
9.31	9.08	18.93
2.64	0.54	7.79
C6.67	C8.54	C11.14

#3	#4	#5 Mn Hole #587	#1
0.24	0.23	0.23	0.24
38.70	38.94	39.17	39.40
18.69	18.45	15.23	18.00
6.16	5.17	9.57	3.98
12.53	C13.29	C13.66	C14.02

HI 39.00 BM
11.92
27.60
11.51
39.11
6.15
32.96
2.91
46.34
9.06
36.28
11.05
47.33
0.50
46.77
10.63
57.40
4.18
53.22
7.18
60.40
10.52
49.88
0.51
50.39
3.90
46.49
6.66
HI 53.65
0.82
TP 53.03
4.15
HI 57.18
0.98
56.20
9.97
65.67
12.78
52.89

#2	#3	#4	#5 Mn Hole & Kendall
0.23	0.23	0.23	0.23
39.64	39.87	40.10	40.33
17.76	17.53	20.30	20.07
4.09	4.15	6.62	8.01
C13.67	C13.35	C13.68	C12.06

#1	#2	#3	#4	#5 Mn Hole # 559
0.23	0.23	0.23	0.24	0.23
40.56	40.70	41.02	41.25	41.48
19.89	19.61	19.38	19.15	18.91
5.29	4.69	6.64	8.08	10.52
C12.55	C14.90	C12.74	C11.07	C8.39

#1	#2	#3	#4	#5 Mn Hole # 560 & Sinnett
0.23	0.23	0.23	0.24	0.23
41.72	41.95	42.18	42.41	42.65
8.67	8.44	8.21	7.98	7.70
3.18	4.50	5.16	7.75	4.73
C5.49	C3.94	C3.05	5.14	3.01
			C2.61	

#1	#2	#3	#4	#5 Mn Hole # 561
1.23	0.23	0.23	0.24	0.23
92.88	93.11	93.34	93.57	93.80
7.51	7.28	16.31	10.08	9.89
3.85	3.40	5.71	5.19	5.17
C3.66	C3.88	C4.60	C4.89	C4.67

#1	#2	#3	#4	#5 connect existing sewer	
0.19	0.21	0.19	0.20		
44.00	44.19	44.38	44.57	44.77	45.77
6.65	9.46	9.25	12.61	12.41	11.41
5.09	4.93	0.62	5.00	5.71	5.72
C4.56	C5.03	C8.63	C7.61	C6.70	C6.69

#1	#2	#3	#4	#5 MH #59
0.99	0.95	0.95	0.94	
46.71	47.66	48.61	46.56	50.50
10.47	18.01	17.06	16.11	15.17
0.98	7.13	5.82	4.75	4.66
09.99	10.88	11.24	C11.36	C10.51

#1	#2	#3	#4	#5
0.90				
50.83	51.16	51.49	51.82	52.15
14.84	14.51	14.18	13.85	13.53
4.90	5.33	5.50	6.11	6.93
C9.94	C9.18	C8.68	C7.74	C6.60

Alley North of Reed Ave
from Noyes St West to Jewel St

D Mh Hole #559
0+00 0.90E
10.91

#1	#2	#3
10.81	11.22	11.65
19.23	11.19	10.78
9.61	6.49	5.73
C9.62	C4.70	C5.05

Mh Hole #576 1.97

#4	#5	#1	#2
12.03	12.99	19.91	18.38
10.40	9.99	8.02	18.26
5.12	4.59	0.38	7.68
C8.28	C5.40	C7.64	C10.58

Mh Hole #577 0.35

#3	#4	#5	#1
18.35	20.32	22.30	22.65
16.26	14.32	12.35	17.03
3.68	1.83	0.05	9.89
C12.61	C12.39	C12.30	C12.14

#2	#3	#4	#5
23.00	23.35	23.70	29.05
10.68	16.33	15.95	15.63
4.59	5.10	4.79	5.31
C11.83	C11.23	C11.16	C10.32

Mh Hole #578 1.32

#6	#7	#1	#2
29.90	24.75	27.08	29.91
15.28	14.93	12.60	14.84
9.13	10.91	8.41	9.89
C6.15	C4.02	C3.99	C4.95

Mh Hole #579 1.26

#3	#4	#1	#2
31.74	39.07	35.38	36.62
12.51	10.78	8.90	6.63
5.91	3.74	2.01	0.10
C7.10	C6.44	C6.89	C6.53

Mh Hole #580

#3	#4	#5
37.90	39.18	40.95
14.72	13.44	12.47
7.63	6.85	6.25
C7.09	C6.59	C5.97

BM 26.62
+ 3.92
X 3.009
− .961
TP 2.043
+ 1.98
X 22.41
− 0.38
TP 22.03
+ 12.61
X 37.64
− 0.05
TP 36.59
+ 5.09
X 39.68
− 8.61
TP 31.07
+ 13.18
X 44.25
− .010
TP 44.15
+ 8.47
X 52.62
− .040
TP 52.58
+ 8.80
X 60.52
− 1.85
TP 58.67
+ 6.59
X 65.26
− 6.77
58.49
− .675
65.26
6.75
58.51

1.276

#1	#2	#3	#4
41.72	43.00	44.28	45.55
10.89	9.62	8.34	7.07
5.50	4.94	2.92	0.90
C5.39	C5.18	C5.92	C6.17

#5 #581 0.75

#1	#2	#3
46.83	47.58	48.33	49.08
13.69	12.94	12.19	11.44
7.92	6.97	5.52	4.67
C5.77	C6.47	C6.67	C6.77

#4	#5 Mh Hole #582	#1 0.68	#2
49.89	50.50	51.28	51.96
10.69	9.92	9.24	13.30
3.82	3.36	1.85	5.71
C6.87	C6.56	C7.39	C7.59

#3	#4
52.64	53.82
12.62	11.94
9.88	5.07
C7.74	C6.87

Alley North of Oliver W of Noyes

	+	+	−	Elev Station 3.95	Elev Grade −1.14	cuts +
Man Hole of 00 # 557 E Noyes 5-58's						
#1			9.37	5.15	12.4	+3.91
#2			5.61	8.91	3.61	+5.30
#3 7P	9.98	23.56	0.94	13.53	5.99	+7.59
#4			6.60	16.96	8.37	+8.59
#5 Man Hole #569 5-58's			4.70	18.86	10.75	+8.11
#1			5.04	18.52	11.21	+7.31
#2			9.55	19.01	11.68	+7.33
#3	6.59	28.81	1.34 2.02	22.22	12.14	+10.08
#4			3.07	25.74	12.61	13.13
#5 # 570 E Monroe			3.84	26.29	13.07	11.22
5-58's #1			4.89	23.92	14.46	9.46
#2			7.35	21.96	15.86	5.60
#3			7.44	21.37	17.25	4.12
#4	13.02	39.44	2.39	26.42	18.65	7.77
Drop Man Hole #5 # 571			6.86	32.58	20.03 26.50	12.55 6.08
5-50's #1			4.24	35.20	27.80	7.40
#2			2.56	36.88	29.10	7.78
#3	7.50	46.48	0.96	38.98	30.90	8.58
#4			6.76	39.72	31.70	8.02
#5 connect Existing Sewer			5.76	40.72	33.00	+7.72
0+00 5-50's			4.97	41.51	34.93	+7.08
#1			4.70	41.78	34.93	+6.85
#2			4.99	41.29	35.93	+6.86
#3			4.44	42.04	35.93	+6.11
#4			4.39	42.14	36.43	+5.71

	+	+ 4648	−	Elev		cuts
MH Hole #5 #573	12.37	54.55	4.30	92.18	36.93	5.25
5-50 #1			12.28	42.27	37.88	4.39
#2			10.69	43.86	38.83	5.03
#3			9.07	45.48	39.78	5.70
#4			7.21	47.34	40.73	6.61
#5 connect existing sewer			5.94	48.61	41.68	6.93
0+00 connect existing sewer			5.10	49.45	43.17	6.28
#1			3.82	50.73	44.12	6.61
#2			3.28	51.27	45.07	6.20
#3			2.78	51.77	46.02	5.75
#4	10.38	63.00	1.93	52.62	46.97	5.65
MH Hole #5 #575			9.12	53.88	47.92	5.96
4-52-50 #1			8.08	54.92	48.92	6.00
#2			6.08	56.92	49.92	7.00
#3			5.14	57.86	50.91	6.95
#4 VF			5.21	57.79	51.91	5.88
check on BM BP N.E Reed. Jewell	7.17	64.95	4.59	58.96		
				58.99		
				0.03 error		

Alley North of Pacific

	+	-		Elev	Elev Grade	
BM SSV Oliver's Hole	7.71	11.07		3.36		
0400					-7.60	Cuts
5-58						
#1			10.10	0.97	-6.27	+7.29
#2			8.31	2.76	-4.99	+7.70
#3			6.53	4.54	-3.61	+8.15
#4			3.80	7.27	-2.28	+9.55
#5 MH Hole #562			2.49	8.58	-0.93	+9.51
5-58						
#1			5.08	5.99	1.21	+4.78
#2	11.86	18.41	4.52	6.55	3.36	+3.19
#3			6.58	11.83	5.51	6.32
#4	13.23	29.70	1.99	16.47	7.65	+8.82
#5 MH Hole #563			10.55	19.15	9.80	+9.35
5-58						
#1			8.18	21.52	13.63	+7.89
#2	13.07	39.59	3.18	26.52	17.95	+9.07
#3			9.95	30.10	21.28	+8.86
#4			5.90	33.69	25.10	+8.59
#5 MH Hole #564			3.78	35.81	28.99	6.87
5-56						
#1			2.50	37.09	29.29	7.80
#2	6.64	43.44	2.79	36.80	29.64	7.16
#3			6.70	36.74	29.99	6.75
#4			6.33	37.11	30.34	6.77
#5 connect existing sewer			5.59	37.85	30.69	7.16
0400 5-56			5.82	37.82	31.65	5.97
#1			4.49	38.96	32.50	6.46
#2			4.29	39.15	33.35	+5.80
#3			3.49	39.95	34.20	5.75
#4	11.05	51.92	2.57	40.87	35.05	5.82

	+	+ 5192	−	Elev		
#5 #566			9.85	42.07	35.90	Co/s 6.17
5-50S						
#1			8.75	43.17	36.75	6.42
#2			7.48	44.44	37.60	6.84
#3			6.22	45.70	38.45	7.25
#4			4.77	47.15	39.30	+7.85
#5 connect existing sewer			5.51	46.41	4015	+6.26
0+00 connect existing						
5-50 " sewer			4.87	47.05	41.23	5.82
#1			3.62	48.30	41.73	6.57
#2	7.72	55.87	3.77	48.15	42.23	5.92
#3			7.53	48.34	42.73	561
#4			6.85	49.02	43.23	579
#5 #568			6.01	49.86	43.73	6.13
4-52-53						
#1			4.67	5120	4425	6.85
#2			3.92	51.95	44.78	7.17
#3			4.20	5167	45.30	6.37
#4 D.E.			4.36	5151	45.83	5.08
T.P.	8.54	60.94	3.97	52.40		
Check on BM #K 8D Reed & Jewell			2.45	58.49		
T P	1.81	54.08	8.67	5227		
Set BM SE Top NY Pacific & Jewell			4.52	49.26		

49.26
6.37
55.63
3.96
51.67

5587
5167
420

5587
420
5167

5587
5151
436

5563
420
5143

5563
436
5127

	+	+	−	Elev		
		51.92				
#5 2566			9.85	42.07	35.90	Cut 6.17
5-505						
#1			8.75	43.17	36.75	6.42
#2			7.98	44.44	37.60	6.84
#3			6.22	45.70	38.45	7.25
#4			4.77	47.15	39.30	+7.85
#5 connect existing sewer			5.51	46.41	40.15	+6.26
0+00 connect existing 5-50" sewer			9.87	47.05	41.23	5.82
#1			3.62	48.30	41.73	6.57
#2	7.72	55.87	3.77	48.15	42.23	5.92
#3			7.53	48.34	42.73	5.61
#4			6.85	49.02	43.23	5.79
#5 #568			6.01	49.86	43.73	6.13
4-52.5						
#1			4.67	51.20	44.25	6.95
#2			3.92	51.95	44.78	7.17
#3			4.20	51.67	45.30	6.37
#4 D.E.			4.36	51.51	45.83	5.08
T.P.	8.54	60.94	3.97	52.40		
Check on BM #568 Rock & Jewell			2.45	58.49		
T.P	1.81	54.08	8.67	52.27		
Set BM SE Top Hy. Hydrant & Jewell			4.52	49.26		

49.26
6.37
55.63
3.96
51.67

55.87
51.67
4.20

55.87
4.20
51.67

55.87
51.51
4.36

55.63
4.12
51.51

55.63
3.70
51.93

Alley Block 3. Venice Park

	+	↑	−	Elev	
BM. opposite 18+93	12.09	15.52		3.43	
0+00					−7.00
3-91 86					
#1			12.21	3.31	−3.31
T.P.	5.40	19.06	1.56	13.66	
#2			5.31	13.75 −	−0.07
Mu. Hole #					
#3 553 17+56 60			6.69	12.37	9.05
4-57 50					
#1			6.19	12.87	9.45
#2			6.99	12.07	4.95
#3			7.88	11.18	5.35
#4 Mu. Hole 37+55 60 554			8.54	10.52	5.46
4-57 50					
#1	10.94	22.93	7.57	11.49	6.58
#2			9.16	13.27	7.50
#3			7.44	14.99	8.42
#4 Mu. Hole 57+85 60 555			5.36	17.07	9.34
4-57 50					
#1			4.02	18.41	10.26
#2			3.44	18.99	11.18
#3			3.36	19.07	12.10
#4 DE 81+15 60	11.89	30.61	3.71	18.72	13.02
Set BM			2.04	28.57	
	5.88	18.25		12.37	
Mu. Hole #553			5.88	12.37 −	+9.05
4-36.08					
#1			4.85	13.90 −	+1.28
#2			8.91	9.34 −	−1.48
T.P.	3.45	8.62	13.08	5.17	
#3			10.79	−2.17	−9.29
#4			12.54	−3.92	−7.00

	.C.&
	+ 6.42
	+ 13.82
	+ 8.32
	+ 8.42
	+ 7.12
	+ 5.83
	+ 4.86
	+ 4.41
	+ 5.77
	+ 6.57
	+ 7.73
	+ 8.15
	+ 7.81
	+ 6.97
	+ 5.70
	+ 8.32
	+ 12.12
	+ 10.82
	+ 2.07
	+ 3.08

Alley Block 2 Venice Park

	11.84	15.31		3.93		
07 00					-7.00	C.S.
3-33 63						10.22
#1			6.88	8.93	-1.79	
TP	10.90	24.50	1.71	13.60		16.39
#2			4.74	19.76	3.42	
#3 Manhole #549 17.00 95			3.90	20.60 55	8.64	11.96
9-99-37						
#1			4.10	20.90	8.95	11.95
#2			9.61	19.89	9.26	10.63
#3			9.72	19.78	9.57	10.21
#4 Manhole #550 27.77 95			6.85	17.65	9.88	7.77
9-99-37						
#1			6.94	17.56	10.19	7.37
#2			7.81	16.69	10.50	6.19
#3	6.42	23.23	7.69	16.81	10.81	6.00
#4 Manhole 9.55 95 #551			6.01	17.22	11.12	6.10
6-50						
#1			4.76	17.19	11.77	5.42
#2			6.02	17.21	12.92	4.79
#3			5.56	17.67	13.07	4.60
#4			3.85	19.38	13.72	5.66
#5			3.08	20.15	14.37	5.78
#6 Manhole 7.55 95 #552			1.77	21.46	15.02	6.44
6-51 66						
#1	9.52	32.12	0.63	22.60	16.26	6.34
#2			7.71	24.41	17.99	6.92
#3			6.90	25.72	18.74	6.98
#4			5.96	26.66	19.98	6.68
#5			4.29	27.83	21.21	6.62
#6 DC - 10+65 95			3.50	28.62	22.46	6.16
T.P	3.98	32.43	3.67	28.45		

BM 19.76
+5.79
25.55
5.00
20.55
8.64
11.91

Alley Block 1 Venice Park

BM.	11.34	19.77		3.43		
T.P.	11.79	24.52	3.09	11.73	Elev Grade	Cuts
					-6.00	
0+00						
3-25 60						
#1			7.10	17.92	-1.29	+ 18.69
#2			4.60	19.42	3.51	+ 16.41
Mag Hole 485 30						
#3 #595			4.33	20.19	8.27	+ 11.92
6-56-25						
#1	5.59	26.48	3.63	20.89	8.66	+ 12.23
#2			5.27	21.21	9.05	+ 12.16
#3			4.87	21.61	9.45	+ 12.16
#4			4.79	21.69	9.84	+ 11.85
#5			4.72	21.76	10.23	11.53
Mag Hole 4723 30						
#6 #596			4.79	21.69	10.63	11.06
6-56 25						
#1			5.52	20.96	11.02	9.94
#2			6.82	19.66	11.91	8.25
#3	5.99	25.88	6.59	19.89	11.81	8.08
#4			7.97	18.41	12.20	6.21
#5			6.34	19.54	12.59	6.95
Mag Hole 7460 80						
#6 #597			6.61	19.27	12.99	6.28
4-50						
#1			6.06	19.82	13.49	6.33
#2			5.10	20.78	13.99	6.79
#3			4.85	21.03	14.49	6.54
#4			4.31	21.57	14.99	6.58
1+37 50 Δ 9°-23 30 R.						
9498 30	10.16	32.43	3.61	22.27	15.37	6.90
2-35 30						
#1			9.99	22.94	15.72	7.22
Mag Hole 10469 30						
#2 #598			10.00	22.43	16.08	6.35
6-50						
#1			8.99	23.94	17.48	6.46
#2			6.98	25.95	18.88	6.57
#3			5.84	26.59	20.28	6.31
#4			4.91	28.02	21.68	6.34
#5 13769 30			3.01	29.42	23.08	6.34
#6 DK			1.57	30.86	24.48	6.38

Alley Blocks 2 - Sterling Addition
Block 9-19-29 Fortuna Park Addition
Between Lamont & Segovia

				Elev 23.05		
Of 00 Mn Hole #475	1.26	24.31	–		-9.00	Cuts
3-28-93						
#1			19.05	10.26	-3.07	13.33
#2			5.97	18.84	2.86	15.98
#3 Mn Hole #539 0+86.50		Shiner	5.16	19.15	8.80	10.35
9-50-25						
#1			9.69	19.62	9.15	10.47
#2	8.64	29.03	3.92	20.39	9.50	10.89
#3			7.67	21.36	9.85	11.51
#4 Mn Hole 2+87.50 #535			6.83	22.20	10.21	11.99
9-50-25						
#1			6.03	23.00	10.56	12.44
#2			5.36	23.67	10.91	12.76
#3			4.98	24.05	11.26	12.79
#4 Mn Hole #538.50 & Roosevelt 3rd State East			4.74	24.29	11.62	12.67
6-56-25						
#1			4.71	24.32	12.01	12.31
#2			5.42	23.61	12.90	11.21
#3			6.98	22.55	12.80	9.75
#4	5.83	26.80	8.06	20.97	13.19	7.78
#5			6.96	20.34	13.58	6.76
#6 Mn Hole 872.50 #537			6.86	19.94	13.98	5.96
6-56-25						
#1			6.37	20.43	14.43	6.00
#2			5.62	21.18	14.88	6.30
#3			5.01	21.79	15.33	6.46
#4			3.98	22.82	15.78	7.04
#5			3.20	23.60	16.23	7.37
#6 Mn Hole #463.50 #538 & Sunset			2.42	24.38	16.68	7.70
5-59-50						
#1	7.39	32.43	1.76	25.04	17.66	7.38
#2			6.73	25.70	18.64	7.06
#3			6.12	26.31	19.62	6.69

BM + 1.80 HI 24.81 23.01

		32.93				Cuts
#9			5.87	26.61	20.60	6.01
#5 Mn Hole 19736 30 7539 & Cinco 6-57-50			4.64	27.79	21.58	6.21
#1			3.81	28.62	22.61	6.01
#2			2.57	29.86	23.65	6.21
#3	7.45	38.67	1.21	31.22	24.68	6.54
#4			6.44	32.23	25.72	6.51
#5			5.27	33.40	26.75	6.65
#6 DE 17481 30			4.00	39.67	27.79	6.88
T.P.	3.59	35.47	6.79	31.85		
CHECK. to DE						
Alloy Blow Vents Park			4.63	30.84		
				30.86		
				0.02		
BM	1.80	24.81		23.01		Cuts
Mn Hole 4-21-703			5.74	19.07	+3.80	10.27
#1			6.14	18.67	+4.29	14.38
#2			6.81	18.00	-0.22	18.22
T.P.	1.48	13.18	13.11	11.70		
#3			5.88	7.30	-4.73	12.03
T.P.	6.72	8.77	11.13	2.05		
			10.54	-1.77	-9.00	7.23
			11.89	-3.12		

20.77 910

857 | 1780 | 20.77
1714 | 17140
6600
5998
6.010

20.96
2120
14320
2096
4092
44308.20

87 | 1780 | 20.45
174
900
848
320
522

4.99
3
13.32
421
17.53 4092
4.21 970

2.70
86.8

20.50

888 | 1750
1736
14900
4390
60

2030
2170
19350
20300
4100
4.04850

2030
2060
123000
4100
4.23000

4.95
3
1335
922
1.354

E of Roosevelt from Mn Hole # 536
to Mn Hole # 540 E Roosevelt - Alley Blocks
18-8 Fortuna Park + Block 1 Sterling Addition

0+00 Mn Hole # 536	Add from 6+17	3051		2934	11.62	
5-58						
#1			5.28	25.23	12.20	13.03
#2			4.54	25.97	12.78	13.19
#3			9.34	26.17	13.36	12.81
#4			9.59	25.92	13.94	11.98
Mn Hole # 540 2+90					1452 Drop	10.78 Drop.
#5			5.21	25.30	1770	7.60
6-56 33						
#1	9.84	31.32	9.03	26.98	18.09	8.39
#2			9.90	26.42	18.98	7.94
#3			5.98	25.34	18.88	6.96
#4			5.91	25.41	19.27	6.14
#5			5.32	26.00	19.66	6.34
Mn Hole 6+70 50						
#6 # 542			4.47	26.85	20.06	6.79
6-56 35						
#1			3.42	27.90	20.90	7.00
#2			2.31	29.01	21.75	7.26
#3	9.63	38.95	2.00	29.32	22.59	6.73
#4			8.73	30.22	23.94	6.78
#5			7.86	31.09	24.28	6.81
Mn Hole 9+65						
#6 # 543 & Sunset			7.05	31.90	2513	6.77
5-54 55						
#1			4.36	34.59	26.11	8.48
#2			2.86	36.09	27.09	9.00
#3			1.36	37.59	28.07	9.79
#4			1.09	37.86	29.05	8.81
Mn Hole # 544 & Chico 12+37 50						
#5	10.02	96.82	2.15	36.80	30.03	6.77
6-59						
#1			9.36	37.96	31.06	6.90
#2			7.65	39.17	32.10	7.07
#3			6.00	40.82	33.13	7.69

468

						cuts
#4			4.34	42.98	34.17	8.31
#5			3.07	43.75	35.20	8.55
#6 D.E. 1548 50			2.40	44.42	36.24	8.18

Alley Block 28 Fortuna Park
East of Rand all Between La Plaza at Roosevelt.

B.M. T.P. 56 N Mn Hole # 590	6.05	32.53		26.48		
0+00 Mn. Hole #590					14.52	
6-50'						
#1			9.83	27.70	14.87	12.83
#2			9.67	27.86	15.22	12.64
#3			9.29	28.29	15.57	12.72
#4			9.99	27.59	15.92	11.67
#5			5.44	27.09	16.27	10.82
#6 Mn Hole #591 3+60			6.14	26.39	16.62	9.77
6-50'						
#1	3.81	29.48	6.86	25.67	16.97	8.70
#2			4.27	25.21	17.32	7.89
#3			4.82	24.66	17.67	6.99
#4			4.31	25.17	18.02	7.15
#5			6.34	23.14	18.37	4.77
#6 D.E. 6+00			6.13	23.35	18.72	4.63
Check on BM			6.39	23.09 (23.05, 0.04)		

Southern Interceptor & La Playa from Pump House #2 West to Connection with Existing Sewer in Braemar Addition & Dawes

BM		30.33	2305		
0+00 Pump House 7.28			9.29	19.10	
3-26					
#1			8.10	22.23	19.02	3.21
#2			7.40	22.93	18.93	4.00
#3 0+78 Mn Hole #74			7.40	22.93	18.85	4.08
6-98.33						
#1			7.28	23.05	18.69	4.36
#2			6.38	23.95	18.54	5.41
#3			5.89	24.44	18.38	6.09
#4			5.54	24.79	18.23	6.56
#5			4.33	26.00	18.07	7.97
#6 3+68 Mn Hole #73 Set Spike			3.80 3.56	26.53	17.92	8.61
6-98.33						
#1			2.38	27.95	17.76	10.19
#2	3.05	31.51	1.87	28.46	17.61	10.85
#3			2.76	28.75	17.95	11.37
#4 Set BM SW Shasta RR Spk. pole			3.13 1.84	28.38 2.967	17.30	11.08
#5			4.03	27.98	17.19	10.37
#6 6+58 Set Spike Mn Hole #72			5.47	26.04	16.99	9.05
6-98.33						
#1			6.14	25.37	16.83	8.54
#2			7.26	24.25	16.68	7.57
#3			7.17	24.34	16.52	7.82
#4			7.29	24.22	16.37	7.85
#5			7.23	24.28	16.21	8.07
#6 9+96 Mn Hole #71 Split Angle N Face	6.42	30.60	7.33	24.18	16.06	8.12
6-98.33						
#1			6.16	24.99	15.90	8.54
#2			5.93	24.67	15.75	8.92
#3			5.30	25.30	15.59	9.71
#4			5.08	25.52	15.43	10.09

	+	T	−	Elev		+	
		30.60					
#5			9.67	25.93	15.28	10.65	
12+38 Split angle set N.E. ast					20.00	5.58	
#6 Mn Hole # 70			5.02	25.58	18.32	7.26	Double drop
6-98 33					15.12	10.46	Mn. Hole
#1			9.60	26.00	14.96	11.04	
#2			5.05	25.55	14.81	10.74	
+ in & pavings Inspections S.N.							
#3			4.36	26.30	14.66	11.64	
#4			5.49	25.11	14.51	10.60	
#5		6.61	6.59	24.01	14.35	9.66	
15+28 Split angle set N.E. ast					15.70	7.79	
#6 Mn Hole # 69			7.13	23.99	15.50	7.93	Double drop Mn Hole
6-98 33					14.20	9.09	
#1			7.53	23.09	14.04	9.05	
#2			6.24	24.38	13.87	10.99	
#3			3.86	26.76	13.73	13.03	
#4			2.24	28.38	13.58	14.80	
#5		4.41	0.30	30.32	13.42	16.90	
18+18 Split Angle set N.E. ast					29.50	4.59	
#6 Mn Hole # 68			3.69	31.09	21.90	9.93	Double drop
6-98 33					13.27	17.82	Mn Hole
#1			3.63	31.10	13.11	17.99	
#2			9.40	30.33	12.96	17.37	
#3			6.02	28.71	12.80	15.91	
#4			7.93	26.80	12.65	14.15	
#5			10.12	24.61	12.99	12.12	
21+08 Split Angle Set South East					16.00	7.07	
#6 Mn Hole # 67		2.77	11.66	23.07	12.39	10.73	Drop
5-95 33							
#1			4.55	21.29	12.19	~~11.30~~ 9.10	
#2			5.66	20.18	12.05	~~12.53~~ 8.13	
22+45.30 Set N.E. ast					11.90	7.12	
#3 Mn Hole # 66 160 N to E			6.82	19.02	5.30	13.72	Drop.
5-95 Excavation							
#1			6.55	19.29	5.21	14.08	
#2			6.11	19.73	5.12	14.61	
#3			5.61	20.23	5.03	15.20	
DE 1+60			5.31	20.53			

24.61
4.27
28.88
5.53
23.35
12.39
11.01

28.38
2.07
26.81

						CUT
		25.84 ↑				
#4			5.08	20.76	4.94	15.82
84+70.80 Mn Hole #65 135 N to DE						
#5			4.44	21.40	4.85	16.55
5-95°						
#1			3.96	24.88	4.76	17.12
#2	4.41	26.90	3.35	22.49	4.67	17.82
D Eon Lateral 1+35						
#3			3.87	23.03	4.58	18.45
#4			3.63	23.27	4.49	18.78
26+95.30 60 N. to DE						
#5 Mn Hole #64			3.82	23.08	4.40	18.68
5-95°						
#1			4.59	22.31	4.31	18.00
Offset DE Lateral stake			5.04	21.86		
#2			6.77	20.13	4.22	15.91
#3	1.22	18.26	9.84	17.04	4.13	12.91
#4			4.74	13.52	4.04	9.48
29+60.30						
#5 Mn Hole #63			7.00	11.26	3.95	7.31
5-95° E						
#1			8.14	10.12	3.85	6.27
#2			9.77	8.99	3.75	4.74
#3			9.43	8.83	3.65	5.18
#4			8.61	9.65	3.55	6.10
31+68.40 Lo 45.25 ℄ Tie Walk						
#5 Mn Hole #62			7.45	10.81	3.45	7.36
5-58.08						
#1			9.16	9.10	3.33	5.77
#2	5.07	12.88	10.45	7.81	3.22	4.59
#3			6.96	6.42	3.10	3.32
#4			6.74	6.14	2.99	3.15
34+38.50 ℄ of						
#5 Mn Hole #61			6.83	6.05	2.87	3.18
5-43.30 Set B.M. R.R. Spike in pole 60' N of N property line			3.66	9.22		
#1			5.64	7.24	2.87	4.37
#2			4.75	8.13	2.77	5.36
#3			3.46	9.42	2.67	6.75
#4			2.11	10.77	2.57	8.20

37+05 50		12.88				
Mn Hole					cuts	
#5 200	11.01	22.99	0.95	11.93	2.38	9.55
5-99 50						
#1			9.53	13.41	2.28	11.13
#2			8.12	14.82	2.18	12.64
#3			6.95	15.99	2.08	13.91
#4	8.23	25.90	5.77	17.17	1.98	15.19
39+52 50 165 N to Pt						
#5 Mn Hole # 59			7.38	18.04	1.88	16.16
5-99 20						
#1			6.57	18.83	1.78	17.05
#2			5.66	19.79 / ~~20.07~~	1.68	18.06 / 18.29
#3			5.25	20.70 15	1.58	19.12 18.37
Last 1.05 Shot						
#4	8.47	23.30	4.96	20.44 / ~~21.13~~	1.48	18.96 / 19.65
41+98 50				20.82		19.93
#5 Mn Hole # 58			4.58	~~21.59~~	1.39	20.20
5-58 5						
#1			3.28	20.02	1.27	18.75
#2			8.37	14.93	1.16	13.77
#3	0.59	11.84	12.06 5	11.25	1.04	10.21
#4			3.70	8.14	0.93	7.21
44+88 50						
#5 Mn Hole # 57			4.68	7.16	0.81	6.35
5-58 5						
#1			4.98	6.86	0.69	6.17
#2			4.98	6.86	0.58	6.28
#3			4.90	6.99	0.46	6.48
#4			4.88	6.96	0.35	6.61
47+78 50 & Level						6.68
#5 Mn Hole # 56	10.23	17.17	4.80	6.94	0.23	6.71 Tied West 12' x 18
4-48 75 5						
#1			9.14	8.03	0.13	7.90
#2			7.75	9.42	0.04	9.38
#3			6.95	10.22	-0.06	10.28
49+73 50						11
#4 Mn Hole # 55 △ 90-00-00 L			5.18	11.99	-0.16	12.15 Tied Due East 12' x 18'
5-58 5						
#1			5.76	11.41	-0.27	11.68

105' to 70 Pt 17.17
0+52.5
1+05
9.16
3.07

						cuts	
		17.17				4.96 4.66	
#~			6.36	10.81	-0.39	11.20	
#3			7.37	9.80	-0.51	10.31	
2 ℄	3.96	12.70	8.93	8.79	-0.62	9.36	
5+46 3.50							
#5 #5℄			9.57	8.13	-0.74	8.87	
5-59.5							
#1			5.36	7.34	-0.96	8.30	
#2			6.17	6.53	-1.17	7.70	
#3			7.03	5.67	-1.39	7.06	
#4			7.56	5.14	-1.60	6.74	
5+33.50							
#5 Manhole #53	△ 3.---.-k		8.24 TO	4.46 00	-1.82	6.28 5.82	Tied S.W 12' and 18'
4-93.35 S							
#		5.24 4.6 5.70	7.37	5.33	-1.98	7.31	
#2			6.05	6.65	-2.17	8.82	
#3			5.16	7.54	-2.35	9.89	
5+08.50							
#4 #52	△ 90-00-00 L		3.76 S.L	8.89	-2.53	11.47 37	Tied N E 12 and 18'
6-50.5							
#1			4.94	7.76	-2.73	10.49	
#~	0.62	7.03	6.29	6.41	-2.93	9.34	
#3			1.82	5.21	-3.13	8.34	
#9			2.90	4.13	-3.33	7.46	
#5			3.84	3.19	-3.53	6.72	
6+08.50							
#6 Manhole #51			4.75	2.28	-3.73	6.01	
6-50.5							
#1			6.14	0.89	-3.93	4.82	
#2			7.34	-0.31	-4.13	3.82	
#3			7.86	-0.83	-4.33	3.50	
#9			7.76	-0.73	-4.53	3.80	
#5			7.78	-0.75	-4.73	3.98	
6+08.50							
#6 connect existing sewer Braemar	3.91	3.57	7.37	-0.34	-4.93	4.59	
Check on Flow			8.47	-4.90	-4.93		
check on BM			328	0.29 5.10			

		↑ 357		
T.P.	8.52	8.21	3.88	−0.31
T P	8.64	13.78	3.07	5.14
T.P.	5.23	12.18	6.83	6.95
T.P.	13.08	24.33	0.93	11.25
T.P.	2.17	20.40	6.10	18.23
T.P.	6.39	17.26	9.53	10.87
T.P.	10.54	26.67	1.13	16.13
T.P.	9.92	33.18	3.41	23.26
T.P.	3.55	35.78	0.95	32.23
T.P.	6.32	30.68	11.42	24.36
Set BM St. Top Hydrant	Ingraham & La Playa		2.25	28.43
T.P.	3.38	29.30	4.76	25.92
T.P.	9.73	32.21	1.82	27.48
check on Starting B.M.			9.16	23.05

Alley Blocks 27-17-3 4 1/2 W
Fortuna Park Between Shasta + Kendall
Pacific & Laplaya

B.M. R.R. Spike Elev. 29.67						
Mon. Hole #73		5.95	35.62			
0700 6-56-23 S				8.85	26.77	17.92	9.85
#1				6.06	29.56	18.31	11.25
#2				5:35	30.27	18.71	11.56
#3				3.92	31.70	19.10	12.60
#4				3.12	32.50	19.49	13.01
#5		3.79	37.23	2.18	33.44	19.88	13.56
#6 8737 SC Mon. Hole # 529				3.69	33.54	20.28	13.26
6-56-25 S							
#1				3.99	33.24	20.67	12.57
#2				5.41	31.82	21.06	10.76
#3				6.60	30.63	21.46	9.17
#4				7.63	29.60	21.85	7.75
#5				8.15	29.08	22.24	6.84
#6 6775 Mon. Hole # 530 ✓ E. Roosevelt		7.83	36.95	8.11	29.12	22.64	6.48
6-56-25 S							
#1				7.23	29.72	23.26	6.46
#2				6.83	30.12	23.87	6.25
#3				6.22	30.73	24.49	6.24
#4				5.38	31.57	25.11	6.46
#5				5.76	31.19	25.73	5.46
#6 10432 SC ✓ Mon. Hole # 531				3.97	32.98	26.35	6.63
6-56-25 S							
#1				3.37	33.58	26.97	6.61
#2		8.90	43.10	2.75	34.20	27.59	6.61
#3				8.62	34.48	28.20	6.28
#4				7.80	35.30	28.82	6.48
#5				6.92	36.18	29.44	6.74
#6 13750 Mon. Hole # 532 ✓				5.63	37.47	30.06	7.41
5-56 SC							
#1				3.65	39.45	31.26	8.19

93.10

#2			2.60	90.50	32.96	8.04
#3	10.97	51.99	1.58	91.52	33.65	7.87
#4			8.28	93.71	34.85	8.86
#5 (1+7=50 + 533 5-50)			7.71	94.28	36.05	8.23
#1			4.67	97.32	37.15	10.17
#2			3.30	98.69	38.25	10.44
#3			2.95	99.54	39.35	10.19
#4			2.40	99.59	40.95	9.14
18+7=50 #5 DE			1.85	50.14	41.55	8.59
TD	6.02	46.82	11.19	90.80		

		↑ 42.58	-	E/W		
#2			3.43	45.15	36.49	8.66
#3	8:10	54.41	2.27	46.31	37.12	9.19
#4			7.24	47.17	37.75	9.42
16412 80 ✓ MH Hob #527 #5 3-52 S			6.47	47.94	38.38	9.56
#1			5.28	49.13	39.00	10.13
#2			4.93	49.48	39.63	9.85
#3			4.39	50.07	40.25	9.82
#4			4.09	50.32	40.88	9.99
18472 50 #5 DE ✓			3.59	50.82	41.50	9.32
CHECK on BM SL Summit Facific	0:17	50.07	5.11	49.30		

Alley Blocks 25-15-5 & 5½

Fortuna Park · Between Jewel & Yosemite

BMSE Tophy Jewell & Pacific						
0+00 Mn Hole #71	3.29	27.96		29.17	16.06	601
6-56-25						
#1			5.35	2211	1667	544
#2			6.11	2135	1729	406
#3			5.92	2154	1790	364
#4			5.71	2175	1852	323
#5			5.18	2228	1917	311
3+37 50						
#6 Mn Hole #517			9.69	22.77	19.76	301
6-56-25						
#1			4.11	2335	2004	331
#2			3.53	2393	2032	361
#3			2.56	2490	2060	430
#4	7.72	33.86	132	26.19	2089	505
#5			6.85	2701	2118	584
6+75						
#6 Mn Hole #518			5.89	2797	2146	651
6-56-25						
#1			5.74	28.42	2191	651
#2			5.22	28.64	2236	628
#3			4.99	2887	2281	606
#4			5.00	2886	2326	560
#5			4.76	2910	2371	539
10+12 50						
#6 Mn Hole #519			4.16	2970	2916	554
6-56-25						
#1			3.33	3053	2528	525
#2			2.35	3151	2641	510
#3	1.11	43.73	1.24	32.62	2753	509
#4			9.97	3374	2866	508
#5			8.82	3491	2978	513
13+50						
#6 Mn Hole #520			7.44	3629	30.91	538
5-52-25						
#1			5.92	37.81	31.64	617

		4373					cut
#2				4.89	38.89	32.38	651
#3				4.07	39.66	33.11	655
#4				3.26	40.47	33.85	662
16+12 50 #5 Mh Hole #52 5-52.5				2.70	41.03	39.59	644
#1	8.66	50.07		2.32	41.41	35.32	609
#2				8.29	41.82	36.05	578
#3				7.56	42.51	36.78	573
#4				6.74	43.33	37.51	582
16+72 50 #5 D.E				6.28	43.79	38.23	556
Alley Block 35 Fortuna Park Scotlotta							
	8.19	32.38		8.19	24.19	16.06	813
05.00 6-50 #1				7.27	25.11	16.46	865
#2				6.21	25.17	16.86	931
#3				5.18	27.20	17.26	994
#4				5.27	27.11	17.66	945
#5				5.34	27.04	18.06	898
#6 #522 3400 6-50.83				5.67	26.71	18.96	825
#1				6.08	26.30	18.88	742
#2	8.20	34.23		6.35	26.03	19.30	673
#3				8.06	26.17	19.42	645
#4				8.04	26.19	20.14	605
#5				8.46	25.77	20.57	520
#6 connect Crown Point Corner				7.87	26.36	21.00	536

Alley Blocks 89-19-14. = 4Ke
Fortuna Park Addition Between Ingraham
+Yosemite La Playa & Pacific Ele. cheuk this

BM Set Top 4" Sq. Lo S. in Brick	471	33.14	7.56	28.93 25.58	20:00	558
0+00 My Hole 6-56-25			9.58	28.56	20.39	817
#1			9.57	28.57	20.79	778
#2 0/0			9.80	28.39	21.18	716
#3 0.70			9.59	28.55	21.57	698
#4			9.39	28.75	21.97	678
#5			3.47	29.17	22.36 ✓	681
3+37.50 #6 My Hole #511 6-56.25			3.82	29.32	22.75	657
#1	9.39	38.71	9.05	29.66	23.14	652
#2 0/0			8.85	29.86	23.54	632
#3 0.70			8.10	30.61	23.93	668
#4			7.95	31.26	24.32	694
#5			6.91	31.80	24.72 ✓	708
6+73 #6 My Hole #512 6-56 & Reset			5.20	33.51	25.33	818
#1			6.09	32.62	25.95	667
#2 0/0			5.64	33.07	26.56	651
#3 1.10			9.30	34.41	27.18	713
#4			3.66	35.05	27.80	725
#5			2.69	36.02	28.43	459
10+12.50 #6 #513 6-56	10.83	46.85	10.04	36.81	29.55	726
#1			8.77	38.08	30.68	740
#2 0/0			7.26	39.59	31.80	779
#3 2.00			6.42	40.93	32.93	750
#4			5.67	41.18	34.05	713
#5			5.08	41.77	35.18	659
13+50 #6 Mn. Hole #514 5.52-50			4.06	42.79	35.55	724
#1 0.10 0/0						

46.85

#2			3:10	43.75	3597	783
#3			2.49	44.36	3629	807
#4			1.91	44.94	3666	828
16712.50 Manhole #5 515 5-52.50	4.34	49.65	1.59	45.31	3702 ✓	829
#1			4.32	45.33	3738	795
#2 0.10%			4.78	44.87	3774	713
#3			5.90	44.25	3810	615
#4			5.95	43.70	3847	523
18572.50 #5 DE offset corner BM SE 7th Hy Sewell & Pacific			5.57	44.08	3884 ✓	524
			0.36	44.29	44.26	
		Alley Block 34. South Lo Plano		28.93		
BM S.E. 7th Hy Intersection Pacific #10 0+00 6-50	2.65	31.08			18:32	
#1			3.59	27.49	1867	882
#2 0.70%			4.11	26.97	1902	795
#3			5.01	26.07	1937	670
#4	7.44	33.06	5.46	25.62	1972	590
#5			7.41	25.65	2007	558
3+00 #6 Manhole 516 6-50.63			6.73	26.33	20.42 ✓	591
#1			5.15	27.91	21.18	673
#2 0.70%			3.47	29.59	2194	765
#3 1.50%			2.76	30.30	2270	760
#4	3.23	34.23	2.06	31.00	2346	754
#5			2.81	31.42	2423	719
4+05 connect exist Manhole Sewer #6			2.26	31.97	2500 ✓	697

Alley Block 36 Fortuna

	+	−	Elev		
	Park 2.41	31.88	29.67		
0+00 = DE 5-52-90 S			3.99	27.89	20.80
#1			9.17	29.71	20.91
#2	5.96	31.63	4.21	27.67	20.02
#3			9.32	27.31	19.65
#4			4.54	27.09	19.27
#5 Mh Hole # 528 (2.62') 5-52-90 S			4.71	26.92	18.89
#1			5.16	26.47	18.51
#2			5.74	25.89	18.13
#3			6.39	25.24	18.75
#4			7.24	24.39	18.37
#5 5 ft Q concrete existing Mh Hole			18.63 (9.25)	13.00	17.00
T.P.	4.22	31.89	3.96	27.67	
check on B.M.			2.22	20.67	

+	
7.09	
7.30	
7.65	
7.66	
7.82	
8.03	
7.96	
7.76	
6.99	
6.02	

24.39
3.43
27.82
5.90
17.90
5.40

Allen Block 523, 13. 3

BM S.E. for Hydrant Ingraham + Lapland	Between + 0.57	Ingraham + Promontory	Lapland + 28 93	+ Pavilion		
Obs. point on 0700 Hcal. 69 6-56.25			550	23 50	15 50	cuts 8.00
#1			6 31	22 69	16 56	6 13
#2			5 77	23 23	17 63	5 60
#3			5 11	23 89	18 70	5 19
#4			3 90	25 10	19 76	5 39
#5 3+37 50	9 76	36 16	2 60	26 40	20 83	5 57
#6 # 505 6 56.25			8 30	27 56	21 90	5 96
#1			7 13	29 03	23 25	5 78
#2			5 97	30 19	24 60	5 59
#3			4 80	31 36	25 95	5 91
#4			3 04	33 12	27 30	5 82
#5 6+75 & Roosevelt	12 21	46 92	1 95	34 71	28 65	6 06
#6 # 506 6-56 25			9 60	37 32	30 00	7 32
#1			7 29	39 63	30 67	8 96
#2			5 24	41 68	31 35	10 33
#3			3 93	42 99	32 02	10 97
#4	7 64	51 75	2 81	44 11	32 70	11 41
#5			6 79	44 96	33 37	11 59
#6 # 507 10+11 50 6-56.25			6 24	45 51	34 05	11 46
#1			5 38	46 37	34 44	11 93
#2			4 97	46 78	34 84	11 99
#3			4 60	47 15	35 23	11 92
#4			4 29	47 46	35 62	11 84
#5			3 83	47 92	36 01	11 91
#6 # 508 13+50 & Sunset 5-52 50			3 45	48 30	36 41	11 89
#1			3 77	47 98	36 78	11 20

	+	.+ 51.75	−	Elev	Elev Grade	+
#2	1.72	48.70	4.77	46.98	37.14	9.84
#3			3.51	45.19	37.51	7.68
#4			5.14	43.56	37.88	6.68
16+12.50 #5 #509 5-52.5			5.46	43.24	38.25	5.99
#1			5.22	43.48	38.61	4.87
#2			4.91	43.79	38.98	4.81
#3			4.69	44.01	39.34	4.67
#4			4.48	44.22	39.70	4.52
18+72.50 #5 D.R	9.74	54.92	4.02	44.68	40.07	4.61
		Alley	Block 33	South of La Playa		cut
0+0.0 Drop Inlet Mon. Hole #69 6-50'	5.99	29.48		23.49	15.70	7.79
#1			6.04	23.44	16.72	6.72
#2			6.15	23.33	17.74	5.59
#3	10.79	34.74	5.53	23.95	18.76	5.19
#4			10.19	24.55	19.78	4.77
#5			9.06	25.68	20.80	4.88
3+00 #4 #510 6-50-82'			7.80	26.94	21.82	5.12
#1			6.68	28.06	22.68	5.38
#2			5.73	29.01	23.59	5.47
#3			5.08	29.66	24.41	5.25
#4			4.91	30.33	25.27	5.06
#5			3.49	31.25	26.13	5.12
#6 6+05 connect existing Sewer Cross Point?			0.16	34.58	27.00	7.58

Alley Blocks 11, 12 - 2 ft
Fortuna Park Addition
Between Promontory & Haines, La Playa & Pacific

						cuts
0+00 Obl. Drop Mh. Hot 466	5.39	36.98		31.09	24.50	6.59
6-56 255						
#1			9.87	31.61	25.06	6.55
#2			7.18	32.30	25.63	6.67
#3			3.53	32.95	26.19	6.76
#4			3.01	33.47	26.75	6.72
#5	9.69	43.62	2.98	33.98	27.31	6.67
#6 3+37 50 #499			9.09	34.53	27.88	6.65
6-56 255						
#1			8.50	35.12	28.27	6.85
#2			7.37	36.25	28.66	7.59
#3			6.46	37.16	29.06	8.10
#4			5.61	38.01	29.46	8.55
#5			4.80	38.82	29.85	8.97
#6 6+75 (4+50) #500 & Roosevelt			3.95	39.67	30.24	9.43
6-56 255						
#1			3.44	40.18	30.80	9.38
#2			2.91	40.71	31.36	9.35
#3			2.15	41.47	31.92	9.55
#4	7.52	49.79	1.35	42.27	32.48	9.79
#5			6.85	42.94	33.04	9.90
#6 10+12 50 #501			6.25	43.54	33.61	9.93
6-56 255						
#1			5.75	44.04	34.06	10.04
#2			5.39	44.40	34.40	10.00
#3			5.07	44.72	34.79	9.93
#4			5.08	44.71	35.18	9.53
#5			6.00	43.79	35.57	8.22
#6 13+50 #502			6.85	42.94	35.97	6.97
5-52 502						
#1			6.97	43.32	36.60	6.72

10 12 6
6 35 15
3 37 5

		9979				
						cuts
#2			6.03	43.76	37.23	6.53
#3	10.20	54.42	5.57	44.22	37.86	6.36
#4			9.55	44.87	38.99	6.38
16+50 #5 & 503			9.35	45.07	39.12	5.95
8.32 #1			8.67	45.75	39.79	6.01
#2			7.76	46.66	40.37	6.29
#3			6.19	48.23	40.99	7.24
#4			4.22	50.20	41.61	8.59
18+72.50 #5 PC			1.36	53.06	42.24	10.82
		Alley East of Haines South of la Playa				
0+00 Del Drop #68	5.39	36.48		31.09	21.90	9.19
6-50° #1			5.52	30.96	22.90	8.56
#2			5.43	31.05	22.90	8.15
#3			5.49	30.99	23.90	7.59
#4			5.53	30.95	23.90	7.05
#5	10.10	91.40	5.18	31.30	23.90	7.40
3+00 #6 #509			9.79	31.61	24.90	6.71
6-50.83 #1			9.31	32.09	25.91	6.18
#2			8.47	32.93	26.93	6.00
#3			7.21	34.19	27.95	6.24
#4			5.68	35.72	28.96	6.76
#5			3.78	37.62	29.98	7.64
connect #6 existing Sewer			2.40	39.00	31.00	8.00
TP	0.16	34.74	6.82	34.58		
check			11.40	23.48		

80

Levels To Determine Elev of paving across Allison

	+	HI		Elev Top Paving	5" Paving Elev Bottom −0.42 Be
BM	3.13	3.13		0.00	
0+00 Flow Line at Mn Hole			5.71	−2.58	−2.55
0706 5' ± Bottom R Curb			6.25	−3.12	−3.12
0+07 E Gutter			5.92	−2.29	−2.71
0+18			4.97	−1.84	−2.26
0+22			4.75	−1.62	−2.04
0+50			4.52	−1.39	−1.81
0+66			5.32	−2.19	−2.61
0+75			5.90	−2.27	−2.69
0+87 W Gutter			5.99	−2.36	−2.78
Bottom W Curb			6.99	−3.36	−3.35

From Water Main to Pump House 180' on 10" C.I. overflow line

From Mn Hole to Pump House on overflow Line 206'

From Mn Hole to Entrance into pump House on Auxiliary Pump line 199.68

BM RR Spike Pole 80 N Estrella	9.89	19.11		9.22	
TP	8.15	26.32	0.94	18.17	
Check BM 3 Nail in Pole			4.30	22.02	
T.P.	5.36	26.52	5.16	21.16	
Set BM S.E. Top Hi Pacific + Gresham			3.11	23.41	
I.P.	8.12	29.81	4.83	21.69	
Set BM	2.18	25.70	6.29	23.52	SE Top Hi Fence Post

4.69

IMPROVED TABLES

AND

INFORMATION

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

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

TABLE No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

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

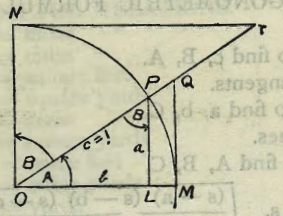


TABLE II

TRIGONOMETRIC FORMULÆ.

$\angle A = \angle MOP \qquad \angle B = \angle PON = \angle OPL$

$R = OB = c = 1$

$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$

$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$

$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$

$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$

$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$

$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$

$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B$ #

$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$

$\text{exsec } A = PQ = \text{coexsec } B$

$\text{coexsec } A = PT = \text{exsec } B$

$\sin \tfrac{1}{2} A = \sqrt{\frac{1 - \text{Cos } A}{2}} \qquad \cos \tfrac{1}{2} A = \sqrt{\frac{1 + \text{Cos } A}{2}}$

$\sin 2A = 2 \sin A \cos A \qquad \cos 2A = \cos^2 A - \sin^2 A$

Law of Sines $\frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$

Law of Cosines $c^2 = a^2 + b^2 - 2ab \cos C$

Law of Tangents $\frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$

TABLE II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

Given a, b, C; to find c, B, A.

Use Law of Tangents.

Given A. B. c; to find a, b, C.

Use Law of Sines.

Given a, b, c; to find A, B, C.

Let $\frac{a+b+c}{2} = s$, $\sqrt{\frac{(s-a)\ (s-b)\ (s-c)}{s}} = r$

$\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$

$\tan \frac{1}{2} A = \frac{r}{s-a}$

$\tan \frac{1}{2} B = \frac{r}{s-b}$

$\tan \frac{1}{2} C = \frac{r}{s-c}$

Area of a triangle:

Area $= \frac{1}{2}$ ab Sin C

Area $= \sqrt{s\ (s-a)\ (s-b)\ (s-c)}$

PRISMOIDAL FORMULA.

Vol. $= \frac{h}{6}(B+b+4M)$

h = altitude; b. B = bases; M = midsection

TABLE III
INCHES AND FRACTIONS OF AN INCH IN DECIMALS OF A FOOT

	0	1	2	3	4	5	6	7	8	9	10	11	
1/16	.0052	.0885	.1719	.2552	.3385	.4219	.5052	.5885	.6719	.7552	.8385	.9219	1/16
1/8	.0104	.0938	.1771	.2604	.3438	.4271	.5104	.5938	.6771	.7604	.8438	.9271	1/8
3/16	.0156	.0990	.1823	.2656	.3490	.4323	.5156	.5990	.6823	.7656	.8490	.9323	3/16
1/4	.0208	.1042	.1875	.2708	.3542	.4375	.5208	.6042	.6875	.7708	.8542	.9375	1/4
5/16	.0260	.1094	.1927	.2760	.3594	.4427	.5260	.6094	.6927	.7760	.8594	.9427	5/16
3/8	.0313	.1146	.1979	.2813	.3646	.4479	.5313	.6146	.6979	.7813	.8646	.9479	3/8
7/16	.0365	.1198	.2031	.2865	.3698	.4531	.5365	.6198	.7031	.7865	.8698	.9531	7/16
1/2	.0417	.1250	.2083	.2917	.3750	.4583	.5417	.6250	.7083	.7917	.8750	.9583	1/2
9/16	.0469	.1302	.2135	.2969	.3803	.4635	.5469	.6302	.7135	.7969	.8802	.9635	9/16
5/8	.0521	.1354	.2188	.3021	.3854	.4688	.5521	.6354	.7188	.8021	.8854	9688	5/8
11/16	.0573	.1406	.2240	.3073	.3906	.4740	.5573	.6406	.7240	.8073	.8906	.9740	11/16
3/4	.0625	.1458	.2292	.3125	.3958	.4792	.5625	.6458	.7292	.8125	.8958	.9792	3/4
13/16	.0677	.1510	.2344	.3177	.4010	.4844	.5677	.6510	.7344	.8177	.9010	.9844	13/16
7/8	.0729	.1563	.2396	.3229	4063	.4896	.5729	.6563	.7396	.8229	.9063	.9896	7/8
15/16	.0781	.1615	.2448	.3281	.4115	4948	.5781	.6615	.7448	.8281	.9115	.9948	15/16
1	.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167	1.000	1
	0	1	2	3	4	5	6	7	8	9	10	11	

TABLE IV
USEFUL RELATIONS.

Lineal feet	×.00019	= miles
Lineal yards	×.0006	= miles
Square inches	×.007	= square feet
Square feet	×.111	= square yards
Square yards	×.0002067	= acres
Acres	×4840	= square yards
Cubic inches	×.00058	= cubic feet
Cubic feet	×.03704	= cubic yards
Links	×.22	= yards
Links	×.66	= feet
Feet	×1.5	= links

360° = 21600′ = 1296000″

Radius = arc of 57.2957790°

Arc of 1° (radius = 1) = .017453292

Arc of 1′ (radius = 1) = .000290888

Arc of 1″ (radius = 1) = .000004848

$\pi = 3.141592654$

$\sqrt{\frac{1}{4}} = 0.564190$

$\frac{\pi}{4} = 0.785398163$

$\sqrt[3]{\frac{6}{\pi}} = 1.240700982$

$\frac{\pi}{6} = 0.523598776$

$\pi^2 = 9.869604401$

$\sqrt{\frac{4}{\pi}} = 1.128379167$

$\frac{1}{\pi^2} = 0.101321184$

$\frac{\pi}{6} = 0.523598776$

$\sqrt{\pi} = 1.772453851$

$\frac{4.\pi}{3} = 4.188790205$

$\frac{1}{\pi} = 0.3183099$

Curvature of Earth's surface = about 0.7 feet in 1 mile

Curvature in feet = 0.667 (Dist. in miles)²

Difference between arc and chord length, 0.05 feet in 11½ miles

Probable error of a single observation $= 0.6754 \sqrt{\frac{\Sigma v^2}{n-1}}$

Error in chaining of 0.01 feet in 100 feet:

Due to—

1. Length of tape error of 0.01 feet
2. Alignment. One end 1.4 feet out of line
3. Sag of tape at centre of 0.61 feet.
4. Temperature difference of 15°
5. Difference of pull of 15 lbs.

STADIA REDUCTION FORMULÆ.

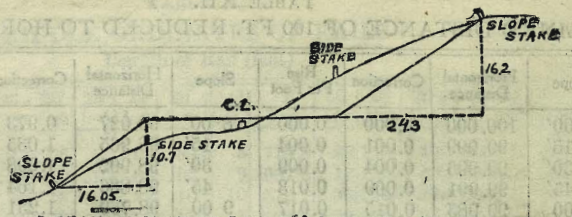
Horizontal Distance = R — R sin² a + C cos a

Vertical Distance = R ½ sin 2 a + C sin a

R = Reading × $\frac{\text{distance from Object glass to cross hairs}}{\text{distance between cross hairs}}$

C = distance from Object glass to cross hairs + distance from Object glass to center of instrument.

a = angle of elevation for mid Reading



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	71.25	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

Computed by L. Leland Locke.

Garnet St.

Haines - 67.04 S.E.
Ingraham - 62.54
Jewell - 68.63
Kendall - 65.89
Lamont - 65.93
Merrel - 66.30
Noyes - 62.02
Olney - 45.10
Pendlton - 36.05
Gresham - 53.98
Fanuel - 46.02
Everts - 39.52
Dawes - 32.54
Cass - 28.55
Allison - 15.42 N.W. Cor inside prop Line. Brass Plug Con. Stone

Diamond & Dawes - 51.29 inside SW. Prop. Line,
Chalcedony & Allison - N.E. - B.P. - 48.45