

1006

1856  
T. H. G. S. S. S. S.  
C. N. of P. Wood

THE END

# KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

## Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

On	From	To	
Alley Bet Herman & 32	Thorn	Thorn	1-2
Alley Bet Bancroft 33	Thorn	Upas	3-4
"	Myrtle	Urn	5-7
Urn	33	Bancroft	8
Bancroft	Urn	Lincoln	9
Lincoln	Bancroft	32	10
Alley bet Bancroft 32	Lincoln	D.E.	11-12
Alley bet 32	Iowa	Lincoln	610 S.
"	Polk	610 S	13
"	Polk	610 S	14
32	Lincoln	275 N Polk	15
Alley bet 32	Iowa	Polk	875 N
"	Polk	32 <sup>nd</sup>	E 80'
Alley bet Iowa	Illinois	Howard	610 S
Alley bet Ill.	Ohio	El Cajon	875 S
Alley bet Howard	El Cajon	Iowa	445 E
"	Ohio	310 <sup>th</sup>	21
Howard	32 <sup>nd</sup>	Iowa	22
Alley bet El Cajon Howard	Iowa	Ohio	23

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Some stakes beginning at pt. & Alley in Alley line (constructed) bet  
 Harmon & 3rd to intersection of Thorn & Alley bet Bancroft & 3rd st

	+ R	H.I	- R	Elev	Grade
B.M. R.R. SPK S.E. 30 <sup>th</sup> & Thorn	4.67	324.82		320.15	
T.P.	8.16	324.75	8.23	316.59	
T.P.	1.29	313.11	12.93	311.82	
T.P.	0.45	300.70	12.86	300.25	
T.P.	0.34	287.94	13.10	287.60	
T.P.	0.95		12.78	275.16	
		276.11			
0+0 = M.H. 92.7' N of $\phi$ Redwood		5.44		270.67	264.14
+50		4.14		271.97	264.74
1		6.79		269.32	265.29
+18 <sup>th</sup> M.H. Break		7.44		268.67	265.50
+50	3	7.80		268.31	266.01
2 Break		5.27		270.84	267.00
+50		4.73		271.38	268.77
3		1.99		274.12	270.54
T.P.	12.12	287.28	0.95	275.16	
+50		5.36		281.72	272.31
4		9.00		278.28	274.08
+50		7.82		279.66	275.75
5		6.75		280.53	277.62
+50	M.H. 11.37	298.26	0.39	286.89	279.39
+66 <sup>th</sup> = $\phi$ Alley bet 32 <sup>nd</sup> & Bancroft		8.81		289.45	280.00
T.P.	8.26	305.98	0.54	297.72	287.00
6+0 Break		6.58		299.40	292.50
+50		3.39		302.59	295.31
+79 <sup>th</sup> M.H. & Thorn		2.38		303.60	297.00

1/2<sup>nd</sup> Dunkle  
 543  
 Bunker

	CUT							
		286.89						
		5.77						
		292.88						
		15.35						
		280.63						
		292.88						
		280.00						
		12.88						
		5.88						
		299.40						
		9.71						
		304.11						
		72.50						
		11.61						
		274.12						
		3.27						
		277.39 M.						
		278.28						
		4.88						
		283.16 M.						
		83.16						
		72.31						
		10.85						
		83.16						
		74.08						
		9.08						
		83.16						
		75.93						
		7.31						
		83.16						
		77.62						
		5.54						
		83.16						
		9.39						
		3.77						
		269.32						
		6.77						
		276.09						
		76.09						
		65.29						
		10.80						
		76.09						
		4.74						
		76.09						
		64.19						
		11.90						

Sewer siks  $\frac{1}{2}$  Thorn St. from  $\frac{1}{2}$  Alley bet 32<sup>nd</sup> & Bancroft  
 to  $\frac{1}{2}$  Alley bet Bancroft & 33<sup>rd</sup>

B.M.	10.25	313.85	303.60		CUT
0+0 = M.H.		10.25	303.60	297.00	6.6 ✓
+50		9.78	304.07	298.41	5.7 ✓
1		8.90	304.95	299.83	5.1 ✓
+50	5	7.8	306.0	301.24	4.8 ✓
2		5.94	307.91	302.66	5.3 ✓
+50		3.74	310.11	304.07	6.0 ✓
3 M.H.		1.91	311.94	305.50	6.4 ✓

304.07	M.H.	7.50	140	1450	240
4.77	308.86	308.86	308.86	308.86	308.86
308.86 M.H.	297.00	8.86	9.89	1.24	2.06
	11.86	10.45	9.03	7.62	6.20
	310.11	2+50	M.H.		
	5.46	315.57	315.57		
	315.57 M.H.	304.07	305.50		
		11.50	10.07		

Scout stks & Alley bet Bancroft & 3rd from  
 & Thorn st to & UPas st

B.M.	9.16	321.10	311.94			
0+0 = M.H. & Thorn	9.16		311.94	305.50	6.4 ✓	
+50			7.37	313.73	305.83	7.9 ✓
1			6.67	314.43	306.17	8.3 ✓
+50			6.2	314.9	306.50	8.4 ✓
2			7.6	313.5	306.84	6.7 ✓
+50		5	8.62	312.48	307.19	5.3 ✓
3 M.H. break			8.3	312.8	307.50	5.3 ✓
+50			6.74	314.36	308.66	5.7 ✓
4			5.2	315.9	309.83	6.1 ✓
+50			3.38	317.72	310.99	6.7 ✓
5			2.01	319.09	312.16	6.9 ✓
+50	7.13	326.22	6.00	320.22	313.33	6.9 ✓
6			5.29	320.93	314.49	6.4 ✓
+43 <sup>5</sup> = M.H. & UPas			4.83	321.39	315.50	5.9 ✓

17.06  
 3.59  
 22.63

313.73  
 3.59  
 317.32  
 8.23  
 11.99

17.32	17.32	17.32	17.32	17.32	17.32	17.32	17.32
6.17	6.50	6.84	7.17	7.50	8.66	9.53	
11.15	10.82	10.48	10.15	9.82	8.66	7.49	

6.41  
 317.72  
 4.76  
 322.68  
 3.59  
 319.19  
 3.54

4.0	322.68	22.68	22.68	22.68	22.68	22.68	22.68
09.23	10.99	12.16	13.33	14.49	15.50	15.50	
12.85	11.69	10.52	9.35	8.19	7.18		

Saver st. @ UP 85 st from @ Alley <sup>South</sup> bet Bancroft & 33<sup>rd</sup>  
 To @ Alley (north) bet Bancroft & 33<sup>rd</sup> thence North in @ Alley to  
 @ Myrtle.  
 B.M.

	10.95	332.34	321.39	Grade	COY
0+0 = M.H. @ Alley South	10.95		321.39	315.50	5.9 ✓
0+49.7 = M.H. @ Alley North	11.7		320.6	316.00	4.6 ✓
1	10.2		322.1	316.29	5.8 ✓
+50	8.88		323.46	316.58	6.9 ✓
2	7.67	5	324.67	316.87	7.8 ✓
+50	6.30		326.04	317.16	8.9 ✓
3	5.23		327.11	317.45	9.7 ✓
+50	4.24		328.10	317.74	10.4 ✓
+94.7 = @ Myrtle	6.5		325.8	318.00	7.8

27.12	27.12	27.12	27.12	27.12	27.12
323.46	323.46	323.46	323.46	323.46	323.46
3.66	3.66	3.66	3.66	3.66	3.66
327.12	327.12	327.12	327.12	327.12	327.12
329.67	329.67	329.67	329.67	329.67	329.67
5.31	5.31	5.31	5.31	5.31	5.31
49.98	49.98	49.98	49.98	49.98	49.98
326.04	326.04	326.04	326.04	326.04	326.04
3.75	3.75	3.75	3.75	3.75	3.75
327.99	327.99	327.99	327.99	327.99	327.99
29.99	29.99	29.99	29.99	29.99	29.99
17.16	17.16	17.16	17.16	17.16	17.16
12.83	12.83	12.83	12.83	12.83	12.83
328.10	328.10	328.10	328.10	328.10	328.10
1.68	1.68	1.68	1.68	1.68	1.68
329.78	329.78	329.78	329.78	329.78	329.78
18.00	18.00	18.00	18.00	18.00	18.00
11.78	11.78	11.78	11.78	11.78	11.78

4

Sewer STS & Alley between Bancroft & 38th STs from  
 & Myrtle to & University Ave

B.M. SPK S.W. Myrtle & Bancroft.

2.62 332.28

329.66

0+0 = M.H. & Myrtle	6.5	325.8	318.00	7.8	
+50	6.78	336.69	318.21	11.7 ✓	
1.	5.8	330.9	318.42	12.5 ✓	
+50	5.3	331.4	318.63	12.8 ✓	
2	5.1	331.6	318.84	12.8 ✓	
+50	5.3	331.4	319.05	12.4 ✓	
3	7.30	329.39	319.26	10.1 ✓	
+40 M.H.	7.9	328.5	319.43	9.4 ✓	
+50	8.08	328.61	319.47	9.1	
4	9.04	327.65	319.68	2.0 ✓	
+50	10.35	326.34	319.89	6.5 ✓	
5	10.8	325.9	320.10	5.8 ✓	
+50	11.9	324.8	320.31	4.5 ✓	
6	12.7	324.0	320.52	3.5 ✓	
+50	11.37	336.97	325.60	320.73	4.9
+60 = M.H. & Dwight	11.1	325.9	320.77	5.1 ✓	
7	10.0	327.0	320.94	6.4 ✓	
+50	7.80	329.17	321.15	8.0 ✓	
8	6.11	330.86	321.36	9.5 ✓	

329.91	33.94	33.94	33.94	33.94	33.94	33.94
4.03	18.21	18.42	18.63	18.84	19.05	19.26
333.94 M.	15.73	15.52	15.31	15.10	14.89	14.68

328.61	32.34	32.34	32.34	32.34	32.34	32.34
3.73	19.43	19.68	19.89	20.10	20.31	20.52
332.34	12.91	12.66	12.45	12.24	12.03	11.82

330.86	35.84
4.98	21.36
335.84 M.	14.48

330.86	34.13
3.27	21.36
334.13 M.	12.77

329.17	M.H.	31.07	31.07	31.07	31.07	31.07
1.90		20.31	20.52	20.73	20.94	21.15
331.07 M.		10.76	10.55	10.30	10.13	9.92

329.17	M.H.	32.07	32.07	32.07
1.90		21.15	20.94	20.73
332.07 M.		10.92	11.13	11.30



		336.97 H.I.	-R	Elev	Grade	Cut						
8+50	+R		5.23	331.74	321.57	10.2 ✓	338.34 3.71 342.05 M	42.05 23.54 18.51	42.05 23.67 18.38	42.05 23.88 18.17	42.05 24.09 17.96	
9			4.0	333.0	321.78	11.2 ✓	340.33 4.14 344.47 M	44.47 24.30 20.17	44.47 24.51 19.96			
+50			3.7	333.3	321.99	11.3 ✓						
+80 M.H.			3.4	333.6	322.12	11.5 ✓						
10			3.14	333.83	322.20	11.6 ✓	334.13 21.57 24.75	34.13 21.78 12.56	34.13 21.99 12.35	34.13 22.22 12.14	34.17 22.01	
+50			2.16	334.81	322.41	12.4 ✓	331.74 3.02 334.76	34.76 21.99 12.77				
11	2.21	343.90	1.28	335.69	322.62	13.1 ✓	337.83					
+50			6.9	337.0	322.83	14.2 ✓	334.51 2.98 337.49 M	37.79 22.12 15.67	37.79 22.20 15.59	37.79 22.41 15.38	37.79 22.83 15.17	37.79 23.44 14.96
12			6.5	337.4	323.04	14.4 ✓	335.69 11.40 5.99 341.68	41.68 23.04 18.64	41.68 23.25 18.43			
+50			5.7	338.2	323.25	15.0 ✓						
13			6.0	337.9	323.46	14.4 ✓	339.81 4.17 343.98 324.50 19.68	346.30 5.02 346.32 M	46.32 24.72 21.60	46.32 24.89 21.43	46.32	
+70 M.H. & Landis			5.9	338.0	323.54	14.5 ✓						
+50			5.56	338.34	323.67	14.7 ✓						
14			4.6	339.3	323.88	15.4 ✓						
+50			4.09	339.81	324.09	15.7 ✓						
15			3.57	340.33	324.30	16.0 ✓						
+50			3.0	340.9	324.51	16.4 ✓						
16			2.60	341.30	324.72	16.6 ✓						
+40 M.H.			2.1	341.8	324.89	16.9 ✓						



Sewer & University Ave from & Alley between Dunkle  
 Bancroft & 33rd to & Bancroft  
 B.M. brass plg N.M. Univ. & Boundary

B.M.	4.94	338.38	333.44		
0+0 = M.H. & Alley		5.1	333.3	229.50 ✓	
0+50		4.3	334.1	<del>328.00</del>	5.3 ✓
				229.64 ✓	
1 11.7 stake		3.4	335.0	<del>328.57</del>	5.5
12.2 75.0				229.79 ✓	5.9
				<del>329.14</del>	
		2.0	336.4	229.93 ✓	6.9
				<del>329.71</del>	
+75 <sup>5</sup> M.H. & Bancroft		1.0	337.4	330.00	7.4 ✓

Grade changed 2000  
10' water north Univ. Av

5074

333.44  
~~5.68~~  
 339.04 M.H.

39.04  
~~29.50~~  
 9.54  
 ✓  
 32

39.04  
~~29.64~~  
 9.40  
 ✓

29.04 39.04  
~~29.79~~ ~~29.04~~  
 9.25 9.11  
 14.17  
 9.20  
 9.27 STR  
 9.17

~~37.04~~  
~~30.00~~  
 7.04

340.66  
~~29.93~~  
 10.73

8



Sewer stks & Lincoln from E Bancroft to E Alley bet Iowa & 32nd St

B.M.	6.23	347.11	342.88	
+50 = E Bancroft	6.23	342.88	335.00	
+50	4.8	344.3	335.26	
1	3.7	345.1	335.53	
+50	2.84	346.27	335.79	
+90 = M.H. <sup>break</sup> Alley bet Bancroft	2.68	346.43	336.0	
2	3.21	345.90	236.10	
+50	4.7	344.4	236.63	
3	5.4	343.7	237.15	
+50	5.12	343.99	237.68	
+80 = M.H. & 32nd St	4.88	344.23	238.00	
4	4.76	344.35	340.68	
T.P.	11.23	359.38	345.15	
+50	8.17	351.21	342.39	
5	5.57	353.80	344.10	
+50	4.08	355.30	345.81	
+70 = M.H. Alley bet 32nd & Iowa	2.42	356.96	346.50	

<del>342.21</del>	49.15	49.15	351.21	54.52	54.52
343.99	32.00	40.68	3.31	42.39	44.10
5.16			354.52	12.13	1042
349.15 M.H.	11.15	8.47			
355.30	57.74	57.74			
2.44	45.81	46.50			
357.74 M.H.	11.93	11.24			
348.27	346.27		47.84	47.84	47.84
2.66	1.57		35.00	35.26	35.53
348.53 M.H.	347.84 M.H.		12.84	15.58	12.31
343.99	48.04	48.04	48.04	48.04	47.84
4.05	36.10	36.63	37.15	37.68	36.00
348.04 M.H.	11.94	11.41	10.89	10.36	11.84

Sewer STRS & Alley bet. Bancroft & 3rd from  
 E of Lincoln south for 608' To D.E.

			346.43				
	3.42	349.85		339.00			
1040 = M.H. @ Lincoln		3.42	346.43	336.00	7.4		
+50					10.4		
		5.31	344.54	336.22	8.3	✓	
1		6.39	343.46	336.44	7.0	✓	
+50		8.0	341.9	336.66	5.2	✓	
2		9.2	340.7	336.88	3.8	✓	
+38 = end of C.I. pipe				337.05			
+50		11.86	337.99	337.10	0.9	✓	
+80				337.24			
3		11.62	338.23	337.32	0.9	✓	
+22 = end C.I. pipe				337.42			
+38 = M.H. break		10.4	339.5	337.50	2.0	✓	
+50		9.5	340.4	337.79	2.6	✓	
4	10.37	352.95	7.27	342.58	338.99	3.6	✓
+50		8.5	344.4	340.19	4.2	✓	
5		7.02	345.93	341.39	4.5	✓	
+50		5.73	347.22	342.59	4.6	✓	
6		4.23	348.72	343.20	4.9	✓	
+08 = D.E.		4.04	348.91	344.00	4.9	✓	
		4.20	348.75				

M.H.	3.50						
342.58	49.20	49.20	49.20	49.20	49.20	49.20	49.20
<u>6.62</u>	<u>37.50</u>	<u>7.79</u>	<u>3.99</u>	<u>0.19</u>	<u>1.39</u>	<u>2.59</u>	<u>3.80</u>
349.20	11.70	11.41	10.21	9.01	7.81	6.61	5.40
	✓	✓	✓	✓	✓	✓	✓
D.E.							
49.20				337.99	4490	4490	
<u>19.00</u>				<u>21.91</u>	<u>3210</u>	<u>3210</u>	
5.20				<u>44.90</u>	<u>780</u>	<u>754</u>	
				<u>36.88</u>			
				<u>8.02</u>			
							11
46.93	46.93	46.93	46.93				
<u>2.37</u>	<u>36.66</u>	<u>32.44</u>	<u>36.22</u>				
346.93	10.27	10.49	10.71				
	✓	✓	✓				
338.23							
<u>4.96</u>	43.19	43.19	43.19				
343.19	<u>37.10</u>	<u>37.05</u>	<u>37.24</u>	<u>37.42</u>			
	6.09	6.19	5.95	5.77			
		cut	Fill 110'	cut			

5000 Stks  $\phi$  Wiley bet Bancroft v. 32<sup>nd</sup> from  
 $\phi$  Lincoln North for 35<sup>th</sup> to D.E.

	3.42	349.25	346.43		
0002 M.H. $\phi$ Lincoln	3.42		346.43	336.00	7.4 ✓
+50	3.54		346.31	339.50	6.8 ✓
1	2.65		347.20	340.00	7.2 ✓
+50	2.1	b	347.5	340.50	7.3 ✓
2	1.9		348.0	341.00	7.0 ✓
+50	1.9		348.0	341.50	6.5 ✓
3	2.0		347.9	342.00	5.9 ✓
+52 D.E.	2.3		347.6	342.50	5.1 ✓

347.20	51.38	51.38	51.58	51.38	51.38	51.38	51.38
4.15	39.50	40.00	40.60	41.00	41.50	42.00	42.50
351.35	11.88	11.38	10.88	10.38	9.88	9.38	8.88
	✓	✓	✓	✓	✓	✓	✓

Senior strs & Alley bet 32<sup>nd</sup> & Iowa from  $\frac{2}{100}$  Dunkle  
 Lincoln south for 610' Shan  
 Ronker

B.M.	5.64	362.60	356.96	
0+0 M.H. & Lincoln	5.64	356.96	346.50	
+50	3.96	358.64	346.70	
1	3.96	358.64	346.91	
+50	4.19	358.41	347.11	
2	4.43	358.17	347.32	
+50	4.7	357.9	347.52	
3	4.8	357.8	347.73	
+10 M.H.	4.6	358.0	347.77	
+50	4.8	357.8	347.93	
4	5.6	357.0	348.14	
+50	6.1	356.5	348.34	
5	7.0	355.6	348.55	
+50	7.6	355.0	348.75	
6	8.6	354.0	348.96	
+10 D.E.	8.7	353.9	349.00	

Cut

10.4 ✓
11.9 ✓
11.7 ✓
11.3 ✓
10.8 ✓
10.4 ✓
10.1 ✓
10.2
9.9 ✓
8.9 ✓
8.2 ✓
7.0 ✓
6.3 ✓
5.0 ✓
4.9 ✓

358.64 3.12 361.78 M.	61.78 46.70 15.08	61.78 46.91 14.87	61.78 47.11 14.67	61.78 47.32 14.46
358.17 3.00 361.17 M.	61.17 47.52 13.65	61.17 47.73 13.44	61.17 48.04 13.03	61.17 48.25 12.62
358.17 1.83 360.00	5+0 60.00 48.55 11.45	4+50 60.00 48.34 11.66	60.00 48.14 11.86	60.00 47.93 12.07

35817 288 361.05 9875 11230	6105 9826 1209	6105 9800 1405
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Senior stks & Alley bet Iowa 3 3200 st from E  
 Polk south for 610' to D.E

B.M.		356.96	
	1.65	358.61	
020 = E Polk	3.5	355.1	344.00
+50	5.10	353.51	344.75
1	5.74	352.87	344.50
+50	5.27	353.34	344.75
2	6.9	351.7	345.00
+50	6.9	351.7	345.25
3 = M.H.	7.9	350.7	345.50
+ 37 1/2			346.04
+50	7.24	351.37	346.22
4	6.03	352.58	346.95
+50	5.0	353.6	347.67
5	4.02	354.57	348.40
+50	3:6.6	354.95	349.12
6	2:6	356.0	349.55
+10 D.E	2:4	356.2	350.00

35459	6023	6023	6023	6023	6023
50	00	4955	4912	4840	4767
86023	1023	1035	1111	1193	1256
11					14
35258	5563	5563	5563		
325	9695	9550	9550		
358.63 M	8.0	1013			
35637	5498	5498	5498		
35498	4609	4609	4609		
	8.84	9.98	1023		
352.87	57.22	57.22			
4.35	44.50	44.25			
357.22	12.72	12.97			
353.51	56.94	56.94			
3.43	44.00				
356.94 M	12.94				
345.00	57.48				
12.48	45.22				
357.48 M	12.26				

35170  
 5.89  
 35759

Sewer @ 32<sup>nd</sup> St from E Lincoln North for  
 950' or 275' N of E. Folk Ave

Dist.													
	9.03	353.02		343.99									
0.20 = E Lincoln			8.79	344.23	338.00	6.2 ✓	352.58 5.16	347.11	1.27				
+50			8.6	344.4	332.36	6.0 ✓	357.74 M		11.43				
1			7.84	345.18	332.74	6.4 ✓		57.74 47.11					
+50			7.06	345.96	339.10	6.9 ✓	345.18 3.47	48.60 48.60					
2			6.6	346.4	339.47	6.9 ✓	342.60 M 38.36						
+50			5.8	347.2	339.84	7.4 ✓	351.85 1.60	53.45	352.58 M	24.00	3	M.H.	
3			5.0	348.0	340.20	7.8 ✓	353.45 M 39.47	39.84		37.84	40.20	40.50	
+40 M.H.			4.4	348.6	340.50	8.1 ✓	98			12.74	12.38	12.08	
+50			4.2	348.8	340.57	8.2 ✓				345.85 52.58	40.57		
4			3.3	349.7	340.94	8.8 ✓	352.58 1.06	3536.4		54.56	54.56	54.56	
+50			2.8	350.2	344.30	8.9 ✓	353.64 M 340.94	41.30		41.67	42.04	42.40	
5			2.0	351.0	341.67	9.3 ✓	12.70	12.34		12.89	12.52	12.16	
+50			1.17	351.85	342.04	9.8 ✓				352.58 4.11			
6	6.30	358.88	0.44	352.58	342.40	10.2 ✓	352.58 2.04	54.62		54.62			
+50			5.8	353.1	342.77	10.3 ✓	354.62	42.40		42.77			
+80 M.H.			5.7	353.2	343.00	10.2 ✓		12.22		11.85			
7			6.2	352.7	347.25	6.2							
+50			5.36	353.52	347.89	5.5 ✓							
8			5.0	353.9	345.52	5.7 ✓							
+50			4.54	354.34	349.16	5.4 ✓							
9			3.87	355.01	349.79	5.2 ✓							
+55 D.E.			2.98	355.90	350.50	5.4 ✓							

Sewer stks & Alley bet 32<sup>nd</sup> & Iowa from 0.74%  
 & Polk St North for 870'

B.M.			353.51			
	8.44	361.95				
+0 = M.H. & Polk			355.1	344.00	11.1 ✓	
+50		6.22	355.73	344.22	11.5 ✓	
1		5.89	356.06	344.44	11.6 ✓	
+50		5.68	356.27	344.66	11.6 ✓	
2		4.78	357.17	344.88	12.3 ✓	
+50		4.6	357.3	345.10	12.2 ✓	
3	b	4.44	357.51	345.32	12.2 ✓	
+40 M.H.		3.5	358.4	345.52	12.9 ✓	
+50		3.6	358.3	345.56	12.7 ✓	
4		3.60	358.35	345.78	12.6 ✓	
+50		2.86	359.09	346.00	13.1 ✓	
5		2.05	359.90	346.22	13.7 ✓	
+50	12.82	173.10	1.67	360.28	346.44	13.9 ✓
6		10.9	162.2	346.66	15.5 ✓	
+50		9.86	163.24	346.88	16.4 ✓	
+80 M.H. & Howard		8.3	164.8	358.50	6.3	
7		8.17	164.93	347.00	17.8 ✓	
+50		5.94	167.16	359.24	5.7 ✓	
8		3.3	169.8	361.08	6.1 ✓	
+50		1.54	171.56	362.92	6.7 ✓	
+70 = P.E.		0.55	172.55	364.76	6.8 ✓	
				366.50	7.0 ✓	

164.93	71.67	71.67	71.67	71.67	71.67	
6.24	59.24	61.08	62.92	64.76	65.50	
171.67 M.	12.43	10.59	8.75	6.91	6.17	
	6.85					
	71.67					
	58.67					
	13.00					
356.06	60.70	60.70	60.70	60.70	60.70	M.H.
4.64	44.22	44.44	44.66	44.88	45.10	45.32
360.70 M.	16.48	16.26	16.04	15.82	15.60	15.38
						15.18
358.35	62.83	62.83	62.83	62.83	62.83	62.83
3.48	45.56	45.78	46.00	46.22	46.44	46.66
362.83 M.	17.27	17.05	16.83	16.61	16.39	16.17
363.24	367.12	367.12				
3.88	347.00	46.66				
167.12 M.	20.12	20.96				
363.24	66.86	66.86				
3.6	46.88	46.71				
366.8 M.	19.98	20.09				

3.6896  
 16

cut 13

Survey of Polk St from E 32<sup>nd</sup> East for 80 to D.E.

B.M.	7.58	360.16	352.58		
0+0 = M.H. of 32 <sup>nd</sup> St		7.0	353.2	343.00	10.2
+10				346.00	7.2
+50	h	5.96	354.20	346.63	7.6 ✓
+80 D.E.		6.91	353.25	347.00	6.2 ✓

357.88	57.88	57.88
46.12	46.63	47.00
<u>117.6</u>	<u>112.5</u>	<u>10.88</u>
	✓	✓

356.69	56.69	56.69	56.69
43.00	43.26	43.53	43.80
<u>13.69</u>	<u>13.43</u>	<u>13.16</u>	<u>12.89</u>
	✓	✓	✓

16

Survey of Polk St from <sup>M.H.</sup> 32<sup>nd</sup> West for 190

to E Alley bet 32 <sup>nd</sup> & Terra		360.16			
0+0 = M.H. of 32 <sup>nd</sup>		7.0	353.2	343.00	10.2 ✓
+50	h	5.86	354.30	343.26	11.0 ✓
+1		5.7	354.5	343.53	11.0 ✓
+50		5.5	354.7	343.80	10.9 ✓
+90 = M.H. of Alley		5.1	355.1	344.00	11.1 ✓

Sewer & Alley between Iowa & Illinois from # 3/ Dunkle  
Howard south for 610 to D.E. 13/ Shan  
Bunker

B.M.	3.17	363.45	360.28	348.50	
+40 M.H. & Howard			360.05	356.00	11.5
+50	3.42	360.03	351.29		9.0
1	4.09	359.36	351.59		8.7 ✓
+50	4.7	358.5	351.88		7.8 ✓
2	5.5	358.0	352.18		6.9 ✓
+50	5.7	357.8	352.47		5.8 ✓
3	5.76	357.69	352.77		5.3 ✓
+40 M.H. 642K	5.3	358.2	353.00		4.9 ✓
+50	6.73	365.28	358.55	353.09	5.4 ✓
4	6.0	359.3	353.55		5.5 ✓
+50	5.3	360.0	354.01		5.8 ✓
5	4.6	360.7	354.47		6.0 ✓
+50	4.28	361.00	354.94		6.2 ✓
6	3.32	361.96	355.40		6.1 ✓
+10 D.E	3.2	362.1	355.50		6.6 ✓

357.69 4.62 362.31	3450 362.31 53.09 9.22 ✓	M.H. 62.31 53.00 9.31 ✓	62.31 52.77 9.54 ✓	62.31 52.47 9.84 ✓	62.31 52.18 10.13 ✓	62.31 51.88 10.43 ✓	62.31 51.59 10.72 ✓	62.31 51.29 11.02 ✓	0+50 11.5 9.0 8.7 7.8 6.9 5.8 5.3 4.9 5.4 5.5 5.8 6.0 6.2 6.1 6.6 6.6	18
357.69 7.63 365.32	65.32 53.55 11.77 ✓	65.32 54.01 11.31 ✓	65.32 54.47 10.85 ✓	65.32 54.50 10.82 ✓	65.32 54.74 10.58 ✓	65.32 55.50 9.82 ✓				
360.03 5.24 365.27	65.94 54.74 11.20 ✓	65.94 55.50 10.44 ✓	65.27 48.50 16.77 ✓	65.27 51.00 14.27 ✓						

Corner & Alley between Illinois & Ohio from E of E8W  
 Alley South of El Cajon - South for 835

B.M. Brass plg S.E. Howard & Ohio 364.47  
 2.30 366.77

0+02 M.H. E F&W Alley 3.84 362.93 354.50

106 RR 150 3.7 363.1 354.82

1 4.1 362.7 355.14

150 4.6 362.2 355.46

2 4.7 362.1 355.78

125 = M.H. E Howard 5 4.9 361.9 355.94

150 5.3 361.5 356.10

3 4.6 362.2 356.42

150 4.9 361.9 356.74

4 4.6 362.2 357.06

125 3.7 363.1 357.38

150 2.5 364.3 357.70

145 M.H. Brook 6.42 371.50 1.69 365.08 358.00 7.1 ✓

150 6.2 365.3 358.06 7.2

-6 5.00 366.50 358.66 7.8 ✓

150 4.39 367.11 359.26 7.9 ✓

7 4.16 367.34 359.87 7.5 ✓

150 3.8 367.7 360.47 7.2 ✓

8 4.1 367.4 361.08 6.3 ✓

435 DE 4.5 367.0 361.50 5.5 ✓

364.47 11.9  
 1.94 66.41  
 366.41 M. 51.00 66.41 66.41 66.41 66.41 66.41 66.41  
 15.41 54.54 54.82 55.14 55.46 55.78 66.41

364.47 3 450 4  
 2.32 66.79 66.79 66.79 66.79 56.79 56.79 56.79  
 366.79 55.94 56.10 56.42 56.74 57.2 57.38 57.6  
 10.85 10.69 10.37 10.05 4 3 9.91 9.09

366.50 5450.6 7  
 3.24 69.74 69.74 69.74 69.74 69.74 69.74 69.74  
 369.74 M. 57.06 57.38 57.70 58.06 58.46 59.26 59.87 60.47 61.08  
 12.68 12.36 12.04 11.68 11.08 10.48 9.87 9.27 8.66

69.74  
 61.50  
 8.24

366.50 70.69 70.69  
 4.19 53.00 61.50  
 370.69 M. 12.69 9.19

10

center of Alley bet Howard & El Cajon from Dunkle Shaw  
M.H. Alley bet Iowa & Illinois East for 445' 14, Bunkev

B.M. Grass 19 S.E. Iowa & El Cajon 372.93 17

0	0+0 = M.H.		10.3	364.0	349.50	14.5
1	+06				358.00	6.0
2	+50		9.74	364.51	358.16	5.2 ✓
3	1	b	8.92	365.33	359.29	4.7 ✓
4	+50		7.7	366.6	360.58	4.7 ✓
5	+90 = M.H. of <del>Howard</del> Iowa		7.5	366.8	361.87	3.9 ✓
6	2		7.3	367.0	362.90	3.8
7	+50		4.8	369.5	363.16	5.0 ✓
8	3		3.55	370.70	364.45	5.0 ✓
9	+50		1.72	372.53	365.74	5.5 ✓
10	4		0.8	373.5	367.03	5.2 ✓
11	+45 D.E.		0.1	374.2	368.32	4.7 ✓

364.51  
5.26  
369.77 M.  
69.77  
69.77  
69.77  
60.58  
59.29  
58.16  
9.19  
10.48  
11.61  
2.58 4/0  
1548

364.51  
5.20  
369.71  
69.71  
58.16  
11.55

364.51  
6.02  
370.53 M.  
70.53  
61.87  
8.66  
M.H.  
70.53  
62.90  
7.63

~~356.69 M. 50.59~~

370.70  
3.75  
374.45 M.  
74.45  
65.74  
7.71  
74.45  
67.03  
7.42  
74.45  
68.32  
6.13  
74.45  
69.50  
4.95

370.70  
2.26  
372.96  
72.96  
64.45  
8.51

cut 4.1

Senior & Alley bet Howard & El Cajon from m & Ohio west for 310' to D.E.

B.M. Brass plg S.E. Howard & Ohio  
5.10 369.57

0 to = M.H. & Ohio st	6.1	363.5	356.50
+50	6.1	363.5	357.02
1	6.2	363.4	357.55
+50	6.2	363.4	358.08
break			
+90 M.H. & Alley bet Ohio & 30 <sup>th</sup> st	5.9	363.7	358.50
2	5.9	363.7	358.58
+50	4.2	365.4	359.00
3	3.3	366.3	359.42
+10 D.E.	2.3	367.3	359.50

Senior & Alley bet 30<sup>th</sup> & Ohio from E & W Alley bet Green Howard & El Cajon south for 160' to D.E.

B.M.

0 to = M.H. & E & W Alley bet El Cajon & Howard	5.9	363.7	358.50
+50	4.4	365.2	359.12
1	3.6	366.0	359.75
+50	2.5	367.1	360.37
+60 D.E.	2.5	367.1	360.50

	364.47	67.57	67.57	67.57	360.50
	3.10	57.02	57.55	58.08	
Cut	367.57	10.55	10.02	9.97	
11.7 ✓	56.5				
	17.07				
7.0	364.47	68.78	68.98	68.98	68.98
	4.51	58.50	58.58	59.00	59.12
6.5 ✓	368.98	10.48	10.70	9.78	9.86
5.9 ✓	364.47	69.45	69.45	69.45	
	4.98	59.75	60.57	60.50	
5.3 ✓	369.45	9.70	9.08	8.95	
5.2 ✓		69.45	69.45		
		59.42	59.50		
5.1 ✓	364.74	70.01	70.01		70.01 70.01
	5.27	60.37	60.50		59.42 59.50
6.4 ✓	370.01	9.64	9.51		10.57 10.51
6.9 ✓					
7.8 ✓					



Sewer & Howard St from & Alley bet 32<sup>nd</sup> & Iowa  
 To & Alley bet Iowa & Illinois

B.M.	6.57	366.62	360.05
0+0 = M.H.		1.8	364.8 347.00
+50		2.83	363.79 347.20
1		3.77	362.85 347.40
+50	h	6.6	360.0 347.60
+75			347.70
2		7.6	359.0 347.80
+25			347.90
+50		5.18	361.44 348.00
3		5.3	361.3 348.19
+50		6.6	360.0 348.38
+80 = M.H.		6.57	360.05 348.50

Sewer & Alley bet Iowa & Illinois from &

Howard St north to M.H. & E & W Alley  
 366.62

0+0 = M.H. & Howard	6.57	360.05	348.50	11.5 ✓
+50	5.26	361.36	348.72	12.6 ✓
1	4.62	362.00	348.94	13.1 ✓
+50	3.9	362.7	349.16	13.5 ✓
2	3.1	363.5	349.38 358.00	14.1 ✓
+25 = M.H.	2.6	364.00	349.50	14.5

361.36 3.61 364.97 M.	64.97 48.72 16.25	64.97 48.74 16.03
366.86 17.20 19.66	66.86 47.40 19.46	66.86 47.60 19.26
362.85 1.48 364.33 M.	64.33 47.60 16.73	64.33 47.70 16.63
361.44 4.13 365.57 M.	65.57 48.00 17.57	65.57 48.19 17.38
361.36 5.84 367.20 M.	67.20 49.16 18.04	67.20 49.38 17.82



corner of Ohio st from E & W Alley, south of El Cajon  
 North to E & W Alley North of El Cajon

Note - sths set 6 ~~ft~~ Note - sths changed to 2 w of 6

B.M.		367.57		364.47	
B.M. brass plg S.E. Howard & Ohio			5.1	363.5	351.80
0+0	3.34	367.81	4.3	363.5	354.80
+50			5.5	363.1	352.02
+50			4.6	363.2	352.02
1			5.7	362.9	352.25
1			4.8	363.0	352.25
+50			5.6	363.0	352.47
+40 sth			4.9	362.9	352.47
+50			5.5	363.1	352.70
2			4.6	363.3	352.70
2			5.1	363.5	352.92
+50			4.3	363.5	352.92
3			4.9	363.7	353.15
3			4.2	363.6	353.15
+50			4.2	364.4	353.37
+50			3.4	364.4	353.37
4			3.5	365.1	353.60
4			2.7	365.1	353.60
+47.5 = M.H. End of 10" pipe			2.7	365.9	353.80
+47.5 = M.H. end of 10" pipe			1.9	365.9	353.80

b

367.01 M.	67.01	67.01	67.01	
	52.02	52.25	52.47	
	14.99	14.76	14.54	
364.47	0.450			
2.33	66.80	66.80	66.80	66.80
366.80 M.	52.02	52.25	52.47	52.70
	14.78	14.55	14.33	14.10
			14.37	
364.47				
2.64				
367.11 M.	67.11	67.11		
	52.92	53.15		
	14.19	13.96		
363.10 s.e. El Cajon & Ohio				
5.80	68.90	68.90		
368.90 M.	53.37	53.60		
	15.53	15.30		
363.10				
5.36	363.10			
368.46	6.24			
53.15	369.34 M.			
15.31	53.80			
	15.54			
11.7				
11.7				
11.2				
10.7				
10.7				
10.5				
10.4				
10.4				
10.3				
10.6				
10.6				
10.4				
11.0				
11.5				
11.5				
12.1				

Somer & Alley bet El Cajon & Meade from

of Ohio st west for 1450 to D.E

B.M. brass p/g S.E. Ohio & El Cajon 363.10

400 = M.H. & Ohio st 4.4 365.7 353.80

+50 4.1 366.2 353.98

1 3.9 366.4 354.17

+50 3.9 366.4 354.35

+90 = M.H. & Alley bet Ohio & 20th st 4.10 366.15 354.50

2 3.67 366.56 354.54

+19 STK 354.61

+50 4.7 365.6 354.72

+95 STK 354.88

3 4.9 365.4 354.90

+50 6.5 363.8 355.09

4 368.78 6.4 363.9 355.27

4 + New STK 4.75 364.03 355.27

+50 5.7 364.6 355.46

+65 top STK 4.4 364.4 355.51

5 5.8 364.5 355.64

5 + New STK 5.0 363.8 355.64

+50 5.4 364.9 355.82

+70 = M.H. & Alley bet 30th Kansas 4.99 365.26 355.89

6 6.5 365.1 356.01

+50 5.7 365.9 356.19

7 5.3 366.3 356.38

+50 9.2 377.4 356.56

8 9.5 377.1 356.74

+05 bot STK 356.76

363.10  
7.35  
370.45 M.H.  
+50 70.48 70.48 70.48  
53.98 54.17 54.35  
16.50 16.31 16.13

366.56  
3.83  
370.39 M.H.  
54.58  
15.99 M.H.

366.56 70.43 70.43 70.43  
3.87 54.61 54.72 54.88  
370.43 M.H. 15.82 15.71 15.55

366.56  
2.22  
368.78 68.64 68.64 68.64  
364.03 55.09 55.27  
4.66 13.55 13.55

364.03 68.57 68.57 68.57  
4.54 55.5 55.62 55.82  
368.57 M.H. 13.06 12.93 12.75  
3.78

364.79 M.H. 12.45  
4.46  
368.78 68.67 68.67  
364.79 56.09 56.19  
3.88 12.66 12.48  
368.67

370.82 364.79  
56.76 4.07  
14.06 368.86  
55.89

12.97

366.96  
4.42  
371.38 M.H. 71.38  
56.38 56.56  
15.00 14.82

8408	371.64				
8450		5.0	366.6	356.93	
483					
9		4.68	366.96	357.11	
+19				357.56	
+50 = M.H. Alley bet Kansas & Utah		4.5	367.1	357.30	
10		4.04	367.60	362.18	
+50		3.43	368.21	363.37	
11	945	379.68	1.41	370.23	364.55
+29					
+50		9.0	370.7	365.74	
12		8.1	371.6	366.92	
+50		6.1	373.6	368.11	
13		5.6	374.1	369.29	
Break					
+30 = M.H. Alley bet Idaho & Utah		4.7	375.0	370.00	
+50		4.5	375.2	370.17	
14		4.3	375.4	370.58	
+50 = D.E.		3.8	375.9	371.00	
5.26	380.55	4.37	375.29		
		5.19	375.36		

M.H. Alley 374.97

367.60	71.52	71.52	71.52	71.52	71.52	69.55
3.92	62.18	63.87	64.55	65.74		62.18
371.52 M	9.34	8.15	6.97	5.74		2.37
41.00			6.9	5.7		2.133
10.52			6.28	5.7		474
				5.7		6873
367.60	12.10	77.48	77.48	77.48	M.H.	
9.38	77.48	77.48	77.48	77.48	77.48	77.48
377.48 M	66.92	68.11	69.29	70.00	70.17	70.58
	10.56	9.37	8.19	7.48	7.31	6.90
						6.19
366.96						
3.59						
370.50	368.21					2.37
57.56	737					2.133
12.94	375.58					2.37
	65.74					7.503
	9.84					
366.96	70.71					
3.75	57.30					
370.71	13.41					
366.96	371.38					
	57.11					
	14.27					
366.96	70.52					
3.56	57.11					
370.82						
56.93						
13.89						



semer @ Alley bet 302 & Ohio from N.H. 2  
 Alley north of El Cajon North for 2470 to F.T.  
 B.M. cross plg S.E. Ohio & El Cajon 363.19  
 0 to M.H. 4.81 366.15 359.00  
 +15 beg 359.12 ✓  
 +50 5.19 365.77 359.38 6.4 ✓  
 1 5.38 365.63 359.77 5.9 ✓  
 +50 5.03 365.93 360.15 5.8 ✓  
 2 4.6 366.14 360.54 5.9 ✓  
 +50 4.2 366.8 360.92 5.9 ✓  
 +60 M.H. break 3.95 367.01 361.00 6.0 ✓  
 7.65 374.66  
 3 6.7 368.0 361.68 6.3 ✓  
 +50 6.1 368.6 362.53 6.1 ✓  
 +75 5.86 368.80 363.38 5.4 ✓  
 +25 5.40 369.26 364.23 5.0 ✓  
 +50 Break  
 +95 M.H. Meade 4.26 370.40 365.00 5.4 ✓  
 5 4.2 370.5 365.09 5.4 ✓  
 +50 8.02 379.81 2.87 371.79 365.97 5.8 ✓  
 6 7.9 371.9 366.85 5.0 ✓  
 +50 6.9 372.9 367.73 5.2 ✓  
 7 5.90 373.91 368.61 5.3 ✓  
 +50 5.08 374.73 369.49 5.2 ✓  
 8 4.60 375.21 370.37 4.9 ✓

4 Dunkle  
 11 Shan ✓  
 17 Bunker ✓  
 Cut  
 11.6  
 7.1  
 6.4 ✓  
 5.9 ✓  
 5.8 ✓  
 5.9 ✓  
 5.9 ✓  
 6.0 ✓  
 6.3 ✓  
 6.1 ✓  
 5.4 ✓  
 5.0 ✓  
 5.2 ✓  
 5.3 ✓  
 5.2 ✓  
 4.9 ✓

365.93  
 5.03  
 370.96 M  
 59.12  
 11.89 ✓  
 367.01  
 4.81  
 371.82  
 368.80  
 4.32  
 373.12 M  
 371.79  
 7.14  
 378.93  
 368.80  
 4.14  
 372.94 M  
 62.53  
 10.41 ✓

+50	70.96	70.96	70.96	70.96
59.38	59.77	60.15	60.54	
11.58	11.19	10.81	10.42	
✓	✓	✓	✓	
371.52	61.00			
10.52				
3	73.12	73.12	73.12	73.12
4	73.12	73.12	73.12	73.12
+50	73.12	73.12	73.12	73.12
+95 M.H.	65.00	65.00	65.00	65.00
5+50	65.97	65.97	65.97	65.97
73.12	73.12	73.12	73.12	73.12
4.22	4.22	4.22	4.22	4.22
11.44	10.59	9.74	8.89	8.12
✓	✓	✓	✓	✓
7.15				
78.93	78.93	78.93	78.93	78.93
66.85	67.73	68.61	69.49	70.37
12.03	11.20	10.32	9.44	8.56
✓	✓	✓	✓	✓

17.0  
 17.6





387.74

1740			3.62	386.12	380.50
+50			3.4	386.3	380.99
18			2.24	387.50	381.47
18+34					381.80
+50	6.08	393.46	2.36	387.38	381.96
	break				
+55 = M.H. @ Madison			6.1	387.4	382.00
+71					382.08
19			6.0	387.5	382.22
+50			5.09	388.37	382.46
20			4.83	388.63	382.70
+50			4.81	388.65	382.95
21			4.85	388.61	383.19
+50			4.4	389.1	383.43
+95 M.H.			4.4	389.1	383.64
22			4.42	389.04	383.67
+50			3.9	389.6	383.92
23			3.8	389.7	384.16
+50	4.66	394.37	3.75	389.71	384.40
24			4.58	389.79	384.64
+50			3.96	390.41	384.89
+70 F.T.			3.90	390.47	385.00

393.53	387.37	19+0	20+0	93.53	93.53	93.53	93.53	93.53	93.53
4.29	5.16	93.53	93.53	82.22	82.46	82.70	82.95	83.19	83.43
387.64	393.53	82.22	82.46	11.31	11.07	10.83	10.58	10.34	10.10
	83.64	11.31	11.07	10.83	10.58	10.34	10.10		
	9.89	10.83	10.58	10.34	10.10				
	M.H.	93.53	M.H.	93.53	93.53	93.53	93.53		30
		82.08	83.64	83.64	83.64	84.6			
		11.45	9.89	9.89	9.89	9.89			
	389.04	94.69	94.69	94.69	94.69	94.69	94.69	94.69	F.T.
	5.65	83.92	84.16	84.40	84.64	84.89	85.00		
	394.69	10.77	10.53	10.29	10.05	9.80	9.69		
	387.50	91.85	91.85	91.85	91.85				
	9.35	81.47	80.99	80.50					
	391.85 M.	10.38	10.36	10.35					
	18+34								
	91.85								
	81.80								
	100.5								
	387.50								
	9.16								
	391.66								
	382.00								
	9.66								

Sewer & Alley bet Idaho & Utah from  $\Phi$  Monroe  $\Phi$  Dunkle  
 south for 1124 to F.T.  $\Phi$  Shaw  
 Note - stakes set 6' East of  $\Phi$  Bunker

B.M. S.E. corner of Kansas & Meade		366.78			
T.P.	6.41	373.19	3.14	370.05	
	4.93	374.98			
0+0 = N.H. $\Phi$ Monroe - on the E			5.23	369.75	363.50
+50			5.69	369.29	363.72
1			5.91	369.07	363.94
+50			5.77	369.21	364.16
2			5.83	369.15	364.39
+50			5.5	369.5	364.61
3			4.9	370.1	364.83
+40 N.H.			4.5	370.5	365.00
+50			4.54	370.44	365.05
4			4.51	370.47	365.28
+50			4.2	370.8	365.50
5			3.6	371.4	365.72
+50			3.1	371.9	365.94
6			2.6	372.4	366.17
+50	5.58	378.24	2.32	372.66	366.39
+80 N.H. $\Phi$ Meade			5.11	373.13	366.52
7			5.18	373.06	366.61
+50			4.3	373.9	366.83

372.66	373.06	373.85	
4.89	5.03		
377.55	378.09		
66.54	66.61		
11.03	11.48		
✓	✓		
373.06	77.66		
4.60	66.83		
377.66	10.83		
✓	✓		
372.66	76.15	76.15	76.15
3.49	66.39	66.17	65.94
376.15	9.76	9.98	10.21
✓	✓	✓	✓
370.47	5.40		
4.61	75.08	75.08	75.08
375.08	65.72	65.50	65.28
✓	9.36	9.58	9.80
	✓	✓	✓
369.15	73.91	73.91	73.91
4.76	64.83	64.61	64.39
373.91	9.08	9.30	9.52
✓	✓	✓	✓
369.15	369.15		
4.50	4.81		
373.65	373.96		
64.39	64.39		
9.26	9.57		
✓	✓		
5.4	73.91	73.91	73.91
5.2	64.83	64.61	64.39
5.3	9.08	9.30	9.52
✓	✓	✓	✓
5.7	369.15		
✓	4.50		
6.0	373.65		
✓	64.39		
6.2	9.26		
✓	✓		
6.3	73.91		
✓	63.72		
6.6	10.19		
✓	✓		
6.7			
✓			
7.1			
✓			

378.24

8+0	4.64	373.60	367.06
+50	4.6	373.6	367.28
9	4.57	373.67	367.50
+50	4.60	373.64	367.72
10	4.7	373.5	367.95
+50	4.0	374.2	368.17
11	3.91	374.33	368.39
+24 F.T.	3.66	374.58	368.50

6.5 ✓	377.66 367.06 <u>10.60</u> ✓	377.66 67.28 <u>10.38</u> ✓	77.66 67.50 <u>10.16</u> ✓	77.66 67.72 <u>9.94</u> ✓	77.66 67.95 <u>9.71</u> ✓	77.66 68.17 <u>9.49</u> ✓
6.3 ✓	377.66 68.38 <u>9.27</u> ✓	377.66 68.50 <u>9.16</u> ✓				
6.2 ✓						
5.9 ✓	373.64 4.61 <u>378.25</u> ✓	78.25 68.17 <u>10.08</u> ✓	78.25 68.39 <u>9.86</u> ✓	78.25 68.50 <u>9.75</u> ✓		
5.5 ✓						
6.0 ✓						
6.0 ✓						
6.1 ✓						

Sewer & Alley bet Idaho & Utah from N.H. & Monroe

North for 1286' to N.H.

Note - stakes set 6' E of ♀

B.M.	7.58	376.87	369.79		
0+0 = N.H. & Monroe				7.12	369.75 363.50
+50				7.08	369.77 364.16
1				6.94	369.93 364.82
+50				5.3	371.6 365.48
2				4.9	372.0 366.14
+50				3.58	373.29 366.80
3				2.8	374.1 367.46
+40 N.H. break				2.3	374.6 368.00
+50				2.4	374.5 368.12
4	7.73	382.74		1.86	375.01 368.71
+50				7.5	375.2 369.29
5				7.0	375.7 369.89
+50				6.3	376.4 370.47
6				6.13	376.61 371.06
+50				5.08	377.66 371.65
+62					
+80 N.H. & Madison break				4.2	378.5 372.00
7				5.0	377.7 372.12
+50				4.6	378.1 372.42

369.79	75.90	75.90	75.90	75.90	75.90	75.90
6.11	64.16	64.82	65.48	66.14	66.80	67.46
375.90M	11.74	11.08	10.42	9.76	9.10	8.44
	✓	✓	✓	✓	✓	✓
3.76.61	MIN. 75.90	75.90	75.90			
4.26	68.00	68.12	68.71			
380.47	7.90	7.78	7.19			
	✓	✓	✓			
375.01	80.67	80.67	80.67	80.67		
5.66	69.29	69.89	70.47	71.06		
380.67	11.38	10.78	10.20	9.61		
	✓	✓	✓	✓		
69.79	74.67	377.66	5.52	83.18	83.18	83.18
4.88	63.50	11.57	383.18M	71.65	72.12	72.42
74.67M				11.53	11.06	10.76
				11.39		
377.66	82.23					
4.57	71.95					
382.23M	10.28					
377.66						
4.73						
382.39						
72.00						
10.39						

840	382.74	4.4	379.3	372.71	
+50		3.74	379.00	373.01	
9		4.12	378.62	373.32	
+50		2.53	380.21	373.62	
10		2.24	380.50	373.96	
+06 M.H. Creek		1.70	381.04	374.00	
+50		1.39	381.35	374.78	
11	8.76	390.09	1.41	381.33	375.67
+50		7.2	382.9	376.56	
12		6.75	383.34	377.45	
+50		6.20	384.09	378.34	
+86 FT.		5.60	384.49	379.00	
		5.17	384.92		

383.18 M.H.	53.18	73.18	83.18	83.18	M.H.	83.18	83.18	83.18	83.18
72.71	73.01	73.32	73.62	73.96	74.00	74.78	75.67	76.56	
10.47	10.17	9.86	9.56	9.22	9.18	8.40	7.57	6.62	
✓	✓	✓	✓	✓	✓	✓	✓	✓	

383.34	88.28	88.28	88.28
4.92	77.45	78.34	79.00
378.28	10.83	9.94	9.28
	✓	✓	✓

Source of Monroe St from Alley bet. Utah & Kansas west  
 for 380' to M.H. Alley bet. Idaho & Utah  
 Note - States bet. 6' south of E  
 B.M.

	7.58	376.87	369.29	
040 M.H.			371.15	362.00
+50			371.24	362.20
1			371.4	362.40
+50			370.4	362.60
2			370.4	362.79
+50			370.22	362.99
3			369.9	363.19
+50			369.6	363.39
+80 M.H.			369.75	363.50

371.24	7477	7477	7477	7477	7477
953	6220	6240	6260	6280	6300
374.77	1257	1237	1217	1197	1177
62.60					
1277	7477	7477	7477	7477	7477
	6279	6299	6319	6339	6359
	1198	1178	1158	1138	1118

9.1  
 9.0 ✓  
 9.0 ✓  
 7.8 ✓  
 7.6 ✓  
 7.2 ✓  
 6.7 ✓  
 6.2 ✓  
 6.2 ✓

Sewer & Alley bet Kansas & 30th from M.H. & Ed W Alley  
bet El Cajon & Meade North for 3522 or to M.H. & Copley

B.M.					
	4.55	369.81	365.26		
+0 = M.H.			4.55	365.26	355.90
+50			5.3	364.5	356.21
1			7.9	364.9	356.52
+50			4.99	364.82	356.83
2			4.91	364.90	357.15
+50			4.81	365.00	357.46
+60 M.H.			5.02	364.79	357.52
3			4.91	364.90	357.78
+50			5.0	364.8	358.09
4			4.77	365.04	358.40
+50			4.75	365.06	358.72
Break					
+95 M.H. & Meade			4.4	365.4	359.00
5			4.37	365.44	359.06
+50			3.11	366.70	359.65
6	10.11	376.00	3.92	365.89	360.23
+50			10.6	365.4	360.82
7			9.2	366.8	361.40
+50			8.71	367.29	361.99

	7+50	7	6+50	6	5+50	M.H.
	371.85 M.H.	71.85	71.85	71.85	71.85	71.85
	61.99	61.40	60.82	60.23	59.65	59.00
	9.86	10.45	11.03	11.62	12.20	12.85
	✓	✓	✓	✓	✓	✓
	365.06	69.57	69.57	69.57	69.57	69.57
	4.51	58.72	58.40	58.07	57.78	57.52
	369.57 M.H.	10.85	11.17	11.78	11.79	12.05
	✓	✓	✓	✓	✓	✓
	364.82	67.97	67.97	67.97		
	3.15	56.21	56.5			
	367.97 M.H.	11.76	11.45			
	✓	✓	✓			
	364.82	68.64	68.64	68.64	68.64	M.H.
	3.82	56.83	57.15	57.46	57.52	
	368.64	11.81	11.49	11.18	11.12	
	✓	✓	✓			

	376.00				
8+0		7.96	368.04	362.58	5.5 ✓
+35 M.H. Break		7.65	368.35	363.00	5.4 ✓
+50		7.3	368.7	363.27	5.4 ✓
9		4.84	371.16	364.17	7.0 ✓
+50		4.65	371.35	365.07	6.3 ✓
10		3.32	372.68	365.96	6.7 ✓
+50		2.42	373.58	366.86	6.7 ✓
11		3.1	372.9	367.76	5.1 ✓
+50	Break 7.22	1.3	374.7	368.65	6.0 ✓
	378.46		371.24		
+75 M.H. & Monroc on 6' offset str		3.92	374.54	369.10	5.4 ✓
12		3.46	375.00	369.20	5.8 ✓
+50		3.11	375.35	369.40	6.0 ✓
13		2.8	375.7	369.60	6.1 ✓
+50		2.0	376.5	369.80	6.7 ✓
14	8.82	1.36	377.10	370.00	7.1 ✓
385.92					
+50		7.1	378.8	370.20	8.6 ✓
15		7.4	378.5	370.40	8.1 ✓
+15 M.H.		7.79	378.13	370.46	7.7 ✓
+50		7.18	378.74	370.60	8.1 ✓

377.10	M.H.	15	14+50 14	13+50	12+50
4.48	81.58	81.58	81.58	81.58	81.58
381.58 M	70.46	70.40	70.20	69.80	69.60
	11.12	11.18	11.38	11.58	11.78
	✓	✓	✓	✓	✓
	81.58	81.58			
	69.40	69.20		77.58	
	12.18	12.38		65.95	
	✓	✓		11.62	
371.58	373.58	77.58	77.58	77.58	71.85
70.60	4.00	67.76	66.86	68.65	63.27
10.98	377.58 M	9.82	10.72	8.93	8.58
		✓	✓	✓	✓
374.54	368.35	M.H.			
5.00	3.50	71.85			
379.54	371.85 M	63.00			
69.10		8.85			
10.44		✓			
	372.68	10	9+50	9	
	1.22	73.90	73.90	73.90	73.90
	373.90	65.96	65.07	64.17	62.58
		7.94	8.23	9.73	11.32
		✓	✓	✓	✓

37



385.92

1640

6.26 379.66 370.80

8.9 ✓

+50

6.3 379.6 371.00

8.6 ✓

17

5.7 380.12 371.20

9.0 ✓

+50

4.5 381.4 371.40

10.0 ✓

18

4.65 381.27 371.60

9.7 ✓

+50

4.9 381.0 371.80

9.2

+55 M.H. & Madison

B.M. S.E. Cross Pk Adams 30 11 55 391 13  
+75 11 2.09

19

4.9 381.0 371.82

9.2 ✓

389.04

9.34 381.79 372.00

9.8 ✓

+50

8.63 382.50 372.20

10.3 ✓

20

8.53 382.60 372.40

10.2 ✓

+50

8.4 382.7 372.60

10.1 ✓

21

8.2 382.9 372.80

10.1 ✓

+50

5.5 385.6 373.00

12.6 ✓

+95 M.H.

5.58 385.55 373.18

12.4 ✓

22

5.4 385.7 373.20

12.5

+50

5.02 386.11 373.40

12.7 ✓

23

4.79 386.34 373.60

12.7 ✓

+50

4.52 386.61 373.80

12.5 ✓

24

3.90 387.23 374.00

13.2 ✓

381.58  
70.20  
10.78

14.3  
10.8  
3.5

381.27  
2.90  
384.17 M.H.

84.17 84.17 84.17  
71.00 71.20 71.40  
13.17 12.97 12.77

381.27  
3.22  
385.19 M.H.

M.H.  
85.19 85.19 85.19  
71.40 71.60 71.82  
13.79

381.27  
2.42  
383.69 M.H.

83.69 83.69 83.69  
71.40 71.60 71.82  
17.29 16.89 11.87

381.27  
2.47  
383.74 M.H.

83.74 83.74  
71.40 71.60  
12.34 12.14

381.94  
2.72  
384.66 M.H.

84.66  
71.74  
12.92

381.94  
2.67  
384.61

84.61  
71.79  
12.87

381.79  
5.16  
386.95  
14.95

86.95  
72.00  
14.55  
14.35

86.95  
72.40  
14.55

86.95  
72.20  
14.75  
14.15

385.55  
4.44  
389.99 M.H.

M.H.  
89.99 89.99 89.99  
73.18 73.40  
16.99 16.81 16.59

89.99  
73.60  
16.39

89.99  
73.50  
16.19  
15.99

38

24+50	391.13	2.70	388.43	374.20	14.2 ✓	85.22 3.54 89.36 76.02 13.36 386.89 5.24	387.89 3.61 391.00 2.93 5.07	5.00 387.96	
25 +50		3.61	387.52	374.40	13.1 ✓	392.13 75.94 16.29	387.52 3.25 390.77M	90.77 74.20 16.57	90.77 74.40 16.37
+35 M.H. & Adams 6.29	394.12	3.30	387.83	374.54	13.3 ✓	386.81 3.10 389.91M 77.12 12.79	392.11 78.40 13.71	387.52 4.45 391.97M 74.62 17.35	
+50		6.4	387.7	374.60	13.1 ✓				
+55			6.4 cut, 5TK	374.62	✓				
26		4.9	389.1	374.80	14.4 ✓				
+50		5.1	389.0	375.00	14.0 ✓	388.75 3.25 392.00M	92.00 92.00 92.00 77.20 77.40 77.60	23+0 34 450	92.00 92.00 92.00 78.20 78.00 78.20
27		5.33	388.79	375.20	13.6 ✓		14.80 14.60 14.40	14.20 14.00 13.80	
+50		5.57	388.55	375.40	13.2 ✓	385.80 3.86 389.36 77.00 12.36	388.45 3.00 391.45 75.90 15.55	385.82 3.07 388.89M	2910 450 30 450 88.89 88.89 88.89 88.89 76.00 76.20 76.40 76.60
28		5.67	388.45	375.60	12.8 ✓				
+3			6.4 cut, 5TK		✓				
+50		6.31	387.81	375.80	12.0 ✓				
+61 M.H. & Yorks 4.73	392.76	6.09	388.03	375.84	12.2 ✓		M.H. 387.52 4.98 392.50	26+0 92.50 74.54 17.96	27 92.52 92.52 92.52 92.52 75.00 75.20 75.40 75.60
29		9.6	388.12	376.00	12.2 ✓				28 450 88.89 88.89 88.89 88.89 75.80 75.80 75.80 75.80
+50		5.87	386.89	376.20	10.7 ✓				16.72 16.75
30		6.94	385.82	376.40	9.4 ✓				
+50		6.96	385.80	376.60	9.2 ✓				
31		6.7	386.1	376.80	9.3 ✓				
+50		6.4	386.4	377.00	9.4 ✓				
+81 M.H.		5.95	386.81	377.12	9.7 ✓				
32		5.39	387.37	377.20	10.2 ✓				
+50		4.8	388.0	377.40	10.6 ✓				
33		4.11	388.65	377.60	11.0 ✓				
+50		4.01	388.75	377.80	11.0 ✓				
34		3.8	389.0	378.00	11.0 ✓				
+50		3.54	389.22	378.20	11.0 ✓				
35		4.57	389.19	378.40	9.8 ✓				
+22 M.H. & Copley		3.9	389.9	378.50	10.4 ✓				

Sewer & Alley bet Utah & Kansas from M.H. & E.W.  
 Alley bet. El Cajon & Meade North for 2470' to F.T.  
 Note - states 50' 6" E of & Alley

B.M. S.E. Brass Pkg Kansas & Meade		366.78				
B.M.	5.51	372.29				
0+0 M.H.		5.2	367.1	357.30	9.8 ✓	
+50		5.6	366.7	357.50	9.2 ✓	
1		5.0	367.3	357.70	9.6 ✓	
+50		5.8	366.5	357.90	8.6 ✓	
2	b	6.3	366.0	358.10	7.9 ✓	
+50		6.48	365.81	358.30	7.3 ✓	
+70 M.H.		5.8	366.5	358.42	8.1 ✓	
3		5.3	367.0	358.50	8.5 ✓	
+50		6.6	365.7	358.70	7.0 ✓	
4		6.8	365.5	358.90	6.6 ✓	
+50		4.6	367.7	359.10	8.6 ✓	
+95 M.H. & Meade		5.9	366.4	359.28	7.1 ✓	
5		5.9	366.4	359.30	7.1 ✓	
+50		6.4	365.9	359.50	6.4 ✓	
6		6.3	366.0	359.70	6.3 ✓	
+50	5.87	372.01	6.15	366.14	359.90	6.2 ✓
7			5.9	366.1	360.10	6.0 ✓

M.H. 545  
 D.M. 130

365.81	71.07	71.07	71.07	71.07
5.26	57.50	57.79	57.90	58.10
371.07 M.H.	13.57	13.27	13.17	12.77

365.81	69.97	69.97	69.97	69.97	69.97	69.97	69.97	69.97	M.H. 5450	6
4.16	58.30	58.42	58.50	58.70	58.90	59.10	59.28	59.50	59.70	6
369.71 M.H.	11.67	11.55	11.47	11.27	11.07	10.87	10.67	10.47	10.27	6
	69.77	69.97	69.97	69.97	69.97	69.97	69.97	69.97	69.97	6
	57.90	60.10								6
	10.07	9.59								6
	71.55									6
	60.10									6
	11.25									6

		371.01			
7+50			5.8	366.2	360.30
8			5.5	366.5	360.50
+35 M.H.			5.60	366.41	360.64
+50			5.56	366.45	360.70
9			5.06	366.95	360.90
+50			5.05	366.96	361.10
10			3.8	368.2	361.30
+50			3.3	368.7	361.50
+75			2.35	369.66	361.70
+50		377.90	7.57	370.33	361.90
+75 M.H. $\phi$ Montroc			6.8	371.1	362.00
12			6.47	371.43	365.29
+50			6.28	371.62	365.88
13			5.20	372.70	366.47
+50			5.10	372.80	367.05
14			4.3	373.6	367.64
+50			2.8	375.1	368.23
15			2.8	375.1	368.82
+15 M.H. break			2.2	375.7	369.00

377.99 5.28 372.71	371.43 6.56 377.99 M.	37.99 77.99 65.29 65.88 12.70 12.11	77.99 77.99 66.47 67.05 11.52 10.94	77.99 67.64 10.35
5.9 ✓	375.56 377.30 M.	77.30 68.23 9.07	77.30 68.82 8.48	77.30 69.00 8.30
6.0 ✓	370.33 4.27			
5.8 ✓	374.60 M.	74.60 67.00 7.60		
5.7 ✓				
6.0 ✓				
5.9 ✓	366.45 5.40 371.85 M.	M.H. 71.85 71.85 60.30 60.50 11.55 11.35	M.H. 71.85 71.85 60.69 60.70 11.21 11.75	M.H. 71.85 71.85 61.10 61.30 10.75 10.55 10.35
6.9 ✓		71.85 71.85 61.70 61.80 10.15 11.75		
7.2 ✓				
8.0 ✓	366.96 8.01 374.97 81.90 73.07		74.47 61.70 13.07	
8.4 ✓				
9.1				
6.1 ✓				
6.1 ✓				
5.7 ✓				
6.2 ✓				
5.8 ✓				
6.0 ✓				
6.9 ✓				
6.3 ✓				
6.7 ✓				

8558

		377.90				
+50	5.97	381.53	2.34	375.56	369.20	6.4 ✓
16			6.11	375.42	369.50	5.9 ✓
+50			5.08	376.50	369.79	6.7 ✓
17			5.0	376.5	370.09	6.4 ✓
+50			4.7	376.8	370.38	6.4 ✓
18			4.68	376.85	370.67	6.2 ✓
+50			4.37	377.16	370.97	6.2
	Brook					
+55 M.H. Madison			4.26	377.27	371.00	6.3 ✓
19			4.62	376.91	371.53	5.4 ✓
+50			3.64	377.89	372.12	5.7 ✓
20			3.5	378.0	372.71	5.3 ✓
+50			3.2	378.3	373.30	5.0 ✓
21	8.73	388.07	2.19	379.34	373.89	5.4 ✓
+50			7.6	380.5	374.48	6.0 ✓
+95 M.H. Brook			7.3	380.8	375.00	5.8 ✓
22			6.97	381.10	375.11	6.0 ✓
+50			6.01	382.06	376.20	5.9 ✓
23			4.85	383.22	377.29	5.9 ✓
+50			4.20	383.87	378.38	5.5 ✓
24			3.01	385.06	379.47	5.6 ✓
+50			1.9	386.2	380.56	5.6 ✓
+70 F.T.			1.79	386.28	381.00	5.3 ✓

7730 6920 8.10	7730 6950 7.80	7730 6979 7.51	7730 7009 7.21	42
376.85 448 38133 M.1 7038 10.95	8133 7062 1066 L	8133 7089 1044 L	8133 7113 1020 L	8133 7153 9.80 L
8133 7212 9.21 L	8133 7271 8.62 L	8133 7330 8.03 L	8133 7369 7.44 L	
379.34 5.74 385.08 M.1	20.50 85.08 73.30	85.08 73.89	85.08 74.48	M.1 5.08 5.00 10.08
379.84 6.99 386.33 375.00 11.33	86.33 76.20 10.13 L	86.33 77.29 9.04 L	86.33 78.58 7.75 L	
8322 769 9091 M.1 7947 17.24	9091 8056 1035 L	9091 8100 9.91 L		
377.27 3.93 381.20 71.00 10.20				

Survey of Iowa St from E & W. Alley N of El Cajon  
North for 200' to D.E

B.M. = Brass plg	S. E. Corner El Cajon	372.93			
11.17	384.10		373.00	5.6 ✓	
0 + 0 = M.H			374.00	4.6	
0 + 50		4.0	380.1	374.50	5.6 ✓
1		3.5	380.6	375.00	5.6 ✓
+ 50		3.2	380.9	375.50	5.4 ✓
2		2.9	381.2	376.00	5.2 ✓

372.93	83.79	83.79
10.86	74.50	75.00
383.79 M.	9.27	84.77
372.93		
11.57		
384.77 M.	84.47	84.47
	75.00	76.00
	9.47	8.47

Sever  $\frac{1}{2}$  Alley bet Ohio & Illinois from  $\frac{1}{2}$  Alley bet  
 Elcajon & Meade north for 960 to D.E  
 Note stakes set 6' to w of  $\frac{1}{2}$  Alley

B.M.	6.31	377.34	371.03		
0+0 M.H.			368.4	362.00	6.4 ✓
			368.4	363.00	5.4
+50			371.24	363.57	7.7 ✓
1			369.71	364.15	5.6 ✓
+15					
+50			370.80	364.72	6.1 ✓
2			371.4	365.80	6.1 ✓
+50			372.58	365.88	6.7 ✓
+60 M.H. Break			372.8	366.00	6.8 ✓
3			373.1	366.85	6.3 ✓
+50			374.4	367.91	6.5 ✓
4	12.69	387.88	375.19	368.98	6.2 ✓
+50			376.2	370.04	6.2
+66 M.H. Break				370.38	
+95 M.H. $\frac{1}{2}$ Meade			376.85	371.00	5.9 ✓
5			377.2	371.09	6.1
+50			377.09	371.97	5.1 ✓
6			378.8	372.85	6.0 ✓
+50			380.65	373.73	6.9 ✓
7			381.5	374.62	6.9 ✓
+50			383.43	375.50	7.9 ✓

386.77					
75.50	85.29	85.29			140
11.27	74.62	73.73			352
	10.67	11.56			75.09
380.65					72.35
4.64					67.4
385.29 M.H.					44
371.24	74.24	74.24	74.24	74.24	213
3.00	63.57	64.75	64.72	65.30	1278
374.24 M.H.	10.67	10.09	9.52	8.94	213
					34.08
379.80					
5.54					
376.34 M.H.	76.34	76.34			
	65.30	65.38			
	11.04	10.96			
377.09					
5.79					
382.88 M.H.	82.88	82.88	82.88		
	71.97	72.85			
	10.91	10.03			
375.19					
2.90					
378.09 M.H.	78.09	78.09	78.09	78.09	
	66.00	66.85	67.81	71.00	
	12.09	11.24	10.18	7.09	
375.19					
4.64					
379.23	79.23	79.68			
	67.11	68.98			
	11.92	10.25			
375.19					
5.03					
380.22 M.H.	80.22	80.22			
	67.91	68.98			
	12.31	11.24			
375.19					
5.86					
380.75 M.H.	80.75	80.75			
	70.04	70.38			
	10.71	10.37			

387.98

8+0	5.6	382.3	376.39	5.9 ✓
+35 M.H. Break	5.03	382.85	377.00	5.8 ✓
+50	4.7	383.2	377.09	6.1 ✓
9	4.11	383.77	377.38	6.4 ✓
+50	2.9	385.0	377.67	7.3 ✓
+60 D.E	4.0	383.9	377.73	6.2 ✓
		384.9		

383.77	<sup>9+60</sup> 86.77	<sup>+50</sup> 86.77	<sup>9</sup> 86.77	<sup>+50</sup> 86.77	M.H.	<sup>9+0</sup> 86.77
3.00	77.73	77.67	77.38	77.09	77.00	76.39
386.77	9.04	9.10	9.39	9.68	9.77	10.38
	✓	✓	✓	✓	✓	✓

45



Sewer & Alley between Iowa & Illinois from E & W Alley  
 between El Cajon & Meade North for <sup>760</sup> Note: 5110 to 16' to west

B.M.	12.32	383.35		376.03	
0 to M.H.				377.4	368.00 369.00
+50			5.52	377.23	370.15 371.08
+90' cut STK.					
1			4.97	378.38	376.31
+50			4.3	379.1	372.46
2			3.6	379.8	373.62
+50	5.71	387.63	1.43	381.92	374.77
+60 M.H. break			6.6	381.0	375.00
3			5.7	381.9	375.34
+25					
+50			4.9	382.7	375.76
4			5.10	382.53	376.19
+50			3.8	383.8	376.61
+95 M.H. & Meade	1.8		5.08	382.55	377.00
5			5.1	382.5	377.03
+50			4.33	383.30	377.28
6			4.0	383.6	377.53
+50			3.8	383.8	377.78
7			3.4	384.2	378.03
+50	high		2.74	384.89	378.27

383.30	89.16	89.16	89.16	89.16	89.16	89.16
5.86	77.28	77.53	77.78	78.03	78.27	
389.16 M.	11.88	11.23	11.38	11.13	10.89	

383.30	
5.12	
388.42 M.	

382.55	M.H.	4+50	4	3+50
4.49	87.04	87.04	87.04	87.04
387.04 M.	77.00	76.61	76.19	75.76
	10.09	10.43	10.85	11.28

382.53	87.29
4.76	75.76
387.29 M.	11.53

378.38	82.97	82.97	82.97	82.97	82.97	82.97
4.59	70.15	71.31	72.46	73.62	74.77	75.00
382.97 M.	12.82	11.66	10.51	9.35	8.20	7.97
		11.89				

381.62	378.38
382.53	7.21
	385.59
	75.34
	10.25

2.00  
46

387.63

840 M.H.	2.8	384.8	378.52	6.3 ✓
+50 +30.	2.8	384.8	378.76	6.0 ✓
9	2.70	384.93	379.00	5.9 ✓
+50	1.2	386.4	379.25	7.2 ✓
+60 FT.	0.9	386.7	379.30	7.4 ✓

386.0

389.16 M.H.

M.H.	89.16	89.16	89.16	89.16	89.16
	78.52	78.76	79.00	79.25	79.50
	10.64	10.90	10.16	9.91	9.86
	✓	✓	✓	✓	✓

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sewer from M.H. & Alley bet 30<sup>th</sup> & Ohio to & Alley  
 between Ohio & Illinois - Line 2' N of S.L. Lot 34 BK 57 &  
 2' N of & Walton Place. - Note STRS set 2' N of & from st 2  
 0 to st 1150 & 6' S of & from 2+0 to 3+0

13.M.	7.11	391.61	384.50	
0+0 = M.H. & Alley bet Ohio & 30 <sup>th</sup>			378.00	
+ 150		7.25	384.36	378.30
+ 1		6.35	385.26	378.60
+ 150		4.8	386.8	378.90
+ 82	5	391.70		379.09
<del>4</del>		4.81	386.80	379.21
<del>2</del>		4.82	386.88	379.51
+ 150		4.93	386.68	379.51
+ 150		4.94	386.76	
<del>3</del>		4.7	386.9	379.81
3		4.79	386.91	
+ 150		4.7	386.9	380.12
+ 150		4.7	387.0	
+ 150 M.H. & Alley bet Ohio & Illinois		5.20	386.41	380.34

STRS changed to 2' north

on str 6' East

386.80  
 4.90  
 391.70

90.62  
 3.86  
 86.76

~~386.80~~  
 384.36  
 5.86  
 390.24

90.22	90.22	90.22
78.30	78.60	78.90
11.92	11.62	11.32

386.88  
 3.74  
 390.62  
 79.09  
 11.53

386.91	3
4.36	91.27
391.27	79.81
80.12	11.46
11.15	11.76
	12.06

Alley bet Ohio & Illinois from M.H. Walton Place

South for 97 - North for 102.8 to F.T.  
Note - stakes set 6' E of Alley

B.M. 6.00 392.41 386.41

South from M.H. 2' N of Walton Place

0+0 = M.H. 6.00 386.41 380.34  
 +11 380.47  
 +21 1/2 M. 5.9 386.5 380.68  
 +35 380.75  
 +40 381.00  
 +50 D.E. 5.6 386.8 381.00

392.41

North from M.H. 2' N of Walton Place

0+0 = M.H. 6.00 386.41 380.34  
 +50 5.58 386.83 380.59  
 1 5.27 387.14 380.84  
 +50 5.18 387.23 381.09  
 2 4.3 388.1 381.34  
 +50 4.1 388.3 381.60  
 3 4.14 388.27 381.85  
 +50 3.55 388.86 382.10  
 +73 382.31  
 4 3.16 389.25 382.35  
 +05 60% alk 382.39  
 +13 = M.H. & Madison 2.9 389.5 382.42  
 T.P. 6.08 395.33 3.16 389.25 382.47  
 +50 6.2 389.1 382.60  
 5 6.13 389.20 382.85  
 +50 6.08 389.25 383.10

140  
 387.23 73.25 93.25 93.25 93.25 93.25 93.25 93.25  
 6.02 80.84 81.09 81.34 81.60 81.85 82.10 82.31  
 393.25 M. 12.91 12.56 11.91 11.65 11.40 11.15 10.94

73.25 93.25 93.25 93.25  
 82.48 82.60 82.75 83.10  
 10.76 10.65 10.40 10.15

386.41 91.91  
 5.00 30.54  
 391.38 M. 11.32  
 386.91 M.H. 450 450  
 5.19 92.10 92.10 92.10  
 392.10 30.34 30.59 30.47  
 11.76 11.51 11.63

386.91 91.38 91.38  
 4.47 81.00 30.75  
 391.38 M. 10.38 10.63

389.50 93.73  
 4.23 52.37  
 393.73 M. 11.34

45 1060 8  
 37 532  
 976 780  
 209  
 3016  
 771660  
 68  
 37  
 476  
 209  
 2516

40

6+0	395.33	5.8	389.5	383.36	6.1 ✓
150		5.6	389.7	383.61	6.1 ✓
7		5.15	390.18	383.86	6.3 ✓
+53 M.H.		4.98	390.35	384.13	6.2 ✓
8		4.71	390.62	384.36	6.3 ✓
+50		4.84	390.49	384.61	5.9 ✓
9		4.7	390.6	384.86	5.7 ✓
+50		4.9	390.5	385.12	5.9 ✓
10		4.9	390.4	385.37	5.9 ✓
+28 F.T.		5.0	390.3	385.50	4.8 ✓

390.18	95.15	95.15	95.15	M.H.	<del>95.17</del>
4.97	83.36	83.61	83.86	95.15	
395.15 M.	11.79	11.54	11.29	84.13	
	8	9	9		
390.62	95.58	95.58	95.58	95.58	95.58
4.96	84.36	84.61	84.86	85.12	85.37
395.58 M.	11.22	10.97	10.72	10.46	10.21
	✓	✓	✓	✓	✓
				10.09	✓

Sewer & Alley between Works Ave & Adams Ave from Dunkle Shaw Banker  
 & 30th St East for 92' To D.E.  
 Note - stks set by ref to Alley  
 B.M., 6.F. curbs brass plug 30th & Adams  
 4.71 393.75 389.04

0+0		5.5	388.3	381.60	6.7
+25		6.3	387.5	381.72	5.8
+40				381.90	
+50		4.6	389.2	381.85	7.4 ✓
1		4.7	389.1	382.10	7.0 ✓
+50		4.6	389.2	382.35	6.8 ✓
2		4.4	389.4	382.60	6.8 ✓
+50		4.4	389.4	382.85	6.6 ✓
+90 M.H.		4.3	389.5	383.05	6.5 ✓
3		4.3	389.5	383.10	6.4 ✓
+50		4.3	389.5	383.35	6.2 ✓
4		4.2	389.6	383.60	6.0 ✓
+50		3.9	389.9	383.85	6.0 ✓
+82 D.E.		3.8	390.0	384.00	6.0 ✓

Sewer & 30th St from M.H. No. 115 Ave south for 165' to Alley B.M. 5

	391.37				
0+0 = M.H.		4.0	387.4	380.00	7.4
+25				380.20	5.7 ✓
+50		3.7	387.7	380.47	7.2 ✓
1		3.5	387.9	380.95	7.0 ✓
+50		3.1	388.3	381.43	6.9 ✓
+68 M.H. & Alley		3.1	388.3	381.60	6.7 ✓

389.04	120	+50		M.H.	3	A.T.C.
5.33	94.37	94.37	94.37	94.37	94.37	94.37
394.37 M.	81.85	82.10	82.35	82.60	82.85	83.05
81.80	12.52	12.27	12.02	11.77	11.52	11.32
12.57						11.27
	94.37	94.37	94.37			83.35
	83.60	83.85	84.00			11.02
	10.77	10.52	10.37			
389.04	92.64	92.64	92.64	92.64		
3.60	80.47	80.95	81.43	81.60		
392.64	12.17	11.69	11.21	11.04		
	92.64					
	80.30					
	12.44					

Sewer Works Ave from Alley between 30<sup>th</sup> and Kansas Sts East for 620' to D.E

13.M. S.E. B.P. Adams & 30 <sup>th</sup>	2.33	391.37	389.04		
0+0			D 375.80	12.2 ✓	
0+4 bottom of	3.4		388.0	9.1 ✓	
+50			379.02		
+75	3.46		387.91	8.7 ✓	
1	3.66		387.71	8.2 ✓	
+50					
+90 M.H. & 30 <sup>th</sup> st	4.0		387.4	7.6 ✓	
2	4.0		387.4	7.4 ✓	
	4.1		387.3	7.2 ✓	
+50	4.3		387.1	6.8 ✓	
3	4.4		387.0	6.4 ✓	
+50					
4	4.60		386.77	5.8 ✓	
+30	4.65		386.72	5.5 ✓	
+50	4.9		386.5	5.0 ✓	
+40					
5	4.87		386.50	4.7 ✓	
+50	5.0		386.4	4.3 ✓	
6	5.2		386.2	3.8 ✓	
+20 D.E	5.2		386.2	3.7 ✓	

386.72  
4.72  
391.44M

91.49	91.49	91.49	91.49	91.49	71.49
81.22	80.93	76.64	70.35	80.06	70.0
10.27	10.56	10.85	11.14	11.43	1.48

387.71  
4.62  
392.33M

92.33	92.33	92.33	92.33	92.33
81.51	81.80	82.09	82.38	82.58
10.82	10.53	10.24	9.95	9.83

387.71  
3.53  
391.24

91.24	91.24	91.24	91.24	91.24
80.00	79.79	79.53	79.26	79.00
11.24	11.45	11.71	11.98	12.24

387.71  
3.86  
391.57

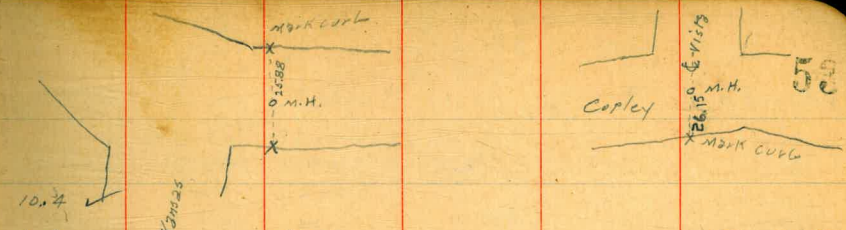
91.57	77.02	12.55
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MARKED  
WORKS  
SEWER  
M.H.  
620'

C.F.

Copley Ave from M.H. & Alley between Kansas  
and 30th East for 90' & west for 1339'

			388.19	
	7.38	East 395.57		
0+0 = M.H. & Alley			Drop 378.50	10.4
+40			388.9	7.4
+50	b		388.41	6.6
+90 P.E.			388.0	7.6
		West		
0+0 = M.H. & Alley	6.7		388.9	10.4
+230				
+50			389.17	10.4
1	5.97		389.60	10.7
+45 M.H.	5.6		390.0	10.9
+50	b		389.94	10.8
2	5.4		390.2	10.8
+50	5.0		390.6	11.0
3	4.6		391.0	11.1
+50	4.30		391.27	11.2
4	3.96		391.61	11.3
+40 M.H. & Vista Place	3.7		391.9	11.4
+50	3.5		392.1	11.6
5	3.2		392.4	11.6



389.17										M.H. 2+0
2.94	92.11	92.11	92.11	92.11	92.11	92.11	92.11	92.11	92.11	92.11
392.11 M.H.	78.50	81.28	82.00	78.72	78.95	79.15	79.41			
13.71 22' south	13.61	10.33	10.11	13.39	13.16	12.96	12.70			
	92.11									

389.94	94.24	94.24	94.24	94.24	94.24
4.30	79.41	79.63	79.86	80.08	80.31
394.24	14.83	14.61	14.38	14.16	13.93
391.61	96.42	96.42	96.42	96.42	96.42
4.81	80.42	80.55	80.77		
396.42 M.H.	16.00	15.27	15.65		
391.25	96.07				
4.82	80.50				
396.07 M.H.	15.57				

Checked by Sewer Dept  
12-26-33  
SPH

6.0

O.K.

11.4 of 199



Item	Price	Quantity	Weight	Value	Weight	Value	Weight	Value	Weight	Value	Weight	Value
5450		2.96	392.61	380.99	11.6	✓						
6	3.84	396.39	3.02	392.55	381.22	11.3	✓					
+50		3.8	392.6	381.44	11.2	✓						
7		3.9	392.5	381.67	10.8	✓						
+26 M.H.		4.0	392.4	381.79	10.6							
+50		4.06	392.33	381.89	10.4	✓						
8		4.3	392.1	382.13	10.0	✓						
+50		4.3	392.1	382.35	9.8	✓						
9		4.48	391.91	382.57	9.3	✓						
+36 lot stock,		4.63	391.76	382.73	9.0	✓						
+50		4.74	391.65	383.02	8.6	✓						
10		4.8	391.6	383.04	8.2	✓						
+04 M.H. & Uvada Place		4.99	391.40	383.24	7.5	✓						
+50	4.14	395.54	4.8	391.0	383.46	7.0	✓					
11		4.8	390.7	383.65	6.5	✓						
+50		5.09	390.45	383.91	6.1	✓						
12		5.29	390.25	384.13	5.7	✓						
+50		5.5	390.0	384.35	5.0	✓						
13		6.0	389.5	384.50								
+39 F.T. & Oregon												

Item	Price	Quantity	Weight	Value	Weight	Value	Weight	Value	Weight	Value
391.40	95.32	95.32	95.32	95.32	95.32	95.32	95.32	95.32	95.32	95.32
3.92	83.24	83.24	83.24	83.24	83.24	83.24	83.24	83.24	83.24	83.24
395.32 M.	12.08	11.86	11.64	11.41	11.19	10.97				
396.42 M.	96.42	96.42	96.42	96.42	96.42	96.42	96.42	96.42	96.42	96.42
80.99	81.22	81.22	81.22	81.22	81.22	81.22	81.22	81.22	81.22	81.22
15.43	15.20									
392.55	96.46	96.46	96.46	96.46	96.46	96.46	96.46	96.46	96.46	96.46
3.91	81.44	81.67	81.79	81.89	82.13	82.35				
396.46	15.02	14.79		14.57	14.33	14.11				
391.40	391.40									
3.52	3.72									
394.92 M.	395.19									
84.50	83.04									
10.42	12.15									
391.91	940	9436	9475							
2.78	94.69	94.69	94.69							
394.69 M.	82.57	82.73	82.91							
	12.12	11.96	11.78							

4 Vista Place from M.H. Copley Ave  
North for 650' to D.E.

6/9 Dunkle  
117 Shaw  
Bunker

	3.16	394.77	391.61	
0+0 = M.H. Copley Ave	2.9	391.9	380.50	11.4
+50	3.52	391.25	380.73	10.5 ✓
1	3.60	391.17	380.96	10.2 ✓
+50	3.86	390.91	381.19	9.7 ✓
2	4.1	390.7	381.42	9.3 ✓
+50	4.2	390.6	381.65	9.0 ✓
3	4.60	390.17	381.88 381.90	8.3 ✓
+20 M.H.	4.7	390.1	381.97	8.1 ✓
+50	4.9	389.9	382.11	7.8 ✓
4	5.1	389.7	382.34	7.4 ✓
+50	5.4	389.4	382.57	6.8 ✓
5	5.67	389.10	382.80	6.3 ✓
+50	5.8	389.0	383.03	6.0 ✓
6	6.0	388.8	383.26	5.5 ✓
+50 D.E.	6.3	388.5	383.50	5.0 ✓

390.19	M.H. 6454	93.58	93.58	93.58	93.58
3.41	93.58	83.50	83.50	83.50	83.50
393.58	91.97	10.08	10.08	10.55	10.78
389.10	11.61	93.04	93.04	93.04	93.04
394	93.04	83.03	83.03	82.80	82.57
393.04	83.26	9.78	10.01	10.24	10.47
83.50	9.84				
390.17	93.92	393.17	9407	9407	9407
3.25	82.34	394.07	81.65	81.19	82.11
393.92	11.58	81.90	12.42	12.88	11.96
81.42		12.17			
12.50					
391.25	94.17	94.17			
2.92	80.73	80.96			
394.17	13.44	13.21			

C.F.

F.O

4.7

Uyada Place from N.H. & Copley North for 1/4 Dumble  
 227.5' to N.H. & street Street  
 Bunker

3.25	394.90	391.65	383.00	86	
0+0 = N.H. & Copley		391.6	384.00	7.6	
+50		3.40	391.50	384.33	7.2V
1	b	3.7	391.2	384.66	6.5V
+50		4.09	390.81	384.99	5.8 ✓
2		4.5	390.4	385.32	5.1 ✓
+ 27.5' N.H. & street		4.5	390.4	385.50	4.9 ✓

370.81  
 4.35  
 375.26 M.  
 95.26 95.26 95.26  
 85.50 85.32 84.98  
 9.76 9.94 10.77  
 ✓ ✓ ✓  
 391.50 95.11 95.11 95.11  
 3.67 84.33 84.66  
 395.11 10.78 10.75  
 ✓ ✓

50

Uyada East for 112.5' to D.E.  
 Street in Lots 31 & 32 B/M "R" from Uyada

0+0 = N.H. & Uyada		4.5	390.4	385.50	4.9 ✓
+50	b	3.9	391.0	385.95	5.0 ✓
1		4.2	390.7	386.40	4.3 ✓
+12.5' = D.E.		4.2	390.7	386.50	4.2 ✓

95.26 95.26 95.26  
 85.95 86.40 86.50  
 9.31 8.86 8.76  
 ✓ ✓ ✓

50

47

2/16/00 Ground Levels on Vvada Pl.  
for Sewer Connection

11.98 396.89

384.91

SE Adams  
+ Idaho

3.53 395.04

5.38 391.51

Bottom M.H. N. End of Vvada Pl.

9.03 386.0

66.2 N. of Vvada Pl. produced

4.30 390.7

= Ground at  
S. wall of house

1.12 393.92

= Floor of house

This is where outlet pipe will leave house

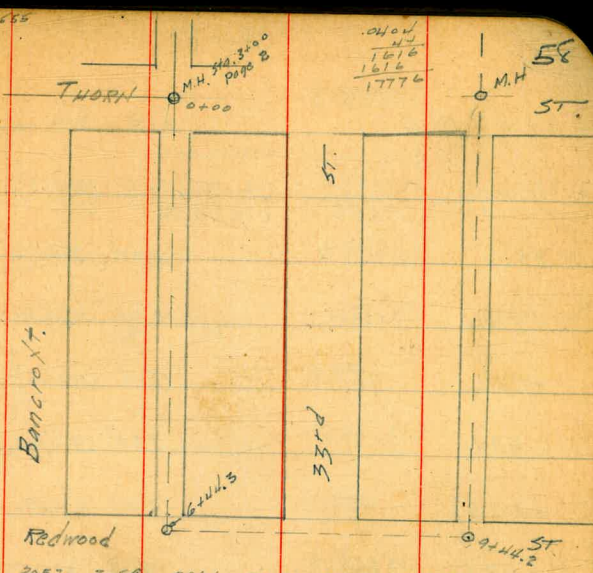
6/20/24  
Gregory Moore Miller

Sewers in Altadena.

9.79 317.05

M.H. & Thorn & Alley 33rd + Bancroft.

			307.26	Top of 32nd + Thorn.		
			305.5			
+ 50		4.82	312.23	305.7	6.53	
1		5.00	312.05	305.9	6.15	
+ 50		5.34	311.71	306.1	5.61	
2		5.21	311.84	306.31	5.53	
+ 50		4.23	312.82	306.51	6.31	
3 = M.H.		2.60	313.45	306.71	6.74	
+ 50		3.35	313.70	306.91	6.79	
4		3.80	313.25	307.11	6.14	
+ 50		3.87	313.18	307.31	5.87	
5		3.63	313.42	307.51	5.91	
+ 50	4.69	316.77	7.97	314.08	307.71	6.39
6		4.31	314.46	307.92	6.54	
+ 44.3 = M.H. & Redwood		4.47	314.30	308.1	6.20	
7		4.31	312.46	308.32	4.14	
+ 50		5.53	311.24	308.52	2.72	
8		5.50	311.27	308.72	2.55	
+ 50		5.46	311.31	308.92	2.39	
9		4.86	311.91	309.12	2.79	



307.26	305.7	305.9	306.1	306.31	306.51	306.71
8.07	10.15	10.43	10.23	10.02	9.82	9.62
316.33						
	306.71	307.11	307.31			
	9.07	9.27	9.02			
307.31	307.51	307.71	307.92	308.1	308.32	308.52
8.65	8.45	8.25	8.05	7.86	7.64	7.44
315.96		11.07				
	308.72	308.92	309.12			
	4.24	4.04	3.84			

31677

1780

+44.2	M.H.	15732.8	4.66	312.11	309.3	2.81
	D.E is in here somewhere					
+79.2		14+97.8		313.47	309.47	4.00
		8.96	323.76		314.80	BP 3W 33' + Thon
+88.6		14+88.4	10.00	313.72	309.52	+4.10
10+38.6		14+38.4	9.80	313.96	309.77	+4.11
+88.6		+88.4	9.18	314.58	310.02	+4.50
11+38.6		13+38.4	8.95	314.81	310.27	+4.50
+88.6		+88.4	8.47	315.29	310.52	+4.77
12+38.6		14+38.4	8.28	315.53	310.77	+4.76
		+88.4				
+88.6	M.H.		8.07	315.69	311.02	+4.67
13+38.6		11+38.4	7.65	316.11	311.27	+4.84
+88.6		+88.4	7.24	316.57	311.52	+5.00
14+38.6		10+38.4	7.10	316.60	311.77	+4.89
+88.6		+88.4	6.44	317.30	312.02	+5.3
15+38.6		9+38.4	5.86	317.90	312.27	5.63
		8+88.4				
+88.6	M.H. & Thon		4.80	318.96	312.52	6.44
16+38.6		8+38.4	4.48	319.28	312.77	6.51
+88.6		7+88.4	3.69	320.07	313.02	7.05
17+38.6		7+38.4	3.32	320.44	313.27	7.17
+88.6		6+88.4	3.50	320.26	313.52	6.74

31596

309.3

6.66

31470  
672  
37152

11.90

78.5

11.67

1008

1021

1022

1023

1024

1025

1026

1027

1028

1029

1030

11.77

17.02

17.50

9.20

9.00

31480  
820  
32424

12.77

11.47

1302

1327

1352

1377

1402

1427

1452

1477

1502

1527

1552

1577

1602

1627

1652

1677

32376

18+38.6	6+38.4 5+88.4	352	320.74	313.77	6.47
+88.6	M.H.	291	320.85	314.02	6.23
19+38.6	5+38.4	268	321.08	314.27	6.81
+88.6	4+88.4	267	321.09	314.52	6.57
20+38.6	4+38.4	336	320.41	314.77	5.64
+88.6	3+88.4	347	320.29	315.02	5.27
21+38.6	3+38.4 2+94.8	441	319.35	315.27	4.08
+88.17	DE	484	318.92	315.49	3.43
	2+59.82				
	S Line Opas				

0.50

0.5007

60

224.24

1377

31047

1402

1022

1427

997

1452

972

1477

927

1522

922

1527

897

1547

872

7/25/22

Sewers Filadelfia

Moore  
1715  
Strom  
Bonn  
Redwood Felton

5.88 318.89 313.01

Cuts

6.00  
6.22  
57.0

3.22  
5.76  
26.48

.620  
70  
124080

61

M.H. & Redwood Alley bet 33rd & Felton	9.51	309.38	309.38	
+50	6.55	312.34	309.58	2.76 ✓
1	6.45	312.44	309.78	2.66 ✓
+50	6.41	312.48	309.98	2.50 ✓
2	6.14	312.75	310.18	2.57 ✓
+50	5.84	313.05	310.38	2.67 ✓
3 M.H. & Redwood Felton Gregory A 90°	6.19	312.70	310.58	2.12 ✓
+50	4.88	314.01	310.89	3.12 ✓
4	4.33	314.56	311.20	3.36 ✓
+50	3.80	315.09	311.51	3.58 ✓
5	3.27	315.62	311.82	3.80 ✓
+50	3.12	315.77	312.13	3.64 ✓
6	2.60	316.29	312.44	3.85 ✓
+22.39 M.H.	2.49	316.40	312.58	3.82 ✓
+50	2.10	316.79	312.75	4.04 ✓
+80 DE. 750 324.54	1.85	317.04	312.93	4.11 ✓
continued this line 3/1/23 Gregory				
7	7.30	317.24	313.05	4.19 ✓
+50	7.17	317.37	313.37	4.00 ✓



32454  
322  
1263

06204  
41  
31020  
27816  
279180

62239  
32240  
94479

6204  
56  
31020  
31020  
341220 156126  
268

8		7.10	317.44	313.68	3.76
M	+50	6.60	317.94	313.99	3.95
9		5.96	318.58	314.30	4.28
1	+44.8 = M.H. & Thorn.	5.64	318.90	314.58	4.32
10		5.00	319.54	314.92	4.62
2	+50	4.62	319.92	315.23	4.69
11		4.04	320.50	315.54	4.96
3	+50	3.76	320.78	315.86	4.93
12		3.62	320.92	316.16	4.76
4	+50	3.23	321.31	316.47	4.84
13		3.30	321.24	316.78	4.46
5	+50	3.67	320.87	317.09	3.78
	+80 M.H. & D.E.	4.37	320.17	317.28	+2.89
6					
7					

3/13/12 Gregory  
17500  
Miller  
Shaw

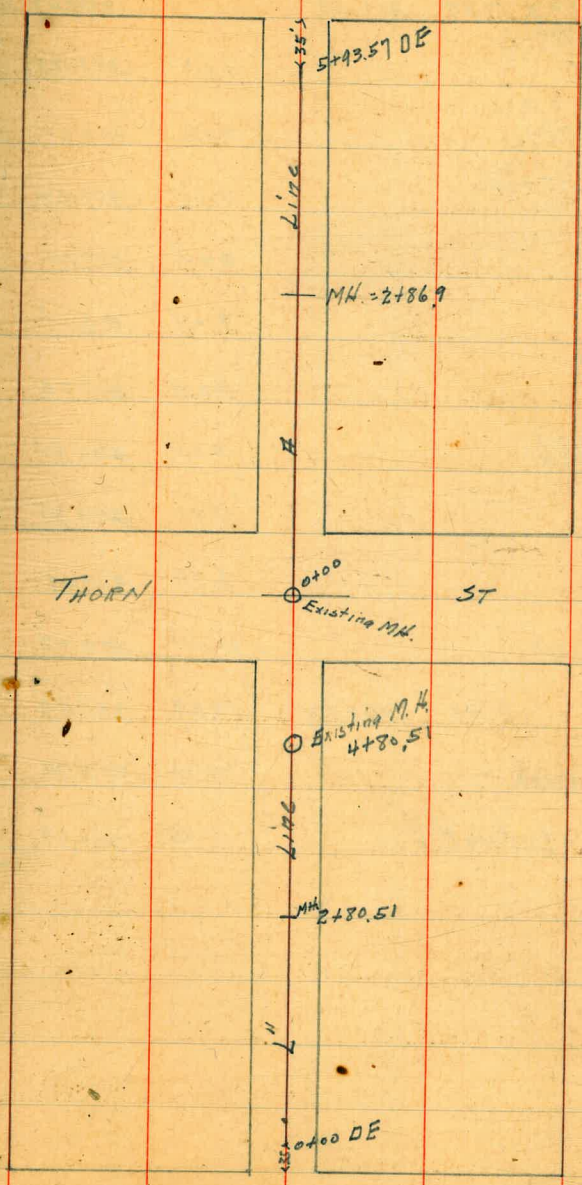
Sewer Construction  
4 1/2 miles bet 32nd & Bancroft  
Redwood to Upps

Station	Top of 4" dia SE 32nd + Thorn	Top of 4" dia SE 32nd + Thorn	Top of 4" dia SE 32nd + Thorn	Top of 4" dia SE 32nd + Thorn
MH & Thorn	8.30	315.56	307.26	297.15
20+00 12" Line			18.41	297.15
+50			11.51	304.05
1			8.30	307.26
+50			4.91	310.65
2			4.93	312.63
+50	1246	327.25	0.77	314.79
+86.9 M.H.			1072	316.53
3			1013	317.12
+50			8.27	318.98
4 +06.9 break			6.40	320.85
+50			5.09	322.16
5			4.00	323.25
+50			2.84	324.41
+93.57 DE			2.38	324.57

see next page for "L" Line

1205  
633  
1841

UPPS



287/100  
63

4531  
37  
31717  
13593  
167647

4167  
13  
12501  
4167  
15171

57  
59169  
2835  
227519

2143  
43  
6429  
8572  
92144

32nd

REDWOOD

ST.

Sewer & Alley  
bet 32<sup>nd</sup> & Bancroft  
Redwood to Thorn

	10.59	310.28	299.69	Hub 5E Redwood + 32 <sup>nd</sup>		
35' H. o.k. HL Redwood = 0+00 DE						
+50		1.43	308.85	301.0	+7.85	
1		2.16	308.12	300.64	+7.48	
+50		2.66	307.62	300.29	+7.33	
2		3.24	307.04	299.93	+7.11	
+50		3.24	307.04	299.58	+7.46	
+80.51 = M.H.		3.05	307.23	299.22	+8.01	
3		3.64	306.64	299.0	+7.64	
+50		4.71	305.57	298.64	+6.93	
+90.51 break		6.80	303.48	297.24	+6.24	
4		11.01	299.27	297.0	+2.27	
+50.51 break	0.53	298.42	14.39	297.89	294.41	+3.42
+80.51 = Existing M.H.		15.10	283.32	281.0	+2.32	
		18.33	280.09	280.0		

Rawlins

463  
1.47  
1510

305  
06

305  
713  
916  
305  
2135  
217465

64

01818  
4.1  
9090  
7272  
726298  
209

1515  
20  
26360

2667  
504  
13335  
13335  
1346835

2667  
91  
13335  
24008  
2533



on	From	To	
			<u>66</u>
Ohio Alley bet El Cajon Meade	El Cajon	600' N	24
"	Ohio	1450' W	25-26
"	"	891' E	27-
Alley bet. 30th Ohio Alley bet. Idaho Utah	El Cajon	2470' N	26-30
"	Monroe	1124' S	31-32
"	"	1286' N	33-34
Monroe Alley bet Kansas 30th Alley bet Utah KANSAS	Alley bet Utah Kansas	Idaho	35
"	Meade	3522' N	36-39
"	"	2470' N	40-42
Iowa Alley Bet Ohio Illinois Alley bet Iowa Illinois Alley bet Ohio Illinois	El Cajon	600' N	43
"	Meade	960' N	44-45
"	"	960' N	46-47
"	Ohio	Walton Plc.	48
"	Walton Plc.	97' S 1028' N	49-50
Alley bet Works Adams	30th	482' E	51
Works	"	Kansas	52
"	Alley Bet		
Copley,	Kansas	30th	53-54
Xista Place	Copley	650' N	55
Uvada Plc.	Copley	2275' N	56-57
Altadena			58-62

Continued Page 67

<u>On</u>	<u>From</u>	<u>To</u>	<u>Page</u>
Alley bet Bancroft.	Redwood	Upas	63 -
"	"	Thorn	64

5.2 5.2 6.2 5.9 6.0  
 4.8 2.85 2.3 6.5 6.2  
 10.0 8.05 9.5 12.4 12.2

SE Throxy & Felton

2.5 2.12  
 2.0 2.12  
 6.5 2.12  
 12.5  
 5.0  
 6.5

2.7

1.2  
 5.0  
 6.2

12) 60  
 0.5

25455	26	450	27	450	28	450
90.77	90.77	90.77	90.77	90.77	90.77	90.77
74.80	74.80	75.00	75.20	75.40	75.60	75.80
16.17	15.97	15.77	15.57	15.37	15.17	14.97
9.3	8.3	8.8	8.1	8.7	8.7	9.0
6.8	7.6	6.8	6.8	6.7	6.3	5.7

436  
 50  
 21800

12886  
 9447  
 3444

3110  
 3093

17200  
 13776  
 34240  
 30996  
 32440  
 30996  
 14440

679.7  
 300.0  
 643.5  
 394.7  
 375.0  
 175.5  
 678.0  
 570.0  
 608.0  
 352.0  
 610.0  
 610.0  
 955.0  
 870.0  
 370.0  
 610.0  
 835.0  
 445.0  
 470.0  
 380.0  
 225.0  
 570.0  
 447.5  
 1450.0  
 891.0  
 2470.0  
 1124.0  
 1286.0  
 380.0  
 1595.0  
 940.0  
 2470.0  
 26689.9

445.0  
 380.0  
 175.0  
 1172.0  
 1276.0  
 1595.0  
 8055.0

108014  
 5055.0  
 15256.4

32276  
 3195  
 346  
 15.0  
 7.5  
 14.7  
 10.4

3.5

19976  
 44946  
 6469436

M.H.  
 M.H.  
 M.H.

10' water Ave

Barney

Miley

Wightman M.H. Ave

1442  
 1175

267  
 396000  
 384988  
 110

1320.00  
 110.12  
 120988  
 110.12  
 1320.00

1855  
 260  
 1595

24970

2535  
 1595  
 940

4) 27

235  
 260  
 340  
 535  
 340  
 1175  
 1267  
 1442  
 413  
 1855

29  
 17  
 203  
 29  
 492

322.76  
 17.5  
 5.26

27  
 5  
 216

2325  
 1983  
 392

329.50  
 326.33  
 392) 3170.81  
 3136

on A. Hall, M. Am. Soc. C.

29.50  
 32.81  
 2.18

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

Handwritten calculations and notes on the left page of the notebook. Includes various numbers, fractions, and some faint sketches or diagrams. Notable numbers include 313.73, 317.32, 306.1, 111, 305.83, 1149, 386.25, 391, 261, 1173, 1634, 309.42, 295, 150, 445, 177, 2693, 275, 356.77, 5.53, 362.8, 2.57, 60.28, 3.65, 130, 114, 160, 120, 76, 40, 35, 80, 52.