

A3 11x17 L R A3 11x17

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A4 LETTER L R A4 LETTER

← LETTER →



A3 L R A3
11x17 11x17

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11x17

A4 L R A4
LETTER LETTER

KEUFFEL & ESSER CO.
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NEW YORK.
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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.

67

21 1554
775 1/2

455 1/2

9 1/2

1380

271 1/2

3

A3 11x17 L R A3 11x17

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A4 L R A4

$B + 2C + 2D + 2E + 2F + G = 1000$

Calvin Cutrell Road - Washington Twp. Surveyed April 19, 1917

Sta.	E	A	B	C	D	E	F	G	Average
0+00	103.61	103.60	103.68	103.63	103.80	103.87	103.63	12.444	103.62
1+00	102.74	102.72	103.03	103.26	102.87	103.99	103.61	12.396	103.21
2+00	102.30	102.15	102.65	102.81	101.30	102.45	103.15	12.261	102.36
3+00	100.25	99.84	100.62	100.64	100.52	100.63	101.09	12.058	100.56
4+00	96.50	97.05	99.16	99.22	99.20	96.50	97.22	11.952	98.24
4+40			100+00						Top Culvert Masonry.
4+45			92.50						Water level - Depth .50
5+00	97.70	97.72	98.95	99.71	99.10	96.61	96.52	11.794	98.40
6+00	101.02	100.22	100.80	101.16	100.71	100.20	100.72	12.1075	100.63
7+00	104.20	103.90	104.72	105.05	104.22	104.60	105.85	12.549	104.68
8+00	103.83	103.94	104.70	104.94	104.20	105.19	105.70	12.557	104.76
9+00	103.10	103.50	104.60	104.75	103.82	104.35	104.50	12.427	104.31
10+00	105.60	104.62	105.03	105.50	104.87	104.42	104.34	12.590	104.87
11+00	107.40	106.75	107.01	107.74	107.08	106.50	106.88	12.846	107.04
12+00	108.34	108.54	108.60	109.06	109.52	108.13	108.11	13.041	108.72
13+00	109.93	109.29	109.94	110.33	109.50	109.67	110.10	13.171	109.83
14+00	111.93	111.09	111.41	111.75	111.65	112.23	112.62	13.408	111.77
15+00	113.06	113.23	113.05	113.53	113.11	113.20	113.85	13+85 line fence 50.	113.78

B.M. on top of E.W. Farmer of Station 4+45

3.38

3.50

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A4 LETTER L R A4 LETTER

Sta	ELH	B	C	II	E	F	Ex	Average
16+00	113.58	113.56	114.49	114.91	114.21	113.70	114.23	13.695 114.73 ✓ 16+12 line fence No.
17+00	114.06	113.93	114.65	115.09	114.44	114.64	115.19	13.747 114.67 ✓
18+00	113.69	114.10	114.61	115.20	114.42	114.95	115.10	14.894 114.65 ✓
19+00	113.95	114.07	114.60	114.72	113.92	113.73	113.70	13.607 114.16 ✓
20+00	114.45	114.29	114.92	115.15	114.26	114.35	114.38	13.747 114.59 ✓
21+00	114.93	114.78	115.28	115.30	114.69	115.00	115.18	13.802 115.05 ✓ 13.816 115.15 ✓
22+00	114.99	115.03	115.34	115.62	114.85	114.97	115.19	22+00 driveway 50.
23+00	115.15	115.06	115.36	115.75	115.16	115.44	115.54	13.842 115.39 ✓
24+00	114.81	114.53	114.92	115.26	115.26	114.96	115.03	13.794 115.00 ✓
25+00	114.10	113.96	114.25	114.91	114.40	114.74	114.59	13.728 114.49 ✓
26+00	113.13	112.89	113.62	114.22	113.49	113.03	113.60	13.612 113.51 ✓
27+00	114.70	114.51	114.12	114.90	114.12	114.55	115.55	13.736 114.43 ✓ 13.717 114.30 ✓
28+00	114.32	114.30	114.28	114.76	114.22	113.81	114.70	27+66 line fence No 50
29+00	113.40	113.50	113.56	113.85	113.26	113.35	113.70	1.3621 113.57 ✓
30+00	112.45	112.88	113.09	113.31	112.95	112.86	113.25	13.558 113.04 13.30 13.575 112.61 ✓
31+00	112.74	111.96	112.81	112.82	112.52	112.75	113.04	31+00 three way No.
32+00	111.53	111.56	111.89	111.83	111.91	111.58	112.01	13.406 111.75 ✓
33+00	110.87	111.21	111.60	111.72	111.32	111.18	111.31	13.363 111.47 ✓ 2.48

A3 11x17 L R A3 11x17

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A4 L R A4

Sta	E	A	B	C	D	E	F	G	Average	
34+00	112.21	111.70	112.01	112.36	111.93	112.23	112.22	13.442	112.08	✓
35+00	112.32	112.00	112.30	112.52	112.29	112.76	112.59	13.486	112.44	✓
36+00	111.55	111.60	112.00	112.06	111.56	111.86	111.85	13.415	111.83	✓
37+00	111.32	110.93	111.49	111.72	111.36	111.70	111.51	13.372	111.49	✓
38+00	109.72	109.90	111.47	111.71	110.76	110.65	110.73	13.294	110.94	✓
39+00	111.69	111.01	111.39	111.27	111.03	111.72	111.72	13.362	111.35	✓
40+00	111.61	110.71	111.40	111.35	111.05	111.82	111.17	13.355	111.31	✓
40+60	109.95	110.15	110.79	110.91	110.01	110.26	110.16	13.243	110.44	✓
41+00	110.03	109.89	110.55	110.51	110.03	110.40	110.36	13.231	110.31	✓
42+00	110.02	109.43	110.18	110.07	109.83	110.14	110.05	13.193	109.96	✓
43+00	109.49	109.01	109.70	109.74	109.55	109.33	109.50	13.136	109.51	✓
44+00	109.39	108.88	109.56	109.66	109.29	109.58	109.60	13.129	109.46	✓
45+00	109.38	108.95	109.50	109.78	109.16	109.13	108.85	13.112	109.74	-
46+00	109.78	109.42	109.90	109.84	109.26	109.95	110.12	13.166	109.94	✓
47+00	109.71	109.73	109.25	110.06	109.25	109.71	109.25	13.160	109.91	-
48+00	109.40	109.04	109.81	109.83	109.89	109.62	109.20	13.149	109.64	✓
49+00	109.04	108.26	108.56	108.74	108.97	109.55	108.97	13.057	109.74	✓
50+00	107.40	106.91	107.02	106.85	106.49	107.06	106.62	12.821	106.82	-

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A4 L R A4

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Sta	E1	A	B	C	D	E	F	G	Average	
51+00	104.35	104.32	104.95	104.95	104.97	105.19	104.96	12.557	104.63	✓
51+30	104.66	103.65	103.80	103.77	103.90	104.12	104.22	12.473	103.27	✓
52+00	102.76	102.78	103.62	103.25	103.06	102.78	102.96	12.367	103.11	✓
52+90	104.34	104.36	104.42	104.75	104.25	104.93	104.35	12.541	104.54	✓
53+00	104.48	104.22	104.43	104.52	104.22	104.55	104.72	12.530	104.43	✓
54+00	104.31	103.81	104.24	104.33	104.79	103.33	104.45	12.497	104.04	✓
55+00	103.30	103.05	103.96	103.76	102.87	103.65	104.43	12.423	103.59	✓
55+09	100.12	102.99	103.65	103.69	103.46	100.78	100.95	12.302	107.70	✓
55+20	102.80	102.70	103.95	103.66	103.65	103.27	103.45	12.401	103.54	✓
55+41	103.70	103.72	103.85	103.97	103.98	104.00	104.11	12.466	103.92	✓
56+00	104.26	104.52	103.76	104.10	104.15	103.79	104.35	12.492	104.04	✓
57+00	102.77	102.88	103.27	103.91	103.58	102.74	102.94	12.399	103.40	✓
58+00	103.67	103.35	103.49	104.19	104.60	103.35	103.59	12.452	103.81	✓
59+00	104.20	104.00	104.23	104.76	104.57	103.25	103.99	12.498	104.16	✓
60+00	103.58	103.30	103.75	104.25	103.81	102.90	102.52	12.433	103.94	✓
61+00	102.56	101.81	102.86	103.42	103.13	102.99	102.95	12.324	102.80	✓
62+00	102.49	102.56	103.00	103.39	103.25	102.50	102.94	12.347	102.96	✓
63+00	102.47	101.63	102.70	103.21	102.85	102.44	102.96	12.311	102.70	✓

average
 driveway No.
 55+04 line fence of No. 5a Road.
 Road ditch No. 5a
 center of Road
 East line fence of No. 5a Road

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

Sta.	El. H	B.	C	D	E	F	H	Average		
64+00	101.54	100.90	101.97	102.32	102.10	101.55	102.72	122.19	101.94	✓
65+00	100.86	99.93	101.11	101.42	101.00	101.09	101.87	121.06	100.98	101.10
66+00	98.30	98.35	98.88	99.31	98.71	98.31	98.21	118.36	98.69	✓
66+40	97.76	97.97	98.80	99.20	98.73	97.92	97.38	117.85	98.78	✓
67+00	96.25	96.20	100.89	101.20	100.89	97.50	97.54	118.71	99.46	low spot in road drain to ditch
67+70	99.15	98.95	100.21	100.36	99.90	99.95	100.07	119.79	99.98	Free Bottom & Invert. Drive way to No.
68+00	100.66	100.10	100.85	101.39	101.13	101.29	101.13	121.13	101.05	✓
69+00	101.56	100.94	101.90	102.25	102.12	101.76	101.98	122.14	101.89	✓
70+00	100.59	99.59	101.05	101.71	101.37	100.20	100.40	120.88	100.86	✓
71+00	100.48	100.05	101.05	101.55	101.00	100.10	100.55	120.95	100.80	✓
72+00	101.21	100.69	101.33	101.83	101.38	101.19	101.36	121.52	101.38	✓
72+70	101.26	101.25	101.18	101.82	101.40	100.99	101.02	121.55	101.30	✓
73+00	101.23	100.91	101.41	101.50	101.21	100.89	100.95	121.40	101.78	✓
74+00	101.37	100.92	101.62	101.95	101.02	101.06	101.55	121.68	101.37	✓
74+76	101.49	101.22	101.46	101.95	101.05	101.02	101.20	121.50	101.24	✓
75+00	101.15	101.20	101.42	101.33	101.20	100.97	101.17	121.45	101.71	✓
75+96	100.65	100.40	101.11	101.25	100.70	100.65	100.53	120.94	100.83	✓
76+00	100.62	100.30	101.10	101.20	100.66	100.11	100.80	120.81	100.71	✓

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A3 11x17 L R A3 11x17

← A3 →

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A4 L R A4

Sta	A	B	C	D	E	F	G	Average	
77+00	99.48	99.85	100.06	100.09	99.76	99.75	100.01	119.85	99.91 ✓
78+00	98.80	98.65	99.40	99.53	99.10	99.62	98.90	119.01	99.76 ✓
79+00	98.31	98.17	98.14	99.54	98.92	98.20	98.37	118.26	98.61 ✓
80+00	99.10	98.54	99.33	99.71	99.93	98.62	99.07	119.04	99.71 ✓
81+00	99.00	98.16	99.15	99.49	98.90	98.40	98.89	118.60	98.88 ✓
82+00	99.20	98.58	99.31	99.80	99.20	98.68	99.54	118.98	99.70 ✓
83+00	100.63	99.82	100.38	100.74	100.55	100.15	101.10	120.50	100.55 ✓
83+36	100.56	100.80	100.94	101.46	101.00	100.75	101.12	121.15	101.01 ✓ DRIVEWAY TO RESIDENCE
84+00	101.76	101.40	101.37	101.85	101.46	101.38	101.76	121.84	101.52 ✓
85+00	101.95	100.60	101.25	101.63	101.35	100.76	100.98	121.34	101.13 ✓
86+00	100.57	100.07	100.71	101.38	100.91	100.21	100.25	120.73	100.69 ✓ 86+82 HITE fence from stone
87+00	100.53	100.13	100.92	101.30	100.96	100.22	101.04	120.86	100.87 ✓
87+20	100.16	100.13	100.87	101.24	100.82	100.36	100.72	120.77	100.73 ✓ Driveway to
88+00	101.36	100.13	101.22	101.56	101.70	100.55	101.18	121.18	101.03 ✓
89+00	99.72	99.35	99.79	99.55	99.89	99.35	99.73	119.51	99.60 ✓
90	98.82	98.46	99.15	99.53	99.25	98.42	98.73	118.71	99.98 ✓
91	99.26	98.77	99.29	99.80	99.60	99.14	99.88	119.25	99.74 ✓
92	99.41	99.11	99.55	100.10	100.05	99.10	99.32	119.57	99.91 ✓
92+27 Drive	98.20	98.81	99.54	100.25	99.10	99.83	99.80	119.56	99.75 ✓ Oscar Bradford-house visit

A3 11x17 L R A3 11x17

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A4 L R A4

Sta.	A	B	C	D	E	F	G	Average		
93	99.19	98.55	99.13	99.61	99.44	98.77	99.64	118.98	99.70	✓
94	98.43	98.42	98.23	99.20	99.17	98.37	98.34	118.35	98.66	✓
95	97.89	97.43	97.78	99.25	99.16	98.54	98.10	118.03	98.49	✓
96	98.38	98.36	98.23	98.99	98.73	98.40	98.22	118.24	98.56	✓
97	97.41	97.19	97.64	98.54	98.54	97.82	97.25	117.41	97.95	✓
98	98.26	97.65	97.51	98.37	98.43	97.92	97.56	117.55	97.95	97.67
99	98.00	97.69	97.86	98.43	98.23	97.46	97.66	117.50	97.93	96.30 side ditch N. side - stagnant
100	97.69	97.40	97.95	98.53	98.10	97.36	98.30	117.46	97.95	96.12 missing stone at Mills line 100+24
100+20	97.61									S. drive to field.
101	97.75	97.45	97.75	98.41	98.33	98.16	97.29	117.52	98.00	95.50 ✓
102	97.55	97.20	97.49	98.10	98.00	97.46	97.94	117.19	97.71	✓
103	97.15	96.90	97.05	97.56	97.55	97.69	95.86	116.65	97.74	94.70 ✓
104	96.80	97.15	97.10	97.30	97.35	97.05	95.56	116.42	97.02	✓
104+50	95.75									lanes.
105	96.24	95.80	95.80	96.10	95.94	95.50	95.83	115.03	95.82	✓
106	94.69	94.41	94.51	94.73	94.53	94.16	94.05	113.34	94.43	✓
107+00	93.88	93.40	93.45	93.90	94.10	93.92	93.45	112.44	93.71	✓
108+00	93.48	93.25	93.08	93.34	93.45	92.95	92.46	111.80	93.12	112.5, 92.54 ✓
109+00	93.35	92.84	92.24	92.45	92.55	92.33	91.54	110.97	92.35	✓

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A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

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17

Sta	EL. A	B	C	D	E	F	G	Microscope	
110+00	91.80	91.40	91.35	91.65 ✓	91.70	91.35	90.85	109.75	91.43 ✓
111+00	90.75	90.52	90.22	90.65 ✓	90.85	90.40	89.65	108.56	90.43 ✓
112+00	90.95	91.05	88.25 ^{ditch}	90.10 ✓	90.15	89.80	88.62	107.82	89.67 ✓
113+00	90.92	90.85	87.55 ^{ditch}	89.02 ✓	89.31	89.20	87.70	111+15-4' tile from field to ditch.	89.00 ✓
114+00	89.30	89.10	85.90 ^{ditch}	86.45 ✓	86.30	88.00	86.10	105.44	87.65 ✓
115+00	88.20	87.70	89.10	86.19 ✓	86.55	86.10	85.32	103.49	85.90 ✓
116+00	85.65	84.95	84.68	84.65 ✓	85.00	84.65	84.25	101.77	84.71 ✓
117+00	85.50	85.10	81.20	83.48 ✓	83.65	83.20	82.90	100.30	83.74 ✓
118+00	83.05	83.00	81.75	82.05 ✓	82.50	81.25	81.62	98.71	82.11 ✓
119+00	81.36	80.95	80.05	80.90 ✓	81.35	80.70	80.20	96.94	80.70 ✓
120+00	79.90	79.80	79.10	79.75 ✓	79.85	79.25	78.65	95.98	79.41 ✓
121+00	78.60	78.00	77.65	78.30 ✓	78.30	78.00	77.70	93.68	78.02 ✓
122+00	77.00	76.65	76.65	76.70 ✓	77.00	76.60	76.10	95.42 ditch & line to top of pipe	76.66 ✓
123+00	76.07	75.95	75.05 ^{ditch}	75.45 ✓	75.85	75.30	74.60	92.03	75.31 ✓
124+00	74.90	75.00	72.15	74.60 ✓	74.80	74.50	73.60	89.01	74.97 ✓
125+00	73.87	74.15	73.55	73.80 ✓	74.25	73.40	73.20	88.53	73.73 ✓
126+00	72.95	72.45	71.00 ^{ditch}	73.40 ✓	73.35	73.15	72.40	87.20	72.66 ✓
126+70	72.40	72.30	71.30 ^{ditch}	73.20 ✓	73.30	72.25	71.60	70.30 ditch 26.87-72.40	72.40 ✓
126+85	73.10	73.10	73.11	73.15 ✓	73.15	72.78	72.80	line from ditch on N of Road	73.12 ✓

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

18										19	
	E1	H	B	C	D	E	F	H			
			<small>Dirch</small>					<small>Dirch</small>	Average		
127+00	72.20	71.60	72.25	72.80	72.60	72.05	71.60	86.78	72.40	✓	
128+00	72.80	73.20	72.90	73.30	73.45	73.00	73.20	87.47	73.17	✓	
129+00	72.95	73.30	73.20	73.80	73.75	73.15	73.20	88.05	73.43	✓	
130+00	73.63	74.30	74.10	74.55	74.65	74.15	74.55	89.16	74.36	✓	
131+00	74.53	74.65	74.60	74.80	75.10	74.55	74.80	89.69	74.75	✓	
132+00	74.51	74.45	74.35	74.80	74.75	74.30	74.55	89.43	74.53	✓	
133+00	74.21	74.20	74.40	74.80	74.80	74.20	74.70	89.37	74.52	✓	
134+00	74.16	74.85	74.30	74.70	74.70	74.30	74.25	89.31	74.45	✓	
135+00	74.39	74.25	74.20	74.55	74.60	74.00	75.00	89.25	74.38	✓	
135-64	73.80	73.85	73.80	74.10	74.20	73.40	73.70	88.61	73.84	✓	drive 50. to Residence.
136+00	73.61	73.65	73.55	73.80	73.70	73.15	73.65	88.29	73.56	✓	
137+00	72.80	72.65	72.80	73.25	73.10	72.35	72.85	87.34	72.99	✓	
138+00	72.00	72.20	72.30	72.85	72.55	71.85	72.05	86.75	72.33	✓	
139+00	71.30	71.35	71.85	72.40	72.15	71.30	71.45	86.08	71.81	✓	
140+00	71.56	71.50	71.55	72.10	71.85	71.00	71.60	85.91	71.70	✓	
141+00	71.11	70.60	70.80	71.40	70.90	70.20	71.60	85.05	70.87	✓	
142+00	69.68	69.45	69.75	70.20	69.70	69.15	70.20	83.63	69.71	✓	
143+00	68.70	66.95	68.40	68.85	68.30	67.60	68.10	81.71	68.14	✓	
144+00	67.30	65.20	67.00	67.50	66.95	65.95	66.30	79.88	66.63	✓	

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

S								20		N								21	
Sta	E.L.H	B	C	D	E	F	G	Average											
145+00	65.84	Ditch 63.55	64.75	65.10	64.75	61.90	64.00	76.99	64.05 ✓										
146+00	62.49	61.55	62.60	62.90	62.80	61.15	63.40	74.78	62.37 ✓										
146+36	61.10	61.75	61.20	62.30	62.50	63.00	63.20	74.68	62.19 ✓										
147+00	60.25	Ditch 59.80	61.20	61.35	61.55	59.65	62.50	72.98	60.97 ✓										
147+45	59.60	59.25	60.60	60.75	61.10	61.70	62.40	72.93	61.04 ✓										
148+00	58.38	58.80	59.90	60.10	59.90	58.00	61.30	71.30	59.58 ✓	197ms to 197+80 tile in front of Maria Res.									
149+00	59.70	59.70	59.15	59.15	59.15	55.00	53.50	69.67	54.78 57.98	Ditch Turns from road to No.									
150+00	59.78	58.75	57.05	57.35	57.75	57.00	57.15	69.12	57.31 ✓										
151+00	55.63	55.00	54.75	55.20	54.75	54.80	53.75	65.83	54.76 ✓										
152+00	52.98	52.25	52.35	52.85	52.10	49.35	48.32	61.90	51.37 ✓	Drulley									
153+00	51.00	49.35	49.50	49.75	49.40	50.45	50.65	59.85	49.81 ✓										
153+27	49.10	49.20	49.50	49.50	49.75	49.65	50.45	59.31	49.48 ✓	line fence west of Fajal									
153+27	49.25	49.35	49.50	49.90	49.65	49.70	49.75	59.52	49.66 ✓	# To Road N.E. Co.									

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

Square Yardage.

Stations 0+00 to 153+37 for 12 ft Road =

$\frac{15337 \times 12}{9} = 20449$ Sq. yds of Surface

Sewers-

14" - 26'

14" - 10'

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

26

Stone April 1919 ²⁷

on bases of 50 tons per 100 lin. feet.

5 to 0 to 157.37.

157.37 x .5 = 7,868.50 tons

55 tons = 786.85

8655.35 tons @ 1.52 =

157.37 @ .55 = 8435.35 @ 1.52 = 12821.73

Hauling @ 50¢ = 4217.67

Spreading @ 10¢ 843.54

unloading @ 02¢ 253.06

Rolling @ 10¢ 843.54

Incidentals @ 5¢ 421.77

Ditching \$5000.00

Grade 2000.00

Emul. Asphalt @ 12¢ - 6800 yds 816.00

Tarvac @ 11¢ 6800 " 748.00

Tarvac @ 43.8¢ 3000.00

Profit @ 15% 5573.75

Total 36539.06

Bridge + culverts and headers ^{page} totaling 2000 carried on another Estimate 38539.06

Hauling Stone.

From Avon Station to Stations 0+00 to 60+00 inclusive and from 60+00 to 157+37 inclusive from Nursery Switch
Loads 2 1/2 Tons each.

Teams walking 18 M. per day and
Fasting \$6.00 per day

Sta. 0+00 to 60+00 = 1200 loads. Avon to Sta.

0+00 - 3/4 Mile = 12 loads per day = 100 ds =	600.00
Sta 0+00 to 5+00	3.15
5+00 to 10+00	6.30
10+00 to 15+00	9.45
15+00 to 20+00	12.50
20+00 to 25+00	15.65
25+00 to 30+00	18.80
30+00 to 35+00	21.95
35+00 to 40+00	25.10
40+00 to 45+00	28.25
45+00 to 50+00	31.40
50+00 to 55+00	34.55
55+00 to 60+00	37.70
	844.80

Plus 20% for Loss = 168.96 \$1,013.76

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

30.

Hauling Stone from Sta 60+00 to 153+37
 on Baises of 500 ft units @ \$ 3.15 Ea. 70

Sta to Sta	63.00
60+00 to 65+00	59.85
65 to 70	56.70
70 to 75	53.55
75 to 80	50.40
80 to 85	47.25
85 to 90	44.10
90 to 95	40.95
95 to 100	37.80
100 to 105	34.65
105 to 110	31.50
110 to 115	28.35
115 to 120	25.20
120 to 125	22.05
125 to 130	18.90
130 to 135	15.75
135 to 140	12.60
140 to 145	9.45
	<u>654.05</u>

145 to 150
 150 to 155

Plus \$ 290 for loss
 Hauling to Stations 0+00 to 60+00

654.05 31
 6.30

3.20
~~663.55~~
 132.71 \$796.26
 894.80
~~\$1641.06~~

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

Trains

12" Trench on 2 Sides of Road

Sta.	Ent. 50	Ent. No.	Excav.	Lu. ft.	TU yd.
0-1	3.27	3.96		7.23	26.77
1-2	3.14	3.82		6.96	25.77
2-3	2.47	2.99		5.46	20.22
3-4	0.79	1.17		.96	3.55
4-4+90	0.00	0.00		0.00	0.00
4+90-5	0.00	0.00		0.00	0.00
5-6	.86	.85		1.71	6.33
6-7	3.11	3.45		6.56	24.30
7-8	3.62	4.57		8.19	30.33
8-9	2.57	3.55		6.12	22.66
9-10	2.57	2.84		5.35	19.80
10-11	2.94	2.71		5.65	20.92
11-12	3.40	2.67		6.07	22.48
12-13	3.02	2.60		5.62	20.81
13-14	2.69	3.45		6.17	22.85
14-15	3.04	3.79		6.83	25.29

292.38

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

34						35					
Int. No.	Int. No.	Excav.	Fu. ft.	Cu. yd.		Int. No.	Int. No.	Excav.	Fu. ft.	Fu. yd.	
15-16	3,39	3,53	692	25.62	33-34	3,74	3,79		753	27.88	
16-17	3,17	3,59	676	25.03	34-35	4,93	4,88		931	34.48	
17-18	2,94	3,47	641	23.74	35-36	3,80	4,31		811	30.03	
18-19	2,86	2,87	573	21.22	36-37	3,62	4,13		775	28.70	
19-20	2,78	2,64	542	20.07	37-38	3,07	3,83		690	25.55	
20-21	2,99	3,13	612	22.66	38-39	3,43	4,16		759	28.11	
21-22	3,21	3,24	645	23.88	39-40	3,91	4,32		823	30.49	
22-23	3,15	3,26	641	23.74	40-40.6	3,70	3,81		450	16.66	
23-24	2,95	3,30	625	23.14	40+60-41	3,22	4,03		290	10.74	
24-25	2,72	3,28	600	22.22	41-42	3,66	4,27		793	29.36	
25-26	2,75	2,71	496	18.88	42-43	3,62	4,14		776	28.74	
26-27	2,85	2,94	579	21.44	43-44	3,74	4,26		800	29.62	
27-28	3,86	3,63	749	27.74	44-45	4,04	4,48		852	31.55	
28-29	3,68	3,86	754	27.92	45-46	4,66	5,02		968	35.84	
29-30	3,29	3,21	650	24.07	46-47	5,23	5,73		1096	40.58	
30-31	2,77	3,22	599	22.22	47-48	5,44	5,97		1141	42.25	
31-32	2,49	2,89	538	19.92	48-49	5,33	6,26		1159	42.92	
32-33	2,44	2,43	487	18.03	49-50	4,61	5,33		994	36.81	
410.97											

LR

A3 11x17 LR A3 11x17

A3

11x17

A4 LR A4

Sta	Fut No	Fut No	Excav.	Ev. ft.	Ev. yd.	Sta	Fut No	Fut No	Excav.	Ev. ft.	Ev. yd.
50-51	3.05	3.02		607	22.49	63-64	3.42	4.05		747	27.66
51-51+30	1.65	2.28		113	4.18	64-65	2.89	3.62		651	24.11
51+30-52	1.04	1.28		162	6.01	65-66	1.97	2.35		432	16.00
52-52+90	1.72	1.91		363	13.44	66-66+90	1.37	1.07		98	3.63
52+90-53	2.62	2.97		559	20.90	66+90-67	.70	.86		94	3.48
53-54	2.54	2.47		501	18.55	67-68	1.60	2.15		375	13.88
54-55	2.33	2.39		492	17.43	68-69	3.07	4.18		725	26.84
55-55+90	2.13	2.33		40	1.48	69-70	2.74	3.96		670	24.81
55+90-55+20	2.21	2.29		50	1.88	70-71	2.72	3.05		577	21.37
55+20-55+41	2.79	3.11		124	4.58	71-72	3.20	3.47		667	24.70
55+41-56	3.65	3.42		417	15.44	72-72+70	3.80	3.87		546	20.25
56-57	3.35	2.92		627	23.22	72+70-73	3.81	3.67		224	8.31
57-58	3.12	3.05		617	22.85	73-74	3.59	3.65		124	16.81
58-59	4.05	3.68		773	28.65	74-74+70	3.70	3.67		137	27.29
59-60	3.90	3.87		777	28.79	74+70-75	3.79	3.57		136	27.25
60-61	3.18	3.87		705	26.11	75-75+96	3.33	3.34		667	24.70
61-62	3.64	3.45		759	28.11	75+96-76	2.83	2.86		569	21.07
62-63	3.89	4.27		816	30.22						

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

76-77	2.50	2.36	486	18
77-78	1.63	2.06	369	13.6
78-79	1.24	1.24	2.48	9.2
79-80	1.11	.66	1.77	6.5
80-81	.53	.69	1.02	3.8
81-82	.50	.67	1.17	4.3
82-83	1.24	1.47	2.61	9.7
83-83+36	2.25	2.43	1.68	6.2
83+36-84	3.00	2.99	3.83	14.1
84-85	2.88	2.95	5.83	21.5
85-86	2.16	2.31	4.47	16.5
86-87	1.85	1.97	3.82	14.1
87-87+20	1.81	1.98	.76	2.8
87+20-88	1.26	2.08	2.67	9.9
88-89	1.64	1.85	3.49	12.9
89-90	1.38	1.36	2.74	10.1
90-91	1.62	1.73	3.35	12.4
91-92	2.22	2.72	4.94	18.2
92-92+27	2.46	3.27	1.55	5.7

92-92-93	2.41	3.03	3.97	14.70
93-94	2.39	2.47	4.86	18.00
94-95	2.08	2.61	5.69	21.07
95-96	2.30	2.87	5.17	19.14
96-97	2.43	2.76	5.19	19.77
97-98	2.32	2.77	5.09	18.85
98-99	2.80	2.82	5.62	20.80
99-100	2.92	2.79	5.71	21.10
100-101	3.08	3.41	6.49	24.00
101-102	3.23	3.71	6.94	25.60
102-103	3.18	3.70	6.88	25.40
103-104	3.25	3.60	6.85	25.30
104-104+56				
104-105	3.13	2.93	6.06	22.40
105-106	3.16	2.88	6.04	22.30
106-107	3.36	3.39	6.75	25.00
107-108	3.68	3.34	7.02	26.00
108-109	4.30	3.54	7.84	29.00

A3 11x17 LR A3 11x17

A3

11x17

A4 LR A4

109-110	4.27	3.99
110-111	4.02	3.93
111-112	4.74	4.05
112-113	5.75	4.65
113-114	5.73	4.65
114-115	5.00	3.69
115-116	4.04	3.17
116-117	4.25	3.15
117-118	4.73	3.25
118-119	4.04	3.42
119-120	3.88	3.48
120-121	3.80	3.53
121-122	3.30	3.28
122-123	3.03	2.68
123-124	2.94	2.34
124-125	2.80	2.18
125-126	2.28	2.25
126-126+70	1.90	2.23
126+70-126+85	2.43	2.43

826	30.50
795	29.40
879	32.50
1040	38.50
1038	38.40
869	32.50
721	26.60
740	27.40
798	29.50
746	27.60
726	26.80
733	27.10
658	24.30
571	21.10
532	19.60
498	18.40
453	16.70
289	10.70
73	2.7

121+85-127	2.28	2.34
127-128	2.50	2.63
128-129	3.43	3.25
129-130	4.13	3.95
130-131	5.08	4.93
131-132	5.30	5.18
132-133	5.23	5.15
133-134	5.35	5.35
134-135	5.83	5.45
135-135+64	6.78	5.18
135+64-136	5.28	4.73
136-137	4.25	4.35
137-138	4.20	4.38
138-139	3.70	4.00
139-140	4.03	3.25
140-141	3.55	3.10
141-142	3.18	2.83
142-143	2.55	2.73
143-144	2.18	2.84

69	2.5
513	1.9
668	24.7
808	29.9
1001	37.00
1048	38.80
1038	38.40
1070	39.6
1128	41.7
765	28.3
3.60	13.3
860	31.6
858	31.7
770	28.5
728	26.9
6.65	24.6
601	22.7
528	19.5
506	18.7

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

42

144-145	7.73	1.78	4.01	14.8
145-146	4.00	.98	2.98	11.0
146-147	2.38	2.80	5.18	15.4
147-147+45	2.45	3.05	2.48	9.7
147+45-148	2.58	2.48	2.78	10.3
148-149	3.75	1.50	5.25	14.4
149-150	5.43	2.70	8.13	30.1
150-151	5.08	4.10	9.18	34.0
151-152				
152-153				
153-153+22				
153+22-153+27				
Total In yds			36	294.6

43

Breaks in Tile drain Elevations

Sta	Elev. Ft.
0+00	100.00
4+45	98.50
10+00	107.00
15+00	109.60
17+00	111.00
23+00	112.00
47+00	105.60
50+50	101.60
66+40	96.70
88+00	98.25
91+00	96.25
103+00	93.60
115+00	83.00
121+00	74.40
124+00	70.80
127+00	70.00
140+00	68.80
142+00	66.50
152+00	49.30

Elevations of tile drains at all stations and depth below grade stakes.

Sta	El. No	El. No	depth El. below grade stake	Depth No. below grade stake
0+00	100.00	100.00	3.61	3.87
1	99.67	99.67	3.07	3.82
2	99.33	99.33	2.82	3.12
3	99.00	99.00	.84	1.63
4	98.66	98.66	+1.51	+2.16
4+45	98.50	98.50	+	
5	98.85	98.85	+1.13	+2.25
6	99.47	99.47	.75	.55
7	100.10	100.10	2.80	3.50
8	100.73	100.73	3.21	4.41
9	101.36	101.36	2.14	2.99
10	102.00	102.00	2.62	2.42
11	103.52	103.52	3.23	2.98
12	105.04	105.04	3.50	3.09
13	106.56	106.56	2.73	3.11
14	107.08	107.08	3.01	4.15
15	109.60	109.60	3.63	3.60

A3
11x17

L R

A3
11x17

← A3 →

← 11x17 →

A4
11x17

L R

A4
11x17

Sta.	El. No.	El. No.	Depth below No. grade Stake	Depth Below No. grade Stake
16	110.30	110.30	3.26	3.40
17	111.00	111.00	2.93	3.64
18	111.16	111.16	2.94	3.29
19	111.33	111.33	2.74	2.46
20	111.50	111.50	2.79	2.85
21	111.66	111.66	3.12	3.34
22	111.83	111.83	3.20	3.04
23	112.00	112.00	3.06	3.44
24	111.73	111.73	2.80	3.16
25	111.47	111.47	2.49	3.27
26	111.02	111.02	1.87	2.01
27	110.93	110.93	3.58	3.62
28	110.67	110.67	3.63	3.14
29	110.40	110.40	3.10	2.95
30	110.13	110.13	2.75	2.73
31	109.87	109.87	2.09	2.92
32	109.60	109.60	1.96	1.98
33	109.33	109.33	1.88	1.85

Sta.	El. No.	El. No.	Depth below No. grade Stake	Depth Below No. grade Stake
34	109.07	109.07	2.63	3.16
35	108.80	108.80	3.20	3.96
36	108.53	108.53	2.07	3.33
37	108.27	108.27	2.66	3.63
38	108.00	108.00	1.90	2.65
39	107.73	107.73	3.28	3.99
40	107.46	107.46	3.25	4.42
41	107.20	107.20	2.69	3.20
42	106.93	106.93	2.50	3.21
43	106.67	106.67	2.34	2.66
44	106.40	106.40	2.20	3.18
45	106.13	106.13	2.82	3.00
46	105.87	105.87	3.55	4.07
47	105.60	105.60	3.63	4.11
48	104.27	104.27	4.97	5.35
49	102.93	102.93	5.33	6.62
50	101.60	101.60	5.31	5.46

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

Sta.	El. No.	El. No.	Depth - Below No. grade Stake	Depth - Below No. grade Stake
48	Fall = 298.68			
51	101.30	101.30	3.09	3.88
52	101.00	101.00	1.78	1.78
53	100.70	100.70	3.52	3.85
54	100.41	100.41	3.40	2.92
55	100.11	100.11	2.94	3.22
56	99.81	99.81	4.71	3.98
57	99.51	99.51	3.37	3.23
58	99.21	99.21	4.14	4.14
59	98.91	98.91	5.79	4.34
60	98.61	98.61	4.65	4.38
61	98.32	98.32	3.49	4.17
62	98.02	98.02	4.54	4.46
63	97.72	97.72	3.91	4.72
64	97.42	97.42	3.58	4.13
65	97.12	97.12	2.81	3.97
66	96.82	96.82	1.53	1.49
66 + 40	96.70	96.70	1.29	.72

Sta.	El. No.	El. No.	Depth - Below No. grade Stake	Depth - Below No. grade Stake
67	96.74	96.74	+54	+76
68	96.81	96.81	3.79	4.48
69	96.88	96.88	4.06	4.48
70	96.96	96.96	2.63	3.24
71	97.03	97.03	3.02	3.07
72	97.10	97.10	3.54	4.09
73	97.17	97.17	3.74	3.72
74	97.24	97.24	3.68	3.82
75	97.31	97.31	3.89	3.66
76	97.39	97.39	2.91	2.72
77	97.45	97.45	2.40	2.30
78	97.53	97.53	1.12	2.09
79	97.60	97.60	.57	.60
80	97.67	97.67	.87	.95
81	97.74	97.74	.42	.66
82	97.82	97.82	.34	.58
83	97.89	97.89	1.93	2.26
84	97.96	97.96	3.40	3.42
85	98.03	98.03	2.57	2.73

49

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

50					51				
Sta.	El. No.	El. No.	Depth Below G.S. Stake	Depth Below No. grade Stake	Sta.	El. No.	El. No.	Depth Below G.S. Stake	Depth Below No. grade Stake
					10A	92.72	92.72	4.43	4.33
86	98.10	98.10	1.93	2.11	105	91.83	91.83	3.94	3.67
87	98.18	98.18	1.95	2.04	106	90.95	90.95	3.46	3.21
88	98.25	98.25	1.88	2.30	107	90.07	90.07	3.33	3.65
89	97.58	97.58	2.14	1.77	108	89.18	89.18	4.07	3.77
90	96.92	96.92	1.54	1.50	109	88.30	88.30	4.54	4.03
91	96.25	96.25	1.92	2.89	110	87.42	87.42	3.98	3.93
92	96.03	96.03	3.08	3.67	111	86.53	86.53	3.99	3.87
93	95.81	95.81	2.74	2.96	112	85.65	85.65	5.40	4.15
94	95.59	95.59	2.83	2.78	113	84.76	84.76	6.09	5.04
95	95.37	95.37	2.06	3.17	114	83.88	83.88	5.22	4.12
96	95.14	95.14	3.22	3.26	115	83.00	83.00	4.70	3.18
97	94.92	94.92	2.27	2.90	116	81.57	81.57	3.38	3.08
98	94.70	94.70	2.95	3.22	117	80.13	80.13	4.97	3.07
99	94.48	94.48	3.21	2.98	118	78.70	78.70	4.30	3.25
100	94.26	94.26	3.14	3.10	119	77.27	77.27	3.66	3.43
101	94.04	94.04	3.41	4.02	120	75.83	75.83	3.87	3.92
102	93.82	93.82	3.38	3.64	121	74.40	74.40	3.60	3.60
103	93.60	93.60	3.30	4.09					

A3 11x17 L R A3 11x17

A3

11x17

A4 L R A4

Sta.	El. No.	El. No.	Depth below grade Sta No.	Depth below grade Sta No.	Sta.	El. No.	El. No.	Depth below grade Sta No.	Depth below grade Sta No.
122	73.70	73.70	3.45	3.40	141	67.65	67.65	2.95	2.55
123	72.00	72.00	3.95	3.30	142	66.50	66.50	2.95	2.65
124	70.80	70.80	4.20	3.70	143	64.78	64.78	2.17	2.82
125	70.53	70.53	3.62	2.87	144	63.06	63.06	2.14	2.89
126	70.27	70.27	2.18	2.88	145	61.34	61.34	2.21	.56
127	70.00	70.00	1.60	2.05	146	59.62	59.62	1.93	1.53
128	69.91	69.91	3.29	3.09	147	57.90	57.90	1.90	1.75
129	69.82	69.82	3.48	3.31	148	56.18	56.18	2.62	1.82
130	69.72	69.72	4.61	4.93	149	54.46	54.46	4.74	1.04
131	69.63	69.63	4.72	4.62	150	52.74	52.74	6.01	6.26
132	69.53	69.53	4.92	4.77	151	51.02	51.02	3.98	3.78
133	69.45	69.45	4.75	4.75	152	49.30	49.30	2.95	.05
134	69.35	69.35	3.00	2.95					
135	69.26	69.26	4.59	4.14					
136	69.17	69.17	4.48	3.98					
137	69.07	69.07	3.58	3.28					
138	68.98	68.98	3.22	2.87					
139	68.89	68.89	2.46	2.41					
140	68.80	68.80	2.70	2.20					

53

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

56

96.2962

57

New Subgrade Elevations Tutrell Road

Sta.	Cut	Fill	Elev.	Ave. Cut two ends section	Ave. Fill two ends section	Yards Cut	Yards Fill
0+00	.41		103.30	.66		63.53	
1+00	.71		102.25				
2+00	1.17		101.20	1.04		100.14	
2+67	0.00	0.00		.51	.32		30.81
3+00		.63	101.20				
4+00		2.96	101.20		1.20		115.55
4+50	.00	.88			.30		28.88
5+00	.00	2.50	101.20		.28		26.96
5+89					2.10		202.22
6+00		1.40	102.08		.35		33.70
6+50	0.00	0.00					
7+00	1.78		102.96	.45		43.33	
8+00	.92		103.84	1.35		130.00	
8+70	.00	.00		.129		27.92	
9+00		.41	104.72		.06		5.77
10+00		.74	105.60		.58		55.85
11+00		.08	107.10		.41		39.48
11+50	.00	.00			.02		1.02
12+00	.12		108.60		1.03		21.88
13+00	.93		110.10	.43		41.40	
14+00	.17		111.60	.45		43.33	
15+00	.18		113.10	.35		32.70	
15+50	.00	.00		.205		4.81	8.66
16+00		.36	114.60		.09		
17+00		.03	114.70		.20		19.25
18+00		.15	114.80		.09		8.66

A3 L R A3
11x17 11x17

← A3 →

← 11x17 →

A4 L R A4
LETTER LETTER

58						59					
Sta.	E	T	E1.	AV Int	AV #4	Sta	E	F	E1.	AV Int	AV #4
19+00		.73	114.90		#4	37+00		.11	111.60		#4
20+00		.40	115.00		.57	38+00		.36	111.36		.24
21+00		.05	115.10		.23	38+50	.00	.00			.09
27+00		.05	115.20		.05	39+00	.23		111.12		.06
27+24	.00	.00				40+00	.44		110.88		.34
28+00	.44		114.96	.22	26.14	40+50	.00	.00			.11
29+00	.28		114.72	.36	4.81	41+00	.32		110.64		.08
29+20	.00	.00				42+00	.41		110.40		.37
25+00	.19		114.48	.24	23.11	43+00	.65		110.16		.53
25+20	.00	.00				44+00	.46		109.92		.57
26+00	.74		114.24	.37	35.62	44+50	.00	.00			.12
26+50	.00	.00		.15	14.44	45+00	.06		109.68	.02	1.92
27+00	.44		114.00	.05	4.81	46+00	.30		109.44	.18	17.33
28+00	.55		113.76	.49	47.18	47+00	.57		109.20	.41	39.48
29+00	.00	.00	113.52	.25	24.07	47+50					
30+00	.23		113.28	.12	11.55	48+00	1.42		108.23	.37	83.77
31+00	.18		113.04	.22	21.18	49+00	1.52		107.26	1.49	141.55
32+00	1.06		112.80	.62	59.70	50+00	.54		106.29	1.03	99.18
33+00	1.13		112.56	1.10	105.92	50+50	.00	.00	105.80	.14	13.48
34+00	.23		112.32	.68	65.49	51+00	.62		105.58	.16	15.40
34+25	.00	.00				52+00	2.02		105.14	1.31	126.14
35+00	.35		112.08	.13	8.66	53+10	.27		104.70	1.15	110.74
36+00	.00	.00	111.84	.07	6.74	54+00	.10		104.26	.19	18.29
					642.16						1028.51

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

Sta.	F	E1.	HV I	AV F		Sta.	L.	F	E1.	HV I	AV F	
55+00	.23	103.82		.17		16.37	72.00	1.26	100.09	.99		95.33
55+50	.21	103.60		.22		21.18	73+00	1.06	100.12	1.16		111.70
56+00	.17	103.57	.10	.06	9.62	5.77	74+00	1.21	100.16	1.14		109.77
56+75	.00		.18				75+00	1.03	100.19	.66		63.55
57+00	.23	103.57		.03	17.33	2.88	76+00	.50	100.22	.77		74.14
57+40	.00		.05				76+60	.00		.15		14.44
58+00	.36	103.45	.11		10.59	4.81	77+00	.44	100.25	.09		6.66
59+00	.76	103.40	.53		51.03		78+00	1.00	100.28	.72		69.33
60+00	.57	103.07	.67		64.51		79+00	1.70	100.31	.135		129.99
61+00	.12	102.73	.35		33.70		80+00	1.08	100.35	1.39		133.85
62+00	.57	102.40	.35		33.70		81+00	1.48	100.37	1.28		123.25
63+00	.63	102.06	.60		57.77		82+00	1.20	100.41	1.34		129.03
64+00	.77	101.73	.38		36.59		83+00	.00	100.44	.60		57.77
64+40	.00		.04				84+00	1.05	100.47	.53		51.03
65+00	.30	101.40	.09		3.85	8.66	84+75	.00		.39		37.55
66+00	2.40	101.13	.35		129.99		85+00	.63	100.50	.08		7.70
67+00	.53	100.87	.47		141.55		85+60	.00		.19		18.29
67+25		100.80					86+00	.13	100.54	.03		2.88
68+00	.59	100.46	.08	.20	7.70	19.25	86+75	.00		.02		1.92
69+00	1.89	100.00	1.24		119.40		87+00	.42	100.57	.16		15.40
70+00	.83	100.03	1.36		130.96		87+50	.00		.11		10.59
71+00	.77	100.06	.68		65.98		88+00	.43	100.60	.11		10.59
							88+40	.00		.09		8.66
							89+00	.24	100.26	.16		15.40
							90+00	.00	99.93	.27		25.99

61

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

Sta	E1	F	E1	AV	AV		Sta	E1		63		
91+00		.23	99.60		.12	11.55						
91+40	.00	.00			.05							
92+00	.56		99.20	.15		14.44	4.81	110+00	.08	91.46	.03	2.88
93+00	.27		98.93	.34		32.74		111+00	.20	90.64	.14	13.48
94+00	.00	.00	98.60	.14		13.48		112+00	.20	89.82	.20	19.25
95+00	.05		98.44	.03		2.89		113+00	.00	89.00	.10	9.62
96+00	.27		98.29	.16		15.40		114+00	.00	87.65	.00	
96+50	.00	.00		.07				114+00	.00	87.65	.20	
97+00	.18		98.13		.05	6.74	4.81	115+00	.39	86.30	.09	
98+00	.00	.00	97.97		.09		8.66	115+50	.00	86.30		
98+60	.00	.00		.00				116+00	.25	84.96	.06	5.77
99+00	.11		97.82	.02		1.92		117+00	.37	83.61	.31	29.85
100+00	.29		97.66	.20		19.25		118+00	.16	82.27	.27	25.99
101+00	.49		97.51	.35		33.70		119+00	.22	80.93	.19	18.29
102+00	.32		97.35	.40		38.51		120+00	.13	79.58	.18	17.33
103+00	.00	.00	97.20	.16		15.40		121+00	.21	78.23	.17	16.37
103+82								122+00	.18	76.89	.20	19.25
104+00	.65		96.38	.33		31.77		123+00	.22	75.54	.20	19.25
105+00	.27		95.56	.46		44.29		123+25	.00	75.54	.05	
105+40	.00	.00		.06		5.77		124+00	.57	74.20	.22	21.11
106+00	.34		94.74		.10		9.62	124+00	.57	74.20	.22	4.81
107+00	.21		93.92	.28		26.96		125+00	.00	73.70	.29	27.92
108+00	.00	.00	93.10	.11		10.59		126+00	.54	73.20	.27	25.99
109+00	.07		92.28	.04		3.85		127+00	.30	72.70	.42	40.44
109+50	.06	.00		.02								
						1.92						

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

Sta	E	F	EI	AV	AV	Sta	E	F	EI	AV	AV	
				E	F					E	F	65
Sta 64 Err .50 128+00	00	00	73.20		.15	14.44	146+00	.78	63.16		.80	77.03
129+00 129+50	00	.27 .00	73.70		.14 .07	13.44	147+00	1.53	61.45		1.16	111.70
130+00	.17		74.20	.04	3.85	6.74	148+00	.14	59.73		.84	80.88
131+00 Err .075	.05		74.70	.11	10.59		149+00	.0A	58.02		.09 .01	81.66
132+00	.08		74.62	.07	6.74		149+20 150+00	00 1.01	00 56.31		.40	38.51 .96
133+00	00	00	74.55	.03	2.88		151+00 Err 1.00 152	.17 00	54.60 00		.59 .02	56.81
134+00	00	00	74.47	00	00		152	00	1.22 52.60		.48	1.92 46.22
135+00 Err .6285	00	00	74.40	00	00		153	.78	50.60		1.00	96.79
136+00	.20		73.77	.10		962	153.37	00	00 49.60		.50	48.14
137+00	.29		73.14	.25		27.07						
138+00	.18		72.51	.24		14.44						
139+00 139+20	.06 00	00	71.88	.12 .01		11.55						
140+00	.36		71.25	.14	13.48	.96						
141+00 141+40	.26 00	00	70.62	.31 .05	29.85							
142+00 Err .7111	.28		70.00	.08	4.81	7.70						
143+00 143+50	.15 00	00	68.29	.22		21.18						
144+00 144+50	.05 00	00	66.58	.10		.962						
145+00	.82		64.87	.44		42.37						

A3
11x17

L R

A3
11x17

← A3 →

← 11x17 →

A4

L R

A4

← LETTER →

66

Stone No 2-0+00 N 43° 57' W to Kim
Concrete fence post and
19.05' S 43° 57' East to Stone
and 26.35' to Kim Concrete fence
to Concrete post.

Stone No 2. 27+66 N 5° 55' E. 15.05'
to tack in line fence post and
15.80' S 55° 55' to tack in line fence post.

Stone No 3 55+20 N 100° 0' W 16.80' to Kim
Concrete fence post and N 52° E
22.90' to Kim and tack in wood corner post
and N 139° 20' E to top point of Bell on Birch
School house.

Stone No 4 73+36 N 5° 34' E. 16.30 feet to tack in
line fence post and S 5° 34' W. 16.8 feet
to tack in line fence post.

Stone No 5-86+82 - N 6° 13' E - 17 feet to tack in line post
and S 9° 41' W 17.5 to tack in fence post.

67

Stone No 6 Sta 126+85 & Road No 45. N 50° East
26.4 feet to tack in corner Post and N 40° E.
21.8 feet to tack in corner post.

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

Sewers Across Road

Field No	Ditch No	F.L. No	F.L. 50'	Ditch 50'	Field 50'	Notes
26+30	112.65	112.15	112.04	112.00	111.99	11 1/2" sewer under ground on So. side of road thru field
38+05	109.90	109.65	109.26	108.93	109.00	109.05 Boiler plate 12" at 90° Flow So.
57+04	102.96	102.71	101.45	103.01	102.57	No. side intake only found. outlet not found. Slope So.
67+00					97.26	Bridge - Road ditch both sides from East and West.
79+27	98.15	97.52	97.43	97.26	96.97	10" Iron sewer - Intake from land drain & 8" Road drain
81+35	98.20	97.00	96.98	96.85	96.50	14" Iron sewer Intake from land drain & 8" Road drain
111+15			89.05	88.00	90.10	4" tile leading from So. field to ditch 67.40 El. of Header Fl. at outlet. 150' No. of Luttrell Road 68.50 El. ditch opposite Header. 126+70 Culvert at 1/2 E. Rd.
126+70	70.20	70.35				
51+80	102.62	101.77	103.22	102.72	101.97	
95+00	98.29	98.94	97.14	97.14	97.99	
55+09						
70+35	99.70	99.80	99.50	99.10	99.20	100.20 12" covered up
152						Est plus for Culvert. outlet & inlet & El. & El. & Roadway.
148+94	53.46	54.06	55.50	55.46		59.10 El. Road & Culvert. No. End 148+94. So. End 148+82

20 ft. back 52.40.

20-61.71
10 57.81

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

← LETTER →

72

566	105.55	97.89
108.92 K	6.05	525
540	106.60 K	103.14 K
102.62	690	570
	99.70	97.44
108.42		103.14
662	106.60	485
101.77	680	96.29
	99.80	
108.42		59.70 BK
520	106.60	4.76
320	710	64.96 K
	99.50	665
108.42	106.60	57.81
570	730	64.46
272	710	275
108.42	106.60	61.71
645	640	64.46
1019.7		530
	6440	59.18
	1000	
	54.06	

73

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

4/21 - 21
 16 Levels on Route D across

Ditch in Plainfield to determine
 safe depth of footings for
 to enter St. Bridge Plainfield.

11.661 - 7
 8.66
 9-9
 10-8
 11-7
 12-6
 6-2
 7-1

77

Sta.	+	∞	-	El.
B.M.	4.90	104.90		100
Bridge Bed at			9.00	95.90
Foundation			11.45	93.45
Ditch ⁵¹¹			12.30	92.60
Road	3.70	101.60	7.00	97.90
Bank Elev	7.20	96.81	12.00	89.60
Bot. Ditch			9.00	87.80
Creek Bk			19.00	84.80
Bel			16.50	80.30

B.M. is water main cut off in
 front of Route D across residence.

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

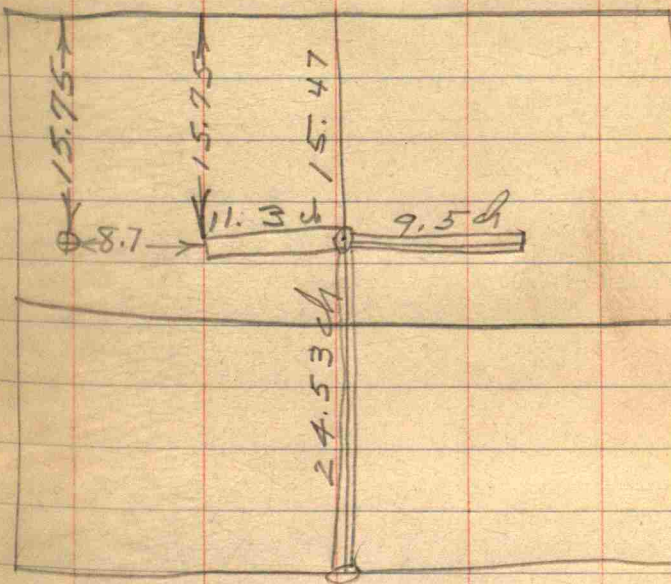
A4 LETTER L R A4 LETTER

← LETTER →

78

34.8
8

79



A3 11x17 L R A3 11x17

← A3 →

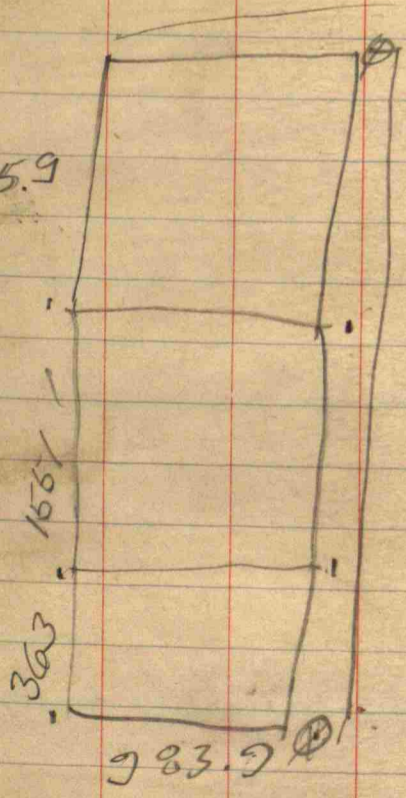
← 11x17 →

A4 LETTER L R A4 LETTER

← LETTER →

86
5+9 ~~11x17~~

735.9



87

3
59,63
16.5

29875
35778
5963

983,925

15980
984
1660

1694
165

1859
1000
85

157
42

1305
660

645
1. 84
55 165
2

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4

← LETTER →

Sta	①	②	③	④	B.M.	Sta	①	②	③	④	B.M.
	No. St. for tile	Ground 8's	Sub. for tile	5. St. for tile							110D
1924 90	1077			105		18+00					100.00
0+00	103.72	103.72	103.65			19+00	113.96	114.44			Sta 4+45
1+00	103.18	102.95	102.05	102.92		20+00	114.46	114.43	114.68	114.90	99.96
2+00	101.30	101.30	102.40	102.40		21+00	114.44	114.95			End 7.2 wing
3+00	100.25	100.25	100.63			22+00	114.69	115.14			100.15
4+00	99.00	99.00				23+00	115.19	114.92	115.79	115.48	End 5.2 wing
4+50						24+00	115.02	114.71			100.15
5+00	92.14	92.14	93.12			25+00	113.84	114.73	113.80	113.98	End 7.4 wing
6+00	100.41	100.78	100.32	100.69		26+00	113.28	113.15			
7+00	103.61	103.50	103.99	104.36		27+00	114.04	114.08			
8+00	104.39	104.05	104.35	104.62		28+00	113.95	113.97			
9+00	104.13	103.85	103.95	104.17		29+00	112.90	113.34			
10+00	104.35	104.04	104.95	105.15		30+00	112.66	112.54	102.55	113.29	
11+00	106.62	106.52	107.10	107.30		31+00	112.49	112.45			
12+00	108.31	108.31	108.36			32+00	111.32	111.60			
13+00	109.37	109.37	109.75			33+00	111.01	111.41			
14+00	111.22	111.22	111.26			34+00	111.60	111.84			
15+00	113.05	112.59	112.59	113.06		35+00	112.25	111.95	112.75	112.39	
16+00	113.52	113.52	109.59			36+00	111.31	111.77			
17+00	114.13	114.05	114.36	114.38		37+00	110.91	111.41			

L R

A3 11x17 L R A3 11x17

A3

11x17

A4 LETTER L R A4 LETTER

LETTER

Sta	①	②	③	④	BM	Sta	①	②	③	④	B.M.
38+00		110.76	111.23			56+00		104.16	103.84		
39+00		110.60	111.16			57+00		103.27	103.06		
40+00	111.60	110.95	111.01 111.36			58+00		103.25	103.00		
41+00		110.90	110.20			59+00		104.04	103.56		
42+00		109.47	109.95			60+00	103.84	103.55	103.74 103.96		Sta 67+00 101.24 NW wing of old rail
43+00		109.30	109.41			61+00		103.36	103.40		
44+00		109.10	109.21			62+00		103.48	103.36		101.06 SW wing same
45+00	109.53	108.95	109.30	109.68		63+00		103.14	103.02		101.04 SE wing
46+00		109.01	109.58			64+00		102.48	102.32		101.14 NE wing
47+00	109.51	109.00	109.50	109.77		65+00	101.67	101.35	101.67 101.48		
48+00		108.75	109.40			66+00		98.94	99.34		
49+00		108.15	108.28			66+00					
50+00		106.19	106.84			67+00		100.57	109.36		
50+50	105.93	105.47	105.70	106.00		68+00		101.30	101.74		
51+00		104.22	104.25			69+00		103.30	102.50		
52+00		103.02	103.19			70+00	102.56	102.65	102.56 102.60		
53+00		103.91	104.21			71+00		102.41	102.10		
54+00		103.48	103.90			72+00		102.65	102.37		
55+00	102.29 102.56	102.56	103.74 103.80	104.10		73+00		102.50	102.54		
						74+00		102.17	102.66		

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

← LETTER →

Sta ⁹⁴	①	②	③	④	BM	Sta	①	②	③	④	BM ⁹⁵
75+00	102.51	102.35	102.50	102.62		94+00	100.50	99.74			
76+00		101.79	102.10			95+00	100.58	100.52	99.30	99.36	
77+00		101.01	101.12			96+00	100.40	99.80			
78+00		100.39	100.46			97+00		99.90	99.11		
79+00		100.20	100.18			98+00		99.97	99.20		
80+00	100.54	100.20	100.36	100.41		99+00		99.80	99.22		
81+00		100.01	100.13			100+00	99.76	99.60	99.39	99.41	
82+00		100.45	100.65			101+00		99.74	99.21		
83+00		101.93	101.71			102+00		99.44	98.91		
84+00		102.67	102.72			103+00	99.26	98.88	98.51	98.50	
85+00	102.58	102.63	102.31	102.63		104+00		98.58	98.38		
86+00		102.21	101.88			105+00	97.60	97.30	97.20	97.47	
87+00		102.07	102.02			106+00		95.91	95.92		
88+00	102.55	102.46	102.31	102.37		107+00		95.34	94.83		
89+00		101.56	101.35			108+00		94.61	94.32		
90+00		100.96	101.64			109+00		93.95	93.40		
91+00	101.34	101.25	100.78	101.01		110+00	93.06	92.90	92.51	92.69	
92+00		101.66	101.21			111+00		92.07	91.53		
93+00		100.79	100.63			112+00		91.36	90.27		
						113+00		90.86	89.29		

L R

A3 11x17 L R A3 11x17

A3

11x17

A4 LETTER L R A4 LETTER

LETTER

Sta	①	②	③	④	B.M.
96					
114+00		87.55	87.51		
115+00	87.75	87.90	86.12 87.75	88.21	
116+00		86.20	86.16		
117+00		84.99	83.05		
118+00		83.60	82.00		
119+00		82.35	81.85		
120+00		81.00	80.46		
121+00	79.50	79.41	78.85	79.20	
122+00		78.16	78.07		
123+00		76.89	76.44		
124+00	75.88	75.92	75.44 75.8	74.51	
125+00		75.34	74.50		
126+00		74.61	73.15		
127+00	74.16	73.96	74.10	73.48	
128+00		74.47	73.87		
129+00		75.06	74.26		
130+00	75.95	75.77	75.35	74.63	
131+00		76.06	75.83		
132+00		75.87	75.59		
133+00		75.73	75.56		
134+00		75.81	75.57		

Sta	①	②	③	④	B.M.
97					
135+00	75.75	75.66	75.51	75.60	
136+00		74.94	74.81		
137+00		74.15	74.07		
138+00		73.73	73.43		
139+00		73.22	73.00		
140+00	72.84	72.95	72.93 72.84	73.26	
141+00		72.10	72.10		
142+00	71.03	70.96	71.00	71.22	
143+00		69.62	69.73		
144+00		68.06	68.41		
145+00	66.04	65.98	66.04	65.74	Bed thru N. side Sta 147+95 54.71
146+00		64.20	63.76		
147+00		63.00	62.39		Can Rd end 50.82
148+00		60.90	61.28		
149+00		59.60	60.28		Wood Nelson Cup Sta 154+00 50.32
150+00	58.75	58.33	58.35	59.72	Bees 43.20
151+00		55.64	55.97		
152+00	52.20	52.55 52.20	53.30	53.60	
153+00		50.32	50.96		
		48.08	48.24		

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 L R A4 LETTER

← LETTER →

194

Graham Road

Sta	10'S Nst.	6d	10'N Sst.	6d
114+54	99.66	99.40	99.93	99.50
114	99.75	99.40	100.33	99.85
113	100.32	99.85	100.86	100.25
112	100.84	100.50	100.70	100.30
111	100.16	99.80	100.22	99.75
110	99.50	99.10	99.56	99.15
109	99.21	98.90	99.45	99.15
108	100.04	99.85	100.18	99.90
107	100.75	100.45	100.79	100.50
106	100.08	99.70	100.37	100.15
105	98.53	98.20	98.87	98.55
104	98.32	98.05	98.65	98.30
103	96.45	96.25	96.63	96.25
102	96.20	95.95	96.20	95.95
101	96.50	96.20	95.53	95.12
100	96.30	95.95	96.23	95.94
99	97.10	96.79	96.24	96.70
98	97.70	97.30	96.21	96.70

Tile Drains

Sta	10'S Nst.	4d	10'N Sst.	B.M. 195 SW corner of 100.00
97+05	98.36	98.10	98.43	98.15
96	99.81	99.60	99.58	99.36
95	99.00	98.65	98.97	98.57
94	97.71	97.47	98.13	97.74
93	97.52	97.14	98.06	97.68
92	97.40	97.11	97.22	96.90
91	93.70	93.42	95.30	94.86
90+03	90.90	90.60	91.83	91.60
89	87.01	86.75	87.39	87.14
88	83.26	83.00	83.50	83.30
87+29	81.65	81.35	81.90	81.70
86+77				

106

$$\begin{array}{r} 6 \overline{) 151.95} \\ \underline{25.33} \end{array}$$

$$PT = 74 + 14$$

$$73 + 89$$

$$73 + 64$$

$$73 + 38$$

$$73 + 13$$

$$72 + 98$$

$$PL \quad 72 + 62 \checkmark$$

$$12 \overline{) 91^{\circ} 10' 36''}$$

$$\textcircled{1} \begin{array}{r} 7^{\circ} 36' \\ \underline{7^{\circ} 36'} \end{array}$$

$$\textcircled{2} \begin{array}{r} 15^{\circ} 12' \\ \underline{7^{\circ} 35'} \end{array}$$

$$\textcircled{3} \begin{array}{r} 22^{\circ} 47' \\ \underline{7^{\circ} 36'} \end{array}$$

$$\textcircled{4} \begin{array}{r} 30^{\circ} 23' \\ \underline{7^{\circ} 36'} \end{array}$$

$$\textcircled{5} \begin{array}{r} 37^{\circ} 59' \\ \underline{7^{\circ} 36'} \end{array}$$

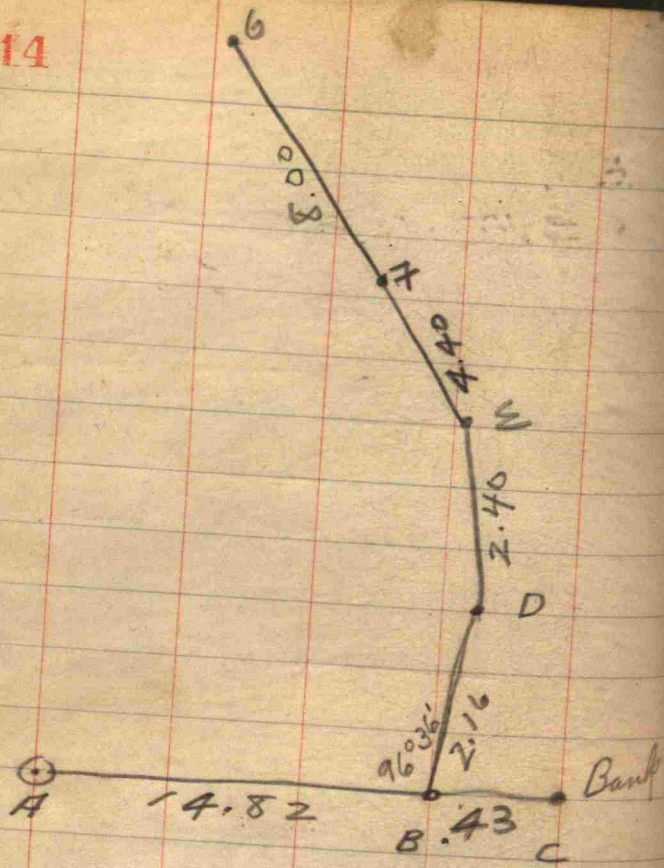
$$\textcircled{6} \begin{array}{r} 45^{\circ} 35' \\ \underline{2} \end{array}$$

$$\underline{\underline{91^{\circ} 10' \checkmark}}$$

57

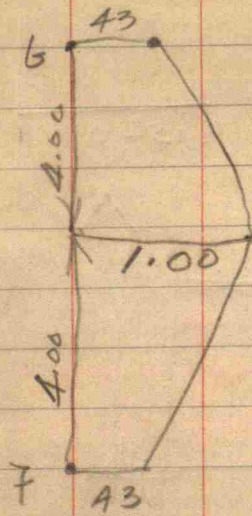
$$\Delta 48^{\circ} 45' \quad \text{Tan } 45' \quad 107$$

114



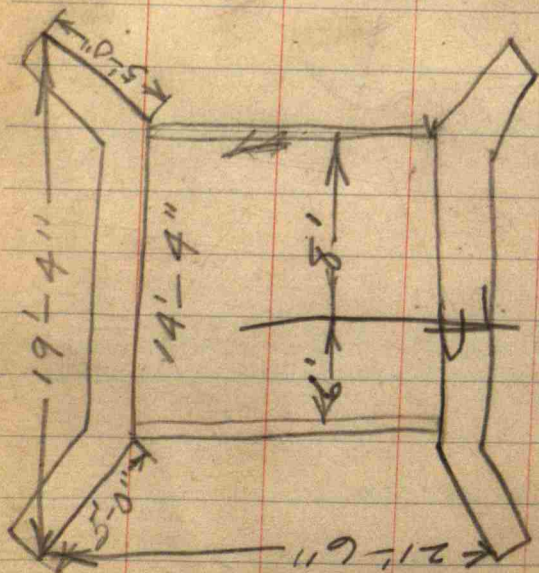
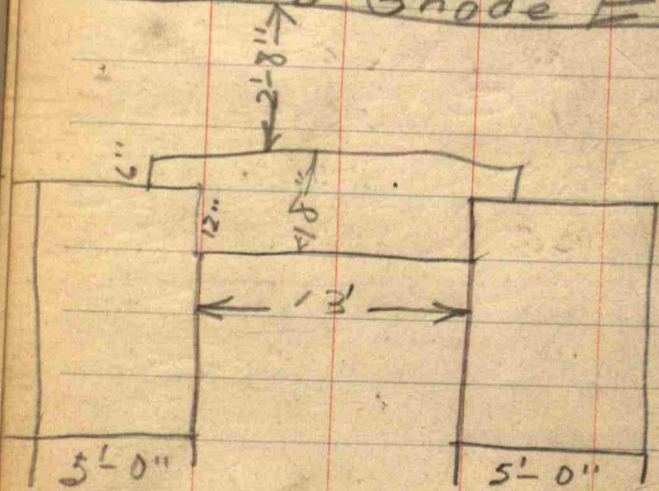
115

$D = Def \angle 13^{\circ} 33' - N - 6^{\circ} 51' W$
 $E = Def \angle 24^{\circ} 42' - N 31^{\circ} 21' W$
 $F = 10^{\circ} - 19' - N 41^{\circ} 40' W$



116

Sub Gnode Fl.



117

Beam	Size	L	Number
a	1/2" x 19'	19'	14
a'	1/2" x 10'	10'	14
b	1/2" x 12'	12'	38
c	1/2" x 8'	8'	10
c'	1/2" x 10'	10'	10
d	1/2" x 20'	20'	10

6" - Str. I Beams

- 5 - 14' Long
- 1 - 16' Long
- 1 - 19' Long
- 1 - 22' Long

51 Yds in ext @ \$11.00	= 561	add
65 Yds in old @ 12.00	= 780	deduct
Loose steel on basis of 04¢		
Str. steel @ .07¢		
Ret. wall @ 10.00		

A3 11x17 L R A3 11x17

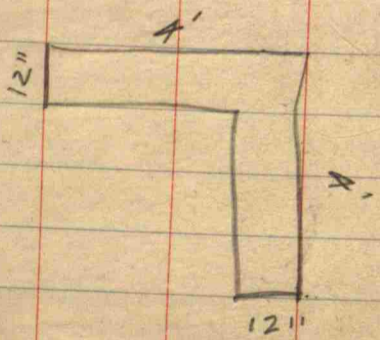
← A3 →

← 11x17 →

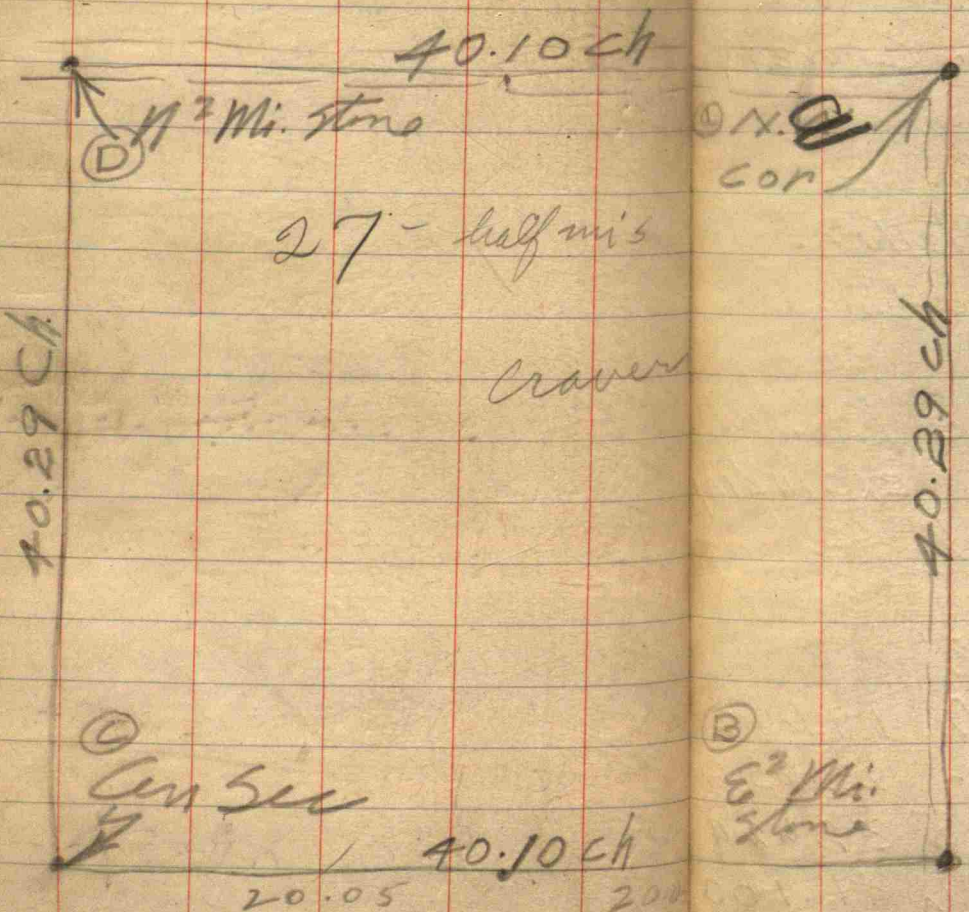
A4 LETTER L R A4 LETTER

← LETTER →

134



135



- A - 14" W. Cherry
- B - 45° E - .37
- 10" Ash - S - .25
- H. pt Granite Boulder
- S 45° W - 30

- (D) 8" Ash N 12° W .25
- Cor part 12" S - 25 W 1/4

- B - Cor part W .24
- 10" Walnut N 15° E .79

Craven

NE⁴ Sec. 27

14-1-W

① - Henry Jasper Craven	20	= $\frac{2}{16}$	= 21.00 Acres
② - Edith A. Wilson	50	(Bldgs) = $\frac{5}{16}$	= 50.20
③ - Jacob E Craven	20	= $\frac{2}{16}$	= 20.08
④ - Ida E. McClelland	40	= $\frac{4}{16}$	= 40.16
⑤ - Jeremiah T. Craven	30	= $\frac{3}{16}$	= 30.12

161.56

Total Acreage including $\frac{1}{2}$ E. Road = 161.56 Acres

" " excluding $\frac{1}{2}$ E. Road = 160.64 "

" " $\frac{1}{2}$ Highway = .92 "

- ① = 40.29 x 5.212
 - ② = 40.29 x 12.460 17.672
 - ③ = 40.29 x 4.984 22.656
 - ④ = 40.29 x 9.968 32.624
 - ⑤ = 40.29 x 7.476 41.100
- 40.29 x 40.100 = 161.5629

A3 11x17 L R A3 11x17

A3

11x17

A4 LETTER L R A4 LETTER

LETTER

148

149

	S.st	Gd	Cut	Nst.	Gd.	wt	
6	100.69	98.47	2.22	100.41	98.47	1.94	
7	104.36	100.36	4.00	103.61	100.36	3.25	1.03.83
8	104.62	100.91	3.71	104.39	100.91	3.48	4.43
9	104.17	101.46	2.71	104.13	101.46	2.67	99.40
10	105.15	102.01	3.14	104.35	102.01	2.34	83
11	107.30			106.62			98.15
15	112.90	109.60	3.30	112.73	109.60	3.13	98.57
17	114.30	111.00	3.30	113.95	111.00	2.95	3.37
23	115.04	112.00	3.04	114.73	112.00	2.73	98.57
31	112.25	109.87	2.38	112.48	109.87	2.61	4.80
39	111.21	107.73	3.48	111.16	107.73	3.43	
47	109.49	105.60	3.89	109.02	105.60	3.42	
52	102.95	101.25	1.70	102.90	101.25	1.65	
55	103.68	99.57	4.11	101.54	99.57	1.97	
56	103.53	99.40	4.43	101.05	99.40	4.65	
61	103.37	98.57	4.87	103.17	98.57	4.60	67+00
66	99.06	96.50	2.56	98.82	96.50	2.32	
68	100.60	100.40		101.36	100.95		95.80 Bed 67+00
69							

BM NW Wing
10095

N. Ditch S Ditch
10022 9986

A3 11x17 L R A3 11x17

A3

11x17

A4 L R A4

LETTER

150 ^S Gd Nst Gd

69	101.60	101.10	102.15	101.85
70	100.53	100.25	101.19	100.77
71	100.67	100.20	100.81	100.60
72	101.20	100.92	101.45	101.13
73	101.02	100.85	101.42	101.20
74	101.68	101.37	101.15	100.83
75	101.37	101.19	101.25	100.92
76	101.15	100.70	100.63	100.36
77	100.09	99.75	99.47	99.20
78	99.20	98.80	99.00	98.70
79	98.74	98.32	98.95	98.50
80	99.20	98.80	99.00	98.80
81	98.97	98.70	99.00	98.60
82	99.55	99.20	99.15	98.95
83	100.52	100.33	100.74	100.50
84	101.59	101.46	101.48	101.40
88	101.05	100.90	101.20	100.96

151

101.20
98.78
2.42
33.3
1.33
97.25
78.61

14
05
70

250
30
101.20
2150
98.70

S N

79+27 97.05 97.10

~~97.25 2.42 2.42 79+27~~

81+50 76.85 97.05
81+40 96.70 97.20

A3
11x17

L R

A3
11x17

← A3 →

← 11x17 →

A4
LETTER

L R

A4
LETTER

← LETTER →

156

Cor Stone

1. N 43° 57' W 19.05' To X IN CON. COR POST
S 53° 47' E 26.35' To X IN CON. BRACE

157

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

← LETTER →

158

285064

Can. Ft. 820 Mphand 50 Tons

202 Ft.

159

A3 11x17 L R A3 11x17

← A3 →

← 11x17 →

A4 LETTER L R A4 LETTER

← LETTER →

160

Harve Huxin -
 Fred Hawkins -
 Geo. Clodfelter -
 Jenkins -
 Jim Batemen -

7 32
 158 4
 237 6
 25 34 4
 21.12
 1/2
 26

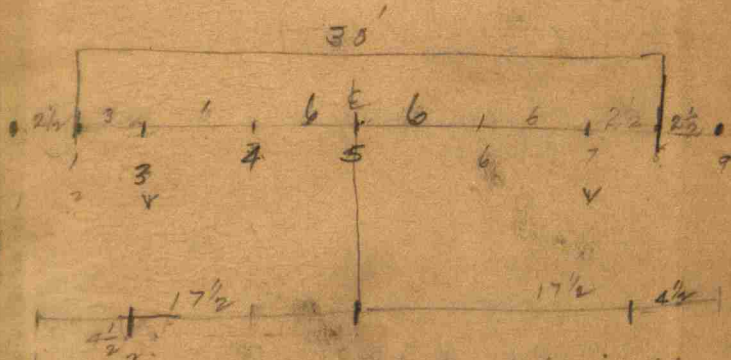
25

3 | 165
 55

107.73
 2
 105.73

Stoke carrier - boy with wheel -
 3 men levels -
 2 pieces crayon -
 2 chainmen
 2 drivers -
 spy glass.

20.195



Readings from left to right -

- a - on N. stake 4
- B - 4 1/2' S of N. stake 9 1/2
- C - 11' S " " 15 1/2
- D - 17 1/2' S " " 22
- E - 24' S " " 28 1/2
- F - 30' S " " 35
- G - 35' S " " 39 on S. stake

Hold 282 Ring 5

163.80
26.20
67.60

1551
6

7 2/3

23/3 x 3 x 3/2

2/69

27 385
27
75

1.3

1.2 (22/72) 28.3

22 100
88

6.8 1000
3190
2724
4660

2270
454
6510

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 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.