FIELD BOOK
373 A

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.

	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	26.3	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.

Chocolate Creek Area

Silt Deposit X-Section

Survey by Contractors eng. crew

Notes for city by P.O.G.

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N2880 - 2840	E10710 10900	P 1-5
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N2880

635.47

E10710			11.4	24.1
20			10.9	24.6
30			10.3	25.2
40			10.1	25.4
50			9.7	25.8
60			9.3	26.2
70			9.3	26.2
80			9.2	26.3
90			8.6	26.9
10800			8.4	27.1
10			7.6	27.9
20			6.3	29.2
30			5.6	29.9
40			5.6	29.9
50			5.4	30.1
60			4.9	30.6
70			4.7	30.8
80			4.5	31.0
90			3.9	31.8
10900			3.1	32.4

2-18-33

P.O.G. Notes for City contractors eng. crew
Clavert ↑ Rd
Wade Rd

Contin. from B 428-P 79

N2870

G25.47

2-18-33

E10710	11.0	24.5
20	10.9	24.6
30	10.1	25.4
40	9.9	25.6
50	9.2	26.3
60	9.2	26.3
70	8.4	27.1
80	9.2	26.3
90	8.2	27.3
10800	7.5	28.0
10	6.5	29.0
20	5.2	30.3
30	5.1	30.4
40	4.9	30.6
50	4.5	31.0
60	4.4	31.1
70	4.4	31.1
80	3.8	31.7
90	3.4	32.1
10900	3.1	32.4

NZ860

635.47

2-18-33

③

E10710	10.5	25.0
20	10.2	25.3
30	9.9	25.6
40	9.7	25.8
50	9.3	26.2
60	9.2	26.3
70	9.2	26.3
80	8.7	26.8
90	7.6	27.9
10800	7.2	28.3
10	6.1	29.4
20	4.9	30.6
30	4.8	30.7
40	4.3	31.2
50	3.9	31.6
60	3.6	31.9
70	3.5	32.0
80	3.5	32.0
70	3.1	32.4
10900	2.7	32.8

N2850

635.47

2-18-33

E10710	10.4	25.1
20	9.8	25.7
30	9.6	25.9
40	9.2	26.3
50	8.7	26.8
60	8.6	26.9
70	8.7	26.8
80	7.9	27.6
90	7.2	28.3
10800	L.A.	29.1
10	5.3	30.2
20	4.7	30.8
30	4.6	30.9
40	4.0	31.5
50	3.6	31.9
60	3.2	32.3
70	3.1	32.4
80	2.9	32.6
90	2.5	33.0
10900	2.2	33.3

N 2840

635.47'

2-18-33

E10710		10.2	25.3
20		9.3	26.2
30		9.2	26.3
40		8.7	26.8
50		8.0	27.5
60		8.0	27.5
70		8.1	27.4
80		7.0	28.5
90		6.7	28.8
10800		5.6	29.9
10		4.4	31.1
20		4.5	31.0
30		4.3	31.2
40		3.6	31.9
50		3.3	32.2
60		2.8	32.7
70		3.6	32.0 31.9 ?
80		2.2	33.3
90		1.8	33.7
10900		1.7	33.8

End of work Sat. Feb. 18-33

N3060

	5.23	625.21		619.98	TP by Chavet
E10710			8.3	16.9	
20			8.1	17.1	
30			6.4	18.8	
40			6.2	19.0	
50			6.1	19.1	
60			5.8	19.4	
70			5.9	19.3	
80			6.4	18.8	
90			6.7	18.5	
10800			6.4	18.8	
10			5.6	19.6	
20			4.7	20.5	
30			4.1	19.1	
40			3.4	21.8	
50			2.6	22.6	
60			2.3	22.9	
70			3.0	22.2	
80			3.4	31.8	
90			1.9	23.3	
10900			0.6	24.6	

Beginning of work Mon. Feb. 20-33

P.O.G. Notes for city
Delany notes in contractor
Chavert "
Wade Rd "

N3070

625.21

7-20-33

E10400	0.4	24.8
890	1.3	23.9
80	3.0	22.2
70	4.5	20.7
60	3.8	21.4
50	3.5	21.7
40	3.8	21.4
30	4.3	20.9
20	4.9	20.3
10	5.7	19.5
10800	6.7	18.5
790	7.4	17.8
80	7.1	18.1
70	6.6	18.6
60	6.4	18.8
50	6.6	18.6
40	6.4	18.8
30	7.5	17.7
20	7.7	17.5
10710	8.8	16.4

N3020

C25.21

2-20-33

E.10710	9.1	16.1
20	7.9	17.3
30	7.4	17.8
40	7.5	17.7
50	6.9	18.3
60	6.9	18.3
70	7.3	17.9
80	7.8	17.4
90	7.9	17.3
10800	6.9	17.3
10	5.9	19.3
20	5.4	19.8
30	4.7	20.5
40	4.5	20.7
50	4.6	20.6
60	5.3	19.9
70	4.2	21.0
80	2.8	22.4
90	1.4	23.8
10900	0.5	24.7

N3090

625.21'

E10900	0.7	24.5
890	1.7	23.5
80	2.7	22.5
70	4.2	21.0
60	5.8	19.4
50	6.1	19.1
40	5.7	18.5
30	5.7	19.5
20	6.4	18.8
10	6.7	18.5
10800	7.9	17.3
790	8.4	16.8
80	8.3	16.9
70	7.7	17.5
60	7.3	17.9
50	7.9	17.3
40	7.6	17.6
30	7.5	17.7
20	9.0	16.2
10710	9.4	15.8

2-20-83

N 31.00

625.21

2-20-33

E10710	9.5	15.7
20	9.5	15.7
30	8.5	16.7
40	7.8	17.4
50	8.0	17.2
60	7.6	17.6
70	8.2	17.0
80	8.7	16.5
90	8.9	16.3
10800	8.6	16.6
10	7.9	17.3
20	7.2	18.0
30	7.2	18.0
40	7.6	17.6
50	6.3	18.9
60	4.7	20.5
70	3.8	21.4
80	2.8	22.4
90	1.8	23.4
10900	1.0	24.2

N3110

625.21

2-20-33

E10900	1.0	24.2
890	1.8	23.4
80	2.7	22.5
70	3.4	21.8
60	4.3	20.9
50	5.3	19.9
40	6.8	18.4
30	8.2	17.0
20	8.5	16.7
10	8.3	16.9
10800	8.7	16.5
790	9.1	16.1
80	9.4	15.8
70	9.0	16.2
60	9.2	16.0
50	8.6	16.6
40	8.0	17.2
30	9.8	15.4
20	9.8	15.4
10710	9.7	15.5

N 31 20

625.21

E 10710		10.2	15.0
20		10.1	15.1
30		10.3	14.9
40		10.2	15.0
50		8.8	16.4
60		9.8	15.4
70		10.2	15.0
80		9.7	15.5
90		9.2	16.0
10 800		8.9	16.3
10		9.1	16.1
20		8.5	16.7
30		7.4	17.8
40		6.0	19.2
50		5.0	20.2
60		4.2	21.0
70		3.5	21.7
80		2.8	22.4
90		2.2	23.0
10900		1.2	24.0

2-20-33

N 31 30
625.21'

E 10900	1.7	23.5
890	2.4	22.8
80	3.1	22.1
70	3.8	21.4
60	4.2	21.0
50	5.0	20.2
40	5.4	19.8
30	6.6	18.6
20	8.2	17.0
10	9.7	15.5
10800	9.3	15.9
790	9.5	15.7
80	10.3	14.9
70	10.7	14.5
60	10.0	15.2
50	10.9	14.3
40	10.8	14.4
30	10.6	14.6
20	10.4	14.8
10710	10.6	14.6

2-20-32

N3p40

625.21

2-20-33

E 10710	10.9	14.3
20	10.6	14.6
30	11.0	14.2
40	11.3	13.9
50	11.2	14.0
60	14.2	11.0
70	10.7	14.5
80	10.7	14.5
90	9.7	15.5
10800	10.1	15.1
10	9.8	15.4
20	7.9	17.3
30	6.6	18.6
40	5.4	19.8
50	4.9	20.3
60	4.4	20.8
70	3.9	21.3
80	3.2	22.0
90	2.5	22.7
10900	1.8	23.4

N3150

625.21

Z-20-33

E10900	2.4	22.8
890	2.9	22.5
80	3.4	21.8
70	4.1	21.1
60	4.6	20.6
50	5.3	19.9
40	6.1	19.1
30	7.0	18.2
20	8.1	17.1
10	9.3	15.9
10800	11.1	14.1
790	11.1	14.1
80	11.0	14.2
70	11.7	13.5
60	14.7	10.5
again 60	11.6	13.6
50	11.8	13.4
40	12.0	13.2
30	10.9	14.3
20	11.2	14.0
10710	11.4	13.8

N 3160

625.21

2-20-33

E10710	12.1	13.1
20	12.1	13.1
30	11.6	13.6
40	12.3	12.9
50	12.5	12.7
60	12.0	12.2
70	16.9	18.3
80	12.0	13.2
90	11.1	14.1
10800	10.4	14.8
10	9.2	16.0
20	8.7	16.5
30	7.5	17.7
40	6.5	18.7
50	5.6	19.6
60	5.0	20.2
70	4.2	21.0
80	3.9	21.3
90	3.1	22.1
10900	2.5	22.7

K 31 70.

625.21

2-20-33

E 10900	2.8	22.4
890	3.5	21.7
80	4.1	21.1
70	4.5	20.7
60	5.2	20.0
50	5.7	19.5
40	6.4	18.8
30	7.2	18.0
20	7.9	17.3
10	8.5	16.7
10800	10.2	15.0
790	10.8	14.4
80	12.0	13.2
70	16.0	09.2
60	17.9	07.3
50	15.2	10.0
40	15.7	09.5
30	12.9	12.3
20	13.2	12.0
10710	13.0	12.2

N 3180

618.06'

2-20-33

E 10710		6.6	11.5
20		7.1	11.0
30		6.9	11.2
40		10.2	07.9
50		7.3	10.8
60		11.4	06.7
70		7.6	10.5
80		4.9	13.2
90		3.3	14.8
10800		2.5	15.6
10		2.5	15.6
20		0.5	17.6
30		0.0	18.1
	625.21'		
40		6.4	18.8
50		6.1	19.1
60		5.7	19.5
70		5.0	20.2
80		4.4	20.8
90		3.8	21.4
10900		3.2	22.0

625.21 Level
12.00
613.21' Transit
4.85
618.06'

Z-20-33

N 3190

625.21

E 10900	3.6	21.6
890	4.2	21.0
80	5.0	20.2
70	5.5	19.7
60	6.3	18.9
50	6.8	18.4
40	7.2	18.0
30	7.4	17.8
20	8.9	16.3
10	9.2	16.0
10800	9.3	15.9
790	10.9	14.3
80	12.0	13.2

618.06

70	5.4	12.7
60	9.6	08.5
50	12.3	05.8
40	8.2	09.9
30	8.2	10.0
20	7.9	10.2
10910	7.7	10.4

	N3200 618.06		
E10710		8.9	09.2
20		9.0	09.1
30		9.4	08.7
40		13.4	04.7
50		12.0	06.1
60		8.7	09.4
70		5.1	13.0
80		5.2	12.9
90		4.4	13.7
10 800		2.4	15.7
10		1.9	16.2
20		2.0	16.1
30		0.6	17.5
40		0.6	17.5
50		0.3	17.8
	625.21		
60		6.7	18.5
70		5.8	19.4
80		5.3	19.9
90		4.6	20.6
10900		4.0	21.2

2:20:33

N2830

	11.95	638.67		626.72	TP by Clevis
E10710			13.4	25.3	
20			12.7	26.0	
30			12.2	26.5	
40			11.8	26.9	
50			11.1	27.6	
60			10.4	28.3	
70			10.0	28.7	
80			10.0	28.7	
90			9.3	29.4	
10800			8.4	30.3	
10			7.4	31.3	
20			7.3	31.4	
30			6.9	31.8	
40			6.6	32.1	
50			6.2	32.5	
60			5.6	33.1	
70			5.2	33.5	
80			4.9	33.8	
90			4.8	33.9	
10900			4.5	34.2	

2-20-33

changed to South of shovel direction

626.72
11.95
638.67

N 2870

638.67

7-20-33

E10900	4.0	34.7
890	4.0	34.7
80	4.3	34.4
70	4.7	34.0
60	5.3	33.4
50	5.7	33.0
40	6.3	32.4
30	6.4	32.3
20	6.9	31.8
10	7.4	31.3
10800	7.9	30.8
790	9.0	29.7
80	9.2	29.5
70	9.9	28.8
60	10.2	28.5
50	10.9	27.8
40	11.5	27.2
30	12.0	26.7
20	12.6	26.1
10710	13.0	25.7

N 2.8 / 0

638.67

2-20-33

E 10 7	10	12.6	26.1
	20	12.7	26.5
	30	11.6	27.1
	40	11.1	27.6
	50	10.5	28.2
	60	9.9	28.8
	70	9.6	29.1
	80	9.3	28.4
	90	8.6	30.1
10 800		7.5	31.2
	10	7.1	31.6
	20	6.5	32.2
	30	6.1	32.6
	40	5.9	32.8
	50	5.5	33.2
	60	4.7	34.0
	70	4.1	34.6
	80	3.8	34.9
	90	3.5	35.2
10900		3.2	35.5

2-20-23.

N2800

638.67'

E10900	2.5	36.2
890	2.8	35.9
80	3.1	35.6
70	3.6	35.1
60	4.4	34.3
50	5.2	33.5
40	5.6	33.1
30	5.8	32.5
20	6.3	32.4
10	6.9	31.8
10 800	7.3	31.4
790	8.0	30.7
80	8.8	29.9
70	9.3	29.4
60	9.9	28.8
50	10.4	28.3
40	10.8	27.9
30	11.2	27.5
20	11.7	27.0
10 710	12.2	26.5

N 2790

638.67

E10 710		11.8	26.9
20		11.5	27.2
30		11.2	27.5
40		10.6	28.1
50		10.1	28.6
60		9.5	29.2
70		9.0	29.7
80		8.5	30.2
90		7.3	31.4
10 800		7.0	31.7
10		6.4	34.3
20		6.1	32.6
30		5.7	33.0
40		5.2	33.5
50		4.7	34.0
60		4.0	34.7
70		3.2	35.5
80		2.7	36.0
90		2.5	36.2
10 900		1.9	36.8

2-2033

N2780

638.67

2-NO-33

E10900	1.4	37.3
890	1.9	36.8
80	2.5	36.2
70	3.0	35.7
60	3.8	34.9
50	4.3	34.4
40	4.9	33.8
30	5.5	33.2
20	5.9	32.8
10	6.3	32.4
10800	6.7	32.0
790	7.0	31.7
80	8.1	30.6
70	8.6	30.1
60	9.1	29.6
50	9.9	28.8
40	10.3	28.4
30	10.6	28.1
20	11.1	27.6
10710	11.6	27.1

N 2790

638.67

E10710	11.7	27.0
20	11.1	27.6
30	10.2	28.5
40	9.7	29.0
50	9.2	29.5
60	8.8	29.9
70	8.1	30.6
80	7.5	31.2
90	6.8	31.9
10800	6.4	32.3
10	6.0	32.7
20	5.7	33.0
30	5.2	33.5
40	4.6	34.1
50	4.0	34.7
60	3.5	35.2
70	3.0	35.7
80	2.5	36.2
90	1.8	36.9
10900	1.1	37.6

Z-20-33

N2760

638.67

2-20-33

E10900	0.8	37.9
890	1.6	37.1
80	2.2	36.5
70	3.0	35.7
60	3.3	35.4
50	3.9	34.8
40	4.4	34.3
30	5.1	33.6
20	5.4	33.3
10	6.0	32.7
10800	6.3	32.4
790	6.7	32.0
80	7.1	31.6
90	7.9	30.8
60	8.5	30.2
50	9.0	29.7
40	9.7	29.0
30	10.4	28.3
20	11.1	27.6
10710	11.7	27.0

N 2750

638.67

2-20-33

E 10710	11.7	27.0
20	11.1	27.6
30	10.4	28.3
40	9.7	29.0
50	9.0	29.7
60	8.5	30.2
70	7.7	31.0
80	7.0	31.7
90	6.2	32.5
10 800	6.1	32.6
10	5.6	33.1
20	5.2	33.5
30	4.8	33.9
40	4.1	34.6
50	3.6	35.1
60	3.0	35.7
70	2.7	36.0
80	2.0	36.7
90	1.3	37.4
10 900	0.7	38.0

Z-20-33

N 2740

638.67'

E10900	0.6	38.1
890	1.0	37.7
80	1.8	36.9
70	2.3	36.4
60	2.9	35.8
50	3.4	35.3
40	3.9	34.8
30	4.5	34.2
20	5.0	33.7
10	5.4	33.3
10800	5.8	32.9
790	6.5	32.2
80	7.0	31.7
70	7.6	31.1
60	8.6	30.1
50	9.3	29.4
40	9.8	28.9
30	10.4	27.3
20	10.8	27.9
10710	11.5	27.2

K2730

638.67

2-20-33

E10710	11.3	27.4
20	10.7	28.0
30	10.2	28.5
40	9.4	29.3
50	9.0	29.7
60	8.3	30.4
70	7.6	31.1
80	6.9	31.8
90	6.4	32.3
10800	5.8	32.9
10	5.3	33.4
20	4.9	33.8
30	4.3	34.4
40	3.7	35.0
50	3.2	35.5
60	2.8	35.9
70	2.1	36.6
80	1.6	37.1
90	1.0	37.7
10900	0.5	38.2

N2720

638.67

E 10900		0.5	38.2
890		1.1	37.6
80		1.6	37.1
70		2.1	36.6
60		2.7	36.0
50		3.2	35.5
40		3.7	35.0
30		3.9	34.8
20		4.8	33.9
10		5.4	32.3
10800		5.9	32.8
790		6.3	31.4
80		6.9	31.8
70		7.1	31.6
60		7.8	30.9
50		8.6	30.1
40		9.2	29.5
30		9.7	29.0
20		10.4	28.3
10710		11.0	27.7

2-20-33

N2710

638.67

2-20-33

E10710	11.0	27.7
20	9.8	28.9
30	9.4	29.3
40	8.7	30.0
50	8.2	30.5
60	7.4	31.3
70	7.1	31.6
80	6.7	32.0
90	6.1	32.6
10800	5.8	32.9
10	5.3	33.4
20	4.7	34.0
30	4.2	34.5
40	3.7	35.0
50	3.4	35.3
60	2.6	36.1
70	2.2	36.5
80	1.2	37.5
90	0.8	37.9
10900	0.3	38.4

7-20-33

	N 2700		
	638.67		
E10900		0.0	38.7
890		0.6	38.1
80		1.2	37.5
70		1.9	36.8
60		2.7	36.0
50		3.5	35.2
40		3.8	34.9
30		4.3	34.4
20		4.6	34.1
10		5.2	33.5
10800		5.8	32.9
790		6.2	32.5
80		6.8	31.9
70		7.0	31.7
60		7.3	31.4
50		8.2	30.5
40		8.8	29.9
30		9.4	29.3
20		10.1	28.6
10710		10.9	27.8

N 2690

638.67

2-20-33

E10710	10.7	28.0
20	10.2	28.5
30	9.5	29.2
40	9.2	29.5
50	8.3	30.4
60	7.6	31.1
70	7.1	31.6
80	6.6	32.1
90	6.0	32.7
10800	5.6	33.1
10	5.2	33.5
20	4.8	33.9
30	4.4	34.3
40	3.9	34.8
50	3.1	35.6
60	2.5	36.2
70	1.9	36.8
80	1.3	37.4
90	0.7	38.0
10900	0.1	38.6

7-20-33

N2680

638.67

E10900	0.1	38.6
890	0.6	38.1
80	1.3	37.4
70	1.9	36.8
60	2.7	36.0
50	3.2	35.5
40	3.7	35.0
30	4.1	34.6
20	4.7	34.0
10	5.3	33.4
10800	5.8	32.9
790	6.2	32.5
80	6.7	32.0
70	7.2	31.5
60	7.8	30.9
50	8.2	30.5
40	9.1	29.6
30	9.4	29.3
20	10.3	28.4
10710	10.7	28.0

N2670

628.67

2-20-33

E10710	10.7	28.0
20	10.1	28.6
30	9.7	29.0
40	9.1	29.6
50	8.3	30.4
60	8.0	30.7
70	7.4	31.3
80	6.8	31.9
90	6.4	32.3
10800	5.9	32.8
10	5.2	33.5
20	4.6	34.1
30	3.8	34.9
40	3.2	35.5
50	2.4	36.3
60	2.5	36.2
70	2.0	36.7
80	1.5	37.2
90	0.9	37.8
10900	0.1	38.6

N2660

638.67 ✓

2-20-33

E10900	0.0	38.7
890	0.5	38.2
80	0.9	37.8
70	1.4	37.3
60	1.8	36.9
50	2.5	36.2
40	2.9	35.8
30	3.8	34.9
20	4.7	34.0
10	5.3	33.4
10800	5.8	32.9
790	6.8	31.9
80	7.4	31.3
70	7.9	30.8
60	8.0	30.7
50	8.3	30.4
40	8.7	30.0
30	9.4	29.3
20	10.0	28.7
10710	10.6	28.1

638.67
-8.23
630.44 ✓
10.46
640.90 ✓

N2650

640.90

7.20.-33

E10710	12.7	28.2
20	12.2	28.7
30	11.7	29.2
40	11.0	29.9
50	11.0	29.9
60	10.5	30.4
70	9.7	31.2
80	9.3	31.6
90	9.2	31.7
10800	8.5	32.4
10	7.7	33.2
20	7.0	33.9
30	6.0	34.9
40	5.2	35.7
50	4.6	36.3
60	3.9	37.0
70	3.5	37.4
80	2.9	38.0
90	2.5	38.6
10900	1.8	39.1

K2640

L4090

2-20-33

E10900	1.7	39.2
890	2.3	38.6
80	3.0	37.9
70	3.9	37.0
60	4.7	36.2
50	5.3	35.6
40	5.8	35.1
30	6.6	34.3
20	7.7	33.2
10	7.9	33.0
10800	8.0	32.9
790	8.5	32.4
80	9.1	31.8
70	9.6	31.3
60	10.3	30.6
50	10.9	30.0
40	11.4	29.5
30	11.9	29.0
20	12.3	28.6
10710	12.8	28.1

N2630

640.90

2-20-33

E10710	12.6	28.3
20	12.2	28.7
30	11.7	29.2
40	11.2	29.7
50	10.4	30.5
60	9.7	31.2
70	9.2	31.7
80	8.8	32.1
90	8.3	32.6
10800	7.8	33.1
10	7.1	33.8
20	6.5	34.4
30	6.1	34.8
40	5.6	35.3
50	5.1	35.8
60	4.7	36.2
70	4.0	36.9
80	2.9	38.0
90	2.1	38.8
10900	1.5	39.4

2-20-23

N2620

640.90

E10900	1.3	39.6
890	2.0	38.9
80	2.8	38.1
70	3.0	37.9
60	3.5	37.4
50	4.1	36.8
40	5.1	35.8
30	5.9	35.0
20	6.4	33.5
10	6.7	34.2
10800	6.9	34.0
790	7.4	33.5
80	8.3	32.6
70	9.0	31.9
60	9.8	31.1
50	10.4	30.5
40	11.1	29.8
30	11.7	29.2
20	12.3	28.6
10710	12.8	28.1

NZ610

640.90

2-20-33

43

E10710	12.7	28.2
20	12.3	28.6
30	11.7	29.2
40	11.0	29.9
50	10.0	30.9
60	9.0	31.9
70	8.4	32.5
80	7.9	33.0
90	7.5	33.4
10800	6.9	34.0
10	5.6	35.3
20	4.7	36.2
30	4.7	36.2
40	4.9	36.0
50	4.3	36.6
60	3.9	37.0
70	3.1	37.8
80	2.3	38.6
90	2.0	38.9
10900	1.1	39.8

N2600

64090

Z-20-33

E10900	0.9	40.0
890	1.2	39.7
80	1.5	39.4
70	1.8	39.1
60	1.3	39.6
50	1.7	39.2
40	2.5	38.4
30	3.5	37.4
20	4.2	36.7
10	4.9	36.0
10800	5.8	35.1
790	6.6	34.3
80	7.4	33.5
70	8.0	32.9
60	9.1	31.8
50	9.4	31.5
40	9.9	31.0
30	11.2	29.7
20	12.1	28.8
10710	12.9	28.0

	N 3210		
	620.55 ✓		
E 10900		+0.3	
890		0.3	
80		0.7	
70		1.8	
60		2.4	
50		3.1	
40		3.4	
30		5.0	
20		4.5	
10		4.4	
10 800		5.8	
790		7.2	
80		7.5	
70		9.2	
60		11.6	
50		12.3	
	610.85		
40		5.0	
30		7.5	
20		5.5	
10710		3.1	

		614.90	B.M. City
5.65	620.55 ✓	Level	
		11.86	608.69 ✓
2.16	610.85 ✓		

N3220

610.85

705		4.3
E10710		10.7
20		3.9
30		2.5
	620.55	
40		11.0
50		9.8
60		8.7
70		7.8
80		7.3
90		7.1
10800		6.1
10		5.1
20		4.7
30		4.8
40		4.5
50		3.4
60		2.9
70		2.4
80		1.5
90		1.0
10900		0.5

2-20-33

N 3230

620.55

2-20-33

E 10900		1.3
890		2.0
80		2.5
70		3.2
60		3.7
50		4.3
40		5.2
30		4.9
20		5.1
10		5.8
10800		6.7
790		7.2
80		7.5
70		8.1
60		8.4
50		9.4
40		10.3
30		11.4
	610.85	
20		6.3
10710		4.4

N3240

610.85

2-20-33

E10710		4,2
20		2.8
30		1.4
	620.55	
40		9.7
50		8.8
60		8.3
70		7.6
80		7.3
90		7.3
10800		7.1
10		6.4
20		5.8
30		5.2
40		5.1
50		5.4
60		3.8
70		3.3
80		3.0
90		2.0
10900		1.3

N 3250

620.55

2-20-33

E 10900		2.0
890		2.6
80		3.4
70		3.4
60		4.4
50		5.5
40		5.1
30		5.4
20		6.1
10		7.0
10 800		7.2
790		7.0
80		7.3
70		7.7
60		8.2
50		8.7
40		9.5
30		10.8
20		12.3
10710		14.2

N 3260

620.55

2-20-33

E10710	14.0
20	12.0
30	10.5
40	9.3
50	8.2
60	7.7
70	7.5
80	6.7
90	6.5
10 800	7.0
10	7.4
20	6.9
30	6.0
40	5.2
50	5.2
60	5.6
70	4.6
80	3.9
90	3.6
10 900	2.8

N3270

620.55

2-20-33

E10900	3.1
890	3.6
80	4.2
70	5.2
60	5.2
50	5.2
40	5.8
30	6.6
20	7.4
10	7.2
10800	6.6
790	6.3
80	7.0
70	7.5
60	7.8
50	7.9
40	9.1
30	10.6
20	12.6
10710	14.3

N32.80

620.55

2-20-33

E10 710	14.4
20	12.9
30	10.8
40	9.2
50	8.4
60	7.8
70	7.5
80	7.4
90	6.7
10800	6.6
10	6.8
20	7.1
30	7.3
40	6.8
50	5.8
60	5.3
70	5.5
80	4.6
90	3.6
10900	3.2

N3290

620.55

2-20-33

E10900	3.3
890	4.2
80	5.5
70	5.4
60	5.6
50	6.0
40	7.1
30	7.1
20	6.7
10	6.7
10800	6.6
790	7.2
80	7.3
70	7.6
60	8.4
50	9.0
40	10.0
30	11.6
20	13.6
10710	15.4

N3300

620.55

54

2-20-33

E10710	16.2
20	15.0
30	12.9
40	11.4
50	10.2
60	9.1
70	8.0
80	7.5
90	7.3
10800	7.1
10	6.5
20	6.5
30	6.6
40	7.0
50	6.9
60	6.1
70	5.5
80	5.2
90	4.4
10900	4.0

N 3:3,10

617.55

E 10900		1.5
890		2.3
80		2.4
70		3.3
60		4.0
50		3.8
40		3.7
30		3.4
20		3.5
10		4.0
10 800		4.4
790		4.8
80		5.2
70		5.8
60		7.0
50		8.7
40		9.4
30		11.0
20		13.0
10 710		14.0

2-20-33

2.65	617.55	614.90	City BM

N 3320

617.55

2-20-33

E10710	14.5
20	13.6
30	12.1
40	10.5
50	9.4
60	8.1
70	7.0
80	6.3
90	5.4
10800	5.0
10	4.4
20	4.3
30	3.7
40	3.6
50	3.5
60	3.9
70	4.0
80	2.8
90	2.7
10900	2.8

N 3330

617.55

E 10900		3.0
890		3.4
80		4.1
70		3.6
60		3.2
50		3.7
40		4.2
30		4.6
20		4.5
10		5.3
10800		5.8
790		6.5
80		7.1
70		8.7
60		9.4
50		10.6
40		11.9
30		13.3
20		14.1
10710		14.9

N3340

617.55

2-20-33

E10710	1:1 slope to river	15.3
20		14.5
30		13.7
40		13.0
50		11.4
60		10.5
70		9.4
80		8.6
90		7.4
10800		6.7
10		6.0
20		5.3
30		4.9
40		5.0
50		4.5
60		3.6
70		3.7
80		3.8
90		4.2
10900		3.7

N3350

617.55

2-20-33

59

E10900		4.1
890		4.1
80		4.1
70		4.1
60		4.6
50		5.6
40		5.4
30		5.6
20		6.3
10		7.0
10800		7.9
790		9.0
80		9.6
70		10.7
60		11.4
50		12.4
40		13.5
30		14.4
20		15.2
10 710	1:1 slope to rim	15.9

N 3360

617.55

E10720	1:1 slope to rim	15.0
30		14.5
40		13.7
50		13.2
60		12.1
70		11.3
80		10.3
90		9.5
10800		9.1
10		8.3
20		7.2
30		6.6
40		6.2
50		6.0
60		5.5
70		5.1
80		4.5
90		4.5
10900		4.5

2-20-33

End of work Feb. 20-33

P.O.G. Notes for city

		N3370			
	0.00	614.90		614.90	BM
E10900			2.2		
890			2.3		
80			2.9		
70			3.1		
60			3.6		
50			4.3		
40			4.8		
30			4.9		
20			5.6		
10			6.7		
10800			7.2		
790			7.7		
80			8.6		
70			9.5		
60			10.4		
50			11.2		
40			11.8		
30			12.3		
20	111 slope		12.9		

Beginning of work Feb 21-33

POG Notes for city

Delaney Chief
Clavert R9
Kerney R9
Wade R4

} contract eng. crew

N 3380

614.90

2-21-33

E 10722	1:1 slope		13.2
30			12.6
40			12.0
50			11.8
60			11.0
70			10.1
80			9.4
90			8.6
10800			8.0
10			7.5
20			7.2
30			6.1
40			5.6
50			5.2
60			4.8
70			4.3
80			3.9
90			3.6
10900			3.3

N 3390

C14.90

2-21-33

E10900		4.3
890		4.7
80		4.7
90		5.4
60		6.1
50		6.4
40		6.8
30		7.7
20		8.0
10		8.5
10800		9.3
790		9.8
80		10.3
70		10.7
60		11.3
50		12.0
40		12.4
30		12.8
10726	1:1 slope	12.8

N3400

6+90

2-21-33

E10730	1:1 slope	13.1
40		12.5
50		12.4
60		12.0
70		11.2
80		10.8
90		10.4
10800		10.0
10		9.5
20		9.0
30		8.5
40		8.2
50		7.4
60		7.1
70		6.8
80		6.1
90		5.7
10900		5.5

N 3410

614.90

E 10900		6.8
890		7.0
80		7.3
70		7.9
60		8.1
50		9.0
40		9.1
30		9.2
20		9.7
10		10.3
10 800		10.6
790		11.0
783	1:1 slope	11.4

2-21-23

N3420

614.90

(cc)

2-21-33

E 10804	1:1 slope		11.2
10			10.8
20			10.5
30			10.0
40			9.8
50			9.5
60			9.1
90			8.7
80			8.4
90			8.1
10900			7.9

N3430

614.90

E 10900		8.3
890		8.7
80		9.0
70		9.6
60		10.0
50		10.2
40		10.5
30		10.6
20		10.9
10 8 16	1:1 slopes	11.1

N3440

614.90

E10851	1:1 slope	10.5
60		10.4
70		10.0
80		9.6
90		9.3
10900		87

N3450

10900		9.4
890		9.9
80		10.0
70		10.4
10868	1:1 slope	

N3460

E10870	1:1 slope	10.5
80		10.1
90		10.0
10900		9.8

GP

		N 3470	
		614.90	
E 10900			9.7
890			10.1
80			10.3
10 877	1:1 slope		10.4
		N 3480	
E 10880	1:1 slope		10.4
90			10.3
10 900			9.3
		N 3490	
10900			10.0
890			10.3
10 889	1:1 slope		10.3
		N 3500	
10895	1:1 slope		10.3
10900			10.3
		N 3510	
10900	1:1 slope		10.3

N2590

630.44 B.M.

	0.48	630.92	
E10700			7.7
690			3.5
80			4.0
70			4.4
60			5.0
50			5.4
40			5.9
30			6.4
20			7.0
10			7.4
10600			7.6
590			8.1
80			8.5
70			8.6
60			9.2
50			9.4
40			9.7
30			9.7
20			10.0
10			10.0

Beginning of work Feb. 24-33

Delaney ⊼
Clavert Rd

ROG copies

N2580

6.30.92

2.24-33

E 10510	9.7
20	10.0
30	9.6
40	9.1
50	9.2
60	9.7
70	8.3
80	8.2
90	7.9
10600	7.5
10	7.2
20	6.9
30	6.2
40	5.6
50	5.3
60	4.5
70	4.0
80	3.4
90	2.3
10700	1.4

N2570

630.92

2-24-33

E10700		1.5
690		1.6
80		2.0
70		3.0
60		4.0
50		4.7
40		5.0
30		5.8
20		6.3
10		6.7
10600		7.0
590		7.4
80		7.8
70		8.0
60		8.4
50		8.9
40		8.9
30		9.1
20		9.6
10510		9.9

N2560

	630.92			2-24-33
E10510	/	9.7		
20		9.4		
30		9.1		
40		8.8		
50		8.3		
60		7.9		
70		7.6		
80		7.6		
90		7.1		
10600		6.4		
10		6.0		
20		5.4		
30		4.8		
40		3.8		
50		2.4		
60		2.3		
70		2.2		
80		1.1		
90		+0.1		
10700		+1.1	632.0	

N2570

637.13

Z-24-33

E10700	7.9	
690	4.2	
80	5.3	
70	6.2	630.92 + 0.01
60	7.0	630.93
50	8.8	+ 6.20
40	8.8	637.13
30	9.1	
20	9.6	
10	11.0	
10600	12.0	
590	12.4	
80	13.0	
70	13.6	
60	13.8	
50	14.0	
40	14.3	
30	14.9	
20	15.2	
10510	15.5	

N 2550

637.13

2-24-33

E10510	15.1
20	14.8
30	14.3
40	13.8
50	13.4
60	13.0
70	12.8
80	12.3
90	11.4
10600	10.1
10	9.7
20	9.4
30	8.3
40	7.0
50	6.0
60	5.2
70	4.4
80	3.1
90	2.1
10700	0.6

N2540

641.40

E11700	2.9
690	3.9
80	5.3
70	6.5
60	7.2
50	8.2
40	9.6
30	10.8
20	11.7
10	12.6
10600	14.4
590	14.4
80	14.9
70	15.6
60	16.1
50	17.3
40	18.0
30	18.4
20	18.6
10510	19.0

2-24-33

637.13
-0112

637.01
+ 4.39
641.40

K 2530

641.40

E 10510		18.2
20		18.0
30		17.5
40		16.9
50		15.6
60		15.5
70		15.3
80		14.0
90		13.2
10600		12.1
10		11.0
20		10.0
30		8.9
40		8.0
50		6.2
60		5.3
70		4.4
80		3.2
90		1.6
10700		0.2

641.40
-0.20
641.20
+3.61
644.81

K2520

644.81

2-24-33

E10700		1.4
690		2.6
80		3.9
70		5.2
60		6.4
50		7.5
40		8.8
30		10.5
20		11.6
	636.84	
10		4.7
10600		5.8
590		6.9
80		7.9
70		8.9
60		10.0
50		11.6
40		11.6
30		11.9
20		13.3
10510		13.3

644.81
-11.99
632.82
+4.02
636.84

	K 2510	
	636.84	
E 10510		12.5
20		12.2
30		11.9
40		10.7
50		9.5
60		8.7
70		7.8
80		6.8
90		5.4
10 600		4.1
10		3.1
20		2.0
30		0.6
	647.79	
40		10.1
50		8.8
60		7.5
70		6.2
80		4.7
90		3.5
10700		2.0

2-24-33

End of work Feb. 24-33

Delaney ⊼

Clavert R9

636.84
-0.10
636.74
11.05
647.79

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.