

SD 523

LEVEL 523

NO 410

S05

F.B. 523

ETZGEN

523

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

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Stockton - 5th St. alley - cont'd from Sta. 4 - 65

Small
Crisholm 5-26-22 1

Sta. -	+ From	H.I.	-	Elev.	Grade	Gut	Staked on 6' offset W.
0+00	B50.4-P65	370.43	4.21	366.22	361.17	5.05	MH#154
+25	TP		4.16	66.27	61.26	5.01	
+50	6.37	72.64	6.29	66.35	61.35	5.00	
+75			5.90	66.74	61.44	5.30	
1			5.55	67.09	61.54	5.55	
+25			5.43	67.21	61.63	5.58	
+50			5.30	67.34	61.72	5.62	Grade Sheet #251
+75			5.11	67.53	61.81	5.72	
2			5.03	67.61	61.90	5.71	
+25			4.62	68.02	61.99	6.03	
+50			4.34	68.30	62.09	6.21	
+75			4.25	68.39	62.18	6.21	
3+00			3.73	68.91	62.27	6.64	F.T. #23 -
TP			6.42	66.22	—	—	
BM	6.37	72.69	6.66	66.03	366.04	BP - N.W. Stockton at Olive. -	

5th St. Gospel and alley

Small
Chisholm } 5-27

2

Sta. + H.I. - Elev. Grade Cut Staked on 6 offset W.

0+00 71.94 4.54 67.40 359.80 7.60 M/H #148

+25 4.41 67.53 59.90 7.63

+50 3.95 67.99 60.00 7.99

+75 3.69 68.25 60.10 8.15

1 4.25 67.69 60.20 7.49

+25 4.56 67.38 60.30 7.08

+50 4.86 67.08 60.40 6.68

Grade Sheet # 244 -

+75 5.28 66.66 60.50 6.16

2 5.90 66.04 60.60 5.44

+25 6.36 65.58 60.70 4.88

+50 6.52 65.42 60.80 4.62

+75 6.95 64.99 60.90 4.09

3+00⁶⁵ 7.25 64.69 361.00 3.69 F.T. #22 -

2+75 So. A - 71

4.50 67.44

4.75

5.25

Stockton - Conklin alley - MH# T-39

Snake } 6-5-22
Brown }

4

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W-
BM				301.89	24.05%	BP-	N.W. Stockton at Center.
TP	2.71	304.60	6.85	297.75			
BM	2.41	300.16	7.09	293.06	P	BP-	West-East curb Stockton north of Chatham
TP			11.70	88.46			
2+00 TP	4.23	92.69	12.57	80.12			
TP	0.46	80.58	12.85	67.73			
TP	0.34	68.07	12.42	55.65			
TP	1.77	57.42	12.77	44.95			
0+00	0.43	45.38	12.67	32.71	227.60	5.11	MH# T-39 - Grade on W/S of ring at E E & W - Line from 112-10' S of M center on 6' offset W.
+25			10.47	34.91	33.61	1.30	Grade Sheet # 252
+50 TP			0.43	44.95	39.63	5.32	
+75	13.13	58.08	8.79	49.29	45.64	3.65	
1+00 TP			0.32	57.76	51.65	6.11	
+25 TP	12.95	70.71	3.37	67.34	57.66	9.68	
+50	12.72	80.06	7.42	72.64	63.68	9.06	
+75			3.98	76.08	69.69	6.31	
2			+0.09	80.15	75.70	4.45	
TP			1.15	78.91			
+173	12.96	291.87	9.09	282.78	280.00	2.78	MH# 202

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Small
Brown 36-5-22

5

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 4' offset N.
0+00		291.87	9.09	282.78	6.51% 280.00	2.78	M# 202
+25			4.86	87.01	81.63	5.38/	
+50 TP			1.45	290.42	83.26	7.16	
+75	12.69	303.11	10.10	93.01	84.88	8.13	
1			8.36	94.75	86.51	8.24	
+25			7.06	96.05	88.14	7.91	Grade Sheet #253
+50			5.82	97.29	89.77	8.52	
+75			4.70	98.41	91.39	7.02	
2			3.80	99.31	93.02	6.29	
+15			3.38	99.73	294.00	5.73	M# 201

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Scale } 4-5-22
Brown

6

Sta.	+	H.I.	-	Elev.	Grade	Gut	Staked on 6' offset W.
0+00		303.11	3.38	299.73	294.00 1.290	5.73	M#201
+25			2.43	300.68	94.30	6.38	
+50			1.71	301.40	94.60	6.80	
+75			1.00	302.11	94.90	7.21	
1 TP			0.28	302.83	95.20	7.63	
+25	8.22	311.05	7.49	303.56	95.50	8.06	Grade Sheet # 254
+50			7.06	303.99	95.80	8.19	
+75			6.49	304.56	96.10	8.56	
2			5.76	305.29	96.40	8.89	
+25			5.35	305.70	96.70	9.00	
+50			5.02	306.03	297.00	9.03	M#200

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Small } 6-5-22
Brown }

7

Sta.	+	H.I.	-	Elev.	Grade	Cut.	Staked on 6' offset W.
0+00		311.05	5.02	306.03	1.2% 297.00	9.03	MH # 200
+25			4.47	306.58	97.30	9.28	
+50			4.01	307.04	97.60	9.44	
+75			3.95	307.10	97.90	9.20	
1			3.53	307.52	98.20	9.32	
+25			3.24	307.81	98.50	9.31	
+50 TP			2.82	308.23	98.80	9.43	Grade Sheet #254
+75	2.85	311.08	2.73	308.35	99.10	9.25	
2			2.54	308.54	99.40	9.14	
+25			2.49	308.59	99.70	8.89	
+50			3.90	307.18	300.00	7.18	MH #199
BM			9.12	301.96	301.89		BP - N.W. - Stockton at Center -

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Scale 3/6-7-22 8
Chisholm

Sta.	+	H.I.	-	Elev.	Grade	Gut	Staked on G. offset W.
0+00				307.18	1.176% 300.00	7.18	MH#199
+25	6.84	314.02	8.31	305.71	300.29	5.42	
+50			8.28	305.74	300.59	5.15	
+75			8.34	305.68	300.88	4.80	
1			7.21	306.81	301.18	5.63	
+25			5.25	308.77	301.47	7.30	
+50			3.98	310.04	301.76	8.28	
+75			3.91	310.11	302.06	8.05	Grade Sheet #256
2			3.50	310.52	302.35	8.17	
+25			3.11	310.91	302.65	8.26	
+50			2.80	311.22	302.94	8.28	
+75			2.59	311.43	303.23	8.20	
3 TP			2.38	311.62	303.53	8.09	
+25	6.37	317.99	6.20	311.79	303.81	7.98	
+40			5.97	312.02	304.00	8.02	MH#198

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Sta.	+	H.I.	-	Elev.	Grade 1.1839
0+00		317.99	5.97	312.02	304.00
+25			6.03	311.96	304.30
+50			5.49	312.50	304.59
+75			4.84	313.15	304.89
1			4.74✓	313.25	305.18
+25			4.58	313.41	305.48
+50			4.06	313.93	305.77
+75			3.54	314.45	306.07
2			2.81	315.18	306.37
+25			2.18	315.81	306.66
+50 TP			1.63	316.36	306.96
+75	4.76	321.12	4.02	317.10	307.25
3			3.60	317.52	307.55
+25			3.00	318.12	307.84
+37 ²			3.30	317.82	308.00
BM			10.93	310.19	310.14

Cont'd on Page 10

Cut Staked on 6' offset W.

8.02 MH#198

7.66

7.91

8.26

8.07

7.93

8.16

8.38

8.81

9.15

9.40

9.85

9.97

10.28

9.82

MH#197 -

Grade Sheet #257

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Small
Chisholm } 6-7-22

10

Sta.	+	H.I.	-	Elev.	Grade	Cut.	Staked on	6 offset W.
0+00	From Page 9 -			317.82	2.26% 308.00	9.82	MH #197	
0+25	6.18	324.00	8.83	15.17	8.57	6.60		
+50			8.50	15.50	9.13	6.37		
+75			8.71	15.29	9.70	5.59		
1			7.78	16.22	10.26	5.96		
+25			5.09	18.91	10.83	8.08		
+50			3.89	20.11	11.40	8.71		
+75			4.27	19.73	11.96	7.77		
2			4.11	19.89	12.52	7.37	Grade Sheet #258-	
+25			4.39	19.61	13.09	6.52		
+50			3.94	20.06	13.66	6.40		
+75			3.09	20.91	14.22	6.69		
3	TP		1.96	322.04	14.79	7.25		
+25	8.80	330.84	8.90	21.94	15.35	6.59		
+50			7.16	23.68	15.92	7.76		
+75			6.46	23.38	16.48	6.90		
3+99.6			6.31	24.53	317.04	7.49	MH #196	

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Chisholm 6-8-22

11

Sta.	+ From Page 10	H.I.	-	Elev.	Grade 2.262%	Cut.	Staked on 6' offset W.
0+00		330.84	6.31	24.53	317.04	7.49	MH #196
+25			5.52	25.32	17.61	7.71	
+50			5.03	25.81	18.17	7.64	
+75			4.66	26.18	18.74	7.38	
1			4.28	26.56	19.30	7.26	
+25			4.01	26.83	19.87	6.96	
+50			4.00	26.84	20.43	6.41	
+75			4.27	26.57	21.00	5.57	Grade Sheet #259-
2			4.00	326.84	21.56	5.28	
+25	8.64	335.48	8.49	26.99	22.13	4.86	
+50			7.90	27.58	22.70	4.88	
+75			6.96	28.52	23.26	5.26	
3			5.74	29.74	23.83	5.91	
+25			5.44	30.04	24.39	5.65	
+50			5.08	30.48	24.96	5.42	
+75			5.27	30.21	25.52	4.69	
+99.6			4.10	31.38	326.08	5.30	MH #195
B M			4.39	331.09	331.06		BP - N.W. Stockton at Howard-

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Smale
Chisholm } 6-8-22

12

Sta.	+	H.I.	-	Elev.	Grade	Cut-	Staked on 6' offset
0+00		338.48	4.10	31.38	326.08	5.30	MH#195
+25			3.19	32.29	26.16	6.13	
+50			2.65	32.83	26.23	6.60	
+75			2.22	33.26	26.31	6.95	
1	7		1.79	33.69	26.38	7.31	
+25	8.02	41.71	7.47	34.24	26.46	7.78	
+50			7.09	34.62	26.53	8.09	
+75			6.59	35.12	26.61	8.51	Grade Sheet #260
2			5.90	35.71	26.68	9.03	
+25			5.53	36.18	26.76	9.42	
+50			4.99	36.72	26.83	9.89	
+75			4.41	37.30	26.91	10.39	
+80			4.12	37.59	326.92	10.67	MH#194-

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Spade } 6-12-22
Brown }

13

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		341.71	4.12	37.59	326.92 .3%	10.67	MH#194
+25			3.89	37.82	327.00	10.82	
+50			3.28	38.43	27.07	11.36	
+75			2.92	38.79	27.15	11.64	
1			2.33	39.38	27.22	12.16	
+25 TP			2.13	39.58	27.30	12.28	
+50	6.28	45.86	5.96	39.90	27.37	12.53	Grade Sheet #261
+75			5.43	40.43	27.45	12.98	
2			5.04	40.82	27.52	13.30	
+25			4.84	41.02	27.60	13.42	
+50			4.51	41.35	27.67	13.68	
+80			4.40	41.46	327.76	13.70	MH#193
BM			2.80	43.06	343.08 S.B.	B.P.	N.W. Stockton at Castle-
BM			8.56	37.30	337.26 S.B.	✓	Conglin ✓ ✓

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S-1636-12-22
Bronx

14

Sta.	+	H. I.	-	Elev.	Grade .3%	Cut.	Staked on 6' offset W.
0+00		345.86	4.40	41.46	327.76	13.70	MH#193
+25			6.05	39.81	27.84	11.97	
+50			5.70	40.16	27.91	12.25	
+75			5.85	40.01	27.99	12.02	
1			5.36	40.50	28.06	12.44	
+25			stake out		28.14	—	
+50			2.30	43.56	28.21	15.35	
+75 TP			2.17	43.69	28.29	15.40	
2	6.30	49.99	5.92	44.07	28.36	15.71	Grade Sheet #262
+25			5.87	44.12	28.44	15.68	
+50			5.62	44.37	28.51	15.86	
+75			5.61	44.38	28.59	15.79	
3			5.45	44.54	28.66	15.88	
+25			5.17	44.82	28.74	15.08	
+50			4.71	45.28	28.81	16.47	
+80			5.18	44.81	328.90	15.91	MH#192-

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Sample 26-13-22
Chisholm

15

Sta.	+	H.I.	-	Elev.	Grade .3%	Cut	Staked on 6' offset W.
0+00		349.99	5.18	44.81	328.90	15.91	M.H.#192
+25			5.19	44.80	28.98	15.82	
+50			5.00	44.99	29.05	15.84	
+75			5.11	44.88	29.13	15.75	
1			4.76	45.23	29.20	16.03	
+25 TP			4.61	45.38	29.28	16.10	
+50	5.27	50.65	5.05	45.60	29.35	16.25	
+75			4.93	45.72	29.43	16.29	Grade Sheet #263
2			4.95	45.70	29.50	16.20	
+25			4.92	45.73	29.58	16.15	
+50			5.18	45.47	29.65	15.82	
+75			5.28	45.37	29.73	15.64	
3			5.52	45.13	29.80	15.53	
+25			9.68	40.97	29.88	11.09	
+50			9.38	41.27	29.95	11.22	
+59'			9.19	41.46	329.98	11.48	M.H.#191 (St. Grade 341.1)
B.M.			3.51	47.14	347.09	BP-	N.W. Stockton at Klauber

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Sample 6-13-22
Chisholm

16

Sta.	±	H.I.	-	Elev.	Grade .3%	Gut	Staked on 6' offset W.
0+00		350.65	9.19	41.46	329.98	11.48	MH#191
+25			9.89	40.76	30.06	10.70	
+50			9.38	41.27	30.13	11.14	
+75			10.80	39.85	30.21	9.64	
1 TP			12.27	38.38	30.28	8.10	
+25	1.51	39.89	3.46	36.43	30.36	6.07	
+50			5.66	34.23	30.43	3.80	Grade Sheet #264-
+75			6.14	33.75	30.51	3.24	
2			8.16	31.73	30.58	1.15	
+25			9.30	30.59	30.66	F 0.07	
+50			9.33	30.56	30.73	F .17	
+75			6.97	32.92	30.81	2.11	
3 TP			2.12	37.77	30.88	6.89	
+25	13.08	50.85	8.78	42.07	30.96	11.11	
+40	South -		6.30	44.55	331.00	13.55	MH#190 - 8" pipe -
	North -		6.30	44.55	338.30	6.25	Drop -

Cont'd on Page 17 -

Cont'd from Page 16

Sta. + H.I. - Elev. Grade

0+00		350.85	6.30	44.55	338.30	6.25
+25			3.83	47.02	38.59	8.43
+50			2.74	48.11	38.88	9.23
+75			1.85	49.00	39.17	10.83
1			1.24	49.61	39.46	10.15
+25 TP			0.50	50.35	39.75	10.60
+50	6.39	56.74	5.79	50.95	40.04	10.91
+75			5.72	51.02	40.33	10.69
2			5.15	51.59	40.62	10.97
+25			5.30	51.44	40.91	10.53
+50			4.48	52.26	41.20	11.06
+79.4			4.68	52.06	41.54	10.52

Cont'd on Page 18

3.62 53.12

5m dia } 6-20-22
Gray

17

Cut - Staked on 6' offset W. -

MH #190

Grade Sheet #265-

MH #189-

Cont'd from Page 17

Snake } 6-22-32
Brown }

18

Sta	+	H.I.	-	Elev.	Grade 1.156%	Cut	Staked on 4 offset W-
0+00				352.06	341.54	10.52	MH#189 Alley BK
+20	5.28	57.34	4.22	53.12	41.77	11.35	
1			4.03	53.31	42.69	10.62	
+25			4.55	52.79	42.99	9.70	
+50			5.13	52.21	43.27 S.B.	8.94	
BM			4.43	352.91	352.91		B.P. N.W. Stockton at Univ.
+75			5.18	52.16	43.56	8.60	
2			5.51	51.83	43.85	7.98	Grade Sheet #266
+25			6.76	50.58	44.14	6.44	
+50			7.60	49.74	44.43	5.31	
+75			8.26	49.08	44.72	4.36	
3	TP		8.26	49.08	45.01	4.07	x
+25	3.95	58.03	8.71	49.32	45.30	4.02	
+40			7.78	50.25	345.47	4.78	MH#188 Alley BK #2

Cont'd on Page 19

Cont'd from Page 18

Small Brown 6-22-22

19

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		35803	7.78	350.25	1.156% 345.47	4.78	MH #188 Alley BK 42

+25			6.73	51.30	45.76	5.54	
-----	--	--	------	-------	-------	------	--

+50			6.32	51.71	46.05	5.66	
-----	--	--	------	-------	-------	------	--

+75			5.78	52.25	46.34	5.91	
-----	--	--	------	-------	-------	------	--

1			5.30	52.73	46.63	6.10	
---	--	--	------	-------	-------	------	--

+25			4.59	53.44	46.92	6.52	
-----	--	--	------	-------	-------	------	--

+50			3.94	54.09	47.20	6.89	
-----	--	--	------	-------	-------	------	--

+75			3.73	54.30	47.49	6.81	
-----	--	--	------	-------	-------	------	--

Grade Sheet #267

2			3.52	54.51	47.78	6.73	
---	--	--	------	-------	-------	------	--

+25			2.70	55.33	48.07	7.26	
-----	--	--	------	-------	-------	------	--

+50			2.20	55.83	48.36	7.47	
-----	--	--	------	-------	-------	------	--

+75 TP			1.29	56.74	48.65	8.09	
--------	--	--	------	-------	-------	------	--

3	6.48	63.22	6.06	57.16	48.94	8.22	
---	------	-------	------	-------	-------	------	--

+25			5.45	57.77	49.23	8.54	
-----	--	--	------	-------	-------	------	--

+40			5.25	57.97	349.40	8.57	MH #187
-----	--	--	------	-------	--------	------	---------

8" south

Cont'd on Page 20

349.60

Alley BK 42

6" north -

Cont'd. from Page 20

Sta.	+	H.I.	-	Elev.	Grade 875	Gut-	Staked on 6' offset W.	
0+00		363.22	5.25	57.97	349.60	8.37	MH#187	6" north
+30			6.74	56.48	49.82	6.66		
+50			6.82	56.40	50.04	6.36		
+75	✓		5.17	58.05	50.26	7.79		
1			4.61	58.61	50.48	8.13		
+25			4.42	58.80	50.69	8.11		
+50			4.47	58.75	50.91	7.84	Grade Sheet #268	
+75			3.83	59.37	51.13	8.26		
2			3.61	59.61	51.35	8.26		
+25 TP			3.84	59.38	51.57	7.81		not checked
+50	5.73	65.11	5.66	59.45	51.79	7.66		
+75			5.20	59.91	52.01	7.90		
3			5.00	60.11	52.23	7.88		
+25			5.69	59.42	52.45	6.97		
+34 ⁸³			4.90	60.21	352.53 ✓	7.68	MH#186	

Cont'd on Page 21

Sample 6-22-22
Brown

20

Cont'd from Page 20

Sta.	+	H.I.	-	Elev.	Grade
					.874%
0+00		365.11	4.90	60.21	352.53
+25			4.63	60.48	52.74
+50			4.80	60.31	52.97
+75			4.37	60.74	53.19
1			4.14	61.07	53.40
+25			3.85	61.26	53.62
+50 π			4.00	61.11	53.84
+75	5.60	66.71	4.41	62.30	54.06
2			4.69	62.02	54.28
+25			4.41	62.30	54.50
+50			3.93	62.78	54.72
+75			4.14	62.57	54.93
3			4.52	62.19	55.15
+25			4.43	62.28	55.37
+40 SW			4.09	62.62	355.50
NE			3.94	62.77	
BM			3.93	62.78	362.79

Cont'd on Page 22

Smale } 6-22-22
Brown }

21

Cut Staked on 6' offset W-

7.68 MH#186

7.74

7.34

7.55

7.67

7.64

7.27

8.24

Grade Sheet #269

7.74

7.80

8.06

7.64

7.04

6.91

7.12

MH#185-

B.P. - N.W. - Conklin + Orange $\frac{82}{5}$

Cont'd from Page 21.

Sample }
Chisholm } 6-23-22

22

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00 SW, From P21				362.62	355.50 .407%	7.12	MH#185 St. Grade 162.5-
+25	4.91	367.53	4.98	362.55	55.60	6.95	
+50			5.06	62.47	55.70	6.77	Grade Sheet #270-
+75			5.10	62.43	55.81	6.62	
1			5.15	62.38	55.91	6.47	
+22 ⁸² S.W.			5.34	62.19	356.00	6.19	MH#184
+22 ⁸² N.E.			5.19	62.34			St. Grade 161.88

Cont'd on Page 23.

Cont'd from Page 22

Stake
Chisholm } 6-23-22

23

Sta. + H.I. - Elev. Grade Cut Staked on 6' offset W.

0+00 SW 367.53 5.34 362.19 356.00 6.19 MH#184

+25 5.76 61.77 56.10 5.67

+50 4.86 62.67 56.20 6.47

+75 4.69 62.84 56.30 6.54

1- 4.50 63.03 56.40 6.63

+25 4.49 63.04 56.50 6.54

+50 TP 4.85 62.68 56.60 6.08

Grade Sheet #271

+75 5.50 68.18 5.09 63.09 56.70 6.39

2 5.04 63.14 56.80 6.34

+25 5.00 63.18 56.90 6.28

+50 4.76 63.42 57.00 6.42

+75 4.42 63.76 57.10 6.66

3 4.82 63.36 57.20 6.16

+17 4.98 63.20 57.27 5.93

MH#183

Cont'd on Page 24-

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Small Chisholm 6-23-22 24

Sta. + H.I. - Elev. Grade Cut Staked on 6' offset W.
MH#183

0+00 368.18 4.98 63.20 357.27 5.93

+25 3.69 64.49 57.37 7.12

+50 4.54 63.64 57.47 6.17

+75 4.56 63.62 57.57 6.05

1 3.77 64.41 57.67 6.74

+25 4.40 63.78 57.77 6.01

+50 TP 4.66 363.52 57.87 5.65

Grade Sheet #272

+75 5.63 69.15 5.13 64.02 57.97 6.05

2 4.97 64.18 58.07 6.11

+50 25 4.92 64.23 58.17 6.06

+75 +50 5.21 63.94 58.27 5.67

+75 5.25 63.90 58.37 5.53

3 4.83 64.32 58.47 5.85

+10 25 5.00 64.15 358.51 5.64

M#182 -

BM 3.98 365.17 3.B. 365.11

B.P.-S.W. Stockton at El Cajon Si-12

Cont'd on Page 25

Contd from Page 24 -

Small

25

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		369.15	5.00	64.15	358.51 ^{4%}	5.64	MH #182
+25			4.55	64.60	58.61	5.99	
+50			4.69	64.46	58.71	5.75	
+75			3.89	65.26	58.81	6.45	
1 TP			4.17	64.98	58.91	6.07	
+25	5.75	370.73	5.75	64.98	59.01	5.97	
+50			5.32	65.41	59.11	6.30	
+75			6.10	64.63	59.21	5.42	
2+00			6.07	64.66	59.31	5.35	Grade Sheet #273-
+25			4.24	66.49	59.41	7.08	
+50			2.95	67.78	59.51	8.27	
+75			4.88	65.85	59.61	6.24	
3+00			5.09	65.64	59.71	5.93	
+25			4.23	66.50	59.81	6.69	
+50			4.54	66.19	59.91	6.28	
+60	TP		4.62	366.11	359.95	6.16	MH #181

Contd on Page 26

Cont'd from Page 25

Chisholm } 6-29-22
Brown }

26

	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00				366.11	^{-40'} 359.95	6.16	MH#181
+25	4.88	370.99	4.52	66.47	60.05	6.42	
+50			5.40	65.59	60.15	5.44	
+75			3.49	67.50	60.25	7.25	
1+00			5.25	65.74	60.35	5.39	
+25			4.85	66.14	60.45	5.69	
+50			4.55	66.44	60.55	5.89	
+75			5.17	65.82	60.65	5.17	Grade Sheet #274
2+00			4.82	66.17	60.75	5.42	
+25			4.59	66.40	60.85	5.55	
+50			4.05	66.94	60.95	5.99	
+75			3.99	67.00	61.05	5.95	
3+00	TP		3.86	367.13	61.15	5.98	
+25	5.19	372.32	4.03	68.29	61.25	6.94	
+50			4.71	67.61	61.35	6.26	
+67			4.57	367.75	361.42	6.33	MH#180
B.M.			6.23	366.09	366.04	B.P. N.W.	Stockton + Olive
B.M.			4.59	367.73	367.69	B.P. N.W.	Conklin + Olive

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Cont'd from Page 26

Chisholm } 6-29-22
Brown

27

Sta.	+	H.I.	-	Elev.	Grade	Gut	Staked on 6' offset W.
0+00		372.32	4.57	367.75	399% 361.42	6.33	M#180
+25			4.97	67.35	61.52	5.83	
+50			5.07	67.25	61.62	5.63	
+75			4.90	67.42	61.72	5.70	
1+00			4.25	68.07	61.82	6.25	
+25			4.10	68.22	61.92	6.30	
+50	TP		3.27	369.05	62.02	7.03	
+75	3.53	372.58	4.58	68.00	62.12	5.88	Grade Sheet #275
2+00			4.52	68.06	62.22	5.84	
+25			3.40	69.18	62.32	6.86	
+50			4.58	68.00	62.42	5.58	
+75			4.94	67.64	62.52	5.12	
3+00			3.83	67.75	62.62	5.13	
+31 ¹⁴			4.93	67.65	362.74	4.91	M#179

Cont'd on Page 28

Sta.	+	H.I	-	Elev.	Grade
0+00		372.58	4.93	367.65	362.74 .4%
+25			3.96	67.62	62.84
+50			6.39	66.19	62.94
+75			6.26	66.32	63.04
1+00	TP		5.53	367.05	63.14
+25	7.11	374.16	6.72	67.44	63.24
+50			6.85	67.31	63.34
+75			5.94	68.22	63.44
2+00			5.56	68.60	63.54
+25			5.13	69.13	63.64
+50			4.35	69.81	63.74
+75			4.69	69.47	63.84
3+00			5.11	69.05	63.94
+20			4.64	69.52	364.02
	TP		7.11	367.05	
	TP	6.21	373.26	4.22	369.04
B.M.	3.20	372.24	6.16	366.08	366.04
		End of sewer.			

28

Cut Staked on 6' offset W.

MH#179

Grade Sheet #276.

5.50 F.T. #25-

B. P. N. W. Stockton & Olive.

F.T. #25

Central-Conkling alley - MH#T41-to F.T. 25
Sta. + H.I. - Elev. Grade

Gut. Staked on 6' offset W.

31

- See Book So. 4 - Page 22 -

M-1 # 225

MH # 224

MH#223

M-#222

MH#221

MH#220

MH#219

M#218

MH #217

Central-Conklin Alley - MH # T-127 - to F.T. #26

Small
Brong 6-7-22

41

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
BM				335.51	10.42%	BP	Klauber & Conklin MH # T-127 - 216
+75 TP	6.76	342.27	12.30	29.97			
TP	1.55	331.52	12.40	19.12			
0+00	0.14	319.26	11.80	307.46	301.00	6.46	
-05							Take grade from W/S MH ring at E E & W. - Take line from 112 5' south of MH center on 6' offset W.
+25			13.06	306.20	303.61	2.69	
+50			12.67	306.59	306.21	0.38	
+75			8.72	310.54	308.82	1.72	
1			2.88	316.38	311.42	4.96	Grade Sheet # 208
TP			0.14	19.12	—	—	
+25	12.20	331.32	7.45	23.87	314.03	9.84	
+50			3.08	28.24	316.63	11.61	
+75 TP			1.34	29.98	319.24	10.74	
2	11.94	341.92	10.90	31.02	321.84	19.18	
+30 ³⁰			10.95	30.97	325.00	5.97	MH # 216

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Cont'd from Page 42

Sta.	+	H.I.	-	Elev.	Grade 1.87%	Cut	Staked on 6' offset W.	
0+00		341.92	10.95	330.97	325.00	5.97	M#216	
+25			10.92	31.00	25.47	5.53		
+50			10.63	31.29	25.94	5.35		
+75			10.14	31.78	26.40	5.38		
1			10.57	31.35	26.87	4.48		Grade Sheet #289
+25			3.24	38.68	27.34	11.34		
⁵⁰ +60 ⁵			2.84	39.08	27.81	11.27		
+60 ⁵			2.55	39.37	328.00	11.37	M#215 -	Drop -
BM			6.40	335.52	335.51		St. Grade -	339.05

Cont'd on Page 43

Sample 36-7-22
Brown

Cont'd from Page 42-

Scale 36-722

43

Sta.	+	H. I.	-	Elev.	Grade	Gut	Staked on 6' offset W.
0+00		341.92	2.55	39.37	334.00 3.75%	5.37	MH#215 Wightman IIrop-
+25			3.19	38.73	34.94	3.79	
+50 TP			1.79	40.13	35.88	4.25	
+75	13.01	53.14	11.08	42.06	36.81	5.25	
1			9.52	43.62	37.75	5.87	
+25			8.07	44.07	38.69	5.38	
+50			6.74	46.40	39.63	6.77	Grade Sheet #290
+75			6.23	46.91	40.56	6.35	
2			5.50	47.64	41.50	6.14	
+25			4.85	48.29	42.44	5.85	
+40			4.68	48.46	343.00	5.46	MH#214 in Mt.

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Cont'd from Page 43 -

Smale 26-7-22
Brown

44

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on	Offset W.
0+00		353.14	4.68	48.46	343.00 .053%	5.46	M# 214	
+25			4.16	48.98	43.13	5.85		
+50			3.96	49.18	43.27	5.91		
+75			3.66	49.48	43.40	6.08		
1			3.68	49.46	43.53	6.93		
+25 TP			3.29	49.85	43.66	6.19		
+50	7.26	57.11	6.78	50.33	43.80	6.53		
+75			6.54	50.57	43.93	6.64		
2			6.22	50.89	44.06	6.83	Grade Sheet #291	
+25			6.16	50.95	44.19	6.76		
+50			5.74	51.37	44.33	7.04		
+75			5.40	51.71	44.46	7.25		
3			4.71	52.40	44.59	7.81		
+25			5.04	52.07	44.72	7.35		
+50			4.32	52.79	44.86	7.93		
+80± TP			4.35	52.76	345.01 S.B.	7.75	M# 213	20's of 0.000
BM	5.32	58.08	4.03	54.05	354.05			

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Cont'd from Page 44 -

Small Brown 6-7-22

45

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
		358.08	5.32	52.76	345.01 .527	7.75	MH# 213
+20			5.23	52.85	45.12	7.73	
1			4.99	53.09	45.53	7.56	
+25			4.64	53.44	45.66	7.78	
+50			4.57	53.51	45.79	7.72	
+75			4.55	53.53	45.93	7.60	
2	TP		4.26	53.82	46.06	7.76	Grade Sheet #292 -
+25	5.98	59.80	5.74	54.06	46.19	7.87	
+50			5.61	54.18	46.32	7.86	
+75			5.50	54.30	46.45	7.85	
3			5.37	54.43	46.58	7.85	
+25			5.15	54.65	46.72	7.93	
+40			5.14	54.66	46.80	7.86	MH# 212

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346.80

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Spade } 6-15-22 46
Brown }

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		359.80	5.14	354.66	346.80 ⁵³	7.86	MH# 212-
+25			4.92	54.88	46.93	7.95	
+50			4.72	55.08	47.07	8.01	
+75			4.40	55.40	47.20	8.20	
1			4.58	55.22	47.33	7.89	
+25			4.36	55.44	47.46	7.98	
+50 TP			4.47	55.33	47.60	7.73	
+75	6.16	61.49	6.06	55.43	47.73	7.70	Grade Sheet #293
2			5.96	55.53	47.86	7.67	
+25			5.90	55.59	47.99	7.60	
+50			5.53	55.96	48.13	7.83	1.80
+75			5.56	55.93	48.26	7.67	13 ²⁵
3			5.31	56.18	48.39	7.79	
+25			5.02	56.47	48.52	7.95	MH# 211-
+40			4.97	56.52	348.60	7.92	8" pipe south

Cont'd on Page 47 N- 348.80

6" ✓ north-

Cont'd from Page 46

Small Brown } 6-16-22

47

Sta.	+	H.I.	-	Elev.	Grade	Cut -	Staked on 6' offset W.	
0+00	6	361.49	4.97	56.52	1.176% 343.8	7.72	MH # 211	6" pipe N- 8" V.S.
+25	30		5.47	56.02	49.15	6.87		
+50			5.34	56.15	49.39	6.76		
+75			3.82	57.67	49.68	7.99		
1			3.44	58.05	49.98	8.07		
+25			3.61	57.88	50.27	7.61		
+50 TP			2.94	58.55	50.56	7.99		
+75	6.13	64.68	6.46	58.22	50.86	7.36		Grade Sheet #294
2			5.85	58.83	51.15	7.68		
+25			5.81	58.87	51.45	7.42		
+50			5.49	59.19	51.74	7.45		
+75			4.85	59.83	52.03	7.80		
3			4.92	59.76	52.33	7.43		
+25			4.62	60.06	52.62	7.44		
+34 ³³			4.49	60.19	52.73	7.46	MH # 210	

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Smale } 6-16-22
Brown }

48

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		364.68	4.49	60.19	11.73% 352.73	7.46	MH # 210
+25			4.35	60.33	53.02	7.31	
+50			3.92	60.76	53.32	7.44	
+75			3.28	61.40	53.61	7.79	
1			3.10	61.58	53.90	7.68	
+25 TP			3.17	61.51	54.20	7.31	
+50	5.61	67.12	5.37	61.75	54.49	7.26	
+75			5.68	61.54	54.78	6.76	Grade Sheet #295-
2			5.41	61.71	55.08	6.63	
+25			4.81	62.31	55.37	6.94	
+50			5.56	61.56	55.63	5.93	
+75			4.69	62.43	55.96	6.47	
3			4.63	62.49	56.25	6.24	
+25			4.56	62.56	56.54	6.02	
SW. +40			4.29	62.83	356.72	6.11	MH #209 (
NE-			4.24				St. Grade - 62.75-
BM-			3.21	63.91			

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.415%

Sample 6-16-22
Brown

49

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset S. -
0+00 S.W.				362.83	(356.72) 56.70	6.13	M#209
0+00 N.E.	5.40	68.23					
+25			5.47	62.76	56.82	5.94	
+50			5.40	62.83	56.93	5.90	Grade Sheet #296
+67± S.W.			5.18	63.05	57.02 (357.00)	6.03	M#208 -
N.E.			5.20	63.03			St. Grade - 362.97

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3%

S. Mole
Chisholm 6-17-22

50

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00 S.W.		368.23	5.18	363.05	^{56.98} (357.00)	6.07	MH#208
✓ N.E.			5.20	63.03	—		
+25			5.84	62.39	57.08	5.31	
+50			4.73	63.50	57.15	6.35	
+75			4.69	63.54	57.23	6.31	
1			4.60	63.63	57.30	6.33	
+25			4.20	64.03	57.38	6.65	
+50			4.47	63.76	57.45	6.31	Grade Sheet #297
+75			4.40	63.83	57.53	6.30	
2			4.13	64.10	57.60	6.50	
+25 TP			4.11	64.12	57.68	6.44	
+50	5.61	69.73	4.68	65.05	57.75	7.30	
+75			5.56	64.17	57.83	6.34	
3			5.14	64.59	57.90	6.69	
+07			5.11	64.62	357.92	6.70	MH#207

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Sample 6-17-22 51
Chisholm

Sta.	+	H.I.	-	Elev.	Grade	Gut	Staked on 6' offset W.
0+00		369.73	5.11	364.62	357.92	6.70	MH#207-
+25			4.80	64.93	58.00	6.93	
+50			4.47	65.26	58.07	7.19	
+75			4.41	65.32	58.15	7.17	
1			4.71	65.02	58.22	6.80	
+25			4.75	64.98	58.30	6.68	
+50			4.38	65.35	58.37	6.98	96
+75			4.30	65.43	58.45	6.98	Grade Sheet #298-
2 TP			4.24	65.49	58.52	6.87	
+25	4.04	69.53	4.04 4.07	65.46	58.60	6.86	
+50			3.36	66.17	58.67	7.50	
+75			4.71	64.82	58.75	6.07	
3			4.70	64.83	58.82	6.01	
+20			5.00	64.53	358.88	5.65	MH#208
BM			5.19	64.34	364.41		S.W. Gonkling + El Cajon
✓			4.96	64.57	364.625		

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Smale
Chishelm } 617

52

Sta.	+	H.I.	-	Elev.	3% Grade	Gut	Staked on 6' offset W.
0+00		369.53	5.00	364.53	358.88	5.65	MH #206-
+25			4.53	65.00	58.96	6.04	
+50			4.94	65.59	59.03	6.56	
+70 X			4.33	65.20	X 59.09	6.11	
1			4.60	64.93	59.18	5.75	
+25			4.66	64.87	59.26	5.61	
+50 TP			4.61	64.92	59.33	5.59	
+75	5.05	69.97	5.07	64.90	59.41	5.49	
2			5.01	64.96	59.49	5.47	Grade Sheet #299-
+25			5.04	64.93	59.56	5.37	
+50			4.96	65.01	59.64	5.37	
+75			4.94	65.03	59.71	5.32	
3			4.89	65.08	59.79	5.29	
+25			4.60	65.37	59.86	5.51	
+50			4.86	65.11	59.93	5.18	
+60			4.80	65.17	359.96	5.21	MH #205-

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Sma/02 6-21-22
Brown

53

Sta.	+ From	H.I.	-	Elev.	Grade +3%	Cut	Staked on 6' offset W.
0+00	P-52	369.97	4.80	65.17	359.96	5.21	MH #205
+25			4.52	65.45	60.04	5.41	
+50			4.67	65.30	60.11	5.19	
+75			4.50	65.47	60.19	5.28	
1 TP			4.45	65.52	60.26	5.26	
+25	5.32	70.84	5.31	65.53	60.34	5.19	
+50			5.25	65.59	60.41	5.18	
+75			5.13	65.71	60.49	5.22	Grade Sheet #300
2			5.07	65.77	60.56	5.21	
+25			4.89	65.95	60.64	5.31	
+50			4.71	66.13	60.71	5.42	
+75			4.21	66.63	60.79	5.84	
3			4.02	66.82	60.86	5.96	
+25			3.99	66.85	60.94	5.91	
+50			3.62	67.22	61.01	6.21	
+67			3.34	67.50	361.06	6.44	MH #204

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Smale } 6-21-22
Brown } 54

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		370.84	3.34	67.50	361.06 +3%	6.44	M#204
+25 TP			3.08	367.76	61.14	6.62	
+50	3.91	371.67	3.97	67.70	61.21	6.49	
+75			4.14	67.53	61.29	6.24	
1			3.77	67.90	61.36	6.54	
+25			4.02	67.65	61.44	6.21	
+50			4.16	67.51	61.51	6.00	
+75			4.50	67.17	61.59	5.58	
2			4.89	66.78	61.66	5.12	Grade Sheet #301
+25			5.20	66.47	61.74	4.73	
+50			5.19	66.48	61.81	4.67	
+75			5.42	66.25	61.89	4.36	
3			5.43	66.24	61.95	4.29	
+31 ³ TP			5.44	66.23	362.06	4.17	M#203

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Smale }
Brown } 6-21-22 55

Sta	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00	From Page 54			366.23	362.06 .3%	4.17	M# 203
+25	4.76	370.99	4.81	66.18	62.14	4.04	
+50			5.00	65.99	62.21	3.78	
+75			5.17	65.82	62.29	3.53	
1			4.98	66.01	62.36	3.65	
+25			4.99	66.00	62.44	3.56	
+50	✓		5.01	65.98	62.51	3.47	
+75			5.13	65.86	62.59	3.27	Grade Sheet # 302 -
2			4.91	66.08	62.66	3.42	
+25			4.53	66.46	62.74	3.72	
+50			4.32	66.67	62.81	3.86	
+75			4.23	66.76	62.89	3.87	
3			3.89	67.10	62.96	4.14	
+20 ²⁵			3.89	67.10	363.02	4.08	F.T. # 26
TP.			3.28	367.71			
BM	5.09	72.80	5.22	67.58	367.69 S.E.		B.P. N.W. Conkling at Olive B5-1 P13 -
	End of sewer -						

379 349.62
35341
607
34734 48.33
434 351.68
378 117.93

Mt 292

FT 29

Central Ave - MH#126 1/2 T - to MH#241 -

Small
Chisholm } 6-8-22

58

Sta. + H.I. - Elev. Grade

Cut Staked on 6' offset W.

BM

TP 0.42 343.96 10.48 343.54

TP 1.38 34.86 7.94 26.92

0+00 6.87 33.79 7.06 26.73 321.60

+25 6.64 27.15 22.15

+50 5.99 27.80 22.71

+75 5.16 28.63 23.26

1 4.73 29.06 23.81

+25 4.23 29.56 24.36

+50 3.67 30.12 24.92

+75 3.26 30.53 25.47

2 2.81 30.98 26.02

+25 2.24 31.55 26.57

+50 TP 1.59 32.20 27.13

+75 11.12 43.32 10.48 32.84 27.68

3 9.69 33.63 28.23

+25 8.97 34.35 28.78

+50 7.99 35.33 29.34

+75 7.12 36.20 29.89

4+07 ⁶⁵ 5.94 337.38 330.60

TP

BM

5.70 348.41 4.87 343.54

MH#126 1/2 T -

26.73 (2.05)

Pipe in place from Sta. 0+00 to 0+30.

Grade Sheet #303

MH#241 -

Sta. 337.18

Sta.	+	H.I.	-	Elev.	Grade
BM				343.54	33.16%

Cut - Staked on 6' offset W.

TP	0.42	343.96	10.48	33.48	
TP	1.38	334.86	7.94	26.92	
TP	3.18	30.10	4.44	25.66	
TP	2.43	28.09	12.62	15.47	
	0.42	15.89	11.72	304.17	
	2.95	307.12			
0 - 05			9.06	298.06	
0 + 00			7.76	299.36	293.20
+25			(5.41)	20.48	302.74
0 + 50			4.44	25.66	12.28
+65			4.85	25.25	318.00

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25.89
5.41
20.48

MH # T-126 -

Grade Sheet # 304 -

MH # 240 - Note 1' drop & 6" C.I.

St. Grade - ~~33~~ 325.43

12.28
5.72
18.00

24.80
9.54

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Small
Chisholm } 6-9-22

60

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on	6' offset W.
0+00		330.10	4.85	25.25	2.813% 319.00	6.25	MH# 240 -	Note 1' drop + 6" G.I. so.
+25			4.24	25.86	19.70	6.16		
+50			4.66	25.44	20.40	5.04		
+75			5.64	24.46	21.11	3.35		
1			5.84	24.26	21.81	2.45		
+25			4.20	25.90	22.52	3.39		
+50			1.97	28.13	23.22	4.91		
+75 TP			0.17	29.93	23.92	6.01		
2	11.55	41.48 41.58	9.28	32.20	24.63	7.67	7.57	Grade Sheet # 305 -
+25			7.93	33.55	25.33	8.22	8.22	
+50			6.60	34.88	26.03	8.95	8.85	
+75			5.77	35.91	26.74	9.07	8.97	
3			4.67	36.81	27.44	9.37	9.37	
+20			4.49	36.99	328.00	8.99	X ⁸⁹⁹ MH# 239 -	
TP			4.69	36.89				
	10.63	47.52	38.4	43.68				

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Small Brown } 6-12-22

61

Sta.	+	H.I.	-	Elev.	Grade	Cut	staked on 6' offset W. -
0+00	TP			^{36.99} 337.09	2.8% 328.00	9.09	MH #239 -
+25	5.17	^{42.16} 342.26	4.26	38.00	28.70	9.30	
+50			3.80	38.46	29.40	9.06	
+75			3.50	38.76	30.10	8.66	
1			3.41	38.85	30.80	8.05	
+25			3.48	38.78	31.50	7.28	
+50			3.66	38.60	32.20	6.40	Grade Sheet # 306 -
+75			4.14	38.12	32.90	5.22	
2			4.46	37.80	33.60	4.20	.09
+25			4.73	37.53	34.30	3.23	
+50			4.50	37.76	35.00	2.76	
+75			3.87	38.39	35.70	2.69	
3			2.27	39.99	36.40	3.59	
+21 ¹⁷	TP		0.64	341.62	337.00	4.62	MH #238 -

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Small
Bramp } 6-12-22

62

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on	6' offset W.
0+00				341.52	337.00 .912%	4.52	MH#238	
+25	9.32	50.84	8.42	42.42	37.23	5.19		
+50			8.16	42.68	37.46	5.22		
+75			7.98	42.86	37.68	5.18		
1			7.54	43.30	37.91	5.39		
+25			6.60	44.24	38.14	6.10		
+50			5.76	45.08	38.37	7.71		
+75			5.21	45.63	38.60	7.03		
2			4.56	46.28	38.82	7.46	Grade Sheet #307	
+25			3.62	47.22	39.05	8.17		
+50			3.07	47.77	39.28	8.49		
+75			2.46	48.38	39.51	8.87		
3 TP			2.24	48.60	39.74	8.86		
+25	6.74	55.34	6.53	48.81	39.96	8.85		
+40			6.04	49.30	340.10	9.20	MH#237-	

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Small 276-13-22
Brown

63

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		55.34	6.04	49.30	340.10 .912%	9.20	MH #237
+25			5.69	49.65	40.33	9.32	
+50			4.79	50.55	40.56	9.99	
+75			5.26	50.08	40.78	9.70	
1			4.80	50.54	41.01	9.53	
+25			5.22	50.12	41.24	8.88	
+50			4.95	50.39	41.47	8.92	
+75			4.54	50.80	41.70	9.10	Grade Sheet #308 -
2			4.91	50.43	41.92	8.51	
+25			5.06	50.28	42.15	8.13	
+50			5.08	50.26	42.38	7.88	
+75 TP			5.03	50.31	42.61	7.70	
3	4.91	55.22	5.17	50.05	42.84	7.21	
+25			4.91	50.31	43.06	7.25	
+39 1/2			5.39	49.83	343.20	6.63	MH #236

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Smale 26-13-22
Brown

64

Sta.	+	H.I.	-	Elev.	Grade	Cut.	Staked on 6' offset W.
0+00		355.22	5.39	349.83	343.20 ^{.912}	6.63	MH# 236
+20			5.08	50.14	43.38	6.76	
1+00			4.60	50.62	44.11	6.51	
+25			4.50	50.72	44.34	6.38	
+50			3.88	51.34	44.57	6.77	
+75			3.27	51.94	44.79	7.15	
2	7.15	59.09	6.78	52.31	45.02	7.29	
+25			6.20	52.89	45.25	7.64	Grade Sheet #309
+50			5.85	53.24	45.48	7.76	
+75			5.17	53.92	45.71	8.21	
3			5.16	53.93	45.93	8.00	
+25			4.94	53.15	46.16	6.99	
+39.72			4.63	54.46	346.30	8.16	MH# 235

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1+50 7.75 51.34 r

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Chisholm 65
Brown 7-6-22

Sta.	+	H.I.	-	Elev.	Grade .911%	Cut	Staked on 6' offset W.
0+00	TP	359.09	4.63	54.46	346.30	8.16	MH #235
+25	6.18	360.64	5.84	54.80	46.53	8.27	
+50			5.35	55.29	46.76	8.53	
+75			5.19	55.45	46.98	8.47	
1+00			5.04	55.60	47.21	8.39	
+25			4.60	56.04	47.44	8.60	
+50			4.80	55.84	47.67	8.17	
+75			4.58	56.06	47.89	8.17	Grade Sheet #310
2+00			3.90	56.74	48.12	8.62	
+25			4.53	56.11	48.35	7.76	
+50			3.67	56.97	48.58	8.39	
+75			3.87	56.77	48.81	7.96	
3+00	TP		3.69	356.95	49.03	7.92	
+25	5.94	362.89	5.79	57.10	49.26	7.84	
+40 ⁴⁵			5.64	57.25	349.40	7.85	MH #234

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Chisholm
Brown } 7-6-22 66

Sta.	+	H.I	-	Elev.	Grade	Cut	Staked on 6' offset W.
0+00		362.89	5.64	357.25	349.60 .935%	7.65	MH#234
+25			6.09	56.80	49.83	6.97	
+50			5.91	56.98	50.07	6.91	
+75			5.21	57.68	50.30	7.38	
1+00			4.75	58.14	50.54	7.60	
+25			4.15	58.74	50.77	7.97	
+50			4.22	58.67	51.00	7.67	
+75			3.79	59.10	51.24	7.86	
2+00			3.18	59.71	51.47	8.24	
+25			2.88	60.01	51.70	8.31	
+50	TP		2.18	360.71	51.94	8.77	
+75	7.31	368.02	6.81	61.21	52.17	9.04	
3+00			6.35	61.67	52.41	9.26	
+25			6.09	61.93	52.64	9.29	
+40			5.98	62.04	352.78	9.26	MH #233

Grade Sheet #311

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Sta.	+	H.I.	-	Elev	Grade	Cut	Staked on 6' offset W.		
0+00		368.02	5.98	362.04	352.78 .934%	9.26	MH # 233		
+25			5.69	62.33	53.01	9.32			
+50			5.10	62.92	53.25	9.67			
+75			5.31	62.71	53.48	9.23			
1+00			4.94	63.08	53.71	9.37			
+25			4.96	63.06	53.95	9.11			
+50			4.69	63.33	54.18	9.15			
+75			4.40	63.62	54.41	9.21	Grade Sheet # 312		
2+00	TP		3.92	364.10	54.65	9.45			
+25	4.25	368.35	4.44	63.91	54.88	9.03			
+50			4.64	63.71	55.12	8.59			
+75			4.24	64.11	55.35	8.76			
3+00			5.10	63.25	55.58	7.67			
S.W. <u>+33 72</u>			4.78	63.57	355.90	7.67	MH # 232		
B.M.			4.57	363.78	363.92		B.P. N.W. Central & Orange		

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Chisholm
Brown } 7-6-22

68

Sta.	+	H.I.	-	Elev.	Grade	Cut	
0+00	TP	368.35	4.78	363.57	4%		
S.W.							
0+00	6.68	370.25	6.65	363.60	356.00	7.60	MH #231
+25			6.99	363.26	356.10	7.16	
+50			5.60	364.65	356.20	8.45	
+75			5.27	364.98	356.30	8.68	
1+00			5.59	364.66	356.40	8.26	Grade Sheet #314
+25			4.96	365.29	356.50	8.79	
+50			4.91	365.34	356.60	8.74	
+75			5.02	365.23	356.70	8.53	
2+00			5.26	364.99	356.80	8.19	
+25			5.14	365.11	356.90	8.21	
+50			4.68	365.57	357.00	8.57	
+75	TP		4.61	365.64	357.10	8.54	
3+00	5.74	371.38	6.14	365.24	357.20	8.04	
+10			5.90	365.48	357.24	8.24	MH #230

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Chisholm
Brown 7-6-22 69

Sta.	+	H.I.	-	Elev.	Grade 4%	Cut	
0+00		371.38	5.90	365.48	357.24	8.24	MH # 230
+25			5.44	365.94	357.34	8.60	
+50			5.93	365.45	357.44	8.01	
+75			5.04	366.34	357.54	8.80	
1+00			5.13	366.25	357.64	8.61	
+25			4.94	366.44	357.74	8.70	
+50			4.46	366.92	357.84	9.08	Grade Sheet # 315
+75			4.96	366.42	357.94	8.48	
2+00			4.92	366.46	358.04	8.42	
+25			4.75	366.63	358.14	8.49	
+50			5.48	365.90	358.24	7.66	
+75	TP		5.12	366.26	358.34	7.92	
3+00	4.09	370.35	4.22	366.13	358.44	7.69	
+17			4.50	365.85	358.51	7.34	MH # 229
B.M.			5.87	364.48	364.625	B.P.	S.W. El Cajon & Central

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Chisholm
Brown 7-6-22 70

Sta.	+	H.I.	-	Elev.	Grade	Cut	
0+00	4.39	370.35	4.50	365.85	358.51 4%	7.34	MH#229.
0+25	4.39	370.24	5.08	365.16	358.61	6.55	
+50			5.15	365.09	358.71	6.38	
+70			4.23	366.01	358.81	7.20	
1+00			4.37	365.87	358.91	6.96	
+25			4.52	365.72	359.01	6.71	
+50			4.94	365.30	359.11	6.19	Grade Sheet #316
+75			4.75	365.49	359.21	6.28	
2+00			4.76	365.48	359.31	6.17	
+25			4.84	365.40	359.41	5.99	
+50			4.80	365.44	359.51	5.93	
+75			4.65	365.59	359.61	5.98	
3+00 TP			4.70	365.54	359.71	5.83	
+25	6.19	371.73	6.01	365.72	359.81	5.91	
+50			6.18	365.55	359.91	5.64	
+60			6.04	365.69	359.95	5.74	MH#228

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Chisholm
Brown } 7-6-22 71

Sta.	+	H.I.	-	Elev.	Grade 14%	Cut	
0+00		371.73	6.04	365.69	359.95	5.74	M#228
+25			5.61	366.12	360.05	6.07	
+50			5.32	366.41	360.15	6.26	
+75			5.06	366.67	360.25	6.42	
1+00			4.64	367.09	360.35	6.74	
+25			4.35	367.38	360.45	6.93	
+50			4.04	367.69	360.55	7.14	Grade Sheet # 317
+75			3.75	367.98	360.65	7.33	
2+00			3.46	368.27	360.75	7.52	
+25			3.45	368.28	360.85	7.43	
+50 TP			3.32	368.41	360.95	7.46	
+75	5.55	373.96	5.63	368.33	361.05	7.28	
3+00			5.40	368.56	361.15	7.41	
+25			5.46	368.50	361.25	7.25	
+50			5.20	368.76	361.35	7.41	
+66 ⁸			4.78	369.18	361.42	7.76	M#227
B.M.			4.79	369.17	369.33	B.P N.W.	Olive & Central

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Chisholm }
Brown } 7-6-22 72

	+	H.I.	-	Elev.		
0+00		373.96	4.78	369.18	361.42	7.76 MH#227
+25			5.30	368.66	361.52	7.14
+50			5.16	368.80	361.62	7.18
+75			4.91	369.05	361.72	7.33
1+00			4.24	369.72	361.82	7.90
+25			2.77	371.19	361.92	9.27
+50 TP			2.89	371.07	362.02	9.05
+75	5.10	376.17	5.20	370.97	362.12	8.85
2+00			4.57	371.60	362.22	9.38
+25			5.10	371.07	362.32	8.75
+50			4.86	371.31	362.42	8.89
+75			4.88	371.29	362.52	8.77
3+00			4.85	371.32	362.62	8.70
+25			5.15	371.02	362.72	8.30 MH#226

Grade Sheet #318

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Chisholm
Brown } 7-6-22

73

Sta	+	H.I.	-	Elev.	Grade	Cut	
0+00		376.17	5.15	371.02	362.72 ¹³⁹⁹	8.30	M#226
+25			5.10	371.07	362.82	8.25	
+50			5.15	371.02	362.92	8.10	
+75			5.24	370.93	363.02	7.91	
1+00			5.19	370.98	363.12	7.86	
+25 TP			5.21	370.96	363.22	7.74	
+50	3.66	374.62	3.95	370.67	363.32	7.35	Grade Sheet #319
+75			4.02	370.60	363.42	7.18	
2+00			4.36	370.26	363.52	6.74	
+25			4.68	369.94	363.62	6.32	
+50			5.03	369.59	363.72	5.87	
+75			4.90	369.72	363.82	5.90	
3+00			5.16	369.46	363.92	5.54	
+26 I			5.29	369.33	364.02	5.31	F.T. #28
TP			3.61	371.01			
B.M.	4.29	375.30	6.13	369.17	369.33	B.P.	N.W. Olive & Central

Cont'd from Page 67

Chisholm's } 7-6-22 74
Brown

Sta.	+	H.I.	-	Elev.	Grade
S.W.	From				.78
0 + 00	Page 67	368.35	4.78	363.57	355.90
S.W.					
+ 12 ⁸²	6.68	370.25	6.65	363.60	356.00

Street Grade 363.70

Out.

7.67 NH # 232
7.60 NH # 231

Grade Sheet # 313

2x2 at center + at P.I. of 6'
offsets So. + W. + at P.I. of 6' offsets
No. + E. Take grade from hub
at So. W. P.I.

2x2 at center + at P.I. of 6'
offsets So. + W. + at P.I. of 6'
offset No. + E. Take grade
from hub at So. W. P.I.

TP 361

361

BM

300.05

0+00 4.30 305.75 2.20

+25 3.79

+50 4.07

+75 5.38

1 7.40

TF 12.16 293.59

+25 1.46 95.05 9.62

+50 7.64

+75TF 0.44 94.61

2 12.69 307.30 8.27

+25 7.09

+50 5.52

+80 5.25

5.85 1.45

348.16

5.23 53.39 3.67 9.72

349.62

3.93 53.55 6.23 47.32

~~5.23 3.67~~

4.04 51.36 1618

0+00 3.44 347.92 340.00 7.92

+20 5.06 346.30 40.32 5.98

1 4.56 346.80 41.62 5.18

+25 1.20 350.16 42.02 8.14

+50 7.48 57.64 6.61 351.03 42.43 8.60

+75 6.01 51.63 42.83 8.80

2+00 5.64 52.00 43.24 8.76

+25 5.04 52.60 43.64 8.96

+50 4.81 52.83 44.05 8.78

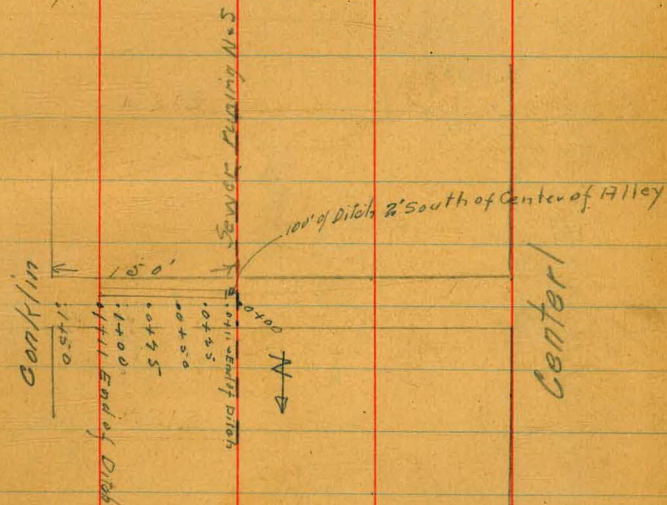
+75 4.46 53.18 44.45 8.73

3+00 3.75 53.89 44.85 9.04

+25 3.25 54.39 45.26 9.13

+40 3.25 354.39 345.50 8.89

Ditch 2' south of center of Alley 100' Long
from a point 39' West of the N.P.L. of Conklin to a
point 139' West of the N.P.L. of Conklin



$$\begin{array}{r} 5.77 \\ + .03 \\ \hline 5.74 \end{array}$$
$$\begin{array}{r} 4.71 \\ 28 \\ \hline 4.43 \end{array}$$
$$365 \mid 5000 \quad (.137$$
$$\begin{array}{r} 365 \\ 1350 \\ 1095 \\ \hline 2550 \\ 2555 \end{array}$$
$$\begin{array}{r} 5.25 \\ .0685 \\ \hline 5.1815 \\ .0685 \end{array}$$

5.1130
.0342

5.0788
1.02055

$$\begin{array}{r} 5.05825 \\ - .0342 \\ \hline \end{array}$$
$$\begin{array}{r} 5.02405 \\ .0685 \end{array}$$
$$\begin{array}{r} 4.95555 \\ .0685 \\ \hline 5.02405 \end{array}$$

137
5

$$\begin{array}{r} 0.0685 \\ 137 \\ \hline 02055 \end{array}$$
$$\begin{array}{r} 5.1825 \\ .0342 \\ \hline 5.1483 \end{array}$$

365
137
555
95
5
005

1 2 4
10 2

$$\begin{array}{r} 5.09 \\ 124 \\ \hline 4.946 \\ 1.002 \\ \hline .882 \end{array}$$

5.07
1.062
5.008
1.124
A.884 ✓
1.124
A.760

$$\begin{array}{r} 500 \\ 475 \\ \hline 25 \end{array}$$

$$425 \overline{) 31} \quad (2 \text{ 48}$$

$$\begin{array}{r} 600 \\ 500 \\ \hline 1000 \\ 1000 \\ \hline 0 \end{array}$$

248
24

3320-Orange
Cunningham
CALCULATION OF EARTHWORK.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.09	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if $w = 16.2$ and $h = 5.3$, cu. yds. $= 1.48 + .028 + .089 = 1.597$ cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) $= h$, and $\frac{1}{2}$ the roadbed $= w$, add the triangles formed by taking the distance out to each break in turn ($= w$'s) by the difference between the cuts (or fills) on each side of it ($= h$'s) always subtracting the outer from the inner.

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on $1\frac{1}{2}$.

For Single Track Embankment.

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

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

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