GRADE.
163
ROSE-CAÑON

POSTS

FIELD BOOK

No. 885

Our Leather Bound Engineers Note Books are carried in the following rulings:

No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.

No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.

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No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book), which can be furnished at a somewhat lower price.

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THE FREDERICK POST CO.

ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

Walker
McHugh
Lockey
McHood
8-27-29

Note: for Alignment See Book 1325

STA	+	H.I.	-
2+50			
2+39.97 = B.C.			
2+00			
+50			
1+00			
+50			
0+00			
	0.63	19.94	19.31

U.S.G.S.
SW Balboa
+ Rose Canyon

Rt.	℄	Lt.
		0 1
	-2.5	-4.2
	1.24	31.1
	18.70	
-1.8		
24.6		
-1.4	-2.2	-2.6
25.9	1.36	28.7
	18.58	
-0.6	-1.6	-1.9
25.7	1.48	27.7
	18.46	
+0.4	-0.8	-0.9
25.2	1.60	26.2
	18.34	
+0.8	-0.7	-0.3
25.4	1.72	25.3
	18.22	
	13.94	
	18.10	

+0.24 o/o

STA.	+	H.I	−		Lt.	℄	Rt.
5+50						19.42	
5+00						19.30	
88.24=EC ~~4+89.4=EC.~~							
+50					-5.3 / 32.8	-4.1 / 0.76 / 19.18	-2.2 / 28.1
4+00					-5.4 / 32.5	-4.0 / 0.88 / 19.06	-2.4 / 28.4
+50					-4.8 / 32.0	-3.2 / 1.0 / 18.94	-2.1 / 28.0
3+00					-4.6 / 31.7	-3.1 / 1.12 / 18.82 / 19.94	-1.7 / 27.4

Not A Part of this Contract

+0.24%

Note: .04' per ft. Super in this Curve.

STA.	+	H.I	−	
9+00				
+50				
T.P.	8.47	20.96	7.45	12.49
		19.54-I Page 2		
8+00				
+50				
7+00				
+50				
6+00				

Lt. | ℄ | Rt.

-6.0 / 33.8 | -6.3 / 0.76 / 20.23 | -7.7 / 36.4

+0.23 o/o

-7.1 / 30.5 | -1.7 / 0.84 / 20.12 | -5.3 / 32.8

20.96

20.00

19.88

Not a part of this Contract

19.78

19.66

19.54

STA.	+	H.I.	−	
13+00				
T.P.	7.62	25.62	2.96	18.00
+50				
12+00				
+50				
11+00				
+50				
10+00				
9+50		20.96		

Lt.	℄	Rt.
	-3.1 / 4.47	4
-3.0 / 29.3	21.15	-4.6 / 31.7
	25.62	
-3.5 / 30.1	-3.3 / +0.07 / 21.03	-4.9 / 32.2
-3.1 / 29.5	-3.9 / 0.14 / 20.92	-5.5 / 33.1
-3.6 / 30.2	-4.4 / 0.16 / 20.80	-5.7 / 33.4
-3.6 / 30.2	-4.8 / 0.27 / 20.69	-6.4 / 34.4
-3.9 / 30.7	-5.1 / 0.39 / 20.57	-6.5 / 34.6
-4.6 / 31.7	-6.0 / 0.46 / 20.46	-11.7 / 41.6
-5.2 / 32.6	-6.1 / 0.62 / 20.34 / 20.96	-11.3 / 41.8

+0.23%

STA.	+	H.I.	-		Lt.	℄	Rt.
16+00					-1.9 27.2	-0.9 7.24 22.50	-6.9 35.2
15+81.73 = B.C. ~~15+81.38 = B.C.~~							
+50					-2.0 27.8	-1.4 7.64 22.10	-6.0 33.8
15+00					-2.2 28.1	-1.9 7.97 21.77	-6.4 34.4
+50					-2.1 28.0	-2.1 8.20 21.54 29.74	-6.4 34.4
	4.28	29.74		25.46=BM#1			
				0.02=Error 25.46=BM			
T.P. on BM#1			0.14	25.48			
14+00					-2.7 28.9	-2.5 4.24 21.38	-6.8 35.0
13+50					-3.0 29.3	-2.8 4.36 21.26 25.62	-7.0 35.3
		25.62					

400' Y.C.

+0.23%

0.4' Super in this curve

Sta.	+	H.I.	−		
19+50					
19+00					
+50					
18+00 = E.Y.C.					
	7.03	32.49		25.46	B.M. #1 - 2"x2" Hub. 63' L.H. Sta. 16+95
+50					
17+00					
16+50					

+1.544 %

400' V.C.

Lt.		℄	Rt.	
+18.6 / 37.3	1/2:1	−0.2 / 5.25 / 27.24	+0.2 / 25.1	+0.4 / 25.2
+7.7 / 28.9		+0.1 / 6.02 / 26.47	+0.2 / 25.1	+0.4 / 25.2
+3.9 / 26.7		+0.5 / 6.79 / 25.70	−1.1 / 26.5	−0.3 / 26.2
+2.9 / 26.5	+2.8 / 26.4	+1.3 / 7.56 / 24.93 / 32.49	+0.5 / 25.3	+0.6 / 26.3
+3.2 / 26.6		+1.0 / 5.55 / 24.19		−0.3 / 25.3
+1.9 / 26.0		+0.4 / 6.20 / 23.51		−3.7 / 30.2
−1.1 / 24.5		−0.4 / 6.76 / 22.98 / 29.74		−7.0 / 35.3

0.4' Super in this Curve

STA.	+	H.I	−		
23+00					
T.P.	7.18	39.48	4.88	32.30	10 Pole 22' Rt 22+50
+50					
22+00					
T.P.	4.88	37.18	0.19	32.30	
+50					
21+00					
+50					
20+00					
		32.49			

Lt. | ℄ | Rt.

(+40.8 / 45.4) +0.5 / 25.3 | −0.9 / 6.83 / 32.65 / 39.48 | (−8.8 / 37.9) −5.5 / 37.6

(+47.9 / 49) +1.6 / 25.8 | −0.5 / 5.30 / 31.88 | (−9.3 / 38.8) −9.1 / 38.5

(+41.6 / 45.8) +1.5 / 25.7 | −0.1 / 6.08 / 31.10 / 37.48 | (−1.6 / 25.1) −0.4 / 25.4

+6.2.4 / 56.2 | 0.0 / 2.16 / 30.33 | (−0.5 / 25.6) −0.3 / 25.3

+54.2 / 52.1 | −0.2 / 2.93 / 29.56 | (−0.7 / 25.9) −0.5 / 25.6

+53.3 / 51.6 | −0.3 / 3.70 / 28.79 | (−0.5 / 25.6) −0.3 / 25.3

+35.3 / 42.7 | +0.5 / 4.47 / 28.02 / 32.49 | (+0.1 / 25.1) +0.3 / 25.2

+1.5% fall o/o

4% Superelevation this curve

	STA.	+	H.I.	−	LT.	℄	Rt.
2	25+50				+14.9 / 32.5	−2.2 / 2.97 / 36.51	−11.7 / 42.4
	25+00				−0.2 / 25.1	−2.1 / 3.74 / 35.74	−11.5 / 42.1
22	24+50				0.0 / 25.0	−2.1 / 4.52 / 34.96	−11.1 / 41.5
	24+28.51 (+.6) = E.C.						
21	24+00				(+35.8 / 42.9) −0.5 / 25.6	−1.8 / 5.29 / 34.19	(−10.6 / 40.7) −10.4 / 40.4
	+50				−0.1 / 25.0 (−0.3 / 25.3)	−1.2 / 6.06 / 33.42 / 39.48	(−9.5 / 39.1) −9.3 / 38.8
			3948				
20	~~23+00~~						

+1.544 %

.04' Super in this curve →

STA.	+	H.I.	—	Lt.	℄	Rt.
29+00				+33.2 36.6	-4.7 +2.43 41.91	-11.3 41.8
+50				+22.3 37.2	-4.5 +1.66 41.14	-11.6 42.2
28+00				+17.8 33.9	-3.9 +0.89 40.37	-11.8 42.5
+50				+4.3 30.7	-4.1 +0.12 39.60	-12.0 42.8
27+00				+8.4 29.2	-3.9 0.66 38.82	-11.7 42.4
+50				+10.3 30.10	-3.5 1.43 38.05	-10.9 41.1
26+00				+8.4 25.2	-2.8 2.20 37.28 39.48	-12.3 43.3

+1.544 %

STA.	+	H.I.	—		
32 + 00					
+ 50					
31 + 00					
30 + 69.37 .22 = B.C.					
+ 50					
T.P.	6.45	47.10	10.26	40.65	
T.P.	0.94	50.91	12.04	49.97	
30 + 00					
T.P.	12.07	62.01	0.17	49.94	on stub, 10' Lt. 29+50
T.P.	12.68	50.11	2.05	37.43	on stub 10' Rt. 29+50
29 + 50					
		39.48			

Lt.		℄	Rt.	
				10
+38.6 / 44.3	(+38.8 / 44.4)	+9.1 / 15.47 / 46.54	(-6.1 / 33.9)	-5.9 / 33.7
+42.6 / 46.3	(+42.8 / 46.4)	+10.3 / 16.24 / 45.77	(-6.4 / 34.4)	-6.2 / 34.1
+43.4 / 46.7	(+43.6 / 46.8)	+11.3 / 17.01 / 45.00	(-6.3 / 34.2)	-6.1 / 33.9
+39.2 / 44.6		+9.7 / 17.78 / 44.23		-5.8 / 33.5
+36.0 / 43.0		+8.0 / 18.55 / 43.46 / 62.01		-5.6 / 33.2
+30.2 / 40.1		-3.8 / +3.20 / 42.68 / 39.48		-7.3 / 35.8

+1.544 %

0.4' Super.

Sta.	+	H.I.	−	Lt.	℄	Rt.
35+00				−2.1 / 27.9	−13.8 / +4.08 / 51.18	−21.3 / 56.8
+50				−3.0 / 29.3	−11.4 / +3.30 / 50.40	−17.3 / 50.8
34+00				−3.8 / 30.5	−10.0 / +2.53 / 49.63	−20.5 / 55.6
+50				−3.4 / 29.9	−7.6 / +1.76 / 48.86	−18.8 / 53.0
33+21.24 (.06) = E.C.						
33+00				+34.2 / 42.1 (+34.4 / 42.2)	−5.4 / +0.99 / 48.09	(−17.1 / 50.5) −16.9 / 50.2
T.P.						
32+50				+36.9 / 43.5 (+37.1 / 43.6)	−1.3 / +0.22 / 47.32 / 47.10	(−17.0 / 50.3) −16.8 / 50.0
		47.10				

+1.544 %

0.4' Super

STA.	+	H.I.	−			Lt.	℄	Rt.
38 + 50						+3.6 26.8	-2.2 +0.07 56.46	-13.8 45.5
						+1.1 25.6	-4.0 0.62 55.82 ✓	-18.0 51.8
38 + 00 = Break.								
						+0.3 25.2	-5.5 1.42 55.04	-19.5 54.1
+ 50								
						-0.5 25.6	-3.4 2.18 54.26	-20.3 55.3
37 + 00								
						-0.8 26.0	-3.4 2.95 53.49	-22.1 57.9
+ 50								
						-1.8 27.7	-2.6 3.72 52.72	-22.0 57.8
36 + 00								
T.P.	13.73	56.44	0.26	42.71		-2.0 26.8	-10.2 5.49 51.95	-18.9 53.2
35 + 50							56.44	
T.P.	7.97	42.97 47.10	12.10	35.00	I.P. New Pole on Sta 35+00			

STA.	+	H.I.	−		Lt.	℄	Rt.
42+00					+39.4 44.7	+6.4 7.61 60.98	+2.9 24.5
+50					+28.6 36.3	+5.4 8.26 60.33	-6.2 34.1
41+00					+23.9 37.0	+4.2 8.99 59.69	-8.7 37.1
+50					+20.7 35.4	+3.6 9.54 57.04	-9.0 38.3
40+00					+20.4 35.2	+3.4 10.19 58.40	-7.1 35.4
+50					+22.6 36.9	+3.1 10.84 57.75	-8.0 36.0
39+00					+20.1 35.0	+2.4 11.48 57.11	-13.7 45.4
T.P.	12.20	68.59 56.44	0.05	56.39		68.59	

+1.29 %

STA.	+	H.I.	−		L+.	℄	R+.
45 + 00					+27.8 +28.0 38.9 (39.0)	+10.8 15.76 64.85	(+8.6 29.3) +8.8 29.4
53.36 44 44 +52 = B.S. L+.							
+50					+21.5 35.8	+10.0 16.41 64.20	+9.4 29.7
44 + 00					+23.6 36.8	+9.1 17.05 63.56	+10.1 30.0
+50					+30.9 40.5	+18.3 17.70 62.91	+9.5 29.8
43 + 00					+30.6 40.3	+17.9 18.34 62.27	+8.5 29.3
42 + 50					+37.6 43.8	+16.0 18.99 61.62 80.61	+8.2 29.1
T.P.	12.75	80.61 68.59	0.73	67.86			

+1.29%

0.4' Super in this curve

STA.	+	H.I.	−			Lt.	℄	Rt.
48+00						(+18.5 / 34.3) +17.9 / 20.0	+16.1 / 20.42 68.72 89.14	+16.1 / 3.0 +15.1 / 7.0 +14.5 / 28.0 (+13.2 / 31.6) Beg. X. Sections.
T.P.	11.99	89.14	1.35	77.15	B.M.#3 = 2"x2" Hub.			
	12.08	78.50		66.42	127' Rt. sta 48+05			
+50						+36.8 / 43.4	+16.2 / 18.66 68.07	+13.0 / 31.5
chk. on ℄ stub. 48+00			1.9	84.8	0.0 = Error. 84.8 = Elev. Stub			
47+00						+35.7 / 42.9	+13.9 / 19.30 67.43 86.73	+9.4 / 29.7
T.P	6.37	86.73	0.25	80.36				
46+89.50 = E.C. +90.94								
+50						+32.0 / 41.0 (+32.2 / 41.1)	+13.2 / 13.83 66.78	(+7.7 / 28.9) +7.9 / 29.0
46+00						+23.8 / 36.9 (+24.0 / 37.0)	+12.3 / 14.47 66.14	(+6.4 / 28.2) +6.6 / 28.3
45+50						+30.2 / 40.1 (+30.4 / 40.2)	+11.5 / 15.12 65.49 80.61	(+9.0 / 29.5) +9.7 / 29.6
		80.61						

+1.29 %

0.4' Super in this Curve

STA.	+	H.I.	−		Lt.	℄	Rt.
51+50					+3.6/26.8 · +1.6/12.0	+2.2 / 8.65 / 73.23	+1.0/25.5
51+00					+4.9/27.2 · +1.9/10.0	+2.1 / 9.29 / 72.59	+1.3/25.7
+50					+5.7/27.9 · +2.6/10.0	+2.5 / 9.94 / 71.94	+1.6/25.8
50+00					+8.8/29.4 · +7.5/18.0 · +6.2/17.0 · +5.7/8.0 · +4.2/5.0	+4.0 / 10.58 / 71.30 / 81.88	+3.1/26.6
T.P.	3.89	81.88	11.15	77.99			
+50					+11.9/31.0 · +11.2/18.0	+5.4 / 18.49 / 70.65	+4.6/3.0 · +4.0/27.0
49+00					+13.8/31.9 · +13.0/5.0	+11.2 / 19.13 / 70.01	+9.0/6.0 · +6.4/10.0 · +4.9/27.5
48+85					+15.5/32.7 · +14.7/30.0	+13.8 / 19.34 / 69.80	+10.8/10.0 · +6.3/14.0 · +14.4/27.9
48+50					+18.3/34.2 · +16.2/16.0 · +15.3/15.0	+15.1 / 19.78 / 69.36	+14.8/12.0 · +12.3/18.0 · +8.3/20.0 · +5.3/27.7
48+25					+19.0/34.5 · +16.6/8.0 · +15.5/7.0	+15.3 / 20.10 / 69.04 / 89.14	+15.3/28.0 · +11.6/30.8
		89.14					

+1.29 %

STA.	+	H.I.	−		Lt.	℄	Rt.
							17
55+00					+10.8 / 30.4	+10.7 / 24.0	+4.8 / 23.0
						+2.8 / 9.98 / 77.75	+2.0 / 26.0
+50					+5.4 / 27.1	+3.4 / 10.0	
						+1.4 / 10.63 / 77.10	+1.4 / 25.1
54+00					+5.9 / 28.0	+2.7 / 15.0	
						+2.5 / 11.27 / 76.46	+1.7 / 25.9
+50					+1.6 / 25.8		
						+1.6 / 11.52 / 75.81	+1.5 / 25.8
53+00					+1.4 / 25.7		
						+0.8 / 12.56 / 75.17	+0.5 / 25.3
+50					+1.0 / 25.5		
						+2.1 / 13.21 / 74.52	+2.0 / 26.0
52+00					Left Off		
						+1.7 / 13.85 / 73.88 / 87.73	+0.6 / 25.3
	10.43	87.73 / 81.88	4.58	77.30			

+1.29

STA.	+	H.I.	−	
58+50				
58+00				
T.P.	3.48	96.95	0.21	93.47
+50				
57+00				
+50				
56+00				
T.R.	10.14	93.68	4.19	83.54
55+50				
		87.73		

+1.29 %

Lt.	℄	Rt.
	−1.2	−5.2
+14.1	14.69	32.6
32.0	82.26	
+9.8	−1.5	+0.7
29.9	15.33	25.3
	81.62	
	96.95	
+15.6	+0.2	+1.9
32.8	12.71	26.0
	80.97	
+12.0	+2.0	+2.2
31.0	13.35	26.1
	80.33	

End X. Sections

+12.0	+9.6	+3.2	+4.3	+4.7	+3.3	+2.8	+3.3	+3.0
31.0	17.0	16.0	14.00	6.0	7.0	22.0	21.70	26.5
			79.68					
+7.8	+6.7	+4.0	+3.5	+2.5		+2.8		+6.7
28.3	25.0	2.10	1.0	14.64		25.0		28.4
				79.04				
				93.68				
+9.4	+9.5	+2.3	+2.3					+2.6
25.9	13.0	11.0	9.34					26.3
			78.39					
			87.73					

STA.	+	H.I.	−	
62+00				
+50				
61+00				
+50				
60+00				
+50				
T.P	7.31	91.19	12.07	83.88
59+00				
		96.95		

Lt.	℄	Rt.
		19
+13.7	+0.6	-9.7
31.9	4.41	39.4
	86.78	
+14.1	-1.0	-9.2
32.1	5.06	38.6
	86.13	
+20.1	+0.1	-22.7
36.1	5.70	58.9
	85.49	
+13.9	-2.7	-25.9
32.0	6.35	63.7
	84.84	
+2.4	-4.0	-25.5
29.7	6.99	63.1
	84.20	
+8.8	-4.0	-23.7
29.4	7.64	59.6
	83.55	
	91.19	
+11.8	-2.6	-16.6
30.9	14.04	49.7
	82.91	
	96.95	

+1.29 %

STA.	+	H.I.	−		Lt.	℄	Rt.
65+50					+13.4 / 31.7	+4.9 / 8.73 / 91.29	+0.0 / 25.0
chk. on ℄ stub 65+50			2.3	97.7 (0.0 = Error. 97.7 = Elev. Stub)			
65+00					+17.4 / 33.7	+5.0 / 9.37 / 90.65	−6.1 / 34.0
+50					+18.6 / 34.3	+5.6 / 10.02 / 90.00	7.2 / 35.6
64+00					+13.2 / 31.6	+3.2 / 10.66 / 89.36	−10.4 / 40.4
+50					+8.1 / 29.1	+0.5 / 11.31 / 88.71	−10.4 / 40.4
63+00					+14.1 / 32.0	+2.6 / 11.95 / 88.07	−10.3 / 40.3
62+50					+21.1 / 35.6	+4.9 / 12.60 / 87.42 / 100.02	−9.9 / 39.7
T.P.	9.40	100.02 / 91.19	0.57	90.62			

+1.29 %

STA.	+	H.I.	−			Lt.	℄	Rt.
68 +50						+13.2 / 31.6 (+13.7 / 31.9)	+2.1 / 14.69 / 95.16	(−6.5 / 34.6) −6.0 / 33.8
68 +00						+14.7 / 32.4 (+15.2 / 32.6)	+7.9 / 15.33 / 94.52	(+0.3 / 25.2) +0.8 / 25.4
+79.50 67+77.95=B.C. LT.								
67+50						+16.2 / 33.1	+10.0 / 15.98 / 93.87	+5.3 / 27.7
67 +00						+14.2 / 32.1	+8.4 / 16.62 / 93.23 / 109.85	+4.3 / 27.2
T.P.	10.31	109.85	1.00	99.54				
+50						+11.2 / 30.6	+5.9 / 7.96 / 92.58	+2.3 / 26.2
T.P.	12.68	100.54	1.00	87.86				
66 + 00						+12.4 / 31.2	+5.8 / 8.60 / 91.94 / 100.54	+0.7 / 25.4
	12.53	88.86		76.33	B.M.#4 2"x2" H[illegible] 160' Rt 66+26			

+1.29 %

Note: in this curve
Rt. side 1.0' Higher than ℄.
Lt. " 1.0' Lower " "

STA.	+	H.I.	−		Lt.	℄	Rt.
71 + 50					+7.8 / 28.9	−1.4 / 7.99 / 99.03	−7.3 / 28.3
71 + 00					+9.2 / 29.6	−3.1 / 8.63 / 98.39	−13.0 / 44.3
70 + 50					+14.4 / 32.2	−3.5 / 9.28 / 97.74	−18.8 / 53.0
70 + 12.77 (+14.32) = E.C.							
70 + 00					+14.8 / 32.4 (+15.3 / 32.7)	−4.4 / 9.92 / 97.10	(−22.9 / 59.2) −22.4 / 58.4
69 + 50					+14.3 / 32.2 (+14.8 / 32.4)	−2.9 / 10.57 / 96.45 / 107.02	(−21.2 / 56.6) −20.7 / 55.8
T.P.	9.12	107.02	11.95	97.90			
69 + 00					+16.0 / 33.0 (+16.5 / 33.3)	+1.0 / 14.04 / 95.81 / 109.85	(−14.9 / 47.2) −14.4 / 46.4
		109.85					

+1.29%

Note: In this curve
Rt. side 1.0' Higher than ℄.
Lt. " 1.0' Lower "

STA.	+	H.I.	−		Lt.		℄	Rt.	
74+50					+27.6 / 38.8	(+27.4 / 38.7)	+6.8 / 17.52 / 102.90	(+0.6 / 25.3)	+0.4 / 25.2
74+00					+19.6 / 34.8	(+19.4 / 34.7)	+8.8 / 18.16 / 102.26		(−0.2 / 25.1)
+50					+22.1 / 36.0	(+21.9 / 35.9)	+13.1 / 18.81 / 101.61		0.0 / 34.2 daylight
73+70.+9 (+11.59) = B.C.									
73+00					+20.2 / 35.1		+13.6 / 19.45 / 100.97		0.0 / 38.9 daylight
72+50					+17.4 / 33.7		+11.5 / 20.10 / 100.32 / 120.42		0.0 / 32.0 } daylight
	14.54	120.42	1.14	105.88					
72+00					+12.3 / 31.2		+4.7 / 7.34 / 99.68 / 107.02		−1.5 / 27.0
		107.02							

+1.29 %

Note: in this curve 0.4' Super.

STA.	+	H.I.	—		Lt.	℄	Rt.
78+00					+10.5 +10.3 (30.2) 30.3	-1.9 2.48 107.42	(-10.0 39.8) -10.2 40.1
+50					-5.2 (-5.4 32.9) 32.6	-1.9 3.13 106.77	(-31.7 72.6) -31.9 72.8
77+00					-1.8 (-2.0 27.8) 27.6	-1.4 3.77 106.13	(-14.5 46.6) -14.2 46.1
+50					+21.2 (+21.0 35.5) 35.6	-0.7 4.47 105.48 109.90	(+0.2 25.1) 0.0 25.0
T.P.	1.33	109.90	11.85	108.57			
76+00					+31.2 (+31.7 40.3) 41.0	+13.3 15.58 104.84	(+1.8 25.9) +1.6 25.8
+50					+36.0 (+35.8 42.9) 43.0	+12.9 16.23 104.19	(+1.7 25.8) +1.5 25.8
75+00					+33.6 (+33.4 41.7) 41.8	+8.0 16.87 103.55 120.42	(+0.7 25.3) +0.5 25.3
		120.42					

% Grade

Note: LT this curve 0.4' super.

STA.	+	H.I.	−		Lt.	℄	Rt.
81+50					+11.1 / 30.6 (+10.9 / 30.5)	+0.8 6.46 111.90	(+0.7 / 25.4) +0.5 / 25.2
81+00					+11.2 / 30.6 (+11.0 / 30.6)	+0.9 7.07 111.29	(+1.2 / 25.6) +1.0 / 25.5
+50					+10.0 / 30.0 (+9.8 / 29.9)	+1.1 7.72 110.64	(−4.0 / 30.8) −4.2 / 31.1
80+00					+10.0 / 30.0 (+9.8 / 29.9)	+1.4 8.36 110.00	(−19.7 / 54.3) −19.9 / 54.6
79+50					+11.4 / 30.7 (+11.2 / 30.6)	+0.9 9.01 109.35 118.36	(−26.4 / 64.4) −26.6 / 64.7
T.P.	8.50	118.36	0.04	109.86			
79+00					+10.9 / 30.5 (+10.7 / 30.4)	+0.2 1.19 108.71	(−40.0 / 84.9) −40.2 / 85.1
78+50					+10.0 / 30.0 (+9.8 / 29.9)	−0.8 1.84 108.06 109.90	(−39.1 / 83.5) −39.3 / 83.8
		109.90					

200 V.C.

+1.29%

Note: in this Curve 0.4' Super.

STA.	+	H.I.	−		Lt.	℄	Rt.
+89.90 84 + 88.36 = P.C.C.							
+50					−0.3/25.5 (−0.5/25.6)	−2.8 21.8 114.00	(−13.2/44.6) −13.4/44.9
84 + 00					+0.7/25.4 (+0.5/25.3)	−0.2 24.6 113.72	(−10.6/40.7) −10.8/41.0
+50					+5.0/26.5 (+2.8/26.4)	+0.2 27.5 113.43	(−6.4/34.4) −6.6/34.7
83 + 00					+3.7/26.9 (+3.5/26.8)	+0.2 3.03 113.15 116.18	(−5.1/32.5) −5.3/32.8
	12.70	104.85		92.15 BM #5 (85' Rt 84+88.36 on RL)			
T.P.	11.69	116.18	0.36	104.49			
+50					+6.8/28.4 (+6.6/28.3)	+0.4 5.53 112.83	(−3.5/30.1) −3.7/30.4
cht. on ℄ Stub. 83+00			5.1	0.0 = Error. 113.3 = Stub. 113.3			
82 + 00					+9.8/29.9 (+9.6/29.8)	+0.5 5.96 112.40 118.36	(−3.0/29.3) −3.2/29.6
		118.36					

+0.57 %

Note in this Curve 0.4' Super.

STA.	+	H.I.	−		Lt.		℄	Rt.	
88+00					-4.1/30.9	-4.3/31.2	-7.0 5.44 116.00 121.44	-12.6/43.7	-12.8/44.0
T.P.	11.61	121.44	6.35	109.83					
87+50					-1.4/26.9	-1.6/27.2	-6.7 0.47 115.71	-11.8/42.5	-12.0/42.8
87+00					-0.7/25.9	-0.9/26.2	-6.9 0.75 115.43	-13.4/44.9	-13.6/45.2
+50					-0.1/24.9	-0.4/25.4	-7.9 1.04 115.14	-14.5/46.6	-14.7/46.9
86+00					+0.2/25.1	0.0/25.0	-5.3 1.32 114.86	-14.6/46.7	-14.8/47.0
+50					-0.2/25.1	-0.4/25.4	-4.6 1.61 114.57	-14.2/46.1	-14.4/46.4
85+00					-0.4/25.4	-0.6/25.7	-3.6 1.89 114.29 116.18	-13.0/44	-13.2/44.6
		116.18							

+0.57 %

Note: in this Curve 0.4' Super

STA.	+	H.I.	−	Lt.		₵	Rt.	
91+50				-0.4 / 25.4	(-0.6 / 25.7)	-5.4 3.45 117.99	(-11.4 / 41.9)	-11.6 / 42.2
91+00				0.0 / 25.0	(-0.1 / 24.9)	-6.4 3.73 117.71	(-9.5 / 39.1)	-9.7 / 39.4
90+50				-1.3 / 26.8	(-1.5 / 27.1)	-4.6 4.02 117.42	(-9.7 / 39.4)	-9.9 / 39.7
90+00				-2.9 / 29.2	(-3.1 / 29.5)	-6.0 4.30 117.14	(-9.7 / 39.4)	-9.9 / 39.7
+50				-5.2 / 32.6	(-5.4 / 32.9)	-7.5 4.59 116.85	(-11.5 / 42.1)	-11.7 / 42.4
89+00				-5.1 / 32.5	(-5.3 / 32.8)	-8.7 4.87 116.57	(-12.9 / 44.2)	-13.1 / 44.5
88+50				-3.0 / 29.3	(-3.2 / 29.6)	-7.7 5.16 116.28 121.44	(-12.9 / 44.1)	-13.1 / 44.4
		121.44						

+0.57 %

Note: in this curve 0.4' Super.

STA.	+	H.I.	−			Lt		℄	Rt	
95+00 = PVC						+58.0 54.0	+58.4 54.2	+21.6 22.51 119.99	−1.6 27.2	−1.8 27.5
+50						+51.7 50.9	+51.5 50.8	+16.9 22.80 119.70 142.50	−1.7 27.4	−1.9 27.7
T.P.	11.20	142.50	1.26	131.30						
94+00						+36.6 43.3	+35.7 42.9	+12.1 13.14 119.42	−1.6 27.2	−1.8 27.5
+50						+23.2 36.6	+23.0 36.5	+6.0 13.43 119.13 132.56	−1.5 27.1	−1.7 27.4
T.P.	12.44	132.56	1.32	120.12						
93+00						+12.4 31.2	+12.2 31.1	−1.5 2.59 118.85	−16.7 49.8	−16.9 50.1
+50						+3.1 26.5	+2.9 26.4	−1.6 2.88 118.56	−15.6 48.3	−15.8 48.6
92+00						−1.0 26.5	−1.2 26.6	−4.1 3.16 118.28 121.44	−14.1 46.0	−14.3 46.3
		121.44								

200' V.C

+0.57%

Note: in this Curve 0.4' Super.

STA.	+	H.I.	−			Lt.	℄	Rt.
98+50						-4.2/31.1 (-4.7/31.9)	-2.9 +6.32 119.29	(-12.1/43.0) -12.3/43.3
98+00						-11.5/42.0 (-13.0/44.3)	-15.7 +6.57 119.54 112.97	(-12.6/43.7) -16.6/49.7
	12.57	112.97		100.40	B.M.#6=2"x2" Hub 140' Rt. 98+35			
+50						-3.4/29.9 (-3.6/30.2)	-7.1 0.22 119.80	(-10.4/40.4) -10.6/40.7
97+00						-7.1/26.5 (-1.3/26.8)	-4.9 +0.03 120.05 120.02	(-10.5/40.6) -10.7/40.9
T.P.	1.28	120.02	11.99	118.74				
+50						+8.8/29.4 (+8.6/29.3)	-1.5 10.49 120.24	(-10.7/40.9) -10.9/41.2
96+00						+26.8/38.4 (+26.6/38.3)	+3.3 10.44 120.29 130.73	(-1.4/26.9) -1.6/27.2
T.P.	0.69	130.73	12.46	130.04				
95+50						+45.4/47.7 (+45.2/47.6)	+16.3 22.29 120.21 142.50	(-1.5/27.1) -1.7/27.4
		142.50						

-0.506 %

300 V.C.

Note: in this Curve 0.4 Super Elevation

STA.	+	H.I.	−		Lt.	℄	Rt.
+59.14 101 +57.83 = E.C.							
+50					+2.2 / 26.1 (+2.0 / 26.0)	−3.3 7.54 117.77	(−22.6 / 58.7) −22.8 / 59.0
T.P.	13.04	125.31	0.70	112.27			
101 +00					+2.0 / 26.0 (+1.8 / 25.9)	−6.8 +5.06 118.03	(−19.4 / 53.9) −19.6 / 54.2
+50					+1.5 / 25.8 (1.3 / 25.7)	−7.2 +5.31 118.28	(−15.8 / 48.5) −16.0 / 48.8
100+00					+1.4 / 25.7 (+1.2 / 25.6)	−5.3 +5.56 118.53	(−12.8 / 44.0) −13.0 / 44.3
+50					−1.1 / 26.4 (−1.3 / 26.7)	−6.3 +5.81 118.78	(−11.7 / 42.3) −11.9 / 42.6
99+00		112.97			−4.4 / 31.4 (−4.6 / 31.7)	−9.6 +6.07 119.04 112.97	(−12.7 / 43.9) −12.9 / 44.2

− 0.506 %

Note: in this curve 0.4' Super.

STA.	+	H.I.	−		Lt.	℄	Rt.
104+50					+31.9 / 41.0 (+32.4 / 41.2)	+9.5 / 19.84 115.78 135.62	(+0.9 / 25.2) +7.4 / 25.7
	11.18	135.62	0.87	124.44			
104+00					+24.6 / 37.3 (+25.1 / 37.6)	+5.6 / 9.01 116.30	(−15.0 / 47.3) −14.5 / 46.6
+50					+20.6 / 35.3 (+21.1 / 35.5)	+5.3 / 8.60 116.71	(−21.3 / 56.8) −20.6 / 54.9
+34.78 103+33.27 = B.C.							
103+00 = P.V.C					+15.5 / 32.8	+3.7 / 8.29 117.02	−22.1 / 57.9
+50					+10.2 / 30.1	+0.4 / 8.04 117.27	−24.7 / 61.9
102+00					+2.9 / 26.5	−1.0 / 7.79 117.52 125.31	−24.5 / 61.6
		125.31					

600' V.C.

−0.506 %

Note: in this Curve
Rt. side 1.0' Higher than ℄. } And Cont. to E.C.
Lt. " 1.0' Lower " "

STA.						Lt.	℄	Rt.
108+00						+3.0 / 26.5 (+3.5 / 26.8)	+1.3 / 5.54 / 109.29	(-0.9 / 26.2) -0.4 / 26.4
+50						+4.6 / 27.1 (+4.7 / 27.4)	+2.6 / 4.30 / 110.53	(-0.3 / 25.3) +0.2 / 25.1
107+00						+1.8 / 28.9 +1.6 / 25.8	+2.6 / 3.16 / 111.67 / 114.83	(-2.3 / 28.2) -1.8 / 27.6
	7.12	114.83		107.71	B.M. #7 2"x2" ... 110' Rt. 107+00			
+50						+5.9 / 28.0 (+6.4 / 28.2)	+1.6 / 16.41 / 112.70	(-7.6 / 36.2) -5.7 / 33.4
Rev. chk. on ℄ stub 107+00			15.5	0.2 Error / 113.8 / 113.6				
106+00						+28.1 / 39.0 (+28.6 / 39.3)	+10.8 / 15.48 / 113.63 / 129.11	(+1.7 / 25.9) +2.2 / 26.1
T.P.	0.45	129.11	11.99	128.66				
+50						+40.4 / 45.2 (+40.9 / 45.5)	+21.6 / 26.20 / 114.45	(+8.3 / 29.2) +8.8 / 29.4
105+00						+44.0 / 47.0 (+44.5 / 47.3)	+20.8 / 25.48 / 115.17 / 140.65	(+7.3 / 28.7) +7.8 / 28.9
	5.59	140.65 / 135.62	0.56	135.06				

600' V.C.

Super Elev. = .04' Per. ft.

Note: In this Curve
Rt. Side 1.0' Higher than ℄
Lt. " 1.0' Lower " "

STA.	+	H.I.	−		Lt.	℄	Rt.
111+50					+3.0 / 26.5 (+3.5 / 26.7)	+0.2 / 4.58 / 99.07 ✓	(−2.6 / 28.7) −2.1 / 27.9
111+00					+3.1 / 26.5 (+3.6 / 26.8)	+0.3 / 3.15 / 100.50 ✓ / 103.65	(+2.3 / 28.3) −1.8 / 27.5
T.P.	0.41	103.65	11.59	103.24			
+50					+2.9 / 26.5 (+3.4 / 26.7)	+0.9 / 12.83 / 102.00	(−1.9 / 27.7) −1.4 / 26.9
110+00					+2.8 / 26.4 (+3.2 / 26.6)	+0.6 / 11.33 / 103.50 ✓	(−2.2 / 28.1) −1.9 / 27.7
+50					+1.9 / 26.0 (+2.4 / 26.2)	−0.1 / 9.83 / 105.00	(−2.4 / 28.4) −1.9 / 27.7
109+00					+0.8 / 25.4 (+1.3 / 25.7)	−0.4 / 8.33 / 106.50	(−2.8 / 29.0) −2.3 / 28.3
108+50					+1.8 / 25.9 (+2.3 / 26.2)	+0.4 / 6.88 / 107.95 / 114.83	(−1.6 / 27.2) −1.1 / 26.4
		114.83					

600' V.C.

−3.00 %

600' V.C.

Note: In this Curve
Rt. side 1.0' Higher than ℄.
Lt. " 1.0' Lower " "

STA.	+	H.I.	−			Lt.	℄	Rt.
114 +50						−3.0 / 29.3	−5.2 / 2.07 / 93.75	−6.8 / 35.0
114 +00						−1.8 / 27.5	−4.0 / 1.57 / 94.25 / 95.82	−7.2 / 35.6
	9.15	95.82		86.67	BM#8 See P-36			
113 +81$^{.10}_{.34}$ = E.C.								
chk. ℄ stub	114+00		13.4	0.0 = Error. / 90.2 = Elev. Stub / 90.2				
+50						−0.5 / 25.6 (0.0 / 25.0)	−3.1 / 8.74 / 94.91	(−7.3 / 35.8) −6.8 / 35.0
113 +00						+0.3 / 25.2 (+0.8 / 25.4)	−2.2 / 7.93 / 95.72	(−5.7 / 33.4) −5.2 / 32.6
+50						+1.4 / 25.7 (+1.9 / 26.0)	−1.1 / 6.96 / 96.69	(−4.0 / 30.8) −3.5 / 30.1
112 +00						+2.4 / 26.2 (+2.9 / 26.5)	−0.5 / 5.84 / 97.81 / 103.65	(−3.6 / 30.2) −3.1 / 29.5
		103.65						

600' V.C.

Note: in this Curve
Rt. side 1.0' Higher than ℄
Lt. " 1.0' Lower " "

STA.	+	H.I.	−			Lt.	℄	Rt.
118+00						+3.5 / 26.8	+1.6 / 5.49 / 94.18	−0.2 / 25.1
+50						+2.0 / 26.0	+0.5 / 5.83 / 93.84	−0.9 / 26.2
117+00						+3.0 / 26.5	+1.0 / 6.16 / 93.51 ✓ / 99.67	−0.6 / 25.7
	13.00	99.67		86.67	BM #8 = 2x[illegible] 100' Rt. 114+95			
+50						+0.9 / 25.5	−0.9 / 2.57 / 93.25	−2.4 / 28.4
chk. on ℄ stub 117+00			1.4	94.4	0.1 = Error. 94.5 = stub			
116+00						−0.4 / 25.4	−1.9 / 2.67 / 93.15	−3.5 / 30.1
+50						−1.6 / 27.2	−3.1 / 2.62 / 93.20	−4.8 / 32.0
115+00						−2.1 / 27.9	−3.9 / 2.43 / 93.39 / 95.82	−5.9 / 33.6
		95.82						

+0.67%

600' V.C.

Sta.	+	H.I.	−	Elev.	Lt.	℄	Rt.
121 +50					+87 294	+5.1 11.69 96.52	+3.6 26.3
121 +00					+87 294	+5.9 12.02 96.19	+3.6 26.8
+50					+89 295	+5.9 12.36 95.85	+4.0 27.0
120 +00					+84 292	+5.7 12.69 95.52	+3.3 26.7
+50					+73 286	+5.2 13.03 95.18 108.21	+2.9 26.5
T.P.	8.77	108.21	0.23	99.44			
119 +00					+64 282	+4.6 4.82 94.85	+2.6 26.3
118 +50					+52 276	+3.6 5.16 94.51 99.67	+1.4 25.7
		99.67					

1.067 96

STA.	+	HI.	−		Lt.	℄	Rt.
125+00						-10.0	
					-47	7.34	-11.6
					31.9	98.87	42.2
+50					-34	-8.6	-10.7
					29.9	2.28	40.8
						98.53	
124+00					0.0	-3.6	-8.3
					26.0	7.61	37.3
						98.20	
						100.81	
T.P	5.01	100.81	124	95.80			
+50					+1.2	-1.0	-7.5
					25.6	10.35	28.4
						97.86	
					+2.7	+0.5	-4.8
					24.4	10.68	27.5
123+00						97.53	
					+5.3	+2.6	+1.0
+50					23.7	11.02	25.5
						97.19	
					+6.9	+4.1	+2.0
122+00					28.5	11.35	26.0
						96.86	
		108.21				108.21	

0629.02

STA.	+	H.I.	−		
128+50					
128+00					
				BM #9 2"x2" Nail	
	10.99	104.35		93.96	50' Rt. of Sta. 128+11
+50					
				0.01 = Error	
				93.96 = BM #9	
Chk. on BM #9			6.86	93.95	
127+00					
+50					
126+00					
125+50					
		100.81			

Lt.	℄	Rt.
		39
-1.2	-2.8	-4.9
76.6	3.74	32.2
	101.21	
-1.6	-3.1	-5.6
27.0	4.07	33.2
	100.88	
	104.95	
-2.9	-4.5	-7.2
29.2	0.27	35.6
	100.54	
-1.6	-4.8	-7.0
27.2	0.60	38.2
	100.21	
-2.5	-7.1	-11.5
28.6	0.94	42.0
	99.87	
-3.7	-8.9	-11.8
30.4	1.27	42.5
	99.54	
-4.5	-10.6	-12.0
31.4	1.61	42.8
	99.20	
	100.81	

STA.	+	H.I.	−			Lt.	℄	Rt.
131+50						+31/26.6 (+3.6/26.9)	+1.4/10.92 103.22	(−0.5/25.3) −0.0/25.0
131+00						+2.8/25.9 (2.3/26.1)	+0.4/11.25 102.89	(−1.8/27.5) −1.3/26.8
+50						+09/25.5 (+1.4/25.7)	−0.8/11.59 102.55 114.14	(−3.1/29.5) −2.6/28.7
130+00						+0.1/25.0 (+0.6/25.3)	−1.7/2.73 102.22	(−4.5/31.6) −4.0/30.8
T.P.	12.54	114.14	3.35	101.60	Nail in Fence Post 50' Rt 130+50			
+50						+0.1/25.0 (+0.6/25.3)	−2.1/3.07 101.88	(−5.0/32.3) −4.5/31.6
129+00						−0.2/25.1 (+0.3/25.1)	−2.1/3.40 101.55 104.95	(−5.2/32.6) −4.7/31.9
128+55.95 (+57.31) B.C.		104.95						

+0.67%

Note: In this curve Rt. side is 1.0' higher than ℄
Lt. " " 1.0' lower " "
Super = .04' per ft.

STA.	+	H.I.	−	L4	E	R4
134 +50				+10.4 / 30.2	+7.4 / 8.91 / 105.23	+5.3 / 27.6
134 +00				+9.2 / 29.6	+6.8 / 9.24 / 104.90	+4.6 / 27.3
+50				+7.8 / 28.9	+5.6 / 9.58 / 104.56	+3.6 / 26.8
133 +00				+7.3 / 28.7	+4.8 / 9.91 / 104.23	+2.6 / 26.3
132+95.77 +97.13 E.C.						
+50				+6.3 / 28.2 (+6.8 / 28.4)	+3.1 / 10.25 / 103.89	(+0.8 / 25.4) +0.3 / 23.7
132 +00		114.14		+4.1 / 27.0 (+4.6 / 27.3)	+2.1 / 10.58 / 103.56 / 114.14	(+0.7 / 25.1) +0.2 / 25.4

STA.	+	H.I.	—	
138+00				
+50				
137+00				
T.P.	4.89	116.44	2.59	111.55
+50				
136+00				
+50				
135+00		114.14		

Lt. | ℄ | Rt.

+2.7 / 7.6.4 — +0.8 / 8.8 7 / 107.57 — -2.0 / 27.8

+5.1 / 27.6 — +2.5 / 9.20 / 107.24 — -0.3 / 25.3

+7.1 / 28.7 — +3.9 / 9.54 / 106.90 / 116.44 — +1.0 / 25.5

+0.67 %

+8.3 / 29.2 — +5.1 / 7.57 / 106.57 — +7.1 / 26.1

+9.7 / 29.9 — +5.8 / 7.91 / 106.23 — +6.7 / 26.4

+10.9 / 30.5 — +7.5 / 8.24 / 105.90 — +3.9 / 27.0

+11.0 / 30.5 — +7.9 / 8.58 / 105.56 / 114.14 — +5.4 / 27.7

STA.	+	H.I.	−			Lt	℄	Rt.
141+50						−5.0 / 32.3	−5.8 / 6.16 / 109.76	−6.4 / 34.4
141+00						−5.3 / 32.8	−6.2 / 6.37 / 109.55 / 115.92	−6.7 / 34.9
	6.12	115.92		109.80	B.M.#10 2x2" hub 50' Rt. sta. 144+00			
+50						−4.6 / 31.7	−5.4 / 0.89 / 109.25	−6.5 / 34.6
140+00						−3.8 / 30.5	−4.6 / 1.23 / 108.91	−6.0 / 33.8
+50						−3.2 / 29.6	−4.5 / 1.56 / 108.58	−5.5 / 33.1
139+00				0.0 = Error / 103.3 = Elev. stub		−1.7 / 27.4	−4.2 / 1.90 / 108.24 / 110.14	−5.0 / 32.3
chk. on ℄ stake 141+00			6.8	103.3				
T.P.	5.45	110.14	11.75	104.69				
138+50						+0.3 / 25.2	−1.5 / 8.53 / 107.91 / 116.44	−3.8 / 30.5
		116.44						

+0.42%

+0.67%

Sta.	+	H.I.	−	Lt.	℄	Rt.
145+00				+6.3 28.2	+4.0 4.69 111.23	+2.5 26.3
+50				+4.6 27.3	+2.6 4.90 111.02	+1.7 25.6
144+00				+2.4 26.2	+0.9 5.11 110.81	−0.4 25.4
+50				+0.3 25.2	−1.0 5.32 110.60	−1.9 27.7
143+00				−1.5 27.7	−3.0 5.53 110.39	−3.8 30.9
+50				−2.8 29.0	−4.0 5.74 110.18	−4.7 31.3
142+00		115.92		−4.0 30.8	−5.0 5.95 109.97 115.92	−5.6 33.2

+0.42%

STA.	+	H.I.	−		Lt.	℄	Rt.
148+00					+6.1/28.1 (+5.6/27.8) (+5.0/27.5)	+4.7 11.63 112.49	(+4.3/27.2) +3.2/26.6 (+3.7/26.9)
+50					+6.4/28.2 (+5.8/27.9) (+5.2/27.6)	+5.1 11.84 112.28	(+4.7/27.4) +3.6/26.8 (+4.1/27.0)
147+00					+6.0/28.0 (+5.5/27.8) (+4.5/27.3)	+4.6 12.05 112.07	(+5.1/27.6) +4.9/27.0 (+4.5/27.3)
146+59.99 (+61.43) B.C. Pt.							
+50					+7.2/28.6	+4.0 12.26 111.86	+2.0/26.0
146+00					+8.0/29.0	+5.5 12.47 111.65	+3.4/26.7
145+50					+7.7/28.9	+5.1 12.68 111.44 124.12	+3.3/26.7
T.P.	9.30	124.12 115.92	1.10	114.82			

+0.42%

3.2' Super. in this Curve

STA.	+	H.I.	−		Lt.	℄	Rt.
151+50					+11.8/30.9 (+11.2/30.6) (+10.6/30.3)	+8.7 / 18.29 / 113.96	(+6.6/28.3) +5.6/27.8 +6.0/28.0
151+00					+16.0/33.0 (+14.6/32.3) (+14.0/32.0)	+11.1 / 18.50 / 113.75	(+9.0/29.5) (+8.4/29.2)
+50					+17.1/33.6 (+16.4/33.2) (+15.8/32.9)	+12.5 / 18.71 / 113.54	(+9.9/30.0) +8.8/29.4 (+9.6/29.7)
150+00					+17.0/33.5 (+16.4/33.2) (+15.8/32.9)	+12.8 / 18.92 / 113.33	(+10.4/30.2) +9.2/29.6 (+9.8/29.9)
+50					+15.6/32.8 (+15.1/32.6) (+14.5/32.3)	+11.8 / 19.13 / 113.12 / 132.25	(+9.7/29.9) +8.6/29.3 (+9.1/29.6)
T.P.	9.36	132.25	1.23	122.89			
149+00					+12.1/31.0 (+11.5/30.8) (+10.9/30.5)	+9.5 / 11.21 / 112.91	(+8.3/29.2) +7.6/28.6 (+7.7/28.9)
148+50					+8.1/29.1 (+7.7/28.9) (+7.1/28.6)	+6.7 / 11.42 / 112.70 / 124.12	(+6.0/28.0) +4.8/27.4 (+5.4/27.7)
		124.12					

+ 0.42 %

3.2' Super in this Curve (.064 Per ft.)

STA.	+	H.I.	−			Lt.	℄	Rt.
155+00						-4.7/31.9 -5.2/32.6 (-5.8/33.5)	-4.7 / 5.03 / 115.43 / 120.46	(-4.1/30.9) -5.4/33.9 -4.7/31.9
	3.53	120.46		116.93	B.M. # 11 Page 50			
+50						-13.5/45.1 (-14.1/45.9) (-14.7/46.9)	-11.9 Reset. -11.6 / 4.84 / 115.22	(-12.9/44.2) -13.9/45.6 (-13.5/45.1)
154+00						-8.1/36.9 (-8.7/37.9) (-9.3/38.7)	-3.7 / 5.05 / 115.01	(-2.4/28.4) -3.6/30.2 (-3.0/29.3)
+50						-0.6/25.7 (-0.9/26.3) (-1.5/27.0)	-2.1 / 5.26 / 114.80	(-1.3/26.8) -3.5/28.6 -1.9/27.2
153+00						+1.8/25.9 (+1.1/25.6) (+0.5/25.3)	+0.3 / 5.47 / 114.59	(+0.3/25.2) -0.8/26.0 (-0.8/25.3)
+50						+2.9/27.0 (+3.8/26.7) (+2.7/26.4)	+2.5 / 5.68 / 114.38 / 120.06	(+1.8/25.9) +0.7/25.4 +1.7/25.6
Rod chk on ℄ Stub 155+00			9.23	110.83	110.73 = Stub Elev.			
	0.73	120.06	12.92	119.33				
152+00						+8.0/29.0 (+7.4/28.7) (+6.8/28.4)	+5.5 / 18.08 / 114.17	(+4.4/27.2) +3.4/26.7 (+3.8/26.9)
		132.25					132.25	

+0.42 %

3.2' Super in this Curve

STA.	+	H.I.	−		Lt.	℄	Rt.
158+50					-2.2 / 28.1	-1.5 / 3.56 / 116.90	-1.9 / 27.7
158+00					-3.0 / 29.3	-2.1 / 3.77 / 116.69	-0.9 / 26.2
+50					-2.0 / 27.8	-0.8 / 3.98 / 116.48	-0.8 / 26.0
157+00					-4.8 / 32.0	-2.7 / 4.19 / 116.27	-0.9 / 26.2
+67.01 156+65.57 E.C. +50				←	-5.8 / 32.8 (-5.7 / 33.4) (-6.3 / 34.3)	-4.8 / 4.40 / 116.06	(3.9 / 30.7) -5.0 / 32.3 -4.5 / 31.6
156+00					-4.7 / 34.9 (-5.2 / 32.6) (-5.8 / 33.5)	-5.7 / 4.61 / 115.85	(-4.2 / 31.1) -5.5 / 33.1 (-4.8 / 32.0)
155+50		120.46			-5.1 / 32.4 (-5.4 / 32.9) (-6.0 / 33.8)	-4.7 / 4.82 / 115.64 / 120.46	(-5.7 / 30.4) -5.1 / 32.5 (-4.3 / 31.3)

+0.42 %

Note: in this curve
Rt. side 1.6 lower than ℄
Lt " 1.0 higher " "

STA.	+	H.I.	−		Lt.	℄	Rt.
							49
162+00					-2.5 28.6	-9.6 5.95 120.02	-10.8 41.0
+50					-10.8 41.0	-5.9 4.66 119.31	-2.6 28.7
161+00					-1.4 24.9	-1.9 5.28 118.69	-2.1 27.9
+50					Left out	-2.1 5.82 118.15	-2.0 27.8
160+00					-2.2 28.1	-1.4 6.26 117.71	-1.7 27.3
+50.					-2.7 28.9	-2.6 6.60 117.37	-0.9 26.2
TP 159+00	3.13	123.97 120.46	5.62	114.84	-3.1 29.5	-2.9 6.86 117.11 123.97	-1.2 26.8

400' V.C.

0.42%

STA.	+	H.I.	−			Lt.	℄	Rt.
165+00						+11.5 / 30.7; (+12.0 / 31.0)	+7.2 / 13.50 / 125.56	(+3.4 / 26.7); +3.9 / 26.9
164+60						+10.0 / 30.0; (+10.5 / 30.2)	+7.1 / 14.26 / 124.80	(+3.3 / 26.7); +3.8 / 26.9
164+50							Left out / 14.45 / 124.61	
164+14.57 (+16.33) = BC. Lt.							Left out.	
164+00						+5.7 / 27.5	+3.6 / 15.39 / 123.67	+2.6 / 26.3
+50						+5.8 / 27.9	+3.0 / 16.34 / 122.72	+0.7 / 25.3
163+00 = E.V.C.						163+00 out. +1.9 / 26.0; 17.47 / 121.59 = 162+90; 139.06	+1.2 / 17.28 / 121.78; 139.06	−0.4 / 25.4
T.P.	12.78	139.06	1.68	126.28	B.M. #11 R.R. Spike in 8"×8" Post & Hay 147' Rt. 158+25			
	11.03	127.96		116.93				
162+50				0.1 = Error. / 123.0 = Stake.		−0.5 / 25.6	3.13 / 120.84 / 123.97	−8.5 / 37.6
Ck. on ℄ stake 163+00			0.9	123.1				
		123.97						

1.89%

400' V.C.

Note: in this curve Left side is 1.0' Lower than ℄
Rt. " " 1.0' Higher " "

STA.	+	H.I.	−		
168+50					
168+00					
+50					
167+00					
T.P.	3.85	152.62	1.14	148.77	=Temp. B.M. on fence post 20' Rt. 167+75
166+50					
T.P.	12.94	149.91	2.09	136.97	
166+00					
165+50					
		139.06			

Lt.

+23.1 / 30.8 (+23.6 / 30.9)

+22.3 / 30.6 (+22.8 / 30.7)

+28.3 / 32.1 (+28.8 / 32.2)

+30.3 / 32.5 (+30.8 / 32.7)

+26.8 / 31.7 (+27.3 / 31.8)

+17.6 / 29.4 (+18.1 / 29.5)

+12.0 / 31.0 (+12.5 / 31.2)

℄

+15.6 / 20.45 / 132.17

+19.5 / 21.39 / 131.23

+21.6 / 22.34 / 130.28

+22.7 / 23.28 / 129.34 / 152.62

+17.8 / 21.52 / 128.39 / 149.91

+10.4 / 11.61 / 127.45

+6.3 / 12.56 / 126.50 / 139.06

Rt.

51

(+11.3 / 27.8) +11.8 / 27.9

(+14.8 / 28.7) +15.3 / 28.8

(+16.1 / 29.0) +16.6 / 29.1

(+14.6 / 28.7) +15.1 / 28.8

(+10.0 / 27.5) +10.5 / 27.6

(+7.1 / 26.0) +4.6 / 26.1

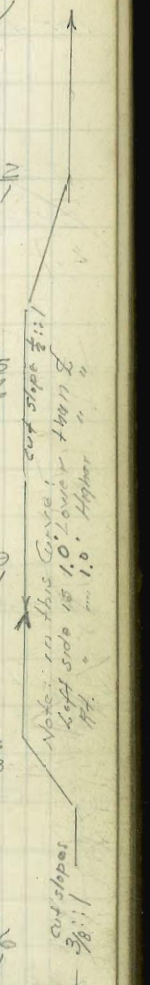
(+2.4 / 26.3) +2.9 / 26.5

Note: cut slopes are 1½:1

Note: fill slopes are 2:1

STA.	+	H.I.	−	Lt.	℄	Rt.
172+00				+1.7 (+2.2) 25.9 26.1	−2.6 13.83 138.79	(−1.7) 34.9 −.62 34.1
+50				+4.5 (+5.0) 27.3 27.5	−0.2 14.78 137.84	(−4.7) 31.9 −4.2 31.1
171+00				+4.4 (+4.9) 27.2 27.4	+0.8 15.72 136.90	on Blacktop (−7.1) 26.4 −2.5 28.6
+50				+5.5 (+6.0) 27.3 28.0	+.09 16.67 135.95	(−1.4) 26.9 −.09 26.1
170+00				+14.4 (+14.9) 30.4 30.6	+5.1 17.61 135.01	(−0.8) 26.0 −.03 25.3
+50				+17.7 (18.2) 29.4 29.6	+.99 18.56 134.06	(+4.1) 26.6 +4.6 26.1
169+00		152.62		+20.8 (+21.3) 30.2 30.3	+13.6 19.50 133.12 152.62	(+9.1) 27.3 +9.6 27.4

189 ft



STA.	+	H.I.	−	
175+50				0.0 = Error 151.00 = Elev. Stub Point
	Chk. on ℄ cut stub 176+00		0.8	151.00
T.P.	9.52	151.81	0.37	142.29
175+00				
+50				
174+00				
+50				
173+00				
	7.11	142.66	12.07	140.55
+51.03				
172+49.91 = E.C.				
		152.62		

Lt.	℄	Rt.
+81 29.0	−2.6 6.41 145.40 131.81	−.59 33.6
−1.5 27.0	−6.0 +1.80 144.46	−8.7 37.1
−2.4 28.4	−6.0 +0.85 143.51	−8.8 38.0
−4.4 31.4	−7.6 0.09 142.57	−8.8 38.0
−5.9 33.9	−7.2 1.04 141.62	−11.5 42.0
−6.5 34.6	−6.6 1.98 140.68	−10.6 40.7
(−1.8 27.5)	−6.4 2.93 139.73 142.66	(−11.1 41.2) −10.6 40.7

1.89 %

STA.	+	H.I.	−			Lt.	℄	Rt.
179+50						+5.7 27.9	−4.3 7.79 152.96	−9.9 39.6
179+00						+7.1 28.5	−3.1 8.73 152.02	−9.9 39.6
+50						+10.9 30.5	+1.0 9.68 151.07	−5.6 37.7
178+00						+12.2 31.1	+3.4 10.62 150.13	−4.8 32.0
+50						+14.1 32.0	+4.9 11.57 149.18	−1.0 26.3
177+00						+13.3 31.7	+6.9 12.51 148.24	+1.5 25.8
+50						+16.0 33.0	+5.9 13.46 147.29	+3.2 26.6
T.P.	9.52	160.75	0.00	151.23				
176+00						+11.8 30.9	+4.7 14.40 146.35	−0.2 25.1
	11.80	151.23		139.43	B.M. #13 - 2"x2" hub on Fence Line 80' Rt. 176+60		160.75	

1.89%

STA.	+	H.I.	−		Lt.	℄	Rt.
182+50					+11.7 / 30.9 (10.4 / 30.2)	+4.2 / 6.39 / 159.01	(−3.5 / 30.1) −4.0 / 30.8
182+11.32 (+12.13) = B.C. R̄t.							
182+00					+13.1 / 31.5	+3.4 / 7.57 / 157.83	−3.5 / 30.0
+50					+9.4 / 29.7	+0.1 / 8.65 / 156.75	−6.5 / 34.6
181+00					+5.3 / 27.6	−1.6 / 9.65 / 155.75	−7.8 / 36.5
+50					+7.7 / 28.8	−0.8 / 10.55 / 154.85 / 165.40	−8.4 / 37.4
180+00	T.P. 12.04	165.40	7.39	153.36	+4.9 / 27.5	−3.6 / 6.84 / 153.91	−9.8 / 39.5
		160.75				160.75	

600 V.C.

1.89%

Note: in this curve Left side is 1.0' Higher than ℄
Right " " 1.0' Lower " "

STA.	+	H.I.	−			Lt.	℄	Rt.
185+50						+0.5 / 25.3	−7.9 / 8.66 / 168.07	−10.3 / 40.3
185+00						+5.6 / 27.8	−1.0 / 10.41 / 166.32	−9.1 / 38.5
							176.73	
T.P.	13.16	176.73	8.69	163.57				
+50						+6.5 / 28.3	−1.9 / 7.58 / 164.68	−11.6 / 42.2
184+00						+7.3 / 28.7	−1.6 / 9.14 / 163.12	−12.5 / 43.6
							172.26	
+88.12 / 183+86.72 = E.C.							Leave out	
	1.28	172.26	12.56	170.98	BM#14 = 2"x2" Hub on Fence Line			
	0.54	183.54		183.00	64' Lt. Sta. 182+64			
+50						+4.2 / 27.1 (3.7 / 26.8)	−3.6 / 3.74 / 161.66	(−10.4 / 40.4) −11.0 / 41.3
				0.1 = Error.				
				161.5 = stub.				
183+00	chk. on ℄ stub.	184+00	3.8	161.6		+10.5 / 30.3 (+9.1 / 29.6)	−0.5 / 5.12 / 160.28	(−10.7 / 40.9) −11.2 / 41.6
		165.40					165.40	

600' V.C.

Note: In this Curve Left side is 1.0' Higher than ℄; Rt. " " 1.0' Lower " "

Sta.	+	H.I.	−	
189+00				
+50				
188+00	=P.V.C.			
T.P	13.75	190.09	0.39	176.34
+50				
187+00	=E.V.C.			
+50				
186+00				
		176.73		

Lt.	℄	Rt.
+11.7 / 28.8	14.5 8.11 181.98	57 −22 / 28.1
+6.0 / 28.0	+1.7 10.04 180.05	−3.2 / 29.6
+1.8 / 25.9	+3.1 12.07 178.02 190.09	−0.0 / 24.8
+2.8 / 26.4	+0.9 0.79 175.94	−5.9 / 33.6
−0.3 / 25.3	−2.3 2.86 173.87	−3.4 / 29.9
+1.7 / 25.9	−3.4 4.88 171.85	−5.9 / 33.6
+1.1 / 25.6	−5.9 6.82 169.91 176.73	−8.2 / 37.1

600' V.C. — 4.15% — 600' V.C.

STA.	+	H.I.	−		
192+50					
192+00					
T.P.	11.67	202.85	9.85	191.18	on 6"x6"x7' Ast 40' Rt. on Fence Ln. 191+75
191+50					
191+00					
+50					
190+00					
T.P.					
189+50	12.35	201.03	1.41	188.68	
		190.09			

600' V.C.

Lt.	℄	Rt.
+12.9	+3.6	
31.5	9.98	-7.0
	192.87	35.3
+11.5	+5.3	-0.6
30.7	11.25	25.7
	191.60	
	202.85	
+12.9	+6.1	-5.3
31.4	19.80	32.7
	190.23	
+12.0	+4.9	-2.7
31.0	12.26	28.8
	188.77	
+8.3	+3.9	-4.1
29.2	13.81	30.9
	187.22	
+9.9	+3.7	-4.2
30.0	15.46	31.1
	185.57	
+11.9	+4.8	-2.2
30.9	17.2	28.1
	183.89	
	201.03	

STA.	+	H.I.	−	Lt.	℄	Rt.
				+2.3	+0.1	59
196+00				26.2	2.98	−7.3
					199.87	35.7
				+4.9	+4.1	−6.3
+50				27.4	3.92	34.3
					198.93	
				+2.5	+4.8	−3.6
195+00				29.7	4.86	30.2
					197.99	
				+8.0	+5.0	−2.7
+50				29.0	5.80	28.9
					197.05	
				+8.9	+4.5	−2.5
194+00 = E.V.C.				29.5	6.74	28.6
					196.11	
				+13.3	+4.3	−5.9
193+50				31.6	7.73	33.6
					195.12	
				+12.3	+4.0	−8.5
193+01.74				31.2	8.81	37.6
192+~~99~~ 94 = B.C. Rt.					194.04	
		202.85			202.85	

1.88 %

600 V.C.

STA.	+	H.I.	−	
199+00				
+50				
T.R	12.13	208.07	6.91	195.94
198+00				
197+61.63 +61.75 = E.C.				
+50				
197+00				
196+50				
		202.85		

Lt.	℄	Rt.
		60
-2.4 / 27.4	-13.9 / 2.56 / 205.51	-18.1 / 52.0
-2.7 / 30.4	-13.5 / 3.50 / 204.57 / 208.07	-18.3 / 52.3
-4.7 / 31.9	-12.2 / +0.78 / 203.63	-16.3 / 49.3
-2.6 / 28.7	-9.2 / 0.15 / 207.69	-12.4 / 43.4
-1.0 / 26.5	-5.0 / 1.10 / 201.75	-8.4 / 37.4
+1.6 / 25.8	-2.5 / 2.04 / 200.81 / 202.85	-5.6 / 33.2

STA.	+	HI.	−		
203+00					
+50					
202+00					
T.P.	13.25	219.49	1.83	206.24	Set temp. B.M. 1.0 Feet Post 201+75
201+50					
201+00					
+50					
200+00					
199+50					
		208.07			

Lt.	℄	Rt.
+12.2 31.1	+2.8 6.46 216.03	+1.1 25.5
+15.7 32.8	+4.6 7.40 212.09	+0.8 25.2
+13.1 31.5	-1.1 8.34 211.15 219.49	-7.9 35.3
+4.2 27.1	-0.8 +2.14 210.21	-6.1 34.1
+1.8 25.9	-0.4 +1.20 209.27	-5.6 33.2
-1.9 27.6	-1.4 +0.26 208.33	-6.3 34.3
-2.1 27.9	-8.3 0.68 207.39	-10.5 40.6
-2.1 27.9	-11.9 1.62 206.45 208.07	-14.8 47.0

61

STA.	+	H.I.	−	Lt.	℄	Rt.
206+50				+19.6 34.8	+0.7 10.84 219.40 230.24	−8.2 37.1
T.P	11.24	230.24	0.46			
206+00				+19.8 29.9	+0.4 0.89 218.60	−10.6 40.7
				0.0 25.0	+0.4 1.79 217.70	−7.8 36.5
+50	= P.V.C.					
				+2.1 (+3.3) 14.0 (76.6)	+0.3 2.71 216.78	−3.4 29.9
205+00						
				+1.4 25.7	0.0 3.64 215.85	−0.7 25.8
+50						
				+6.7 28.3	0.0 4.58 214.91	+1.4 25.7
204+00						
				+7.8 28.9	+0.9 5.52 213.97	+1.7 25.8
203+50						
		219.49			219.49	

400' V.C.

188' %

STA.	+	H.I.	−	+	℄	−
210+00						
				+9.4 / 29.7	+3.0 / 7.41 / 222.83	−3.3 / 29.7
209+50				+7.7 / 28.9	+2.6 / 7.68 / 222.56	−4.2 / 31.1
				+12.4 / 31.2	+2.6 / 7.99 / 222.25	−1.4 / 26.9
209+00						
				+15.1 / 32.6	+2.0 / 8.44 / 221.80	−4.0 / 30.8
+50						
				+16.5 / 33.2	+1.7 / 8.86 / 221.38	−5.1 / 32.4
208+00						
				+12.2 / 31.1	+1.5 / 9.42 / 220.82	−15.5 / 48.0
+50						
				+19.0 / 34.8	+1.3 / 10.14 / 220.10 / 230.24	−5.7 / 33.4
207+00						
		230.24				

0.534 %

400' V.C.

Sta.	+	H.I.	−	Lt.	℄	Rt.
	+28.13					
213+26.85 = B.C. Rt.						
				+15.0 / 32.5	+4.9 / 5.81 / 224.43	+3.8 / 26.9
213+00						
				+14.7 / 32.3	+5.4 / 6.08 / 224.16	+3.1 / 26.6
+50						
				+13.0 / 31.5	+5.3 / 6.35 / 223.89	+3.5 / 26.7
212+00						
				+14.2 / 32.1	+5.1 / 6.61 / 223.63	+4.1 / 27.0
+50						
				+16.4 / 33.7	+4.4 / 6.88 / 223.36	+3.1 / 26.6
211+00						
				+9.3 / 29.7	+3.7 / 7.15 / 223.09 / 230.24	−0.5 / 25.6
210+50						
		230.24				

0.534 o/o

STA.	+	H.I.	−			Lt.	℄	Rt.
216+50						+10.8 / 30.4	−0.4 / 11.73 / 226.30	−7.2 / 35.6
216+00						+11.0 / 30.5	+0.7 / 12.00 / 226.03	−2.6 / 28.7
+50						+13.1 / 31.5	+1.4 / 12.27 / 225.76	+0.1 / 25.0
215+00						+15.1 / 32.6	+1.8 / 12.53 / 225.50	+0.6 / 25.3
+50						+20.3 / 35.2	+5.3 / 12.80 / 225.23	+2.8 / 26.4
T.P.	0.29	238.03	12.60	237.74				
	0.49	250.34		249.85	=B.M. #16			
				0.11	=Error			
214+00				249.85	=BM #16	+29.2 / 39.6	+5.2 / 13.07 / 224.96	+4.3 / 27.3
Chk. on BM #16 = 62' Lt. Sta. 216+20			0.49	249.74			238.03	
T.P.	10.73	250.23	2.44	239.50				
T.P.	12.54	241.94	0.84	229.40				
213+50						+13.6 / 31.8	+5.6 / 5.54 / 224.70 / 230.24	+4.9 / 27.4
		230.24						

0.534 %

Note: in this Curve
Left side is 1.0' Higher than ℄
Rt. " " 1.0' Lower " "

STA.	+	H.I.	−	L+	℄	R+
219+84.47 } EC. 219+69.54 }						
				-1.0 26.3	-5.3 0.79 227.90	-10.7 40.7
+50						
				-1.4 26.9	-5.5 1.06 227.63	-11.5 42.0
219+00						
				-2.5 28.6	-8.7 1.32 227.37	-14.1 45.9
+50						
				-1.9 27.7	-10.1 1.59 227.10	-16.9 48.8
218+00 ✓						
				-2.8 28.5	-10.8 1.86 226.83	-14.7 46.9
+50						
T.P.	2.77	228.69	1.11	22592		
				-0.4 25.4	-3.9 2.12 226.57 228.69	-10.3 41.2
217+00						
		238.09				

0.534 ft/ft

STA.	+	H.I.	−			Lt.	℄	Rt.
222+50						−8.9 / 38.1	−16.0 / +9.95 / 229.50 / 219.55	−20.8 / 56.0
T.P.	1.02	219.55	10.16	218.53				
222+00						−7.5 / 36.0	−11.6 / +0.55 / 229.24	−17.2 / 50.6
+50						−3.2 / 29.6	−7.1 / +0.28 / 228.97	−12.3 / 43.3
221+39.07 (~~27.53~~) = B.C.								
221+00						−1.4 / 26.9	−3.2 / +0.01 / 228.70	−8.3 / 37.3
+50						−2.3 / 28.3	−4.2 / 0.26 / 228.43	−9.1 / 38.4
Set. Temp BM. 60' Lt 220+50			0.90	227.79	on stub.			
220+00						−0.7 / 25.8	−5.8 / 0.52 / 228.17 / 228.69	−9.6 / 39.0
		228.69						

0.534 %

Note. Rt. side 1.0' Higher than ℄ } in this curve
Lt. " 1.0' Lower " "

STA.	+	H.I.	−			Lt.	℄	Rt.
226+00						+17.1 / 33.5	+15.3 / +10.06 / 231.37 / 241.43	−3.0 / 29.3
T.P.	13.21	241.43	2.88	228.22				
+50						+16.9 / 33.5	−1.4 / 0.00 / 231.10	−8.4 / 37.4
225+00						+9.3 / 29.6	−2.4 / 0.26 / 230.84	−13.9 / 45.6
+50						−2.2 / 28.7	−8.0 / 0.53 / 230.57 / 231.10	−23.7 / 60.3
T.P.	11.66	231.10	0.11	219.44				
224+00						−3.5 / 30.0	−17.8 / +10.75 / 230.30	−24.1 / 60.9
+50						−8.3 / 37.2	−22.2 / +10.49 / 230.04	−24.3 / 61.3
			9.41	210.14	Set Temp. B.M. Fence Post 75' Rt. 223+80	−9.2 / 38.6	−19.4 / +10.22 / 229.77 / 219.55	−23.7 / 60.3
223+00								
		219.55						

0.534 %

Sta.	+	H.I.	−	
229+50				
229+00				
T.P.	10.04	264.20	0.13	254.16
+50.				
T.P.	12.97	254.9	0.11	241.32
228+00				
+50				
227+00				
226+50				
		241.43		

Lt.	℄	Rt.
		69
+65.0	+30.4	0.0
37.5	34.96	32.5 } daylight
	238.24	
+54.6	+24.9	0.0
52.3	31.28	32.8 } daylight
	232.97	
	264.20	
+27.5	+15.0	−3.7
38.7	21.58	30.4
	232.71	
	254.29	
+7.9	+2.0	−3.8
28.9	8.99	30.5
	232.44	
+12.0	+1.9	−3.8
34.0	9.26	30.5
	232.17	
+8.7	+0.6	−2.9
29.4	9.52	29.2
	231.91	
+6.3	−1.8	−3.5
28.2	9.79	30.0
	231.64	
	241.43	

0.5% ↗

STA.	+	H.I.	−		Lt	℄	Rt
233+00				0.1 = Error 237.9 = Stub	+27.9 / 36.5 +11.6 / 30.8	+1.1 / 6.6 / 236.00	−14.3 / 46.3
Chk. on 4 stub 233+50			4.6	238.00			
+50					+16.3 / 33.2	+0.8 / 7.16 / 235.43	−16.2 / 49.1
232+00					+N.6 / 30.8 +22.9 / 36.5	+0.6 / 17.67 / 234.92 / 242.59	−17.4 / 50.9
T.P.	0.38	242.59	10.70	242.21			
+50					+36.0 / 43.0	+13.3 / 18.45 / 234.46 / 252.91	−0.2 / 25.1
T.P.	1.05	252.91	12.34	251.86			
231+00					+48.0 / 49.0	+21.5 / 30.16 / 234.06	−1.3 / 26.7
+50					+48.0 / 49.0 / 73 / 74	+19.4 / 30.48 / 233.72	−2.3 / 28.2
230+00 = P.V.C		264.20			+50.7 / 50.1	+24.3 / 30.78 / 233.42 / 264.20	0.0 / 30.7 {daylight

400' V.C.

STA.	+	H.I.	−			Lt.	℄	Rt.
236+00						+0.9 / 25.5	−0.8 / 6.43 / 240.09	−4.4 / 31.4
T.P.	1.89	246.52	12.73	244.63				
+50						+0.5 / 25.3	−2.3 / 7.13 / 239.39 / 246.52	−5.6 / 33.2
235+00						+3.4 / 26.7	−1.8 / 18.67 / 238.69	−6.5 / 34.6
+50						+8.2 / 29.1	+1.4 / 19.37 / 237.99	−7.5 / 36.3
234+00 = E.V.C						+9.5 / 29.8	+1.7 / 20.07 / 237.29	−10.5 / 40.6
+50						+9.0 / 29.5	+1.3 / 20.74 / 236.62	−12.0 / 42.8
T.P.	3.63	257.36	12.81	253.73	Set. Temp. BM. on Stub Approx. 50' Lt. Sta. 234+00		257.36	
T.P.	5.39	266.54	12.81	261.15				
+08.00 233+07.34=E.C.								
	4.23	273.96		269.73	BM. #18 2x2 Rd. Wood Hub 94' Lt. Sta. 233+36			

1.40 %

400' V.C.

Sta.	+	H.I.	−	Lt.	℄	Rt.
				-9.9	-2.2	72 -12.8
239+50				26.3	1.53	44.0
					244.99	
				-0.9	-7.4	-11.1
239+00				26.5	2.23	41.5
					244.29	
				-0.7	-5.8	-8.6
+50				26.0	7.93	37.7
					243.59	
				-0.1	-3.4	-6.5
238+00				25.1	3.63	34.5
					242.89	
				1.4 o/o		
				+0.5	-1.2	-4.2
+50				25.3	4.33	31.1
					242.19	
				+0.8	-1.1	-3.8
237+00				25.4	5.03	30.5
					241.49	
				+0.8	-0.8	-3.8
236+50				25.4	5.73	30.5
					240.79	
		246.52			246.52	

STA.	+	H.I.	−		Lt.	℄	Rt.
243+00					+18.2 34.1	+0.6 4.56 249.89	-1.2 26.6
+50					+12.7 31.3	+0.6 5.26 249.19	-1.3 26.7
242+00					+15.6 32.8	+0.5 5.96 248.49	-6.2 34.1
+50					+16.1 33.1	+0.1 6.66 247.79	-12.1 42.9
241+00					+8.5 29.3	-0.3 7.36 247.09	-15.8 48.5
+50					+0.5 25.3	-2.2 8.06 246.39 254.45	-16.3 49.2
T.P. 240+00	9.32	254.45 246.52	1.39	245.13	-1.1 26.6	-5.2 0.83 245.69 246.52	-14.6 46.7

140 o/o

STA.	+	H.I.	−		Lt.	℄	Rt.
							74
246+00					+18.8 34.4	+3.6 10.19 254.09	0.0 24.8
+50					+25.3 37.6	+9.2 10.89 253.39	+0.4 25.2
245+00					+15.3 32.6	+5.5 11.59 252.69	+0.8 25.4
244+75.83							
~~244+70.89~~ = B.C.						252.32	
+50					0 +9.0 29.5	+5.6 12.29 251.99	+2.1 26.1
244+00					+12.3 31.2	+2.6 12.99 251.29 264.28	+2.3 26.2
T.P.	12.34	264.28	2.51	251.94			
243+50					+20.0 35.0	+0.7 3.86 250.59	+0.8 25.4
		254.45				254.45	

STA.	+	H.I.	−	
249+50				
T.R	2.41	277.07	2.25	274.66
249+00				
+50				
248+00				
+50				
+25 = P.V.C				
247+00				
T.P	12.65	276.91	0.02	264.26
246+50		264.28		

	Lt.	℄	Rt.
		+5.1 / 11.57 / 260.51	
	+15.9 / 33.0	277.07	−1.0 / 25.3
	+25.9 / 37.9	+9.8 / 17.70 / 259.21	−0.3 / 25.3
G.O. V.C.	+19.3 / 34.6	+8.1 / 18.85 / 258.06	+0.1 / 25.0
	+17.7 / 33.9	+9.5 / 19.85 / 257.06	0.0 / 25.0
	+43.4 / 46.7	+22.4 / 20.70 / 256.21	+0.7 / 25.5
P.V.C	+41.0 / 45.5	+[illegible] / 21.42 / 255.43	−0.4 / 25.4
4.0%	+33.9 / 41.9	+16.5 / 22.12 / 254.79 / 276.91	−0.1 / 25.0

Sta.	+	H.I.	−		
253+00					
				0.00 = Error	
+50				294.65 = B.M. #20	
chk. on B.M. #20 78' Lt. sta. 250+90			2.98	294.65	
T.P.	6.90	297.63	0.12	290.73	
T.P.	13.26	290.85	0.25	277.59	
252+00					
+50					
T.P.	12.31	277.84	11.54	265.53	on stub. 10' Lt. 251+50
251+00					
+50					
250+00		277.07			

600' V.C.

Lt.	℄	Rt.
	76	
+15.7	+0.5	−16.5
32.8	23.82	49.6
	273.81	
	297.63	
+20.2	+6.3	−17.7
35.1	6.38	51.4
	271.46	
+6.0	−1.2	−23.3
28.0	8.58	59.8
	269.26	
−0.5	−7.0	−17.7
25.5	10.63	51.4
	267.21	
	277.84	
+10.4	−4.2	−15.8
30.2	11.76	40.6
	265.31	
+11.8	−3.2	−3.7
30.9	13.51	30.3
	263.56	
+6.7	+2.5	−1.0
28.4	15.11	27.0
	261.96	
	277.07	

STA.	+	H.I.	−		
256+00					
+50					
255+00					
+62.91					
254+60.33 E.C.					
T.P.	6.26	289.87	12.13	283.61	BM #20 78' Lt Sta. 250+90
	1.09	295.74		294.65	
+50					
254+00					
T.P.	0.16	272.52	12.87	272.36	
	0.33	285.23	12.73	284.90	
253+50					
253+25 = E.V.C.		297.63			

5.00 %

Lt.		Rt.
+48 / 27.4	−4.1 / 1.08 / 288.79	77 −2.0 / 54.8
+46 26 / 25.8 18	−2.2 / 3.58 / 286.29	−20.9 / 56.1
−1.4 / 26.9	−9.6 / 6.08 / 283.79	−28.2 / 67.1
−2.9 / 29.1	−13.4 / 8.06 / 281.81	−24.6 / 76.7
	289.87	
−5.8 / 33.5	−15.3 / +8.77 / 281.29	−35.3 / 77.7
−13.9 / 45.8	−15.5 / +6.27 / 278.79	−32.7 / 73.8
−4.3 / 31.6	−13.8 / +3.77 / 276.29	−28.3 / 67.2
E.V.C. 35	272.52	

Sta.	+	H.I.	−	
259+50	Cont. in Grade Book - 164 Page 1			
				0.02 = Error
				315.95 = B.M. #21
chk. on	B.M. #21		2.53	315.93 St'd. Sta. 258+68
T.P.	9.75	318.46	2.44	308.71
259+00				
+50				
T.P.	12.09	311.15	1.91	299.06
258+00				
+50				
257+00				
256+50				
T.P.	12.97	300.97	1.87	288.00
		289.87		

L4

Rt. 78

	−1.6	
	7.36	
+2.9	303.79	−8.8
26.4		38.0
+4.3	−0.3	−10.3
27.2	9.86	40.4
	301.29	
	311.15	
	−0.5	
	2.18	
+6.4	298.79	−11.4
28.2		41.9
+5.6	−1.5	−12.7
27.8	4.68	43.8
	296.29	
+4.2	−3.7	−14.1
27.1	7.18	45.8
	293.79	
+4.7	−3.4	−14.9
27.3	9.68	47.1
	291.29	
	300.97	

Sta.	+	H.I.	-		(Rt.) Emb.	Grade ℄	(Lt.) Cuts.
				155.5 = B.M. 10.35 + 165.85 = HI			
	Lt. ℄ Rt.						
286+00	149.5 150 150.5		$\frac{5.0}{0}$	- 10.3 35.0			
+50					100 V.C.		
287+00					X		
+50							
288+00					+ 0.98 %		
288+51.02 E.C.					$\frac{\text{C or F}}{\text{Dist. out}}$	0 C 2.3 5.5 409.83	$\frac{\text{Cut or Fill}}{\text{Dist. out}}$
			5.0	5.0			
B.M.# 23	10.0	404.98		394.98 = B.M.	Not set in culvert on South side pav't. - West Italian Villa Inn 404.98		

IMPROVED TABLES
AND
INFORMATION

TABLE II—Continued
TRIGONOMETRIC FORMULAE (continued)

In any triangle:

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

Use Law of Tangents.

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

Use Law of Sines.

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

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

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

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

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

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

Area of a triangle:

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

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

PRISMOIDAL FORMULA.

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

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

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

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

TABLE IV
USEFUL RELATIONS

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

360° = 21600′ = 1296000″

Radius = arc of 57.2957790°

Arc of 1° (radius = 1) = .017453292

Arc of 1′ (radius = 1) = .000290888

Arc of 1″ (radius = 1) = .000004848

$\pi = 3.141592654$

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

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

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

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

$\pi^2 = 9.869604401$

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

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

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

$\sqrt{\pi} = 1.772453851$

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

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

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

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

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

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

Error in chaining of 0.01 feet in 100 feet:

Due to—

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

STADIA REDUCTION FORMULÆ.

Horizontal Distance $= R - R \sin^2 a + C \cos a$

Vertical Distance $= R \tfrac{1}{2} \sin 2a + C \sin a$

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

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

a = angle of elevation for mid Reading

BM. # 19. = 27678
107'L1 238180

145 61.43

.61
2
1.22
.16
3 | 1.38
.46
2
.92