CONSTRUSTION NOTES
NORTH ST. PAUL ROAD
CO. PROJ. 23-54
FILE NO. 6

ENGINEERS
FIELD BOOK
No. 1040S

North St Paul
6" 23-54

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)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

Birch Lake - 25.56

Page to Page	Description	Sta to Sta.
5 8	Alignment	0 - 137
9.	Curve Notes	136 -
11 - 14 ✓	Cross-Sect.	72 - 95 ✓
14 - 19	" "	0 - 71 ✓
20 - 21	" "	121 - 138 ✓
24	Grade Change	4 - 8+50 ✓
25 - 27	Final X-Sections (1924)	0+00 15+70
27 1/2	Final X-Sections (1923)	16 - 138
48 - 72	Final Topography (1923)	16 - 137
43 -	Final X-Sections (1924)	16 - 20
44	Final F.E. X-Sections (1924)	6+83
45 - 48	Final Topography (1924)	0+00 16+00

Ang Lt. & Ang Rt.

5+66.5 P.O.T

5+02.3 E.C.

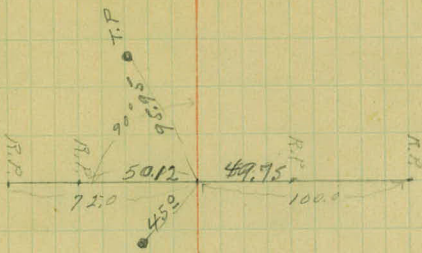
2+68.9 P.I 50° 14'

0+00 B.C. = 1471.2 White Bear Rd.

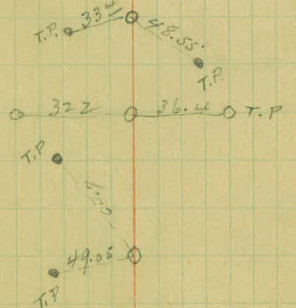
Sta.	Δ c f
0+00	0°00'
+50	2°30'
1+00	5°00'
+57	7°51'
2+00	10°06'
+50	12°30'
3+00	15°00'
+50	17°30'
4+00	20°00'
+50	22°30'
5+00	25°00'
+023	25°07'

10° Curve
Δ = 50°14'
S.T = 268.94'
B.C = 0+00
Length = 502.3'.
E.C = 5+023

Sta.	Point	Right	Left
70+44.2	P.I.		
53+66.3	P.O.T		℄ Elec. Ry.
= 49+26.9 49+18.3	P.O.T.		
36+91.9	P.I.	0° 02'	
20+15.7	P.O.T.		
15+94.4	P.O.T		

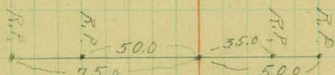

T.P
90°-15'
45°
T.P
T.P
T.P
50.12
49.95
72.0
100.0


T.P
52.2
47.8
T.P


T.P
33.4
48.55
T.P
37.2
36.4
T.P
T.P
49.05
T.P

Sta.	Point.	Right	Left
96+01.3	P.O.T.		
83+75.8	P.O.T. = 83+74.8		

8/8/23.



Ang h ℄ Ang R.

137+91.2	E.C.			
			137+91.2	25° 49½'
137+09.8	P.I.	51° 39'	137+50	19 51
			137+00	12° 36'
			136+50	5° 21'
			136+13.1	0° 00'
136+13.1	B.C.			

29° Curve Left.

Δ = 51° 39'

S.T. = 96.65

B.C. = 136+13±

Length = 178±

E.C. = 137+91±

136+13± — 0° 00' B.C.

+38± — 3° 37½'

+63± — 7° 15'

+88± — 10° 52½'

137+13± 14° 30'

+38± 18° 07½'

+41± 18° 34½'

+66± 22° 12'

+91± 25° 49½' E.C.

290 Curve left. (137+98 ...

Station	Def	Point		Profile Grade	Super Per foot	Extra Width
134+63 ±		T.S.T	0	99.36	−.009 −.026	
134+88 ±			25	98.86	+.008 −.008	
135+13 ±			50	99.36	+.008 −.008	
135+38 ±			75	99.86	+.017 −.017	
135+63 ±		B.W.T	100	300.36	+.026 −.026	0.0
135+88 ±			125	300.86	+.035 −.035	0.5
136+13 ±	0°00'	B.C.	150	301.36	+.044 −.044	2.48
136+38 ±			175	301.85	+.053 −.053	4.48
136+63 ±		E.W.T E.S.T	200	302.30	+.062 −.062	5.00
+88 ±				302.70	" "	5.00
137+13 ±				303.05	" "	5.00
+38 ±						
+41 ±		E.S.T E.W.T	200			
+66 ±			175			
+91 ±	25°49½'	E.C.	150			

Width	Left Elev.	Profile Grade	Right Elev.	Width
10'	98.28	98.36	98.28	
10'	98.78	98.86	98.86	
10'	99.28	99.36	99.44	
10'	99.69	99.86	300.03	
10'	300.10	300.36	300.63	
10.5	300.49	300.86	301.21	
12.48	300.81	301.36	301.80	
14.48	301.08	301.85	302.38	
15.00	301.37	302.30	302.92	
rr	301.77	302.70	303.32	
rr	302.17	303.05	303.67	

Prof. P 23 - 24

X. Sections & Slope Stakes

From Sta. 95+00 to Sta. 81+00

Sta.	+	H.I.	−	Elev	Grade
B.M.	4.74	271.96		267.22	
95			4.3	267.7	267.3
94			2.4	269.6	269.6
T.P.	12.50	281.93	2.53	269.43	
93			10.1	271.8	272.3
92			6.8	275.1	275.7
91			2.7	279.2	279.5
T.P.	11.88	292.28	1.53	280.40	
90			9.1	283.2	283.3
B.M.			11.42	280.86	280.89
89			5.2	287.1	287.1

L. R. 5/8/23

Spk. in Tel. 2 ola L. 574 ± 10 ± 10

4.7 ✓ F0.4 (5.1) 4.1 4.6 5.2 4.7 (4.6) C 2.1
2.4 146 33 28 19 33 (22.1)

2.4 ✓ F1.1 (3.5) 4.6 5.0 3.4 2.4 3.9 5.0 5.1 (3.5) F1.1
3.0 176 33 31 19 5 15 29 33 (17.4)

9.6 ✓ F2.8 11.9 12.7 13.5 12.5 12.6 11.1 11.9 12.7 (11.2) F1.6
2.05 190 33 29 25 23 15 17 33 (18.4)

2.2 ✓ F2.1 8.5 8.7 8.6 10.2 7.3 9.4 7.7 7.5 8.7 8.7 (8.0) F1.2
2.0 190 33 31 24 25 22 14 17 28 33 (18.7)

3.9 ✓ F1.8 (9.2) 5.2 5.6 4.9 3.7 3.6 4.0 5.0 4.2 4.5 (3.9) F1.5
2.03 18.7 33 30 23 17 15 24 26 29 33 (18.8)

9.0 ✓ F1.1 14.1 11.0 11.1 10.2 9.9 10.3 9.6 9.8 9.9 F0.9
2.0 177 33 28 15 18 27 28 33 (21.1)

Spk. in Tel 2 ola R. 34 ± 30

5.2 ✓ F1.0 (6.2 9.1 7.0 6.6 6.1 5.7 5.7 5.3 5.4 (5.5) F0.3
3.0 176 33 31 27 19 14 19 23 33 (21.9)

Sta.	+	H.I.	−	Elev.	Grade
		292.28			
88			1.4	290.9	290.8
T.P.	11.63	303.13 ✓	0.78	291.50 ✓	
87			8.3	94.8 ~~294.0~~	293.8
+50			6.6	96.5 ~~296.7~~	95.2
86			5.5	97.6 ~~296.8~~	296.0
85			4.0	99.1 ~~299.3~~	297.5
+85			4.1	99.0 ~~299.2~~	97.7
T.P.	8.47	307.51 ✓	4.09	299.04 ✓	
+45			8.3	99.2	98.0
+25			8.2		98.1
84			8.1	99.4	298.1
+70			8.1		98.2
+50			8.3	99.2	98.2
83			8.9	98.6	298.1
82			10.0	97.5	297.0
81			11.9	95.6	~~295.5~~

L. R. 8/8/23

.5	FAM 1.9	2.1	2.0	2.4	1.8	2.1	1.8	1.6	2.2	1.3	1.8	1.6	FA 1
2.4	(2.4)	33	28	27	21	15	12	14	20	23	33	(21.9)	

	8.6	8.3	8.7	8.7	8.5	9.4	9.4	9.2	8.6	7.7	8.3	C 1.0	
2.1	(22.7)	33	31	21	25	17	15	13	17	33	(23.0)		
1.0			6.9	6.8	6.0	7.8	7.1	7.9	7.1	7.4	7.6	6.1	6.1
.9			33	23	20	14	11	12	14	20	27	29	33

2.1	C2	5.0	5.0	5.5	5.0	5.0	4.3	4.7	4.7	5.0	C 1.5
1.6	(2.5)	33	31	23	19	13	15	33	(23.5)		

2.0	C2	2.7	2.4	2.7	2.6	2.8	4.8	5.1	2.1	1.8	(2.0)	C 2.6	
1.6	(2.4)	33		31	27	21	15	14	23	33	(25.6)		
							4.5	5.0	4.4	2.0	1.0	0.3	0.8
.4							33	14	17	22	27	27	33

.5				8.5	8.5	9.4	8.9	9.2	8.5	6.1	5.7		
				33	30	22	16	15	18	24	33		
.4				5.7	6.0	6.0	8.9	9.2	8.3	6.2	5.8		
				33	31	18	12	18	23	28	33		
.4	C.25	6.0	3.6	6.0	6.6	6.4	8.7	9.2	8.6	6.0	5.7	(7.4)	C 2.0
.3		(24)	33	28	24	19	13	15	22	24	33	(24.0)	
			7.7	7.9	7.6	8.3	8.7	8.7	9.1	6.2	4.2	5.8	
.3			33	25	21	17	15	12	15	22	29	33	
		4.7	5.4	8.9	8.4	27	8.9	8.8	9.2	6.3	6.3	5.2	
.3		33	30	27	22	20	17	13	15	23	27	33	
.4	C.01	7.7	4.7	7.5	6.2	7.2	9.3	9.4	9.9	6.8	6.0	(6.7)	C. 2.5
.3		33.0	33	28	25	20	16	12	15	21	33	(24.3)	

.5	C.14	(9.4)	8.4	10.4	9.2	9.3	10.6	10.8	7.6	6.7	(7.7)	C 3.1	
.5		(23.1)	33	27	27	21	17	14	24	33	(25.1)		

2.3	C.03	(13.0	11.3	12.9	12.6	10.1	10.3	(10.9	C 1.8		
1.9		(27.8)	33	25	14	17	33	(23.8)			

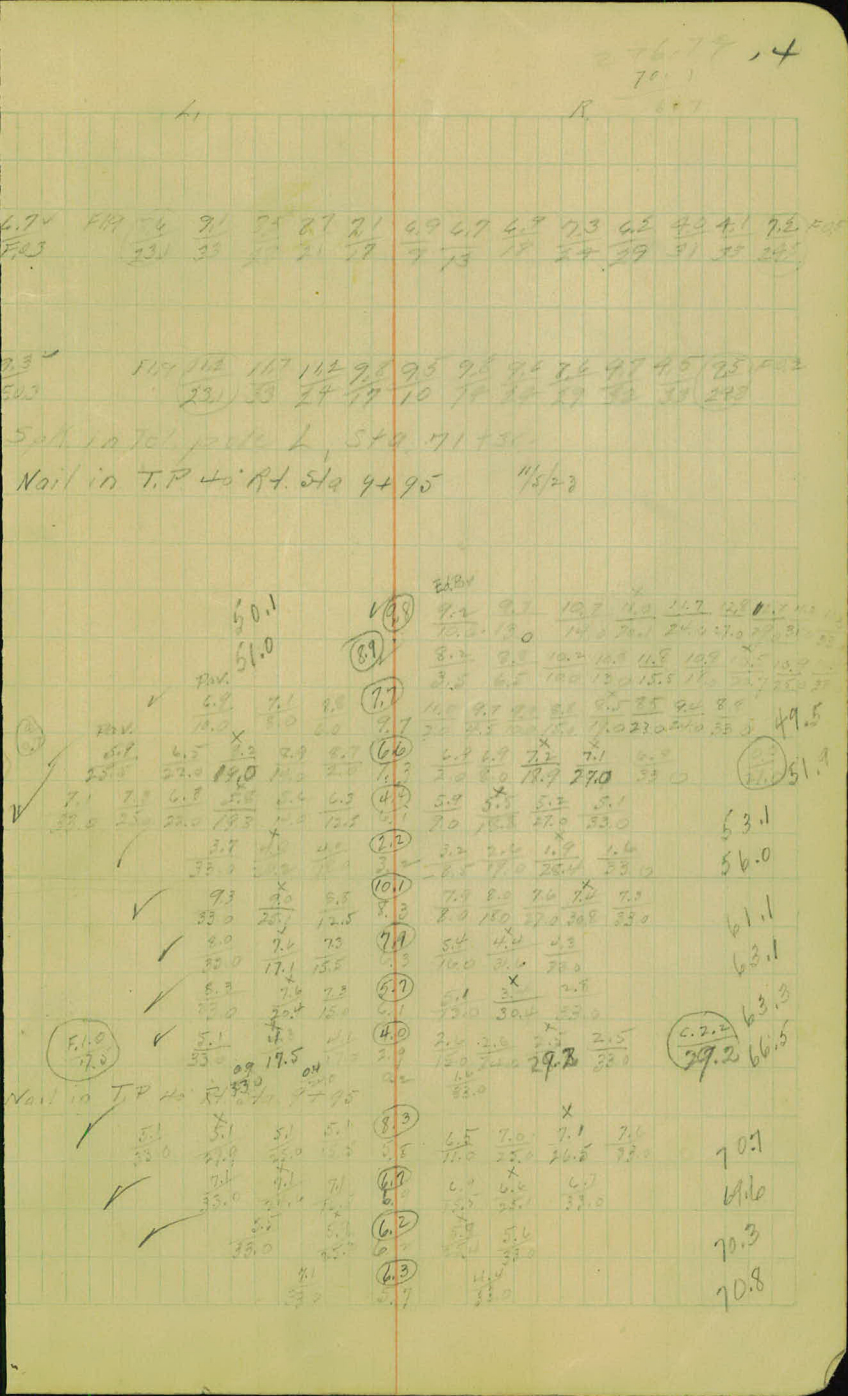
Sta.	+	H.I.	−	Elev.	Grade
		307.51			
B.M.	1.48	298.55	10.42	297.09	297.07
80			5.8	92.8	292.8
79			9.0	89.6	289.6
78			12.2	86.4	286.3
T.P.	1.93	289.19	11.29	287.26	
77			4.2	83.0	283.0
+75			7.3		82.8
T.P.	3.79	283.00	9.98	279.21	
76			3.3	79.7	279.7
+40			5.1	77.9	77.7
75			6.5	76.5	276.4
+67			7.9	75.1	75.3
74			10.0	73.0	273.1
T.P.	5.55	276.80	11.75	271.25	

L R

Spk. in Tel. pole R. Sta. 80 +00

5.8	F1.4	6.8	5.1	5.6	6.9	6.7	6.7	6.3	6.6	4.3	3.7	3.7	C.1.9
0.0		21.0	33	31	28	18	14	11	13	20	33	23.7	
9.0	F0.7	9.7	8.7	8.8	9.9	9.6	9.1	10.1	9.1	8.3	8.8	C.0.2	
10		21.3	33	29	25	14	10	13	15	33	22.2		
2.3	F1.3	13.6	14.0	13.8	13.3	12.8	12.5	12.5	10.8	12.5	F0.2		
1.0		23.7	33	26	20	10	21	36	33	24.6			
West end of Stone Wall at Sta. 78+00													
0.2	F1.3	7.5	6.8	6.8	7.7	7.5	6.8	6.6	7.2	6.7	5.7	7.9	F.0.8
0.0		23.7	33	31	27	22	20	12	23	30	33	24.2	
0.4					9.3	7.8	7.4	8.3	7.4	8.0	8.3		
					33	27	15	18	23	26	33		
2.3		F0.4	3.7	10.5	3.7	5.3	2.9	7.1	4.7	5.8	6.1	4.2	F0.4
0			24.7	33	17	9	17	19	27	31	33	24.1	
11.3			10.7	10.5	9.2	5.9	5.3	5.1	8.5	8.4			
			33	30	24	18	8	14	20	33			
2.6	F0.7	7.3	7.1	7.3	8.1	6.6	6.9	4.5	6.2	7.7	7.1	7.5	F0.9
0.11		24.3	33	24	22	17	11	9	13	19	33	24.1	
7.7			8.9	8.5	7.1	7.7	8.0	7.8	7.3	8.3	8.2	4.2	4.2
			33	24	21	17	11	10	10	17	28	32	33
2.9	F1.2	11.1	10.9	10.9	11.5	10.2	10.4	10.1	9.8	10.5	11.0	11.6	10.5	8.7
0.1		23.8	33	36	31	18	14	7	13	22	24	28	30	33
												F1.1	4.0	23.7

Sta.	+	H.I.	−	Elev	Corr.
		276.80			
73			7.0	269.8	270.1
72			9.6	267.2	267.5
T.P			10.80	266.00	
B.M	2.80	277.60		275.34	
T.P.	0.31	266.70	11.75	266.39	
T.R.	2.24	259.17	9.37	256.93	
0 + 50				49.5	
1 + 00				50.62	
+ 37				51.45	7.7
2 + 00				52.60	6.2 6.6
+ 50				54.95	3.7 4.4
3 + 00				57.0	1.7 2.1
T.P	12.45	269.37	2.25	256.92	
+ 50				59.25	9.1 10.1
4 + 00				61.50	6.9 7.9
+ 50				63.6	4.7 5.7
5 + 00				65.4	3.3 4.3
+ 50					
B.M	1.19	276.52			275.34
6 + 00				65.2	1.0 8.3
7 + 00				69.8	8.7
8 + 00				70.3	6.2
8 + 50				70.2	6.3


Nail in T.P 40 Rt. Sta 9+95
50.1
51.0
49.5
51.1
53.1
56.0
61.1
63.1
63.3
66.5
70.1
69.6
70.3
70.8

	+	276.52			
9+00				70.2	6.3
9+50				70.2	6.3
10+00				70.1	6.4
+64				70.0	6.5
B.M	1.00	276.34			275.34
T.P	5.94	271.18	11.10	265.24	
11+00			63.6	70.0	1.2
+50				70.1	1.1
12+00				70.3	0.9
+50				70.7	0.5
T.P.	11.10	274.83	7.45	263.73	
13+00				71.4	3.42
+35				71.9	2.9
+80				72.7	2.1
14+00				73.2	1.6
+50				74.4	0.4
T.P	6.72	280.45	1.10	273.73	
15+00				75.8	4.7
+50				77.3	3.2
T.P	7.47	286.64	1.28	279.17	
+70				77.9	8.7
16+00				78.8	7.8
+135				79.2	7.4
+230				79.5	7.1
+50				80.3	6.3

L L P

✓	7.1 / 33.0	6.2 / 24.6	6.2 / 17.0	6.3	3.5 / 12.0	2.5 / 24.2	2.7 / 33.0	1.7 / 33.0		71.8
✓	8.1 / 33.0	7.2 / 16.1	7.2 / 8.0	7.5	2.1 / 14.5	0.7 / 33.0				73.0
	8.1 / 33.0	7.2 / 17.4	7.2 / 16.5	6.9	5.1 / 15.0	3.9 / 25.0	3.7 / 33.0	3.8 / 33.0		70.1
	13.2 / 33.0	12.5 / 19.0		11.2	10.3 / 15.5	9.7 / 30.5	6.7 / 33.0			65.3

At 9495 Nailing T.D

10% Shrinkage

✓	8.5 / 33.0	8.5 / 28.0	8.3 / 17.0	7.5	7.0 / 8.0	6.0 / 26.5	6.7 / 32.7	5.0 / 33.0		69.7
✓		8.6 / 33.0	8.6 / 22.0	8.5	7.8 / 16.0	7.2 / 33.0				
✓	9.0 / 33.0	8.7 / 24.7	8.6 / 15.0	8.5	8.5 / 15.0	8.1 / 27.5	7.9 / 33.0			
✓	8.7 / 33.0	9.0 / 24.0	8.6 / 15.0	9.0	9.5 / 15.0	8.5 / 33.0				
✓	11.9 / 33.0	12.0 / 29.9	11.9 / 15.0	11.9	11.9 / 15.0	11.6 / 27.3	11.4 / 33.0			
✓	11.1 / 33.0	10.9 / 27.0	10.6 / 17.0	10.6	10.2 / 9.5	9.3 / 22.0	9.1 / 33.0			
✓	6.7 / 33.0	6.4 / 26.0	6.3 / 16.0	6.2	6.8 / 13.0	7.7 / 31.0	9.2 / 33.0			
✓	5.6 / 33.0	4.1 / 19.9	4.7 / 21.5	5.6	6.1 / 9.5	6.1 / 17.5	7.2 / 25.4	8.4 / 33.0		
✓		6.8 / 33.0	7.2 / 24.0	8.2	11.2 / 10.5	5.2 / 18.0	6.5 / 33.0			
✓	6.1 / 33.0	6.4 / 16.7	7.0 / 11.0	7.7	9.0 / 13.5	9.8 / 24.4	10.5 / 33.0			10% Shrinkage
✓	2.9 / 33.0	3.2 / 26.2	4.1 / 14.5	4.9 / 11.5	6.0	5.7 / 19.0	7.7 / 22.0	9.8 / 33.0		
	7.1 / 33.0	7.5 / 24.0	7.0 / 21.0	7.0 / 13.0	6.2 / 8.0	9.1	9.4 / 9.0	11.7 / 21.0	13.9 / 33.0	
	6.1 / 33.0	6.9 / 24.8	6.9 / 15.5	6.0 / 9.0	4.1 / 6.5	3.6	4.5 / 11.5	5.8 / 18.0	6.7 / 23.0	7.1 / 25.7	8.3 / 33.0
		6.7 / 33.0	5.2 / 21.0	5.4 / 9.5	5.1 / 3.5	3.4	3.3 / 10.5	2.5 / 18.0	3.1 / 19.0	4.7 / 25.0	5.4 / 33.0
	5.0 / 33.0	5.9 / 31.0	5.9 / 21.0	5.1 / 18.0	5.3 / 11.0	5.2	3.7 / 18.5	3.5 / 14.5	1.9 / 20.0	2.2 / 25.0	3.9 / 33.0
	0.9 / 33.0	4.1 / 25.5	2.8 / 21.5	4.1 / 9.0		4.1	4.2 / 6.5	3.6 / 9.5	2.2 / 12.0	2.6 / 24.0	2.9 / 33.0	

Job. - 23-54

X-Sections + Slope Stakes

Sta. -17+00 —

Station	+	H.I.	−	Grade	Fill
B.M	3.67	295.97			292.3
17 + 00				81.8	14.2
18 + 00				84.8	11.2
+ 50				86.2	9.8
19 + 00				87.4	8.6
+ 35				88.2	7.8
20 + 00				89.2	6.8
+ 50				89.9	6.1
21 + 00				90.3	5.7
22 + 00				90.6	5.4
+ 45				90.6	5.4
T.P	5.74	296.38	5.23	290.64	
23 + 00				90.5	5.9
+ 50				90.4	6.0
24 + 00				90.4	6.0
+ 75				90.4	6.0
25 + 00				90.4	6.0
+ 18				90.4	6.0
T.P	5.38	295.31	6.45	289.93	
26 + 00				90.4	4.9
+ 87				90.5	4.8
27 + 00				90.5	4.8
+ 50				90.6	4.7
28 + 00				90.6	4.7
T.P	8.11	299.46	3.96	291.35	

R. E. Austin
W. Malone
[illegible]
M. Colvin

16
8/1/23

L. ℄ R.

$\frac{6.9}{33.0}$ $\frac{\overset{\times}{6.5}}{30.7}$ $\frac{9.5}{28.0}$ $\frac{9.5}{25.0}$ $\frac{9.3}{23.0}$ $\frac{12.8}{17.0}$ $\frac{12.4}{15.5}$ 11.8 $\frac{11.8}{10.0}$ $\frac{10.9}{15.0}$ $\frac{10.6}{22.5}$ $\frac{10.9}{25.0}$ $\frac{\overset{\times}{11.1}}{28.1}$ $\frac{11.5}{33.0}$
$\frac{3.5}{33.0}$ $\frac{3.5}{32.7}$ $\frac{4.8}{27.0}$ $\frac{7.1}{25.0}$ $\frac{7.7}{20.0}$ $\frac{10.2}{15.5}$ $\frac{9.8}{12.0}$ 9.5 $\frac{9.4}{10.5}$ $\frac{9.1}{14.0}$ $\frac{7.5}{17.0}$ $\frac{8.3}{25.0}$ $\frac{\overset{\times}{8.6}}{27.6}$ $\frac{9.2}{33.0}$
$\frac{2.2}{33.0}$ $\frac{2.2}{32.5}$ $\frac{6.0}{27.0}$ $\frac{7.1}{22.5}$ $\frac{9.2}{15.0}$ $\frac{8.7}{11.5}$ 8.2 $\frac{8.6}{10.0}$ $\frac{8.6}{14.0}$ $\frac{7.5}{16.5}$ $\frac{7.6}{30.0}$ $\frac{8.1}{33.0}$
$\frac{5.0}{33.0}$ $\frac{\overset{\times}{7.3}}{26.3}$ $\frac{7.4}{23.0}$ $\frac{7.0}{18.0}$ $\frac{8.1}{16.0}$ $\frac{7.7}{12.0}$ 7.4 $\frac{8.0}{13.0}$ $\frac{7.4}{15.0}$ $\frac{\overset{\times}{7.2}}{26.4}$ $\frac{7.5}{33.0}$
$\frac{7.2}{33.0}$ $\frac{7.0}{18.0}$ $\frac{7.6}{15.5}$ $\frac{7.6}{11.5}$ 7.2 $\frac{7.6}{13.0}$ $\frac{7.1}{17.0}$ $\frac{7.3}{24.5}$ $\frac{7.0}{33.0}$
$\frac{6.3}{33.0}$ $\frac{\overset{\times}{5.9}}{25.9}$ $\frac{5.8}{25.0}$ $\frac{5.7}{19.5}$ $\frac{7.1}{15.5}$ $\frac{6.8}{12.5}$ 6.2 $\frac{6.8}{12.2}$ $\frac{6.2}{15.0}$ $\frac{5.3}{30.0}$ $\frac{\overset{\times}{5.0}}{26.8}$ $\frac{5.0}{33.0}$
$\frac{4.0}{33.0}$ $\frac{3.9}{31.0}$ $\frac{5.7}{27.0}$ $\frac{5.8}{21.0}$ $\frac{6.3}{15.0}$ 5.9 $\frac{6.3}{13.0}$ $\frac{6.0}{18.0}$ $\frac{5.7}{21.0}$ $\frac{5.5}{33.0}$
$\frac{1.3}{33.0}$ $\frac{1.3}{31.0}$ $\frac{2.8}{30.0}$ $\frac{\overset{\times}{3.3}}{27.4}$ $\frac{3.4}{25.0}$ $\frac{4.4}{18.5}$ $\frac{5.9}{13.0}$ $\frac{5.7}{10.3}$ 5.6 $\frac{5.7}{7.0}$ $\frac{6.0}{11.5}$ $\frac{5.4}{18.0}$ $\frac{4.9}{22.0}$ $\frac{3.8}{23.0}$ $\frac{\overset{\times}{4.0}}{26.7}$ $\frac{4.2}{33.0}$
$\frac{2.8}{33.0}$ $\frac{2.5}{31.0}$ $\frac{4.2}{28.0}$ $\frac{\overset{\times}{4.6}}{25.8}$ $\frac{4.4}{19.0}$ $\frac{5.7}{13.0}$ $\frac{5.4}{9.0}$ 5.2 $\frac{5.4}{3.5}$ $\frac{5.2}{9.5}$ $\frac{4.2}{15.0}$ $\frac{2.6}{22.5}$ $\frac{1.2}{23.5}$ $\frac{\overset{\times}{1.0}}{29.4}$ $\frac{0.9}{33.0}$
$\frac{4.3}{33.0}$ $\frac{4.3}{30.6}$ $\frac{5.3}{29.5}$ $\frac{5.5}{22.0}$ $\frac{5.6}{13.5}$ 5.2 $\frac{5.6}{11.5}$ $\frac{5.2}{15.5}$ $\frac{5.0}{22.0}$ $\frac{4.0}{27.5}$ $\frac{3.6}{33.0}$

$\frac{3.2}{33.0}$ $\frac{3.2}{30.5}$ $\frac{4.7}{29.5}$ $\frac{\overset{\times}{5.1}}{25.8}$ $\frac{5.9}{14.5}$ $\frac{6.1}{13.0}$ 5.9 $\frac{6.0}{10.0}$ $\frac{\overset{\times}{5.8}}{15.0}$ $\frac{5.0}{21.0}$ $\frac{4.3}{22.5}$ $\frac{4.1}{24.0}$ $\frac{3.3}{26.5}$ $\frac{\overset{\times}{3.3}}{27.6}$ $\frac{3.6}{33.0}$
$\frac{5.0}{33.0}$ $\frac{5.3}{25.0}$ $\frac{6.1}{19.5}$ $\frac{6.3}{14.5}$ 5.9 $\frac{6.2}{11.0}$ $\frac{6.1}{18.0}$ $\frac{5.3}{23.0}$ $\frac{3.2}{27.0}$ $\frac{3.0}{33.0}$
$\frac{4.8}{33.0}$ $\frac{\overset{\times}{5.1}}{25.9}$ $\frac{6.5}{22.0}$ $\frac{6.7}{16.0}$ $\frac{6.0}{14.0}$ 6.0 $\frac{6.1}{9.5}$ $\frac{6.1}{16.5}$ $\frac{6.6}{19.5}$ $\frac{6.0}{23.0}$ $\frac{\overset{\times}{4.8}}{26.2}$ $\frac{4.7}{33.0}$
$\frac{7.2}{33.0}$ $\frac{8.7}{28.0}$ $\frac{6.8}{25.0}$ $\frac{7.5}{19.0}$ $\frac{7.1}{15.5}$ $\frac{6.5}{13.0}$ 6.4 $\frac{6.4}{11.0}$ $\frac{6.4}{16.0}$ $\frac{7.4}{19.0}$ $\frac{7.3}{20.5}$ $\frac{3.4}{28.0}$ $\frac{3.0}{33.0}$
$\frac{9.[illegible]}{33.[illegible]}$ $\frac{9.5}{29.0}$ $\frac{9.3}{25.5}$ $\frac{7.8}{21.0}$ $\frac{\overset{\times}{7.2}}{17.8}$ $\frac{7.1}{17.0}$ $\frac{6.3}{15.0}$ 6.5 $\frac{6.4}{5.5}$ $\frac{6.2}{15.0}$ $\frac{6.4}{17.5}$ $\frac{8.1}{21.0}$ $\frac{\overset{\times}{[illegible]}}{26.9}$ $\frac{3.9}{33.0}$
$\frac{10.4}{33.0}$ $\frac{10.6}{28.0}$ $\frac{8.2}{22.0}$ $\frac{6.4}{15.0}$ 6.5 $\frac{6.4}{11.0}$ $\frac{6.3}{17.0}$ $\frac{8.5}{21.5}$ $\frac{6.1}{26.0}$ $\frac{5.8}{33.0}$

$\frac{13.1}{33.0}$ $\frac{12.6}{26.0}$ $\frac{\overset{\times}{5.5}}{16.9}$ $\frac{5.5}{11.0}$ 5.4 $\frac{5.5}{11.0}$ $\frac{5.7}{17.0}$ $\frac{\overset{\times}{5.7}}{17.2}$ $\frac{5.9}{19.0}$ $\frac{11.4}{27.5}$ $\frac{11.9}{33.0}$
$\frac{6.3}{33.0}$ $\frac{6.0}{28.0}$ $\frac{7.0}{23.0}$ $\frac{6.7}{19.0}$ $\frac{5.0}{10.5}$ 5.0 $\frac{5.0}{10.0}$ $\frac{5.0}{19.0}$ $\frac{6.3}{22.5}$ $\frac{6.0}{25.5}$ $\frac{3.7}{30.5}$ $\frac{3.7}{33.0}$
$\frac{3.5}{33.0}$ $\frac{\overset{\times}{3.3}}{26.5}$ $\frac{4.5}{23.3}$ $\frac{5.5}{20.0}$ $\frac{5.9}{16.5}$ $\frac{5.1}{13.0}$ 4.8 $\frac{4.9}{11.0}$ $\frac{4.8}{13.5}$ $\frac{4.6}{18.5}$ $\frac{6.0}{22.5}$ $\frac{\overset{\times}{4.8}}{25.0}$ $\frac{2.5}{30.0}$ $\frac{2.4}{33.0}$
$\frac{4.8}{33.0}$ $\frac{5.7}{25.5}$ $\frac{5.6}{21.5}$ $\frac{5.0}{14.0}$ 4.8 $\frac{4.9}{11.5}$ $\frac{5.0}{19.5}$ $\frac{4.9}{24.5}$ $\frac{4.0}{28.0}$ $\frac{4.1}{33.0}$
$\frac{6.7}{33.0}$ $\frac{6.5}{25.0}$ $\frac{\overset{\times}{6.1}}{18.1}$ $\frac{6.1}{17.5}$ $\frac{5.1}{13.0}$ 4.7 $\frac{4.9}{11.0}$ $\frac{5.2}{16.0}$ $\frac{\overset{\times}{5.3}}{16.9}$ $\frac{6.0}{23.5}$ $\frac{6.6}{33.0}$

Station	+	H.I	−	Ground	Cut
		299.46			
28+70				90.7	8.8
29+00				90.7	8.8 ✓
+65				90.8	8.7
30+00				90.9	8.6 ✓
30+40		✓		✓	
B.M.	7.03	296.72		(299.69)	
31+00				91.2	5.5 ✓
32+00				91.6	5.1 ✓
33+00				92.0	4.7 ✓
34+00				92.4	4.3 ✓
		✓		✓	
T.P	8.45	300.04	5.13	(291.59)	
35+00				92.6	7.4 ✓
+80				92.3	7.7
36+00				92.2	7.8 ✓
+91				✓	
T.P.	2.04	295.46	6.62	(293.42)	
37+00				91.6	3.9 ✓
38+00				90.6	4.9 ✓
39+00				89.6	5.9 ✓
+24				89.4 ✓	6.1
		✓		✓	
T.P	2.11	291.74	5.83	(289.63)	
40+00				88.6	3.1 ✓
41+00				87.6	4.1 ✓
42+00				87.2	4.5 ✓
43+00				88.0 ✓	3.7 ✓
		✓			
T.P	6.08	296.56	1.26	290.48	

L. E R

		7.9	7.8	8.8	8.6	6.6				8.8	9.0	9.4	9.1	8.9									
		33.0	25.2	25.5	21.5	13.5	8.5			11.0	14.0	27.0	32.5	34.0									
		4.2	6.2	7.0	8.2	8.4				9.8	8.2	9.8	9.2	8.1	4.9								
		33.0	30.5	24.3	17.5	11.0	8.5			10.5	16.0	19.0	24.6	32.7	35.5								
			6.8	6.9	8.5	8.5	8.6			8.4	8.1	8.8	8.9	8.1									
			33.0	26.2	19.3	22.8	14.0	8.2		12.0	20.0	24.0	32.8	25.0									
		9.4	8.4	9.1	9.4	8.5	8.5			8.5	8.5	8.6	9.1	9.9									
		33.0	27.2	24.5	23.0	16.5	13.0	6.6		12.0	16.0	18.0	28.0	33.0									
			9.4	9.3	9.6	5.9	5.7			5.8	5.6	5.5	5.8	8.0	9.7	10.2							
			37.0	27.7	19.8	14.0	10.5	5.7		12.0	18.0	16.0	14.0	22.0	26.0	33.0							
			9.4	9.6	9.4	5.2	5.1			5.4	5.4	7.4	6.1	5.8									
			33.0	23.6	18.0	11.5	8.5	5.5		15.0	21.0	23.7	27.5	33.0									
4.1	4.9	5.5	5.6	5.2	4.2	4.5			4.9	4.7	4.9	5.7	5.5	4.7									
33.0	31.5	27.5	24.1	19.5	14.5	7.6	4.7		10.0	16.0	20.0	23.8	27.0	33.0									
	2.3	4.3	5.7	5.6	5.0	4.7			4.6	4.5	4.6	5.0	4.8	4.5									
	23.0	31.5	26.0	23.7	15.0	10.5	4.3		10.5	15.0	20.0	24.3	28.0	33.0									
		5.1	7.5	8.1	8.1	7.5	7.8			7.7	7.6	8.1	8.1	7.7									
		32.0	24.5	24.3	22.5	15.0	10.0	7.6		12.0	18.0	22.0	24.3	33.0									
			3.0	7.2	8.1	8.5	8.0			7.9	8.0	8.4	7.8	6.8									
			33.0	28.0	24.2	18.0	15.0	7.7		12.0	18.0	21.5	30.5	33.0									
7.5	5.7	7.3	8.1	8.4	8.0	7.8			8.0	8.4	8.7	8.7	8.0										
23.5	31.5	26.0	24.5	20.5	16.0	11.0	7.7		14.5	17.0	23.7	28.0	33.0										
Nail in T.P 35 4c+7 34+91																							
		3.2	3.7	4.2	3.9	3.9				3.9	3.7	4.0	4.8	5.0	5.5	5.0							
		33.0	25.2	17.0	14.0	3.8	4.0			5.0	12.0	15.0	17.4	23.0	28.0	33.0							
			11.6	11.4	10.8	5.3	4.9			5.1	5.2	5.4	10.1	9.7									
			33.0	24.5	17.5	11.0	8.3	5.0		15.0	14.5	18.0	28.0	33.0									
7.7	7.7	9.2	9.2	6.5	6.0	6.0			6.9	5.9	5.9	6.3	10.4	10.7									
33.0	26.5	21.3	19.0	14.0	11.0	7.0	5.8		7.3	15.0	16.0	16.5	25.0	33.0									
			9.0	7.9	6.5	6.3				6.1	6.3	10.6	10.5	10.7									
			33.0	23.0	16.5	14.5	6.2			10.0	18.0	29.5	30.5	33.0									
			9.0	6.5	7.7	3.6				3.7	3.5	6.8	8.0										
			33.0	25.1	19.2	12.0	3.1			10.7	18.5	25.0	33.0										
		13.7	13.2	11.9	4.9	4.1				4.1	4.5	9.3	12.5	13.1									
		33.0	30.6	23.5	12.5	7.0	3.9			15.7	17.6	25.0	31.0	33.0									
		12.4	12.0	11.4	5.1	4.5				4.5	4.5	5.1	12.3	12.9									
		33.0	20.3	22.5	10.5	9.0	4.7			10.0	15.0	17.5	28.7	33.0									
	13.2	15.2	15.5	12.8	4.5	3.9				3.9	3.9	4.7	11.6	14.0	13.6	13.6							
	33.3	30.5	27.5	23.0	11.5	9.5	4.0			14.5	15.0	17.0	27.0	31.0	31.9	33.0							

Station	+	H.I	−	Ground	Grade Rod
		296.56			
44+00				90.2	6.4
+78				92.4	4.2
45+00				93.0	3.6
+50					
B.M.	9.41	303.83		294.02	
46+00				95.7	8.1
47+00				97.9	5.9
+25				98.3	5.5
T.P.	9.01	308.39	4.45	299.38	
+62				98.7	9.7
48+00				99.0	9.4
+15				99.1	9.3
49+00				99.2	9.2
50+00				98.5	9.9
51+00				96.9	11.5
T.P.	5.18	302.11	11.46	296.93	
+75				95.1	7.0
52+00				94.4	7.7
53+00				91.4	10.7
T.P	2.54	297.72	11.93	295.18	
+40				90.2	2.5
+66				90.1	2.6
54+00				88.6	4.1
55+00				95.5	7.2
T.P.	4.00	285.94	10.78	281.94	

h ℓ P

14.0	15.7	13.3	13.3	7.5	7.0		6.7	6.8	7.0	7.3	11.3	12.1	
33.0	29.0	27.0	24.0	11.5	9.0	6.8	8.0	15.0	17.0	18.0	25.5	33.0	
		6.3	6.2	5.1	4.5		4.7	5.0	5.6	6.7			
		33.0	30.5	12.0	11.0	4.6	11.5	17.5	24.0	33.0			
5.3	4.1	4.3	4.4	4.1	3.4		4.1	4.5	5.2	4.8	4.1		
33.0	27.0	23.7	15.5	12.0	13.0	3.9	12.5	18.5	23.0	27.5	33.0		

11.2	9.4	8.1	7.9	8.0	8.0		8.1	8.4	7.6	7.8	6.1		
33.0	23.7	22.0	19.5	17.0	13.0	6.0	12.5	17.0	25.5	30.0	33.0		
8.7	6.6	6.7	6.3	5.6			5.9	5.6	5.3	5.4	5.4	5.9	
33.0	27.0	24.5	17.0	14.0	5.5		15.0	18.0	22.5	25.5	27.5	33.0	
	7.0	6.1	5.4	4.3			4.9	5.1	4.8	4.1			
	33.0	23.5	18.0	13.0	5.1		15.5	19.0	27.0	33.0			

6.1	6.0	9.3	9.7	9.7	9.2		7.0	9.1	8.9	3.3			
33.0	27.5	24.0	19.0	14.5	11.0	9.2	15.0	24.0	36.5	39.0			
6.1	6.1	8.4	9.2	9.2	8.1	8.4	8.7	9.0	9.1	8.9	6.6	0.7	
33.0	32.5	27.5	25.0	21.0	15.5	11.5	8.8	14.0	18.0	25.3	34.0	36.0	38.0
4.5	4.8	6.6	8.2	8.4	8.3		8.5	8.2	9.0	7.0	4.9	6.0	
33.0	30.0	28.4	27.0	14.0	11.0	8.7	11.0	15.0	20.0	28.2	32.0	36.0	
5.3	5.3	2.2	4.8	7.8	8.4	8.9							
33.0	31.9	30.5	29.0	25.0	22.0	12.0	8.4	8.4	8.6	8.8	6.1		
	3.8	5.8	6.9	8.2	9.4		7.0	7.8	25.6	32.0	35.0		
	33.0	30.0	28.0	23.5	13.5	9.2	8.9	9.4	9.3	8.5	3.1		
	8.2	11.0	11.5	11.7	11.5		15.0	25.5	30.0	33.5	34.5		
	33.0	27.4	25.0	14.5	8.4	11.4	11.5	11.5	11.7	11.6	8.6		
							9.5	20.0	24.8	34.0	34.6		

	4.3	4.3	6.5	7.3	7.6		7.7	7.7	7.4	7.9	7.0	3.5	
	33.0	31.0	29.0	14.0	9.0	7.4	9.5	18.0	24.0	30.6	33.0	36.0	
	5.7	5.6	6.5	7.8	8.2		8.4	8.3	8.6	8.5	7.0		
	33.0	31.0	26.3	14.5	9.0	8.2	9.5	20.0	24.2	30.5	33.2		
	12.2	12.0	11.8	11.4			10.8	11.6	11.8				
	33.0	28.9	14.5	12.5		11.2	10.7	24.2	33.0				

		3.9	3.4	2.6			2.0	3.2	3.6	2.3	2.1		
		33.0	30.0	14.0	2.8		10.5	15.5	27.5	33.0			
		4.1	4.6	4.9	2.9								
		33.0	29.5	17.0	12.5	2.7	12.5	17.0	27.0	33.0			
4.4	4.5	6.4	8.7	3.8	3.8		3.7	3.7	4.2	9.6	9.9		
33.0	29.0	23.5	17.0	14.5	10.0	3.7	11.0	16.5	18.5	27.0	33.0		
13.2	13.2	13.3	7.8	7.5	7.4		7.9	7.6	7.6	13.6	13.6		
33.0	29.0	25.0	15.0	14.0	10.0	7.5	15.0	17.6	19.0	27.0	33.0		

Station	+	H.I.	−	Profile Grade	Grade
		285.94			
56+00				82.2	3.7
57+00				78.9	7.0
58+00				75.6	10.3
T.P.	3.47	277.27	12.14	273.80	
59+00				72.3	5.0
60+00				69.0	6.3
T.P.	3.75	270.07	10.95	266.32	
61+00				66.8	3.8
62+00				64.7	5.4
63+00				63.7	6.4
B.M.	5.26	266.63		261.37	
64+00				62.7	3.9
65+00				62.0	4.6
66+00				61.7	4.9
67+00				61.7	4.9
68+00				61.9	4.7
T.P.	6.74	268.13	5.19	261.44	
69+00				62.6	5.6
70+00				63.8	4.4
+25				64.2	4.0
71+00				65.4	2.8

× F. [illegible]
W. Mahaney
☐ Stapleton
M. Galvin
8/7/23

19

h. £ . R

$\frac{7.6}{33.0}\quad\frac{7.6}{23.0}\quad\overset{\times}{\frac{4.4}{17.1}}\quad\frac{3.8}{15.0}\quad\frac{3.7}{11.0}\quad 3.9\quad\frac{3.7}{12.5}\quad\frac{4.1}{16.5}\quad\overset{\times}{\frac{4.0}{17.5}}\quad\frac{3.7}{18.5}\quad\frac{7.7}{26.0}\quad\frac{7.9}{28.0}\quad\frac{9.0}{30.0}\quad\frac{7.8}{33.0}$

$\frac{8.4}{32.0}\quad\overset{\times}{\frac{8.1}{23.4}}\quad\frac{8.0}{18.0}\quad\frac{6.9}{14.0}\quad\frac{7.0}{10.5}\quad 7.1\quad\frac{7.4}{15.0}\quad\overset{\times}{\frac{7.3}{16.5}}\quad\frac{7.3}{18.5}\quad\frac{8.3}{22.0}\quad\frac{9.1}{24.0}\quad\frac{8.3}{26.0}\quad\frac{7.9}{33.0}$

$\frac{11.2}{33.0}\quad\frac{11.7}{3[illegible]}\quad\overset{\times}{\frac{11.9}{23.4}}\quad\frac{10.7}{15.0}\quad\frac{11.0}{12.5}\quad\frac{10.8}{10.0}\quad 10.6\quad\frac{10.9}{14.0}\quad\overset{\times}{\frac{11.0}{24.3}}\quad\frac{11.0}{33.0}$

→ $\frac{1.4}{33.0}\quad\frac{1.7}{31.0}\quad\frac{3.9}{27.0}\quad\frac{3.9}{19.5}\quad\frac{3.8}{12.0}\quad 3.5\quad\frac{3.7}{12.5}\quad\frac{3.3}{19.0}\quad\frac{5.2}{22.0}\quad\frac{4.8}{24.0}\quad\frac{2.6}{28.0}\quad\frac{2.8}{33.0}$ ←

$\frac{3.1}{33.0}\quad\frac{5.0}{30.5}\quad\frac{6.2}{27.0}\quad\overset{\times}{\frac{6.0}{24.0}}\quad\frac{5.7}{18.5}\quad\frac{5.4}{12.0}\quad 5.1\quad\frac{5.2}{15.0}\quad\frac{5.0}{18.0}\quad\frac{6.3}{23.5}\quad\overset{\times}{\frac{6.3}{23.7}}\quad\frac{6.5}{26.0}\quad\frac{5.5}{28.5}\quad\frac{5.3}{32.0}\quad\frac{3.2}{34.5}$

$\frac{10.1}{33.0}\quad\overset{\times}{\frac{9.7}{23.6}}\quad\frac{8.4}{17.0}\quad\frac{8.3}{12.0}\quad 8.5\quad\frac{8.3}{16.0}\quad\frac{8.4}{20.0}\quad\overset{\times}{\frac{9.7}{23.6}}\quad\frac{10.0}{31.0}\quad\frac{9.7}{33.0}$

$\frac{6.6}{33.0}\quad\overset{\times}{\frac{6.1}{19.5}}\quad\frac{4.3}{16.0}\quad\frac{3.8}{13.5}\quad 3.8\quad\frac{3.9}{15.0}\quad\frac{3.6}{18.0}\quad\frac{4.7}{20.5}\quad\overset{\times}{\frac{4.8}{24.0}}\quad\frac{4.8}{28.0}\quad\frac{4.6}{33.0}$

$\frac{7.7}{33.0}\quad\overset{\times}{\frac{7.1}{23.3}}\quad\frac{6.2}{18.0}\quad\frac{6.0}{13.5}\quad 5.6\quad\frac{5.4}{15.5}\quad\frac{5.8}{16.7}\quad\frac{6.9}{20.5}\quad\overset{\times}{\frac{7.2}{23.2}}\quad\frac{7.4}{28.5}\quad\frac{7.4}{33.0}$

$\frac{8.7}{33.0}\quad\frac{8.7}{24.5}\quad\frac{8.3}{21.0}\quad\overset{\times}{\frac{6.5}{16.2}}\quad\frac{6.5}{14.0}\quad 6.7\quad\frac{6.5}{15.0}\quad\frac{6.5}{16.0}\quad\frac{7.8}{20.0}\quad\overset{\times}{\frac{8.0}{23.4}}\quad\frac{8.4}{33.0}$

$\frac{5.5}{33.0}\quad\frac{6.3}{28.0}\quad\frac{6.4}{25.0}\quad\frac{5.7}{21.0}\quad\frac{4.2}{17.0}\quad\overset{\times}{\frac{4.2}{16.5}}\quad\frac{4.3}{11.5}\quad 4.2\quad\frac{4.1}{12.0}\quad\frac{4.1}{15.5}\quad\overset{\times}{\frac{6.1}{19.8}}\quad\frac{6.5}{23.0}\quad\frac{6.8}{33.0}$

$\frac{5.0}{33.0}\quad\frac{7.7}{28.0}\quad\frac{7.1}{24.0}\quad\frac{5.2}{19.0}\quad\overset{\times}{\frac{5.1}{16.8}}\quad\frac{5.1}{12.5}\quad 4.9\quad\frac{5.0}{11.0}\quad\frac{5.0}{14.0}\quad\frac{6.1}{17.0}\quad\frac{8.6}{21.6}\quad\overset{\times}{\frac{8.6}{22.0}}\quad\frac{9.0}{33.0}$

$\frac{10.1}{33.0}\quad\frac{9.1}{24.0}\quad\frac{6.1}{19.0}\quad\overset{\times}{\frac{5.6}{17.1}}\quad\frac{5.7}{11.0}\quad 5.5\quad\frac{5.5}{11.0}\quad\frac{5.4}{15.0}\quad\overset{\times}{\frac{5.8}{17.4}}\quad\frac{7.9}{22.0}\quad\frac{7.8}{33.0}$

$\frac{10.7}{33.0}\quad\overset{\times}{\frac{10.2}{24.0}}\quad\frac{9.9}{23.5}\quad\frac{5.9}{17.0}\quad\frac{5.7}{12.5}\quad 5.6\quad\frac{5.6}{12.0}\quad\frac{5.7}{15.5}\quad\overset{\times}{\frac{6.2}{19.0}}\quad\frac{7.4}{21.0}\quad\frac{7.6}{33.0}$

$\frac{7.0}{33.0}\quad\frac{7.7}{26.0}\quad\overset{\times}{\frac{7.2}{20.0}}\quad\frac{6.8}{14.5}\quad\frac{5.8}{13.0}\quad 5.4\quad\frac{5.2}{11.0}\quad\frac{4.9}{15.0}\quad\overset{\times}{\frac{5.8}{17.7}}\quad\frac{6.3}{20.0}\quad\frac{5.9}{33.0}$

$\frac{7.2}{33.0}\quad\frac{7.6}{32.0}\quad\frac{7.4}{22.5}\quad\frac{6.4}{19.0}\quad\overset{\times}{\frac{6.1}{16.8}}\quad\frac{6.1}{12.5}\quad 6.0\quad\frac{6.0}{9.0}\quad\frac{6.0}{14.0}\quad\frac{6.8}{16.5}\quad\overset{\times}{\frac{9.2}{21.7}}\quad\frac{9.7}{33.0}$

$\frac{3.7}{33.0}\quad\frac{4.9}{28.0}\quad\frac{5.5}{25.0}\quad\overset{\times}{\frac{5.2}{24.2}}\quad\frac{5.2}{19.0}\quad\frac{4.7}{17.0}\quad 4.6\quad\frac{4.7}{11.5}\quad\frac{5.0}{16.0}\quad\overset{\times}{\frac{5.7}{18.0}}\quad\frac{6.0}{20.0}\quad\frac{7.5}{23.0}\quad\frac{8.2}{33.0}$

[illegible] $\frac{4.3}{16.0}\quad 4.0\quad\frac{4.0}{10.0}\quad\frac{4.2}{21.0}\quad\frac{4.5}{33.0}$

$\frac{3.1}{33.0}\quad\overset{\times}{\frac{3.1}{24.7}}\quad\frac{3.2}{16.0}\quad 2.8\quad\frac{2.8}{10.5}\quad\frac{3.0}{17.0}\quad\frac{3.5}{23.0}\quad\overset{\times}{\frac{3.8}{24.0}}\quad\frac{4.1}{26.5}\quad\frac{3.8}{28.5}\quad\frac{4.1}{33.0}$

Station	+	H.I	−	Profile Grade	Grade Rod
B.M	4.24	295.32		(291.08)	
121+00				90.3	5.0
+50				90.7	4.6
122+00				91.1	4.2
123+00				91.9	3.4
124+00				92.7	2.6
T.R.	4.63	297.37	2.58	(292.74)	
+38				92.9	4.5
125+00				93.1	4.3
+62				93.0	4.4
126+00				92.8	4.6
127+00				92.1	5.3
128+00				91.4	6.0
T.R.	5.65	295.15	7.87	(289.50)	
+50				91.2	4.0
129+00				91.1	4.1
+50				91.2	4.0
130+00				91.5	3.7
131+00				92.3	2.9
132+00				93.4	1.8

L R

Station	+	H.I.	−	Profile Grade	Grade
132 + B.M	9.58	300.88		292.30	
133+00				95.1	5.8
+25				95.6	5.3
134+00				97.1	3.8
+63	B.S.T.			98.4	2.5
T.P.	6.10	305.57	1.41	299.47	
135+13		50		99.4	6.3 6.2
135+63	B.W.T	100		300.4	5.6 5.2
136+13	B.C.	150		301.4	5.0 4.7
B.M	4.59	306.57		301.98	
136+38				301.85	5.8 4.7
+63		E.W.T.		302.30	5.6 4.3
+88		E.S.T.		302.70	5.2 3.9
137+13				303.05	4.9 3.5
+42		E.W.T.		303.40	4.5 3.2
+66		E.S.T.		303.63	3.0
+91		E.C.		303.83	3.5 2.8

4 2 P

E.1 33.0

8.1 6.2 6.9 7.7 7.7 7.7 6.5 6.1 5.7 5.7 6.0 6.3 7.0 7.4 7.4 7.7 8.2 6.8
33.0 24.0 21.5 19.5 17.5 15.0 13.5 12.5 12.0 12.5 14.5 16.0 18.0 19.0 21.0 22.0 23.0
8.3 7.7 6.9 6.8 7.7 6.2 5.8 5.6 6.1 7.2 7.6 7.5 6.3 7.4 7.8
33.0 24.5 21.0 17.0 15.5 13.0 12.5 11.0 13.5 18.0 20.0 22.0 24.5 27.0 33.0
7.1 6.2 6.2 6.0 5.3 4.3 4.1 4.5 6.3 6.6 6.9 6.9
33.0 19.6 18.0 16.0 14.5 12.0 4.8 13.0 18.0 19.5 22.2 26.5 33.0
5.7 4.5 4.3 2.4 3.5 4.2 5.0 5.3
33.0 19.5 13.0 7.0 2.6 13.0 19.5 23.0 33.0

8.9 8.3 7.9 5.9 5.7 6.6 7.5 8.2 8.5
33.0 19.0 14.0 7.5 5.8 12.0 15.0 18.1 23.0 33.0
7.9 7.0 6.7 5.6 4.8 4.7 5.4 6.1 6.2 6.2 6.5
33.0 18.1 14.5 11.5 7.0 4.7 12.5 14.0 16.0 18.1 23.0 33.0
6.2 5.7 5.8 5.9 4.4 3.9 3.5 4.1 4.7 4.8 4.7 5.1
33.0 19.6 16.0 12.0 10.2 7.5 3.7 5.5 15.0 17.5 18.0 24.0 33.0

6.7 6.4 6.5 6.3 5.2 4.3 4.1 4.0 4.2 4.2
33.0 21.4 17.0 13.0 9.5 4.3 12.5 16.2 16.5 33.0
5.9 5.9 5.9 6.2 6.1 5.6 4.9 3.8 3.4 3.4 3.3 2.8
33.0 27.0 21.5 18.0 13.0 11.0 9.5 3.8 13.0 16.2 27.0 33.0 E. CALRH
6.0 5.8 6.6 5.1 5.7 5.4 4.7 3.5 2.9 2.8 2.4 3.0 3.0
33.0 22.5 19.4 16.5 15.5 12.0 10.5 3.5 9.5 10.5 21.5 33.0
6.7 5.5 5.9 5.2 4.7 3.9 2.4 2.3 2.5 2.6
33.0 25.0 21.8 20.0 15.0 8.0 2.8 11.0 13.0 30.0 33.0
4.9 4.7 4.8 4.6 3.8 2.5 1.9 0.2 0.5 0.0
33.0 27.0 21.5 17.5 12.5 2.6 3.5 14.0 23.0 28.0 33.0
4.0 4.3 4.3 3.6 2.9 2.8 2.7 2.7 2.7 0.0
33.0 28.5 21.0 16.0 10.0 2.7 6.0 10.0 13.0 23.0 27.5
3.7 4.1 5.1 3.6 3.2 2.9 3.2 4.2 4.2 0.0
33.0 24.5 22.0 16.7 12.0 11.0 2.9 6.0 11.0 16.0 24.5

Sta.	+	H.I.	−	F/eV	Grade
4					614
+50					632
5					650
+50					
6					676
B.M.	0.30	275.64			275.34
+50					690
7					694
+50					702
					701
8					
+50					
9					
+50					
10					
+50					
11					

LT ℄ RT

9+95

L12 (5.4 / 25.2)

(6.8 / 24.8) R12

L13 (5.1 / 25.3)

(5.1 / 25.3) R13

Final - X sections. Culverts. Ground Rail

Station	+	H.I.	−	Rod.	Pre-Met Elev
B.M	7.23	255.43 ✓			248.20
0+00					
+50					
1+00					
+57					
2+00					
B.M	9.98	264.60 ✓	0.81	254.62	✓
+50					
3+00					
+50					
T.P.	10.19	271.79 ✓	3.00	261.60	✓
4+00					
+50					
5+00					

Footing
Foogian
entrance
comment

8-5-24

24

H. E RH.

Top. Hydrant White Bear Rd + Harpenau Ave.

(6.0) 5.17 — 5.30 / 10.0 — 4.8 / 15.5 — 8.3 / 24.7 — 8.6 / 32.3 — 8.2 / 37.7 — 8.1 / 45.8 — 7.4 / 53.2 — 7.4

(5.1) 4.26 — 4.48 / 11.0 — 4.24 / 15.24 — 4.4 / 17.5 — 6.9 / 24.1 — 7.0 / 29.0 — 6.4 / 35.5 — 4.3 / 39.8

Elec. Mark 3.09 10.0

(3.9) 3.24 — 3.49 / 11.2 — 3.24 / 12.3 — 3.1 / 16.6 — 5.1 / 21.8 — 5.5 / 24.0 — 5.2 / 29.0 — 4.7 / 31.7 — 4.7 / 33.0

W. Sewer E. Bus. 2.34 24.4

E. Rev. 1.77 10.5

(2.9) 2.0 — 2.40 / 11.1 — 2.18 / 12.3 — 2.0 / 16.5 — 4.0 / 22.2 — 4.1 / 25.3 — 4.0 / 29.2 — 3.2 / 32.5 — 3.2 / 35.0

Elec in Pole #1 also 24 36

12.3 / 33.5 — 12.4 / 27.8 — 12.2 / 23.2 — 5.4 / 15.4 — 8.20 / 10.0 — (9.8) 9.75 / 7.6 — 4.58 / 12.4 — 8.6 / 16.8 — 18.8 / 23.4 — 12.0 / 21.3 — 11.2 / 27.6 — 10.6 / 33.0

9.1 / 33.0 — 9.1 / 32.2 — 10.4 / 26.3 — 10.2 / 22.7 — 6.4 / 14.6 — 6.25 / 7.8 — (7.6) 7.68 / 6.91 — 7.53 / 11.2 — 12.45 — 2.5 / 14.7 — 9.8 / 23.0 — 12.1 / 27.0 — 6.8 / 32.6 — 4.8 / 37.0

(5.3) 5.08 / 11.4 — 5.36 / 12.9 — 5.2 / 17.2 — 6.9 / 21.5 — 4.7 / 25.4 — 3.6 / 32.2 — 3.4 / 33.0

10.5 / 33.0 — 10.7 / 30.0 — 11.7 / 26.9 — 11.8 / 23.6 — 11.4 / 24.2 — 9.1 / 18.6 — 9.0 / 14.2 — (10.3) 10.50 / 9.73 — 10.33 / 11.3 — 12.5 — 10.7 / 17.1 — 12.2 / 22.2 — 13.6 / 25.2 — 12.0 / 28.7 — 11.5 / 36.1 — 5.8 / 39.3

(8.2) 8.65 / 11.4 — 8.43 / 12.8 — 8.7 / 17.3 — 10.8 / 22.4 — 10.5 / 26.3 — 9.6 / 28.9 — 5.0 / 33.6

13.2 / 28.3 — 12.7 / 27.2 — 10.6 / 23.8 — 10.0 / 19.3 — 7.4 / 14.7 — 7.3 / 10.6 — (6.4) 6.44 / 7.87 — 4.03 / 11.8 — 6.5 / 14.0 — 8.5 / 20.7 — 8.5 / 24.6 — 8.0 / 26.3 — 5.7 / 31.7 — 4.8 / 33.0

7.3 / 11.7 — 8.0 / 30.2 — 8.5 / 25.8 — 8.5 / 23.0 — 8.3 / 19.2 — 5.9 / 14.7 — 5.78 / 10.0 — 6.8

Station	+	H.I	−	Rod	Elev.
		271.79 ✓			
5+50					
6+00					
+50					
7+00					
8+00					
T.P.	5.05	276.04 ✓	0.80	270.99	✓
+50					
9+00					
+50					
B.M			0.64	275.40	✓
10+00					
T.P.	4.79	275.42 ✓	5.40	270.64	✓
+64					
11+00					
+50					
12+00					

8-5-24

26

St. E A

.4	2.7	3.5	5.8	5.8	4.3	1.35		4.87	4.94	4.8	6.5	6.2	4.5	3.8	
1.0	32.5	30.4	22.0	19.5	15.0	10.0	4.63	7.5	10.7	15.1	20.0	25.8	31.8	35.0	
							(3.6)								
0.2	1.3	4.0	4.4	3.3	3.8	3.33		2.55	3.31	3.5	4.9	5.5	5.1	4.0	3.6
31.7	30.0	23.8	19.3	14.3	10.3	7.0	3.41	7.0	10.3	15.1	19.7	25.6	30.8	34.0	37.6
1.4	1.4	3.4	4.2	4.0	2.5	2.5		2.58	3.5	4.1	5.0	4.7	3.6	3.6	
3.0	30.3	28.1	24.6	20.8	17.5	10.1	2.50	10.2	15.6	19.6	24.3	29.0	33.1	36.7	
2.3	2.6	4.5	4.7	3.8	1.8	1.80	(2.0)	1.89	1.9	4.4	4.7	4.0	1.9		
33.0	30.6	28.1	23.6	18.4	14.6	10.0	1.79	10.0	14.8	20.7	26.0	30.6	33.6		
							(1.5)	0.96	1.0	3.7	4.1	3.5	0.7		
							0.68	10.0	15.2	21.2	25.0	29.5	33.0		
1	1.6	2.0	2.8	3.3	3.0	1.1	0.81								
	29.6	31.9	26.4	23.9	20.3	15.0	10.0	0.88							
							(6.8)								
	6.5	6.6	7.4	8.2	7.5	5.3	5.05	5.13	5.7	7.8	8.0	7.3	3.7	2.6	
	33.0	31.0	28.0	23.4	18.8	14.5	10.0	5.01	10.0	14.7	21.2	28.6	32.6	33.0	
							(5.8)								
	6.6	6.8	7.6	8.5	7.8	5.6	5.0	5.05	5.3	7.5	7.8	7.5	1.4	1.4	
	33.0	31.0	29.8	25.0	20.6	14.6	10.0	5.0	10.0	14.8	19.8	23.7	27.0	32.6	33.0
							(5.8)								
	5.6	5.6	7.3	8.7	6.3	5.3	5.15	5.17	5.7	7.8	7.3	0.0			
	33.0	27.8	24.2	24.2	22.5	14.6	10.0	5.1	10.0	15.3	20.0	24.8	34.0		
8.	8.7	10.0	10.7	9.8	5.5	5.28	(5.9)	5.25	5.3	6.5	8.4	8.0	7.2	2.5	
	32.0	32.3	30.9	27.1	25.1	15.4	10.0	5.18	10.0	14.8	17.9	20.5	25.0	29.0	33.0
	12.1	11.9	9.3	5.9	5.1	4.96	(5.4)	4.75	4.8	9.5	9.9	9.4	8.6	7.8	
	33.0	29.5	25.4	18.0	14.7	10.	4.73	10.0	15.8	21.2	26	30.5	32.2	33.5	
	12.6	11.4	6.1	5.1	5.00		(5.4)	4.89	5.0	8.7	9.5	9.5	9.8		
	33.0	27.7	18.1	15.4	10.0	4.85		10.0	15.2	21.2	26.8	30.9	33.0		
		12.9	12.7	5.2	4.86		(5.3)	4.81	4.8	11.0	11.6	11.4			
		33.0	30.6	16.0	10.0	4.82		10.0	15.0	25.1	31.8	33.4			
		13.8	12.5	5.0	4.78		(5.1)	4.78	5.0	11.4	12.0	12.1			
		33.0	29.6	16.8	10.0	4.73		10.0	15.4	24.4	28.8	33.0			

Station	+	H.I.	−	Rod	Elev
		275.42 ✓			
12+50					
13+00					
+35					
T.P.	6.59	280.73 ✓	1.28	274.14	✓
+80					
14+00					
+50					
15+00					
+50					
T.P.	8.37	287.84 ✓	1.26	279.47	✓
+70		See Page 43			
B.M.	2.45	294.75			292.30
T.P.	1.50	285.26	10.99	283.76	
16+00	End of Pavement.				
+13.5					
+23					

ST. E RT

(4.7)

12.4 12.0 4.8 4.32 4.05 4.2 11.8 12.4
33.0 30.0 16.2 10.0 4.06 10.0 15.7 27.0 33.0

(4.0)

11.8 11.1 3.8 3.45 3.27 3.30 11.1 11.7
33.0 27.0 16.2 10.0 3.30 10.0 15.3 27.0 33.0

(3.5)

10.4 10.0 4.3 3.1 2.85 2.65 2.5 8.7 9.7
33.0 26.0 17.8 14.5 10.0 2.70 10.0 15.4 26.4 33.0

(8.0)

11.4 11.6 12.2 12.4 12.3 7.2 7.13 7.08 7.1 12.4 14.5
33.0 32.5 31.0 26.7 25.8 15.5 10.0 7.01 10.0 15.0 24.3 33.0

(7.5)

9.5 11.0 11.4 11.0 6.8 6.69 6.64 6.6 13.0 14.0
33.6 30.6 28.3 24.4 15.5 10.0 6.59 10.0 16.8 26.0 33.0

(6.3)

8.3 9.2 8.8 7.0 5.8 5.3 5.33 5.37 5.5 10.9 12.2
31.0 29.6 25.7 21.7 17.8 14.7 10.0 5.27 10.0 14.7 23.3 33.0

(4.9)

6.4 7.9 7.7 6.8 4.7 4.01 4.06 4.3 7.0 8.6 10.7
34.0 30.4 25.7 23.0 14.8 10.0 3.90 10.0 14.7 23.0 26.0 33.0

(3.4)

5 2.7 4.8 4.2 3.4 2.9 2.73 2.81 3.0 7.4 9.0
.0 31.4 27.4 26.4 16.6 14.0 10.0 2.70 10.0 15.3 23.9 33.0

(9.9)

8.2 8.8 9.6 9.6 9.3 9.32 9.32 9.6 13.3 14.4
33.0 31.4 27.0 21.0 16.8 14.0 10.0 9.25 10.0 14.6 26.7 33.0

See P. 40 #3

Nail in T.P. RT. 34.20 +15

M.H.C.
F.H.C.
A.S.N.
M.S.A.

(6.5)

5.10 4.9 5.85 5.81 5.85 6.0 7.4 8.3 5.4 6.0 7.2
33 24 10.0 10.0 14 18 22 27 29 33

(6.1)

11.7 11.5 8.1 6.8 6.8 5.4 5.2 5.47 5.41 5.47 5.5 6.9 6.9 4.0 4.9
39 36 26 25 22 20 17 10.0 — 10.0 15 19 23 30 33

(5.8)

5.1 8.3 5.3 6.5 6.7 5.1 5.12 5.12 5.18 5.3 6.9 6.0 2.8 2.9
37 35 26 24 21 17 10.0 — 10.0 15 19 23 31 33

Station	+	H.I	−	Rod	Elev.
		285.76 ✓			
16+50					
T.P.	11.92	294.42 ✓	2.76	282.50	✓
17+00					
18+00					
+50					
19+00					
+35					
20+00					
B.M. hub tack					292.29
B.M.	5.01	297.31 ✓	2.13		292.30
+50					
21+00					
22+00					
+45					
23+00					

Austin
Skoglund
Malbaeck
Calvin
} guests.

W.H. Carlson
A. Crane
Nelson
Ahlberg
} Dec 10, 23

28

H. E. RH.

							5.00						
0.6	3.7	3.9	6.1	4.3	4.29	4.27	4.33	4.4	6.1	6.1	5.4	1.0	
33	28.5	26	24	15	10.0		10.0	15	18	24	27	34	
							1.76						
6.5	7.8	13.8	13.1	1.8	1.97	1.97	2.08	1.42	1.43	1.43	1.0		
34	29	22.5	18.	5.	10.0		10.0	15	20	24	34.		
Nelson													
1.9 1.1	4.1	11.5	11.7	7.5	7.47	9.35	9.43	9.5	11.4	11.6	7.4	7.5	
3 31	24	20	18	15	10.0		10.0	14	19	25	32	33	
							8.2						
2 3.7	5.0	10.2	9.8	8.5	8.34	8.24	8.33	8.4	10.2	10.3	6.5	6.5	
2.5 29.5	26	20.5	18	15	10.0		10.0	15	19	25	32	33	
							2.00						
3.5 5.8	6.5	9.1	7.4	7.30	7.24	7.31	7.12	9.2	9.4	5.5	5.7		
33 24	21.6	19	15	10.0		10.0	14	18.6	24.5	30.5	33		
							6.2						
5.8 5.4	8.9	8.7	6.8	6.76	6.46	6.77	6.8	8.8	8.9	5.4	5.4		
33. 25.4	21	18	14	10.0		10.0	14.5	19	25	31.5	33.		
							5.2						
4.5 4.3	7.4	7.3	5.8	5.72	5.65	5.73	5.9	7.1	7.2	3.4	3.4		
33 26	22	18.9	14.5	10.0		10.0	15	18.5	24	31.5	33		
Weil 10 T.F. PH 5th 20+15											(Austin)		
							7.4						
5.8 6.5	7.1	8.5	8.6	8.1	8.0	7.85	8.05	8.2	9.4	7.3	6.5	7.0	12/15/23
30.0 25.6	25.5	22.3	16.4	14.2	10.0		10.0	15.2	19.1	30.0	32.6	33.0	
							7.00						
2.6 4.1	4.7	8.5	8.5	7.5	7.41	7.4	8.5	7.6	9.0	8.0	5.6	5.5	
30.5 27.6	24.5	22.0	17.5	14.6	10.0		10.0	14.5	19.4	28.5	30.0	33.0	
							6.7						
2.7 3.8	5.6	8.5	8.5	7.0	6.85		6.86	7.1	8.3	8.9	2.2		
8.0 30.7	25	22.1	18.5	14.5	10.0	6.8	10.0	14.8	17.8	25.0	33.5		
							6.7						
5.6 6.5	6.7	8.5	8.3	6.8	6.72		6.75	7.1	8.2	8.5	5.2	4.9	
34 30.4	27.4	23.5	18.5	14.2	10.0	6.7	10.0	15.5	18.0	21.5	26.7	33.0	
							6.8						
4.1 5.5	6.4	8.2	8.2	6.8	6.73		6.75	6.9	8.2	8.4	4.3	4.7	
30.2 27.4	24.5	23.3	19.8	14.4	10.0	6.65	10.0	15.0	17.7	21.5	26.0	33.0	

Station	+	H.I.	—	Rod	Elev.
		297.31 ✓			
+50					
24+00					
+75					
25+00					
T.P	7.62	294.99 ✓	9.94	287.37	✓
+19					
26+00					
+82					
27+00					
+50					
28+00					
+70					
29+00					

Ht. | ℄ | Rt.

4.1	6.1	8.5	7.6	6.8	6.7	6.9	6.75	7.0	8.2	8.4	4.2	4.0	
33.0	25.5	22.5	17.5	14.8	10.0	6.62	10.0	15.0	17.8	21.6	27.4	33.0	
5.8	6.0	8.3	7.4	6.7	6.6	6.9	6.75	6.7	7.6	8.4	7.3	5.9	5.6
33.0	25.9	22.5	17.3	14.3	10.0	6.68	10.0	14.7	16.5	22.8	24.2	29.7	33.3
8.3	8.4	9.6	9.4	7.9	7.6	6.7	6.57	6.9					
8.0	30.5	22.0	24.9	21.0	17.4	14.3	10.0	6.52	6.61	6.7	7.6	8.6	4.0	3.9
									10.0	14.5	17.0	23.0	31.0	33.0
9.8	9.8	10.5	10.2	8.6	6.8	6.55	6.9	6.45						
8.0	30.2	27.0	25.0	22.0	15.0	10.0	6.45	6.58	6.7	8.6	8.9	5.0	5.0	
								10.0	15.0	19.5	24.0	31.5	33.0	
9.0	9.8	9.2	6.3	4.6	4.19	4.6	4.11	4.7	4.2	4.9	6.9	7.0	4.4	4.04
33.0	24.0	29.5	23.0	14.5	10.0	4.11	10.0	14.2	19.0	20.5	23.5	31.5	33.0	
12.9	12.7	6.2	4.2	4.05	4.0	4.0	3.97	4.01	4.2	5.6	11.0	11.5		
33.0	21.0	18.5	14.2	10.0				10.0	14.5	19.0	27.0	33.0		
6.0	5.8	7.1	6.8	4.1	3.93	4.5	3.92	3.89	4.0	5.7	6.1	6.8	3.7	
33.0	27.0	25.0	17.9	14.6	10.0			10.0	14.5	20.2	23.7	25.7	33.0	
3.4	3.4	6.7	6.3	4.1	3.83	4.5	3.78	3.83	4.0	4.9	6.3	2.2		
33.0	30.5	24.4	21.5	14.5	10.0			10.0	15.0	23.0	25.9	33.0		
4.5	4.5	6.1	5.9	4.1	3.83	4.2	3.73	3.82	4.0	5.1	6.0	3.7		
33.0	31.7	29.0	20.0	14.1	10.0			10.0	15.5	18.0	25.5	35.5		
6.2	6.1	6.3	4.0	3.82	4.4	4.4	3.72	3.79	3.9	5.9	6.3	6.1		
33.0	25.0	20.0	14.3	10.0				10.0	14.2	19.4	25.0	33.0		
295.7	1.6	5.9	5.7	4.0	3.71	4.3	3.68	3.78	4.0	5.6	5.9	4.9	3.6	
33.0	31.11	24.5	19.5	14.5	10.0			10.0	14.7	19.0	30.0	31.5	35.5	
295.3	0.0	2.6	5.1	5.1	3.9	3.69	4.3	3.7	3.8	5.2	5.8	3.6	0.5	
33.0	32.5	30.0	24.5	19.0	14.8	10.0	3.6	10.0	14.6	18.5	24.0	33.0	35.5	

Station	+	H.I.	—	Rod	Elev.
		297.99 ✓			
29+65					
B.M.	7.81	297.53 ✓	5.27	289.72 ✓	289.69
30+00					
31+00					
32+00					
33+00					
34+00					
35+00					
+60					
36+00					
B.M	2.21	295.65 ✓	4.09	293.44 ✓	293.42
37+00					
38+00					
39+00					

H. E R.

4.2
2.4 3.8 4.5 5.3 4.5 3.8 3.60
33.6 28.8 24.7 20.9 16.5 14.2 10.0 5.53 3.3 3.7 4.8 5.5 4.1 3.6 0.8
21.0 15.5 18.7 25.5 22.8 33.0 25.5

Well in T.P. 4.64 at 4.40

6.6
7.3 7.6 8.5 7.2 6.1 6.2
35.0 27.8 20.2 18.7 14.6 12.0 6.0 6.1 6.1 6.8 6.3 7.4
20.0 15.7 22.1 24.0 33.0

12/6/23

6.3
10.1 9.9 8.9 5.96
35.0 21.6 14.8 10.0 5.69 5.77 5.8 7.0 7.8 10.1 10.8
22.0 14.1 17.6 21.2 24.8 30.5

5.4
10.1 10.0 5.5 5.32
33.0 22.7 14.6 10.0 5.32 5.83 5.8 6.7 7.0 6.6
14.2 15.1 17.2 25.5 28.0

5.6
6.6 5.4 5.9 7.5 6.8 5.7 4.94
31.0 24.4 18.4 12.9 10.2 4.87 4.97 5.7 6.4 6.8 7.7 6.1
18.8 25.6 19.5 25.8 30.5 33.0

5.1
8.1 5.3 7.3 6.8 4.7 4.54
33.0 24.9 19.6 14.5 10.8 4.41 4.54 4.7 5.8 6.3 6.6 7.2 5.3 7.7
14.8 17.8 23.0 23.8 30.0 35.0 37.3

4.9
3.6 4.7 4.8 5.8 4.5 4.37
29.5 25.9 21.2 16.4 12.0 4.9 4.37 4.41 2.5 0.2 6.7 4.7 1.0
16.0 18.5 18.9 24.5 31.5 34.8 37.5

5.7
5.2 6.5 6.1 4.8 4.54
38.6 33.4 26.9 20.8 16.0 4.49 4.54 4.7 6.2 6.8 6.9 5.1 2.0
10.2 14.9 20.0 24.8 31.0 34.0 36.0

5.3
6.8 3.5 5.6 6.2 4.8 4.6 4.54
38.2 31.4 26.5 20.9 14.8 10.0 4.54 4.68 4.8 6.1 6.8 7.3 6.8 6.0 5.5 4.8
20.0 14.8 19.0 25.2 27.5 31.5 34.5 36.0

Well in T.P. 4.64 at 4.03

4.0
3.2 3.5 5.8 4.9 4.5 3.6 3.49
38.6 29.4 23.4 21.7 18.0 14.6 10.0 3.44 3.52 3.7 5.3 7.8 9.0
10.0 14.9 19.1 22.7 28.6

5.0
11.5 11.4 6.8 6.2 4.6 4.45
33.3 27.3 19.3 17.0 14.3 10.0 4.45 4.45 4.6 5.9 10.0 9.8
16.0 14.3 18.6 25.1 33.0

6.0
7.9 7.44 9.4 7.1 5.5 5.46
32.0 28.6 23.6 17.3 14.0 10.0 5.4 5.47 5.5 6.0 6.7 16.5 10.8
10.0 13.9 15.7 19.2 24.5 35.0

Station	+	H.I	−	Rod	Elev.
		295.65 ✓			
39 +74					
40 +00					
41 +00					
T.P.	3.57	291.55 ✓	7.67	287.98	✓
42 +00					
43 +00					
T.P.	7.45	296.17 ✓	2.93	288.72	✓
44 +00					
+78					
45 +00					
B.M.	10.04	304.45 ✓	1.76	294.41	✓ (294.4)
46 +00					
47 +00					
+25					
+62					

left & Right

62

1.0	7.2	4.2	5.9	5.47	5.77	5.3	6.5	7.9	10.1	10.9	
33.3	28.21	15.2	14.0	10.0	5.67	7.0	12.4	17.6	20.6	24.4	33.0

70

12.6	12.3	8.6	7.8	6.6	6.42	6.41	6.5	7.0	8.2	10.3	11.9
88.0	25.9	20.8	16.5	14.3	11.0	6.35	10.0	14.2	16.8	20.6	24.1	33.0

80

17.2	14.6	13.1	9.8	8.2	7.5	7.42	7.44	7.5	8.4	9.7	13.1	16.1	16.4
83.0	30.5	24.8	19.8	16.5	14.8	10.0	7.36	10.0	14.7	17.2	20.2	23.8	30.7	83.0

43

12.1	11.6	6.2	4.8	3.7	3.6	3.53	3.68	3.7	4.5	5.7	12.0	13.1	13.2
88.0	26.3	17.7	14.8	11.2	10.0	3.53	10.0	14.2	16.5	17.2	26.8	28.3	33.3

35

15.3	13.0	10.7	4.8	3.7	2.9	2.85	2.85	2.9	4.1	8.0	13.1	13.4
44.0	32.6	24.5	19.6	14.7	14.3	10.0	2.78	10.0	14.3	17.2	22.0	30.2	33.0

60

18.7	18.3	7.9	6.6	5.4	5.28	5.82	5.4	6.8	7.9	10.6	12.0
33.0	28.8	20.6	14.8	10.7	10.0	5.23	10.0	14.3	16.6	22.5	24.8	33.0

38

6.6	6.0	5.6	4.4	3.3	3.18	3.3	3.4	4.8	5.3	5.8	5.4
33.0	25.1	17.6	15.8	14.0	10.0	3.16	10.0	14.4	20.2	23.0	27.8	33.0

37

4.7	11.5	3.9	3.8	2.61	2.64	2.7	3.3	4.2	4.1
53.0	28.6	23.1	19.1	10.0	2.59	10.2	14.2	18.1	32.0	33.0

89

11.6	11.5	11.6	10.8	8.3	8.15	8.21	8.3	9.8	10.5	11.1	10.5	7.4
33.0	28.8	25.0	18.7	14.3	10.0	8.1	10.0	14.6	17.5	21.6	25.4	31.0	34.0

65

9.7	7.7	8.7	9.4	8.7	6.9	6.07	6.09	6.1	7.8	8.6	8.7	8.1	6.3	6.3
35.0	27.7	26.7	24.3	19.7	14.3	6.01	10.0	15.0	17.7	20.7	26.0	29.8	32.7	33.0

61

7.8	7.7	8.0	8.5	7.4	5.9	5.71	5.69	5.7	8.2	8.4	7.0	5.3	5.2
33.0	25.8	25.2	22.8	17.8	14.7	10.0	5.65	10.0	15.0	23.2	26.1	30.4	33.0

57

2.5	2.4	4.5	7.7	7.3	5.4	5.22	5.24	5.7	7.6	7.7	8.8	1.7
33.0	29.6	25.7	22.8	18.1	14.6	10.0	5.17	10.0	14.9	20.1	23.1	28.8	33.0

Station	+	H.I.	—	Rod	Elev.
		304.45 ✓			
48+00					
+15					
49+00					
T.P.	6.70	306.02 ✓	5.13	299.32	✓
49+18.3 = 49+26.9	Short. Station "91.4"				
50+00					
51+00					
+75					
T.P.	2.63	297.68 ✓	10.97	295.05	✓
52+00					
53+00					
+40					
+66.3					
T.P.	2.54	291.81 ✓	8.41	289.27	✓
54+00					
55+00					

1H. E 304.0 99.2 6.8 1H

54

6.1	3.5	6.7	7.4	7.0	5.0	4.92	4.88	4.9	6.5	7.5	5.0	1.0
37.0	30.9	24.5	21.4	17.5	12.5	10.0	10.0	14.3	17.4	24.0	29.6	32.0

53

													308.4
1.1	0.9	2.9	7.0	6.9	4.9	4.8	4.78	4.9	6.4	7.2	5.2	0.9	36.0
38.0	30.9	27.0	21.5	15.2	14.5	10.0	10.0	14.5	18.0	23.7	31.3	32.2	

306.4
38.3

52

6.0	5.7	7.0	6.6	4.7	4.6	4.58	4.7	6.7	7.0	4.8	3.6	
30.5	23.9	21.9	17.9	14.2	14.0	10.0	10.0	14.8	18.7	24.2	29.4	33.0

75

1.4	1.4	3.4	5.8	9.0	8.8	7.0	6.8	6.76	6.82	6.8	8.1	6.8	8.9	8.0	5.8	0.7
38.0	32.3	30.0	24.7	22.0	13.5	12.9	10.0	10.0	15.6	17.8	21.6	26.5	29.3	32.0	37.10	

91

5.7	8.5	9.2	10.8	10.0	8.5	8.35	8.42	8.6	8.8	10.8	9.7	9.0	6.1
31.6	25.9	20.5	22.6	17.6	14.8	10.0	10.0	15.2	18.4	27.4	29.2	31.6	34.0

109

8.1	10.1	11.3	12.9	12.7	10.5	10.29	10.23	10.4	11.7	13.0	13.1	11.3	9.0
31.7	23.6	24.9	22.6	18.0	14.5	10.0	10.0	14.9	18.0	23.8	27.5	32.2	34.0

33

1.0	1.6	2.8	5.1	4.1	2.7	2.68	2.63	2.7	4.3	5.3	5.4	4.2	3.5	2.5
33.0	27.8	25.3	22.6	17.4	14.3	10.0	10.0	15.0	18.9	23.1	26.8	29.7	32.2	32.5

63

7.7	7.4	9.0	7.5	5.9	5.64	5.66	5.8	6.8	7.4	7.4	7.2	
33.0	25.6	22.4	18.8	15.6	10.0	10.0	15.4	18.5	22.1	26.1	33.0	

75

8.6	8.6	9.4	8.5	7.0	6.88	6.92	6.7	8.2	7.2	7.2		
33.0	24.4	22.2	18.3	15.5	10.0	10.0	15.0	20.0	24.8	33.0		

79

9.0	8.7	7.9	7.78	7.6	7.35	7.4	8.1	11.3	12.0			
33.0	26.7	15.2	10.0	7.6	10.0	14.5	18.2	26.4	33.0			

32

3.4	3.4	3.9	2.6	2.58	2.58	2.6	3.4	8.4	8.7			
33.0	27.5	20.3	14.8	10.0	10.0	15.6	18.8	25.6	33.0			

63

11.4	11.0	11.3	5.78	5.63	5.591	5.7	7.6	12.1	12.4			
33.0	24.7	17.6	14.4	10.0	10.0	14.5	19.8	26.1	33.0			

Station	+	HI	−	Rod	Elev
		291.81			
T.P.	2.69	285.52	8.99	282.82	
56+00					
57+00					
B.M				6.91	278.61
58+00					
T.P.	1.57	274.50	12.58	272.93	
59+00					
60+00					
61+00					
62+00					
B.M.	5.91	267.25	13.07	261.34	
63+00					
64+00					
65+00					
66+00					
67+00					

7.1	6.8	5.9	2.9	2.62	(3.3)	2.69	2.8	3.8	4.5	5.6	6.9	7.6	
33.0	32.0	26.8	14.4	10.0	2.60	10.0	14.3	15.9	20.2	25.5	29.1	33.0	
7.1	8.4	9.5	7.7	6.1	5.96	(6.6)							
33.0	29.2	23.0	15.1	10.4	10.0	5.94	6.69	6.2	7.7	8.5	7.5	7.5	
							10.0	14.2	15.6	22.5	24.4	33.0	
2.1	10.6	12.0	11.8	11.0	9.5	9.34	(9.9)						
3.0	30.9	24.2	19.9	14.2	10.0	9.2	9.34	9.5	10.4	11.0	11.0	10.4	10.1
							10.0	14.5	16.2	21.5	23.6	28.1	33.0
0.2	0.2	2.0	2.6	4.2	3.8	1.6	1.56	(2.7)					
3.0	3.18	3.06	3.72	27.0	16.9	14.3	10.0	1.45	1.57	1.5	3.7	3.3	2.4	0.5
									10.0	13.7	17.0	25.2	31.0	33.7
7.2	6.8	7.3	7.3	5.9	4.9	4.34	(5.5)						
33.0	30.1	22.1	22.9	15.4	14.5	10.0	4.76	4.91	5.0	5.6	6.4	7.0	6.8
								10.0	14.6	16.6	18.4	27.8	33.0
	10.8	10.5	9.1	7.7	7.36	(8.2)							
	33.0	24.6	17.9	14.4	11.0	7.46	7.57	7.7	8.3	9.6	8.9		
							10.0	24.5	18.7	28.8	33.0		
	12.2	11.4	10.5	9.3	9.34	(9.8)							
	33.0	22.2	18.5	14.4	10.0	9.14	9.33	9.4	10.9	11.3	11.3		
							10.0	14.4	19.5	26.6	33.0		
V	5.2	6.9	5.7	4.7	2.9	2.89	(3.5)						
	33.0	30.0	22.8	15.4	14.6	10.0	2.87	3.0	3.0	4.5	5.1	5.5	
								10.0	14.6	19.0	22.5	33.0	
6.4	5.9	6.9	6.2	3.9	3.91	(4.5)							
33.0	21.8	20.8	19.5	14.6	10.0	3.84	3.94	3.8	6.6	7.4			
							10.0	14.8	22.0	33.0			
	8.5	7.9	6.3	4.9	4.25	(5.1)							
	33.0	22.7	16.9	15.0	10.0	4.6	4.68	4.7	5.5	8.9	9.3		
							10.0	14.5	16.7	23.8	33.0		
11.4	9.6	6.6	6.1	5.9	4.91	(5.5)							
33.0	21.7	19.9	16.8	14.6	10.0	4.8	4.84	4.8	6.1	6.4	8.2		
							10.0	14.4	17.0	24.7	33.0		
	11.3	10.6	7.1	5.9	4.86	(5.5)							
	33.0	24.7	19.0	14.9	10.0	4.8	4.88	4.8	6.2	7.9	7.9		
							10.0	14.5	17.5	24.5	33.0		

Station	+	H.I	−	Rod	Elev
		267.25			
69+00					
T.P.	5.67	270.26	2.65	264.60	
69+00					
70+00					
+25					
71+00					
B.M.				4.25	266.01
72+00					
T.P.	9.97	280.16	0.08	270.19	
73+00					
74+00					
+67					
75+00					
+40					
T.P.	9.81	289.74	0.23	279.93	
76+00					

H. E H

53

7.7 7.7 8.0 8.7 6.7 4.9 2.97 4.96 4.8 6.4 7.0 6.5 6.3
33.0 25.6 24.0 22.0 18.7 10.0 4.7 10.0 14.7 17.8 21.3 26.8 33.0

77

9.5 9.8 11.3 9.4 7.1 7.0 6.93 10.0 7.0 12.0 11.3 11.7
33.0 25.9 24.6 23.8 14.3 10.0 6.93 10.0 14.8 19.8 23.3 32.0

65

6.2 7.7 8.7 7.9 5.8 5.83 5.8 5.7 7.4 9.6 10.4
33.0 25.4 23.4 18.6 14.8 10.0 5.75 10.0 15.0 17.0 22.0 33.0

61

5.3 5.1 6.1 7.7 7.1 5.0 5.47 5.48 5.6 6.2 6.7
33.0 27.7 24.7 23.0 18.2 14.5 10.0 5.37 10.0 14.8 25.6 33.0

49

5.2 5.1 6.0 5.8 4.6 4.28 4.26 4.3 5.6 6.8 7.0 5.2 4.6 3.1
33.0 26.1 24.7 19.9 18.7 10.0 4.11 10.0 14.9 18.0 22.8 27.9 29.2 31.0 33.0

Noisy in TP here 7.48 7.48

28

5.1 4.8 5.3 4.9 2.4 2.07 2.0 2.4 4.4 4.8 5.2 3.1 2.2
33.0 24.2 23.4 20.7 14.6 10.0 2.03 10.0 14.6 17.0 21.4 26.7 33.0 33.0

100

12.4 11.8 12.5 12.1 9.6 8.48 8.46 8.5 10.4 11.4 11.3 7.4 7.3
33.0 25.0 23.0 19.0 14.6 10.0 7.37 10.0 14.5 17.6 20.4 25.1 31.5 33.0

70

8.0 8.1 8.9 9.5 6.4 6.46 6.36 6.4 7.8 8.4 7.6 5.7 5.6
33.0 25.3 23.1 19.7 14.5 10.0 6.36 10.0 15.0 19.4 26.5 29.7 31.5 33.0

48

6.1 5.7 6.4 6.4 4.4 4.13 4.20 4.4 5.5 6.3 4.7 1.3 1.3
33.0 27.6 23.9 19.5 15.0 10.0 4.12 10.0 14.7 17.4 25.0 28.7 30.0 33.0

37

4.0 4.4 5.4 5.2 3.2 3.20 3.12 3.23 3.4 4.6 5.0 4.4 4.1
33.0 24.4 23.0 20.5 15.0 10.0 3.12 10.0 14.7 17.7 24.0 29.5 33.0

24

7.7 7.4 6.0 3.8 2.0 1.88 1.84 1.94 2.0 5.5 5.7
33.0 27.0 25.0 18.0 14.5 10.0 1.84 10.0 14.4 17.0 33.0

10.0

14.8 12.5 11.8 9.6 9.52 9.48 7.5 9.3 11.8 12.3 13.0
33.0 24.6 19.5 14.3 10.0 9.48 10.0 13.0 21.5 27.5 33.0

Station	+	H.I	−	Rod	Elev.
		289.74 ✓ 3			
76+75					
77+00					
78+00					
T.P	11.83	301.43 ✓ 2	0.14	289.60 ✓ 54	
79+00					
80+00					
B.M				4.31	297.12 297.12
81+00					
82+00					
T.P	6.33	304.99 ✓ 8	2.77	298.46 ✓ 5	
83+00					
+50					
+70					
T.P	7.38	304.00 ✓ 0	8.34	296.62 ✓ 7	
84+00					
+25					

Ht. # Rt

(6.9)

12.4 9.9 14.4 9.7 7.2 7.11 7.07 7.7 8.5 9.3 8.5 9.0
33.0 23.5 31.0 19.3 14.4 10.0 6.96 10.0 15.0 18.3 26.3 28.8 33.0

(6.7)

7.5 7.7 7.7 7.5 6.3 6.72 6.17 6.7 7.4 8.3 7.3 6.4 6.7
33.0 30.5 26.5 19.0 14.8 10.0 6.17 10.0 14.1 16.7 25.5 30.0 31.5 33.0

(3.4)

5.1 5.0 4.3 2.9 2.86 2.87 2.9 4.4 4.8 4.0 3.6 2.0
33.0 26.4 17.0 14.8 10.0 2.8 10.0 14.5 18.9 25.7 26.8 30.6 32.5

(11.8)

11.7 11.6 12.8 13.8 11.2 11.18 11.18 11.3 11.5 11.7
33.0 25.8 24.3 18.5 14.3 10.0 11.17 10.0 14.5 21.8 33.0

(8.6)

7.9 8.5 10.3 10.0 8.0 8.00 8.03 8.7 9.9 9.9 6.9 6.8
33.0 24.5 15.5 19.9 14.7 10.0 7.98 10.0 14.3 17.0 30.6 23.5 33.0

6.1 in 7.7 Rt 84-6.5

(6.1)

5.1 6.9 3.7 7.1 5.7 6.35 5.98 6.2 7.0 6.9 6.2 6.2
33.0 26.3 23.6 19.9 14.2 10.0 5.46 10.0 14.2 14.8 19.5 24.0 33.0

(4.4)

2.3 4.8 6.1 5.1 3.9 3.93 3.81 3.8 4.9 4.8 1.8 3.7
33.0 27.5 22.9 16.7 10.3 10.0 3.74 10.0 14.4 16.8 19.0 25.8 33.0

(6.9)

2.4 5.0 8.4 8.2 6.2 6.09 6.33 6.8 8.2 7.9 6.4 3.5
33.0 28.6 23.6 15.5 14.6 10.0 6.24 10.0 14.8 17.8 19.1 24.3 33.0

(6.8)

1.6 2.8 5.3 5.7 8.1 6.4 6.06 6.25 6.3 7.5 7.5 3.8 3.0
33.0 31.4 28.6 23.3 18.5 14.8 10.0 6.19 10.0 14.8 16.8 18.9 25.0 33.0

(6.8)

5.3 5.4 8.0 8.0 6.7 6.24 6.24 6.8 7.3 7.3 3.7 3.3
33.0 27.7 23.0 15.0 15.0 10.0 6.19 10.0 14.3 16.5 18.8 25.4 33.0

(5.9)

7.6 7.1 6.7 6.7 5.3 5.33 5.34 5.0 6.4 6.4 2.5 2.2
33.0 25.4 22.0 15.4 14.7 10.0 6.07 10.0 14.3 17.1 23.6 27.0 33.0

(5.9)

2.5 3.0 7.0 6.8 5.0 5.04 5.37 5.3 6.7 6.7 2.7 2.2
33.0 23.8 20.0 18.1 14.3 10.0 5.33 10.0 14.4 17.1 23.4 26.7 33.0

Station	+	HI	−	Rod.	Elev.
		304.0 (1) ✓			
84+45					
+85					
85+00					
86+00					
+50					
87+00					
T.P.	1.82	294.39 ✓ (5)	11.44	292.57 (6) ✓	
88+00					
89+00					
90+00					
T.P.	1.00	283.28 ✓ (7)	12.11	282.28 (7) ✓	
91+00					
B.M.				239	280.89
92+00					
T.P.	2.50	275.34 ✓ (3)	10.44	272.84 (3) ✓	
93+00					

H Z A

(6.0)

5.3	5.7	6.8	6.9	5.5	5.49		5.39	5.4	6.7	6.7	2.5	2.1	
33.0	23.4	21.1	18.4	15.5	10.0	5.36	10.0	14.7	16.9	17.5	25.8	33.0	

(6.3)

5.4	5.7	7.3	7.1	5.7	5.76		5.73	5.8	6.8	6.8	2.7	2.5	
33.0	22.0	21.0	18.0	15.2	10.0	5.47	10.0	14.1	16.2	17.8	25.8	33.0	

(6.5)

3.2	3.5	7.3	7.4	5.9	5.91		5.89	6.0	6.8	6.9	2.9	2.7	
33.0	25.0	21.0	18.0	12.9	10.0	5.83	10.0	14.7	16.8	17.5	25.4	33.0	

(8.0)

6.1	5.9	8.9	8.9	7.5	7.38		7.37	7.3	8.8	8.9	6.4	5.6	
33.0	25.0	19.9	17.0	15.8	10.0	7.32	10.0	15.2	18.0	19.9	25.1	33.0	

(8.8)

7.7	7.8	10.0	9.7	8.4	8.21		8.16	8.2	9.8	9.8	7.5	7.7	7.0	7.0
33.0	23.6	20.4	17.5	14.5	10.0	8.12	10.0	14.9	18.3	20.4	24.3	27.3	28.5	33.0

(10.2)

9.3	9.5	11.7	11.7	9.6	9.53		9.52	9.2	10.6	10.9	8.9	8.4	
33.0	23.4	18.9	17.3	14.8	10.0	9.49	10.0	15.5	18.2	20.6	23.4	33.0	

(3.6)

4.1	4.2	4.5	4.3	3.0	2.96		2.98	3.0	4.0	4.0	3.5	3.6	3.9
33.0	27.4	24.9	18.5	14.1	10.0	2.9	10.0	14.4	17.0	19.8	21.0	26.0	33.0

(7.3)

✓	8.2	8.8	8.2	6.7	6.68		6.69	6.6	7.8	7.7	7.5	7.8	
	33.0	28.0	21.0	18.1	10.0	6.62	10.0	15.8	18.7	21.8	24.0	33.0	

(11)

✓	13.1	13.3	12.1	10.5	10.49		10.46	10.3	11.9	12.4	11.7	12.0	
	33.0	27.0	17.0	14.8	10.0	10.38	10.0	15.4	21.1	26.5	28.4	33.0	

(3.8)

✓	6.6	6.3	5.5	3.3	3.21		3.11	3.2	5.0	5.3	6.2	5.5	5.9
	33.0	27.0	17.7	14.5	10.0	3.1	10.0	14.4	17.6	22.9	27.4	29.0	33.0

Soil in T.P. Ka. Ha. P=130

(7.4)

10.9	11.3	10.8	10.4	7.1	6.97		6.97	7.1	9.2	8.9	10.1		
33.0	30.0	25.9	21.6	14.4	10.0	6.9	10.0	14.7	17.6	24.7	33.0		

(3.0)

6.1	6.5	6.4	5.6	2.8	2.75		2.50	2.6	4.9	5.5	6.7		
33.0	30.3	26.8	21.0	14.8	10.0	2.44	10.0	14.8	17.6	25.0	33.0		

		275.34			
94+00					
95+00	No St. Paul City Limits			267.96	
T.P.	4.73	271.57	7.49	267.85	
96+00				266.98	
97+00					
98+00					
99+00					
100+00					
B.M.				5.33	267.25
101+00					
102+00					
T.P.	6.33	274.86	1.04	268.53	
103+00					
+15					
104+00					

Hi. E Ki.

(5.7)

7.8 8.3 7.5 6.7 5.5 5.23 5.13 5.1 6.5 7.9 8.4
33.0 34.5 34.0 37.3 12.9 12.0 5.17 12.0 14.2 16.9 23.0 33.0

(8.0) Eq. Ent. Ent. Ave.

9.2 8.8 9.0 8.0 7.47 7.37 7.4 8.2
33.0 28.2 22.0 16.0 14.8 7.37 10.0 32.7 34.2

Sp. Hgt. N.E. cor. Penn. Ave. + 7th. Ave.

4.6 6.4 5.85 (6.3) 5.56 5.96 5.49 5.5 6.8
37.0 32.0 12.0 5.0 12.0 32.0 32.0 35.0 38.0

(6.0)

7.3 6.7 6.12 6.53 5.59 5.09 5.88 5.24 5.2 6.6
38.0 35.8 32.0 32.0 12.0 5.0 12.0 32.0 32.0 35.8 36.0

(5.7)

6.3 5.9 5.79 6.25 5.31 4.9 5.06 5.53 5.04 5.3 6.4
36.0 36.0 32.0 32.0 12.0 4.9 12.0 32.0 32.0 36.8 38.0

(5.4)

6.5 5.8 5.49 5.87 5.24 4.7 4.89 5.86 4.87 5.2 6.3
37.8 36.0 32.0 32.0 12.0 4.7 12.0 32.0 32.0 36.0 38.0

(5.1)

5.8 5.4 6.23 5.79 4.8 4.66 5.16 4.73 4.7 5.3
37.5 36.0 32.0 32.0 12.0 4.4 12.0 32.0 32.0 36.0 38.0

(4.8)

5.0 4.7 4.81 4.86 4.53 4.5 5.04 4.83 4.5 5.1
38.0 36.0 32.0 32.0 12.0 4.4 12.0 32.0 32.0 37.0 38.5

(4.5)

4.3 4.3 4.67 5.1 4.35 4.1 4.28 5.02 4.54 4.3 4.5
38.0 36.0 32.0 32.0 12.0 4.1 12.0 32.0 32.0 36.5 38.0

(6.2)

6.4 6.5 6.61 7.06 6.41 6.1 6.44 7.14 6.69 6.6 6.6
37.0 36.0 32.0 32.0 12.0 6.1 12.0 32.0 32.0 37.0 38.0

6.9 6.5 6.58 7.05 6.35 6.1 6.32 7.04 6.65 6.6 6.5
38.0 36.0 32.0 32.0 12.0 6.1 12.0 32.0 32.0 37.0 39.0

(5.8)

6.6 6.35 6.47 5.9 5.8 6.02 6.58 6.36 6.6 7.0
42.0 37.0 32.0 12.0 5.8 12.0 32.0 32.0 36.5 38.5

		278.8 (6)		
105+00				
106+00				
107+00				
T.P	7.94	281.50 (1)	1.19	273.60 (7)
+51				
+57				
108+00				
109+00				
+87				
110+00				
+45				
111+00				
+78				
T.P	4.57	284.25 (4)	1.79	279.70 (2)
+78				

5.1

5.9 / 38.0 | 5.5 / 36.5 | 5.2 / 32.0 | 5.87 / 32.0 | 5.32 / 12.0 | 4.9 | 5.32 / 32.0 | 5.79 / 32.0 | 5.52 / 32.0 | 5.7 / 36.0 | 6.5 / 38.0

4.3

5.3 / 38.0 | 4.9 / 36.4 | 4.48 / 32.0 | 5.16 / 32.0 | 4.5 / 12.0 | 4.2 | 4.47 / 32.0 | 5.1 / 37.0 | 4.7 / 37.0 | 4.8 / 36.0 | 5.4 / 37.5

3.3

4.0 / 37.5 | 3.7 / 36.0 | 3.87 / 32.0 | 4.34 / 32.0 | 3.52 / 12.0 | 3.0 | 3.58 / 17.0 | 4.35 / 32.0 | 5.86 / 32.0 | 3.8 / 37.0 | 3.74 / 40.0

10.2 / 37.5 | 8.7 / 36.4 | 7.50 / 32.0 | 10.34 / 32.0 | 9.59 / 12.0 | 1.3 | 1.62 / 12.0 | 13.20 / 32.0 | 9.77 / 32.0 | 10.0 / 40.0 | 10.0 / 40.0

12/8/53

7.8 / 38.0 | 9.5 / 37.0 | 9.38 / 32.0 | 9.87 / 32.0 | 7.45 / 12.0 | 8.7 | 8.96 / 12.0 | 9.05 / 32.0 | 9.45 / 32.0 | 9.5 / 38.0 | 9.5 / 40.5

8.9

9.6 / 38.0 | 9.4 / 36.0 | 9.2 / 32.0 | 9.5 / 32.0 | 9.8 / 12.0 | 8.5 | 8.76 / 12.0 | 9.37 / 32.0 | 8.94 / 32.0 | 8.9 / 38.0 | 9.17 / 40.0

7.4

8.3 / 39.0 | 8.0 / 37.0 | 7.85 / 32.0 | 8.35 / 32.0 | 7.5 / 12.0 | 7.3 | 7.56 / 12.0 | 7.84 / 32.0 | 7.38 / 32.0 | 7.4 / 36.0 | 7.7 / 37.5

6.4 / 40.0 | 6.6 / 36.0 | 7.4 / 38.0 | 7.27 / 32.0 | 6.31 / 12.0 | 5.9 | 4.12 / 18.7 | 6.50 / 32.0 | 6.41 / 32.0 | 6.0 / 34.0 | 6.5 / 38.5

5.9

4.2 / 42.0 | 4.57 / 32.0 | 4.99 / 32.0 | 6.01 / 12.0 | 5.7 | 5.79 / 12.0 | 6.03 / 32.0 | 5.76 / 32.0 | 5.6 / 38.0 | 6.2 / 40.0

5.5 / 42.0 | 5.87 / 32.0 | 6.22 / 32.0 | 6.34 / 12.0 | 5.1 | 5.3 / 12.0 | 5.23 / 32.0 | 5.37 / 32.0 | 5.2 / 41.5 | 5.1 / 42.0

4.6

4.8 / 42.0 | 4.87 / 32.0 | 5.35 / 32.0 | 4.03 / 12.0 | 4.4 | 4.61 / 12.0 | 5.08 / 32.0 | 4.96 / 32.0 | 4.5 / 42.0

5.5 / 42.0 | 3.51 / 32.0 | 4.01 / 32.0 | 3.55 / 12.0 | 3.7

6.42 / 12.0 | 7.03 / 32.0 | 7.1 / 36.0 | 6.9 / 38.0 | 6.06 / 50.0

		284.25		
112+00				
+50	✓			
113+00				
+12	✓			
114+00				
115+00				
116+00				
T.P.	6.49	289.56	1.18	283.07
117+00				
118+00				
119+00				
120+00				
T.P.	7.30	296.67	0.19	289.37
+45	✓			

6.0

6.6 / 42.0 | 5.87 / 32.0 | 6.33 / 32.0 | 6.05 / 12.0 | 6.0 | 6.37 / 12.0 | 6.6 / 32.0 | 6.45 / 50

5.1 / 50.0 | 5.20 / 44.0 | 5.21 / 44.0 | 5.27 / 32.0 | 5.37 / 12.0 | 5.4 | 5.65 / 16.0 | 4.27 / 32.0 | 4.91 / 32.0 | 5.8 / 42.0

4.8

4.2 / 50.0 | 4.26 / 43.0 | 4.4 / 43.0 | 4.55 / 32.0 | 4.65 / 12.0 | 4.7 | 5.13 / 12.0 | 6.13 / 32.0 | 5.71 / 32.0 | 5.6 / 42.0

4.10 / 41.0 | 4.35 / 32.0 | 4.57 / 32.0 | 4.51 / 12.0 | 4.6 | 5.03 / 12.0 | 5.99 / 32.0 | 5.55 / 32.0 | 5.7 / 37.0 | 5.5 / 42.0

3.9

3.8 / 41.0 | 3.74 / 32.0 | 4.04 / 32.0 | 3.92 / 12.0 | 4.0 | 4.31 / 12.0 | 5.21 / 32.0 | 4.77 / 32.0 | 4.9 / 42.0

3.0

2.9 / 41.0 | 3.01 / 32.0 | 3.03 / 32.0 | 3.02 / 12.0 | 3.1 | 3.31 / 12.0 | 4.27 / 32.0 | 3.72 / 32.0 | 3.88 / 37.0 | 3.6 / 42.0

1.9

1.8 / 41.0 | 1.89 / 32.0 | 2.45 / 32.0 | 1.99 / 12.0 | 1.9 | 2.12 / 12.0 | 2.86 / 32.0 | 2.48 / 32.0 | 2.2 / 37.0 | 2.2 / 42.0

6.0

6.0 / 41.0 | 6.71 / 32.0 | 6.04 / 12.0 | 5.8 | 6.16 / 12.0 | 6.81 / 32.0 | 6.41 / 42.0

4.6

5.2 / 41.0 | 5.25 / 32.0 | 5.17 / 32.0 | 4.94 / 12.0 | 4.8 | 4.91 / 12.0 | 5.45 / 32.0 | 4.99 / 32.0 | 4.8 / 36.0 | 4.9 / 42.0

3.3

3.6 / 42.0 | 3.6 / 38.0 | 4.21 / 32.0 | 4.65 / 32.0 | 3.77 / 12.0 | 3.4 | 3.54 / 12.0 | 4.03 / 32.0 | 3.86 / 32.0 | 3.5 / 38.0 | 3.2 / 42.0

1.4

1.9 / 42.0 | 1.87 / 32.0 | 2.34 / 32.0 | 1.6 / 12.0 | 1.8 | 1.7 / 12.0 | 2.08 / 32.0 | 1.65 / 32.0 | 1.1 / 42.0

8.1 / 42.0 | 7.97 / 32.0 | 8.34 / 32.0 | 7.64 / 12.0 | 7.6 | 7.9 / 12.0 | 8.1 / 32.0 | 7.87 / 32.0 | 7.4 / 42.0

		294.07			
121+00		6			
+50					
122+00					
B.M.				5.56	(291.08) 291.11
123+00					
124+00					
+38					
125+00					
T.P.	2.19	297.70	1.16	295.50	
+62		69		0	
126+00					
127+00					
128+00					
+50					
T.P.	7.60	298.47	6.83	290.87	
		6		6	

St E Rd

(6.4)

4.3 6.57 4.79 6.47 6.41 6.47 6.48 5.7
41.0 32.0 32.0 32.0 12.0 18.0 38.0 50.0

(6.0)

4.86 6.07 5.5 5.46 5.46 5.6 6.8 7.1 6.0 5.5
50.0 32.0 10.0 12.0 15.0 17.1 22.3 26.5 33.2

(5.6)

6.2 6.0 6.4 6.0 5.1 4.98 4.99 5.1 6.7 6.8 5.8 5.3
33.0 22.0 21.0 17.0 15.0 10.0 4.9 10.0 15.0 17.0 28.7 26.5 33.0

Nail in T.R. - L. - 127+30

(4.8)

5.3 5.2 5.6 5.8 6.4 4.42 4.12 4.8 4.3 5.4 5.9 5.1 5.3
33.0 22.0 20.6 16.4 14.4 10.0 10.0 15.1 17.9 23.0 25.4 28.0

(4.0)

4.3 4.1 4.6 4.3 3.5 3.4 3.34 3.45 3.4 4.8 5.0 4.1 4.2
33.0 21.8 20.8 16.2 15.0 10.0 10.0 15.1 19.2 24.1 26.6 33.0

(3.8)

4.2 4.0 4.4 3.9 3.2 3.15 3.1 3.19 3.3 4.6 5.0 3.7 3.9
33.0 22.0 21.0 17.0 15.1 10.0 10.0 15.5 18.0 23.9 26.0 33.0

(3.6)

3.7 3.8 4.3 3.9 3.2 2.98 2.91 3.01 3.1 4.7 4.4 3.3 3.3
33.0 21.6 20.9 16.3 15.0 10.0 10.0 15.0 17.3 24.9 27.3 33.0

Top Hyd. St. 12.5+85

(4.7)

5.1 5.5 5.1 5.5 5.1 4.3 4.12 4.13 4.8 5.3 5.8 4.9 4.9
33.0 29.2 21.6 20.8 16.2 14.2 10.0 10.0 14.7 16.9 24.8 28.5 33.0

(4.9)

5.7 5.2 5.5 5.2 4.4 4.31 4.2 4.31 4.5 5.4 5.9 5.2 5.3
33.0 21.8 20.7 16.6 14.7 10.0 10.0 15.0 18.0 23.5 27.4 33.0

(5.6)

7.3 7.4 8.5 7.6 5.3 5.02 4.73 5.0 5.2 7.0 7.3 6.8 6.6
33.0 29.0 26.3 18.2 14.9 10.0 10.0 14.9 18.6 23.6 26.2 33.0

(6.3)

8.5 7.9 7.5 6.0 5.78 5.64 5.71 8.2 8.1 8.6 8.1 8.4 8.0
33.0 24.2 17.3 14.2 10.0 10.0 14.7 19.4 23.3 27.3 31.1 33.0

(6.5)

9.5 8.5 6.2 6.4 5.91 5.99 6.6 8.2 9.0 8.4
33.0 22.1 14.4 10.0 10.0 15.1 19.0 25.7 33.0

Top Hyd. St. 129+25

To here Austin

298.40 ✓
6

129

+50

130

131

132

133

+25

134

T.A. 11.03 3 eq. @ ✓ 0.44 298.03 ✓
5 2

+63

135+13 B.S.T.

+62

136+13

H. Carlson
C. Crane
S. Nelson
S. Ahlberg

Dec. 1923

L C R

74

12.5 10.4 6.9 6.80 6.70 6.8 7.1 8.6 9.1
32 7.3.1 4 10 10 17 19 33

73

8.6 6.7 6.74 6.68 6.71 6.8 10.5 10.7 8 10.4
5.2 2 10 10 4 21 12.6 24 33

72

10.3 10.0 8.4 6.44 6.31 6.39 6.5 9.9 7.9
33 20 14 10 10 10.4 21.1 33

62

10.3 9.3 5.1 5.59 5.52 5.58 5.7 8.6 8.1
27 19.8 14.1 10 10 14.3 20.6 33

51

8.1 7.7 4.6 4.06 4.39 11.48 4.6 7.2 7.0
35 28 20.4 14 10 10 14.4 19.9 33

34

7.1 7.6 5.5 2.9 2.84 2.74 2.80 7.8 6.2 6.0 5.5 5.8 5.1 5.7
37 26 19.7 14.3 10 10 10.4 20.7 21.7 .3

29

5.6 6.2 5.1 2.5 2.48 2.30 2.39 2.4 4.9 6.0 5.2 5.1 5.2
39 26 19.1 14.5 10 14 19 19.5 22.8 31 33

14

4.1 4.9 3.5 1.0 0.97 0.83 0.90 0.9 4.0 4.4
33 25.4 18.3 14 10 10 14.5 19.5 22

10.7

14.2 14.4 12.3 10.2 10.20 10.09 10.12 10.1 12.7 13.5
32 27 19 14.8 10 10 14 20 33

9.7

12.2 11.7 13.3 10.8 9.1 9.14 9.11 9.9 8.9 9.6 11.5 11.9
34 33 28.5 18.6 14.8 10 10 14.2 17.7 21.4 33

8.7

10.8 11.1 10.0 7.8 7.24 7.12 7.13 7.55 7.5 8.1 9.5
33 26 19.4 14.9 10.1 10 10 15 20.2 33

7.7

9.5 10.2 10.2 7.8 7.18 7.56 7.05 6.61 6.5 8.2 9.5
33 27.5 21.6 16.3 12.2 11.9 10 14.1 19.5 33

			309.06			
136+38.1						
+63						
136+88						
137+55	End of Pavement.					
+13.						
+42.						
+66						
B.M.				7.00	302.06	301.98
T.F.		0.33	298.39	11.03	298.06	
B.M.				5.98	292.38	292.29
B.M.				7.48	294.88	

L ℄ R

(7.7)

(6.8)

(6.4)

(6.0)

(5.7)

(5.5)

Same as original X-Sec.

Spike in Pole R. 136+15

Spike in Pole L. 132+

Top of Hyd. L. 129+25

8-2-24

From Page 27

Final X-Sections

Station	+	H.I 287.84 ✓	−	Rod	Elev
16 + 00					
+ 13.5					
+ 23.0					
+ 50					
17 + 00					
T.P.	8.56	293.79 ✓	2.61	285.23	✓
18 + 00					
+ 50					
19 + 00					
+ 35					
20 + 00					
B.M			1.52		292.27

H. # RH. 8-5-24

		7.5	7.6	7.9	8.49	(9.0)	8.46	8.5	10.0	10.4	10.7	10.3	9.8
		33.0	24.3	17.0	10.0	8.34	10.0	15.0	20.7	27.2	29.2	32.6	33.0
	7.4	7.9	7.5	7.8	8.06	(8.6)	9.0	8.2	9.7	10.1	10.1	9.1	8.8	7.9
	33.0	29.3	23.3	17.3	10.0	8.07	10.0	14.0	18.9	22.5	25.0	27.2	33.4	34.6
7.1	8.0	8.6	9.0	8.9	7.6	7.78	(8.3)	7.09	7.8	9.6	9.8	9.2	6.8	5.8
0	26.4	25.6	23.4	21.2	16.8	10.0	7.71	10.0	13.7	18.8	22.6	25.8	30.8	36.5
0	3.8													
4	37.6													
	5.6	6.4	8.3	8.3	7.1	6.90	(7.0)	6.98	7.3	8.8	9.2	3.6		
8	29.6	24.3	23.8	19.6	15.0	10.0	6.87	10.0	13.8	18.4	24.8	30.8		
8	1.0	1.2	7.2	7.4	5.5	5.35	(6.0)	5.50	5.7	8.0	8.0	6.9	3.3	
0	30.5	28.7	22.6	18.8	13.6	10.0	5.36	10.0	13.8	20.4	24.2	26.1	33.0	
6	4.8	5.5	10.7	10.9	9.2	8.78	(9.0)	8.87	8.9	11.7	11.2	8.2	6.9	7.0
5	21.6	22.2	31.0	18.4	14.9	10.0	8.73	10.0	13.2	19.7	23.8	28.6	31.8	33.0
1	3.9	4.5	9.3	9.6	7.7	7.70	(7.6)	7.68	7.9	9.4	8.4	7.8	5.8	5.9
3	25.7	26.3	24.7	18.4	13.8	10.0	7.62	10.0	13.5	18.3	20.7	24.6	31.2	33.0
2.9	25.1	7.0	8.4	8.1	6.4	6.69	(6.4)	6.69	6.7	8.4	8.7	8.2	5.0	5.9
2.3	24.3	23.7	21.3	17.4	13.8	10.0	6.62	10.0	13.7	18.0	20.7	25.2	30.8	33.0
1	4.8	6.3	7.9	7.8	6.3	6.44		6.10	6.7	7.8	8.1	7.7	4.8	4.8
0	23.1	23.4	21.4	17.4	13.7	10.0	6.45	10.0	13.6	17.5	22.6	25.4	31.3	33.0
4.0	3.7	6.8	6.6	5.3	5.10	(4.6)	5.02	5.1	6.2	6.6	5.9	2.9	2.0	
33.0	25.7	24.8	18.1	12.2	10.0	5.03	10.0	13.9	17.2	21.5	25.1	31.1	33.0	

M Wind in T.P RH 8th 20 + 10

Driveway Measurements.

Sta 6+830

Right

0+00 Shoulder line

+07.5

+18.5 a.c. line

Left

0+00 Shoulder line

+05

+14 a.c. line

Austin
McGlynn
Lenthiaume
Schmidt.

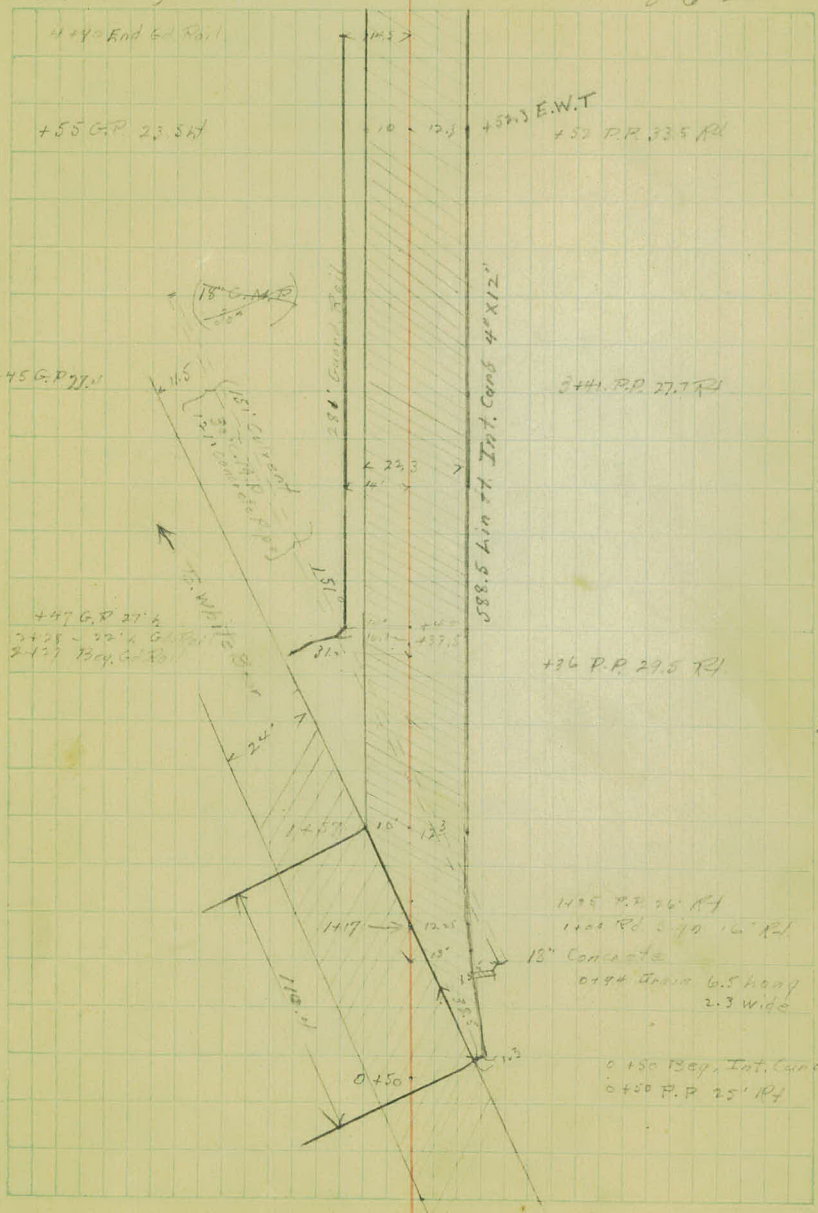
8-6-24

	0.0 / 12.0	0.0	0.0 / 12.0	
-2.6 / 10.0	0.0 / 8.0	0.0	0.0 / 8.0	-2.6 / 10.0
	0.0 / 8.0	0.0	0.0 / 8.0	
	0.0 / 10.0	0.0	0.0 / 10.0	
-2.0 / 8.0	0.0 / 7.0	0.0	0.0 / 7.0	-2.0 / 8.0
	0.0 / 7.0	0.0	0.0 / 9.0	

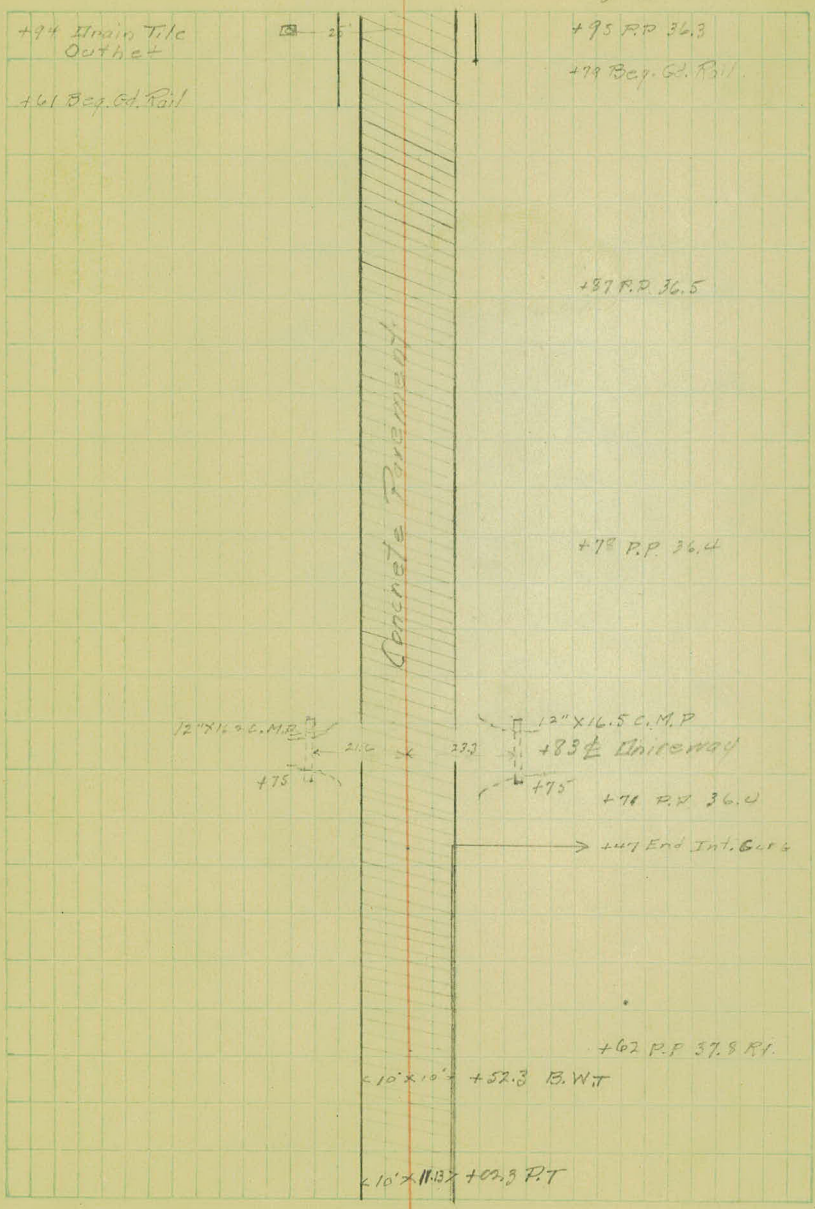
Austin
Kooglum
Berthiaume
Schmidt
Party

Rt.

8-6-24



8-6-24


+94 Drain Tile Outlet
+61 Beg. Gd. Rail
25
+95 RP 36.3
+78 Beg. Gd. Rail
+37 P.P. 36.5
Concrete Pavement
+78 P.P. 36.4
12"X16 C.M.P.
12"X16.5 C.M.P.
+83± Driveway
+75
+75
+71 P.P. 36.0
+49 End Int. Gd. Rail
+62 P.P. 37.8 R.V.
10'x10' +52.3 B.W.T.
10'x11.3' +03.3 P.T.

15

14

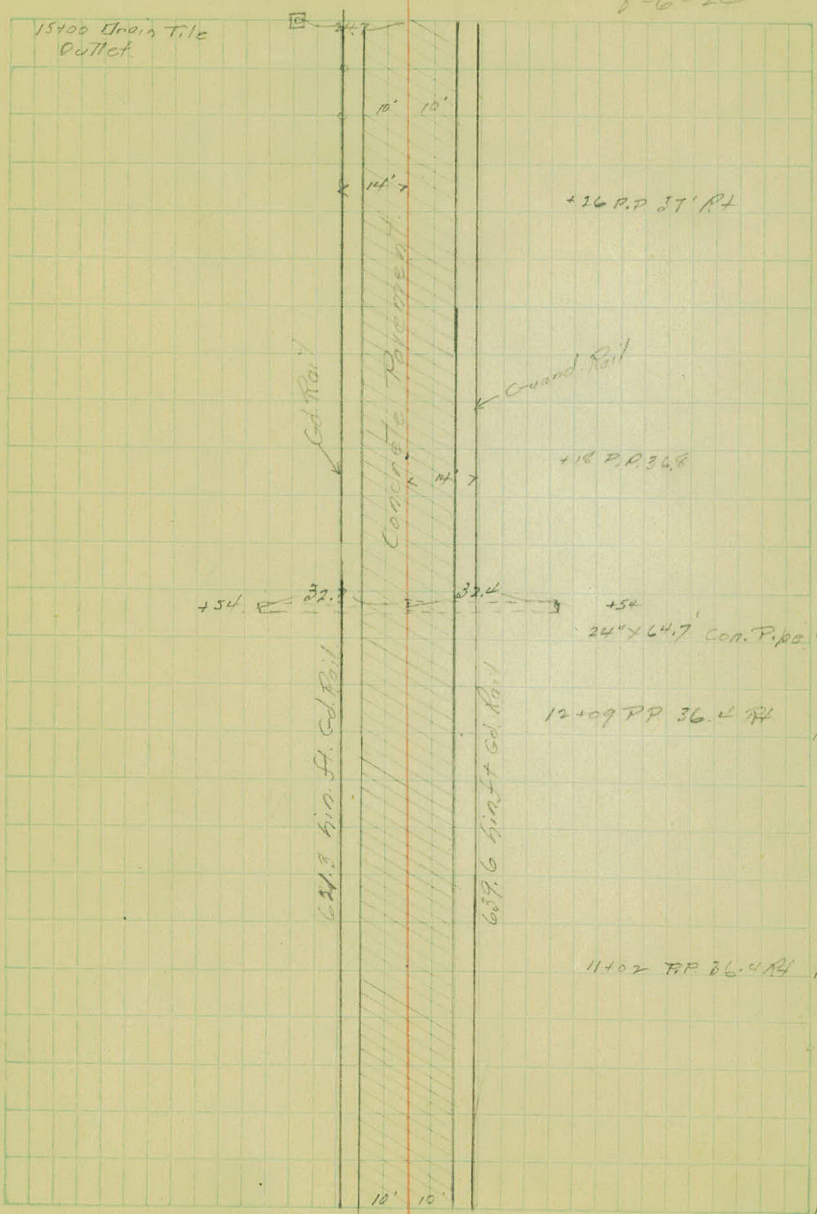
13

12

11

10

8-6-26


15400 Drain Tile Outlet
10'
10'
14'
+26 P.P 37' Rt
Guard Rail
Concrete Pavement
+18 P.P 36.8
14'
+54
32.2'
32.2'
+54
24" x 64.7' Con. Pipe Culv
12+09 PP 36.4 Rt
637.8 Fin. Gr. Gd Rail
637.6 Fin. Gr. Gd Rail
11+02 PP 86.4 Rt
10'
10'
14
13
12
11
10

20

19

18

17

16 End of Pavement Dec. 11, 1973.

End of Curb

End of Curb
" "

15

10' 10'
℄
35'
20
35'
19
1906 Po. Pole
18+49 Tel. Pole
33'
℄ Pavement
18
1800 Po. Pole
℄ Concrete
℄ Power Line
℄ Tel. Line
+23 Tel. Pole
33'
37'
1710 Po. Pole
Sylvan Wire Fence
+45
34'
49'
Corner
+17
15'
15" C.M. 51' Lg.
Fence W.S.
+84
+66 End Culv. 8/12
16+22 Po. Pole.
37'
+18 End Cul. Rd.
+97.6 P.C.C. Rd.
10' 10'
22'
14'
2.5'
+68.3 Drain Tile
Outlet
Gully
(G) Rd.
+13 P.P. 37' Rt

25

456³ Beg. of Guard Rail-L.

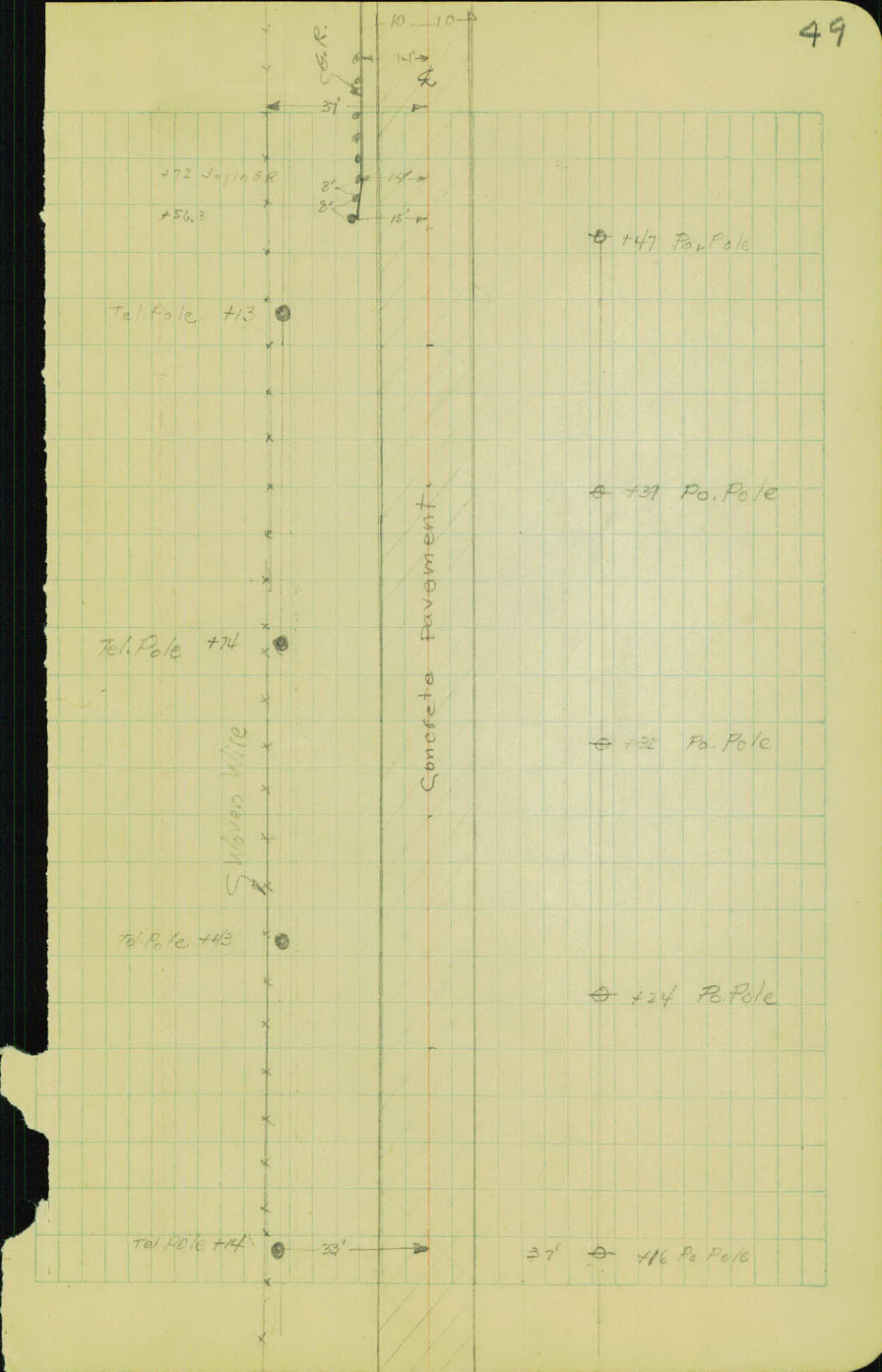
24

23

22

21

20


10
10
S.R.
14'
℄
31'
+72 Joint S.R.
+56.3
8'
8'
14'
15'
+47 Po. Pole
Tel Pole +13
+31 Po. Pole
Tel. Pole +74
Concrete Pavement
Skidoo Wire
+32 Po. Pole
Tel. Pole +43
+24 Po. Pole
Tel Pole +14
33'
37'
+16 Po Pole

30

24

+06 Beg. of Fence R. 53°

28

27

+10.5 End of Gaurd Rail, L. & R.

+6.5 Sag in G.R. L. & R.

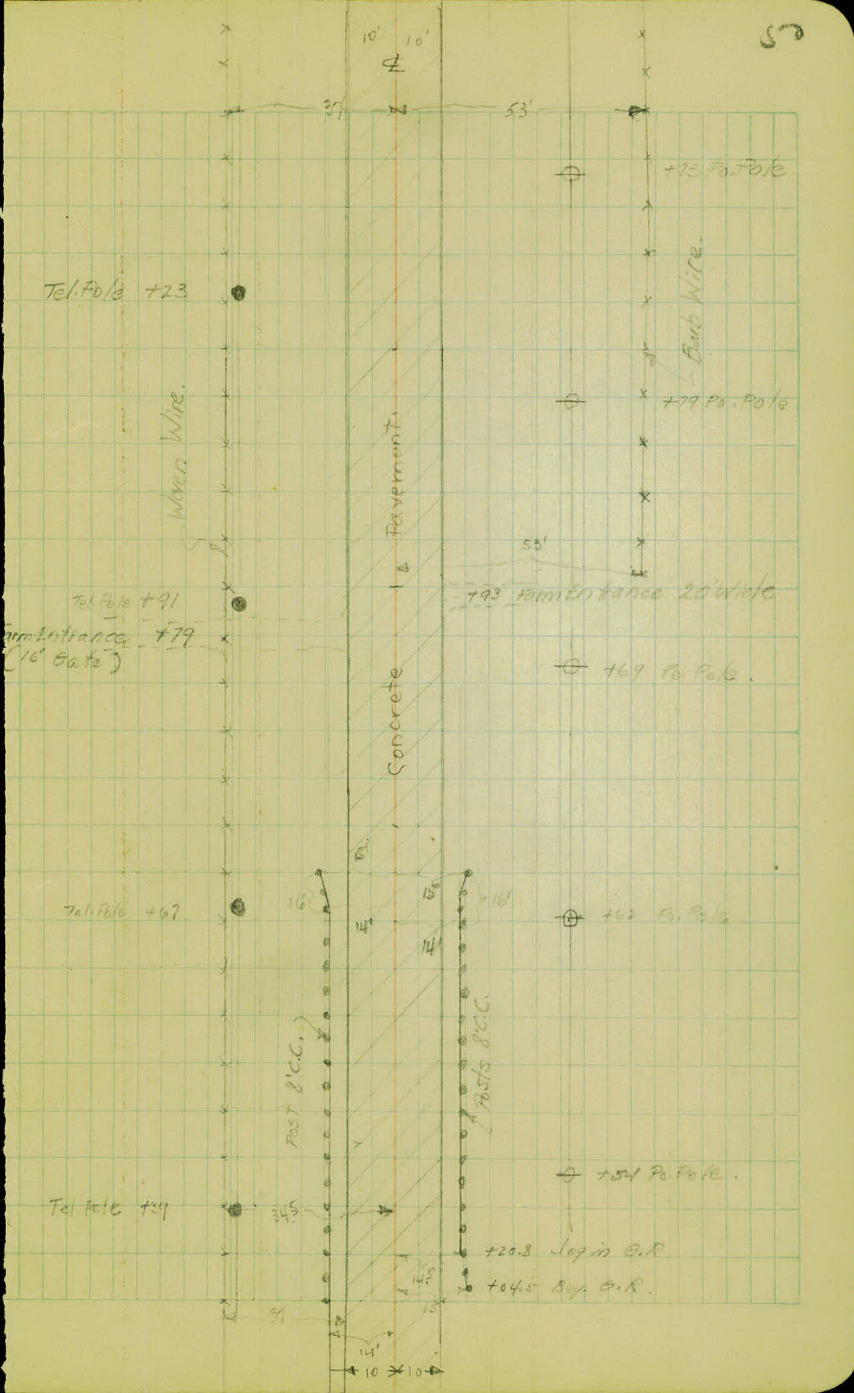
26

+52 End of 6" Drain Tile (24'-R.) Conc. Face Wall 24"X18"X12"

+15 End of Drain Tile 6" 27.5 L., Conc. Face Wall, 24"X18"X12"

+04.5 Beg. of G. Rail 15 K.

25


10' 10'
℄
37'
53'
+73 Po. Pole
Tel. Pole +23
Barb Wire.
Barb Wire.
+79 Po. Pole
Pavement
53'
Tel. Pole +91
+79 Entrance 20'wide
(16' Gate)
+69 Po. Pole.
Concrete
Tel. Pole +67
+63 Po. Pole
Post 8'C.C.
Posts 8'C.C.
+53 Po. Pole.
Tel. Pole +34
+20.3 Top in C.L.
+04.5 Top in C.L.
10 10

35

34

33

+89.5 End of Gaurd Rail 15' Left

32

+77.5 End of Gaurd Rail 15'R.

31

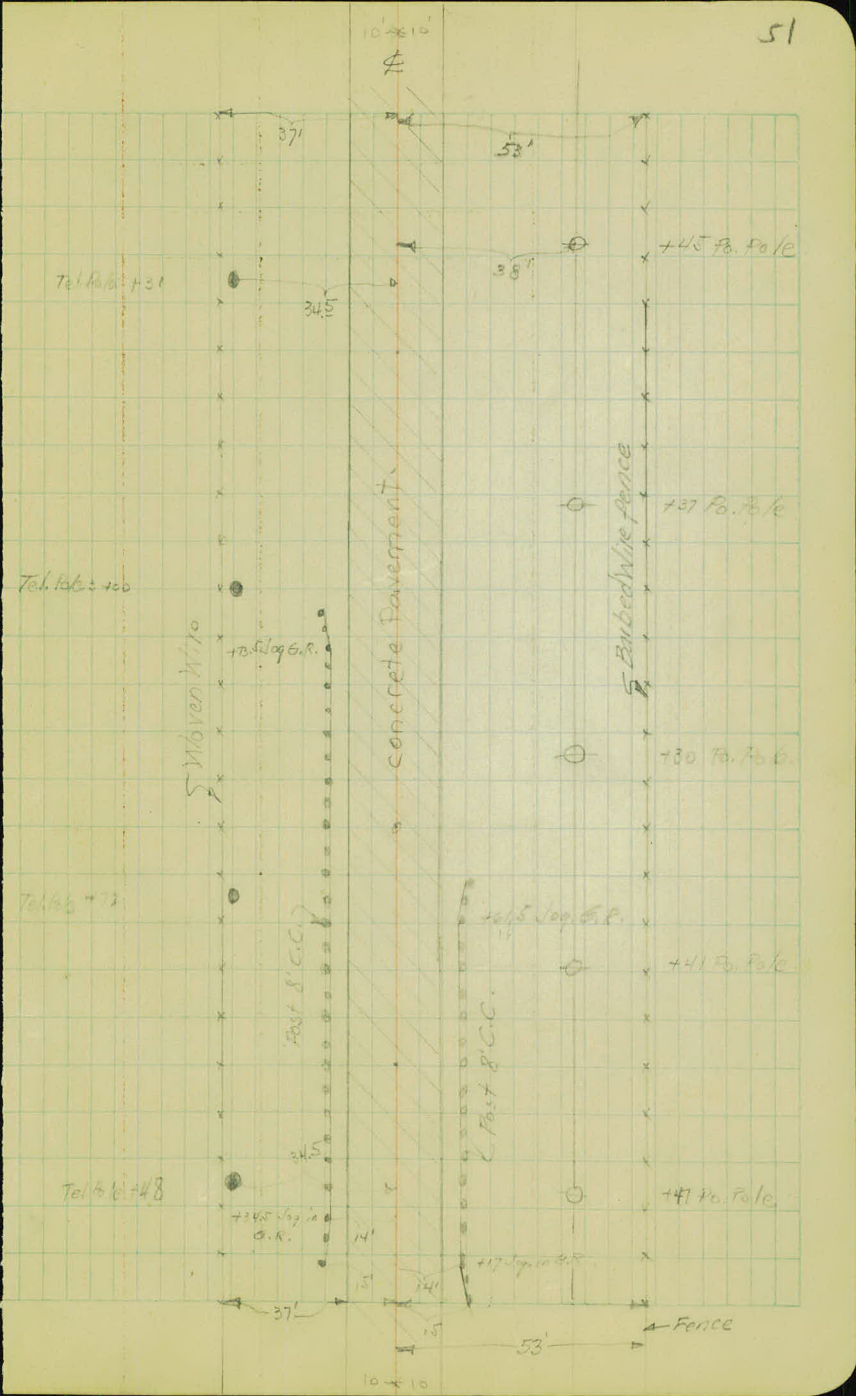
+62 End of 6" Tile Drain 24.5 Left Conc. Face Wall 24"X18"X12"

+26 End of 6" Tile Drain 26.5 R. Conc. Face Wall 24"X18"X12"

+12.5 Beg. Gaurd Rail 15'L.

+01 Beg of Gaurd Rail, 15'R.

30


10'x10'
℄
37'
53'
+45 Po. Pole
Tel. Pole +31
34.5
38'
+37 Po. Pole
Barbed Wire fence
Tel. Pole +60
+35 Jog G.R.
Woven Wire
Concrete Pavement
+30 Po. Pole
Tel. Pole +73
+41 Po. Pole
Tel. Pole +48
+34.5 Jog in G.R.
+47 Po. Pole
14'
15'
37'
53'
Fence
10'x10'

40

39

38

+4.3 End of 6" Drain Tile 8.6' L. Conc. Face Wall, 24"x18"x12"

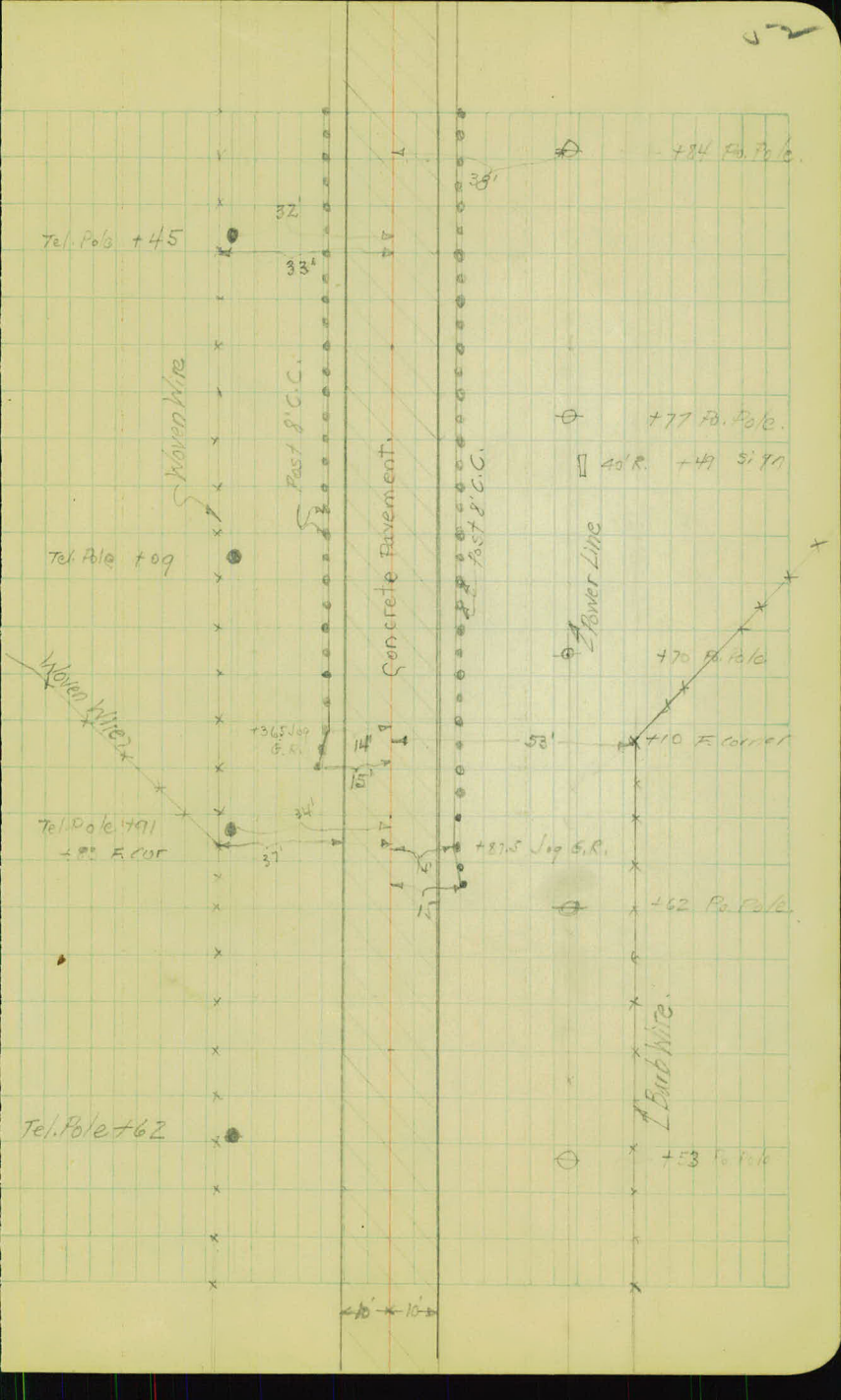
+20.5 Beg of Guard Rail 15' Left

37 +68 End of 6" Drain Tile 24' R. Conc. Face Wall, 24"x18"x12"

+71.5 Beg. of Guard Rail 15' R

36

35


Tel. Pole +45
Tel. Pole +09
Tel. Pole 1491
+81 E. cor
Tel. Pole +62
Seven Wire
Post 8' C.C.
Concrete Pavement
Post 8' C.C.
Power Line
+84 Fd. Pole
+77 Fd. Pole
40' R. +49 Si 91
+70 Fd. Pole
+10 E. corner
+62 Fd. Pole
+53 Fd. Pole
Seven Wire
+36.5 Jog S.R.
+87.5 Jog S.R.
33'
32'
38'
53'
37'
34'
14'
15'
40'
10'

45

+84 End of G.R. 14'L. with Wings.
+80 End of G.R. 14' R.

+55 End of 6" Drain Tile 25'L. Conc. Face Wall 24"X18"X12"
+33 End of 6" Drain Tile 26'R. Conc. Face Wall 24"X18"X12"

44

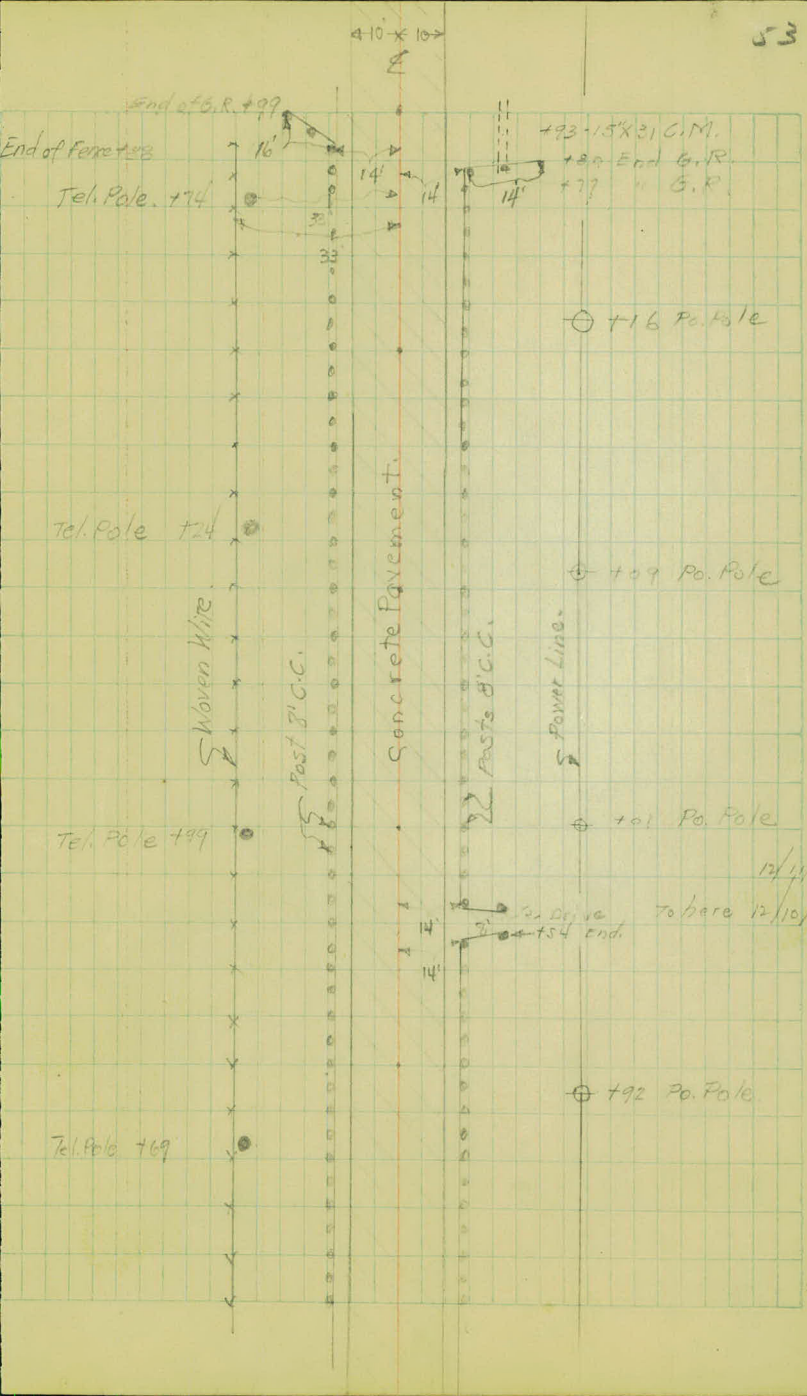
43

42

+69.5 Beg. of Guard Rail 14'R.
+51.5 End of Guard Rail 14'R.

41

40


4-10 × 10
End of S.R. +99
End of Fence +98
16'
14'
14'
14'
14'
Tel. Pole. +74
33'
+93+15 X 31 C.M.
+80 End G.R.
+79 " G.R.
+76 Po. Pole
Tel. Pole +74
+69 Po. Pole
Woven Wire.
Post 5' C.C.
Concrete Pavement.
Posts 8' C.C.
Power Line.
Tel. Pole +99
+61 Po. Pole
12/11/23
+54 End.
To here 12/10/23.
+92 Po. Pole
Tel. Pole +69

50

+36 Drive R.

49

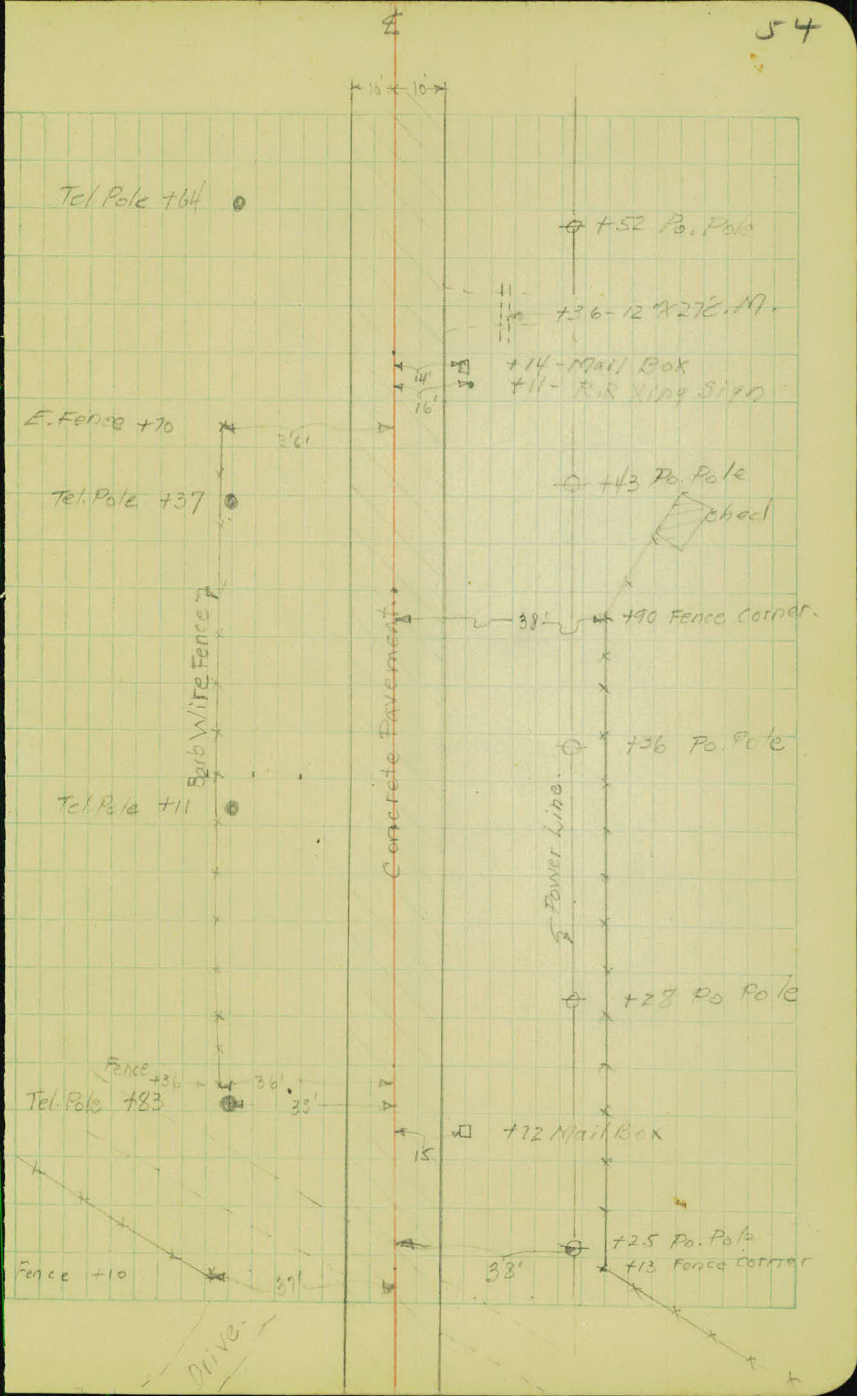
48

47

46

+14 ℄ Road

45


Tel Pole +64
+52 Po. Pole
+36-12'X27' M.
+14-Mail Box
+11-R.R Xing Sign
E. Fence +70
2'6'
Tel. Pole +37
+43 Po. Pole
Shed
Barb Wire Fence
Concrete Pavement
38'
+90 Fence Corner
+36 Po. Pole
Tel Pole +11
Power Line
+28 Po Pole
Fence +36
Tel. Pole +83
36'
35'
+72 Mail Box
15'
+25 Po. Pole
Fence +10
37'
38'
+13 Fence Corner
Drive

55

+10 End of 6" Drain Tile 27'L Conc Facewall 24"X18"X12"
+05 Beg G.R. 14'L.

54

+88 Beg of G.R. 14' R

+35 End of culvert 6" V.T 23'L

+34 End of Tile 6" Drain 21' R. Conc Facewalls 24"X18"X12"

53

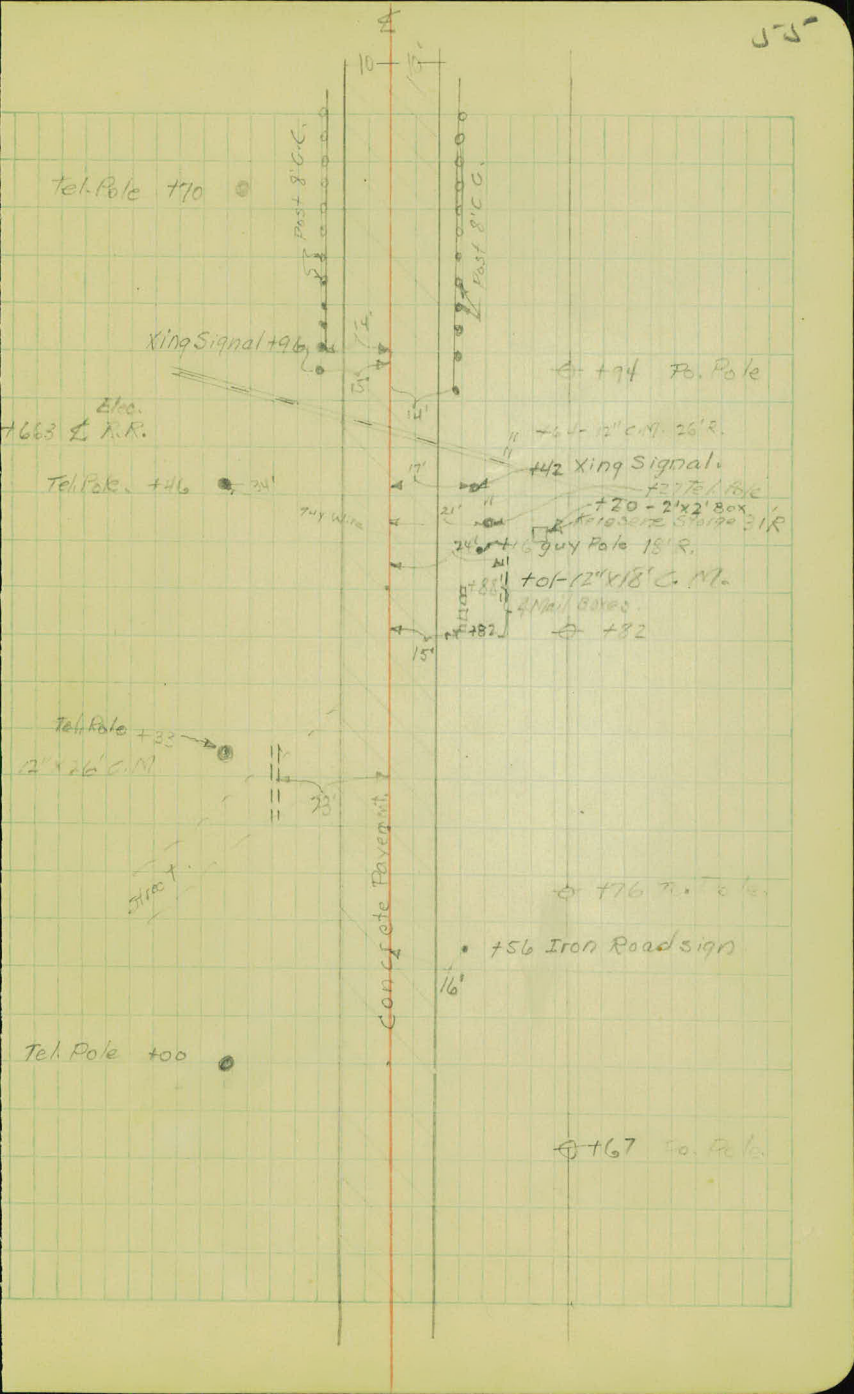
+19 Driv. Tile L.

52

+16 Drive Drive.

51

50


Tel. Pole +70
Post 8' C.C.
Post 8' C.C.
Xing Signal +96
+94 Pb. Pole
Elec.
+663 L. R.R.
+92 - 12" C.M. 26' R.
Tel. Pole +46
34'
+92 Xing Signal.
+90 Tel. Pole
+20 - 2'x2' Box
Telephone Stripe
21' R
24'
+86 Guy Pole 18' R.
+84
+101 - 12"x18' C. M.
4 Mail Boxes.
+82
+82
Tel. Pole +33
12" x 26' C.M.
23'
Stripe
+76 Tel. Pole
+56 Iron Road sign
16'
Concrete Pavement
Tel. Pole +00
+67 Tel. Pole

60

59

704 Divis R.

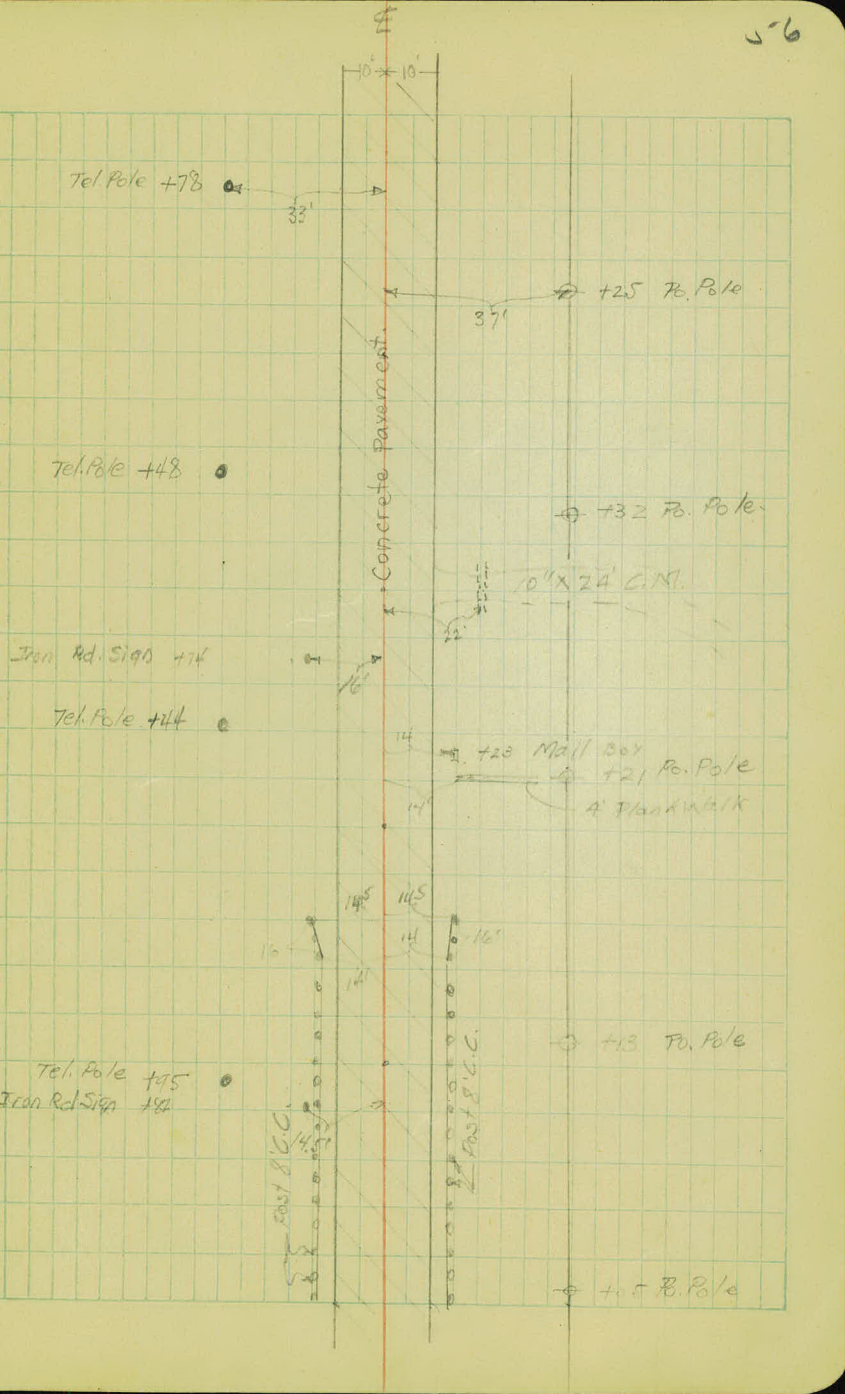
58

57

762 End of G.R.L.
760 End of G.R.R.

56

55


10'
10'
Tel Pole +78
33'
+25 Po. Pole
37'
Concrete Pavement
Tel. Pole +48
+32 Po. Pole
10"x 24' C.M.
Iron Rd. Sign +74
16'
Tel. Pole +44
+28 Mail Box
+21 Po. Pole
4' Plankwalk
14'
14.5
16'
+13 Po. Pole
Tel. Pole +95
Iron Rd. Sign +82
Easy 8% G.
+7 Po. Pole

65

+615 End of G.R. 15' R
+59 End of G.R. 15' L.

64

63

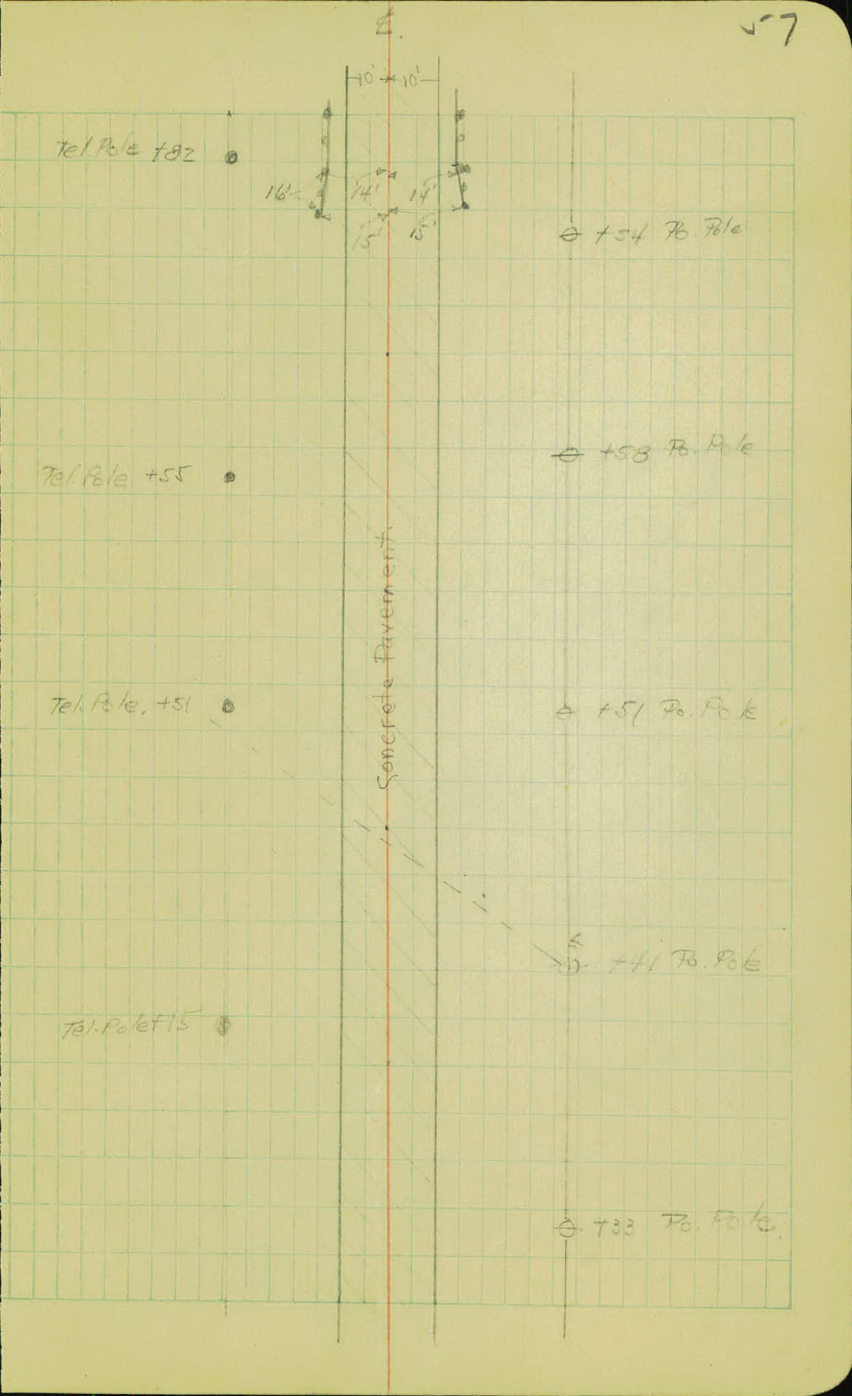
62

+96 E. Street

61

755 End of 6" Drain Tile 21' L. Conc face Wall 24"X18"X12"

60


10' + 10'
Tel Pole +52
16'
14'
14'
15'
15'
+54 Po. Pole
Tel. Pole +55
+58 Po. Pole
Concrete Pavement
Tel. Pole. +51
+57 Po. Pole
+41 Po. Pole
Tel. Pole +15
+33 Po. Pole

70

69

-48 Beg. C.R. 14.5' R.

68 ℄ Street

+70 Riv. Drive R

+162 End of C.R. 14' R. L.

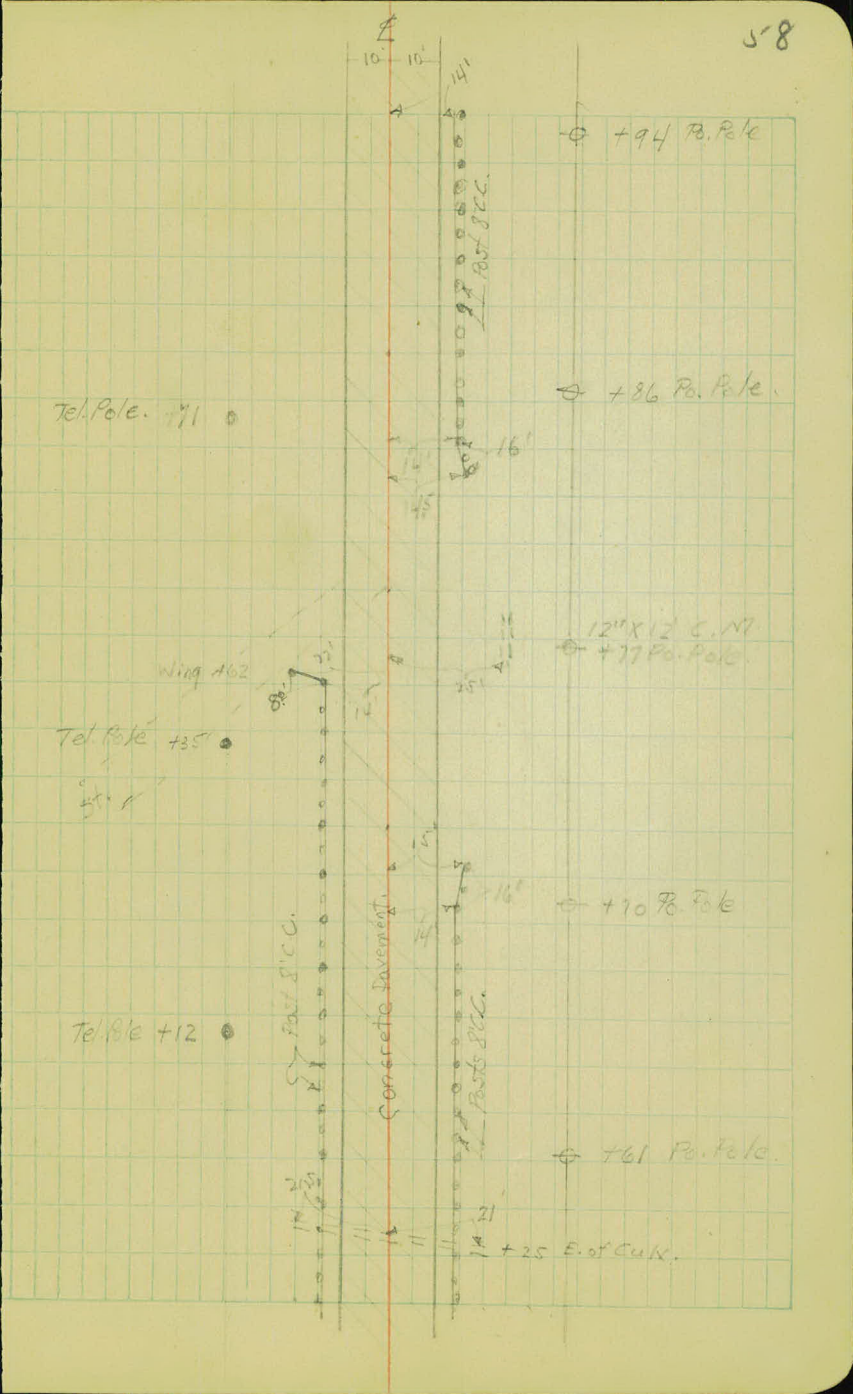
67

+84.5 End of C.R. 15' R.

66

+30.5 24"×42.5 C.M. drains L.

65


10'
10'
14'
+94 Pa. Pole
Post 8'C.C.
+86 Pa. Pole.
Tel. Pole. +71
16'
12"X12" C.M.
+77 Pa. Pole.
Wing A62
Tel. Pole +35
+70 Pa. Pole
Post 8'C.C.
Concrete Pavement
Tel. Pole +12
+61 Pa. Pole.
+25 E. of Culv.

75

74

73

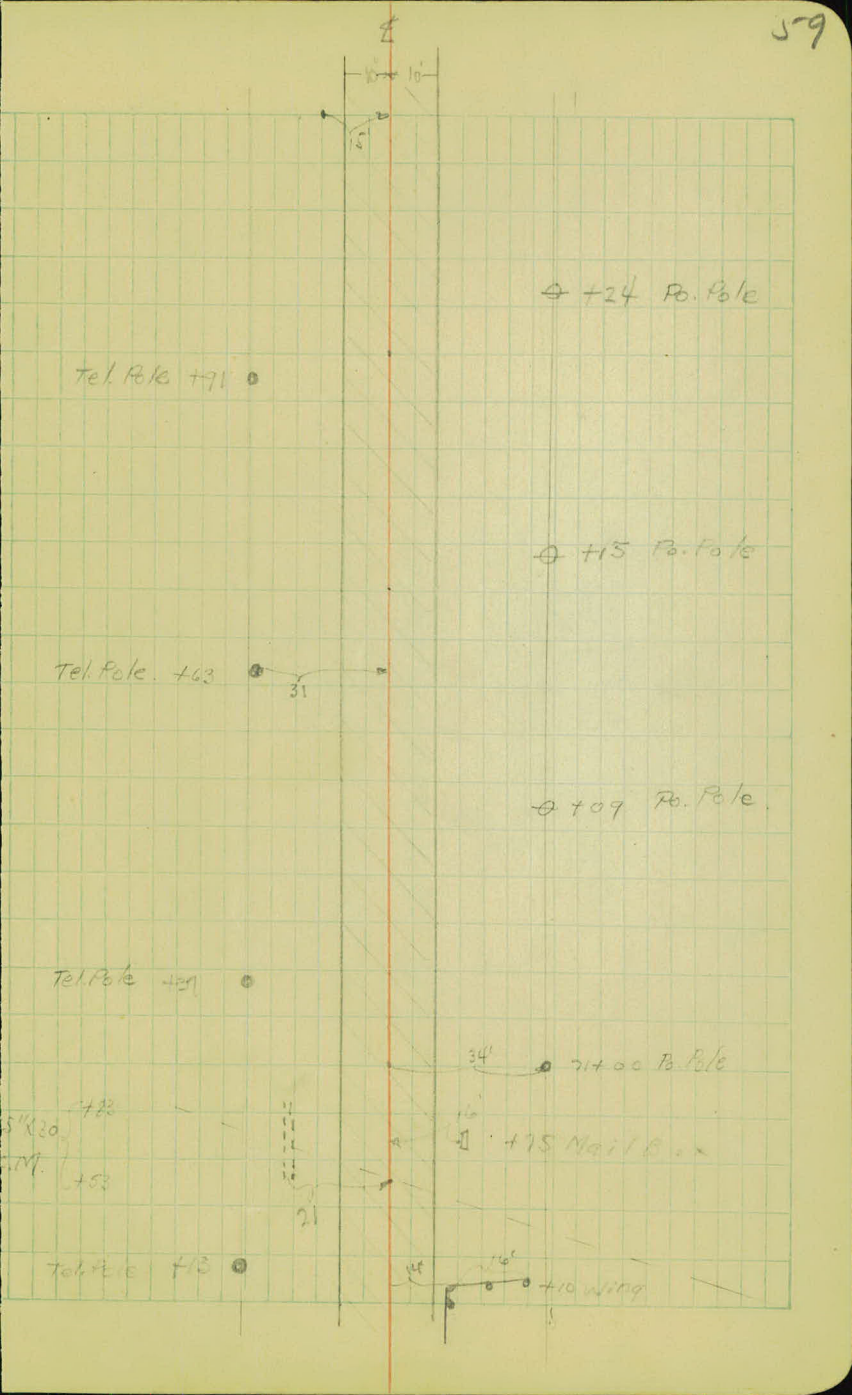
72 +00 End of 6" Dr. Tile & 22'R. Conc Face Wall, 24"X18"X12"

71

+52 ℄ 4th St.

+07.5 End of C.R. 14'R.

70


10'
15'
+24 Po. Pole
Tel. Pole +91
+15 Po. Pole
Tel. Pole. +63
31
+09 Po. Pole.
Tel. Pole +59
34'
7+00 Po. Pole
+75 Mail B.
21
Tel. Pole +13
+10 Wing

80

+52 Fire Hyd L.

+27 Pvt. Dlvel.

79

+58 ℄ Co. Road B

78

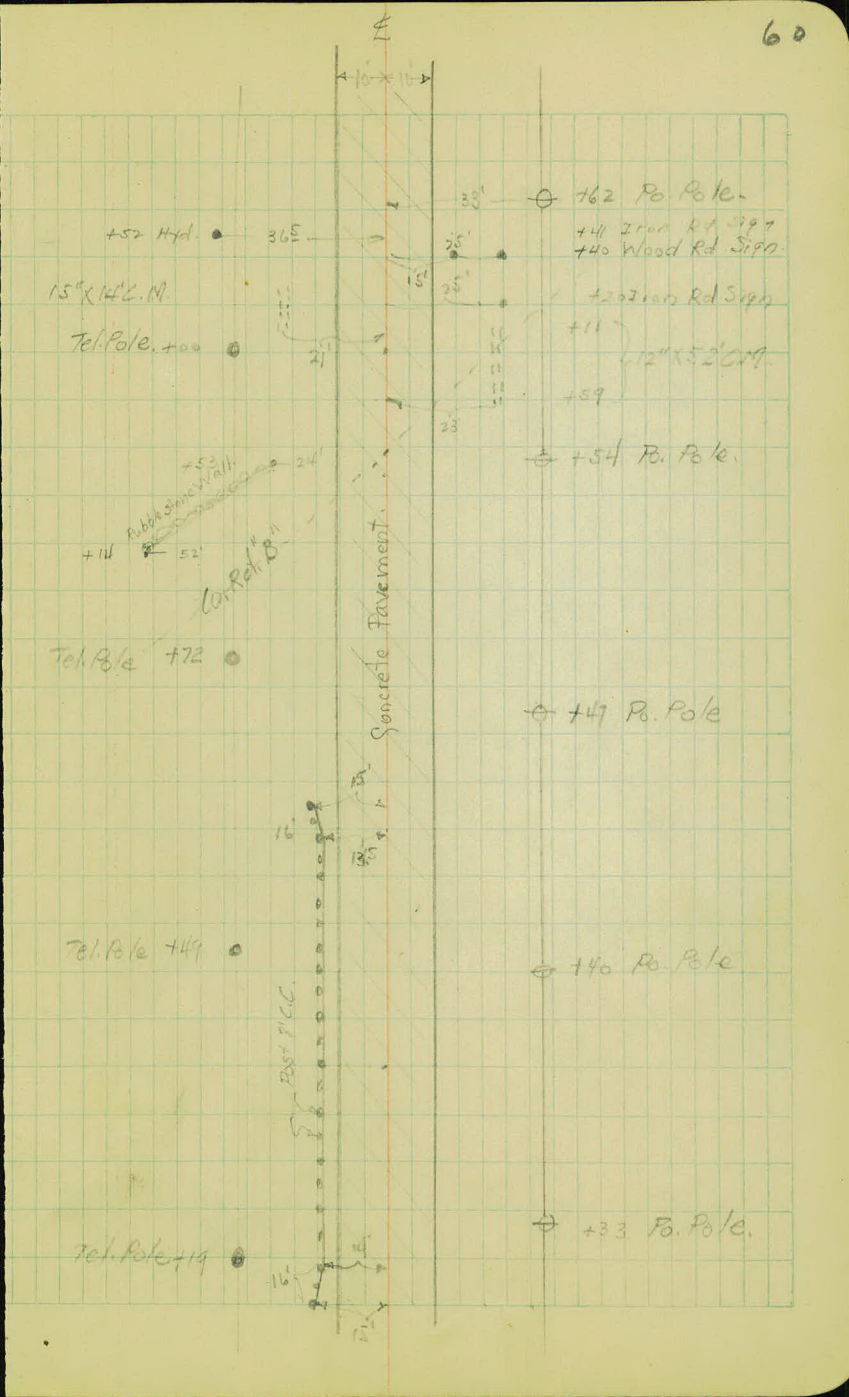
+09 End of G.R. 15' L.

77

+57 End of 6" Drain 34.5 L. Conc. Flood Wall 26"x8"x2"

76

78+00 Beg. of Gut. 15' L.


℄
+10 × 11
+62 Po. Pole
+52 Hyd.
365'
+41 Iron Rd Sign
+40 Wood Rd Sign
15" X 14'C.M.
+20 Iron Rd Sign
Tel. Pole. +08
+11
12" X 5'C.M.
+59
+54 Po. Pole.
Rubble Stone Wall
+14
52'
Concrete Pavement
Tel. Pole +72
+49 Po. Pole
Tel. Pole +49
+40 Po. Pole
+33 Po. Pole.
Tel. Pole +19

85

+68 E Oak Hill Place N.W

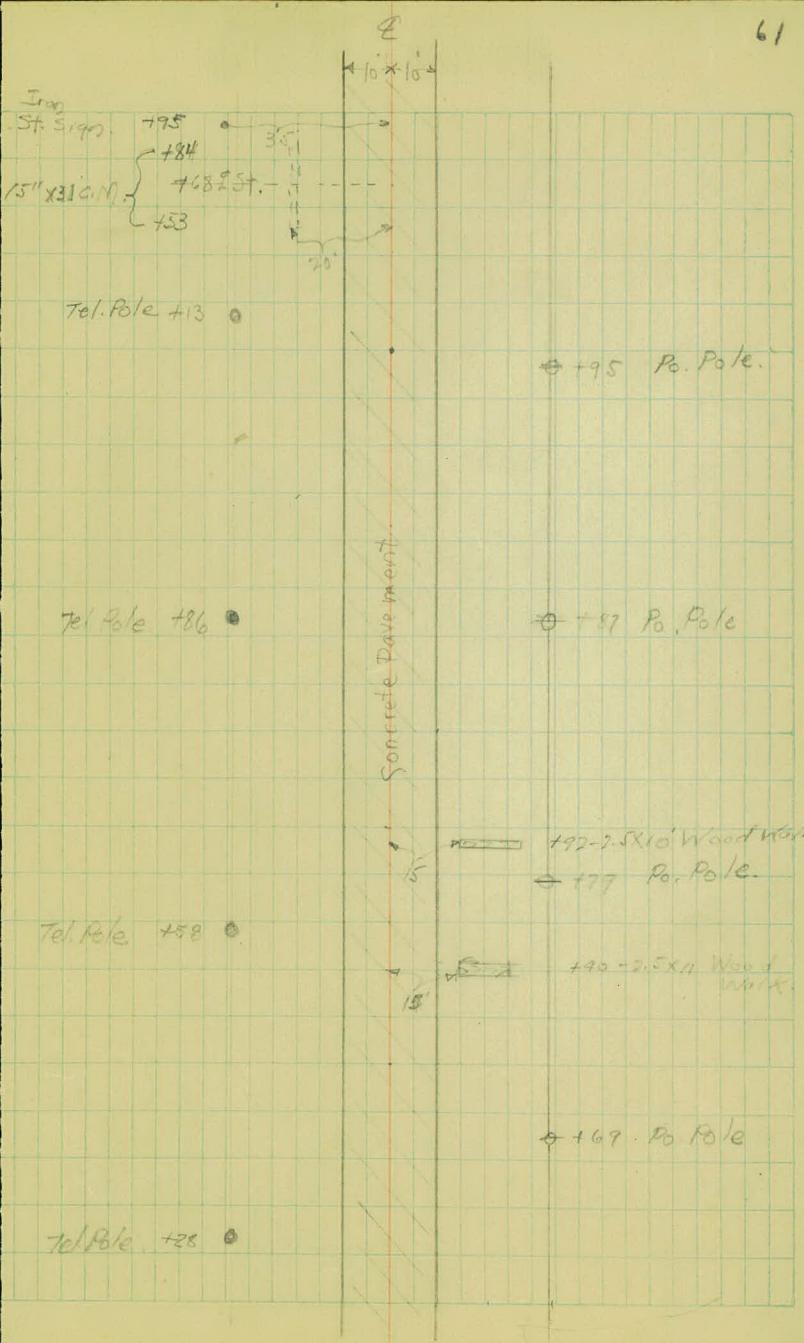
84

83

82

81

80


℄
10 × 10'
Iron St. +795
+784
15" x 31 C.M. +768 St.
+753
35°
20'
Tel. Pole +13
+95 Po. Pole.
Tel Pole +86
+87 Po. Pole
Concrete Pavement
+92-2.5x10' Wood Work
+77 Po. Pole.
Tel. Pole +58
+90-2.5x11 Wood Work.
+69 Po Pole
Tel Pole +28

90

+67 End of 6" Drain Tile 25' L. Conc Face Wall 24"x8"x12"

89

88

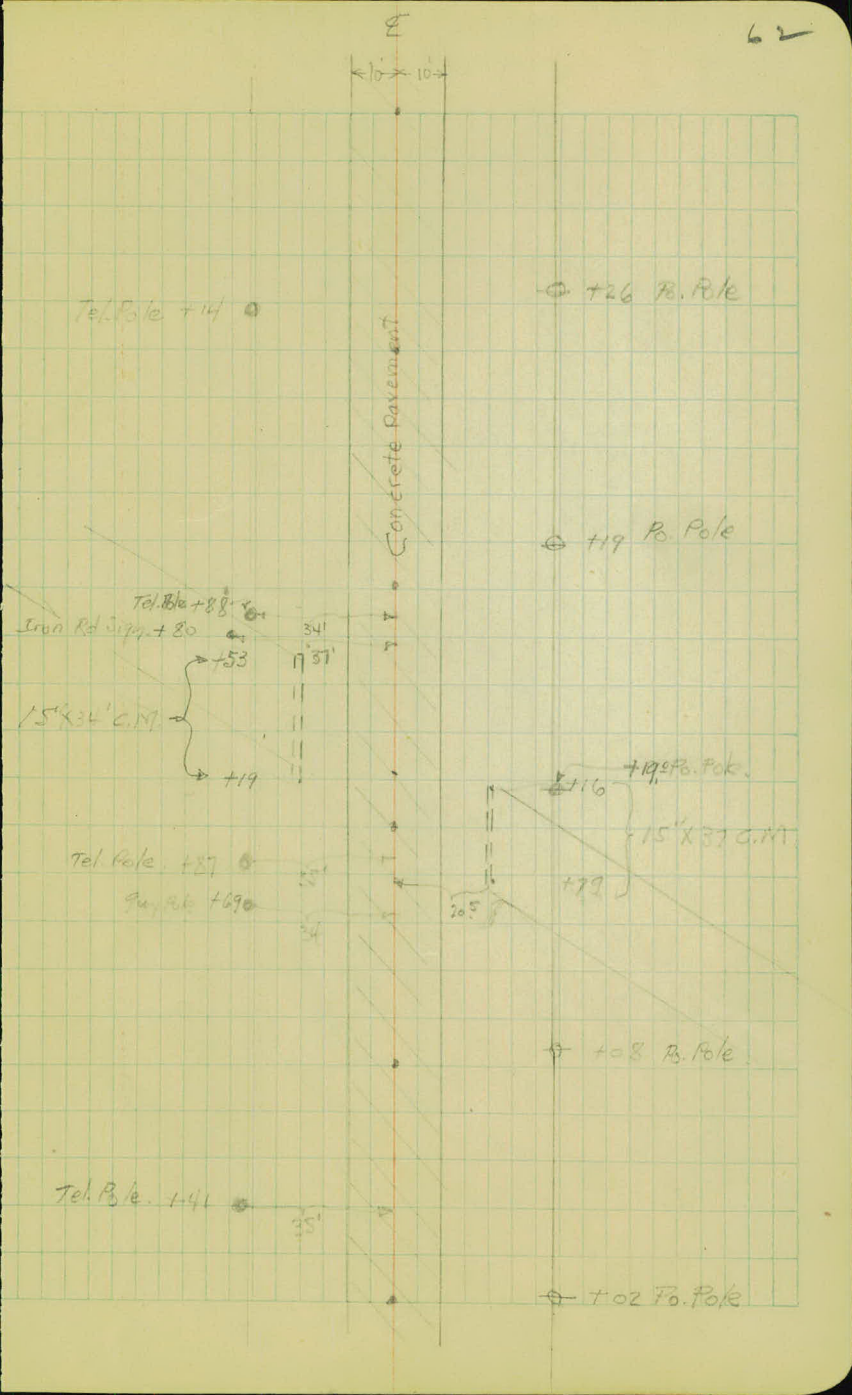
+81 Fire Hydrant 50' left.

+21 E 2nd St.

87

86

85


10'
10'
Tel. Pole +14
+26 P. Pole
Concrete Pavement
+19 P. Pole
Tel. Pole +88
Iron Rd Sign +80
+53
34'
37'
15"X34' C.M.
+19
+16
+19 P. Pole
15"X37 C.M.
Tel. Pole +57
Sq. Pk +69
+79
20.5
+08 P. Pole
Tel. Pole +41
35'
+02 P. Pole

95

+68 Priv. Drive L.

94

+69 ℄ Penn Place Left

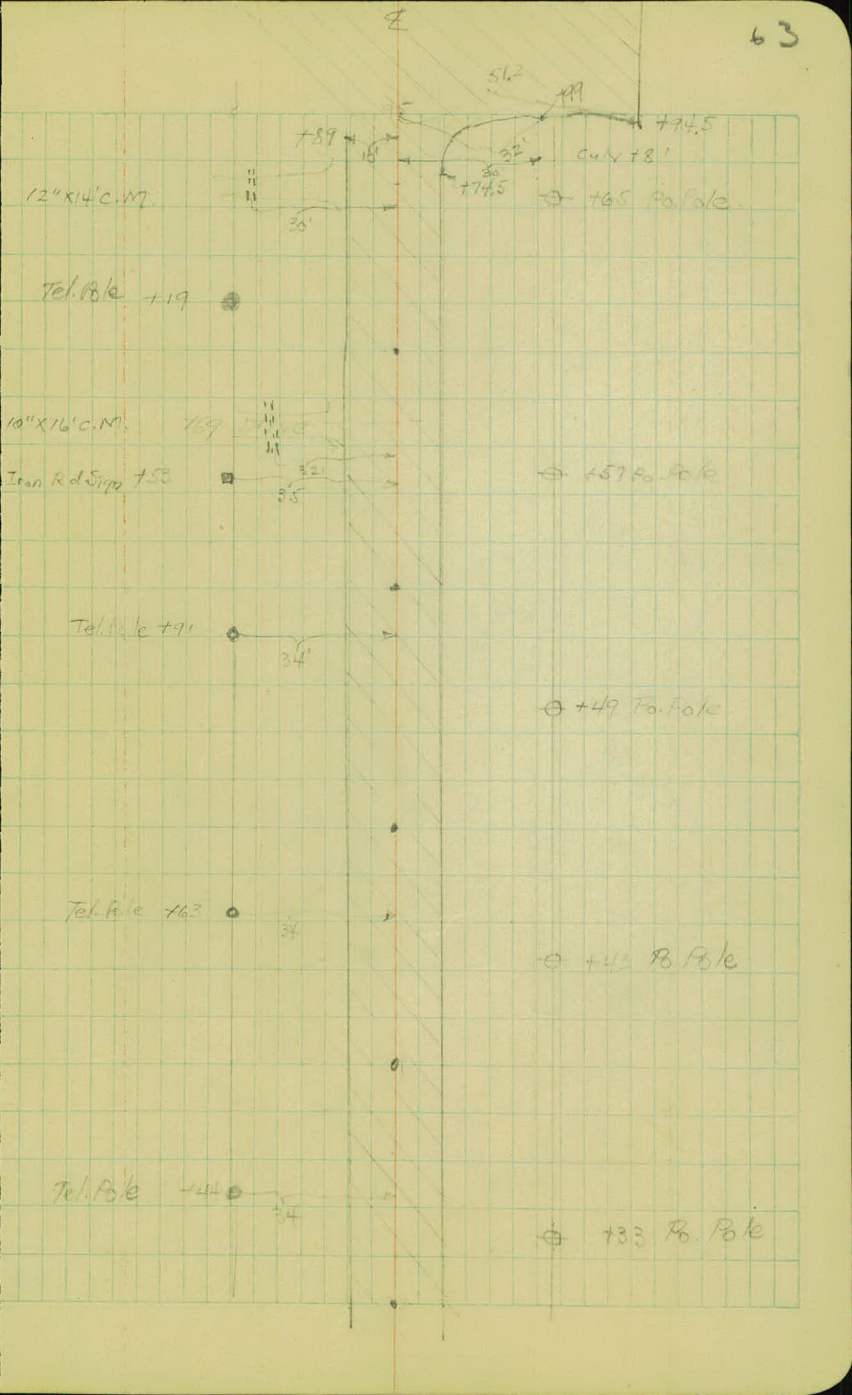
93

92

+40 End of 6" Tile Drain - 7'8 - Conc. Face Wall 24"x18"x12"

91

90


℄
56.2
+74.5
+89
18'
27'
Culv 78'
+74.5
12"x14' C.M.
30'
+65 Fo. Pole
Tel. Pole +19
10"x16' C.M.
Iron Rd Sign +58
32
35'
+57 Fo. Pole
Tel. Pole +91
34'
+49 Fo. Pole
Tel. Pole +63
34'
+43 Fo. Pole
Tel. Pole +44
34'
+33 Fo. Pole

100

99

98

97

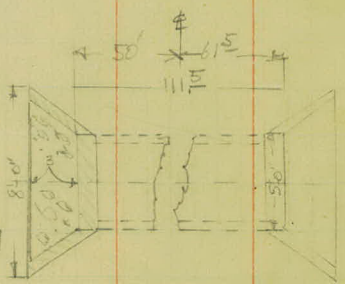
+52 mail Box(W.S.) 48' L.
+24 Fire Hydrant 35' L.
+22' Iron Sign Post 36' L.
+17 Water Gate Valve

96

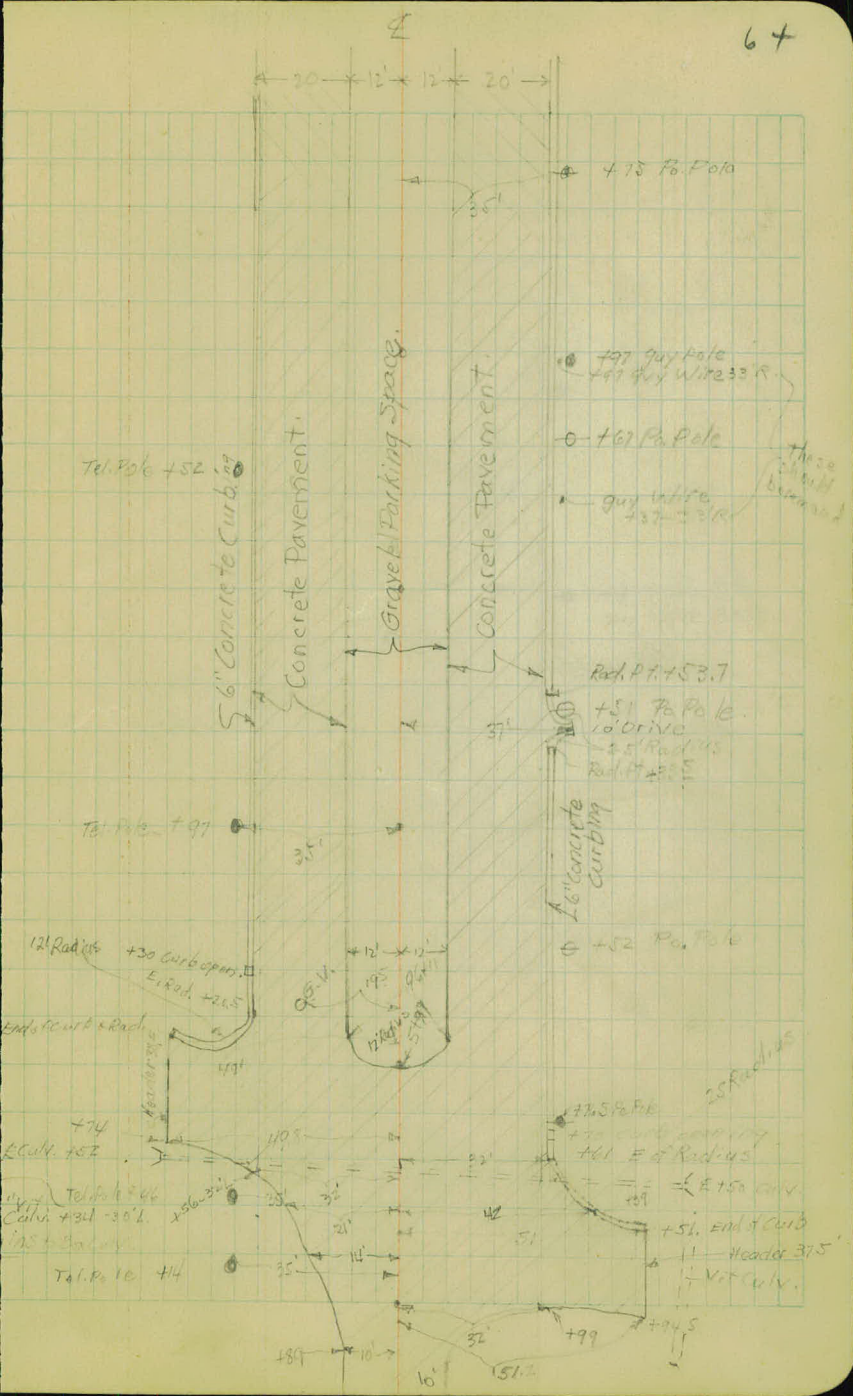
159 ℄ 1st St.

+55 ℄ Cul V. 3x4 Box → 24"x4'
+45 X-ing Curb. 66' R.

opening



95


20
12'
12'
20'
475 Pe. Pole
Grave'l Parking Space.
Concrete Pavement.
Concrete Pavement.
6' Concrete Curbing
Tel. Pole +52
Rad. P.T. 453.7
+51 Pe. Pole
10' Drive
16' Concrete curbing
+52 Pe. Pole
Tel. Pole +97
12' Radius
+30 Curb opens
+74
+51 End of Curb
Header 3.75
Tel. Pole +14
+99
+94.5
10'
16'
51.2

105

+60 Iron Rd. Sign 34'L.

+30 Water Gate Valve 36'L.
+35 center of Arc of Paving.

104

+89 ℄ Helen St.

+44 center of Arc of Paving.

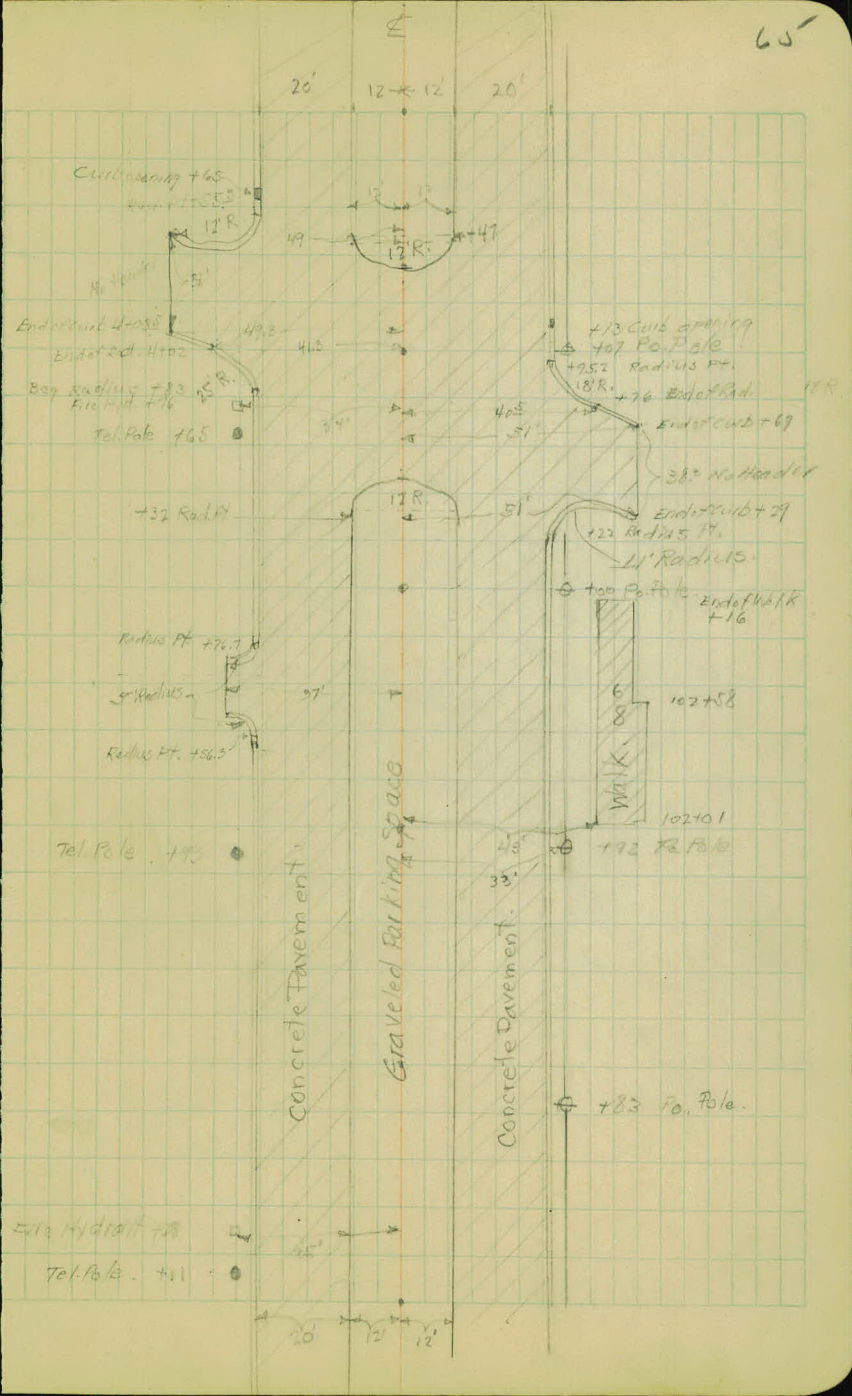
103

+66.5 ℄ Priv. Drive 10' drive

102

101

100


20'
12'
12'
20'
Curb opening +65
12' R.
49
12' R.
+47
End of Curb +68
49.3
End of Curb +102
41.2
Beg. Radius +83
Fire Hyd. +76
25' R.
Tel. Pole 165
34'
40.5
51'
+13 Curb opening
407 Pole
+95.2 Radius Pt.
18' R.
+76 End of Rd.
18' R.
End of Curb +69
38° N. Headed
+32 Rad. Pt.
17' R.
51'
End of Curb +29
122 Radius Pt.
11' Radius
+00 Pole
End of Walk +16
Radius Pt. +76.7
5' Radius
97'
Radius Pt. +86.5'
6'
8'
Walk
102+58
102+01
Tel. Pole. 49
48'
+92 Fo. Pole
33'
Concrete Pavement
Graveled Parking Space
Concrete Pavement
+83 Fo. Pole.
Fire Hydrant +78
Tel. Pole. 411
25'
20'
12'
12'

110

+75.1 ℄ 12' Priv. Drive.

109

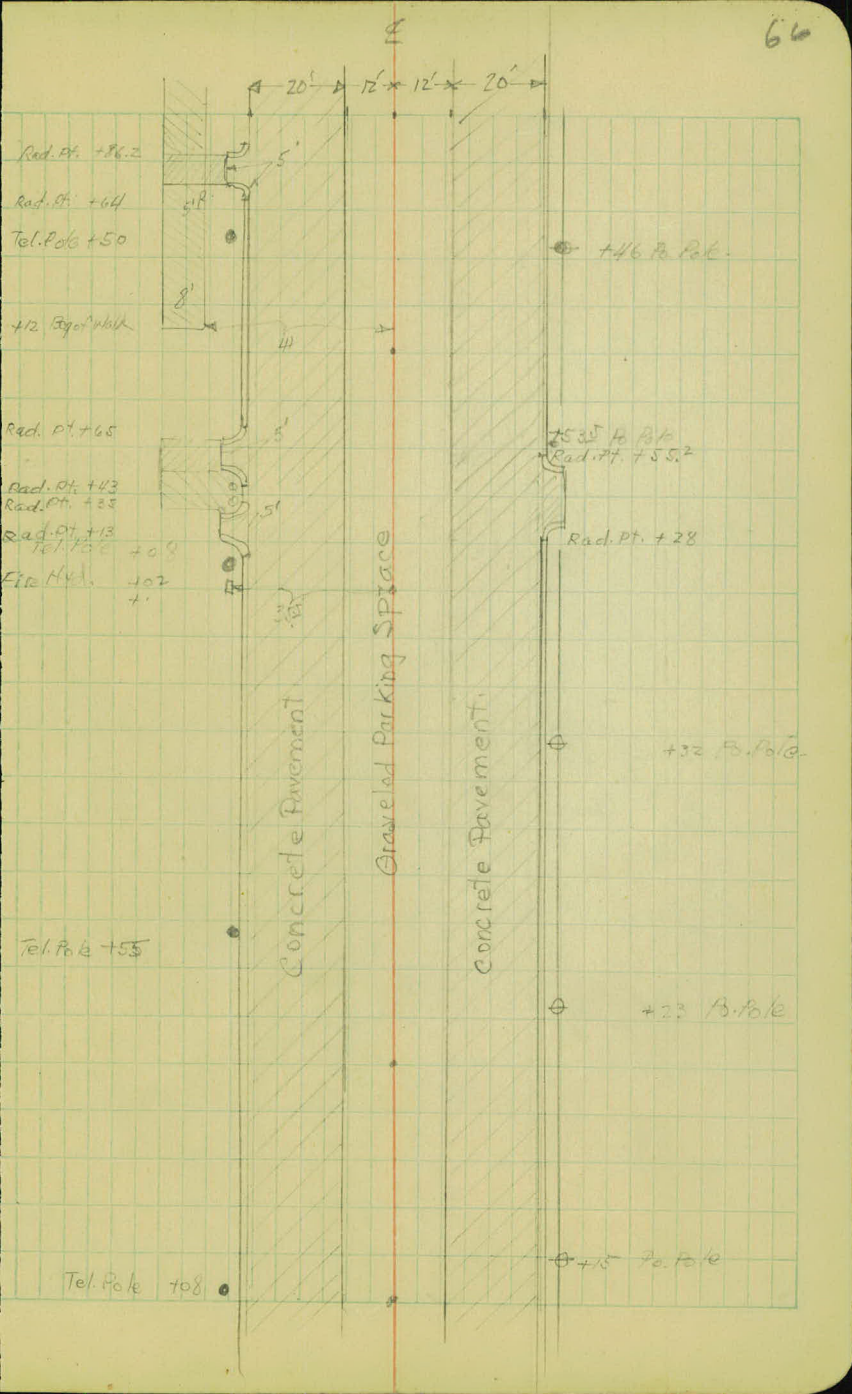
+54 ℄ 12' Drive. Left.
+41 Gas. Pump. ℄ U.L.
+36.5 Gas. Pump. ℄ U.L.
+25 ℄ 12' Drive.
+29 ℄ 24' Drive Right

108

107

106

105


℄
20'
12'
12'
20'
Rad. Pt. +86.2
5'
Rad. Pt. +64
Tel. Pole +50
8'
+12 Bgr. Wall
41'
Rad. Pt. +65
Rad. Pt. +43
Rad. Pt. +38
Rad. Pt. +13
Tel. Pole +09
Fire Hyd. +02
+46 P. Pole
+35 P. Pole
Rad. Pt. +55.2
Rad. Pt. +28
Concrete Pavement
Graveled Parking Space
Concrete Pavement
+32 P. Pole
Tel. Pole +55
+23 P. Pole
+15 P. Pole
Tel. Pole +08

115

+37.1 ℄ 11' Drive.

114

+13 Iron Rd. Sign 40' L.

113

+86 Center of Arc of Paving.

+73 Mushroom Light.

+40.5 ℄ Manpost 57.

+26 Fire Hyd. 25' L.

+20 ℄ of Tel. Booth. 36' Octagon

+9.6 Mushroom light.

112

+95.5 Center of Arc. of Paving.

+6.5 P.C. of 83' R.

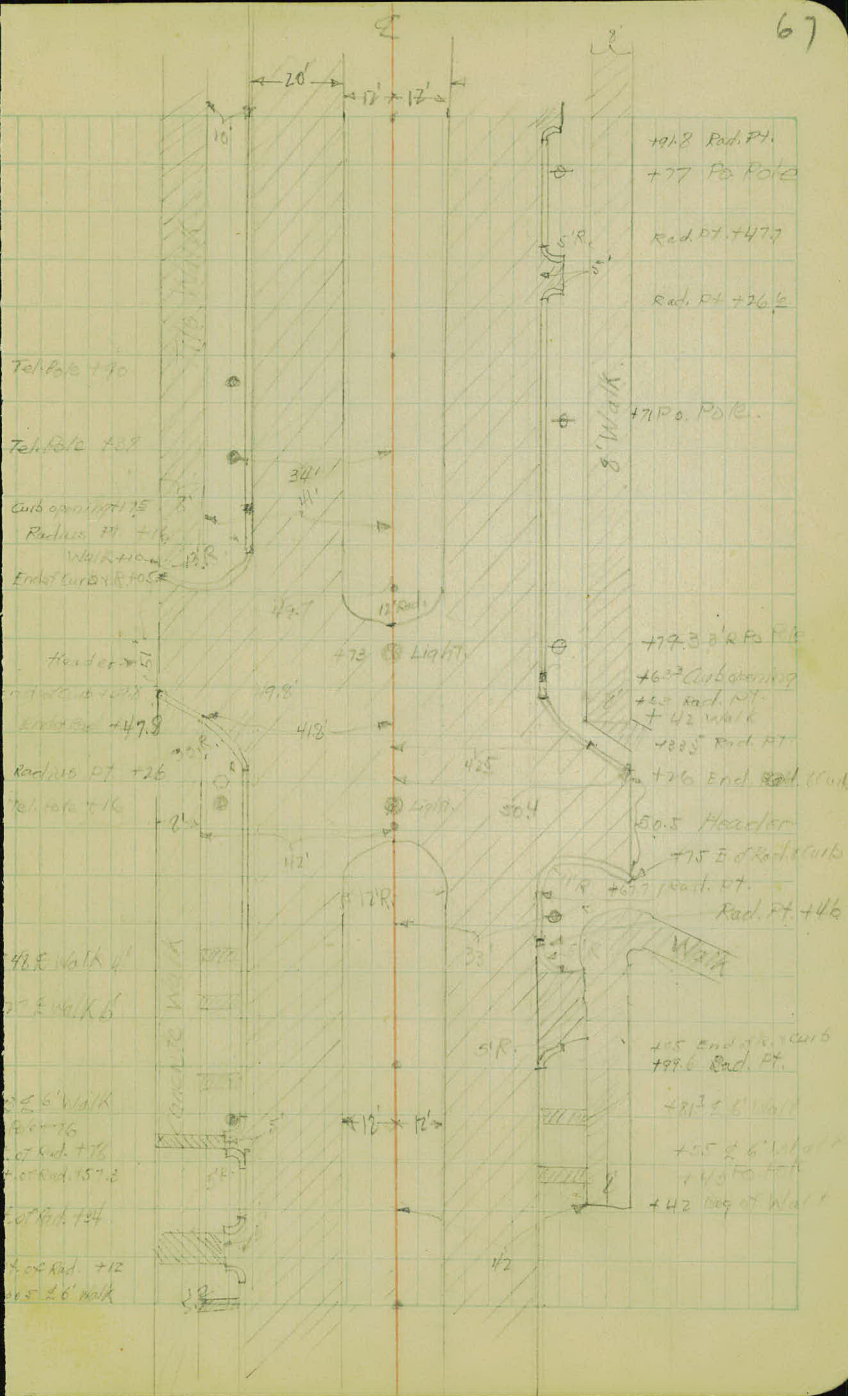
-22.8' ℄ 32' Drive Filling Sta.

111

+68 ℄ Priv. Drive 16' Wide

+23 ℄ Priv. Drive 12' Wide

110


20'
12' + 12'
10'
+91.8 Rad. PT.
+77 Pa Pole
Rad. PT. +47.7
Rad. PT. +76.6
Tel Pole +10
Tel Pole A&P
Curb opposite 75
Radius PT +16
Walk +10
End Curb R +05
12' R.
Header +51
+47.8
Radius PT +26
Tel Pole +16
12' Walk
Walk
+71 Po. Pole
+72.3 B'k Po P.E
+63.7 Curb opening
+55 Rad. PT.
+42 Walk
+38.5 Rad. PT.
+26 End Rad. Curb
50.5 Header
+75 E of Rad. Curb
Rad. PT. +46
Walk
+05 End of Curb
+99.6 Rad. PT.
+55 E 6' Walk
+42 Beg of Walk
+12' + 12'
Curb Line
Walk
Walk

120

119

+46 S Gas Pump 34.5 L (5'x3') conc base
+37 Gas Pump 34.5 L.

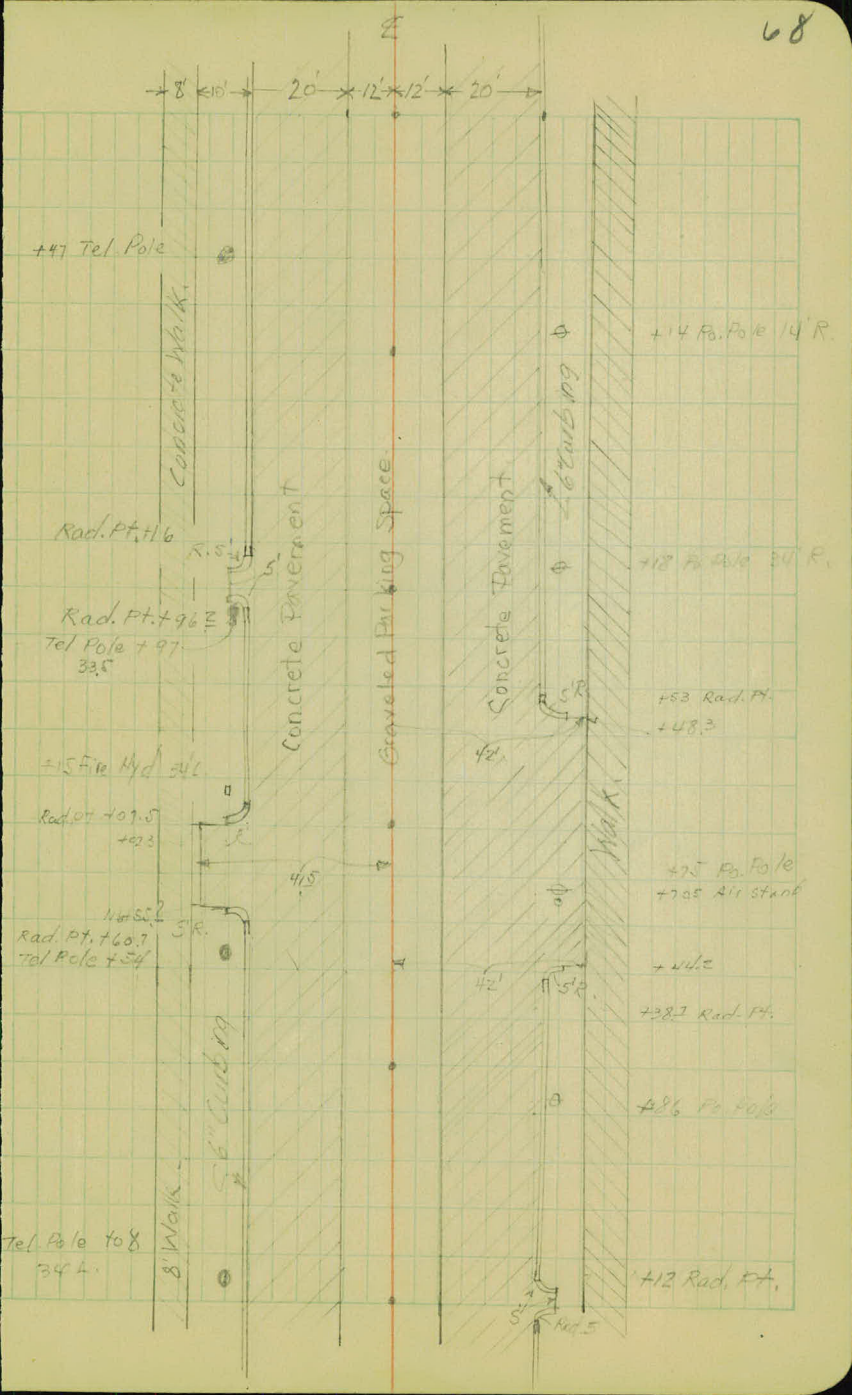
+06 ℄ 9.3 Drive
118

117

+23 Gas Pump 34.5 L. conc base 2.5' x 2.5'
+18 " " 34.5 L.

116

115 +02 ℄ 10 Drive R.


8'
10'
20'
12'
12'
20'
+47 Tel. Pole
Concrete Walk
Rad. Pt. +116
R. 5'
5'
Rad. Pt. +96.2
Tel Pole +97
33.5
Concrete Pavement
Gravelled Parking Space
Concrete Pavement
Grass Plot
+14 Po. Pole 14' R.
+18 Po. Pole 20' R.
+53 Rad. Pt.
+48.3
42'
Walk
+15 Fire Hyd. Rt.
Rad. Pt. +69.5
+63
41'5
+73 Po. Pole
+73.5 Arc Street
Rad. Pt. +60.7
Tel Pole +54
5' R.
42'
+44.2
+38.7 Rad. Pt.
+86 Po. Pole
Grass Plot
8' Walk
Tel. Pole 108
34 A.
+12 Rad. Pt.
5'
Rad. 5

125

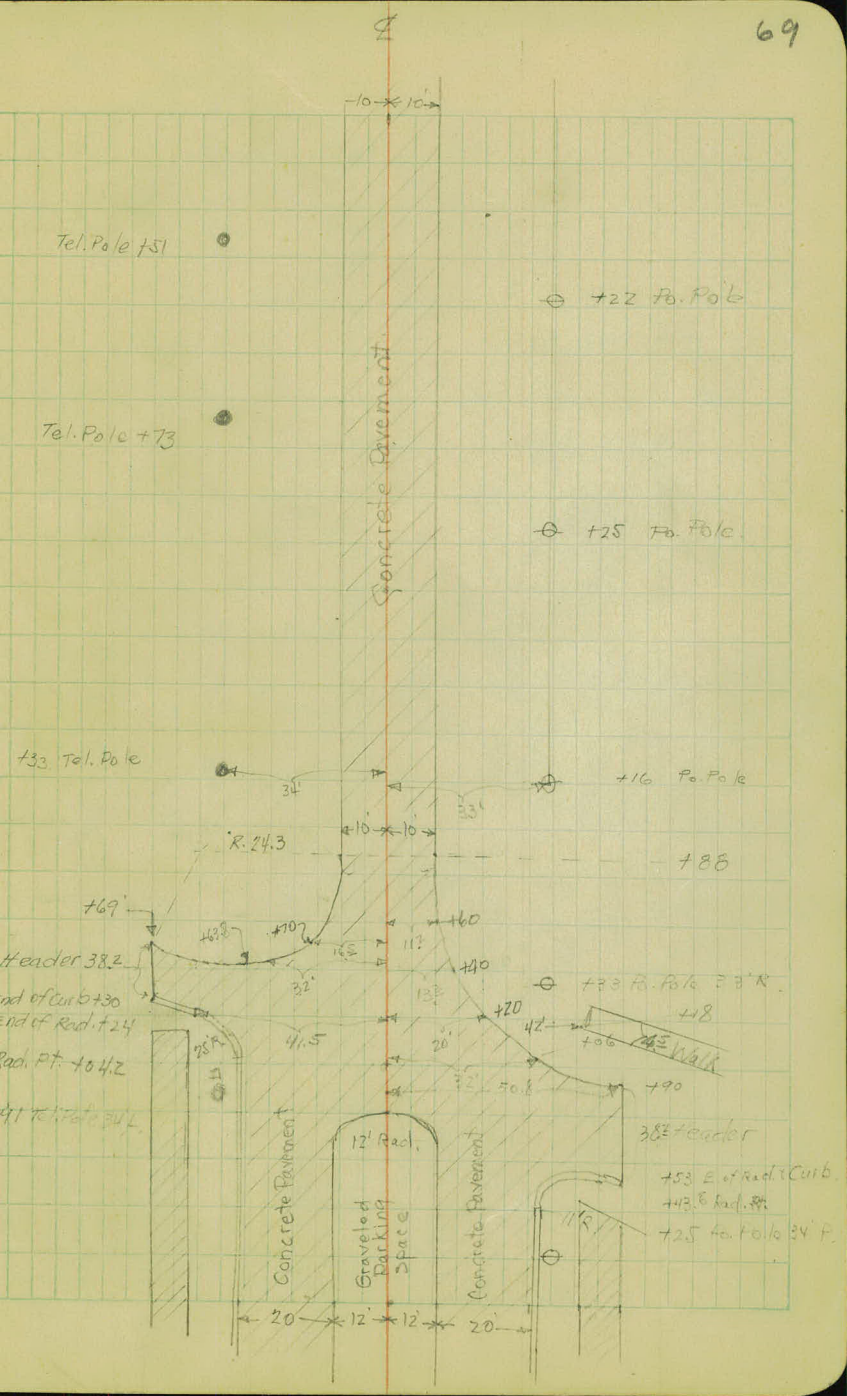
124

123

122

+11 ℄ Charles St.
+02 Iron Rd. Sign 39'L.
121+00
+95.5 Fire Hydrant 34'L.
+80.8 Centre of Arc. of Paving

120


10' 10'
Tel. Pole +51
+22 Po. Pole
Concrete Pavement
Tel. Pole +73
+25 Po. Pole
+33 Tel. Pole
34'
+16 Po. Pole
33'
10' 10'
R. 24.3
+88
+69'
+60
+40
+20
Header 38.2
End of Curb +30
End of Road. +24
Rad. PT. +04.2
+18
+06
+90
38.2 Header
+53 E of Road & Curb
+43.6 Road. &
+25 Po. Pole 34' R.
12' Rad.
Concrete Pavement
Graveled Parking Space
Concrete Pavement
20' 12' 12' 20'

130

+28 to 129 ℄ Henry St. 24" x 129 C.M.

128

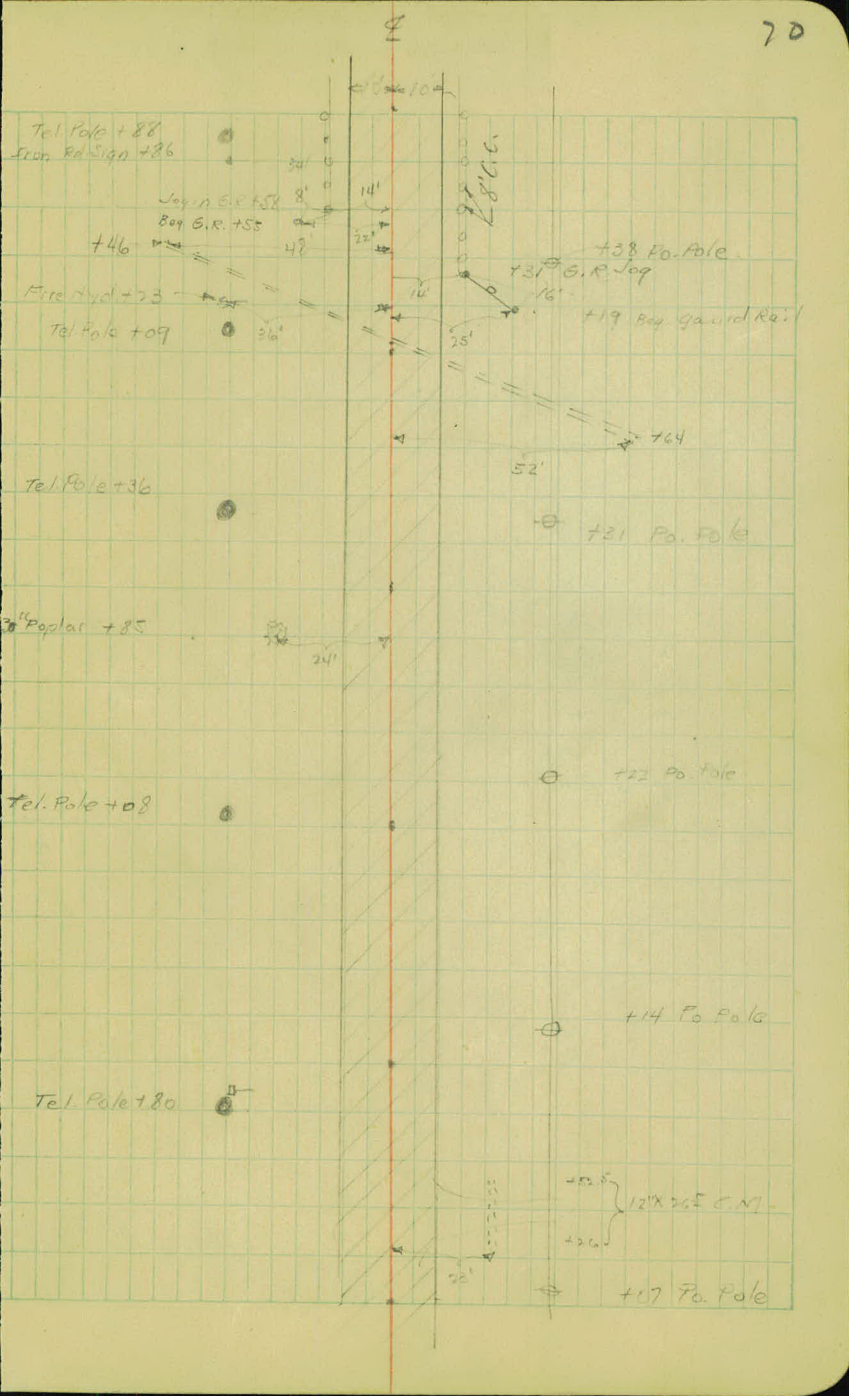
127

126

+84 Fire Hyd. 34' L.

+39 ℄ 24' Drive R.

125


℄
Tel Pole +88
Iron Rd Sign +86
Jog in G.R. +58
Beg G.R. +55
+46
Fire Hyd +33
Tel Pole +09
+38 Po. Pole
+31 G.R. Jog
+19 Beg guard Rail
+64
Tel Pole +36
+31 Po. Pole
Poplar +85
+22 Po. Pole
Tel. Pole +08
+14 Po Pole
Tel. Pole +80
12"x 24" C.M.
+17 Po. Pole

135

+20 Beg of G.Rail

134

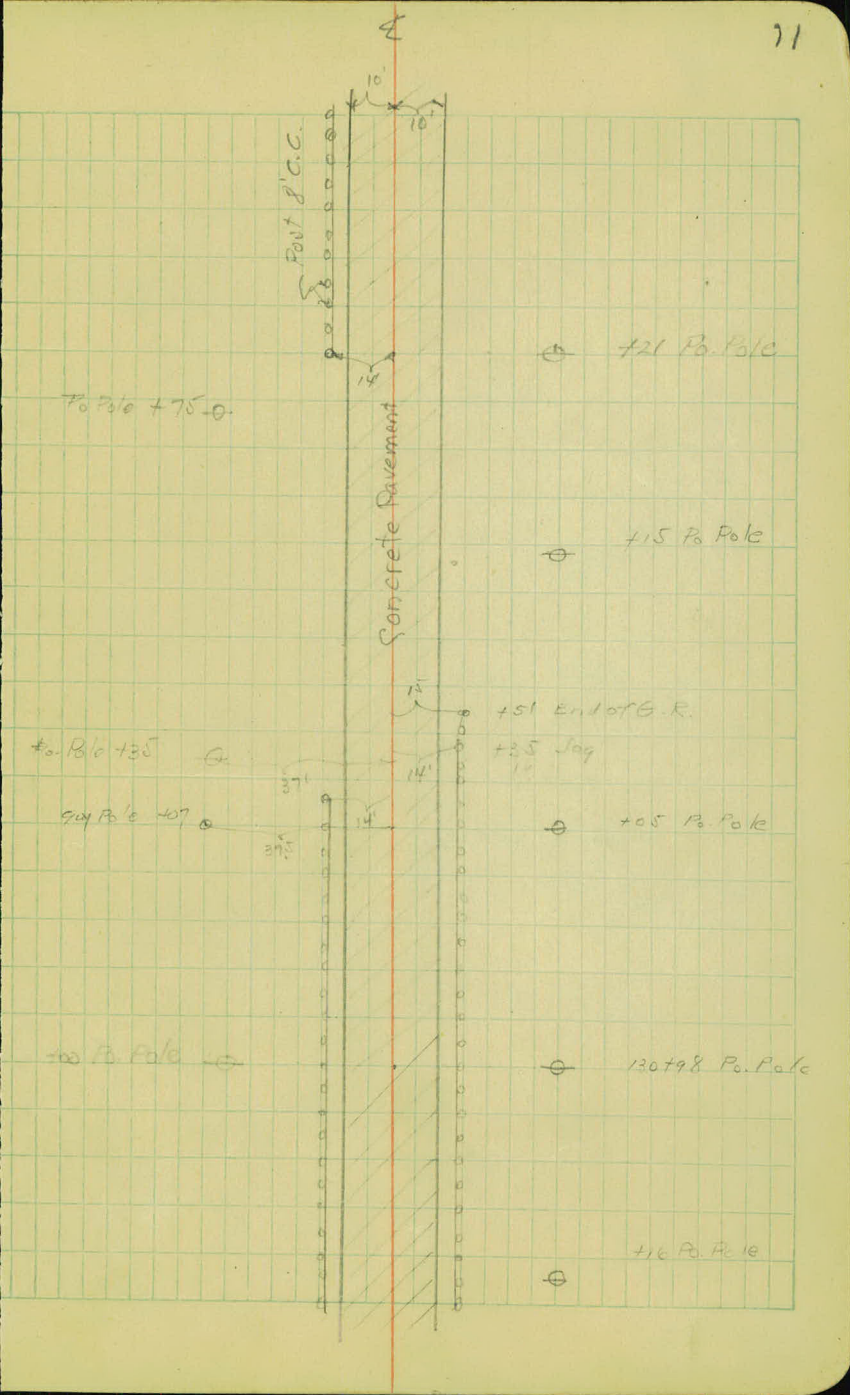
133

+13 End of G.R. 14' L.

132

131

130


℄
10'
10'
Four 8" C.C.C.
14'
Concrete Pavement
+21 Po. Pole
Po. Pole +75-0.
+15 Po. Pole
15'
+51 En. to ℄ R.
+25 Sag
Po. Pole +35
37'
14'
Guy Po'e +07
37'-5"
14'
+05 Po. Pole
+00 Po. Pole
130+98 Po. Pole
+16 Po. Pole

	L	℄	R
10+00	F 1.9	0.0	C 2.2
9+00	C 0.1	C 2.1	C 4.5
8+00	C 0.8	C 0.5	C 0.9

+19 Iron Rd. Sign 32'R.

+05.5 End of Pavement

137

+95 Iron Rd Sign 38'L.

+77 Iron Rd. Sign 32'L

+63 Wood. Sign POST 32'L.

+13.1 B.C.

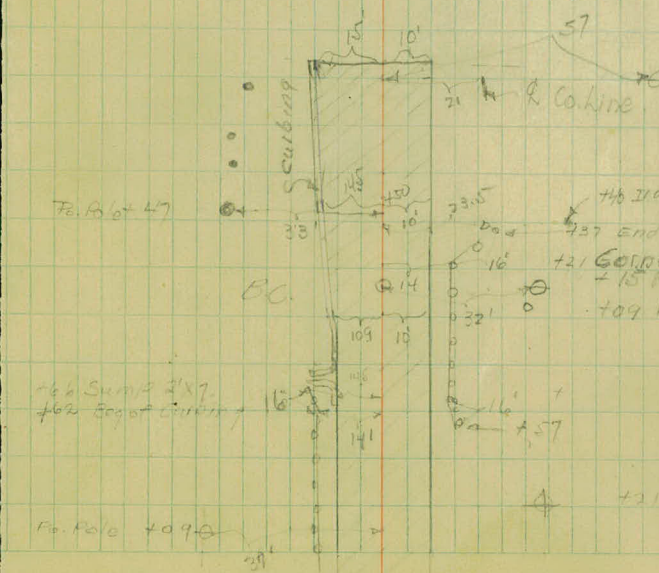
136

+64.7 End of G.R. Left

+57 Beg G.R. Right

135

W. H. Carlson
R.C. Crane
A. Nelson (Dec 1923
M. Ahlberg)



			Profile Grade	
0 + 00	B.C.	1.13		
+ 50		2.29		
1 + 00			50.42	+.015
+ 57			51.45	−.015
2 + 00			52.60 ✓	+.030
+ 50			54.75 ✓	−.030
+ 87				+.048
3 + 00			56.92	−.048
+ 50			58.92	+.062
4 + 00			60.76	−.062
+ 52.3	E.S.T	2.29		+.062
5 + 02.3	E.C.	1.13		−.062
+ 52.3		0.0		+.044
6 + 02.3				−.044
+ 52.3	E.S.T			+.026
				−.026
				+.008
				−.008

Station.			700' V.C.		
B.C. 2+50	54.75	—	54.75	✓	600' V.C.
3+00	57.0	—	56.92	✓	56.92
+50	59.25	—	58.92	✓	
4+00	61.5	—	60.76	✓	61.37
+50	63.75	—	62.44	✓	
5+00	66.0	—	63.95	✓	65.49
+50	68.25	—	65.29	✓	
P.I 6+00	70.5	—	66.48	✓	67.05
+50	70.45	—	67.49	✓	
7+00	70.4	—	68.35	✓	69.89
+50	70.35	—	69.04		
8+00	70.3	—	69.56	✓	70.17
+50	70.25	—	69.92		
9+00	70.2	—	70.12	✓	70.12
E.C. +50	70.15	—	70.15		

	10' Rt.	℄	10' R		
0+00					
+50					
1+00		50.42 ✓		50.29	
1+57	51.60	51.45 ✓	51.30	51.18	+.015 −.015
+90					
		(52.60)			
2+00		52.87 ✓			+.03 −.02
+23					
		(54.73)			
+50		54.82 ✓			+.08 −.05
+87	E.S.T	56.40			+.02 −.02
3+00		57.0 ✓			
+50		59.25			
4+00		61.50			
+50		63.60			2.3
5+023	E.C.	65.4			+.05 −1.13
+50.					0.0
6+00					

+ 30.0 51.79

+ 26.5 51.62

3+23 = 51.54

+71 = 50.49

2+67 = 50.44

1+570

1+00

3+00

+50

2+00

8 +30.0
5 +26.5
3+23.0

1+572

12'
21.3 ℄
30.7 ⊟ 10' ℄

2+71
2+67.0

1+00

9.7 ℄
26.5 To Shoulder

1+71.7

0+00

B.M	0.35	292.65	(292.30)	
16+00			13.3	79.4
+50			12.7	80.0
17+00			11.5	81.2
+50			10.3	82.4
18+00			8.7	84.0
+50			7.7	85.0
19+00			6.3	86.4
+50			5.5	87.2
20+00			4.7	88.0
+50			3.7	89.0
21+00			3.2	89.5
+50			2.7	90.0
22+00			2.4	89.9
+50			2.5	90.2
23+00			2.9	89.8
+50			2.9	89.8
24+00			2.7	90.0

700

16+00 – 78.8 – 78.8

16+50 – 80.3 – 80.3

+73 – 80.78 – 80.78

17+00 – 81.8 – 81.78

+50 – 83.3 – 83.15

18+00 – 84.8 – 84.7

+50 – 86.3 – 85.52

19+00 – 87.8 – 86.51

+50 – 89.3 – 87.38

+73 – 90.0 – 87.75

20+00 – 90.0 – 88.14

+50 – 90.0 – 88.76

21+00 – 90.0 – 89.20

+50 – 90.0 – 89.62

22+00 – 90.0 – 89.87

+50 – 90.0 – 89.98

+73 – 90.0 – 90.0

23+00 – 90.0 –

+50 – 90.0

24+00 – 90.0

+50 – 90.0

25+00 – 90.0

+50 – 90.0

26+00 – 90.0

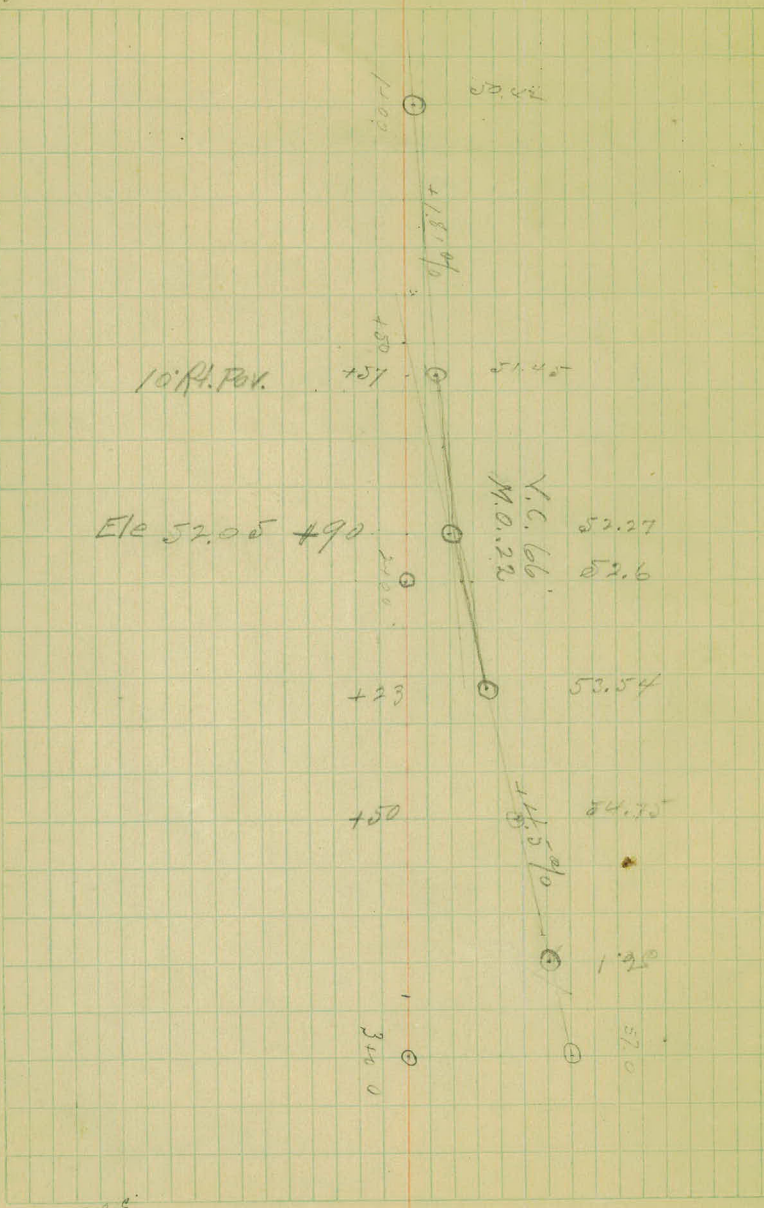
Sta	+	H.I	−	Rod	Elev.
B.M.	1.73	277.07			275.34
4+50				6.30	
5+00				6.42 ✓	
6+00				6.82 ✓	
7+00				6.98 ✓	F1.4
8+00				7.03 ✓	
9+00				7.02 ✓	
10+00				7.01 ✓	
11+00				7.00	
12+00				−6.0 7.03	
13+00				−5.0 7.04 ✓	65.5 Elev. −1.7
14+00				7.02 ✓	10.1
15+00				7.54 ✓	0.0

77.10 77.1 77.1 77.1 277.07 7.23
70.1 70.2 70.3 69.5 9.03 6.54
70 6.9 6.8 7.3 270.04 6.9
330
277.34
6.82
0.1

7.08

78.8 78.72
.62
79.34
0.75
79.59
75.9
3.79

79.59 79.59
13.2 13.2
6.39 6.39


10' Rt. Rdy.
Ele 52.005 #90
+37
+23
+50
Y.C. 66.
M.O. 22
51.4
52.27
52.6
53.54
54.7
1.9
57.0

	−	HI	+		
20+05			0,86	292,30	
15+90	12,03				278,5
+80		282,94	1,81		278,2
+70					277,9
+60					277,6
+50					277,3
+40					277,0
+30					276,70
+20					276,40
+10					276,10
15+00					

B.M. 292.30 T.P. 25'R

	Elev		
B.M	293.42	Nail in T.P. left	36+90
"	294.39	" " E.P. "	45+80
W. Rail	290.15		
E "	290.04		
B.M	278.55	Nail in T.P. Right	Sta. 57+00
B.M	248.05	Top Hyd Hanpentoon + White Beam Hue	

179 06'
129 48'
50° 12'

520
358'
162

179 06'
500 14'
179 46'

48
14'

358 48
472

520
358
162

36'

50.09
50.14

6.7
.006
6.706

26.5
.004
21.20

520
472
48

.213
.008
.170
.383

60
64

.57 | 1.03 | 1.60
57
460
456
400

89.9

51.62
.71
51.20

292.30 B.M
+ 1.10
293.40 HI
- 10.71
282.69 17400 T.P
+ 0.59
283.28 HI
- 11.84
271.44 T.P
+ 4.61
276.05
0.64
275.41 = B.M. 1+75

51.62
.383
51.33.7

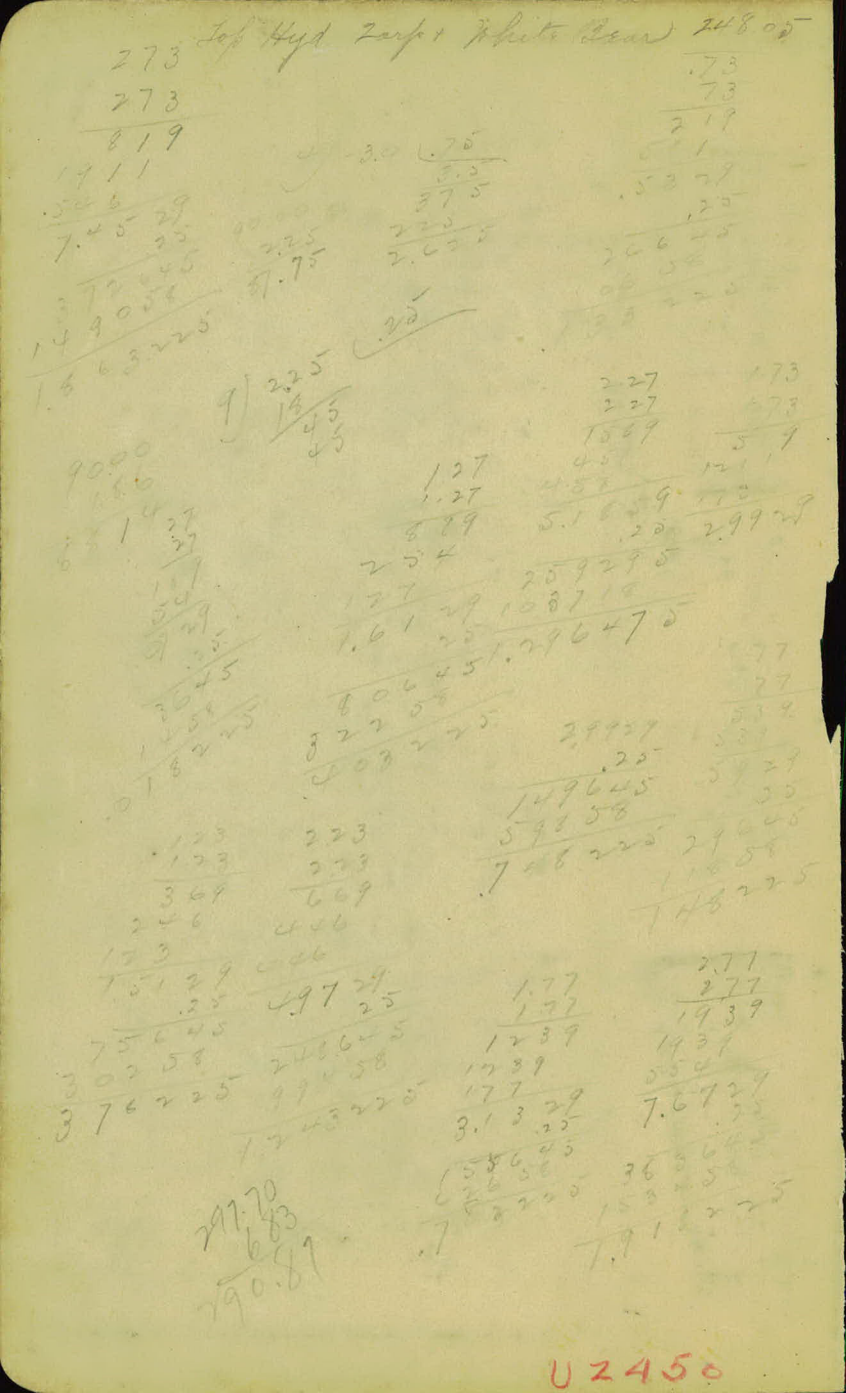
51.62
.37
51.25

275.27
1.28
273.99
6.59
280.58
1.26
279.32
8.37
287.69
2.61
285.08
8.56
293.64
1.52
292.12

276.05
5.28
270.77
0.29
271.06
11.71
259.35

259.35
0.31
259.66
7.53
252.13
2.75
249.38
4.69
246.19

59.66
.004
59.67


Jef Hyd Zarf + White Bear 248 00
U2450

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
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	25.2	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)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.

Made in Germany.