OFFICE OF COUNTY E
RAMSEY CO. MINN.

Plan ..... Su

LONG LAKE ROAD

From Cleveland Ave. To Rice Creek Rd

Road Acc't. No. 17

Date Filed 11-30-29

PROJ. 30-12

Plan Survey

LONG LAKE ROAD

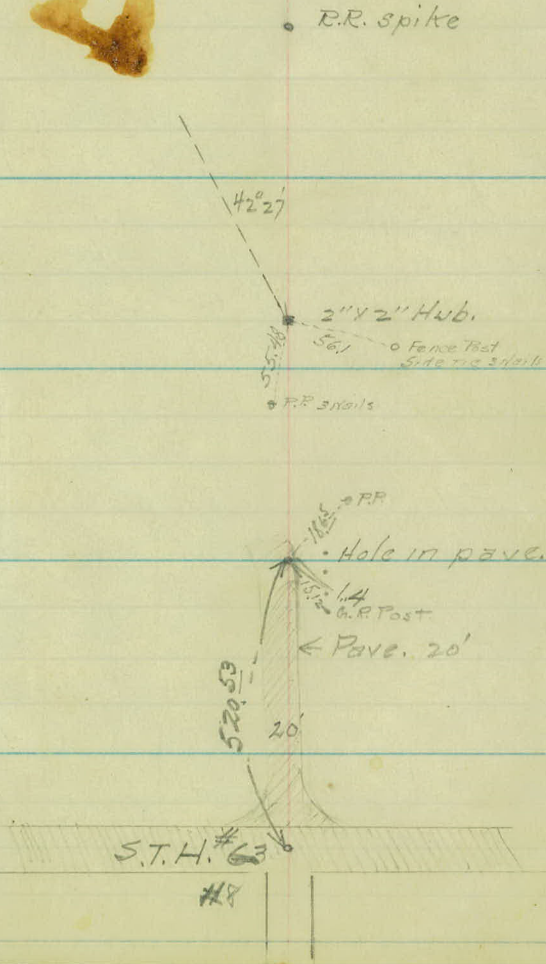
Sta. 0+00 to 96+83.12

Proj. No 30-12

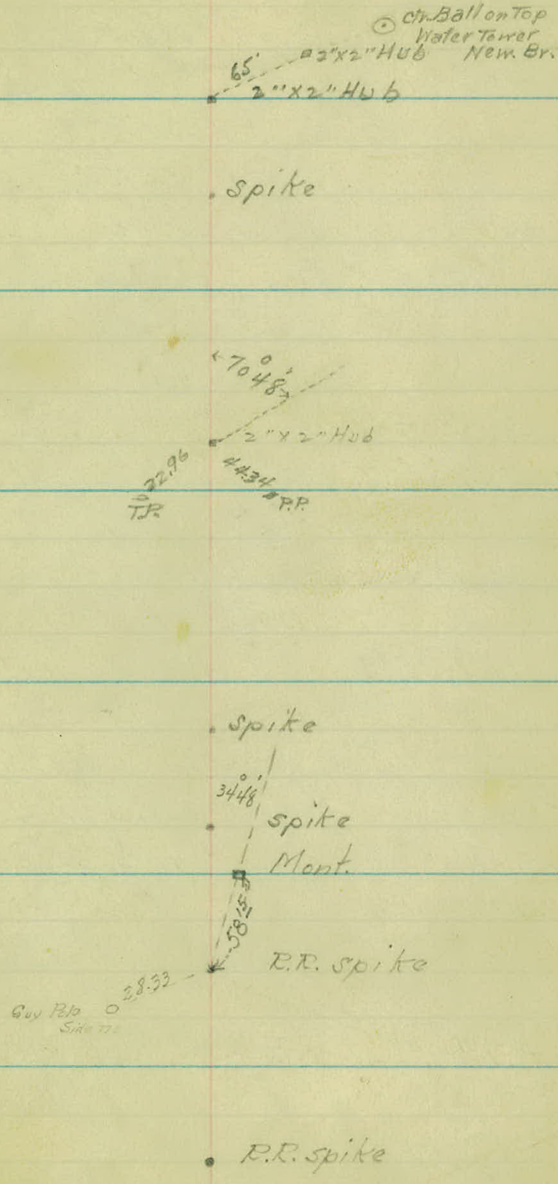
Sta.		ΔLt	ΔRt
6			
5			
+71.67	P.T.	21°14'	
+50		20°15'	
4		18°00'	
+50		15°45'	
3		13°30'	
+50		11°15'	
+47.51	P.I.		
2		9°00'	
+50		6°45'	
1		4°30'	
+50		2°15'	
0+00	P.C.		

Δ 42°27'
D = 9° Lt
T = 247.51
L = 471.67
R = 637.27

5+20.53


R.R. spike
42°27'
2"x2" Hub.
56.1
Fence Post
Side tie 3 nails
55.48
P.P. 3 Nails
18.65
P.P.
Hole in pave.
1.4
15.12
G.R. Post
Pave. 20'
520.53
20'
S.T.H. #63
#8

Sta.	Point	ΔLt.	ΔRt.	
25+85.89	P.O.T.			
20+97.4	P.T.	35°24'		
+50		31°50'		
20		28°05'	Δ 70°48'	
+50		24°20'	D 15° R	
19		20°35'	T = 272.22 ✓	
18+97.82	P.I.		L = 472.0 ✓	
+50		16°50'	R = 383.06 ✓	
18+		18°05'		
+50		9°20'		
17		5°35'		
+50		1°50'		
16+25.4	P.C.			
+46.0	P.T. ✓	17°24'		
9		14°38'	Δ 34°48'	
+50		11°38'	D. 12° Rt.	
8+05.2	P.I.		T. 149.2 ✓	
8		8°38'	L. 290.0 ✓	
+50		5°38'	R. 478.34 ✓	
7		2°38'		
6+56.0	P.C. ✓			



⊙ Ctr. Ball on Top Water Tower New. Br.
2"x2" Hub
65'
2"x2" Hub
Spike
70°48'
2"x2" Hub
22.96
T.P.
44.34
P.P.
Spike
34°48'
Spike
Mont.
58.5
R.R. Spike
28.33
Guy Pole
R.R. Spike

Sta.	Δ Lt.	Δ Rt
+50		36°45'
53		31°45'
+63.16 P.I.		
+50		26°45'
52		21°45'
+50		16°45'
51		11°45'
+50		6°45'
50		1°45'
49+82.52 P.C.		
47+63.99 P.T.	35°26'	
+50	34°02'	
47	29°02'	
+50	24°02'	
46+14.53 P.I.		
46	19°02'	
+50	14°02'	
45	9°02'	
+50	4°02'	
44+09.66 P.C.		

Δ 88°32'
D 20° Rt.
T = 280.64
L = 442.67
R = 287.94

Sta. 54+96.55 Road % No. 12

Δ - 70°52'
D - 20° Lt
T - 204.87
L - 354.33
R - 287.94

41+26.45 P.O.T. = P.I. Sta. 41+26.45 Road % No. 12

N
Sect Line
1/4 19 20

Gry Pole Side Tie 7.1
= P.I. 61+84.60 Road C/L No. 12 — 1/4 Mont.
T.P. 41.18

5263.16
28084
28859
369.43

Spike

Spike

P.P. Side Tie
30.18
2"x2" Hub.
26.5 Guy Pole. Side Tie.

Spike

T.P. Side Tie.
101.0
T.P. Side Tie.
49.1
1"x2" Hub.

Sta.	Point	Δ Lt	Δ Rt
+38.75	P.T.		45°44'
84			40°53.5'
+50			34°38.5' Δ = 91°28'
+09 84	P.I.		D 25°
83			28°23.5' T 236.96
+50			22°08.5' L 365.87
82			15°53.5' R 231.01
+50			9°38.5'
81			3°23.5'
80+72.88	P.C.		
79+43.48	P.T.	45°04'	
79		40°45'	Δ 90°08' Lt
+50		35°43'	D = 20°
78		30°43'	T = 288.59
77+81.4	P.I.		L = 450.67
+50		25°43'	R = 287.94
77		20°43'	
+50		15°43'	
76		10°43'	
+50		5°43'	
75		0°43'	
74+92.81	P.C.		
62+20.=	P.O.T.		
54+25.19	P.T.		44°16'
54			41°45'

Spike

28" mil. ⊕ 4.78 4"x2" Hub.

12" mill ⊕ 16.30'

149281
5425.19
207762
56945
264705

Spike

R.R. spike

25.72 Fence Post

Mont

34.39 P.P.

56 52
72 88
129.40

P.P. 39.0 R.R. spike

28.33 Fence Post

Spike

95+21.19 P.I. ℄ of Rice Creek Road established from ℄ of Present traveled Road. at intersection of Long Lake Road.

96+83.11	P.T.	45°47'	
+50		42°27'	
96		37°27'	
+50		32°27'	
95+21.19	P.I.		
95		27°27'	Δ 91°34'
+50		22°27'	D - 20°
94		17°27'	T = 295.91'
+50		12°27'	L = 457.83'
93		7°27'	R = 287.94'
+50		2°27'	
92+25.28	P.C.		

R.R. spike

P.P.

91°34'

34.77

℄ Rice Creek Rd. — ℄ — R.R. spike.

39.89

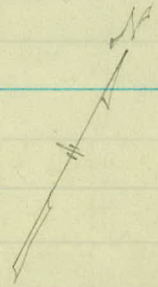
Guy Pole.

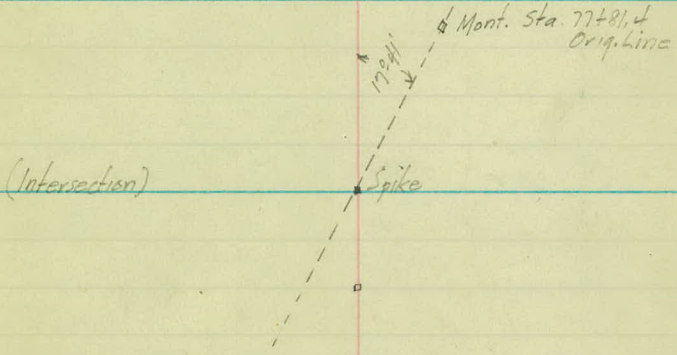
R.R. spike.

11-13-29

Long Lake Road.
"B" Line.
Sta. 46+14.53 To Sta. 87+84.19

+86.77	P.T.	36°17'	
+50		33°31'≈	
89		29°46'≈	
+50		26°01'≈	Δ 72°34'
88		22°16'≈	D = 15° Lt
+84.19	P.I.		T = 281.20
+50		18°31'≈	L = 483.78
87		14°46'≈	R = 383°06'
+50		11°01'≈	
86		7°16'≈	
+50		3°31'≈	
85+02.91	P.C.		
87+84.19	P.I.	72°34'	
79+61.74	P.O.T.		
75+70≈	P.O.T.		
69+31.10	P.O.T.	Sta. 73+33.46 (Orig Line)	
55+84.72	P.O.T.		
46+14.53	Point of beg. on "B" Line.		




℄ Mont. Sta. 77+81.4
Orig. Line
1784'
(Intersection)
Spike

STA.	POINT	Δ Lt.	Δ Rt.	11-21-29
$79+54^{25}$	P.O.T.			
$77+72^{74}$	P.T.	$1°-08'$		
50		$1°-01'$		
77		$0°-46'$		
$76+59^{7}$	P.I.			$\Delta - 2°-16'$
50		$0°-31'$		$R. - 1°-$ Lt.
76		$0°-16'$		$T. - 115^{53}$
50		$0°-01'$		$L. - 226^{47}$
$75+46^{07}$	P.C.	$0°-00'$		$R. - 5729^{65}$
$75+70^{5}$	P.O.T.			

STA.	POINT.	Δ LT.	Δ RT.			
89+99[16]	P.T.	35°-09				
+50		31°-28				
89		27°-43				
+50		23°-58				
88+00[2]	P.I.				Δ-70°-18	
88		20°-13			D.-15°-LT.	
+50		16°-28			T.-269[71]	
87		12°-43	,10		L.-468[67]	
+50		8°-58			R.-383[06]	
86		5°-13				
+50		1°-28				
85+30[49]	P.C.	0°-00	.05			

1372

+47.5± P.I.

2

1

0+00 { Pavement and Rails Located from Sub. Chord }

- 50

- 1

-1+50

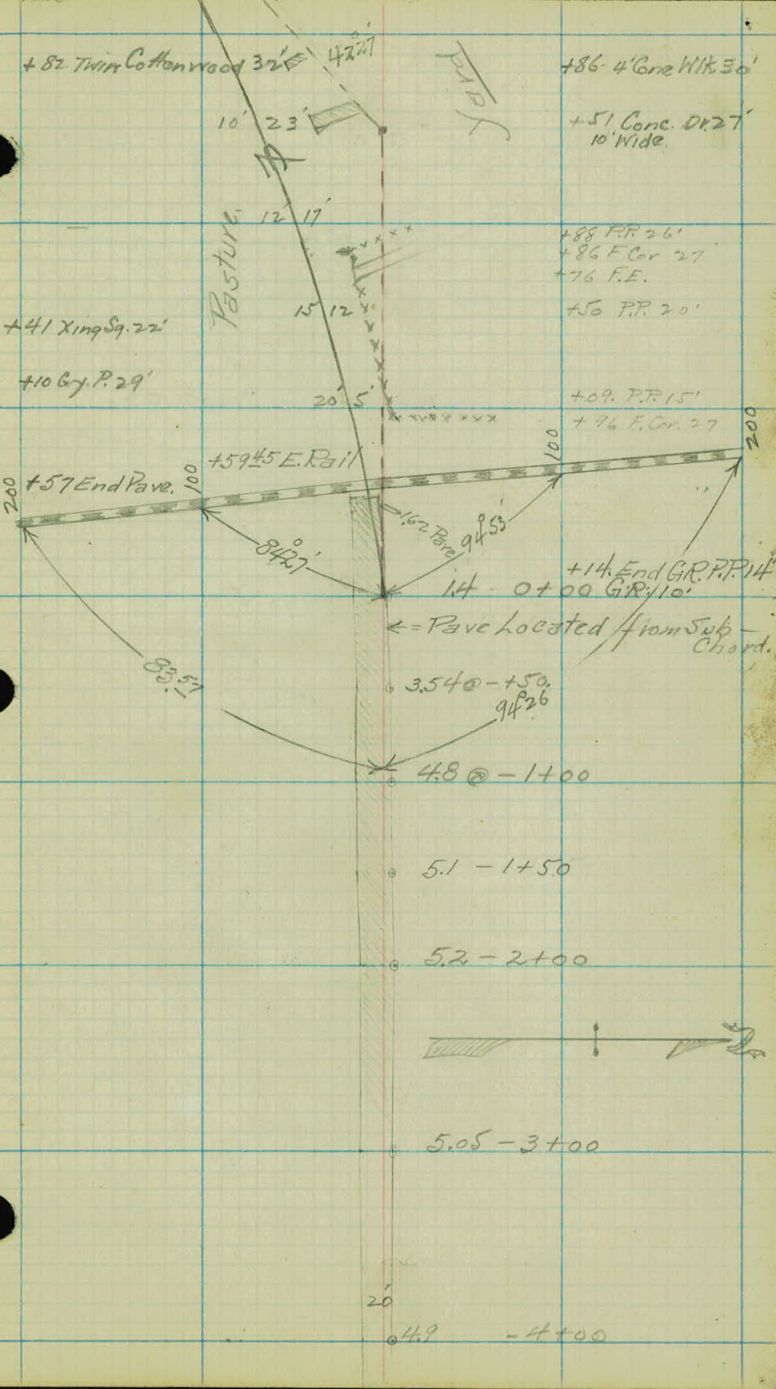
- 2

-2+50

- 3

-3+50

- 4


+82 Twin Cottonwood 32'
42°27'
+86 4' Conc Wlk 30'
P.I.P.T.
10' 23'
+51 Conc. Dr. 27'
10' Wide
12' 17'
Pasture
+88 P.P. 26'
+86 F Cor 27
+76 F.E.
15' 12'
+50 P.P. 20'
+41 Xing Sq. 22'
+10 Gy. P. 29'
20' 5'
+09 P.P. 15'
+96 F. Cor. 27
200
100
+59.45 E. Rail
+57 End Pave.
100
200
1.62 Pave
84°27'
94°53'
+14 End G.R. P.P. 14'
1.4 - 0+00 G.R. 10'
← = Pave Located from Sub Chord.
83°57'
3.54 @ -+50
94°26'
4.8 @ -1+00
5.1 -1+50
5.2 - 2+00
5.05 - 3+00
20
4.9 -4+00

Cultivated

+46 Pr. Dr.

+94 T.P. 28'
+80 T.P. 43'

11' 11'

+76' Gr. Pole 21'
+63 Pr. Dr.
+54 ℄ Long Lk. Rd.

Long Lake Rd.

8'

+44. P.P. 16'

+25 T.P. 19'

33' 7'

12 9'

7' 13'

+89 P.P. 36'

30'

6+30 Beg. Light Clearing.

Low Wet Ground

9' 11'

+90 Wood sq. 16'
+87 Rd sq. 17'

+61 P.P. 28'

12' 10'

Pasture

Cultivated

13' 10'

+13 P.P. + F.Cor. 21'

12' 12'

+74 Rd sq - 16
+71 R.R. sq. 17

8' 18'

+31 P.P. 26'

8' 23

+50
+25
16

15

14

13

12

11

10

+86-P.P. 24'

10' 9"

9' 9"

+09. T.P. 22'

+64 → +74
12" x 48" V.P.

+18 P.P. 27

+64. T.P. 22'

+18 Fr. Dr.

+80-P.P. 28'
+65 Gy. Pole 28'

Cultivation

+65 P.P. 28'

+15 T.P. 23'

+35 Fr. Dr.

+09. P.P. 27'

+77 T.P. 24'

+60 Beg. Cultivation
+58 = 12" Twin Cat 34

+83 Rel 59.19'

+45 P.P. 28'
+32 Fr. Dr.

+16 T.P. 24'

9' 11'

23

~~22~~

~~21~~

(20) 22

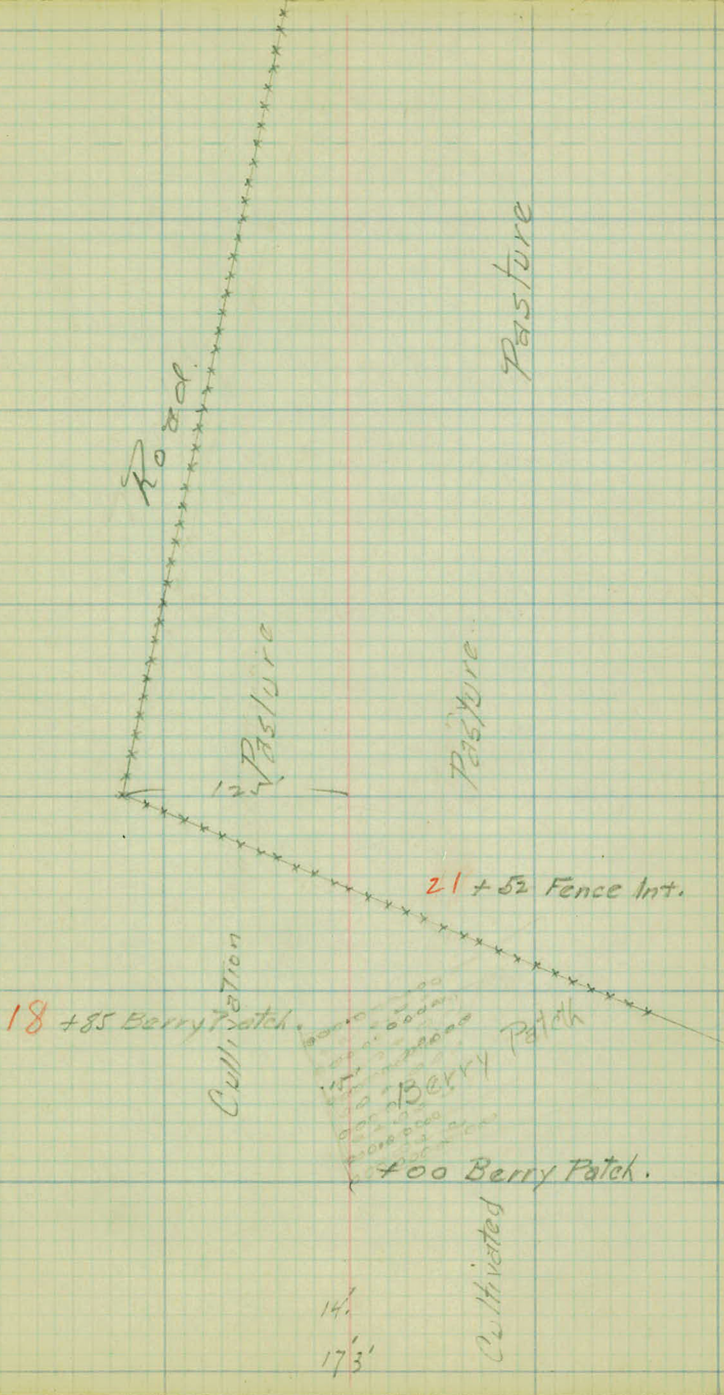
(19) 21

20

19

18

17



Road
Pasture
Pasture
Pasture
21 + 52 Fence Int.
18 + 85 Berry Patch.
Cultivation
Berry Patch
Berry
+00 Berry Patch.
Cultivated
14'
17'3'

30

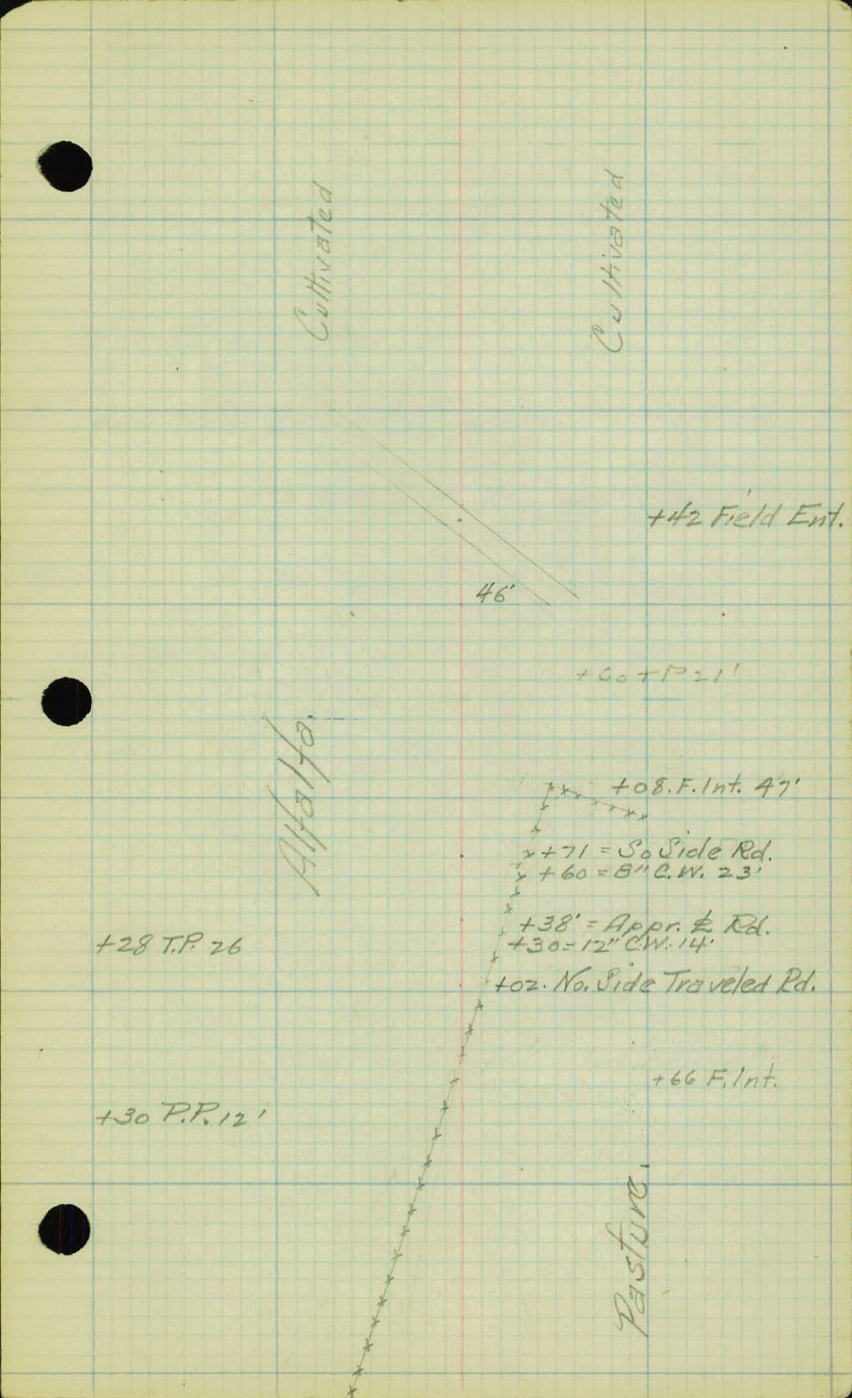
29

28

27

26

25


Cultivated
Cultivated
+42 Field Ent.
46'
+60 T.P. 21'
Alfalfa.
+08. F. Int. 47'
+71 = So Side Rd.
+60 = 8" C.W. 23'
+38' = Appr. to Rd.
+30 = 12" C.W. 14'
+28 T.P. 26
+02. No. Side Traveled Rd.
+66 F. Int.
+30 P.P. 12'
Pasture.

37

36

35

34

33

32

31

+42 T.P. 23'

Cultivated

Cultivated

+44 Beg L. Clear.
+44 P.P. 26

+00 T.P. 23'

+88 P.P. 27'

+54 T.P. 23

Cultivated

+30 T.P. 21'

+31 P.P. 29'

Cultivated

+39 Int. Road.

44

43

42

41

40

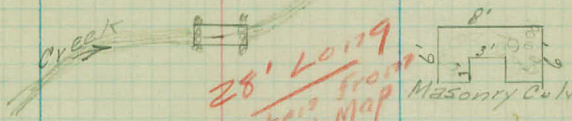
39

38

+55 T.P. 22'

8'13'

+51 P.P. 30'
Long Lake.



+12 T.P. 24'

+91 P.P. 27'

+15 End Clearing

+70 T.P. 23'

Cultivated
8-6" Oaks

+32 P.P. 27'

0+00 Beg. Clearing

+55 6" Oak 28'
+44 - 14" C.W. 29
+44 End L. Clearing

+29 T.P. 23'

Cultivated

0+4 - 2-8" Oaks 28'

+68 - P.P. 27
+57 - 2-4" Oak 30
+57 Beg. L. Clearing
+22 - 8" Oak 20'
+05 Trp'l. Oaks 19'

+86 T.P. 23'

+08 P.P. 26'
+00 End Clear

51

50

49

48

47

46

45

+35 - 12+30 C.M
X Dr.

+85 P.P. 12'

+50 In + No Side of Roadbed

Hay Meadow.

+05 T.P. 19'

+19 P.P. 28'

+67 T.P. 16'

+30 E Cultivation
Beg. Hay Meadow.

+75 P.P. 25'

5' 13

+31 T.P. 13'

2'

18'

37'

+13 T.P. 29'

Cultivated

+76 TP 25'

25'

4 | Left Shoulder.

58

57

56

55

54

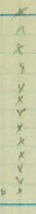
53

52

+78 T.P. 27'

+05 F. Cor. 28'

+13 P.P. 23'



+98 Pr. Dr. = 12" x 16 C.M. 20'
+86 - 30'2" Brick Pier.

+60 - 12" C.M. 17'

+48 - 10" C.M. 19'
+39 T.P. 28'

+09 - P.P. 23'

Yard

+12 Pr. Dr. 18" x 12' V.P. 24'
+06 T.P. 28
+08. End Cultivation

+45 P.P. 24

Cultivation

+50 Beg Cultivation
+49 T.P. 28'

Yard.

+80 ± Pr. Dr.
+80 - 12" x 22' C.M.
+65 End Hay Meadow

+65 Int. E side of Road.

+65 - P.P. 18'

Cultivation

65

64

63

62

61

60

59

+87 T.P. 28'
Fence = 28'

Pasture.

Pasture.

+76 - F Cor 29'
+64 F.E
+51 T.P. 28

+67 F. Int.

+33 P.P. 15'.
+26 - 10" Will 24'

+95 Pr. Dr.

+65 End of Row.

+30 = 6 - 14" C.W. 28'
+20 = End of Row.
+13 - T.P. 28'
+03. P.P. 17

Farm Yard

+32 = Row of 9 - 4" Trees 29'

Pasture

+86 - P.P. 19'
+74 Beg. F.
+74 - 16" Oak 22'
+67 T.P. 27
+51 - 2 - 10" Oaks 24
+41 - 10 Oak 25
+29 - 24 Oak 33
+14 Pr. Dr.
+08. - 15" C.W. 30

+38 P.P. 22'
+26 T.P. 27'
+03. F.E. 12" x 12" C.M. 24'
+00 End Berry Patch
+93 F Cor 29' Beg. C.H.
+59 - Pr. Dr. + 12" x 16" C.M. 12'
+53 F Cor 29'
+65 Berry Patch 26'

Yard

72

71

70

69

68

67

66

+54 Pr. Dr.
+40 End Fence 28'

+54 T.P. 28'
+35 Beg. Farm Yard
+25 End Pasture

Pasture

+12 T.P. 28'

+45 Beg. Pasture

Farm Yard

+78 P.Dr.
+61 T.P. 28'

+04 Int. F

+16 T.P. 28'
Fence Line on Pole line

Pasture

+54 F.E.

Cultivation

+94 P.P. 18'

+51 P.P. 18'
+45 = Beg. Cult.
+34 Pr. Dr.

+81 End Fence 15'

+10 - P.P. 17'

+09. F.E.
+02 - Int. F.
+02 = Twin Mill 18'

+62 P.P. 15'
F.L. on Pole line

+12 P.P. 15'
Fence 15'

79

78

77

76

75

74

73

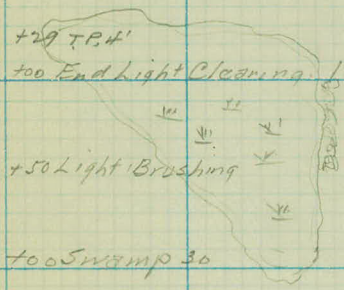
+50 End Swamp 16'

+48 P.P. 22'

+61 So Edge of Rd bed.

+29 T.P. 4'

+00 End Light Clearing 18'



+50 Light Brushing

+00 Swamp 30

+30 End Clearing.

+15 T.P. 2.

+70 Wedge Rd Bed.

+00 Beg. Light Clearing 22'

+85' X Drain 18"x36'

18'

Cultivation

+80 P.P. 19

+54 T.P. 29

+35 Beg. Cultivation.

+34 P.P. 19'

+16 T.P. 28'

86

85

84

83

82

81

80

+73 T.P. 22'

+40 P.P. 27'

+22 Rd Sg. 16'

+17 T.P. 21'

+03. P.P. 28'

Cultivation

Cultivation

+35 Beg Cultiv.

+70= 16" Oak 22'
+73 P.P. 20'
+65 Pr." Or.
+55= 12 x 20 C.M.
+50 End Orchard.

+77 T.P. 30'

Yard

+19-16" Oaks 8'
+05.-14" Oak 7'

+83 P.P. 22'

+00 = Little Swamp 3'

+89-P.P. 8'

Orchard

+40 T.P. 30'

+49-8" Oak 28'
+38 F. cor 12'

Cultivated

+86 P.P. 21

+35 Cluster 4
4" Oaks

Yard

+00 T.P. 22'

93

92

91

90

89

88

87

+ 977 T.P. 28'

+ 45 End G.R. 14'

+ 52 End G.R. 14'

+ 01. P.P. 28'

+ 86 - T.P. 27

+ 54 - 24" X 64" P.3

+ 79 Beg. G.R. 14'

+ 21 T.P. 26'

+ 64 Beg. G.R. 14'
+ 64 P.P. 29
+ 47 F.E.
12" X 18" C.M. 24

+ 66' Rd Sg. 17'
+ 41 P.P. 29'

+ 72 T.P. 24'

Hay Field

Hay Field

+ 09 P.P. 23'

+ 17 T.P. 23'

Beg. Hay Field.
+ 56 End Cult.

+ 79 P.P. 25'

Beg. Hay Meadow
+ 00 End Cultivation

51

50

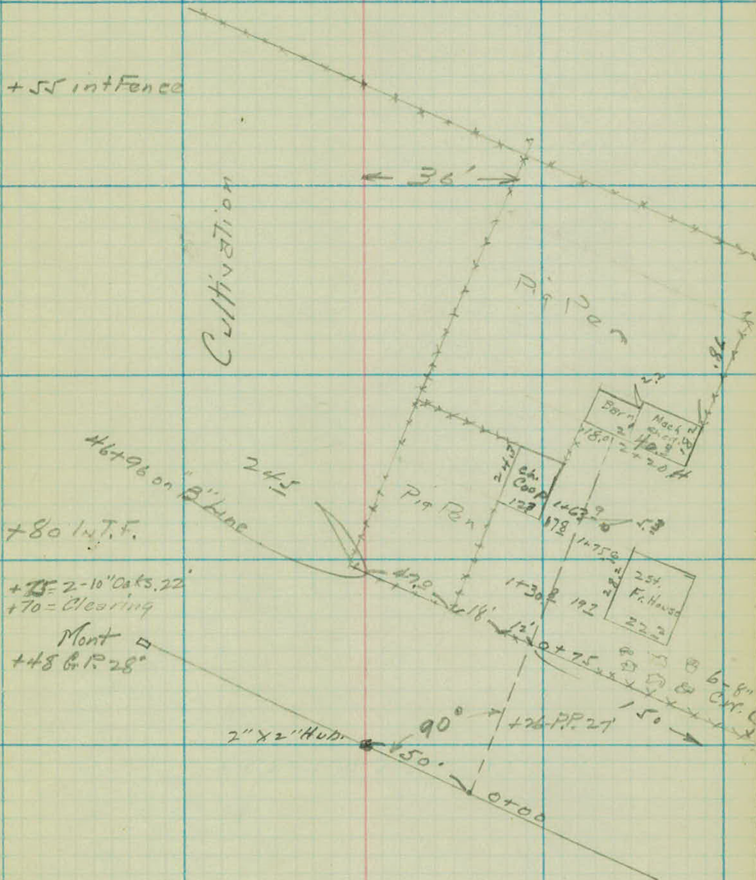
49

48

47

46+14 53 = Beg. of "B" Line

11-14-29.


+55 int Fence
Cultivation
36'
Pig Pen
Barn
Mach. Shed
18.0
20.4
24.5
46+96 on "B" Line
Ch. Coop
12.3
1+67.9
17.8
Pig Pen
+80 Int. F.
1+75.0
2 St. Fr. House
22.2
+25 = 2-10" Oaks. 22'
+70 = Clearing
1+30.2
19.2
18'
12'
0+75
6-8" Cr.
Mont
+48 G.P. 28"
90°
+26-P.P. 27'
150
2" x 2" Hub.
50.
0+00

58

57

56

55

54

53

52

+90-8" Oak 42
+80-8" Oak 41

Cult.

Cult.

65

64

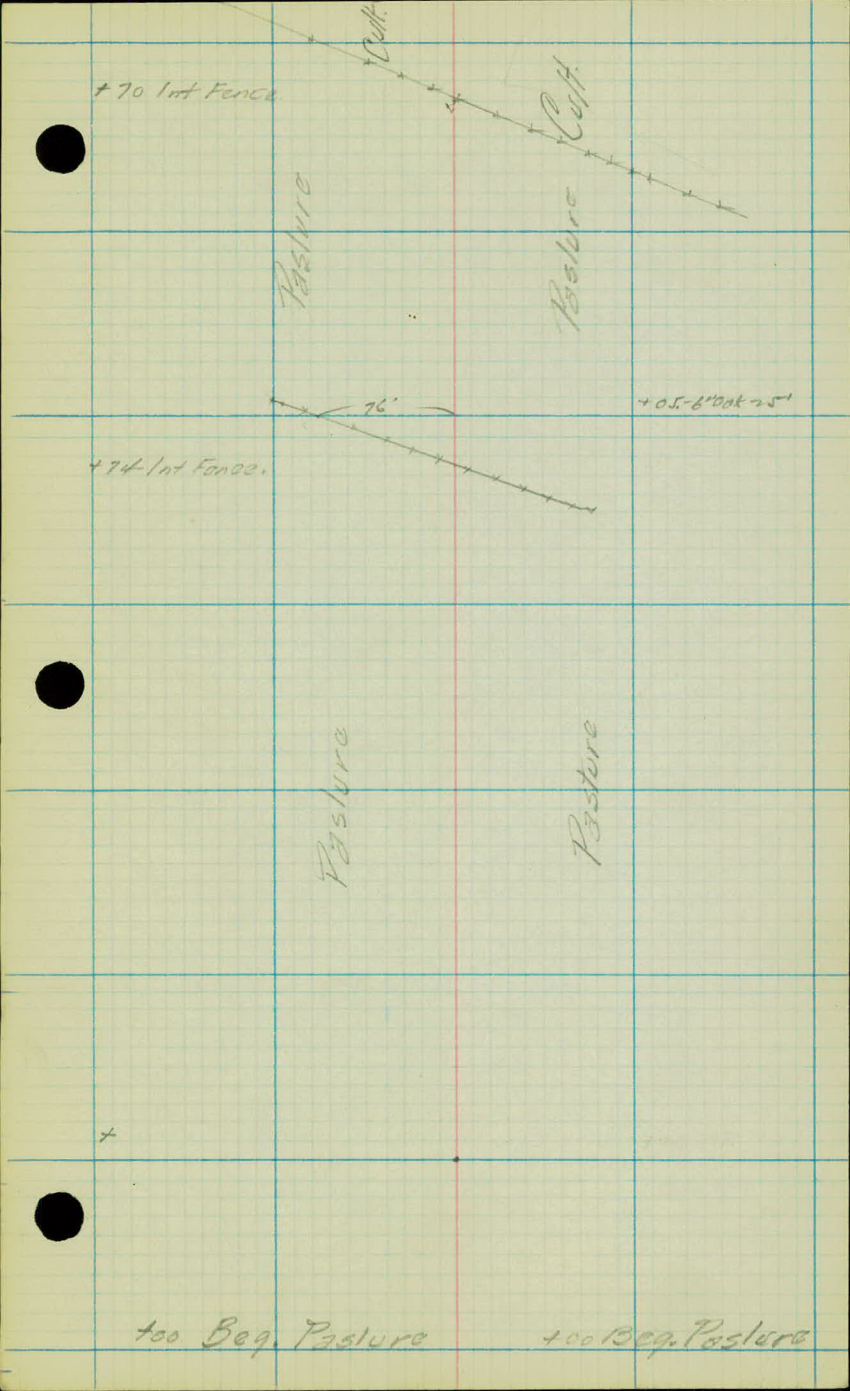
63

62

61

60

59


+70 Int Fence
Pasture
Pasture
76'
+74 Int Fence
Pasture
Pasture
+00 Beg. Pasture
+00 Beg. Pasture

72

71

70

69

68

67

66

Cultivated

Cultivated

79

78

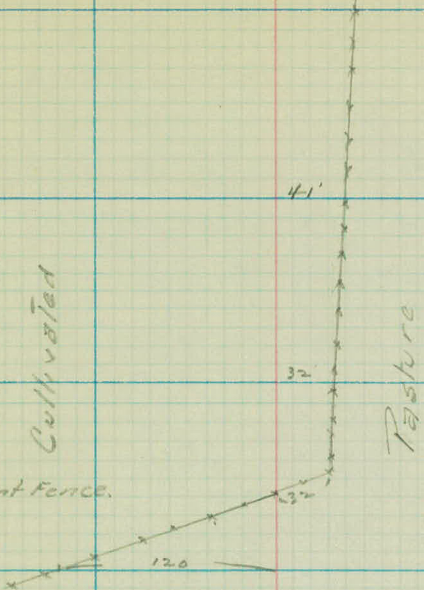
77

76

75

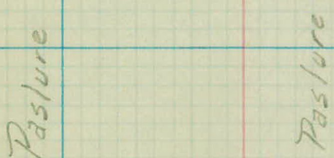
74

73



+85 - 6" Oak 30'

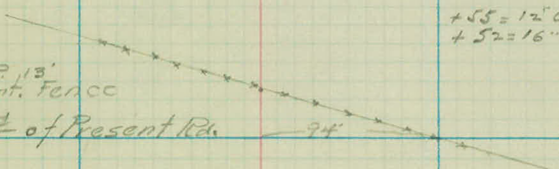
+42 Int Fence.



about 15 Scattered Stumps between Sta. 75 + 76+50

+06. = 15" Oak 25'

+55 = 12" Oak 22'
+52 = 16" " 22



+26 P.P. 13'
+24 Int. Fence

+00 ℄ of Present Rd.

86

85

84

83

82

81

80

+39 Tri. W. 11.25'

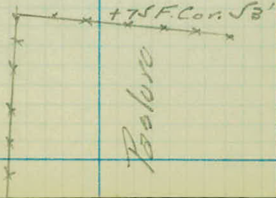
Hay Meadow.

Hay Meadow.

+88 Beg. Hay Meadow.

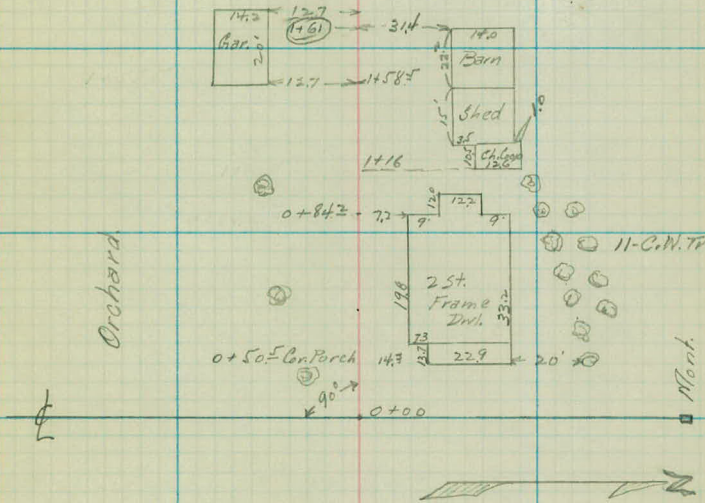
Cult.

50



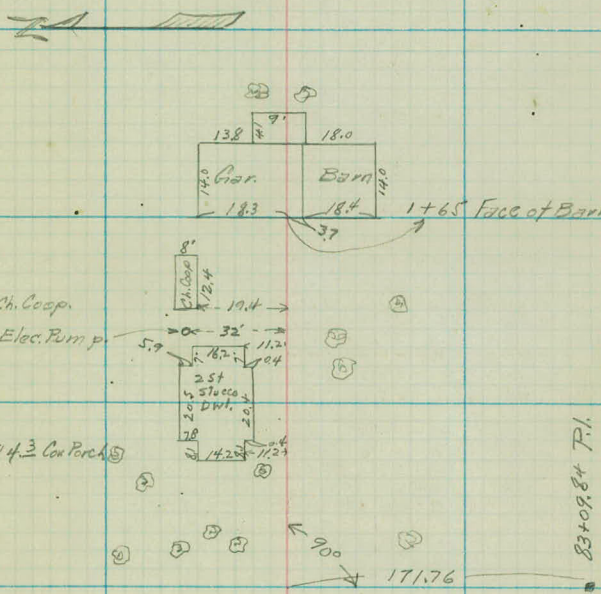
11-14-29

Locations of Bldg's opposite
Sta. 72+70± On. Orig. Line.



11-14-29

Location of Bldg's 171.76 ℄ No. of ℄ at Sta. 83+09.84 Orig Line.



ARTIFICIAL TOPOGRAPHY

"B" LINE

Proj. 30-12

80

79

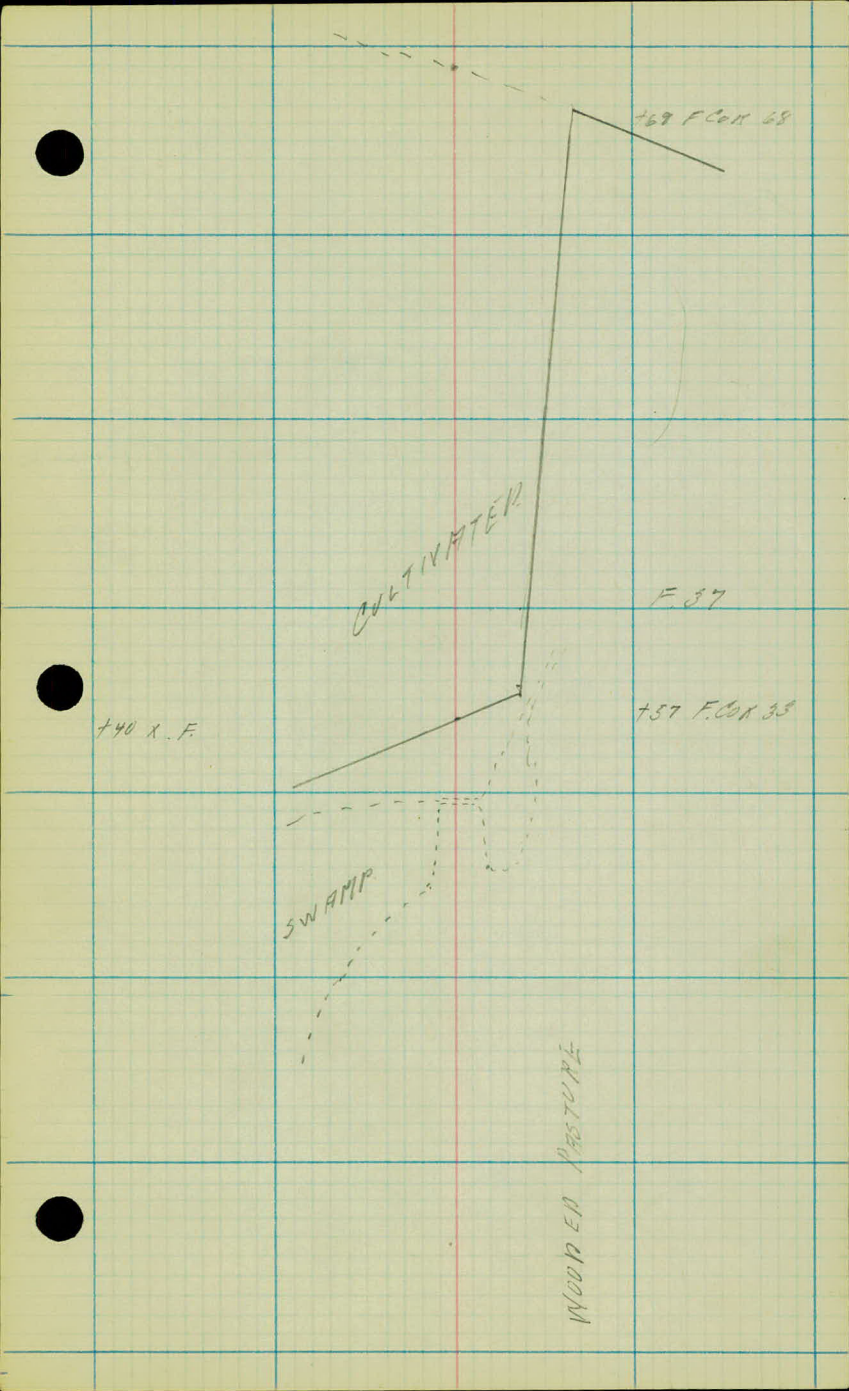
78

77

76

75

74


+69 F Cor 68
CULTIVATED
F 37
+37 F Cor 33
+40 X F
SWAMP
WOODED PASTURE

86

85

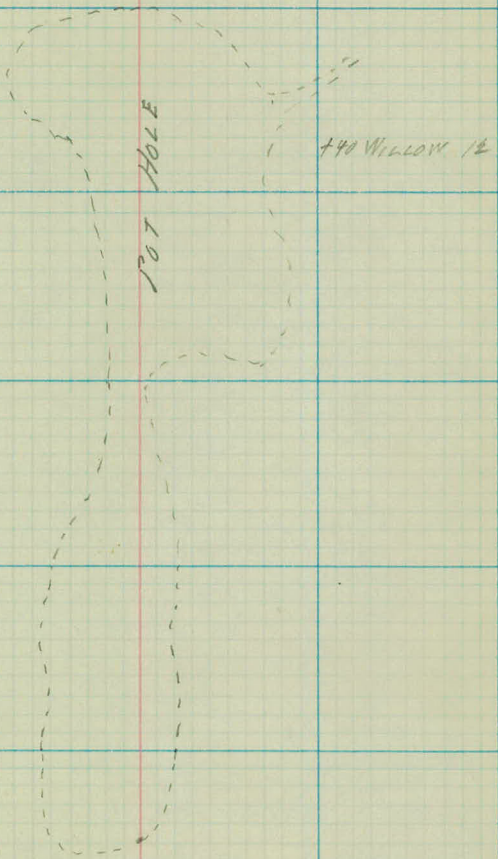
84

83

82

81

80


LOT HOLE
140 WILLOW AVE
UNCULTIVATED

92

91

90

89

88

87

86

+27 T.P. 24

+00 T.P. 21

+70 T.P. 13

+28 T.P. 38
+20 ℄ ROAD

+07 P.P. 31

98

97

96

95

94

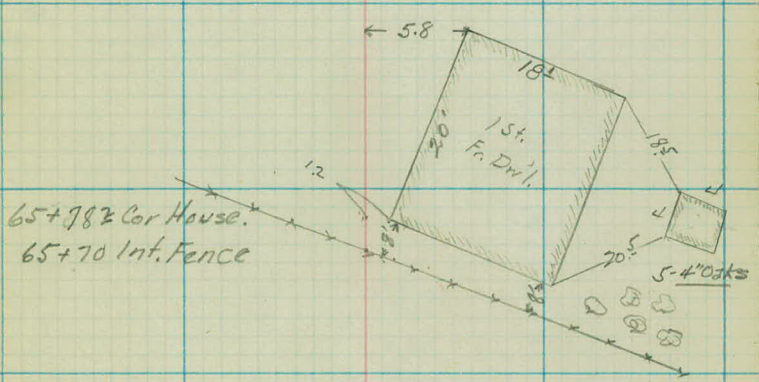
93

92

11-14-39

N

Location of Frame Dwl on "B" Line
Sta. 65+87.2



New Brighton

LONG LAKE ROAD

"A" LINE

CROSS SECTIONS FROM STA 0+00

TO STA 99+00.

STA	+	H.I.	−	ELEV	
B.M.	3.02	891.11		888.49	
0+00					86.56
0+50					86.86
0+59.5	TOP OF RAIL				86.93
0+64.5	TOP OF RAIL				87.01
1+00					86.0
1+50					86.0
2+00					85.9
2+50					85.9
3+00					86.1
3+50					86.5
4+00					87.0
4+50					86.8

R. LINE 11-21-29

ON N.W. COR LOWER CONC STEP IN FRONT OF MEN

BRIGHTON POST OFFICE

4.3	4.57	4.48			4.58	4.6	10.2	10.3	13.8	17.5	
43	18	8	4.55	1	10	12	17	33	45		

5.7	4.14		5.0	5.0		
43	20	4.25	38	43		

5.72		4.90	
50	4.18	50	

3.69		4.94	
50	4.10	50	

5.7	5.1		5.2	5.8	14.4	15.8
45	22	5.1	9	12	22	43

9.7	5.1	5.3		5.5	9.4	12.2	
43	34	17	5.1	14	27	43	

3.6	3.5	6.2	5.6		5.3	6.2	7.1	
43	30	24	10	5.2	17	25	43	

ON PAVED DRIVEWAY

0.0	0.0	6.2	5.7		4.7	5.3	4.7	4.6
43	42	26	9	5.2	17	27	37	43

+1.5	+1.0	4.1	5.8	5.4		4.8	5.0	4.8
45	43	32	25	9	5.0	12	25	43

+1.0	4.6	4.9	5.2		4.4	4.8	5.4
43	40	27	14	4.6	7	24	43

0.0	1.4	3.8	4.6		4.4	5.2	6.3
43	37	34	15	4.1	19	35	49

+0.5	0.5	4.9	5.3	4.6		4.4	4.7	8.1	8.6
43	39	30	19	16	4.3	10	21	27	43

		891.11			
5+00					86.9
T.P	5.64	892.54	4.21	886.90	
5+50					86.8
6+00					86.7
6+56					86.6
7+00					86.7
7+50					86.9
8+00					86.9
8+50					87.2
P.M.			4.95	887.59	
9+00					87.2
9+46					86.7
10+00					86.2
10+50					85.9
11+00					85.4
	3.77	88.16 8834	8.15	84.39 879.44	

"A" LINE. 11-21-29

1.5 1.5 5.6 6.0 4.5 4.2 10.5 10.0
43 41 31 25 15 4.2 13 32 43

7.0 8.0 8.8 6.0 6.0 11.3 12.0
43 38 19 13 5.7 14 27 43

10.0 10.3 5.9 6.1 11.9 13.0 13.2
43 19 10 5.8 14 28 34 43

6.5 10.4 10.0 5.9 6.3 11.7 12.5
43 28 17 9 5.9 16 30 43

5.9 9.4 9.1 5.9 6.4 10.8 12.2
43 26 16 10 5.8 16 24 43

7.5 7.3 5.5 6.4 9.7 11.1 10.5
43 21 14 5.6 12 18 26 43

5.9 5.8 5.1 6.4 11.4 13.0
43 31 8 5.6 14 28 43

4.0 4.9 5.3 5.1 6.0
43 9 5.3 5 19 43

S.W. COR. MONT. INT. LONG LK. ROAD OLD S.T.H. #62
3.6 3.2 4.8 5.7 5.7 4.8 5.4 6.3
34 30 17 12 5.3 10 14 31 43

5.3 4.1 4.4 5.0 6.2 6.0 5.6 6.3
43 35 28 16 12 5.8 14 22 43

7.3 7.0 6.2 6.6 6.6 5.5 5.4
43 24 15 9 6.3 10 24 43

8.7 7.9 6.9 6.8 5.8 5.3
43 25 9 6.4 19 29 43

9.5 8.6 7.4 7.5 6.8 6.7
43 34 14 7.1 19 32 43

88.16
893.21

11+50					84.7
12+00					84.1
12+50					84.1
13+00					84.0
13+50					83.9
14+00					83.2
14+50					83.1
15+00					82.6
15+50					82.4
	CROSS DRAIN				
16+00					82.8
16+50					83.8
17+00					85.6
	8.72	895.83	1.05	887.11	887.11
17+50					85.8

single space to here

"A" LINE 11-21-27

29 74 63 46 34 35 47 49 42 40
43 36 25 20 13 3.5 13 17 23 28 43

83 83 26 41 44 67 74 81
43 45 27 12 4.1 12 17 31 43

05 09 44 41 44 78 80
43 36 28 10 4.1 14 21 93

02 04 48 42 43 45 53 45 54 58
43 34 21 13 9 4.2 12 14 25 34 43

10.5 10.5 00 48 45 45 56 42 47 57
43 35 34 26 12 4.3 10 17 21 38 43

57 37 55 52 53 64 77
43 33 28 13 5.0 13 18 43

87 77 51 53 101 101
43 21 11 5.1 11 27 43

93 94 84 60 59 80 103 107
43 26 20 11 5.6 11 15 23 43

98 90 57 60 101 108 107
43 16 9 5.8 11 20 28 43
12.9 13.9

106 103 95 55 55 95 104 106
43 22 17 10 5.4 10 15 20 43

105 102 82 41 45 45 80 91 112
43 31 20 12 10 4.4 10 15 20 43

80 78 30 24 34 43 79 105 103 103
43 40 29 23 20 4.6 5 14 23 26 43

82 83 83 86 155 154 164
43 35 25 11 10.0 8 28 43

		895.83			
18+00					88.3
	12.91	906.83	1.91	893.92	
18+50					96.5
19+00					900.6
19+50					01.7
20+00					02.1
20+50					01.5
21+00					02.3
21+50					03.6
22+00					03.1
22+50					03.0
23+00					03.2
	2.75	906.84	2.94	903.89	
23+50					03.7
24+00					03.0

"A" LINE

11-22-29

6.7	7.3	5.8	6.6		8.9	10.2	10.8
45	31	27	18	7.5	15	35	43

14.6	14.2	7.4		12.9	14.1	
50	45	28	10.3	20	43	

6.7	6.7		6.6	6.8	
43	22	6.2	30	43	

6.6	6.6	5.3		4.5	4.2
43	31	16	5.1	27	43

5.4	5.4		3.2	2.8	
43	21	4.7	27	43	

5.9	5.7		4.9	
43	21	5.3	43	

6.0	5.1		4.4	4.4	
43	26	4.5	30	43	

5.7	4.7	3.7		3.1	3.0
43	27	7	3.2	18	43

4.9	3.9		3.0	2.7	
43	18	3.7	25	43	

5.0	4.9		3.3	2.9	
43	19	3.8	18	43	

4.9	4.3		2.7	1.9	
43	23	3.6	25	43	

3.8	3.6		2.3	1.5	
43	20	3.1	25	43	

3.9	3.5		4.0	1.9	
43	20	3.8	25	43	

	90684			
24+50				02.6
25+00				03.0
25+50				03.8
26+00				01.8
26+08				900.0
26+70				98.9
27+00				99.3
27+50				96.2
28+00				94.2
B.M.			1527	893.57 893.57
T.P.	0.17	895.43	11.58	895.24
28+50				93.2
29+00				94.6
29+50				94.5

M. LINE. 11-22-29

2.2/43 2.9/23 4.2 5.9/23 7.4/43

4.3/43 4.4/38 1.7/30 2.4/25 3.8 6.7/24 7.6/43

5.0/43 4.8/31 5.1/20 2.2/13 3.2/7 3.5 6.5/22 7.6/15 10.3/43

2.3/43 1.9/37 6.0/27 3.9/17 6.5/3 5.0 5.5/8 6.9/23 10.0/43

3.4/43 2.5/31 6.4/21 6.2/12 6.8 5.2/6 6.3/18 7.7/32 9.2/43

5.6/43 5.8/25 5.1/10 7.9 8.0/13 8.5/23 7.9/26 8.9/43

7.4/43 7.3/23 7.5 8.7/12 8.5/21 9.0/37 8.7/43

11.6/43 11.2/37 10.4 10.2/16 9.6/17 10.0/27 9.8/37 10.0/43

15.0/43 13.7/20 12.6 12.5/20 11.6/33 11.4/43

SPK IN 12" COTTONWOOD 100' RT. STA. 27+50

4.5/43 3.5/16 2.2 2.2/14 1.8/43

2.5/43 1.2/11 0.8 2.8/27 3.8/43

1.0/43 0.4/17 0.9 3.7/22 6.1/43

	895.43			
30+00				92.2
30+50				88.7
31+00				85.7
31+50				85.1
32+00				86.1
32+37				87.6
33+00				86.4
	676	892.77	7.97	885.46
33+50				86.7
34+00				86.6
34+50				86.5
35+00				86.4
35+50				86.2
36+00				85.7

M. LINE 11-26-59

2.3/43 3.1/10 3.2 6.2/23 8.2/43

4.8/43 5.3/18 6.7 9.1/20 11.8/43

8.0/43 8.2/17 9.7 11.9/19 13.1/31 13.1/43

11.4/43 6.5/22 10.3 8.6/27 6.0/43

13.8/43 12.1/19 7.3 7.7/17 7.4/34 7.3/43

15.1/43 13.5/26 9.5/15 7.8 7.7/12 8.5/28 7.5/43

15.1/43 13.7/23 9.0/13 7.0 9.2/11 8.6/12 7.2/28 6.1/43

NAIL IN T.P. LT STA. 33+25

10.1/43 9.8/25 5.5/17 5.8/11 5.5 5.7/9 5.4/18 4.4/21 3.4/33 2.7/43

9.4/43 8.7/23 6.5/17 5.5/11 6.0/10 5.6 5.8/10 5.3/18 3.6/23 2.2/43

8.8/43 8.1/27 7.0/24 5.7/18 6.0/10 5.7 5.9/10 5.2/19 2.2/26 1.7/43

8.7/43 7.9/25 5.7/17 6.1/11 5.8 5.8/11 5.7/20 3.0/26 2.1/43

9.4/43 8.7/24 5.6/19 6.2/10 6.0 6.2/12 5.2/16 5.3/21 3.8/26 3.3/43

8.5/43 8.1/49 5.6/14 6.8/8 6.5 6.7/11 5.1/22 2.8/27 3.2/43

		872.22			
36+50					85.8
37+00					85.6
37+50					85.1
38+00					84.8
38+50					83.9
39+00					83.0
	5.47	877.58	10.11	882.11	
39+50					82.1
40+00					81.1
40+50					80.3
41+00					79.4
41+50					78.4
B.M.			5.14	882.44	882.43
42+00					77.5
	1.77	878.41	10.94	876.64	
42+50					76.3

A. LINE. 11-26-29

67	62	53	61	66		66	47	47	01	11	
43	29	19	12	7	6.4	17	19	22	31	43	

46	47	30	52	52	67	67	35	71.0	71.3		
43	28	24	60	14	7	6.6	14	24	33	43	

75	72	58	69	78		72	58	71.0	00		
43	27	23	19	9	7.1	13	21	35	43		

11.2	10.7	67	77			77	64	41	46		
43	26	14	13	7.4		12	26	32	43		

15.0	13.3	86	72	82	85	84	73	81	98	88	90
43	27	20	15	12	8	8.3	12	16	22	26	28	43

14.0	13.3	10.6	7.4	9.5		9.4	10.1	7.4	10.2	10.2	
43	34	15	13	7	9.2	12	27	32	37	43	

7.8	6.8	5.7	5.9			5.7	5.0	5.7	5.7	5.9	3.7	2.5	3.1
43	26	18	12	5.5		12	14	15	20	25	28	32	43

7.6	7.1	6.0	6.0	6.8		6.7	6.3	6.4	3.0	0.5	1.0
43	30	23	15	8	6.5	11	14	20	26	33	43

8.4	7.3	5.5	7.5			7.5	7.2	6.8	0.8	+0.5	+0.5
43	31	16	13	7.3		12	14	22	28	33	43

8.3	7.2	5.8	6.0	8.3	8.5	8.5	7.3	1.0	0.0	0.0	
43	31	21	17	14	8	8.2	12	18	25	29	43

7.4	6.1	5.0	2.9			9.9	8.7	2.3	1.9	2.9	
43	31	22	18	9.2		12	15	23	38	43	

SPK. IN TIP. 23 LT. STR. 41470.

8.1	7.2	10.3	10.3			10.4	9.5	6.4	5.5	6.3	7.0
43	27	22	8	10.1		12	18	24	27	31	43

2.9	1.6	3.1	1.0	1.4		2.5	1.7	1.6	1.9		
43	28	20	9	8	2.1	11	14	34	43		

		87.41		
43+00				75.2
43+50				74.0
	CROSS DRAIN			
44+00				73.4
44+50				73.3
45+00				72.9
45+50				73.8
46+00				75.6
46+50				76.3
47+00				72.4
47+50				72.0
48+00				71.6
48+50				71.5
	10.51	81.57	7.35	87.06
49+00				71.2

19th LINE 11-26-29

7.9	7.7	6.1	3.5		3.5	3.0	4.6	5.0	
43	31	20	9	3.2	11	14	31	43	

9.5	9.6	9.0	4.8		4.3	7.0	7.8	
43	34	23	11	4.4	14	23	43	
	13.5						13.8	

10.9	10.9	9.6	9.0	5.6		5.1	8.2	8.2
43	38	30	24	13	5.0	13	30	43

8.6	6.3	5.6			5.2	4.8	6.3	
43	23	13	5.1		14	16	43	

6.1	5.8				5.0	5.2	4.6	5.4
43	20	5.5			15	27	32	43

5.4	4.5				4.6	5.7	4.8	
43	20	4.6			20	27	43	

3.8	3.2				1.5	5.5	5.2	
43	20	2.8			29	36	43	

3.2	3.0				1.7	4.4	6.1	5.1	5.5
43	14	2.1			4	7	12	30	43

5.4	5.6	4.6	6.9		5.5	5.8	7.7	
43	31	10	5	6.0	13	25	43	

7.8	8.3	7.1			6.3	6.8	9.0	9.2
43	17	10	6.4		6	17	34	43

7.8	5.1	6.9			7.1	10.1	10.0	
43	16	11	6.8		13	30	43	

9.5	9.4	7.4			7.6	10.1	9.5	
43	19	11	6.9		17	31	43	

12.4	12.7	10.7			10.5	11.3	11.9	11.4
43	18	9	10.2		10	18	31	43

		881.37			
49+50					71.3
50+00					71.4
50+50					71.0
51+00					69.3
51+50					69.4
52+00					69.8
B.M.	9.09	881.33	7.09	872.28	872.24
52+50					72.3
53+00					74.9
53+50					76.0
54+00					77.2
54+50					78.3
55+00					79.4
	10.85	891.08	1.10	880.23	
55+50					80.7

"A" LINE 11-26-29

12.6 12.7 10.6 10.6 9.2 11.1 9.8
43 20 10 10 1 14 27 43

12.3 12.7 10.5 10.1 9.9 10.9 10.2
43 20 12 10.0 8 10 19 43

12.4 12.4 10.7 10.3 11.4 11.4 10.1
43 31 22 8 10.4 11 21 43

11.1 10.7 10.1 12.1 11.8 10.8
43 29 18 9 12.1 27 43

10.7 11.7 11.3 10.8
43 31 12.0 26 43

11.1 11.4 11.1 10.2
43 20 11.5 22 43

N.W. COR. OF MONT. STR. 52 53 16 P.I.
8.8 9.0 8.0 9.4 9.5
43 33 26 9.0 20 43

6.9 6.7 7.2 8.8 8.8 6.1 7.7 8.4
43 28 17 12 9 6.4 8 22 43

6.6 7.1 6.0 5.4 5.8 6.0 8.0 8.0 5.8 2.0
43 32 30 15 3 5.3 4 7 13 18 43

4.2 4.7 6.1 6.1 4.9 4.0 4.3 4.4 6.7 6.7 4.9 2.8
43 29 24 22 18 6 4.1 5 12 16 20 28 43

2.8 2.9 1.0 2.3 4.6 4.6 3.4 3.2 2.9 5.0 4.2 1.5 2.5
43 30 28 23 18 13 12 3.0 8 12 18 24 31 43

2.4 2.5 0.9 3.7 2.0 2.3 2.1 1.3 2.4 4.6 5.9
43 36 27 20 14 11 1.7 6 14 19 26 43

14.5 14.4 12.0 13.2 10.8 10.8 10.6 9.5 11.6 13.8 15.2 15.4
43 39 26 23 19 14 10.4 11 15 22 24 32 43

		89108 ✓			
56+00					81.9
56+50					83.1
57+00					84.4
57+50					85.7
58+00					87.0
	8.82	89628 ✓	3.22	88786 ✓	
58+50					87.8
59+00					88.4
59+50					89.2
60+00					90.2
60+50					91.2
61+00					91.6
61+50					91.6
62+00					92.3

"A" LINE. 11-26-29

10.7	10.7	9.1	9.6		7.5	8.4	9.4	12.4	14.5	16.2	
43	21	17	11	9.2	7	15	19	23	30	43	
6.4	6.2	8.6	8.4		8.3	6.8	7.4	12.4	14.6	14.7	
43	28	17	12	8.0	8	12	19	27	30	43	
4.1	4.1	4.5	6.9		7.0	6.4	6.6	8.2	9.5		
43	39	26	21	6.7	8	12	16	26	43		
0.1	1.1	4.9	5.8		5.8	4.7	3.2	4.1			
43	27	20	11	5.4	9	13	22	43			
1.0	1.1	5.2	3.8	4.2		4.5	3.2	3.0	2.0	2.0	
43	27	19	16	9	4.1	12	14	20	23	43	
7.2	7.0	6.5	8.6	10.2	10.2	9.2		9.4	8.3	7.3	5.9	3.2
43	31	26	18	14	14	11	8.9	11	13	21	24	43
7.0	8.0	7.1	7.3	9.1	9.1	8.5		8.6	7.7	6.7	6.7	
43	31	28	16	14	12	11	8.3	12	13	24	43	
5.7	6.1	7.4	6.7	8.1	7.8		7.8	7.0	6.6	6.6		
43	28	20	17	13	10	7.5	11	18	24	43		
5.9	6.5	8.7	6.9	6.5	6.9		6.9	5.7	5.0	4.4		
43	26	24	22	12	9	6.5	10	13	24	43		
6.6	6.3	7.2	7.6	6.5	5.5	6.0		5.6	4.8	3.9	6.9	
43	28	26	24	22	11	10	5.5	10	13	22	43	
5.1	7.6	5.6		5.3	4.4	3.4						
43	26	14	5.1	8	22	43						
7.5	7.4	5.6		5.3	4.9	3.9	3.0					
43	24	17	5.1	9	16	22	43					
7.0	6.4	4.7		4.7	4.5	5.0	+1.0	+3.0				
43	24	18	4.4	9	11	15	28	43				

		896.68 ✓			
62+60					92.7
63+00					92.9
	5.06	892.47 ✓	3.27	893.41 ✓	
63+50					93.1
64+00					93.2
64+50					93.1
65+00					93.1
65+50					93.3
66+00					93.3
66+50					93.3
67+00					93.1
67+50					93.1
68+00					93.1
68+50					93.1

A. LINE 11-26-29

5.8	4.6	4.3	5.7	4.7	4.1		4.5	4.4	3.5	+3.0	+4.0	
43	32	22	18	16	12	4.0	2	15	19	31	43	
7.0	6.6	4.1					4.0	4.9	+0.3	+1.4	+2.3	
43	28	12	3.8				10	19	29	35	43	
9.4	9.1	6.0					5.6	6.2	5.4	4.6		
43	28	16	5.4				11	22	36	43		
8.7	8.7	6.4	5.7				5.6	5.4	8.0	8.4		
43	30	21	11	5.3			9	17	22	43		
7.4	7.3	5.7	5.6				5.7	5.0	8.2	8.2		
43	32	24	12	5.4			8	14	28	43		
5.7	5.6	4.9	5.6				5.6	6.4	5.7	6.8	7.0	
43	30	25	17	5.4			18	12	19	29	43	
							8					
3.4	3.5	3.6	5.4				5.6	4.6	4.1	5.0		
43	22	20	16	5.2			11	15	20	43		
1.5	1.1	1.7	5.5				5.4	4.5	4.0			
43	27	26	17	5.2			10	18	43			
1.5	0.6	1.4	5.5	5.2			5.4	4.3	1.2			
43	31	24	18	16	5.2		11	17	43			
2.4	2.4	5.9					5.6	3.5	2.2			
43	26	18	5.4				11	17	43			
6.3	5.7	6.5	6.6	5.5			6.0	5.4	6.4			
43	27	24	19	14	5.4		13	16	43			
	8.7	8.6	5.9				5.6	6.8	8.3	7.5		
	43	25	19	5.4			7	10	27	43		
6.6	7.6	8.0	8.8	5.6			5.8	7.6	8.1	7.2	7.6	
43	35	25	22	15	5.4		9	15	31	37	43	

		898.47			
69+00					93.0
69+50					92.7
	5.16	897.67	5.96	892.51	
70+00					92.6
B.M.			2.65	895.02	895.03
70+50					92.3
71+00					92.4
71+50					92.5
72+00					92.6
72+50					92.9
73+00					93.0
73+50					92.8
74+00					92.3
74+50					92.1
75+00					92.3

CROSS DRAIN

"A" LINE.

11-26-39

46	67	66	56		60	103	123	
43	24	20	17	5.5	11	27	43	
41	41	53	59		61	110	140	
43	29	26	13	5.8	9	25	43	
27	18	30	52	57		57	73	99
43	30	25	20	13	5.1	8	13	43

ON BOTTOM OF CONC. STEP S.W. COR. LT. STA. 69+15.

18	13	29	54	55		58	53	68	80
43	31	26	20	13	5.4	12	17	21	43
16	19	30	51	54		60	60	67	77
43	29	24	19	11	5.3	10	18	20	43
12	20	31	55	54		59	51	66	77
43	29	24	20	11	5.2	13	15	21	43
25	23	35	52	52		58	46	48	59	73
43	29	24	20	12	5.1	12	15	19	21	43
17	22	40	50			52	54	67	86
43	29	21	11	4.8		8	16	20	43
05	10	30	50	47		51	53	69	95
43	31	23	19	11	4.7	9	17	21	43
30	38	66	67	57	51		54	74	84	111
43	28	23	18	16	12	4.9	11	18	20	43
	38	46	59	56			60	77	121
	43	30	25	12	5.4		10	18	43
42	50	77	76	64	59		62	110	133	138
43	31	25	18	16	12	5.6	11	19	35	43
	37	53	88	59			60	94	136	141
	43	31	19	14	5.4		11	17	33	43
9.7									10.4	

		897.67			
75+50					92.6
	9.62	902.25	5.04	892.63	
B.M.	3.57	902.60	3.07	899.18	899.53
76+00					90.0
76+50					92.8
77+00					96.2
77+50					97.0
78+00					95.8
78+50					96.1
79+00					97.9
79+50					98.6
80+00					99.3
	9.41	910.62	1.39	901.21	
80+50					900.0
81+00					00.8

"A" LINE 11-29-29

3.8	4.0	6.3	8.0	7.9	5.6		5.0	5.8	7.9	11.3	11.0
43	33	25	17	11	7	5.1	7	17	22	28	43

SPK IN 18" ON 100' RT STA 77+75.

9.8	11.0	12.4					11.6	9.9	9.4	9.7	10.8
43	32	20	12.6	4	9		24	36	43		

8.8	10.4	10.8	10.6				9.9	10.4	10.5	9.2	8.7
43	36	31	17	9.8			20	24	26	32	43

10.4	10.4	8.3	2.1				4.6	4.2			
43	35	30	15	6.4			27	43			

9.4	9.1	7.4					3.4	2.5			
43	33	11	5.6				27	43			

9.6	9.5						6.9	7.6	6.5	5.8	
43	20	6.8					13	22	28	43	

10.5	10.4	9.7					5.5	7.9	5.8	6.8	5.0
43	30	9	6.5				6	17	37	50	43

9.5	9.1	5.4					5.0	9.3	9.7		
43	20	9	4.7				15	27	43		

6.4	7.6	4.6					4.3	6.8	9.6	10.4	
43	25	13	4.0				11	17	37	43	

0.4	2.9	5.6	3.7				3.6	7.8	9.0		
43	20	15	13	3.3			12	23	43		

3.4	11.2	13.0	13.2	11.6			10.8	12.4	12.4		
43	37	27	17	14	10.6		12	20	43		

5.0	11.3	11.4	10.6				9.7	11.2	10.4	10.7	
43	33	22	18	7.8			11	19	33	43	

		910.62		
81+50				00.6
82+00				99.6
82+50				99.9
83+00				01.6
83+50				03.8
84+00				04.8
84+50				04.7
85+00				04.5
85+50				03.9
86+00				02.7
	3.28	906.70	7.20	903.42
86+50				01.8
87+00				00.9
87+50				99.9

"A" LINE 11-29-29

11.5	9.4	9.6			11.5	10.8			
43	32	7	10.0		19	43			
8.8	9.2	10.9	11.2		9.2	8.2			
43	32	20	7	11.0	26	43			
11.6	11.6	11.4			9.6	6.7	5.8		
43	35	6	10.7		15	30	43		
8.7	10.7	10.1			5.5	5.0			
43	34	7	9.0		21	43			
7.9	8.3	6.9	6.3		4.4	5.0	4.7		
43	35	33	8	6.8	8	30	43		
7.5	7.5	5.2	6.1		6.1	6.7	4.2	3.7	
43	39	30	16	5.8	7	17	23	43	
5.6	4.8	6.4			6.3	6.1	2.8	2.6	
43	17	14	5.9		14	21	28	43	
4.9	3.6	6.9			6.5	6.1	2.9	3.1	
43	22	13	6.1		11	16	29	43	
3.0	2.4	8.4	7.3		7.3	7.0	4.8	5.3	
43	26	21	12	6.7	11	15	22	43	
2.7	2.2	9.6	8.5		8.3	7.9	4.3	5.7	5.7
43	29	21	12	7.9	11	16	25	34	43
1.3	1.2	2.7	5.7		5.1	4.7	2.3	3.1	4.0
43	33	22	13	4.9	12	18	26	34	43
5.6	4.0	5.1	6.1	6.1	6.0	5.6	6.7	6.7	
43	31	20	18	10	5.8	14	22	34	43
7.9	7.7	5.9	5.4	7.2	7.2	7.5	7.0	5.0	5.7
43	33	28	22	18	10	6.8	11	17	24	43

		906.70			
88+00					98.9
88+50					97.5
89+00					96.0
89+50					94.9
	3.41	896.99	13.12	893.58	
90+00					93.6
90+50					92.3
91+00					91.2
91+50					90.4
92+00					89.6
	5.32	897.71	7.60	890.39	
92+50					88.6
	GRASS DRAIN				
93+00					87.5
93+50					83.2
93+56					85.4

"A" LINE. 11-29-29

10.9	9.9	6.1	6.1	8.1	8.2		6.5	7.9	7.0	6.2	6.2
43	36	28	25	18	11	7.8	10	15	18	27	43
9.4	9.2	6.9	7.0	9.3	9.4		9.9	9.4	8.1	7.9	
43	42	29	25	17	11	9.2	10	13	18	43	
7.9	6.1	11.4	10.5		11.0	7.4	8.6	9.0			
43	27	18	11	10.7	13	21	34	43			
9.0	7.6	12.3			12.1	7.6	7.1	10.2			
43	26	17	11.8		13	21	27	43			
1.2	0.9	4.5	4.7	3.7	4.0	4.0	0.7	1.7			
43	24	18	14	12	3.4	12	18	26	43		
3.5	3.6	6.5	6.4	5.0	5.2	6.3	6.3	2.9	3.3		
43	33	28	21	15	4.7	15	17	34	31	43	
6.8	6.0	7.6	7.1	6.0	6.6	7.8	8.0	5.3	5.9		
43	28	25	17	10	5.8	15	20	25	30	43	
9.6	5.5	7.2			7.1	6.0	8.4				
43	20	14	6.6		13	29	43				
15.0	13.3	10.0	8.1		7.7	11.0	12.7				
43	32	21	14	7.4	14	23	43				
13.3	12.6	6.8			6.7	11.6	12.2				
43	28	15	6.1		19	31	43				
13.1							13.3				
12.3	11.8	7.6			7.9	11.7	12.5				
43	17	7	7.2		29	37	43				
10.3	10.2	9.6			11.0	8.3	8.0	9.2			
43	24	3	11.5		7	14	36	43			
10.4	9.7				11.8	10.9	8.8	8.3			
43	17	9.3			6	13	19	43			

	894.71			
94+00				85.8
94+50				85.7
95+00				87.2
95+50				85.6
96+00				85.9
96+50				87.2
96+83.12				88.2
97+00			6.2	88.5
97+50			5.2	89.5
98+00			4.0	90.7
98+50			2.6	92.1
99+00			1.4	93.3
B.M.		11.43	883.28	883.26

A. LINE

A. LINE 11-29-29

10.1	10.5			7.7	7.5	11.0	11.9
43	22	8.9		19	27	36	43

9.7	10.5	10.4		7.9	7.2
43	40	21	9.0	24	43

7.6	8.0			7.7	7.4	10.0
43	23	7.5		26	37	44

7.4	8.4			9.7	10.6	7.4	8.3	8.7
43	23	9.1		11	15	21	38	43

8.0	9.0	10.1		8.5	10.0	11.1	9.2	9.1
43	25	5	2.8	14	31	43	37	43

8.7	7.7	10.4	8.3	8.4	11.2	11.2	10.5
43	33	15	12	17	22	37	43

8.7	9.5	9.4	7.0	7.4	10.1	10.5	7.8
43	36	17	13	13	18	39	43
-2.8	-3.4	-0.2	-0.7	-0.5	-4.1	-4.4	-3.7
43	20	14	10	12	18	25	43
-4.2	-5.0	-4.6	-0.4	-0.3	-5.1	-6.1	-5.8
43	33	19	13	12	20	29	43
-4.2	-4.5	-4.4	-0.5	-0.4	-5.0	-6.1	-8.3
43	35	18	12	12	19	28	43
-2.7	-4.1	-4.1	-0.3	-0.3	-5.6	-8.1	-8.0
43	37	20	13	11	19	35	43
+10 -0.4	0.0	-2.2	-1.2	-0.5	-0.3	-3.0	-4.4	-4.8
43	33	23	19	17	12	19	32	43

SPK IN P.P. E. SIDE INT. LONG LK. RD. & RICE CREEK RD.

Prod. # 30-12

Long Lake Road

Check Levels

B.M.	+	H.I.	−		885.11
B.M.	4.63	889.74			
T.P.	3.97	891.46	2.25	887.49	
....	5.79	892.68	4.57	886.89	
B.M.			5.05		
T.P.	3.12	887.50	8.30	884.38	
" "	11.15	898.25	0.40	887.10	
" "	7.39	905.64	0.00	898.25	
" "	1.13	904.23	7.54	903.10	
B.M.			10.66	893.57	
T.P.	1.05	891.92	13.36	890.87	
" "	1.51	887.16	6.27	885.65	
B.M.			4.73	882.43	
T.P.	1.89	878.50	10.55	876.61	
" "	4.17	875.19	7.48	871.02	
B.M.	7.68	881.92	2.95	874.24	
	10.26	892.18	0.00	881.92	
	6.30	897.90	0.58	891.60	
	4.08	897.50	4.48	893.42	
B.M.			2.47	895.03	
	7.08	903.13	3.45	894.05	
B.M.			3.90	899.23	
	5.21	907.69	8.65	902.48	
	0.20	894.98	12.91	894.78	
B.M.			11.72	883.26	

Top of wall 30' Rt Sta. 0+83

On N.W. cor of Lower conc. step in front of New Brighton Post office.

S.W. cor. Mont. Int. Long Lk. Rd. old S.T.H. 52

R.R. spike in 12" Cotton wood 100' Rt Sta. 27+50

R.R. spike in T.P. 23' Lt Sta. 41+70

N.W. cor. Mont. Sta. 52+53 Lt P.I.

IN BOTTOM OF CONC. STEP. S.W. COR. LT. OF STA. 69+15

SPK IN 18" OAK 100 RT. STA. 77+76

SPK IN P.P. E. SIDE. INT. RICE CREEK & LONG LAKE RD

New Brighton

LONG LAKE ROAD

"B" LINE.

CROSS SECTIONS FROM STA. 44+50

TO STA. 92+00.

STA	+	H.I.	−	ELEV.	
B.M.	1.32	883.75		882.43	
	4.00	877.65	10.10	873.65	
44+50					73.4
45					73.5
+50					73.3
46					73.6
+50					73.0
47					71.4
+50					70.7
	7.80	880.47	4.96	872.67	
48					71.3
+50					73.1
49					75.6
+50					75.8
50					74.7

"B" LINE 11-29-27

R.R. SPK. IN T.P. 23 Lt. STA. 41+70.

6.8	5.2	5.7	4.8		4.1	5.4	6.2
43	25	20	16	4.3	13	30	43
4.7	4.8				4.0	5.0	5.2
43	14	4.2			13	28	43
5.5	3.7	4.9			4.0	4.6	5.2
43	17	11	4.4		11	24	43
1.4	1.3	5.1			4.4	5.0	6.2
43	34	22	4.1		12	27	43
5.0	4.9				5.3	4.8	4.8
43	21	4.7			12	31	43
7.8	7.6				5.6	5.6	
43	23	6.3			19	43	
9.1	8.3	7.3			6.0	4.7	
43	32	11	7.0		24	43	

NAIL IN R.P. RT. STA. 47+90

10.5	10.1				8.6	7.7	
43	17	9.2			13	43	
7.7	7.6				7.0	7.3	
43	19	7.4			42	43	
4.5	4.9				5.2	5.1	
43	24	4.9			21	43	
4.2	4.8				5.1	5.0	
43	22	4.7			21	43	
4.8	6.4	5.1			6.4	6.6	
43	33	13	5.8		25	43	

		880.49 ✓			
+50					74.1
51					74.6
+50					76.0
52					77.9
T.P.	11.19	889.53 ✓	2.15	878.34 ✓	
+50					80.0
53					82.0
+50					84.6
54					86.3
T.P.	9.87	896.72 ✓	2.68	886.85 ✓	
+50					88.5
55					90.4
+50					91.5
56					92.0
+50					91.9

"B" LINE 11-27-29

7.1/43	6.7/12	6.4	7.2/25	7.8/43
8.3/43	8.1/24	6.2/7	5.9	7.7/18	6.7/43
6.3/43	6.2/23	4.5	5.3/10	6.3/43
2.6/43	2.6/30	2.6	3.9/26	3.1/43
7.8/43	9.4/18	9.5	10.8/18	11.8/43
5.0/43	6.7/21	7.5	8.7/17	10.7/43
1.0/43	3.7/18	4.9	7.0/27	8.0/43
+1.5/43	0.9/.22	3.2	4.0/21	4.7/43
7.1/43	8.4/21	8.2	7.5/24	8.1/43
7.8/43	7.0/18	6.3	5.3/25	5.3/43
6.2/43	5.5/20	5.2	4.0/25	4.2/43
4.7/43	4.9/15	4.7	3.9/21	4.4/43
4.6/43	5.1/14	4.8	4.9/18	5.4/43

		896.72			
57					90.9
+50					90.7
58					89.8
+50					88.9
59					88.7
+50					88.8
T.P.	6.45	89788	5.29	891.43	
60					89.9
+50					91.4
61					92.2
+50					92.2
62					92.0
+50					92.3
63					91.6

"B" LINE 11-29-29

6.0/43	6.2/22	5.8	5.2/20	5.7/43
6.3/43	6.3/20	6.0	5.1/24	5.7/43
7.5/43	7.1/20	6.7	5.4/27	5.5/43
8.6/43	8.1/20	7.8	6.5/26	6.6/43
8.2/43	8.5/23	8.0	8.1/24	8.5/43
6.3/43	7.1/23	7.7	7.7/17	8.4/25 8.7/43
5.2/43	6.6/23	8.0	8.0/23	8.9/43
4.6/43	3.4/19	6.5	6.7/25	7.4/43
4.5/43	5.9/13	5.7	5.5/13	7.1/43
5.6/43	5.0/25	5.7	7.0/27	8.4/43
4.2/43	4.9/20	5.9	6.5/21	9.5/43
4.2/43	4.3/21	5.6	6.7/20	9.2/43
4.2/43	6.1/16	6.3	6.7/20	9.0/43

		897.88			
+50					89.6
64					86.6
T.P	7.70	894.73	10.85	887.03	
+50					84.6
65					82.0
+50					82.4
66					86.3
+50					88.1
67					89.1
+50					89.4
68					90.7
+50					90.9
69					92.5
T.P.	5.11	897.77	2.07	892.66	
+50					92.8

B. LINE 11-29-27

4.0	5.0				8.1	9.8		
43	18	8.3			25	43		
6.7	10.3				11.7	15.2		
43	21	11.3			21	43		
6.7	11.9				14.8	14.1	15.2	15.4
43	18	10.1			14	20	20	43
14.2	15.0				11.3	11.1	15.4	15.7
43	11	12.7			6	15	30	43
13.7	14.2	13.4			10.7	10.7	11.7	12.2	11.0
43	12	3	12.3		7	18	24	34	43
7.9	8.1				7.1	6.9		
43	29	8.4			16	43		
5.4	5.7				6.7	6.4	7.0	
43	22	6.2			22	40	43	
4.0	5.7				7.7	8.3		
43	20	5.6			25	43		
2.2	2.6	1.9	2.9	3.4	4.1		6.2	8.0
60	30	43	41	37	18	5.3	20	43
2.1	2.8	2.5	2.5	2.9			6.1	8.1
45	27	26	28	20	4.0		22	43
1.5	2.0	1.2	3.3	3.7			6.0	8.3
43	37	28	8	7	3.8		23	43
12.0	0.0	1.8	1.6				2.7	4.4	7.8
43	37	30	12	2.2			8	14	43
1.1	4.1	6.2	6.7	5.1			5.4	8.7	10.6
43	22	18	13	7	5.0		11	28	43

		897.77 ✓			
70					91.8
+50					93.5
71					94.6
+50					95.3
72					94.5
+45					94.1
73					93.8
T.P.	641	909.11 ✓	0.07	897.70 ✓	
+50					96.0
74	CENTER OF ROAD				97.5
+50					97.0
B.M.			4.88	897.23 ✓	897.23
75					97.9
+50					98.9
76					97.2

"B" LINE 12-2-29

12	45	5.8		5.7	5.4	6.1	10.5		
43	9	5	6.0	8	21	33	43		
02	20			4.8	7.6	7.6	6.0	5.5	5.7
43	25	4.3		6	12	18	23	37	43
11.2	2.3			3.7	5.3	6.7	8.7	6.0	6.0
43	15	3.2		12	19	26	33	39	43
10.8	0.3			3.2	4.6	7.8			
43	21	2.5		16	21	43			
10.8	0.7			3.6	5.7	6.8	7.3		
43	22	3.3		19	23	33	43		
0.4	2.4			6.0	4.4	4.8	4.0	3.7	
43	23	3.7		7	14	34	38	43	
5.5	5.2	3.5		4.0	2.6	3.3	2.0	0.5	
43	18	6	4.0	3	6	12	20	43	
11.4	11.0	7.7		6.5	5.6	9.2			
43	32	10	8.1	8	17	43			
8.8	7.9	7.2		7.3	9.5	9.5			
43	43	32	6.6	34	41	43			
8.6	7.4	6.6		6.2	6.8	6.7			
43	28	5	7.1	8	32	43			

STK IN 18" OAK 100' RT. STA. 74+00

7.7	6.3	5.5		5.7	5.4	5.9			
43	24	6	6.2	7	30	43			
6.8	3.9	3.3	4.9		4.6	2.2	2.1		
43	24	9	5	5.4	15	24	43		
5.0	5.3	6.2			5.7	4.0	3.0		
43	10	7	6.7		14	19	43		

		907.11			
+50					94.9
77					93.8
+50					95.5
78					95.9
+50					95.7
79					96.7
+50					98.2
T.P.	4.98	903.05	6.04	898.07	
80					96.7
+50					94.7
81					93.0
+50					89.7
T.P.	1.25	891.64	12.67	890.41	
82					87.3
+50					85.7

"B" LINE 12-2-29

12.0	11.8	10.5	9.2		8.7	10.0	8.6	
43	20	11	6	7.2	10	18	43	
10.7	11.6	10.2	10.3		10.5	12.6	11.1	
43	24	8.	11.3		10	25	43	
	5.5	7.4			9.1	11.0	11.5	
	43	18	8.6		10	32	43	
	4.0	6.7			10.3	13.1		
	43	21	8.2		20	43		
	4.3	6.8			10.1	12.4		
	43	24	8.4		14	43		
	4.0	6.6			7.0	8.1	8.9	
	43	6	7.4		17	23	43	
	3.2	5.0			6.3	7.0	7.0	
	43	17	5.9		25	34	43	
	1.5	5.0			6.6	7.1		
	43	18	6.4		20	43		
	3.0	5.9			7.3	10.3		
	43	12	8.4		20	43		
	7.1	8.5			10.8	10.9	11.2	
	43	15	10.1		12	21	43	
	11.1	12.5			12.6	12.1		
	43	27	13.4		10	43		
	3.7	4.3			3.8	2.3	2.2	
	43	18	4.4		2	30	43	
6.2	7.8	7.6			5.7	6.4	4.8	
43	30	4	6.0		11	16	43	

		891.66 ✓			
83					84.2
+50					83.2
84					82.1
+50					80.9
85					80.0
+50					79.3
86					79.4
+60					83.5
T.P.	5.40	891.85 ✓	5.21	886.45 ✓	
+86					86.3
87					85.5
+45					85.0
+65					86.9
88					87.9

7.2	8.6	8.7		6.9	5.6	5.4
43	33	7	7.5	20	35	43

6.7	7.9	8.7		8.4	7.6	7.1
43	39	32	8.5	6	12	48

6.8	7.3	9.3	9.0	9.4	10.5	11.7
43	26	18	9	9	18	43

8.9	9.5	11.6	11.0	11.0	12.3	13.2
43	31	12	4	10	16	43

9.9	12.6	12.6		12.1	13.2	14.2	14.2
43	21	12	11.7	10	16	35	43

11.1	12.4		12.2	13.0	14.5	
43	20	12.4	13	17	43	

11.2	11.8		11.4	12.6	12.6	
43	20	12.3	24	34	43	

4.6	5.0	5.3	8.0	8.0	8.8	10.3	9.8
60	50	45	36	21	14	30	43

5.8	5.4	6.0	7.3	7.3	6.2	9.6	10.0
43	36	13	8	5	12	37	43

5.7	5.5		7.5	5.7	7.5	9.5	
43	23	6.4	9	12	31	43	

5.0	4.3	7.2	8.5	6.9	6.3	6.7
43	24	18	5	13	28	43

6.1	4.2		7.3	8.3	7.4	6.6	
43	15	5.0	6	19	21	43	

6.0	4.7		2.9	3.0	8.3	7.3	
43	16	4.0	12	43	32	43	

	891.85 ✓			
+60				86.6
89				85.4
+50				86.2
+99 ½				87.0
90			4.9	87.0
+50			3.5	88.4
91			2.5	89.4
+50			1.3	90.6
92			0.0	91.9
B.M.		8.54	883.26 ✓	883.26

B" LINE 12-2-29

5.1	4.7			4.8	8.4	7.0	6.7	7.0	
40	22	5.8		3	12	18	34	43	
5.8	6.3	7.6	7.6		5.8	6.4	8.4	8.4	4.2	4.2
43	13	8	5	6.5	13	30	32	36	43	50
5.5	7.1	6.0			6.2	8.1	8.1	7.0	5.7	
43	15	10	5.7		16	20	21	22	43	
5.9	7.0	7.3	5.2		5.2	7.8	7.7	7.0		
43	32	17	13	4.9	15	19	37	43		

S PX IN. P.P. E. SIDE OF INT. RICE CREEK RD. & LONG LAKE RD.

LONG LAKE ROAD - 3-17-30

~~0+00 to 8+00 - City section~~

x No culv's. req. x
x 8+63 - Rt. - No culv. req. x
x 9+46 Rt. - P-15" X 20' C.M. x
x 12+00 - Remove 12" X 40' V.P. - P-24" P_3 x
x Power line on Rt.
x 12+00 to 13+00 - Cl. & Gr. 3T. Rt. x
x 12+35 - Lt. No culv. req. x
x 14+18 - Lt. - P-15" X 20' C.M. x
x 13+95 - Rt. - No culv req. x
x 15+64 - Remove - P-24" P_3. x
x 26+00 to 27+00 - Cl. & Gr. - 2 T. Rt. x
x 28+50 - Rt. - No culv. req. x
x 28+50 - Lt. - No culv. req. x
x 33+00 to 38+00 - Lt. - Gr. 33 T. x
x 36+00 to 42+50 Rt. - Cl. 23 T. Gr. 72 - x
x 42+00 to 42+50 - Lt. - Gr. 2 T. x
x 43+70 - Remove - 50.00 (4) P-36" P_3 - x
x 36+50 - Lt. No culv. req. x
x 46+00 - Rt. " " x
x 46+00 Lt. " " x
x
x 51+35 - Rem. P-24" P_3 x
x 53+50 to 55+00 - Gr. 6 T. Rt. x
x 53+80 - Lt. P-15" X 20' C.M. x
x 56+12 - Lt. - Rem. - " " x
x 57+00 to 58+00 - Cl. 2 T. Gr. 4 T. Lt. x
x 57+98 - Lt. Remove - P-15" X 20' C.M. x
x 59+59 - Lt. - Rem. - P-15" X 20' C.M. x
x 60+03 - Lt. - " " " x
x 61+14 - Rt. - P-15" X 20' C.M. x
x 61+50 to 63+00 - Cl. 15 T. Gr. 16 T. Rt. x
x ~~64+95~~ - Rt. - P-15" X 20' C.M. x
63+95

× 64+64 - Lt. P. 15" X 20' C.M.
× 64+50 to 65+00 - Gr. 3 T. Rt.
× 68+10 - Rt. - No culv. req.
× 68+78 - Lt. - " " "
× 68+72 - Rem. 12" x 40' C.M. - P. 24" P3
× 70+34 - Rt. - No culv. req.
× 72+54 - Rt. - P. 15" x 20' C.M.
× 72+54 - Lt. - " "
× 74+85 - Rem. - P. 24" P3
× 77+00 to 78+00 - Gr. 28 T. Lt.
× 83+01 to 84+00. Cl. + Gr. 3 T. Rt.
× 83+55 - Rt. - Rem. + Rep.
~~83+80 Lt. P. 15" C.M.~~
× 83+75 - Lt. - No culv. req.
× 91+45 - Rt. - Imp. - 15" x 20' C.M. - O.K.
× Remove G.R. on Lt.
× 92+54 - Culv. O.K.

PROJ # 50-12

SOUNDINGS

SOUNDING 24' LT. STA. 96 +00

0 - 1' BLACK LOAM.

1' - 3' SAND. WATER 3' DOWN.

SOUNDING 20' LT. STA. 95+50

0' - 1' BLACK LOAM

1' - 4.5 SAND WET

SOUNDING 20' LT. STA. 95-+00

0' - 1' SANDY LOAM

1' - 3' SAND

3' - 5½ + CLAY

SOUNDING 20' RT. STA. 95+00

0' - 1' SANDY LOAM

1' - 3' SAND

3' - CLAY

SOUNDING 19' RT. STA 94+50

0' - 3' SAND

3' - 4' + CLAY

SOUNDING 22' LT. STA 94+50

0' - 1½ BLACK DIRT.

1½ - 2½ + WET SAND.

6-14-50

SOUNDING 50' RT STA. 94 +50

0' - 2½' SAND

2½' - 6' + CLAY

SOUNDING 22' LT STA. 94+00

0' - 1' BLACK DIRT MUCKY

1' - 2½' + SAND WET.

SOUNDING 19' RT STA. 94+00

0' - 3½' SAND.

3½' - 4' + CLAY

SOUNDING 22' LT. STA. 94+00

0' - 2½' SAND.

SOUNDING 23' RT. STA. 90+00

0' - 4' + SAND.

SOUNDING 23' LT. STA 90+00

0' - 4' + SAND.

SOUNDING 21' RT STA. 89+00

0' - 2½' SAND

2½' - 4½' + CLAY

SOUNDING 33 RT STA 89+00

0'-2½ SAND

2½+ CLAY

SOUNDING 21' LT. STA 89+00

0'-3½ SAND

3½-4½' CLAY

SOUNDING 33' LT STA. 89+00

0'-5½ SAND

5½-+ CLAY

SOUNDING 22' RT. STA. 88+00

0'-4½ SAND.

4½-+ CLAY

SOUNDING 20' LT. STA. 88+00

0'-3½ SAND

3½+ CLAY

SOUNDING 20' LT. STA. 87+00

0'-4+ SAND

SOUNDING 20' RT. STA. 87+00

0'-4+ SAND.

6-16-30

SOUNDING 20' RT. STA 86+00

0'-2½' SAND.

2½'-4'+ CLAY

SOUNDING 20' LT. STA. 86+00

0'-2'+ CLAY

SOUNDING 21' LT. STA. 85+00

0'-3' SAND

3'-4½'+ CLAY

SOUNDING 21' RT. STA. 85+00

0'-2' SAND

2'-5'+ CLAY

SOUNDING 25' RT. STA. 84+00

0'-4' SAND

4'-6'+ CLAY

SOUNDING 20' LT. STA. 84+00

0'-2'+ SAND

SOUNDING 25' RT. STA 83+00

0'-1⅔' SAND

1⅔'-5'+ CLAY

SOUNDING 25' RT. STA. 82+00
0'-2' SAND
2'-4'+ CLAY

SOUNDING 25' RT. STA. 81+00
0'-2' SAND
2'+ CLAY

SOUNDING 21' RT. STA. 77+50
0'-4' SAND.

SOUNDING 24' LT. STA. 77+50
0'-3' SAND

SOUNDING 21' RT. STA. 77+00
0'-4' SAND.

SOUNDING 24' LT. STA. 77+00
0'-3' SAND.

SOUNDING 21' LT. STA. 76+50
0'-2½' SAND.

SOUNDING 21' LT. STA. 75+00
0'-3'+ SAND.

6-16-30

SOUNDING 21' LT. STA. 72+00
0'-3'+ SAND

SOUNDING 20' RT. STA. 72+00
0'-2'+ SAND

SOUNDING 21' LT STA. 71+00
0'-3'+ SAND

SOUNDING 18' RT. STA. 71+00
0-2'+ SAND

SOUNDING 21' LT. STA 70+00
0-2½'+ SAND

SOUNDING 18' LT. STA 69+00
0'-2'+ SAND

SOUNDING 21 LT. STA. 67+00
0'-4' SAND

SOUNDING 21' RT STA. 67+00
0'-4'+ SAND

SOUNDING 21' RT. STA. 66+00
0'-5'+ SAND

SOUNDING 21' LT. STA. 66+00
0'-4'+ SAND

SOUNDING 21' LT. STA. 65+00.
0'-2'+ SAND.

SOUNDING 18' RT. STA. 65+00
0'-2'+ SAND

SOUNDING 24' RT. STA. 63+00
0'-1' SAND
1'-3'+ CLAY

SOUNDING 21' RT STA. 62+00
0'-2' SAND
2'-3½'+ CLAY

SOUNDING 21' RT STA. 61+00
0'-2½'+ SAND

SOUNDING 21' RT STA 60+00
0'-2' SAND
2'-3'+ CLAY

SOUNDING 21' RT STA. 59+00
0'-2½' SAND.
2½'-4'+ CLAY

6-16-30

SOUNDING 21' LT. STA. 59+00
0'-1' SAND
1'-3'+ CLAY

SOUNDING 21' RT STA 58+00
0'-2' SAND
2'-4'+ CLAY

SOUNDING 21' LT. STA. 58+00
0'-2' SAND
2'-3½'+ CLAY

SOUNDING 21' LT. STA. 57+00
0'-1' SAND
1'-3'+ SANDY CLAY

SOUNDING 18' RT STA. 57+00
0'-2'+ SAND

SOUNDING 18' RT. STA 56+00
0'-2½'+ SAND

SOUNDING 18' RT. STA 55+00
0'-3'+ SAND

SOUNDING 24' RT. STA. 54+00
0' – 2' SAND
2' – 3'+ SANDY CLAY

SOUNDING 24' RT. STA. 53+00
0' – 0.5' BLACK DIRT
0.5' – 2'+ SAND

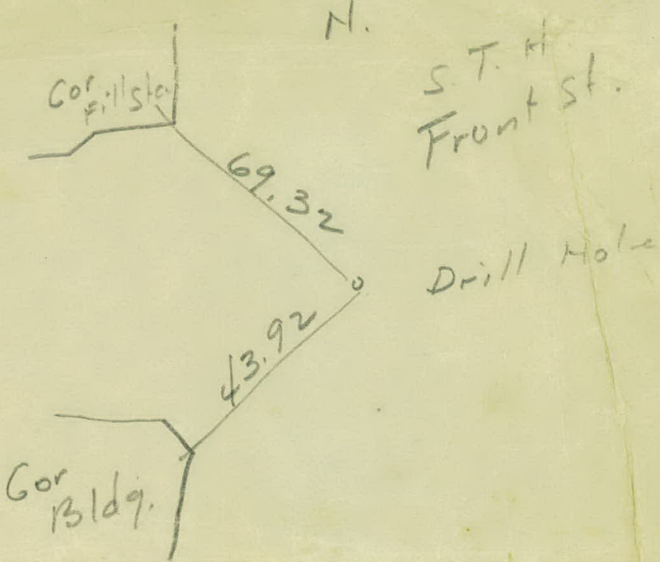
SOUNDING 24' RT. STA 52+00
0' – 1'+ MUCK

SOUNDING 24' RT. STA. 51+00
0' – 1.5'+ MUCK

SOUNDING 24' LT. STA. 47+00
0' – 4'+ SAND

SOUNDING 24' LT. STA. 46+00
0' – 4'+ SAND

SOUNDING 21' RT. STA. 46+00
0' – 4½' SAND



8+05.90
4+71.67
3 34.23
2 47.51
5 81.74

1796
345
1451