

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN Survey

Spring Lake Park Rd.

From Co. Rd. "I" To 1300' No.

Road Acc't. No.

Date Filed 3-16-44 File

SPRING LAKE SHORE LINE LOCATION
1955

M.V. T.

Align

Spring Lake Rd
From Co Rd "I" To Spring Lake Rd

10-4-43

10-12-43 HAW

Index	Pages
Align	1 to 8
Topog.	8 to 14
Bench levels	14 to 16
X Sect	16 to 20

AM

AG

3:30 P.M.
W.B.

Recd 10/6/43

Sta Point

Alt

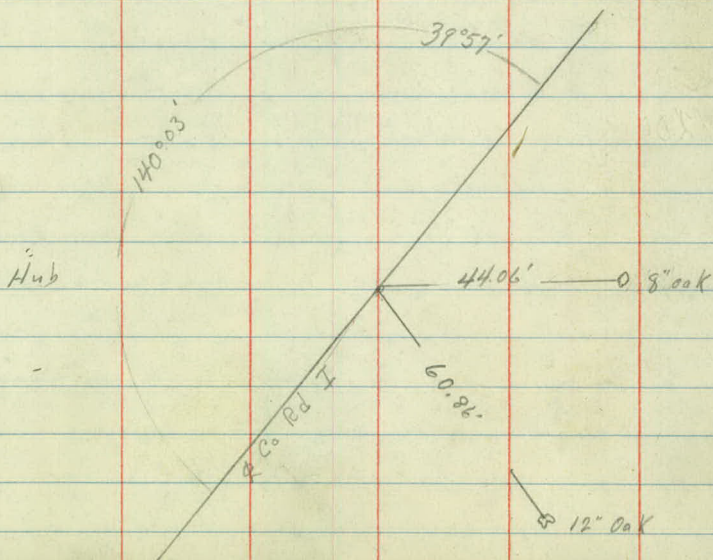
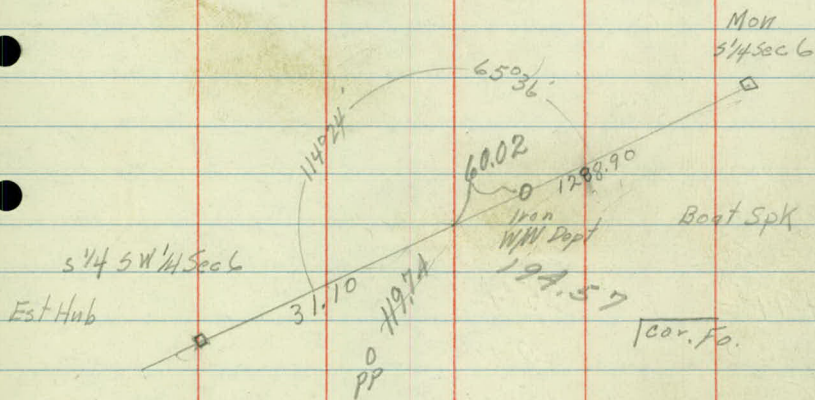
Alt

0+86⁴⁰

0+00

* Cord "I"

Description



Sta	Point	Def	ΔL	ΔR
-----	-------	-----	----	----

P.I.

ΔL

Void See Line Rev.
Page 6

19950

P.T.

25°45'

+50

20°48'

5

15°48'

478088

P.I.

51°30'

+50

10°48' D 20°

4

5°48' T 138.88'

+50

0°48' L 257.50'

3742.00 P.C.

0°00' R 287.93'

Description

Hub

Sta Point Def Alt ART

11+83³⁶ P.O.T ~~& Spring Lake Rd~~

9+33¹⁰ P.I ~~& Spring Lake Rd.~~ 66°35'

+95.88 P.T

+50

7+30.56 P.I

7

6+58.38 P.C

~~19°15'~~
~~12°50'~~

38°36'

D = 28°

~~5°50'~~

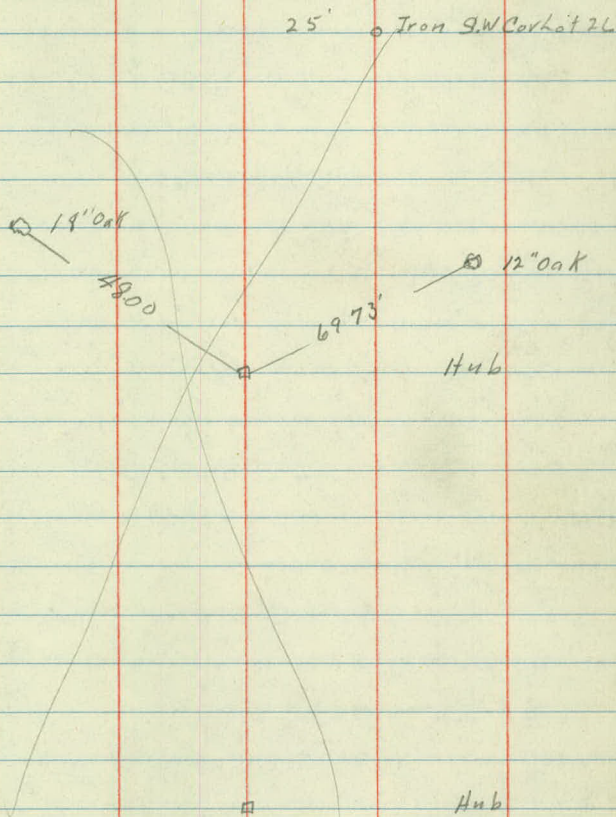
~~0°00'~~

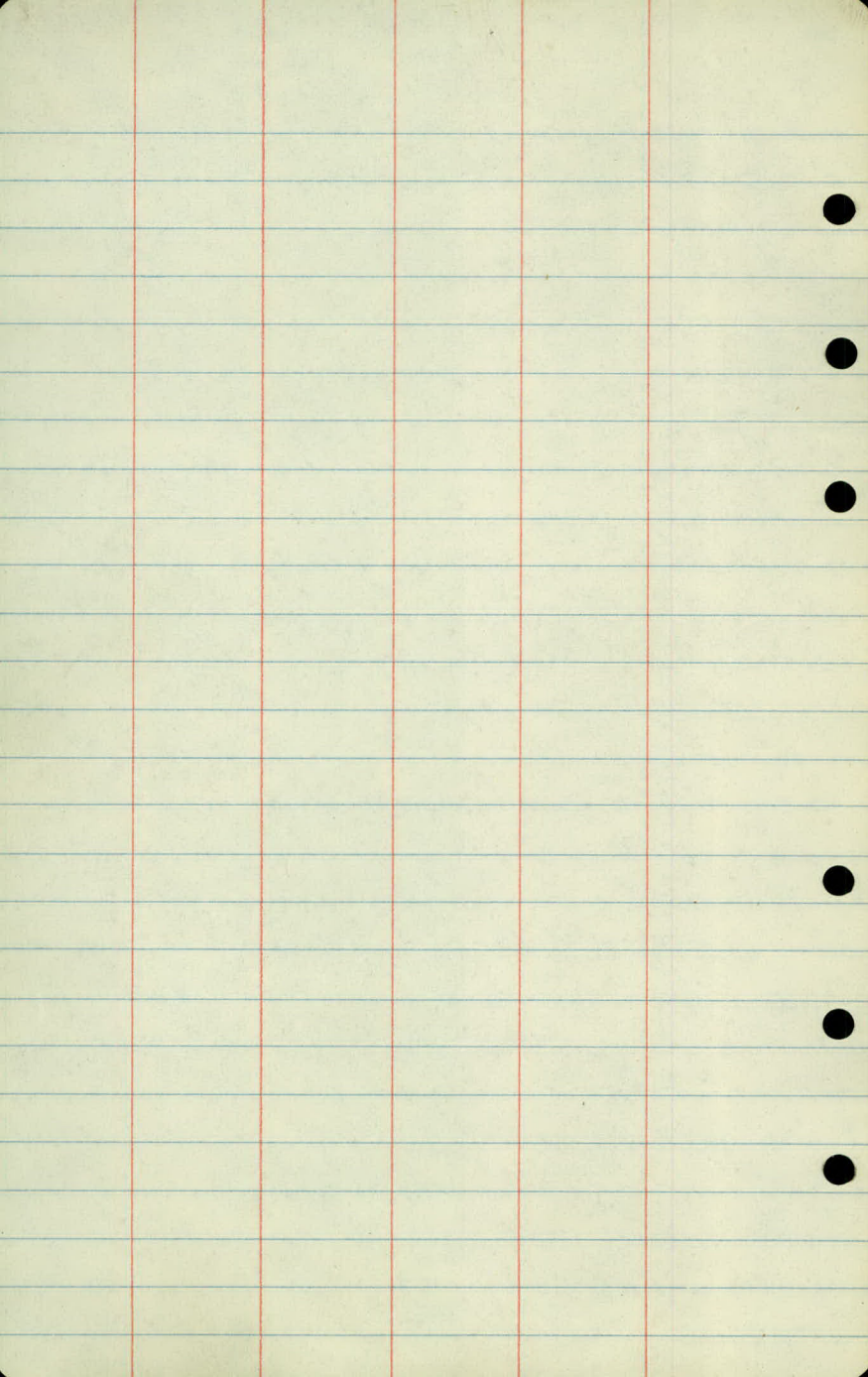
T 72.18 .

L 137.50 .

R 206.678 .

Description





5
Description

Line Revision

Sta	Point	ALT	ART
-----	-------	-----	-----

+4945	P.T	41°49	
-------	-----	-------	--

7		36°52	
---	--	-------	--

+50		31°52	
-----	--	-------	--

6		26°52	
---	--	-------	--

+5+88 88	P.I	83°38'	
----------	-----	--------	--

+50		21°52	D 20°
-----	--	-------	-------

5		16°52	T 25760
---	--	-------	---------

+50		11°52	L 418.17
-----	--	-------	----------

4		6°52	R 287985
---	--	------	----------

+50		1°52	
-----	--	------	--

31.3128	P.C	0°00'	
---------	-----	-------	--

Description

Sta	Point	Def	Alt	ARt
-----	-------	-----	-----	-----

13400	P.O.T	R Spring LKRd		
-------	-------	---------------	--	--

+7476	PT	30°06'		
-------	----	--------	--	--

+50		25°09'		
-----	--	--------	--	--

+25		20°09'		
-----	--	--------	--	--

940900	P.1	1		60°12'
--------	-----	---	--	--------

9		15°09'		D40
---	--	--------	--	-----

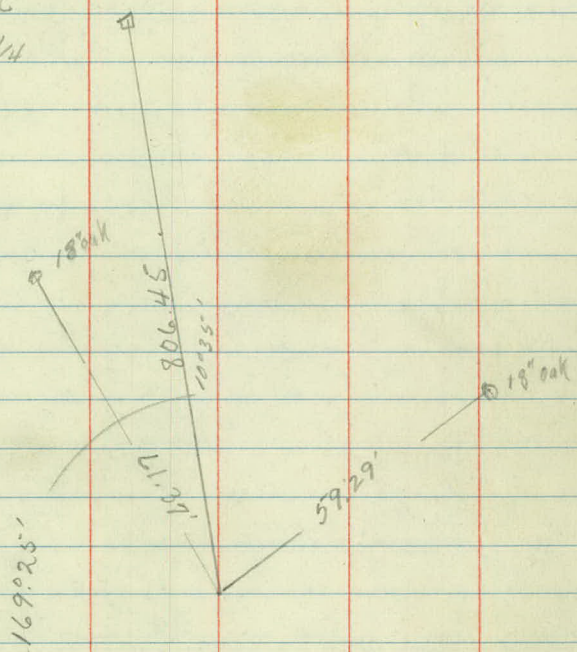
+75		10°09'		T8474
-----	--	--------	--	-------

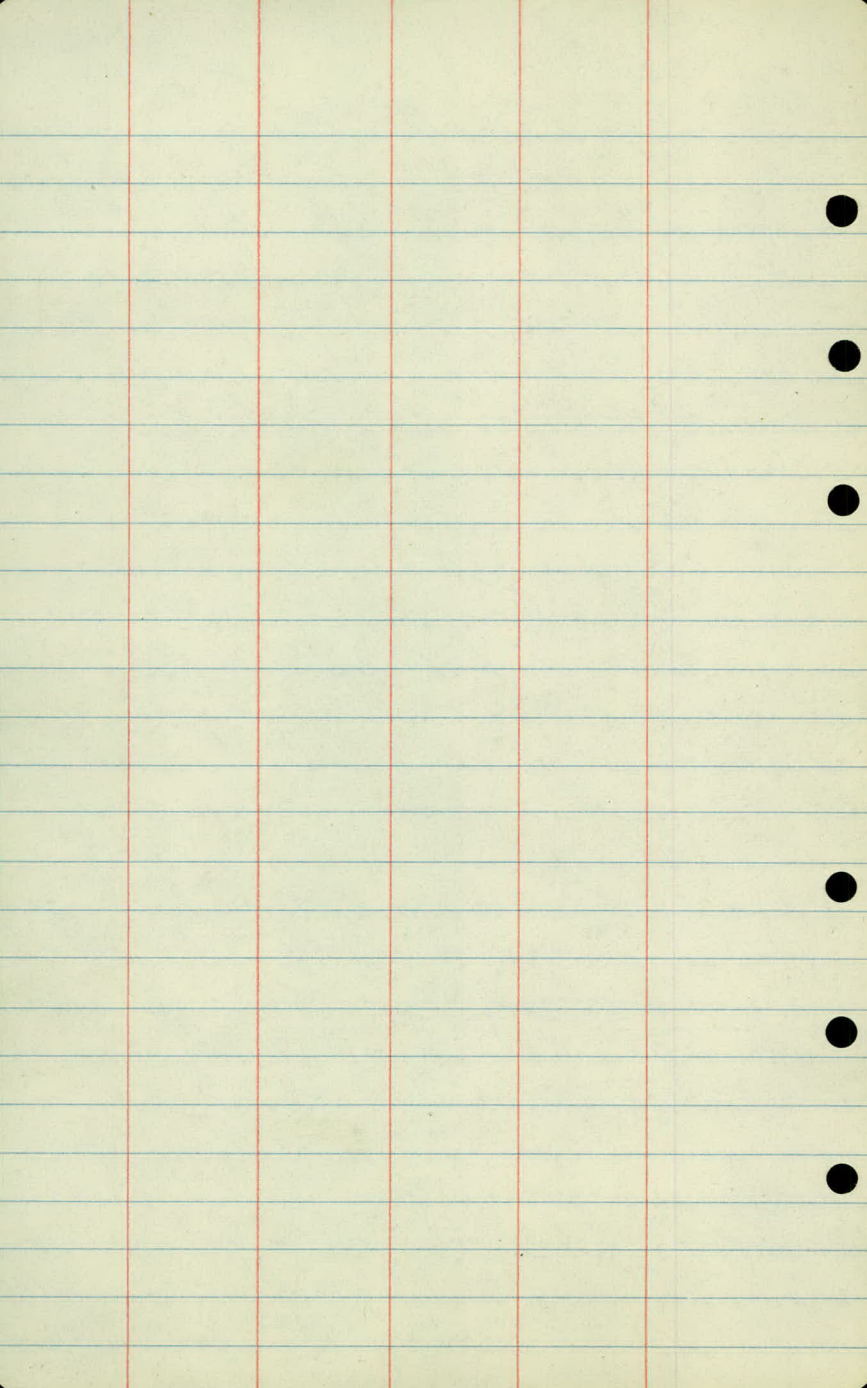
+50		5°09'		L150.50
-----	--	-------	--	---------

842426	P.C	0°00'		R146.19
--------	-----	-------	--	---------

Description

M.C
W.L in SW 1/4





Topography

Spring Lake Rd

NAW
AM
10.

10-6-43

6 $\frac{Kd}{9}$ $\frac{Kd}{10}$

+50 7 7

5 7' 7'

+50 9' 9'

4 11 7'

+50 10' 7

3 10' 7''

2 10' 7'

1 14' 14'

+50 16' $\frac{10'}{37'}$ +40

0 23'

LK 52'

9

+50 LK 57'

LK 60

+50 LK 63'

LK 62'

+50 LK 56'

LK 42'

LK 42'

LK 31'

+50 LK 28'

lake 49'

+50 LK 150'

+97 1/2" Oak 40'

+51 1/8" Oak 14'

Uncultivated

Spring Lake

+85 Rd 42'
+70 Rye Tie Rd

24' Gravel Top

Rd Rd

12

11' 14'

11

11' 14'

10

12' 16'

+33.10

+50 Edg RI

9

3' 13'

7' 6'

8

16'

+14 R Main 15" x 30' CM'

14'

7' 8'

+50

8' 9'

7

12' 10'

+58'

11' 9'

9' 10'

see page 11 to 13

+10 Ent.

+76 6" Oak 28'

+69 10" Oak 37'

+66 Oak 29'

+57 8" Oak 34'

+52 6" Oak 1 End Fe 30'

+48 Twin 6" Oak 36'

Fe 30'

+57 Rge Tr Fe

+41 Fe Cor 30'

Fe 21'

+86 6" Oak 19'

+65 15" Oak 18'

+52 10" Oak 12'

+50 Fe 21'

Fe 27'

+50 Fe 25'

Fe 18'

+58 Fe 17'

+12 Rge Tr Fe

+03 Fe Cor 20'

+97 P.P. 21

+65 6" Oak 24'

+76 18" Oak 25'

+50 LK 60'

+33 10 LK 15'

LK 14'

LK 32'

LK 13'

+50 LK 25'

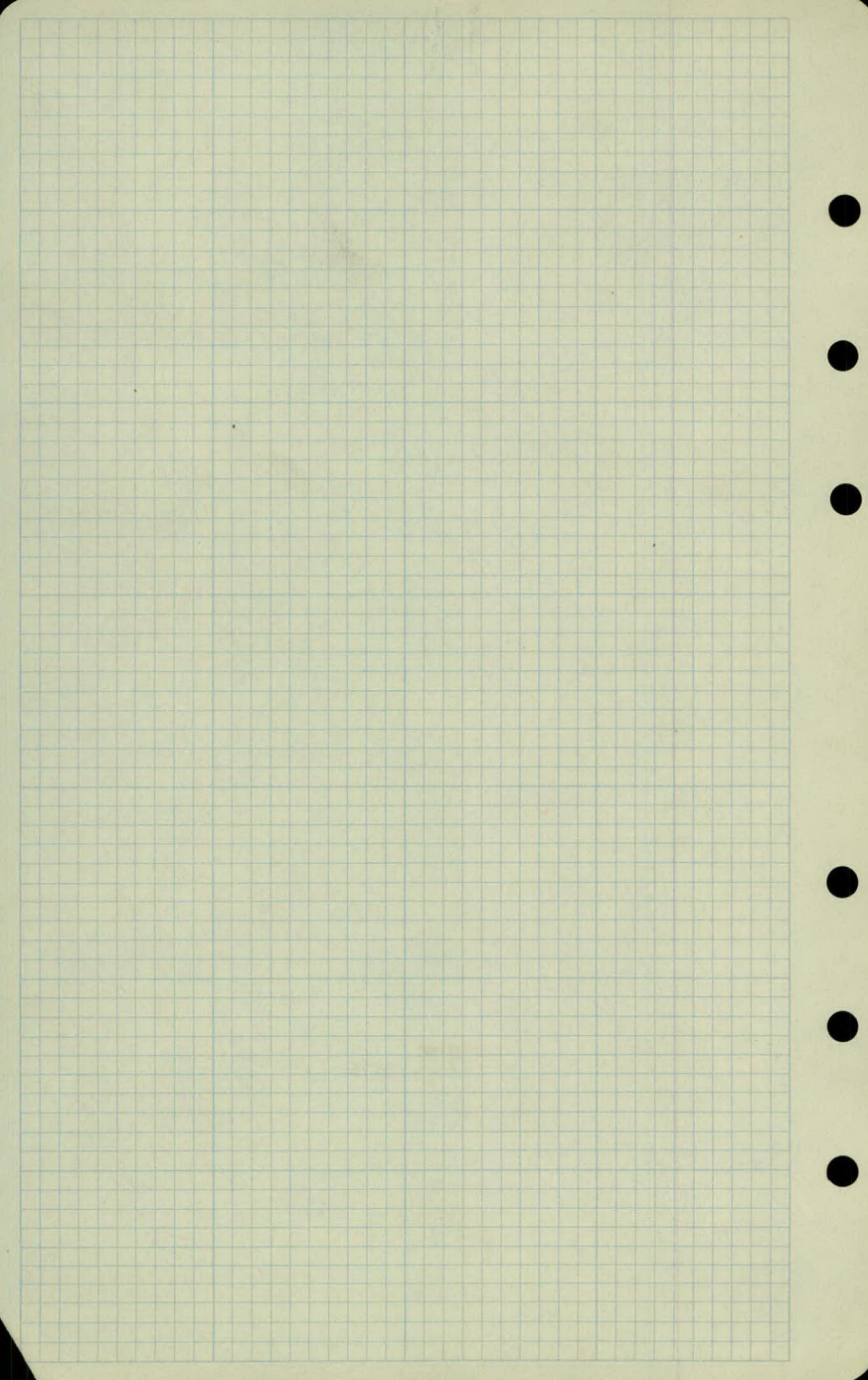
LK 32'

LK 47'

LK 52'

Uncultivated

Brush



11
Topography

Spring Lk Rd

6 Rd Rd
2'-16'

+50 0 12

5 0 10'

+50 4' 11'

4 12 5'

+50 15" 7'

3

2

1

0

0+00 No Edge Rd

0-38 South Edge Rd

LK 40

+98 Fe Cor 29 12

LK 50

Brush

+50 Bog Brush 40

LK 55'

LK 60

LK 60

+98 12' Oak 32

LK 50'

Uncultivated

24' Gravel Rd

13 Rd Rd

12 12' 16'

11 12' 15'

10 13' 14'

+75 13' 14'

+50 7 14'

+25 0 13

9 0 14'

+75 8' - 21'

+50 13' - 25'

8 18 - 29'

7

+50 22' - 33

7 12' - 34

+50 3' - 24'

6 20' - 16'

Woods 39

Woods

Woods 39

+85 Beg Woods 39

+69 PP 22'

+38 6" Oak 24'

+50 18" Oak 27

LK 47'

LK 22'

+75 LK 5'

+50 LK 7

+25 LK 7

5'

LK 31'

LK 40

Uncultivated

Spring LK

Yard

Yard

+41 End Hedge 28'

Hedge 28'

+85 Beg Hedge 28'

+85 6" Pine 28'

+64 Ent

+55 X Fe 26'

+41 Ent

+00 Beg Yard

+81 Ent

+48 6" Oak 27

+40 6" Oak 37

+38 Triple 6" Oak 29'

+29 6" Oak 34'

+26 6" Oak End Fe 30

+22 6" Two Oak 37'

Fe 30'

+75 Fe 30'

+50 Fe 22'

+25 Fe 22'

+04 Fe Ber 16

Fe 18'

+75 Fe 29'

+70 6" Oak 29'

+50 12" Oak 38'

Fe 38'

+33 6" Oak 34'

LK 0.0 Fe 48'

+97 X Drain 8'-3B'

15" X 30" CM

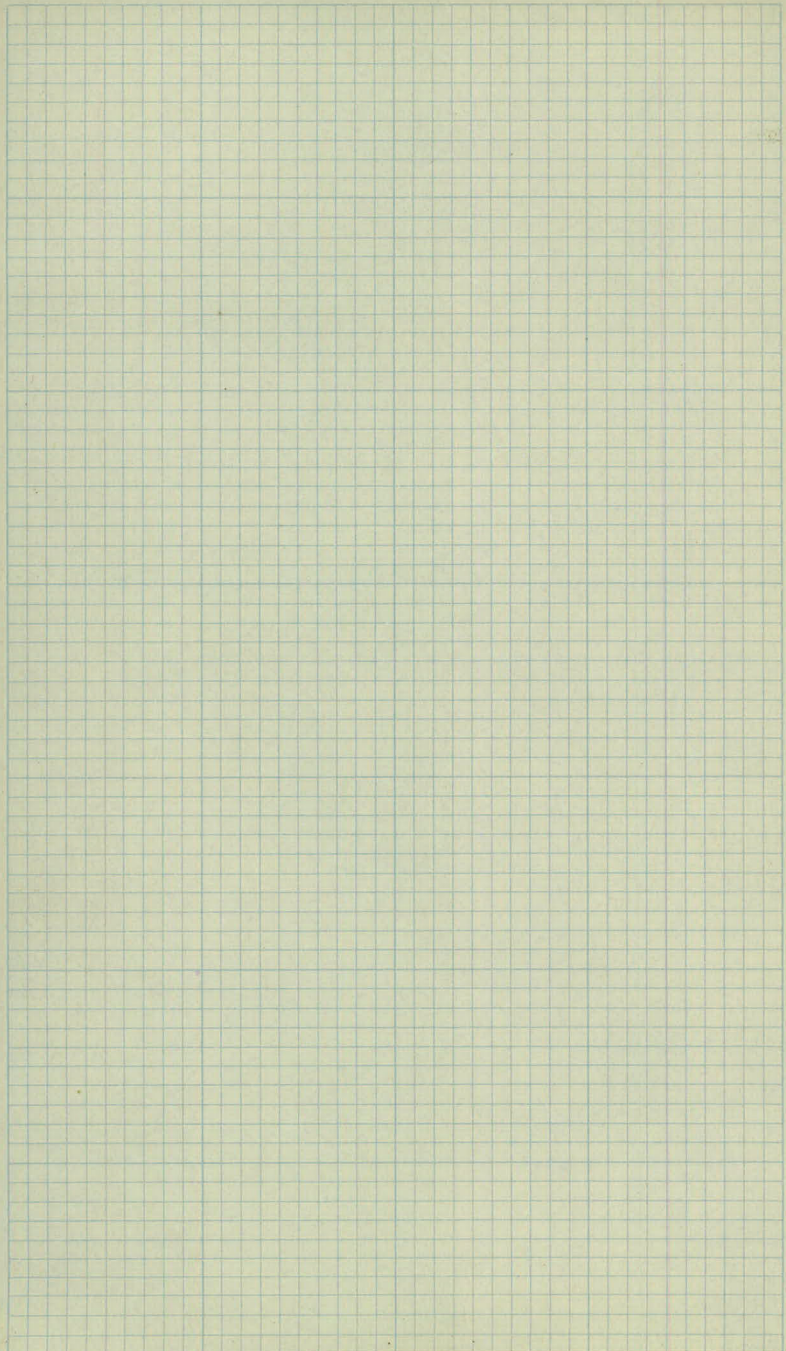
Fe 55'

LK 9'

Fe 44'

Fe 33

+14 Rye tie Fe

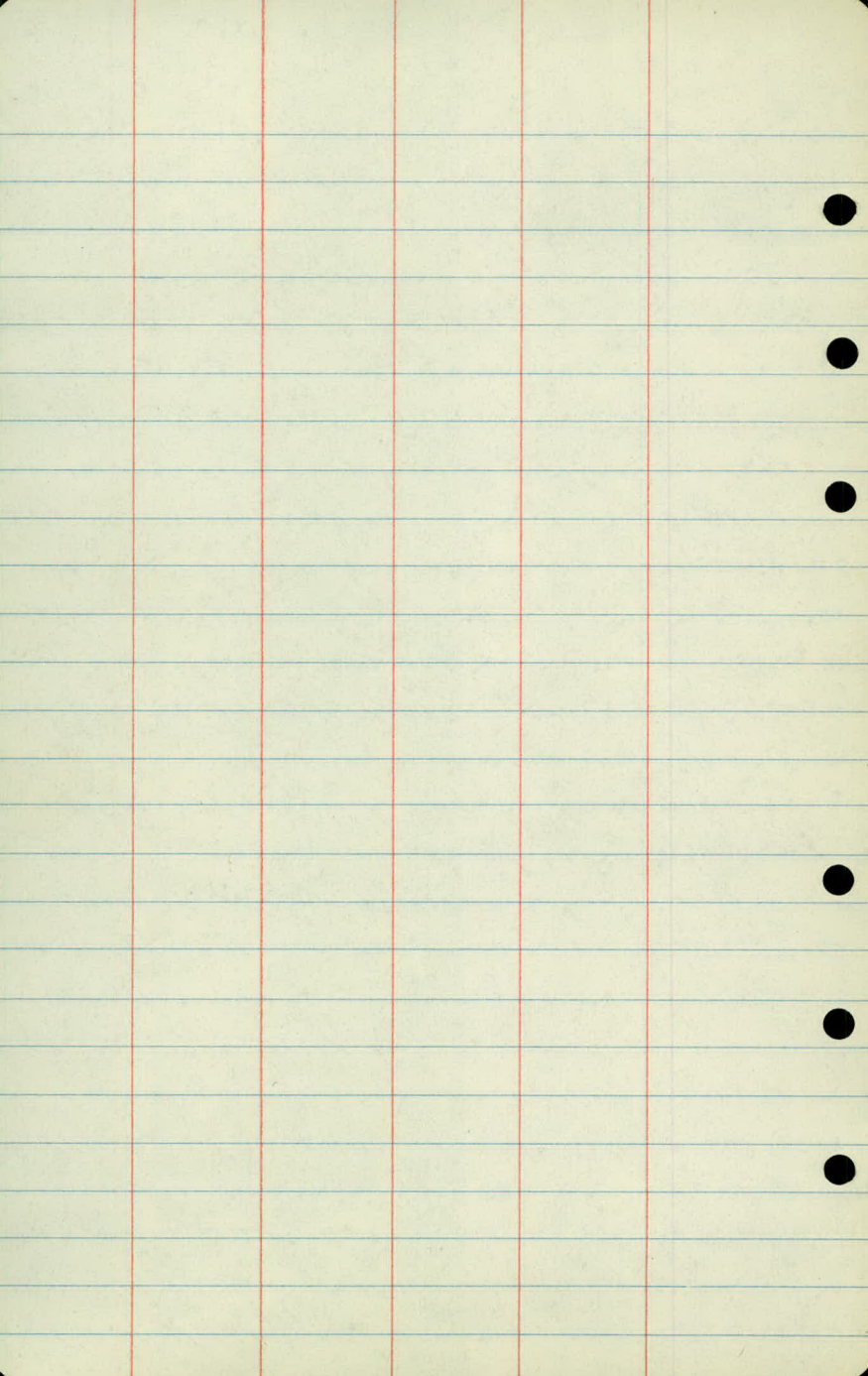


Bench Levels
Spring Lake Rd

Sta	+	π	-	Elv
B.M.	0.82	90921		908.39
	6.37	91449	1.09	908.12
	7.89	91465	7.73	906.76
B.M.			46.8	909.97

SpK in 18" Oak Spring L & Rd Survey

SpK in 12" Oak 30' Rt Sta 0-50



X sections

Sta	+	K	-	Elev
B.M	4.49	914.46		909.97
0-17		* CORRECT		10.1
0+00				09.2
+50				07.9
+68				07.4
+80				07.0
+90				06.7
+100				06.3
+150				04.9
2				06.0
+150				07.0
+170				07.2
+80				07.3

LT

R

RT

SpK in 12" OK 39' RT 54 0-41

$$\frac{3.7}{50} \quad 44 \quad \frac{4.7}{50}$$

$$\frac{5.5}{50} \quad \frac{5.5}{27} \quad \frac{6.1}{24} \quad 5.3 \quad \frac{4.7}{17} \quad \frac{5.2}{38} \quad \frac{5.4}{30}$$

$$\frac{6.9}{30} \quad \frac{6.1}{17} \quad \frac{6.8}{16} \quad 6.6 \quad \frac{6.4}{12} \quad \frac{5.1}{16} \quad \frac{5.4}{41} \quad \frac{4.7}{50}$$

$$\frac{9.3}{50} \quad \frac{7.1}{47} \quad \frac{7.5}{33} \quad \frac{6.8}{17} \quad \frac{7.2}{15} \quad 7.1 \quad \frac{6.8}{8} \quad \frac{5.3}{17} \quad \frac{4.6}{45} \quad \frac{5.0}{50}$$

$$\frac{10.2}{50} \quad \frac{9.3}{28} \quad \frac{7.6}{22} \quad 7.5 \quad \frac{7.5}{8} \quad \frac{6.5}{18} \quad \frac{6.1}{42} \quad \frac{4.4}{50}$$

$$\frac{11.9}{50} \quad \frac{10.8}{30} \quad \frac{7.7}{16} \quad 7.8 \quad \frac{7.4}{10} \quad \frac{7.7}{25} \quad \frac{6.1}{50}$$

$$\frac{12.0}{50} \quad \frac{11.2}{35} \quad \frac{8.2}{16} \quad 8.2 \quad \frac{8.6}{15} \quad \frac{5.8}{16} \quad \frac{5.2}{33} \quad \frac{5.0}{50}$$

$$\frac{13.3}{50} \quad \frac{12.7}{39} \quad \frac{11.8}{26} \quad \frac{9.3}{15} \quad 9.6 \quad \frac{9.3}{10} \quad \frac{8.7}{12} \quad \frac{7.7}{27} \quad \frac{5.2}{50}$$

$$\frac{13.0}{50} \quad \frac{12.1}{31} \quad \frac{9.0}{19} \quad \frac{9.3}{10} \quad 8.5 \quad \frac{8.5}{7} \quad \frac{6.2}{14} \quad \frac{2.8}{50}$$

$$\frac{11.9}{50} \quad \frac{11.4}{35} \quad \frac{7.8}{16} \quad 7.5 \quad \frac{7.5}{8} \quad \frac{4.2}{19} \quad \frac{2.2}{50}$$

$$\frac{12.0}{50} \quad \frac{8.2}{19} \quad 7.3 \quad \frac{7.2}{7} \quad \frac{3.6}{17} \quad \frac{2.3}{33} \quad \frac{2.3}{50}$$

$$\frac{12.3}{50} \quad \frac{10.7}{28} \quad \frac{6.7}{16} \quad 7.2 \quad \frac{6.1}{10} \quad \frac{5.9}{27} \quad \frac{3.2}{33} \quad \frac{2.6}{50}$$

Sta	+	X	-	Elev
		914.46		
3				07.7
T.P	6.53	915.47	5.52	908.94
+50				08.9
4				09.7
+50				10.0
5				09.5
+50				08.0
6				07.8
+50				07.8
7				03.2
T.P	7.28	911.47	11.28	904.19
+50				01.8
+99		X Drain		
8				01.7

Lt

X

Rt

$$\frac{12.4}{50} \quad \frac{11.2}{40} \quad \frac{8.8}{25} \quad \frac{6.4}{21} \quad 6.8 \quad \frac{6.3}{30} \quad \frac{2.4}{38} \quad \frac{1.8}{50}$$

$$\frac{12.4}{50} \quad \frac{11.1}{39} \quad \frac{6.7}{20} \quad 6.6 \quad \frac{2.0}{32} \quad \frac{1.7}{40} \quad \frac{1.6}{50}$$

$$\frac{12.2}{50} \quad \frac{10.7}{36} \quad \frac{5.8}{15} \quad 5.8 \quad \frac{5.9}{10} \quad \frac{6.2}{29} \quad \frac{10.8}{41} \quad \frac{12.0}{50}$$

$$\frac{12.2}{50} \quad \frac{10.8}{27} \quad \frac{6.2}{8} \quad 5.5 \quad \frac{4.9}{15} \quad \frac{5.0}{34} \quad \frac{12.0}{41} \quad \frac{12.5}{50}$$

$$\frac{12.2}{50} \quad \frac{9.9}{28} \quad 6.0 \quad \frac{5.8}{13} \quad \frac{5.1}{36} \quad \frac{0.0}{46} \quad \frac{0.3}{50}$$

$$\frac{12.9}{50} \quad \frac{10.4}{24} \quad \frac{7.6}{10} \quad 9.5 \quad \frac{7.2}{13} \quad \frac{6.2}{29} \quad \frac{4.9}{34} \quad \frac{2.7}{50}$$

$$\frac{13.5}{50} \quad \frac{10.0}{24} \quad \frac{7.6}{19} \quad \frac{6.6}{7} \quad 7.7 \quad \frac{7.2}{19} \quad \frac{3.9}{29} \quad \frac{2.4}{50}$$

$$\frac{14.4}{50} \quad \frac{12.4}{24} \quad \frac{11.0}{14} \quad \frac{8.1}{5} \quad 7.7 \quad \frac{8.2}{3} \quad \frac{7.9}{13} \quad \frac{7.9}{27} \quad \frac{5.2}{31} \quad \frac{5.6}{50}$$

$$\frac{14.8}{50} \quad \frac{14.6}{30} \quad \frac{13.3}{8} \quad 12.3 \quad \frac{9.9}{11} \quad \frac{9.6}{25} \quad \frac{9.1}{37} \quad \frac{7.5}{42} \quad \frac{7.6}{50}$$

$$\frac{10.7}{50} \quad \frac{9.9}{22} \quad 9.7 \quad \frac{9.1}{8} \quad \frac{7.8}{17} \quad \frac{6.9}{21} \quad \frac{6.7}{29} \quad \frac{6.9}{38} \quad \frac{7.2}{50}$$

902.77

$$\begin{array}{r} 8.7 \quad 9.15 \\ \hline \text{Inv} \quad \text{Inv} \end{array} \quad 902.32$$

$$\frac{11.5}{50} \quad \frac{10.5}{37} \quad \frac{9.2}{20} \quad \frac{10.2}{11} \quad 9.8 \quad \frac{9.0}{13} \quad \frac{6.9}{19} \quad \frac{7.3}{34} \quad \frac{8.9}{38-43} \quad \frac{7.0}{50}$$

Sta	+	Δ	-	Elev
		911.47		02.0

8+50				03.0
------	--	--	--	------

+75				03.2
-----	--	--	--	------

9				04.5
---	--	--	--	------

+25				04.9
-----	--	--	--	------

+50				06.3
-----	--	--	--	------

10				08.8
----	--	--	--	------

+50				09.9
-----	--	--	--	------

B.M	6.96	915.35	3.07	908.40	908.39
-----	------	--------	------	--------	--------

11				10.9
----	--	--	--	------

+5				11.7
----	--	--	--	------

12				12.6
----	--	--	--	------

+50				13.4
-----	--	--	--	------

13				14.3
----	--	--	--	------

B.M	8.98	917.37	6.96	908.39
-----	------	--------	------	--------

Lt

X

Rt

17

$$\frac{11.4}{50} \quad \frac{10.6}{30} \quad \frac{9.3}{12} \quad 85 \quad \frac{7.7}{9} \quad \frac{7.0}{11} \quad \frac{7.5}{26} \quad \frac{7.8}{29} \quad \frac{6.6}{33} \quad \frac{4.8}{50}$$

$$\frac{11.5}{50} \quad \frac{10.7}{35} \quad \frac{9.3}{9} \quad 83 \quad \frac{6.8}{5} \quad \frac{7.6}{22} \quad \frac{5.3}{30} \quad \frac{5.0}{50}$$

$$\frac{10.8}{50} \quad \frac{9.2}{28} \quad \frac{8.1}{14} \quad \frac{6.7}{4} \quad 7.0 \quad \frac{7.4}{14} \quad \frac{5.3}{15} \quad \frac{4.6}{19} \quad \frac{4.0}{50}$$

$$\frac{11.5}{905} \quad \frac{9.0}{50} \quad \frac{7.0}{21} \quad \frac{6.5}{10} \quad 66 \quad \frac{6.7}{16} \quad \frac{3.3}{22} \quad \frac{3.4}{50}$$

$$\frac{3.5}{30} \quad \frac{3.6}{37} \quad \frac{3.6}{21} \quad \frac{5.4}{22.19} \quad \frac{4.7}{15} \quad 52 \quad \frac{5.5}{17} \quad \frac{2.7}{24} \quad \frac{3.2}{50}$$

$$\frac{2.7}{50} \quad \frac{2.2}{25} \quad \frac{3.3}{22.20} \quad \frac{2.2}{14} \quad 2.7 \quad \frac{3.1}{17} \quad \frac{3.4}{20.24} \quad \frac{2.3}{26} \quad \frac{2.6}{50}$$

$$\frac{2.3}{30} \quad \frac{1.6}{23} \quad \frac{3.0}{22.18} \quad \frac{1.6}{14} \quad 1.6 \quad \frac{2.1}{16} \quad \frac{2.7}{18.22} \quad \frac{1.6}{25} \quad \frac{1.7}{50}$$

Spk in 18" Oak 26" Lt 9/50

$$\frac{6.7}{50} \quad \frac{5.7}{18} \quad \frac{4.7}{14} \quad 45 \quad \frac{5.1}{17} \quad \frac{5.5}{19.23} \quad \frac{5.0}{25} \quad \frac{4.7}{50}$$

$$\frac{6.0}{50} \quad \frac{4.9}{17} \quad \frac{3.8}{14} \quad 37 \quad \frac{4.2}{21} \quad \frac{4.4}{50}$$

$$\frac{4.5}{50} \quad \frac{4.4}{30} \quad \frac{4.2}{16} \quad \frac{3.1}{13} \quad 28 \quad \frac{3.2}{17} \quad \frac{4.0}{19.23} \quad \frac{3.3}{24} \quad \frac{3.1}{50}$$

$$\frac{3.2}{50} \quad \frac{3.0}{35} \quad \frac{3.4}{18} \quad \frac{2.2}{14} \quad 20 \quad \frac{2.5}{16} \quad \frac{3.3}{18.22} \quad \frac{2.6}{24} \quad \frac{2.5}{50}$$

$$\frac{1.7}{50} \quad \frac{1.6}{23} \quad \frac{2.3}{21.17} \quad \frac{1.4}{15} \quad 1.1 \quad \frac{1.6}{15} \quad \frac{2.7}{18.22} \quad \frac{1.9}{24} \quad \frac{2.1}{50}$$

902.42

19/12/43

Sta	+	π	-	Elev
-----	---	-------	---	------

		917.37		
--	--	--------	--	--

13+50				
-------	--	--	--	--

				15.0
--	--	--	--	------

14				
----	--	--	--	--

				15.7
--	--	--	--	------

+50				
-----	--	--	--	--

				16.2
--	--	--	--	------

15				
----	--	--	--	--

				16.5
--	--	--	--	------

+50				
-----	--	--	--	--

				16.8
--	--	--	--	------

16				
----	--	--	--	--

				16.9
--	--	--	--	------

+50				
-----	--	--	--	--

				17.1
--	--	--	--	------

17				
----	--	--	--	--

				17.3
--	--	--	--	------

B.M				
-----	--	--	--	--

		8.98		
--	--	------	--	--

				908.39
--	--	--	--	--------

Lt.

X

Rt

2.4

1.7

1.2

0.9

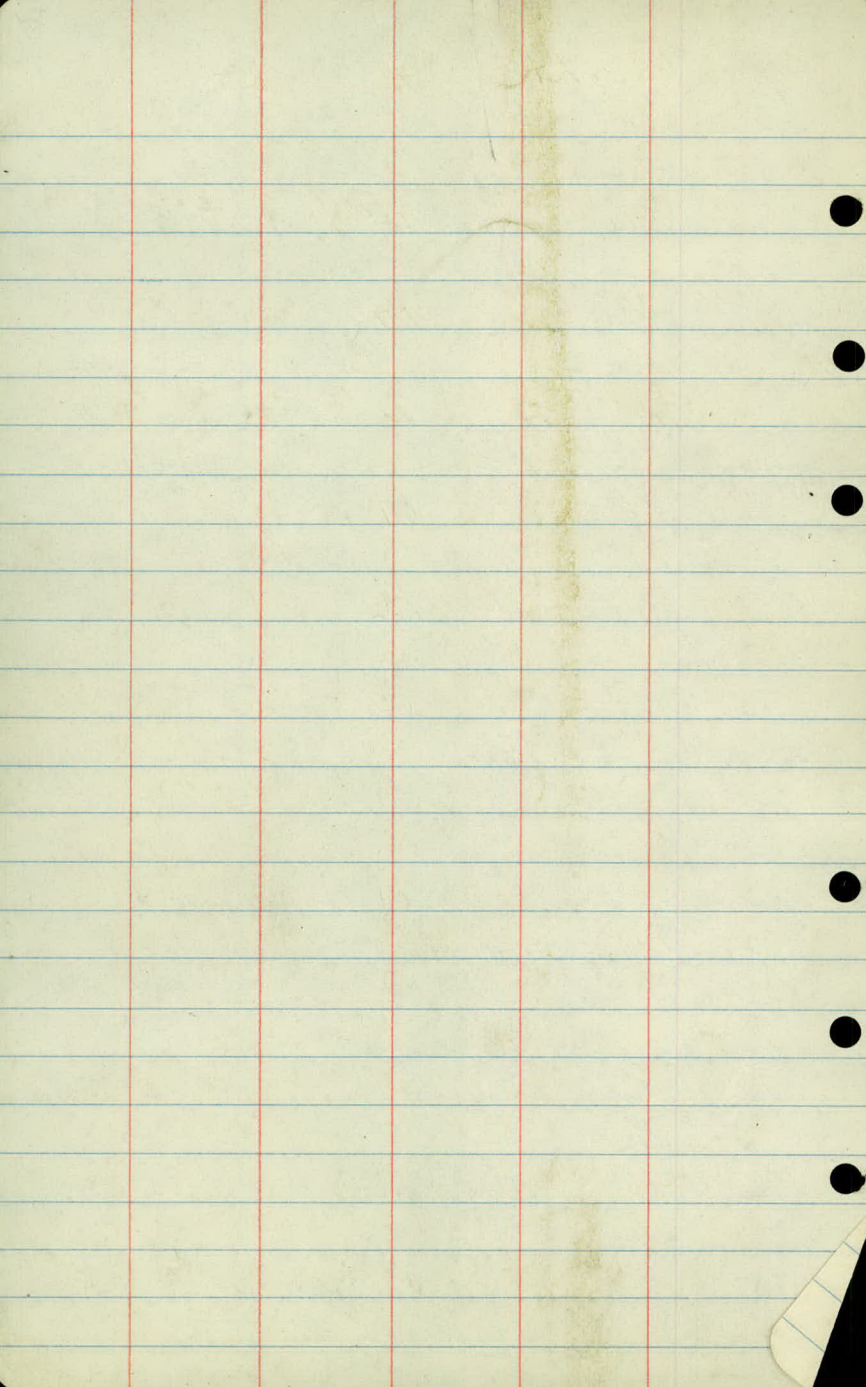
0.6

0.5

0.3

0.1

Spk in 18" Oak 24' Lt 9+50



1

SPRING LAKE

Shore Locations

19 Pages

Drawn up.
July 1955

Spring Lake Normal - 902.5

BM 2.95 911.34 908.39

Water 9.54 901.80

H.I. = 913.25

At M.C. West Line Sec 6-30-23

949.90' N. of SW Cor Sec 6-30-23

to W. Dept Mont N. Line Sec 7-30-23

177.98' S. of SW Cor Sec 6-30-23

180° 00'

To APT. A

264⁸ 50¹/₂

H.I. = 913.25

10.75

Water

180° 00'

902.5

"

904

"

905

"

GE

180° —

FA 904
AM 905
MM
EG

July 13, 1955

2

VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
----------------	---------------	-----	-------	-------

H.I. = 4.95

908.30

711

2.80

910.45

70'

11.45

901.80

58'

10.75

02.5

39'

8.75

04.5

33'

7.75

05.5

6'

5.0

08.3

OBJECT

AZ.

STADIA

H. 1

WATER

 234° $236^{\circ}50'$ $246^{\circ}3$ $254^{\circ}50'$

G F

 $275^{\circ}50'$

WATER

 $252^{\circ}50'$ 258° $267^{\circ}40'$ $273^{\circ}50'$

G E

 281°

WATER

 $263^{\circ}30'$ $265^{\circ}10'$ $267^{\circ}30'$ $268^{\circ}15'$

G F

 272°

DIST.

VERT.
ANGLEROD
EQUIV.

Jun 14 13, 1953

ROD

DIFF.

ELEV.

3

124

11.5

01.8

118

10.75

02.5

108

9.25

04.0

100

8.25

05.0

98

5.7

07.6

232

11.5

01.8

226

10.75

02.5

217

9.25

04.0

215

8.25

05.0

220

7.2

06.1

333

11.5

01.8

330

10.75

02.5

330

9.25

04.0

330

8.25

05.0

338

5.3

08.0

OBJECT

AZ.

STADIA

WATER

263° 45'

265° 25'

267° 20'

268° 10'

G. E

271° 30'

WATER

261° 20'

262° 15'

264° 15'

264° 50'

G. E

266° 40'

H.I. = 915.45
10

T at Δ Pt. A

to M.C. W. Line Sec. 6

89° 50 1/2'

V AZ Water Dept No. 1

145° 57 1/2'

To Δ Pt. B

348° 25'

Water

124° 30'

124° 50'

125° 30'

251° 30' 2

	VERT. ANGLE	ROD EQUIV	Jy 14 13, 1935 ROD	4 DIFF	ELEV
443			11.5		01.8 .
445			15.75		02.5 .
446			9.25		04.0 .
450			8.25		05.0 .
445			3.3		10.0 .
548			11.5		01.8 .
550			10.75		02.5 .
550			9.25		04.0 .
550			8.25		05.0 .
560			3.7		09.6 .
					3.56
					7.12
		H.I.	5.05		910.40
712			7.15		908.30 .
522			9.85		905.60
97'			13.65		901.80 .
84'			12.95		02.5 .
75			11.45		04.0 .

OBJECT

H.I. 915.45

AZ.

STADIA

G.E.
Water

106°

94°45'

192°30'

196°20'

203°40'

206°35'

G.E.
WATER

216°10'

214°30'

217°30'

224°10'

227°40'

G.E.
WATER

223°20'

225°45'

228°20'

233°10'

G.E.

239°

July 13, 1933						5
DIST	VERT ANGLE	ROD EQUIV	ROD	DIFF.	ELEV.	
72'			10.45		05.0	
65'			6.3		09.2	
115			13.65		01.8	
104			12.95		02.5	
93			11.45		04.0	
88			10.45		05.0	
78			8.2		07.3	
193			13.65		01.8	
187			12.95		02.5	
182			11.45		04.0	
175			10.45		05.0	
173			9.8		05.7	
284			13.65		01.8	
275			12.95		02.5	
266			11.45		04.0	
			10.45			
260			11.8		03.7	

OBJECT

AZ.

STADIA

WATER

 $245^{\circ}40'$ $242^{\circ}40'$ $239^{\circ}25'$

WATER

 262° $259^{\circ}35'$ $260^{\circ}10'$ 260°

WATER

 $286^{\circ}40'$ $286^{\circ}25'$ $286^{\circ}30'$ $289^{\circ}40'$

WATER

 314° $314^{\circ}30'$ $314^{\circ}40'$ $314^{\circ}20'$

G. E

 314°

July 13, 1955

6.

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
305			1365		01.8.
285			1295		02.5.
217			1145		04.0.
240			1365		01.8.
215			1295		02.5.
174			1145		04.0.
142			1045		05.0.
217			1365		01.8.
195			1295		02.5.
166			1145		04.0.
112			1045		05.0.
224			13.65		01.8.
195			12.95		02.5.
165			1145		04.0.
150			1045		05.0.
80			5.0		10.5.

OBJECT

AZ.

STADIA

WATER

 $337^{\circ}35'$ $339^{\circ}10'$ $347^{\circ}30'$ $347^{\circ}20'$

G.E

 13°

WATER

 $358^{\circ}10'$ $359^{\circ}30'$ $2^{\circ}10'$ $3^{\circ}20'$

G.E

 $25^{\circ}10'$

WATER

 $11^{\circ}50'$ $16^{\circ}30'$ $20^{\circ}45'$ $26^{\circ}20'$

G.E

 $48^{\circ}20'$

WATER

 $23^{\circ}20'$

DIST.

VERTI
ANGLEROD
EQUIV.

ROD

F.M.
M.M.
E.G.
DIFF.1/4 7
ELEV.

250		1365	01.8
226		1295	02.5
196		1145	04.0
140		1045	05.0
108		4.7	10.8
278		13.65	01.8
252		1295	02.5
226		11.45	04.0
213		10.45	05.0
115		3.9	11.6
324		1365	01.8
302		12.95	02.5
285		11.45	04.0
253		10.45	05.0
201		4.1	11.4
378		13.65	01.8
		12.95	02.5

OBJECT

H.I. 910.80

H.I. 910.76

AZ.

STADIA

A at Pt. B

to Pt. A

168° 25'

— 3.0

Water surface

To A P.T. C

223° 13'

18° 13'

123° 35'

124° 45'

127°

G.E

127° 10'

WATER-NOTE SWP

106°

105° 20'

105° 30'

G.E

105°

SWP

95°

89° 30'

86° 10'

84° 45'

G.E

84°

11

99°

DIST.

VERT.
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

11/4

8

H.I. = 5.2

903.60

522.

+0.4

910.40

26

8.96

901.80

910.

5.42

905.34

329

8.3

02.5.

357

6.8

04.0.

388

5.8

05.0.

445

5.2

05.6.

8.95

01.8.

351

8.3

02.5.

393

6.8

04.0.

400

6.8

05.0.

467

3.6

07.2.

282

8.95

01.8.

300

8.3

02.5.

357

6.8

04.0.

384

5.8

05.0.

424

1.8

09.0.

425

3.1

07.7.

OBJECT

AZ.

STADIA

 $67^{\circ}50'$ $69^{\circ}20'$ $70^{\circ}15'$

G.E

 $71^{\circ}20'$

SWP

 $52^{\circ}20'$ $43^{\circ}30'$ 41°

G.E

 $36^{\circ}25'$ $44^{\circ}45'$ $36^{\circ}20'$

G.E

 31°

SWP

 $64^{\circ}10'$ $58^{\circ}20'$

G.E

 37°

SWP

 $118^{\circ}30'$ $115^{\circ}15'$ $109^{\circ}30'$

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
		X 910.80			
317			8.3		02.5 .
370			6.8		04.0 .
398			5.8		05.0 .
445			1.7		09.1 .
330			8.3,		02.5 .
363			6.8		04.0 .
380			5.8		05.0 .
400			3.5		07.3 .
223			8.3		02.5 .
242			6.8		04.0 .
260			6.6		04.2 .
140			8.3		02.5 .
110			6.8		04.0 .
90			6.4		04.4 .
105			8.3		02.5 .
59			6.8		04.0 .
22			5.8		05.0 .

OBJECT

AZ.

STADIA

910.80

WATER

 $166^{\circ}45'$ $171^{\circ}30'$ $189^{\circ}50'$

F.C. - G.E

 $200^{\circ}30'$

WATER

 $198^{\circ}50'$ $202^{\circ}10'$ $211^{\circ}30'$

F.C. or G.E

 227°

WATER

 $237^{\circ}50'$ $235^{\circ}40'$ $227^{\circ}20'$

WATER

 $273^{\circ}25'$ 269° 265° $265^{\circ}15'$

WATER

 $309^{\circ}20'$ $312^{\circ}10'$ $333^{\circ}10'$ 1°

DIST.

VERT.
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

114

10

148

8.96

01.8.

127

8.3

02.5.

86

6.8

04.0.

70

5.8

05.0.

213

8.96

901.8.

185

8.3

02.5.

137

6.8

04.0.

94

5.8

05.0.

234

8.96

01.8.

206

8.3

02.5.

155

6.8

04.0.

170

8.96

01.8.

141

8.3

02.5.

93

6.8

04.0.

71

5.8

05.0.

156

8.96

01.8.

128

8.3

02.5.

91

6.8

04.0.

84

6.6

04.2.

OBJECT

AZ.

STADIA

WATER

 $342^{\circ}05'$ $351^{\circ}40'$ $11^{\circ}10'$ 22°

WATER

 $357^{\circ}15'$ $3^{\circ}30'$ 16° $25^{\circ}45'$

G.E

 31°

WATER

 $359^{\circ}20'$ $2^{\circ}30'$ 12° $17^{\circ}50'$

G.E

 24°

WATER

 $358^{\circ}30'$ $1^{\circ}10'$ $7^{\circ}05'$ 12°

G.E

 $17^{\circ}10'$

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF. ^{1/14}	ELEV. ¹¹
	910.80				
180			8.96		01.8.
162			8.3		02.5.
146			6.8		04.0
145			6.6		04.2.
266			8.96		01.8.
257			8.3		02.5.
250			6.8		04.0.
252			5.8		05.0.
254			6.6		04.2
360			8.96		01.8.
360			8.3		02.5.
356			6.8		04.0.
362			5.8		05.0.
370			4.0		06.8.
458			8.96		01.8
463			8.3		02.5
465			6.8		04.0.
465			5.8		05.0.
478			3.4		07.4

OBJECT

AZ.

STADIA

910.80

WATER

353° 20'

355°

0° 40'

4° 10'

G.E

7° 30'

WATER

341° 10'

342° 10'

343° 55'

343° 58'

G.E

344° 10'

WATER

331° 50'

332°

333° 10'

333° 10'

G.E

333° 20'

DIST.

VERT.
ANGLEROD
EQUIV.

ROD

7/14
DIFF.

ELEV.

565

8.96

01.8.

572

8.3

02.5.

588

6.8

04.0.

600

5.8

05.0.

610

4.3

06.5.

604

8.96

01.8.

630

8.3

02.5.

705

6.8

04.0.

735

5.8

05.0.

785

4.9

05.9.

585

8.96

01.8.

620

8.3

02.5.

690

6.8

04.0.

720

5.8

05.0.

745

4.9

05.9.

OBJECT

AZ.

STADIA

WATER

 321° $341^{\circ} 25'$ $321^{\circ} 45'$ 321°

G. E

 $320^{\circ} 40'$

WATER

 $312^{\circ} 25'$ $311^{\circ} 40'$ $309^{\circ} 45'$ $308^{\circ} 25'$

G. E

 $307^{\circ} 45'$

WATER

 $304^{\circ} 45'$ $303^{\circ} 20'$ $302^{\circ} 10'$ 301° $300^{\circ} 10'$

WATER

 $292^{\circ} 20'$ $291^{\circ} 40'$ $290^{\circ} 40'$ $290^{\circ} 20'$

G. E

 $289^{\circ} 40'$

DIST

Road

7/14

13

910.80

590

8.96

01.8.

620

8.3

02.5.

675

6.8

04.0.

700

5.8

05.0.

7123

4.3

06.5.

560

8.96

01.8.

600

8.3

02.5.

650

6.8

04.0.

670

5.8

05.0.

700

4.3

06.5.

488

8.96

01.8.

518

8.3

02.5.

565

6.8

04.0.

600

5.8

05.0.

615

4.7

06.1.

450

8.96

01.8.

480

8.3

02.5.

540

6.8

04.0.

555

5.8

05.0.

595

4.5

06.3.

OBJECT

A2

STADIA

WATER

 $279^{\circ}25'$ $278^{\circ}40'$ $278^{\circ}45'$ $278^{\circ}50'$

G.E

 $278^{\circ}50'$

WATER

 $263^{\circ}30'$ 264° $265^{\circ}30'$ $265^{\circ}20'$

G.E

 $266^{\circ}30'$

WATER

 $251^{\circ}20'$ $253^{\circ}45'$ $256^{\circ}15'$ $257^{\circ}40'$

G.E

 $258^{\circ}40'$

WATER

 $245^{\circ}25'$ 247° $249^{\circ}50'$ $251^{\circ}20'$ 253°

G.E

DIST

ROD

7/14

14

910.80

422

8.96

01.8.

442

8.3

02.5.

490

6.8

04.0.

520

5.8.

05.0.

545

4.1

06.7.

410

8.96

01.8.

430

8.3

02.5.

485

6.8

04.0.

495

5.8

05.0.

512

4.6

06.2.

48✓

8.96

01.8.

493

8.3

02.5.

525

6.8

04.0.

544

5.8

05.0.

555

4.8

06.0.

575

8.96

01.8.

585

8.3

02.5.

615

6.8

04.0.

622

5.8

05.0.

650

4.2

06.6.

Object

AZ

WATER

$238^{\circ}40'$

$240^{\circ}10'$

$241^{\circ}20'$

$242^{\circ}20'$

G.E

$242^{\circ}50'$

H.I. 910.34 ✓

04.5
7.84

Δ at Pt C

to Pt. "B"

$43^{\circ}13'$

WATER

$23^{\circ}05'$

18°

$7^{\circ}30'$

$4^{\circ}40'$

G.E

$358^{\circ}10'$

TO Δ PT. D

$138^{\circ}25\frac{1}{2}'$

WATER

40°

$33^{\circ}25'$

$21^{\circ}10'$

G.E

7°
 $352^{\circ}50'$

7/14

15

DIST

RAD

910.80

650

8.96

01.8.

667

8.3

02.5.

690

6.8

04.0.

715

5.8

05.0.

730

4.9

05.9.

141. 5.15

905.34.

245 ✓

8.54

901.80.

240

7.84

02.5 ✓

221

6.34

04.9 ✓

217

5.34

05.0 ✓

211

5.6

04.7 ✓

780

4.55

905.80

155

8.54

01.8 ✓

143

7.84

02.8 ✓

124

6.34

04.0 ✓

110

5.34

05.0 ✓

103

4.35

05.99 ✓

OBJECT

AZ.

STADIA

WATER

 $107^{\circ}40'$ 111° $125^{\circ}35'$ $145^{\circ}40'$

G.E

 177°

WATER

 $137^{\circ}10'$ $139^{\circ}40'$ 146° 166°

G.E

 174°

WATER

 $141^{\circ}40'$ $144^{\circ}20'$ $146^{\circ}15'$ 148°

G.E

 $149^{\circ}20'$

WATER

 $136^{\circ}40'$ 138° $139^{\circ}20'$ $140^{\circ}20'$

G.E

 $144^{\circ}10'$

		7/14		16	
DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
		910.34			
130			8.54		01.8 ✓
118			7.84		02.5 ✓
91			6.34		04.0 ✓
74			5.34		05.0 ✓
70			4.2		06.1 ✓
256			8.54		01.8 ✓
251			7.84		02.5 ✓
240			6.34		04.0 ✓
222			5.34		05.0 ✓
225			2.9		07.4 ✓
412			8.54		01.8 ✓
413			7.84		02.5 ✓
415			6.34		04.0 ✓
418			5.34		05.0 ✓
419			4.5		05.8 ✓
565			8.54		01.8 ✓
568			7.84		02.5 ✓
575			6.34		04.0 ✓
577			5.34		05.0 ✓
585			3.8		06.5 ✓

OBJECT

AZ.

STADIA

910.88

H.I. = 910.87

A at Pt. "D"

to Pt. "C"

318°25½'

Water

W. Dept Mont

108°44½'

Water

1° —

3°30'

8°30'

G.E

316°10'

WATER

94°40'

102°10'

108°10'

117°55'

G.E

131°

WATER

107°40'

111°45'

114°40'

115°50'

G.E

122°40'

7/14 17

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

$H1 = 5.05$

905.80 ✓

783'

5.53

905.34

9.08

901.80

962.

0.85

910.03

82

9.08

901.8 -

63

8.38

02.5 -

58'

6.88

04.0 -

43

6.1

04.8 -

128

9.08

01.8 -

122

8.38

02.5 -

118

6.88

04.0 -

113

5.88

05.0 -

118

4.8

06.1 -

285

9.08

01.8 -

283

8.38

02.5 -

285

6.88

04.0 -

285

5.88

05.0 -

284

1.8

09.1 -

OBJECT

AZ.

STADIA

WATER

1

 113° $115^{\circ} 20'$ 117° $118^{\circ} 10'$

G. E

 $122^{\circ} 20'$

WATER

 $113^{\circ} 10'$ $114^{\circ} 40'$ $116^{\circ} 10'$ $116^{\circ} 45'$

G. E

 119°

WATER

 $108^{\circ} 25'$ $109^{\circ} 30'$ $110^{\circ} 40'$ $111^{\circ} 10'$

G. E

 $112^{\circ} 40'$

WATER

 $105^{\circ} 20'$ $106^{\circ} 35'$ $107^{\circ} 25'$ $107^{\circ} 50'$

G. E MONT.

 $108^{\circ} 44\frac{1}{2}'$

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
		<u>910.88</u>			
450			9.08		01.8 -
450			8.38		02.5 -
450			6.88		04.0 -
452			5.88		05.0 -
458			2.0		08.9 -
615			9.08		01.8 -
617			8.38		02.5 -
625			6.88		04.0 -
625			5.88		05.0 -
635			2.5		08.4 -
772			9.08		01.8 -
775			8.38		02.5 -
780			6.88		04.0 -
785			5.88		05.0 -
780			2.7		08.2 -
943			9.08		01.8 -
952			8.38		02.5 -
958			6.88		04.0 -
960			5.88		05.0 -
962			0.85		10.03 -

OBJECT

AZ.

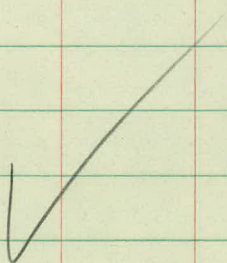
STADIA

π at W Dept Mont

to Pt "D"

$288^{\circ}44\frac{1}{2}'$

to MC Mont W Line Sec 6 $351^{\circ}57\frac{1}{2}'$



DIST.

VERT.
ANGLE

ELEV.

19

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

Spring Lake
Shore Line
Location

OBJECT HI 914.56

AZ.

STADIA

Lat W. Dept Mont s. of S.W. Cor Sec 6

to M. C. Sec. 6 0° 00'

Water

81° 00' 165'

83° 00' 165'

85° 20' 163'

G.E.

95° 58' 167'

WATER

76° 20' 333'

79° 55' 332'

81° 30' 333'

83° 30' 332'

GE

89° 00' 327'

WATER

76° 40' 500'

79° 00' 497'

81° 30' 495'

82° 30' 495'

G.E.

88° 20' 498'

WATER

76° 00' 660'

77° 50' 660'

FX
MMc
EG DIST.
Win Me

VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	21 ELEV.
----------------	---------------	-----	-------	-------------

July 18, 1955

914.56

12.76	901.8
11.56	03.0
10.56	04.0
9.56	05.0
5.1	09.4
12.76	01.8
11.56	03.0
10.56	04.0
9.56	05.0
2.7	11.9
12.76	01.8
11.56	03.0
10.56	04.0
9.56	05.0
1.2	13.4
12.76	01.8
11.56	03.0

OBJECT

HI

914.56

AZ.

STADIA

G.E.
WATER

78°50' 660'

79°30' 658'

83°00' 660'

74°40' 700'

76°10' 702'

76°00' 703'

78°25' 708'

G.E.

79°50' 715
815

AS

55°40' 1175'

HI 908.55

TAT AS TO

W. DEPT. MONT.

235°40' 1172'

TO MC. MONT

294°41'

WATER

197°20' 365'

July 18, 1955 22

DIST.

VERT.
ANGLE

ROD
EQUIV.

ROD

DIFF.

ELEV.

10.56

04.0

9.56

05.0

6.2

08.4

12.76

01.8

11.56

03.0

10.56

04.0

9.56

05.0

6.6

08.0

11.2

903.36

+1.4

909.95

16.75

901.8

OBJECT

HI 908.55

AZ.

STADIA

			184°45'	387'
			183°30'	388'
			183°05'	390'
W. EDGE OF ROAD			181°05'	390'
E " " "			177°50'	400'
W. EDGE OF ROAD			323°40'	370'
E " " "			327°00'	
			227°00'	354'
W " " "			316°05'	
			306°05'	245'
E " " "			322°40'	244'
E " " "			333°35'	144'
W " " "			324°20'	130'
W " " "			9°40'	32'
E " " "			28°35'	51'
W " " "			145°20'	108'
E " " "			134°20'	118'
E " " "			161°30'	242'
W " " "			167°15'	234'
W " " "			178°30'	350'

DIST.	VERT. ANGLE	ROD EQUIV.	July ROD	18, 1955 DIFF.	23 ELEV. FLY
			5.55		03.0 .
			4.55		04.0 .
			3.55		05.0 .
			1.0		07.6 .
			1.0		07.6 .
			0.7		07.9 .
			1.4		07.2 .
			2.7		05.9 .
			3.7		04.9 .
			3.1		05.5 .
			3.3		05.3 .
			1.9		06.7 .
			0.8		07.8 .
	+ 1° 16'	+2.4	2.0	+0.4	09.0 .
	+ 1° 13'	+2.5	1.0	+1.5	10.1 .
	+ 1° 13'	+5.1	4.7	+0.4	09.0 .
			0.2		08.4 .
			1.2		07.4 .

OBJECT
HI 908.55

AZ.

STADIA

E EDGE OF ROAD

174°40' 356'

E " " "

181°30' 460'

W " " "

184°30' 453'

W " " "

190°00' 555'

E " " "

186°15' 585'

WATER

^{181°10'}
291°10' 214'

178°10' 214'

174°50' 228'

174°20' 229'

WATER

180°20' 72'

164°20' 71'

156°00' 74'

151°50' 77'

WATER

311°00' 89'

323°50' 96'

325°00' 98'

327°30' 99'

July 18, 1955 24

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

			1.1		07.5 .
--	--	--	-----	--	--------

			0.7		07.9 .
--	--	--	-----	--	--------

			0.8		07.8 .
--	--	--	-----	--	--------

			0.4		08.2 .
--	--	--	-----	--	--------

		+	0.8		09.4 .
--	--	---	-----	--	--------

			6.75		01.8 .
--	--	--	------	--	--------

			5.55		03.0 .
--	--	--	------	--	--------

			4.55		04.0 .
--	--	--	------	--	--------

			3.55		05.0 .
--	--	--	------	--	--------

			6.75		01.8 .
--	--	--	------	--	--------

			5.55		03.0 .
--	--	--	------	--	--------

			4.55		04.0 .
--	--	--	------	--	--------

			3.55		05.0 .
--	--	--	------	--	--------

			6.75		01.8 .
--	--	--	------	--	--------

			5.55		03.0 .
--	--	--	------	--	--------

			4.55		04.0 .
--	--	--	------	--	--------

			3.55		05.0 .
--	--	--	------	--	--------

OBJECT
HF 908.55

AZ.

STADIA

WATER

310°20' 245'

312°30' 246'

312°50' 244'

313°40' 246'

WATER

305°30' 400'

308°05' 408'

309°25' 490'

309°45' 413'

GE

311°15' 415'

WATER

299°35' 550'

301°00' 554'

302°30' 562'

303°15' 564'

GE

303°55' 565'

WATER

296°00' 704'

297°20' 714'

298°00' 717'

298°45' 719'

July 18, 1955 25

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
			6.75		01.8 .
			5.55		03.0 .
			4.55		04.0 .
			3.55		05.0 .
			6.75		01.8 .
			5.55		03.0 .
			4.55		04.0 .
			3.55		05.0 .
			1.7		06.9 .
			6.75		01.8 .
			5.55		03.0 .
			4.55		04.0 .
			3.55		05.0 .
			2.2		06.4 .
			6.75		01.8 .
			5.55		03.0 .
			4.55		04.0 .
			3.55		05.0 .

OBJECT
HI 908.55

AZ.

STADIA

G.E.	299°00'	720'
POT HOLE	191°00'	354'
"	194°30'	380'
"	194°15'	443'
"	188°15'	420'
"	186°35'	377'

913.84 ✓
913.7

AT MC. MONT.

To AS	114°41'	294°41'	1068'
WATER	117°50'	204'	
	112°25'	200'	
	109°25'	200'	

TREES IN THE WAY

GE	99°25'	189'
----	--------	------

To A A	264°51'	710'
--------	---------	------

July 18, 1955

26

DIST.

VERT.
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

2.8

05.8 .

6.75

01.8 .

"

01.8 .

"

01.8 .

"

01.8 .

"

01.8 .

10.48

903.36

11.90

01.8 .

10.70

03.0 .

9.70

04.0 .

8.70

05.0 .

6.2

07.5 .

OBJECT

AZ.

STADIA

At ΔA

to McMint.

84°51' 710'

136

50

86

112

to ΔB 348°26 $\frac{1}{2}$ ' 521'to ΔZ

102°51' 1720

to Water Dept Mont

145°58 $\frac{1}{2}$ ' 1263to ΔD

195°53' 766

to ΔC 238°22 $\frac{1}{2}$ ' 743

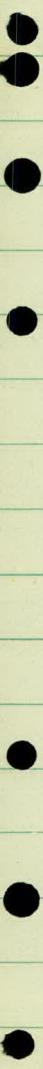
Elev. at Pump House 7-13-59

NE. Cor. Conc. Ent. Slab = 911.14

July 18, 1955

27

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------



OBJECT

~~AL~~

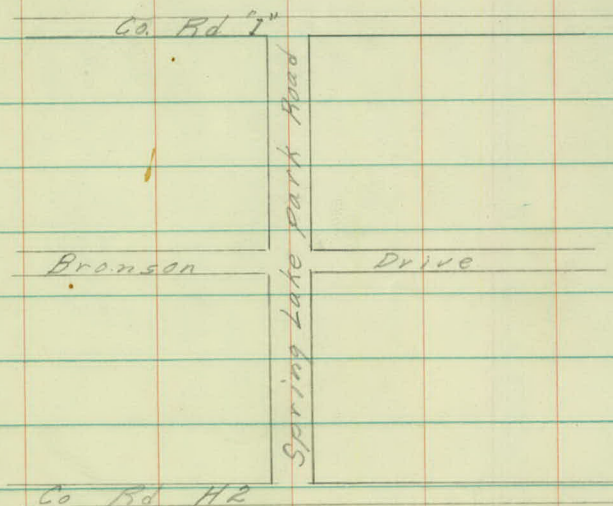
STADIA

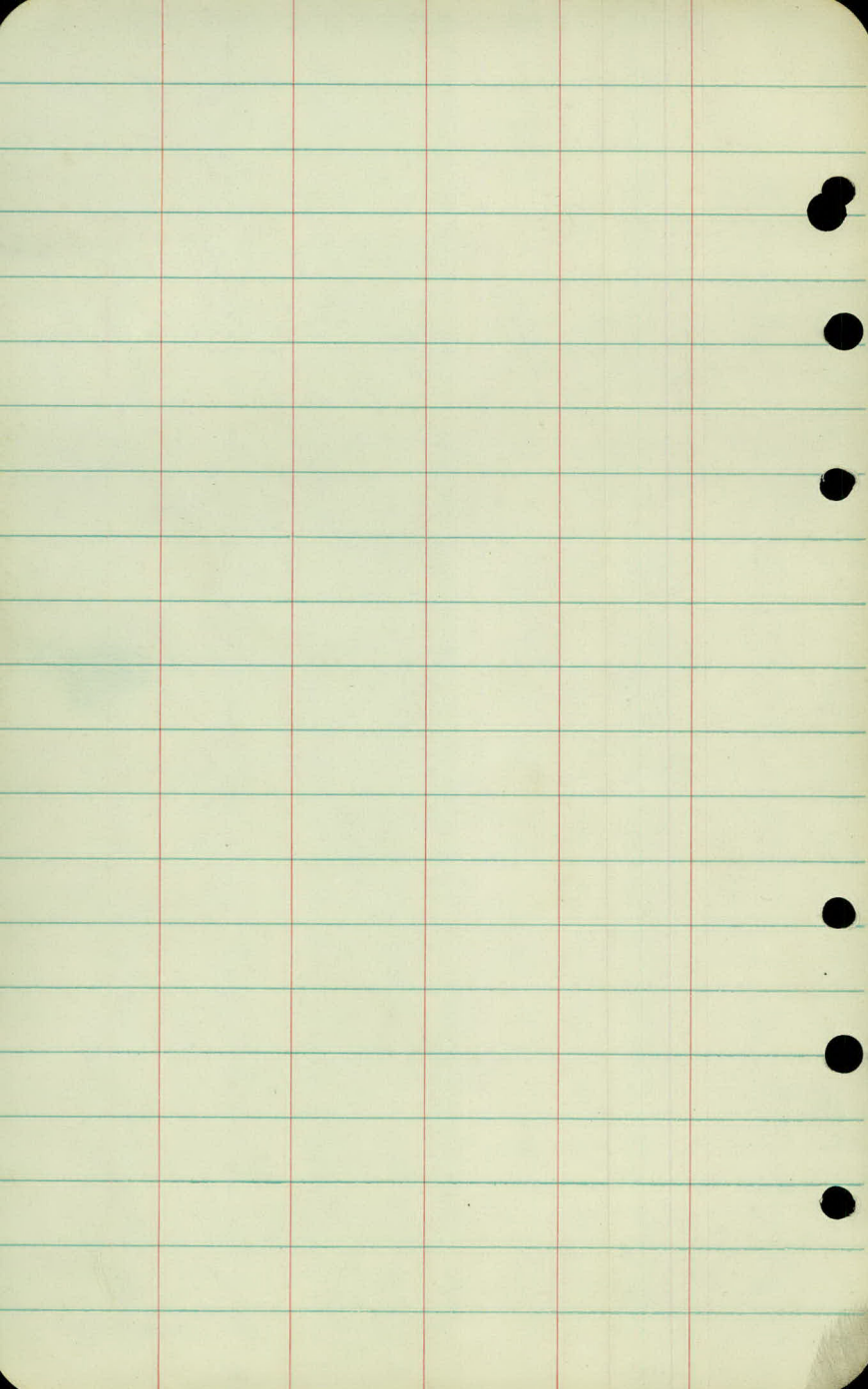
1

Spring Lake Park Road

Plan Survey

Co Rd "H2" to Co Rd "I"



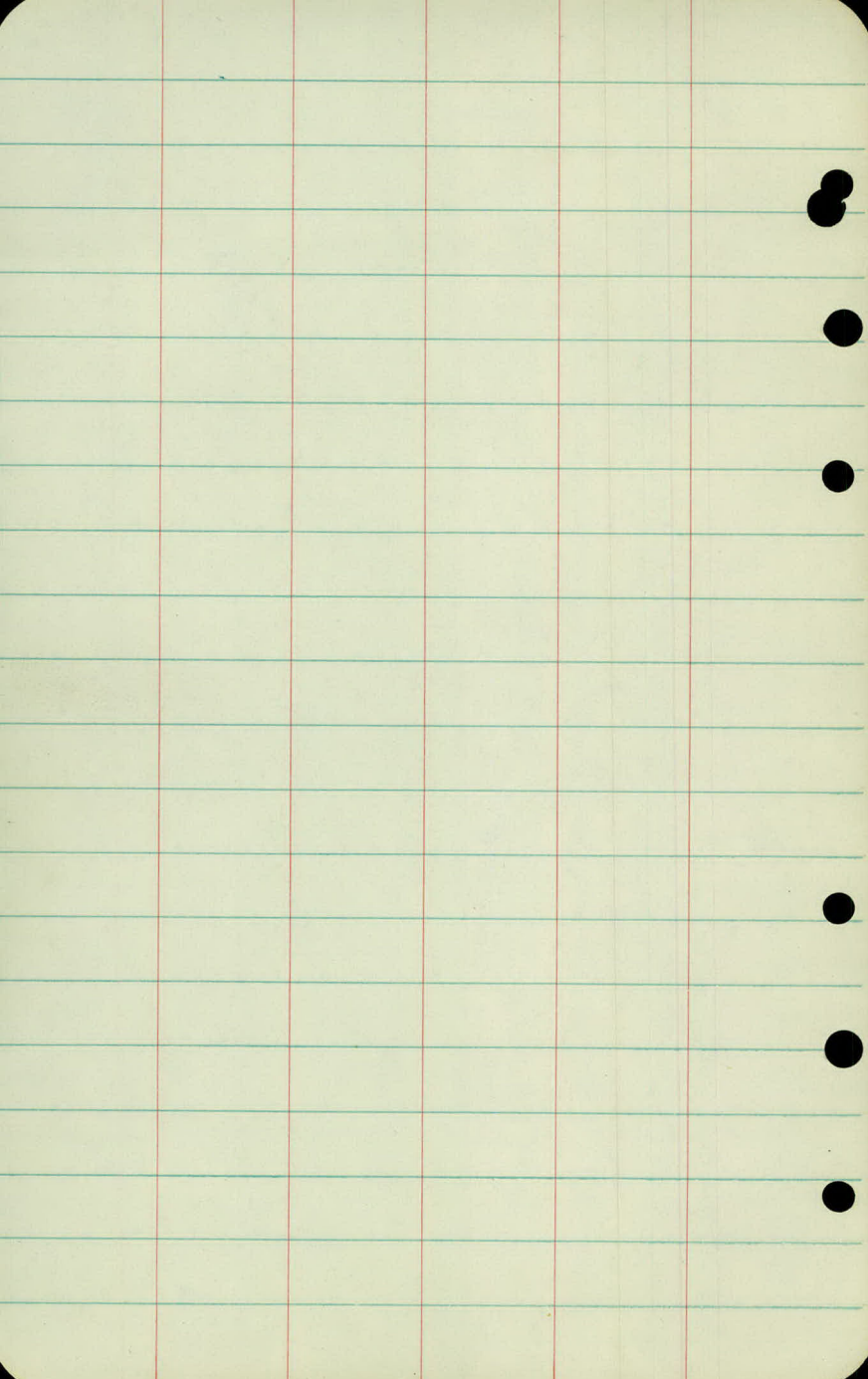


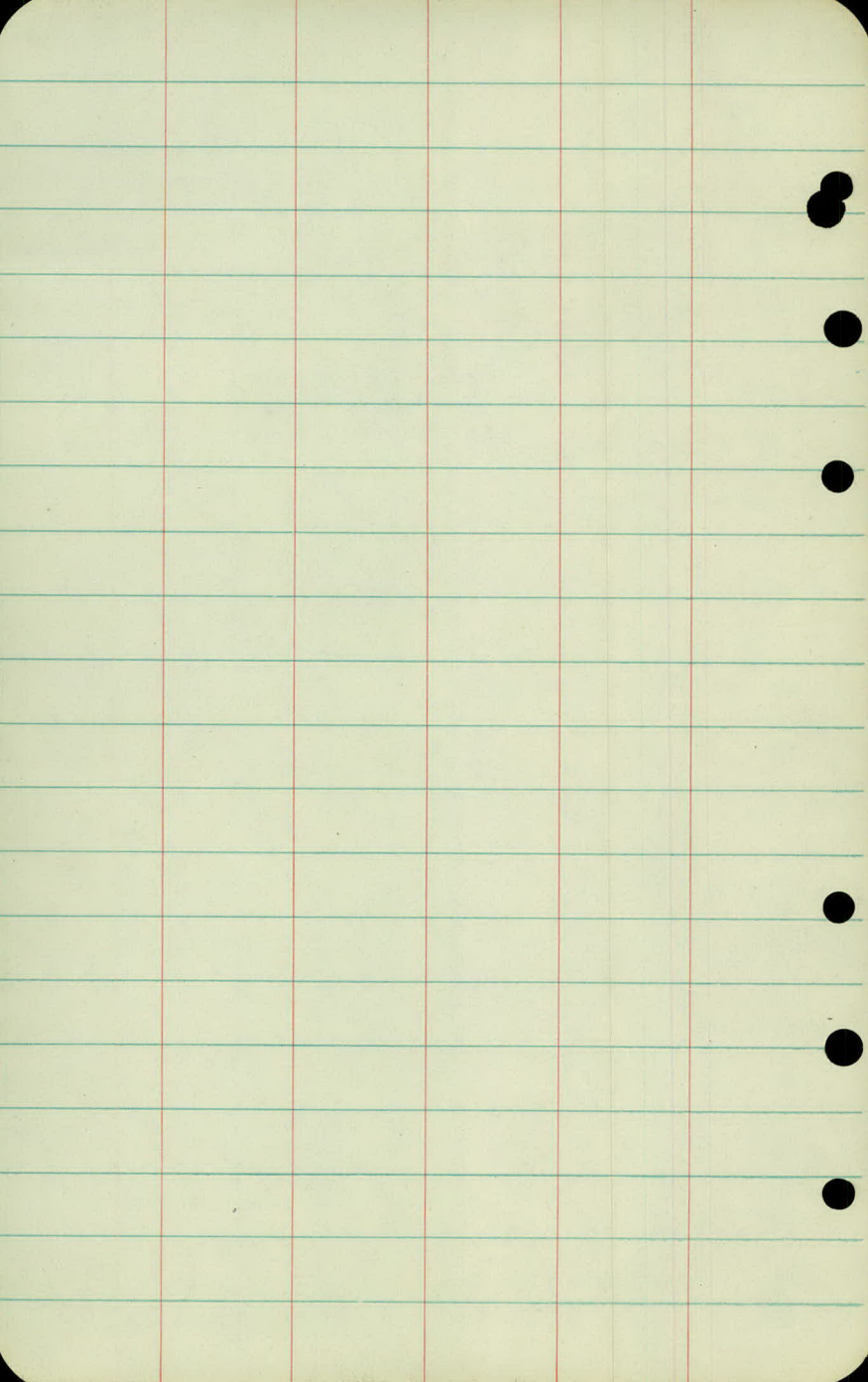
FK
AM
EG

Aug. 11, 1954

2

Alignment





Topography

5

2

9	Swamp Road	20 13 10	+18 Abandon Ent
		+24 Ent	+37 Stump 30
		+17 6" L Pop 38	
		+104 W.W.H 33	+10 W.W.H 17
8	Swamp Road	22 13 8	+103 Stump 16
+72 8" Pop 28	+85 Beg Swamp 23	+31 18" 19	
+72 8" Pine 36	+117 15" 31		
+35 1" Pine 37	+53 5" Pine 36	+106 Ent	
7	+104 18" 43	Road 16 8	
+69 Ent		+95 5" Pine 34	
	+55 18" 33		
+43 2" Pine 38		+60 Fe Cor 15	
6	Road 16 8	Fe 15	+100 12" L Pop 33 40
		+90 Ent	
	+39 Ent		
5	Road 19 8	+30 Fe Cor 15.5	

Pick

W12C

+78 $\frac{Fe\ Cor}{33}$

+95 $\frac{8"0}{31}$

+102 $\frac{8"0}{34}$

+177 $\frac{End\ Cuth}{23}$

14

$\frac{Fe}{33}$ $\frac{Road}{11\ 8}$

+10 $\frac{B.C. Ht.}{23}$

+96 $\frac{Twm\ 51\ 10}{41}$

+84 $\frac{6"0}{41}$

+70 $\frac{Stump}{30}$

+66 $\frac{Stump}{32}$

+56 $\frac{Fe\ Cor}{33}$

+60 $\frac{E.R.}{8}$

+37 $\frac{B.R.}{29}$

+49 $\frac{E.R.}{12}$

+38 $\frac{B.R.}{34}$

13

+14 $\frac{E.R.}{30}$

+24.9 $\frac{Aprox\ E\ Bronson\ drive}{31}$

+13 $\frac{E.R.}{31}$

+71 $\frac{10"0}{35}$

+97 $\frac{B.R.}{9}$

+85 $\frac{8"0}{31}$

+87 $\frac{B.R.}{7}$

+71 $\frac{100}{23}$

+68 $\frac{24"0}{33}$

+50 $\frac{Twm\ 14"0}{21}$

+33 $\frac{100}{28}$

+37 $\frac{20"0}{47}$

+30 $\frac{Stump}{26}$

+66 $\frac{28"0}{26}$

+26 $\frac{End\ Lilac\ Hedge}{37}$

$\frac{Hedge}{36}$ $\frac{Road}{11\ 8}$

12

+75 $\frac{12"0}{37}$

+60 $\frac{18"0}{30}$

+49 $\frac{B.R. Lilac\ Hedge}{37}$

+49 $\frac{30"0}{15}$

+35 $\frac{20"0}{36}$

+16 $\frac{20"0}{32}$

+39 $\frac{Twm\ 12"0}{36}$

11

+14 $\frac{Ent}{36}$

$\frac{Road}{12\ 9}$

+01 $\frac{12"0}{34}$

+90 $\frac{End\ Swamp}{23}$

+74 $\frac{Ent}{34}$

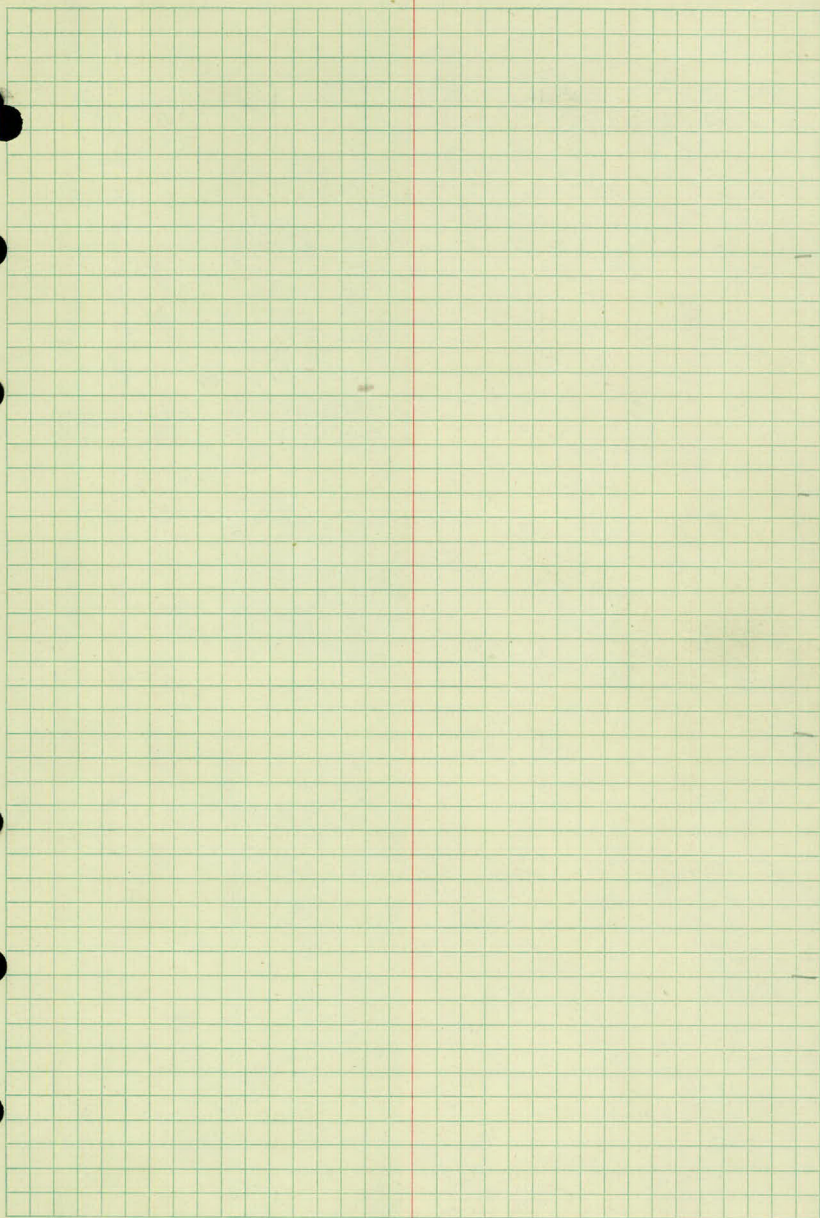
10

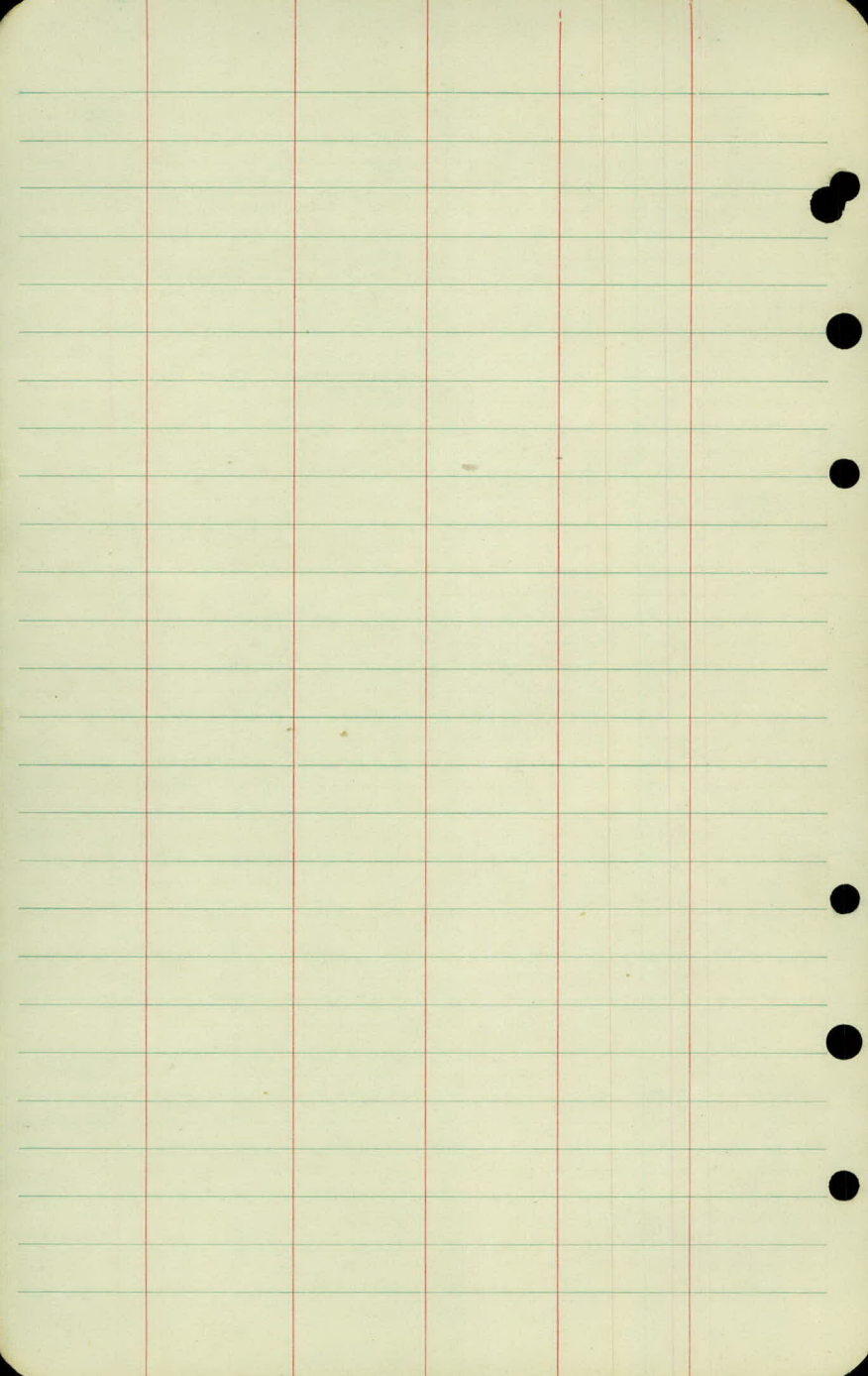
$\frac{Swamp}{19}$ $\frac{Road}{13\ 9}$

+50 to Std 13
30 to 50

+79 <u>PowRed 10'</u> 28	+83 <u>2" Pine</u> 26 34	+14 <u>8" O</u> 23
+25 Ent	+28 <u>12" O</u> 22	+18 <u>10" O</u> 32
19	+17 <u>Lilac Rose</u> 33	+14 <u>8" O</u> 22
	Road 11 11	
	+56 <u>Curp (Black)</u> 32.5	+63 <u>10" O</u> 30
+49 Ent		+58 <u>Twin 10" O</u> 21
	+37 <u>Black Wall</u> 32.5	+32 Ent
18	Road 12 10	+22 <u>24" O</u> 23
+76 <u>20" O</u> 22		
	+55 <u>8" Elm</u> 24	
	+25 Ent	+28 <u>8" Elm</u> 24
17	Road 12 10	+100 <u>10" Elm</u> 25
+88 <u>12" O</u> 26		+89 <u>5" Pine</u> 27
+54 <u>Trip 15" O</u> 27	+68 <u>4" Pine</u> 28	+79 Ent
+19 <u>15" O</u> 30	+28 <u>12" O</u> 21	+54 <u>10" O</u> 25
16	Road 13 9	+101 <u>24" O</u> 17
+90 <u>Trip 6" O</u> 23		+93 <u>Stump</u> 18
	+70 <u>15" O</u> 31	+60 <u>Drive</u> 47
+42 <u>15" O</u> 31	R.T. +107 Drive	+133 <u>8" O</u> 20
+25 Ent.	+11 <u>15" O</u> 29	+19 <u>5" O</u> 25
15	Road 13 11	+104 <u>8" O</u> 28
		+108 <u>15" O</u> 35

5-10-02
R.R.





Bench Levels

Sta	+	π	-	Elev
BM	3.34	911.73		908.39
TP	4.12	914.18	1.67	910.06
BM	4.39	915.74	2.83	911.35
TP	1.48	910.97	6.25	909.49
TP	7.58	913.27	5.28	905.69
BM	4.22	913.36	4.13	909.14
TP	6.57	909.96	9.97	903.39
BM			1.64	908.32

FK
AM
MMc
EG

August 17, 1954

11

Cool 70°

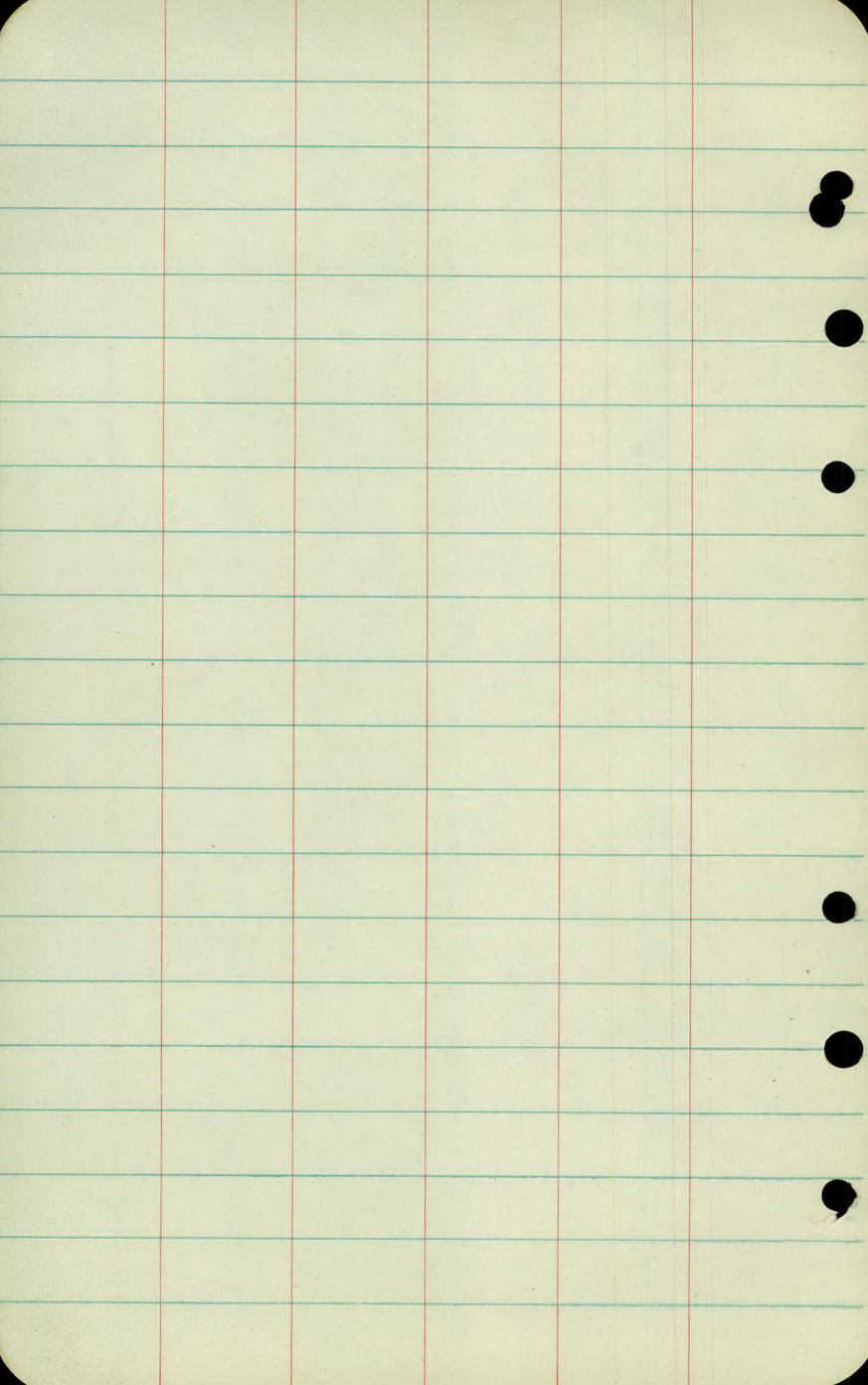
Spk in 18" Oak 2A' West Spring Lake Park

Read at No Edge of Spring Lake

Spk in Arc Light Pole Co. Rd. I + Spring Lake Ph. Rd.

Spk in Cor Fe Post N.W. Cor Bronson Drive + Sp. Lk. Ph. Rd.

RR Spk in PP 32' East & 397' N. of H24 Sp. Lk. Ph. Rd.



X-sections

Sta	+	π	-	Elev
BM	0.93	909.25		908.32
TP	5.88	906.55	8.58	900.67
0+100 E Co Rd "H2"				
+12				
+25				
+33				
+50				

FX
AM
MMc
EG

Lt.

August 17, 1954
Cool 70° RH

13

R.R. Spk in PP 32'E + 397'N H2 + S. L. PK. Rd.

4.7	4.6	4.5	4.3	4.0	3.3
98	44		50	100	150

4.8	4.8	4.5	4.5	4.6	4.7	4.5
50	32	15		7	28	50

7.8	7.1	6.1	5.0	4.6	4.6	5.0	5.7	6.7	7.3	7.5
50	32	25	18	8		9	15	25	41	50

5.0	5.1	6.1	5.5	4.7	4.8	5.3	5.7	6.8	7.4	7.9
50	26	24	19	10		7	11	21	35	50

4.7	5.0	5.0	6.1	5.3	4.8	5.0	5.4	5.7	6.4	5.6	6.3	7.1
50	35	26	22	17	9		5	8	12	15	32	50

4.6	4.9	5.1	6.4	5.5	5.3	5.3	5.5	5.9	6.5	5.4	5.5	6.1
50	38	26	23	17	8		5	7	11	15	36	50

Sta	+	-	Elev
-----	---	---	------

		906.55	
--	--	--------	--

1+50			
------	--	--	--

2			
---	--	--	--

+50			
-----	--	--	--

3			
---	--	--	--

TP	7.52	912.11	1.96	904.59
----	------	--------	------	--------

+50			
-----	--	--	--

A			
---	--	--	--

BM			
----	--	--	--

	3.78	908.33	
--	------	--------	--

Lt

L

14

Rt

56 61 61 67 57 53 49 50 54 64 57 53 5.1
 50 35 25 23 18 16 8 5 12 15 31 50

66 61 63 56 51 47 4.6 50 52 47 4.6 4.2
 50 26 23 19 15 8 6 13 16 31 50

5.9 5.2 4.6 4.2 3.8 3.9 4.1 4.3 3.5 3.3 3.0
 50 32 19 13 5 6 9 17 34 50

4.5 4.1 3.6 3.1 2.8 2.9 3.2 3.4 2.3 2.2 2.1
 50 37 18 13 6 6 11 18 35 50

7.9 7.4 7.0 8.0 8.1 7.6 7.4 7.5 7.8 8.1 7.6 6.7 6.6 6.8
 50 35 24 21 19 14 6 5 9 13 16 26 50

6.3 61 5.9 7.2 7.0 6.5 6.6 6.6 7.0 6.5 5.6 5.0 5.0
 50 34 24 21 17 8 4 7 13 17 22 50

Sta + π - Elev

912.11

A+50

+53

5

+50

6

+50

Lt

L

Rt

15

57 56 66 62 59 60 61 64 55 46 46 46
50 25 20 16 6 5 8 15 22 37 50

4.71

20.5

Walk

5.5 5.6 5.5 6.1 5.7 5.4 5.4 5.6 5.9 5.5 5.0 4.9
50 36 25 20 12 5 4 10 19 33 50

4.8 4.8 4.8 5.5 5.5 4.9 4.9 5.1 5.3 4.3 4.6 4.6 3.8
50 38 23 19 16 4 5 8 13 19 34 50

3.9 3.9 4.0 4.9 4.1 4.2 4.3 4.6 3.8 3.4 3.5 3.6
50 35 23 18 11 5 9 14 20 38 50

3.3 3.2 3.0 4.0 4.0 4.0 3.9 4.1 3.3 2.6 2.8 2.7
50 35 23 17 10 4 9 13 16 35 50

Sta	+	π	-	Elev
-----	---	-------	---	------

		912.11		
--	--	--------	--	--

7				
---	--	--	--	--

+50				
-----	--	--	--	--

T.P.				
------	--	--	--	--

		8.98	903.13	
--	--	------	--------	--

Lt

F

Rt

16

19 4.8 4.4 5.2 5.2 5.2 5.2 5.0 3.3 3.3 3.5 3.7
 50 29 23 16 7 6 14 19 26 39 50

9.2 8.7 8.3 8.0 7.8 7.7 7.8 8.2 7.7 7.4 7.7 8.0
 50 39 23 15 10 7 10 13 20 36 50
 Let iron 33 Rt sta 7+94

86.4
 9.8 5.8

 0.6

C B N W Co
 Margaret & East Ave
 stakes to Rase N H

3.02 989.82 986.80

985.2 4.62 156
 4.65

40723 8625 3.57

335
 .6
 4.15

Rin

985.8 4.02
 3

128 86.3 3.52 4.27
 25

9970

91.3
 90.7
 6