

Book 45 Dr 14

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN

Survey

BIRCH LAKE AVE

From W. B. C. Limits To Bald Eagle Ave

Road Acc't. No.

Date Filed 1-30-43

File

Align

Birch Lake Ave

From White Bear City Limits

To

Bald Eagle Ave

8-12-42

HAW

LC

CF

Drawn up

HAW
HAW
W/B

8/12/42

Sta

Pt

Alt

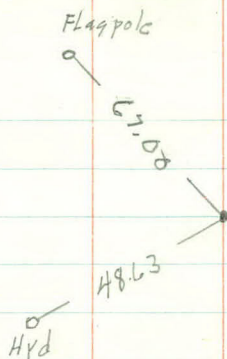
Art

26+3585

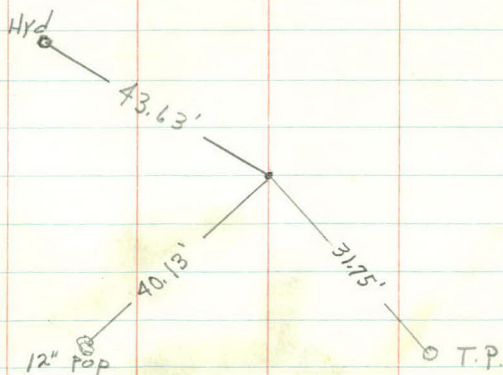
♀ Bald Eagle Ave

0+00

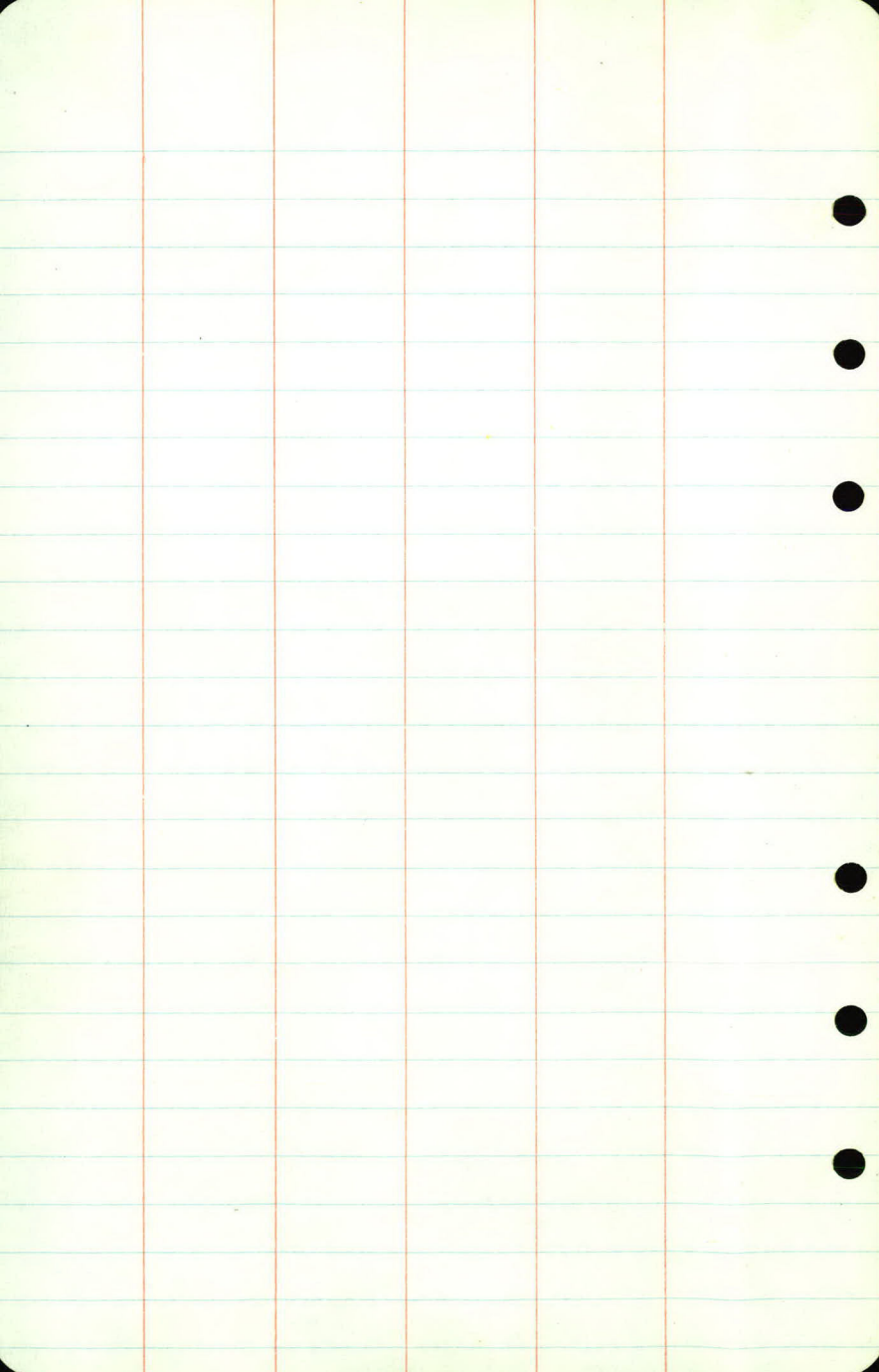
P.O.T



Nail in Pav



R.R. Spk



TOPOGRAPHY

BIRCH LAKE AV

6

+93 10" Cedar 35'

Rd.
10'Rd.
13'+94 4" 4" 51.
Trail

+74 Bag 15" CM 23'

5

10' 13'

+94 12" BE 35'

4

10' 13'

3

10' 13'

2

10' 13'

1

10' 13'

+91 8" Birch 33'

+82 Water Shut off 25'

+no End Conc Gutter 16'-18'

+03 Bag Conc Gutter 18-21

0 17.4

+ 06 X

DRAIN & Co Ditch

18.6

36" X 36"

+02 Bag 12" CM 26'-27'

+78 10" Pine 35'
+68 6" Ash 3L
+64 P.P. 25'
+60 10" Pine 35'
+42 6" Cedar 35'
+28 10" Pine 35'

+46 Water shut off 29'

+29 P.P. 24'

+19 End Hd Wall 18'

+17 End Hd Wall 29'

+14 End 15" CM 25'

+04 Ent

+94 Beg 15" CM 25'

+91 Head Wall 21-29'

+75 6" Elm 35'

+48 6" Elm 35'

+88 P.P. 24'

+62 20" Oak 29'

+48 End 15" CM 26'

+38 Ent

+28 Beg 15" CM 26'

+18-24" Oak 29'

+70 18" Oak 24'

+51 P.P. 24'

+48 Twin 6" Birch 34'

+10 End 15" CM 22'

+00 Ent

+90 Beg 15" CM 22'

+60 4 30" Walk 33'

+55 End 15" CM 19'

+55 24" Oak 23'

+36 Hyd 23.5'

+22 18" Oak 23'

+20 Beg 15" CM 18.6'

+20 Cor Hd Wall 12'-22'

+12 P.P. 24'

- +08 Beg Hd Wall 12'

+71 24" Elm 36'
+62 8" Pine 35'
+51 10" Pine 35'
+44 8" Pine 35'
+35 10" Pine 35'
+24 8" Pine 35'
+14 10" Pine 35'
+03 8" Pine 35'
+02 T.P. 25'

+84 8" Pine 35'
+74 8" Pine 35'
+64 6" Pine 35'
+54 12" Pine 35'
+44 8" Pine 35'
+35 10" Pine 35'
+26 6" Pine 35'
+18 18" P.E. 34'

+78 T.P. 25'

+16 20" Oak 31'

+60 10" Pine 35'

+37 T.P. 26'

+22 10" Pine 35'

+19 End 15" CM 26'

+09 Ent

+99 Beg 15" CM 26'

+11 T.P. 25'

+08 End 15" CM 26'

+98 Ent

+88 Beg 15" CM 26'

+18 2-Schub 32'-38'

+17 End 2-12" CM 26.27'

+17 End Hd Wall 23-27'

+10 S.M.H. 1.5

+04 Cor Hd Wall 19-31.5'

- +08 Beg Hd Wall 18'

(Note)

Slope Riprap

3' Btm

13

12

13

+85 20" Maple 37'

+86 Beg. Fe 34.5'
+85 Cen 18' Br. Pier 34.5'

12

12

13

+84 20" Maple 28'

+84 Folor 34'
+69 Cen 3' Step 21'-26'
+69 & 3' Walk 34'
+28 End Rad 15'

11

12

+05 Beg Rad 50'
+04 & Street
+92 End Rad 34
+80 Beg Rad 13'

10

12

13

+75 Cen 18' Pier 35'

9

12

13

+98 Beg 15 CM 23

8

12

13

+98 12" Pine 36'
+74 10" Pine 36'

7

12

13

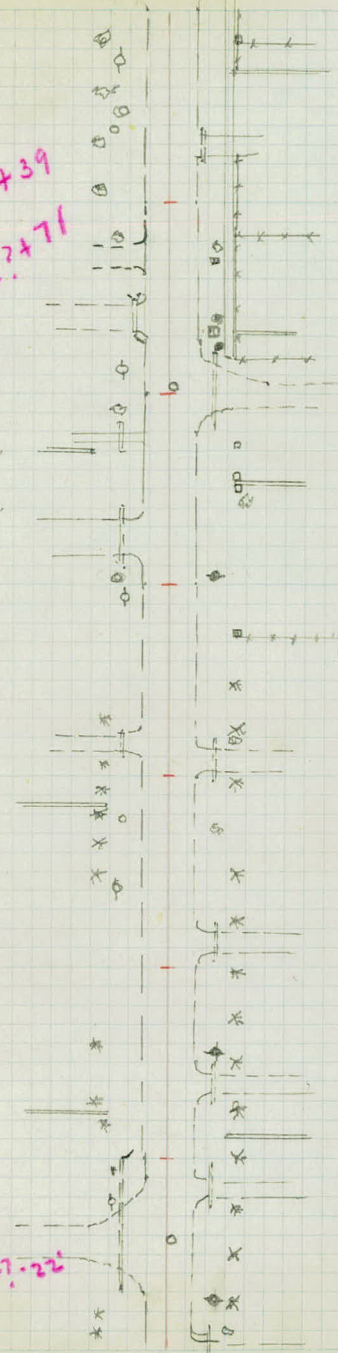
+96 End 15" CM 23'

6

10

13

+75 P.P. 25'
 +58 6" Elm 36'
 +46 15" Maple 28'
 +39 Water Valve 25'
 +31 10" Elm 36'
 +07 8" Elm 36'
 +71 Ent
 +49 End 15" CM 17'
 +39 Hyd 24'
 +29 Beg 15" CM 17'
 +14 P.P. 24'
 +91 18" Maple 24'
 +75 End 15" CM 23'
 +72 Walk
 +69 Beg 15" CM 23'
 +44 15" Maple 26'
 +33 End 15" CM 22'
 +22 Ent
 +11 Beg 15" CM 22'
 +07 18" Elm 26'
 +94 P.P. 24'
 +25 8" Elm 33'
 +24 End 12" CM 22'
 +18 Ent
 +11 Beg 12" CM 22'
 +07 2" Pine 35'
 +92 2" Pine 35'
 +86 2" Pine 35'
 +80 2" Pine 35'
 +78 Water Shutoff 25'
 +65 2" P.P.H. 35'
 +51 P.P. 24'
 +50 2" Pine 35'
 +60 4" Pine 38'
 +30 8" Pine 38'
 +25 2 3.5' Walk 31'
 +18 6" Pine 38'
 +00 End 15" CM 22'
 +96 Hyd 24'
 +90 End Rad 12'
 +78 P.P. 25'
 +64 Beg Rad 41'
 +48 End Rad 45'
 +34 Beg 15" CM 34'
 +30 Beg Rad 13'
 +26 10" Pine 35'
 +10 8" Pine 35'



+84 Fe Cor 34'
 +70 Beg Fe 34'
 +68 2 3' Walk 33'
 +36 End 12" CM 18'
 +25 End Fe 34'
 +22 Beg 12" CM 18'
 Walk 28.5' - 33'
 +78 20" Elm 26'
 +37 20" Elm 26'
 +34 Beg Walk 28.5' - 33'
 +24 End 15" CM 23'
 +21 G.P. 25'
 +19 Fe Cor 34'
 +05 S.M.H. 2'
 +84 Beg 15" CM 23'
 +72 Cen 18" Pier 35'
 +64 15" Pop 37'
 +54 Cen 18" Pier 35'
 +52 2 3' Walk 34'
 +50 Cen 18" Pier 35'
 +45 20" Pop 37'
 +05 T.P. 25'
 +74 X Fe 35'
 +48 10" Pine 36'
 +22 12" Pine 36'
 +18 4" Cherry Tr 32'
 +18 End 15" CM 23'
 +98 12" Pine 36'
 +87 T.P. 25'
 +72 8" Poplar 26'
 +49 12" Pine 36'
 +25 12" Pine 36'
 +24 End 15" CM 22'
 +14 Ent
 +04 Beg 15" CM 23'
 +54 T.P. 25'
 +56 15" Pine 35'
 +48 End 15" CM 23'
 +48 Ent
 +28 Beg 15" CM 23'
 +25 12" Pine 35'
 +13 2 3.5' Walk 30'
 +00 10" Pine 36'
 +86 Ent
 +76 Beg 15" CM 23'
 +74 12" Pine 36'
 +59 S.M.H. 15'
 +51 12" Pine 36'
 +28 T.P. 25'
 +26 12" Pine 36'
 +14 End 15" CM 23'
 +12 4" Apple 31'

20 Rd Rd
14 12

19 12' 13'

+95 End 15' CM 18

+94 Beg Walk 295-33

+97 TP 25'

18 12' 12'

17 13' 13'

+86 4' Walk 33'

16 11'

+98 End Walk 285-325'

15 11 13'

14 12' 14'

+98 End Slab 245-36

+85 Beg Conc Slab 245-36

13

+100 PP 25

Walk 28'-325'

+52 ± 4' Walk 33.5

+95 TP 26'

+42 ± Ent.

+100 End Rad 13'

+20 ± 3' Walk 32.5'

+85 Beg Rad 36'

Walk 28'-325'

+65 End Rad 37'

+74 S.M.H. 2.5'

+61 End Walk 29-33

+71 ± 2' Walk 33

+55 Beg 15" C.M. 18'

+38 ± Ent.

+54 Arc Lt Pole 25'

+13 ± 2.5' Walk 33'

+48 Beg Rad 12'

Walk 28'-325'

Walk 29'-33'

+94 ± 3' Walk 33

+63 Stu 27'

+33 PP 25'

Walk 29'-33'

+65 Hyd 25'

Walk 28'-325'

+42 ± Ent.

+80 ± 3' Brick Walk 23

+13 ± Ent.

+40 End Rad 13'

+105 Arc Lt Pole 2.5'

+34 End 15" C.M. 19'

Walk 29'-33'

+26 Beg Walk 28.5-33'

+22 Beg Rad 35'

+135 S.M.H. 2'

+00 End Rad 23'

+94 Beg 15" C.M. 19'

+92 Beg Rad 16'

+28 Beg Walk 29'-33'

+40 ± 4' Walk 33'

Walk 28.5'-33'

+69 24" Oak 33'

+61 ± Ent.

+49 15" Oak 39'

+41 16" Elm 35'

+34 12" Elm 35'

+26 12" Elm 35'

+16 PP 25'

+98 6" B.E. 32'

+61 15" Oak 35'

+18 12" B.E. 34'

+33 x Fe. 36'

+33 Cen 18" Pier 35'

End Fe at Pier

Walk 28.5-33' Fe 35'

+99 Cen 18" Pier 35'

+84 Cen. 18" Pier 35'

+30 Cen 18" Pier 35'

+27 ± 4.5' Brick Walk 34'

+24 Cen 18" Pier 35'

+104 S.M.H. 2'

Walk 29'-325'

Fe 34.5'

(Note Fe Btw Piers)

+ 3585 E Bald Eagle Ave

+ 2585 West Edge Parc

26

+ 90 Deg Rad 15'

25

14' 14'

24

13' 12'

23

15' 11'

22

14' 11'

+ 64 T.P. 26'

21

14' 11'

20

14' 12'

+26 End Rad 48'
 +12 Storm MH 235'
 +095 End Walk 295'
 +02 Cor Walk 345
 +02 Cor Bld. 345
 Walk 29-35

+94 Hyd 23'
 +52 SW Cor Bld. 35'
 +35 & 30' Ent.

+64 P.P. 25'
 Walk 295'-335'
 +66 & Ent.
 +58 x Fe. 34'
 +48 & Ent.

+28 W. Valve 29'
 +19 & 3' Walk 335'
 Walk 295'-335'
 +93 P.P. 25'

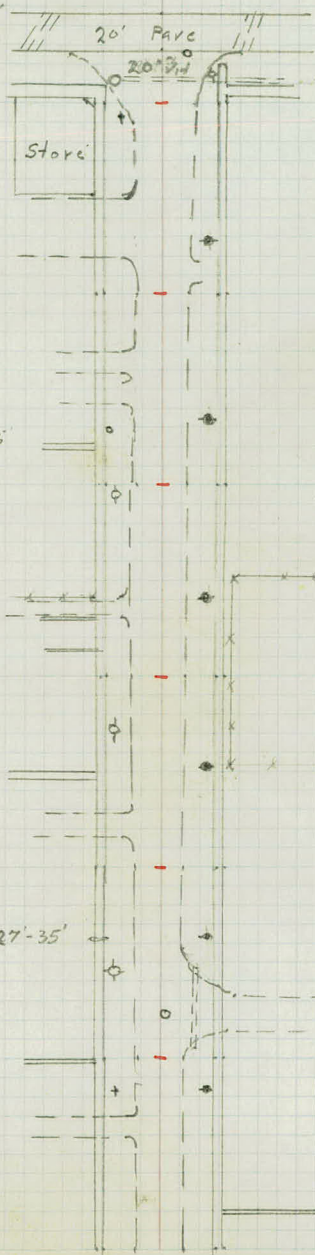
+41 x Fe 35'
 +36 & Ent.
 +30 & 2' Walk 33'
 +14 & 3' Walk 33'
 Walk 29'-33'

+73 P.P. 25'
 +48 & 4' Walk 33'
 +23 & Ent.
 Walk 29-33'

+93 & 3' Walk 33'
 +74 & Ent.
 +63 Side Walk Dr. 10' x 8' W. 27'-35'
 +54 Arc Lt P. 25'

Walk 29'-33'
 +98 & 3' Walk 33'
 +83 Hyd 24'
 +65 & Ent.

Walk 29-33



+26 End Rad 38' 8
 +26 Tel MH 11'
 +23 SMH 4'
 +18 End Walk 295'-345'
 +13 Arc Lt Pole 28'
 +095 Cor Walk 34'
 +05 Cor Walk 34
 Walk 295'-34'
 +99 Beg Rad 16'

+28 T.P. 27
 +14 & Ent.

Walk 29'-33'

+35 T.P. 26'

Walk 29'-33'

+52 Fe Cor 37'
 +41 TP 26'
 Walk 29'-33' Fe 35'

+53 Fe Cor 37'
 +53 TP 26

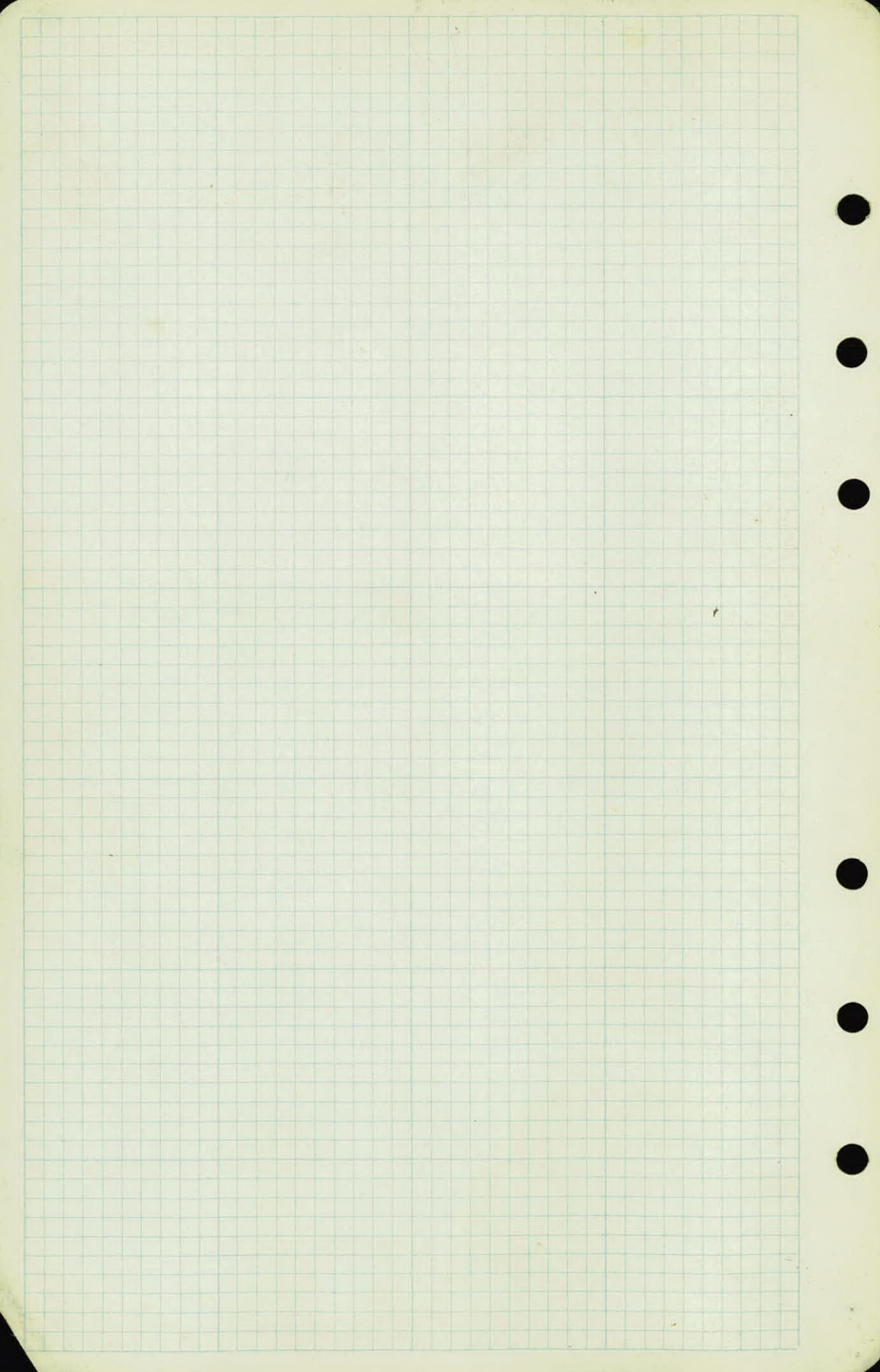
Walk 29-33'

+56 End Rad 11'
 +46 End 15' CM 18'
 +33 Beg Rad 37'

+23 S.MH 35'
 +17 End Rad 34'
 +66 Beg 15' CM 18'
 +60 Beg Rad 11'
 Walk 285'-33'
 +84 T.P. 26'

+21 & 3' Walk 325'

Walk 28'-32.5



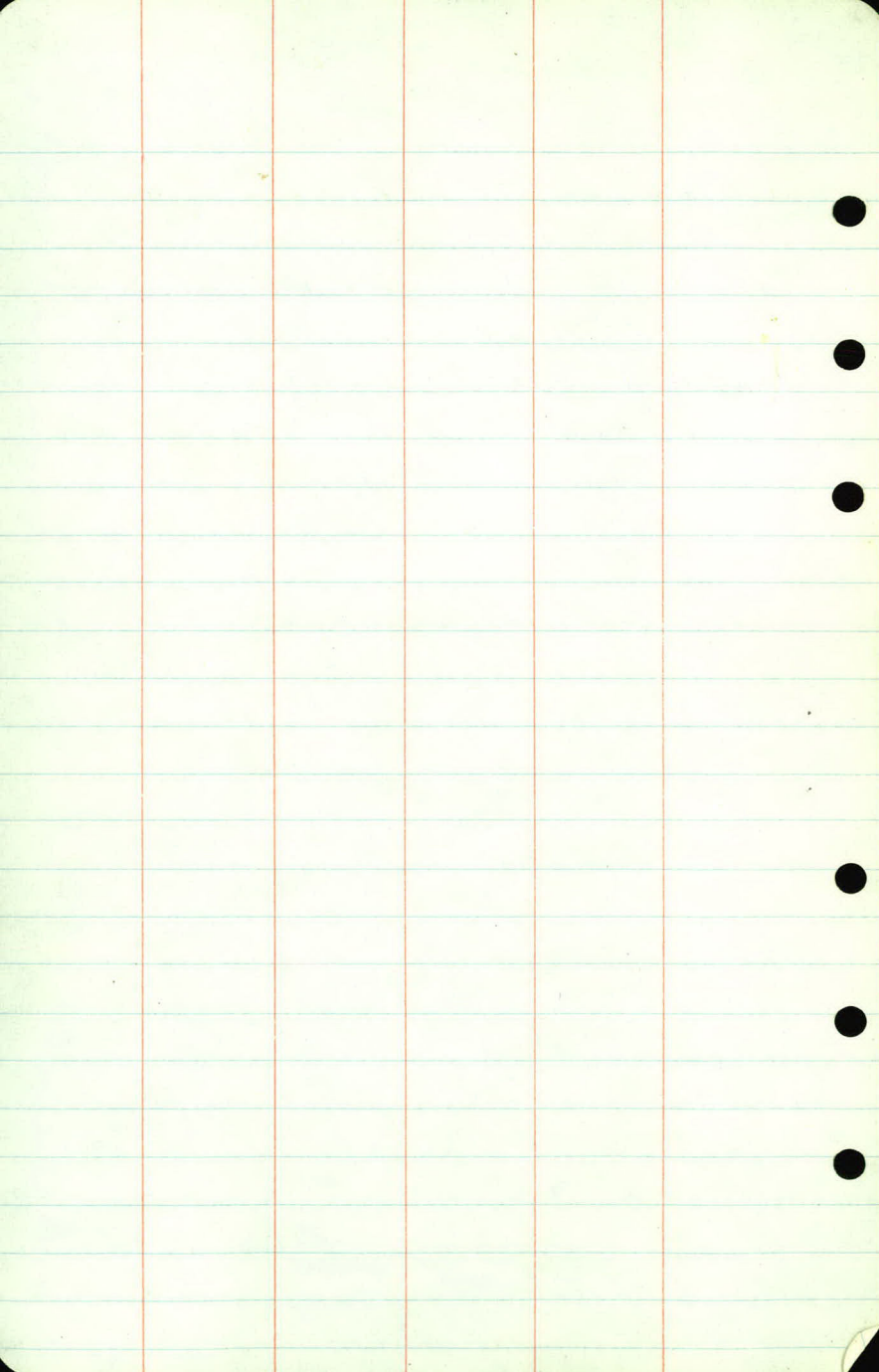
Berch Levels.

Birch Lake Ave

Sta	+	Δ	-	Elev
B.M.	4.48	937.77		933.29
	4.62	937.38	5.01	932.76
B.M.	1.83	937.08	2.13	935.25
TP	2.35	937.15	2.28	934.80
B.M.	1.90	936.56	2.49	934.66
B.M.			2.82	933.74

U.S.G.S in St Mary School Yard

Top Hyd	Lt	Sta 14+65	(Second Ave)
"	Lt	Sta 10+39	(3rd Ave)
Top Hyd	Lt	Sta 6+96	(Kreck)
Top Hyd 23'	Lt	Sta 0+36	(Vill. Limits)



Lt

±

pt

F/29.08

$\frac{6.0}{50}$	$\frac{6.1}{32}$	$\frac{7.0}{27}$	$\frac{7.0}{24}$	$\frac{5.5}{17}$	$\frac{5.2}{12}$	49	$\frac{5.7}{14}$	$\frac{5.4}{19}$	$\frac{7.1}{24}$	$\frac{7.27}{26}$	$\frac{7.1}{28}$	$\frac{6.0}{33}$	$\frac{6.4}{50}$
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29.28

$\frac{7.07}{26}$ F/

29.33

$\frac{7.02}{26}$ F/.

2938

$\frac{6.97}{26}$ F/.

$\frac{5.4}{50}$	$\frac{5.3}{33}$	$\frac{6.9}{27}$	$\frac{6.9}{24}$	$\frac{5.1}{18}$	$\frac{5.0}{13}$	47	$\frac{4.8}{14}$	$\frac{5.2}{19}$	$\frac{6.8}{23}$	$\frac{6.8}{27}$	$\frac{5.8}{33}$	$\frac{6.4}{50}$
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$\frac{4.8}{50}$	$\frac{4.9}{35}$	$\frac{6.9}{27}$	$\frac{6.9}{24}$	$\frac{5.3}{17}$	$\frac{5.1}{12}$	4.8	$\frac{5.0}{13}$	$\frac{5.3}{15}$	$\frac{6.9}{23}$	$\frac{6.9}{28}$	60	$\frac{6.1}{50}$
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$\frac{5.4}{50}$	$\frac{5.3}{34}$	$\frac{6.8}{27}$	$\frac{6.8}{24}$	$\frac{5.1}{15}$	$\frac{5.0}{12}$	4.8	$\frac{6.1}{14}$	$\frac{5.6}{18}$	$\frac{7.0}{24}$	$\frac{7.0}{28}$	$\frac{5.2}{32}$	$\frac{6.0}{50}$
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29.32

$\frac{7.12}{25}$ F/.

$\frac{5.2}{50}$	$\frac{5.1}{31}$	$\frac{6.9}{27}$	$\frac{6.9}{24}$	$\frac{4.9}{19}$	$\frac{4.8}{12}$	47	$\frac{5.2}{14}$	$\frac{5.8}{17}$	$\frac{7.0}{24}$	$\frac{7.0}{27}$	$\frac{5.2}{31}$	$\frac{6.4}{50}$
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29.50

$\frac{6.94}{25}$ F/.

$\frac{5.5}{50}$	$\frac{5.6}{33}$	$\frac{6.5}{27}$	$\frac{6.5}{23}$	$\frac{5.3}{18}$	$\frac{5.0}{13}$	4.6	$\frac{4.9}{13}$	$\frac{5.3}{17}$	$\frac{7.0}{23}$	$\frac{7.0}{27}$	$\frac{6.2}{31}$	$\frac{6.3}{50}$
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Sta.	+	π	-	Elev
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936.44.

5	+00			31.9
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	+50			32.0
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	+73			
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6				31.9
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	+13			
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B.M.	1.83	936.49 - 1.76	934.68.	934.66.
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	+34			
--	-----	--	--	--

	+50			32.0
--	-----	--	--	------

	+25			
--	-----	--	--	--

	+95			
--	-----	--	--	--

7				32.1
---	--	--	--	------

	+27			
--	-----	--	--	--

	+47			
--	-----	--	--	--

Lt.

£

Rt.

$\frac{4.7}{50}$ $\frac{4.9}{33}$ $\frac{6.7}{26}$ $\frac{6.7}{23}$ $\frac{5.1}{17}$ $\frac{4.8}{13}$ 4.5 $\frac{5.0}{13}$ $\frac{5.3}{18}$ $\frac{6.6}{23}$ $\frac{6.6}{27}$ $\frac{5.9}{31}$ $\frac{6.0}{50}$

$\frac{4.3}{50}$ $\frac{4.6}{31}$ $\frac{6.6}{26}$ $\frac{6.6}{23}$ $\frac{5.0}{17}$ $\frac{4.7}{12}$ 4.4 $\frac{4.7}{13}$ $\frac{5.1}{16}$ $\frac{6.6}{22}$ $\frac{6.6}{26}$ $\frac{5.9}{31}$ $\frac{6.1}{50}$

29.72

$\frac{6.72 \text{ F.I.}}{23}$

$\frac{4.2}{50}$ $\frac{4.5}{31}$ $\frac{6.5}{27}$ $\frac{6.5}{23}$ $\frac{4.9}{18}$ $\frac{4.6}{11}$ 4.5 $\frac{4.5}{13}$ $\frac{4.9}{36}$ $\frac{5.0}{50}$

29.71

$\frac{6.73 \text{ F.I.}}{23}$

Top Hyd. 23' Lt. Sta. 6+96
 $\frac{6.67 \text{ F.I.}}{25}$ 29.82

$\frac{5.4}{50}$ $\frac{5.0}{27}$ $\frac{4.7}{12}$ 4.5 $\frac{4.8}{11}$ $\frac{5.1}{15}$ $\frac{6.6}{22}$ $\frac{6.6}{26}$ $\frac{5.9}{28}$ $\frac{5.9}{50}$

29.38

$\frac{7.11 \text{ F.I.}}{23}$

29.42

$\frac{7.02 \text{ F.I.}}{23}$

F.I.

$\frac{5.5}{50}$ $\frac{5.7}{29}$ $\frac{6.4}{25}$ $\frac{6.56}{23}$ $\frac{6.4}{21}$ $\frac{4.9}{16}$ $\frac{4.8}{11}$ 4.4 $\frac{4.9}{13}$ $\frac{5.1}{17}$ $\frac{6.7}{21}$ $\frac{6.7}{25}$ $\frac{5.6}{27}$ $\frac{5.6}{50}$

29.50

$\frac{6.98 \text{ F.I.}}{23}$

29.42

$\frac{7.08 \text{ F.I.}}{23}$

Sta	+	π	-	Elev
		936.49.		
7	+50			32.0
8				31.9
	+04			
	+24			
	+50			32.0
T.P.	6.02	937.24.	5.27	931.22
	+98			
9				32.0
	+11			
	+18			
	+24			
	+50			32.0
10				32.1

LT £ PT

$\frac{5.6}{50} \frac{6.0}{26} \frac{6.4}{24} \frac{6.1}{20} \frac{9.9}{16} \frac{9.7}{12} 4.5 \frac{9.8}{12} \frac{5.1}{16} \frac{6.7}{22} \frac{6.7}{25} \frac{5.8}{27} \frac{5.7}{50}$

$\frac{5.7}{50} \frac{6.1}{29} \frac{6.1}{26} \frac{6.1}{21} \frac{5.1}{17} \frac{9.7}{11} 4.6 \frac{9.9}{12} \frac{5.3}{17} \frac{6.5}{22} \frac{6.5}{25} \frac{5.5}{26} \frac{5.4}{50}$

29.56

$\frac{6.93}{23} \text{ F.I.}$

29.56

$\frac{6.93}{23} \text{ F.I.}$

$\frac{5.9}{50} \frac{5.7}{27} \frac{6.4}{25} \frac{6.4}{21} \frac{9.9}{15} \frac{9.8}{12} 4.5 \frac{4.7}{12} \frac{5.0}{16} \frac{6.2}{21} \frac{6.2}{25} \frac{5.8}{26} \frac{5.2}{50}$

30.26

$\frac{6.98}{23} \text{ F.I.}$

$\frac{6.1}{50} \frac{6.6}{28} \frac{7.2}{24} \frac{7.2}{20} \frac{6.0}{16} \frac{5.6}{13} 5.2 \frac{5.5}{13} \frac{4.9}{22} \frac{6.9}{25} \frac{6.2}{28} \frac{6.6}{50}$

30.02

$\frac{7.22}{23} \text{ F.I.}$

30.41

$\frac{6.83}{23} \text{ F.I.}$

30.19

$\frac{7.05}{23} \text{ F.I.}$

$\frac{6.6}{50} \frac{6.4}{26} \frac{6.7}{24} \frac{6.7}{21} \frac{5.8}{16} \frac{5.6}{13} 5.2 \frac{5.5}{13} \frac{5.9}{17} \frac{4.8}{22} \frac{4.8}{25} \frac{6.1}{27} \frac{4.8}{50}$

$\frac{6.1}{50} \frac{5.7}{27} \frac{6.9}{26} \frac{6.9}{22} \frac{5.6}{16} \frac{5.5}{13} 5.1 \frac{5.4}{13} \frac{5.7}{17} \frac{6.6}{22} \frac{6.6}{25} \frac{6.2}{28} \frac{6.3}{50}$

Sta	+	↑	-	Elev
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937.24

10 +12

+32

BM		2.45	934.79	934.80
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+50

32.1

+70

+76

+83

11			32.2	
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+23

+29

+49

+50

32.0

LT * RT

29.89
7.35 F.I.
23

29.97
7.27 F.I.
23

Top Hyd. LT Sta. 14+39

5.0 5.2 4.6 4.6 5.6 5.4 5.4 5.8 6.5 6.5 6.0 5.0
50 28 22 19 16 12 51 15 18 21 24 26 50

30.19
7.05 F.I.
23

30.00
7.29 F.I.
23

30.07

7.17 F.I.
23

5.4 5.4 4.7 5.7 6.5 6.5 5.5 5.3 5.2 5.4 5.4
50 36 30 24 23 20 17 12 50 16 33 50

30.12
7.12
23

30.35
6.89
18

30.66
6.58
18

5.3 4.9 4.9 6.5 6.5 5.9 5.5 5.6 6.0 6.0 3.8 3.4 L.O.
50 27 22 19 16 14 12 5.2 14 17 19 25 34

Sta	+	π	-	Elev
		937.24		
12				32.1
+23				
+37				
+50				32.1
13				32.0
+03.5				
+50				32.0
14				32.1
T.P.	5.66	937.38	5.52	931.72
+50				32.2
15				32.3
+50				32.4
+94				

Lt.

±

Rt.

$\frac{5.5}{50}$	$\frac{5.3}{22}$	$\frac{6.1}{18}$	$\frac{5.2}{15}$	$\frac{5.5}{13}$	5.1	$\frac{5.6}{15}$	$\frac{5.9}{17}$	$\frac{5.9}{19}$	$\frac{4.3}{25}$	$\frac{4.0}{33}$	$\frac{3.8}{40}$	L.O.
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30.92

$$\frac{6.32}{18} \text{ F.I.}$$

31.18

$$\frac{6.06}{18} \text{ F.I.}$$

$\frac{5.3}{50}$	$\frac{4.9}{35}$	$\frac{5.5}{22}$	$\frac{6.1}{17}$	$\frac{5.6}{13}$	5.1	$\frac{5.6}{15}$	$\frac{5.8}{17}$	$\frac{5.8}{19}$	$\frac{4.6}{25}$	$\frac{4.3}{35}$	$\frac{4.0}{50}$
------------------	------------------	------------------	------------------	------------------	-----	------------------	------------------	------------------	------------------	------------------	------------------

$\frac{5.2}{50}$	$\frac{5.7}{24}$	$\frac{6.1}{16}$	$\frac{5.7}{14}$	5.2	$\frac{5.6}{15}$	$\frac{5.9}{17}$	$\frac{5.9}{19}$	$\frac{4.8}{25}$	$\frac{4.7}{34}$	L.O.
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32.09

21.94

TOP

MAN Hole

5.15 invert - 15.30

$\frac{5.7}{50}$	$\frac{5.2}{22}$	$\frac{6.1}{17}$	$\frac{5.7}{14}$	$\frac{5.6}{12}$	5.2	$\frac{5.7}{15}$	$\frac{5.9}{17}$	$\frac{5.9}{19}$	$\frac{4.9}{25}$	$\frac{4.6}{35}$	L.O.
------------------	------------------	------------------	------------------	------------------	-----	------------------	------------------	------------------	------------------	------------------	------

$\frac{5.0}{50}$	$\frac{5.0}{25}$	$\frac{5.8}{19}$	$\frac{5.8}{16}$	$\frac{5.6}{13}$	5.1	$\frac{5.5}{14}$	$\frac{5.8}{17}$	$\frac{5.8}{19}$	$\frac{5.0}{25}$	$\frac{5.0}{35}$	L.O.
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$\frac{5.5}{50}$	$\frac{5.3}{22}$	$\frac{5.9}{18}$	$\frac{5.9}{14}$	$\frac{5.6}{12}$	5.2	$\frac{5.2}{14}$	$\frac{6.1}{17}$	$\frac{6.1}{18}$	$\frac{5.5}{21}$	$\frac{5.5}{35}$	$\frac{6.0}{41}$	L.O.
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$\frac{5.6}{50}$	$\frac{5.2}{34}$	$\frac{4.9}{24}$	$\frac{5.4}{20}$	$\frac{6.1}{18}$	$\frac{6.1}{16}$	$\frac{5.5}{11}$	5.1	$\frac{5.6}{12}$	$\frac{6.2}{18}$	$\frac{6.2}{19}$	$\frac{5.6}{20}$	$\frac{5.4}{33}$	$\frac{5.9}{50}$
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$\frac{4.2}{50}$	$\frac{4.9}{26}$	$\frac{5.5}{19}$	$\frac{5.9}{18}$	$\frac{5.9}{17}$	$\frac{5.6}{14}$	$\frac{5.4}{11}$	5.0	$\frac{5.5}{14}$	$\frac{5.8}{18}$	$\frac{5.8}{19}$	$\frac{5.4}{21}$	$\frac{5.2}{28}$	$\frac{5.2}{50}$
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31.21

$$\frac{6.17}{18} \text{ F.I.}$$

Sta	+	π	-	Elev
		932.38		
16				32.5
	+14			32.5
	+34			
	+50			32.4
B.M.			2.14	935.24
17				32.3
	+50			32.3
18				32.5
	+50			32.5
	+55			
	+74			32.6
	+95			
19				32.6

L1

£

R1

Top Hyd 25' L1 Sta 0+36

24.33

24.29

F.I.

$\frac{11.3}{50}$ $\frac{12.02}{18}$ $\frac{6.0}{16}$ $\frac{5.3}{11}$ 4.8 $\frac{5.3}{11}$ $\frac{5.5}{13}$ $\frac{6.3}{18}$ $\frac{12.06}{19}$ $\frac{11.6}{50}$

$\frac{11.3}{50}$ $\frac{11.0}{30}$ $\frac{10.8}{18}$ $\frac{5.9}{17}$ $\frac{5.3}{11}$ 4.8 $\frac{5.3}{11}$ $\frac{6.2}{18}$ $\frac{10.8}{19}$ $\frac{11.3}{29}$ $\frac{11.6}{50}$

27.30

F.I.

$\frac{6.1}{50}$ $\frac{7.0}{26}$ $\frac{9.9}{21}$ $\frac{9.9}{18}$ $\frac{5.9}{17}$ $\frac{5.3}{11}$ 4.8 $\frac{5.3}{11}$ $\frac{5.5}{15}$ $\frac{6.1}{19}$ $\frac{9.05}{27}$ $\frac{6.2}{31}$ $\frac{6.2}{50}$

28.95

F.I.

$\frac{5.3}{50}$ $\frac{5.5}{23}$ $\frac{8.0}{19}$ $\frac{7.40}{16}$ $\frac{8.0}{17}$ $\frac{5.7}{16}$ $\frac{5.4}{12}$ 4.8 $\frac{5.1}{12}$ $\frac{5.2}{18}$ $\frac{5.7}{23}$ $\frac{5.6}{50}$

28.94

F.I.

$\frac{5.9}{50}$ $\frac{5.5}{23}$ $\frac{5.7}{16}$ $\frac{5.4}{12}$ 4.8 $\frac{5.2}{12}$ $\frac{5.9}{21}$ $\frac{7.41}{27}$ $\frac{6.0}{29}$ $\frac{5.6}{50}$

$\frac{4.8}{50}$ $\frac{5.7}{23}$ $\frac{5.6}{15}$ $\frac{5.2}{11}$ 4.8 $\frac{5.3}{14}$ $\frac{6.8}{24}$ $\frac{6.8}{28}$ $\frac{5.6}{33}$ $\frac{5.4}{50}$

28.94

F.I.

$\frac{4.8}{50}$ $\frac{6.0}{23}$ $\frac{7.2}{21}$ $\frac{7.41}{19}$ $\frac{7.2}{18}$ $\frac{5.6}{15}$ $\frac{5.2}{11}$ 4.8 $\frac{5.3}{14}$ $\frac{6.8}{24}$ $\frac{6.8}{28}$ $\frac{5.6}{33}$ $\frac{5.4}{50}$

F.I. 29.17

F.I. 29.13

$\frac{5.7}{50}$ $\frac{5.7}{26}$ $\frac{7.18}{22}$ $\frac{5.3}{17}$ $\frac{5.0}{11}$ 4.9 $\frac{5.2}{14}$ $\frac{5.5}{23}$ $\frac{7.22}{27}$ $\frac{5.5}{28}$ $\frac{5.4}{50}$

$\frac{5.8}{50}$ $\frac{5.7}{27}$ $\frac{5.0}{11}$ 4.9 $\frac{5.0}{15}$ $\frac{5.2}{23}$ $\frac{5.8}{50}$

29.00

29.24

$\frac{7.35}{23}$ F.I.

$\frac{7.11}{27}$ F.I.

$\frac{6.0}{50}$ $\frac{6.2}{31}$ $\frac{6.9}{27}$ $\frac{6.9}{24}$ $\frac{5.4}{17}$ $\frac{5.1}{11}$ 5.0 $\frac{5.1}{14}$ $\frac{5.4}{20}$ $\frac{7.3}{24}$ $\frac{7.3}{21}$ $\frac{6.4}{33}$ $\frac{6.8}{50}$

Sta	+	↑	-	Elev
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936.35.

2	+00			31.5
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+20

+27

+47

+50

31.7

T.P.	4.77	936.44.	4.68	931.67.
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3

31.6

+50

31.5

+93

4

31.7

+13

+50

31.8

X Section

Birch Lake Ave

Sta	+	π	-	Elev
B.M	261	936.35.		933.74

0 +00

31.6

+03

31.6

+05

31.6

+17

31.6

+18

31.6

+55

31.6

+56

31.6

+90

31.5

1

31.5

+10

+50

31.4

Lt.

£

Rt

43	44	48	52	56	56	53	5.0	5.1	5.4	5.5	
50	38	28	19	17	16	12	4.9	11	25	37	50

1000 32.50
 1000 invert 17.40

4.5	4.9	5.5	5.3
50	29	17	11

4.9	18.98	4.9	4.6	5.0	5.0
4.9	25	10	23	50	100

30.8L

6.52 F.I.
 18

4.7	4.7	4.8	5.3	5.5	5.5	5.3	5.5	6.0	6.0	5.4	5.0	4.6	
50	38	29	21	18	16	11	50	12	17	18	20	27	50

Top Hyd Lt. Sta. 16+65

4.4	4.7	5.2	5.7	5.4
50	29	21	17	12

5.4	5.8	5.1	4.9	4.5	4.3	
5.1	13	18	26	33	39	50

L.O.

4.8	4.5	4.7	5.2	5.7	5.4	5.5	6.0	6.0	5.3	4.8	4.8	4.5	
39	33	25	20	18	13	5.1	12	16	18	20	24	32	50

4.0	4.6	5.1	5.6	5.2	5.3	5.2	5.2	5.1	4.8	4.7	4.3	4.4	
50	29	22	18	11	4.9	11	16	18	21	28	32	39	50

L.O.

4.4	4.6	5.1	5.7	5.2	5.0	5.2	5.6	5.6	5.1	4.6	4.6	4.4	
33	25	20	19	16	12	4.9	13	16	18	21	27	34	50

31.13

6.25 F.I.
 18

32.68 18.06

Top invert

4.2	4.2	4.3	4.6	4.70	18.32	5.2	5.5	5.2	4.7	4.8	
150	50	21	11	4.8	3	3	13	17	20	28	50

31.23

6.15 F.I.
 18

4.6	4.6	4.8	5.7	5.7	5.3	5.0	5.2	5.5	4.7	4.0	
50	35	22	18	17	15	11	4.8	13	17	28	50

Sta	+	π	-	Elev
		937.38		
19	+50			32.5
20				32.4
	+50			32.4
B.M.	1.41	937.77	1.02	936.36
21				32.7
	+06			
	+23			32.7
	+46			
	+50			32.6
	+63			
22				32.6
	+50			32.5

Lt.

£

Rt.

$\frac{4.6}{50} \frac{4.4}{33} \frac{4.7}{26} \frac{5.4}{18} \frac{5.4}{13}$

$\frac{5.2}{11} \frac{5.4}{17} \frac{4.8}{28} \frac{4.5}{36} \frac{4.9}{50}$

$\frac{4.7}{50} \frac{4.5}{28} \frac{5.2}{19} \frac{5.6}{18} \frac{5.4}{14} \frac{5.2}{50} \frac{5.2}{10} \frac{5.5}{15} \frac{4.8}{17} \frac{4.8}{23} \frac{4.3}{33} \frac{4.3}{50}$

$\frac{4.7}{50} \frac{4.7}{42} \frac{4.3}{38} \frac{4.4}{28} \frac{5.0}{20} \frac{5.4}{18} \frac{5.3}{12} \frac{5.0}{50} \frac{5.2}{10} \frac{5.4}{17} \frac{5.6}{18} \frac{5.0}{22} \frac{5.0}{33} \frac{4.4}{50}$

Top Hyd. Lt. Stg 20+82

$\frac{4.3}{50} \frac{4.9}{29} \frac{5.3}{22} \frac{5.8}{18} \frac{5.6}{12} \frac{5.1}{50} \frac{5.6}{15} \frac{5.9}{18} \frac{5.3}{21} \frac{5.1}{28} \frac{4.8}{50}$

31.10
6.67 F.I.
18

32.74 2302

Top Invert
5.3 14.75

$\frac{4.3}{50} \frac{4.8}{28} \frac{5.7}{18} \frac{5.6}{11}$

5.1 3.5 3.5 17 5.1 5.0 100

31.25
6.52 F.I.
18

$\frac{4.7}{50} \frac{4.7}{34} \frac{5.0}{29} \frac{5.2}{23} \frac{5.7}{17} \frac{5.6}{11} \frac{5.2}{50} \frac{5.5}{15} \frac{6.0}{19} \frac{5.3}{21} \frac{4.8}{29} \frac{4.7}{50}$

31.89 31.81

$\frac{5.7}{50} \frac{5.88}{34.5} \text{ F.I. } \frac{5.96}{26.5} \text{ F.I.}$

$\frac{5.2}{50} \frac{5.0}{33} \frac{5.4}{21} \frac{5.8}{17} \frac{5.5}{10} \frac{5.2}{50} \frac{5.5}{10} \frac{5.9}{18} \frac{5.2}{21} \frac{4.9}{28} \frac{4.9}{33} \frac{5.4}{40} \frac{5.1}{50}$

$\frac{4.5}{50} \frac{4.8}{29} \frac{5.1}{22} \frac{5.8}{18} \frac{5.5}{11} \frac{5.3}{50} \frac{5.4}{10} \frac{6.0}{18} \frac{5.2}{21} \frac{4.9}{28} \frac{5.3}{37} \frac{5.2}{50}$

Sta	+	π	-	Elev
		937.77		
23				32.8
+50				32.8
24				32.8
+50				32.8
25				32.8
T.P.	1.42	938.39	0.80	936.97
+50				31.9
26				33.1
+12				
+12				
+23				
+26				33.0
+36				33.1
B.M.			5.11	933.28
				933.29

Lt.

£

Rt

$\frac{4.5}{50} \frac{4.8}{30} \frac{5.2}{22} \frac{5.9}{19} \frac{5.9}{16} \frac{5.3}{9} 5.0 \frac{5.4}{11} \frac{5.9}{17} \frac{5.6}{19} \frac{5.1}{22} \frac{4.9}{28} \frac{4.8}{33} \frac{4.6}{50}$

$\frac{5.2}{50} \frac{4.9}{39} \frac{4.7}{27} \frac{5.3}{20} \frac{5.6}{17} \frac{5.6}{14} \frac{5.3}{10} 5.0 \frac{5.5}{12} \frac{5.8}{18} \frac{5.3}{21} \frac{4.9}{28} \frac{4.8}{33} \frac{4.6}{50}$

$\frac{4.9}{50} \frac{4.9}{37} \frac{4.6}{33} \frac{4.7}{26} \frac{5.8}{18} \frac{5.4}{10} 5.0 \frac{5.4}{18} \frac{5.7}{18} \frac{5.0}{22} \frac{4.9}{29} \frac{4.7}{35} \frac{5.4}{50}$

$\frac{4.7}{50} \frac{4.6}{24} \frac{4.7}{29} \frac{4.9}{20} \frac{5.7}{18} \frac{5.4}{11} 5.0 \frac{5.2}{11} \frac{5.6}{15} \frac{5.7}{18} \frac{5.1}{22} \frac{4.8}{29} \frac{4.5}{34} \frac{4.5}{50}$

$\frac{4.3}{50} \frac{4.5}{30} \frac{4.8}{23} \frac{5.4}{20} \frac{5.5}{15} \frac{5.1}{9} 5.0 \frac{5.2}{10} \frac{5.5}{18} \frac{5.0}{24} \frac{4.7}{29} \frac{4.8}{50}$

$\frac{4.9}{50} \frac{4.8}{35} \frac{5.1}{29} \frac{5.8}{23} \frac{6.2}{15} \frac{5.7}{11} 5.5 \frac{5.9}{13} \frac{6.0}{16} \frac{5.5}{22} \frac{5.2}{29} \frac{5.1}{35} \frac{4.7}{42} \frac{4.6}{50}$

$26.87 \frac{4.1}{50} \frac{4.4}{29} \frac{4.9}{26} \frac{5.5}{18} \frac{5.5}{11} 5.3 \frac{5.8}{12} \frac{5.8}{16} \frac{5.6}{19} \frac{5.2}{28} \frac{4.9}{40} \frac{4.9}{50}$

12" vit 30.30
 $\frac{11.52}{24} \frac{8.09}{24}$
 $\frac{11.70}{24} 26.69$

INVENT 15" vit
 $\frac{10.09}{24} \frac{5.18}{24}$
 $\frac{24.28}{24} \frac{33.21}{24}$

26.44 26.36 32.39
 18" W 20" W
 11.95 12.0 11.85 East
 E. Side of Rd. 195.0 20
 5.40 Top 13.28
 25.11
 5.3 5.5
 $\frac{5.2}{50} \frac{5.3}{50}$
 26.54 26.51
 20" vit 27.01
 12" vit 11.38
 INVENT 195.0 195.0
 11.26 195.0
 INVENT SO.
 26.51 27.17

U.S.G.S in St Mary School Yard

