

BK. 21 Dr. 13

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

_____ Plan _____ Survey

_____ Washington Ave. _____

From 5th Ave. To Long Lake Rd.

Road Acc't. No. _____

Date Filed 7-25-47 File _____

PLAN SURVEY

WASHINGTON AVE.

Fifth Ave to Long Lak Rd.

Syndicate Add. to Mpls. Stock Yards

INDEX

Align - 1-3

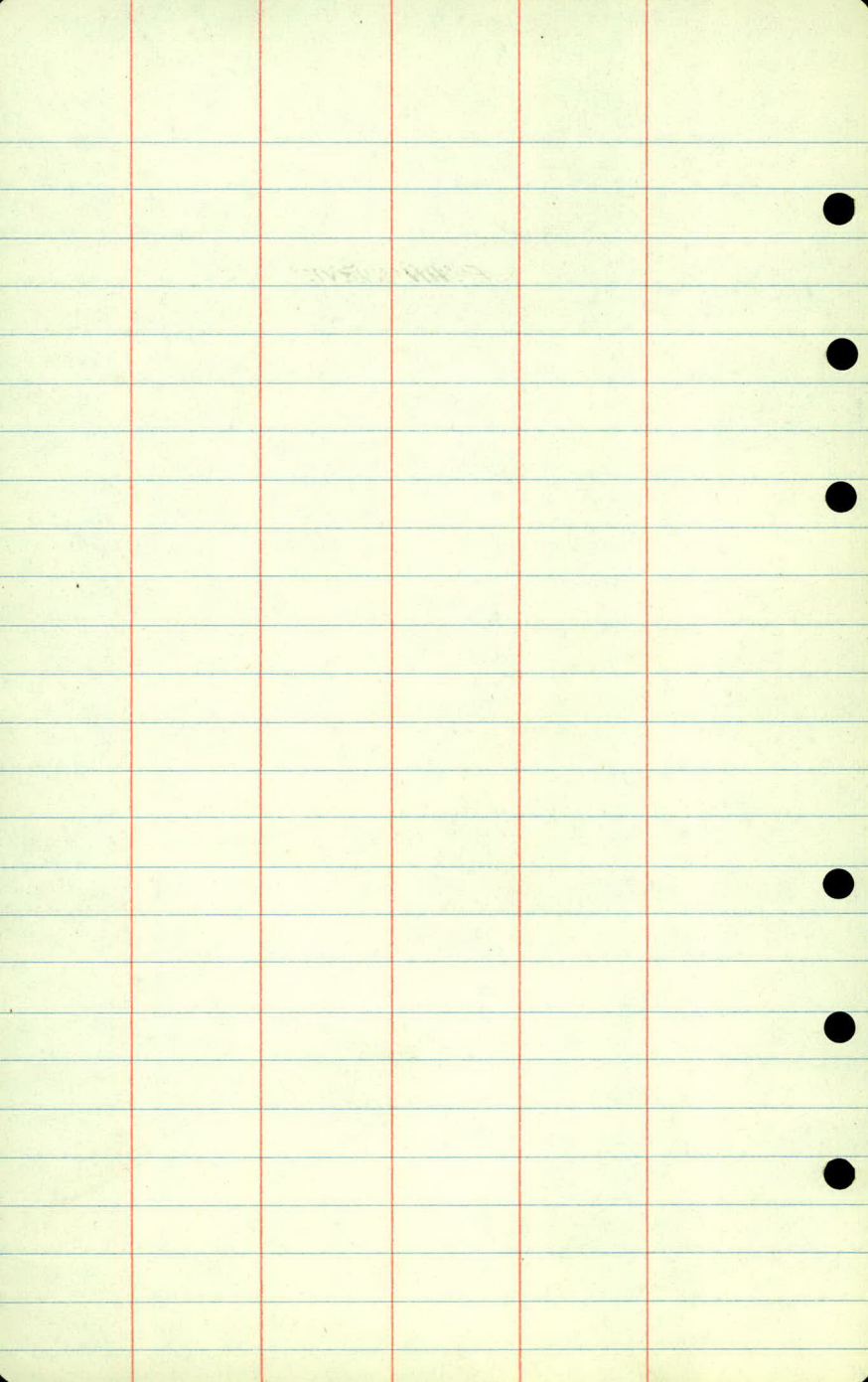
Topog - 4-7

Xsections - 8-16

Bench
Levels - 17-18

Rec. 3/28/47
Z.C.

Drawn up 4/23/47
W.B. & L.C.



Alignment

Sta	Point	Alt	Δ R.L.
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6 + 53.52	P.O.T.	=	E 3 rd AVE.
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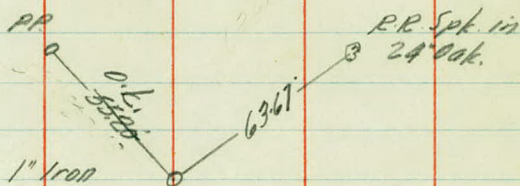
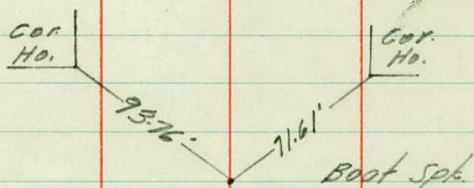
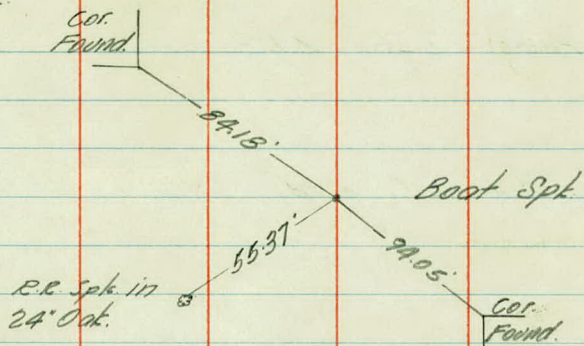
3 + 26.76	P.O.T.	=	E 4 th AVE.
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0 + 00	=	E 5 th AVE.
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K.A.
A.M.
M.B.
R.K.

3-27-47

2

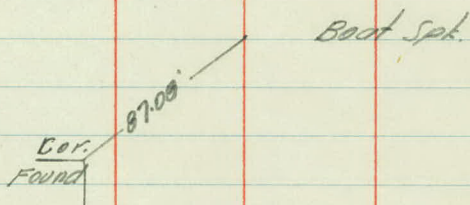
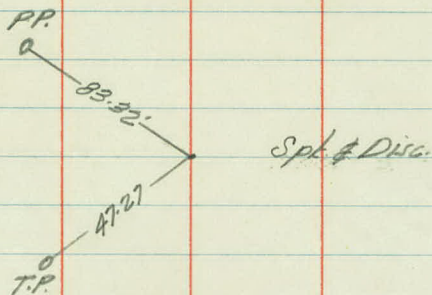


Sta	Point	ΔL	ΔE
-----	-------	------------	------------

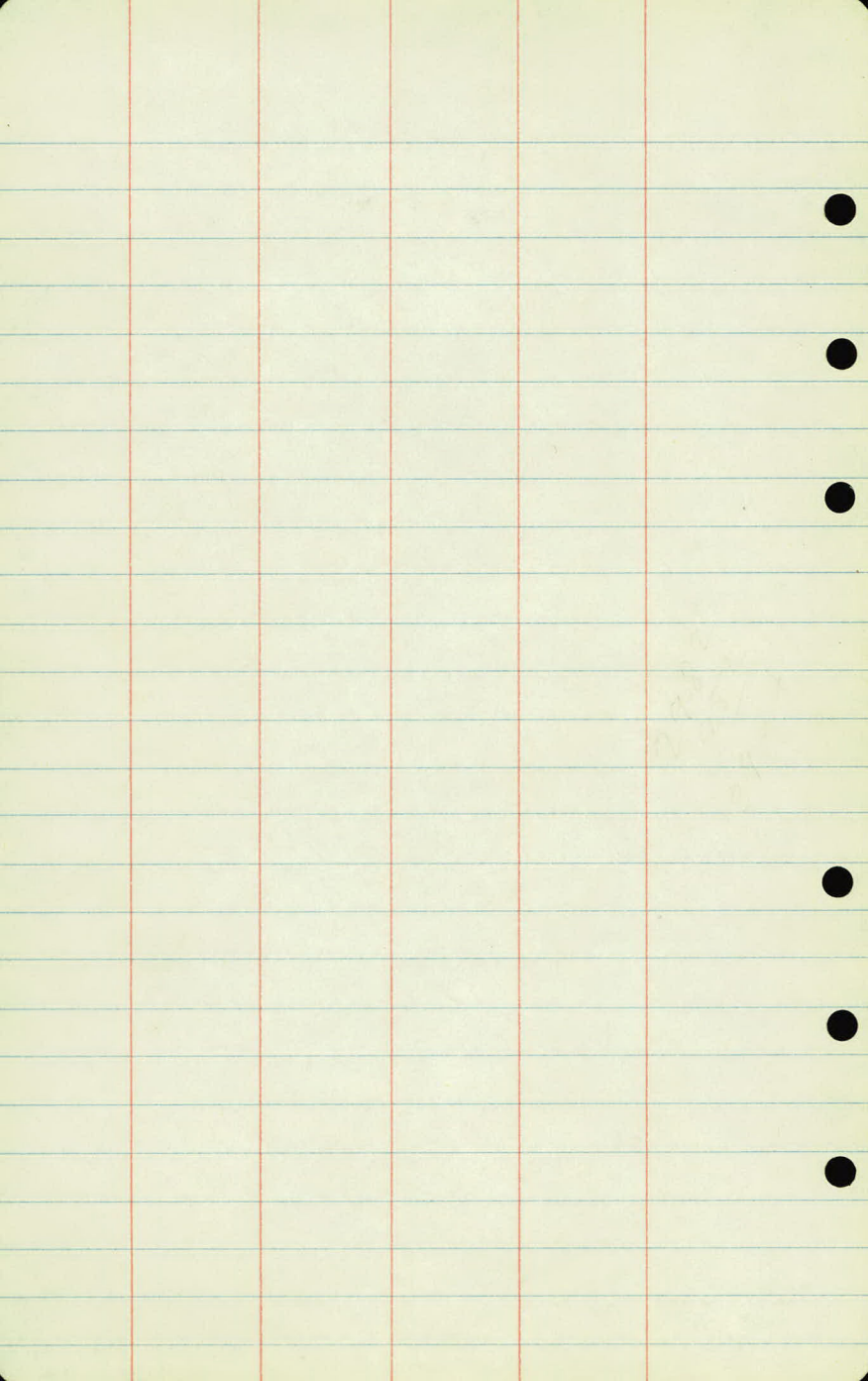
16+33.30	= E Long Lake Rd.	= Sta. 1167.42	
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13+07.04	P.O.T.	= E 1 st Ave.	
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9+80.28	P.O.T.	= E 2 nd Ave.	
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Boat Spl.



Topography

+148-20°0'-22'
+149-16°0'-17' Cor Found - 62'
+140-Ent.

5 +119-30°0'-30' 14' 7'

+195-RP-21'
+193-End 1" Pins-29'
+175-Ent to Cor
+145-25" W. Pins-29'
+144-30°0'-30'
+136-18°0'-34'

+190-E Alley Traveled
+189-30°0'-33'

+154-NW Cor Cor-53'
+159-End Hedge-25'
+132-30°0'-23'

4 +108-18°0'-34' 14' 7'

+199-SW Cor Ho-60'

+178-30°0'-31'

+148-RP-21'

+153-14'

+190-28'

+116-23'

+131'

+187-2°15'0'-21'

+188-NW Cor Ho-33'

+175-1" Pins-32'

+148-30°0'-19'

+160-Bed. Hedge-25'

8'-+64'

30'

10'

8'

3

+179-30°0'-25'

2 15' 6'

+194-30°0'-35'

+180-18°0'-35'

+178-RP-23'

+169-E Alley

+161-End Mas. Wall-24'

+152-Cor. Mas. Wall-45-22'

+140-Ent.

+190-30°0'-21'

+160-Ent.

+142-End Hedge-11'

+133-18°0'-30' NW Cor Ho-43'

+128-15°0'-31'

+103-Bed. Hedge-11'

1 15' 6'

+195-30°0'-34'

+178-S.W. Cor. Ho-71'

+150-RP-24'

+150-19'

+190-26'

+119-48'

+115-00'

+184-15°0'-30'

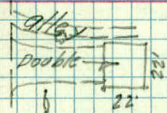
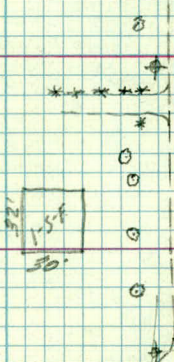
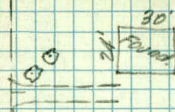
+155-24°0'-36'

+133-30°0'-21'

0

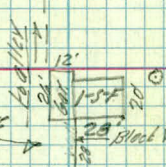
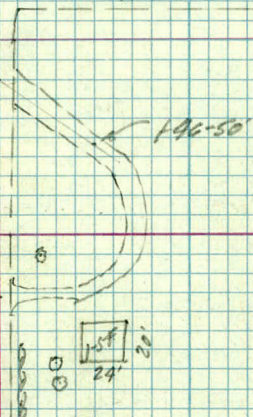
3-27-41
 R.R.
 A.M.
 M.B.
 R.K.

Wooded



4th

Ave.



5th Ave

Lowland

+93 = 31' 14'
+80 = 16' 6'

+26 = SW Cor Found - 65'

12 16' 6'

+56 - Ent to Cor.

+41 - PP 22'

+40 - FC Cor - 30'

11 +15 - Ent to Cor. 15' 6'

+94 - Row Trees - 31' - End

+90 - 4" PE - 25'

+87 - FC Cor - 30'

+72 - NW Cor Gar - 49'

+74 - SE Cor Ho - 56'

+94 - End Row 2" Pop - 31'

+40 - Cor Ho - 68'

10 +18 - Cor Row Trees - 32' 10' 10' 16'

+12 - End / Beg Pop - 31'

+95 = 29'

+81 = E Trail

+59 - PP 21'

+69 = 27'

+41 = 15'

+47 - Cor Row Trees - 33'

9 +97 - SW Cor Ho - 48' 17' 6'

+50 - Beg Row Trees - 33'

+93 - SW Cor Gar - 47'

+23 - PP - 20'

+24 - 12" Core X Diam - 20' - 12'

8 +12 - Ent - 12" X 20' C.M. - 20' 16' 6'

7 +13 - SW Cor Ho - 59' 15' 8'

+73 - PP - 20'

+80 = 15'

8' = +70'

+61 = 31' 16'

+31 - 20' 8' - 29'

25' 24' 8' - 35'

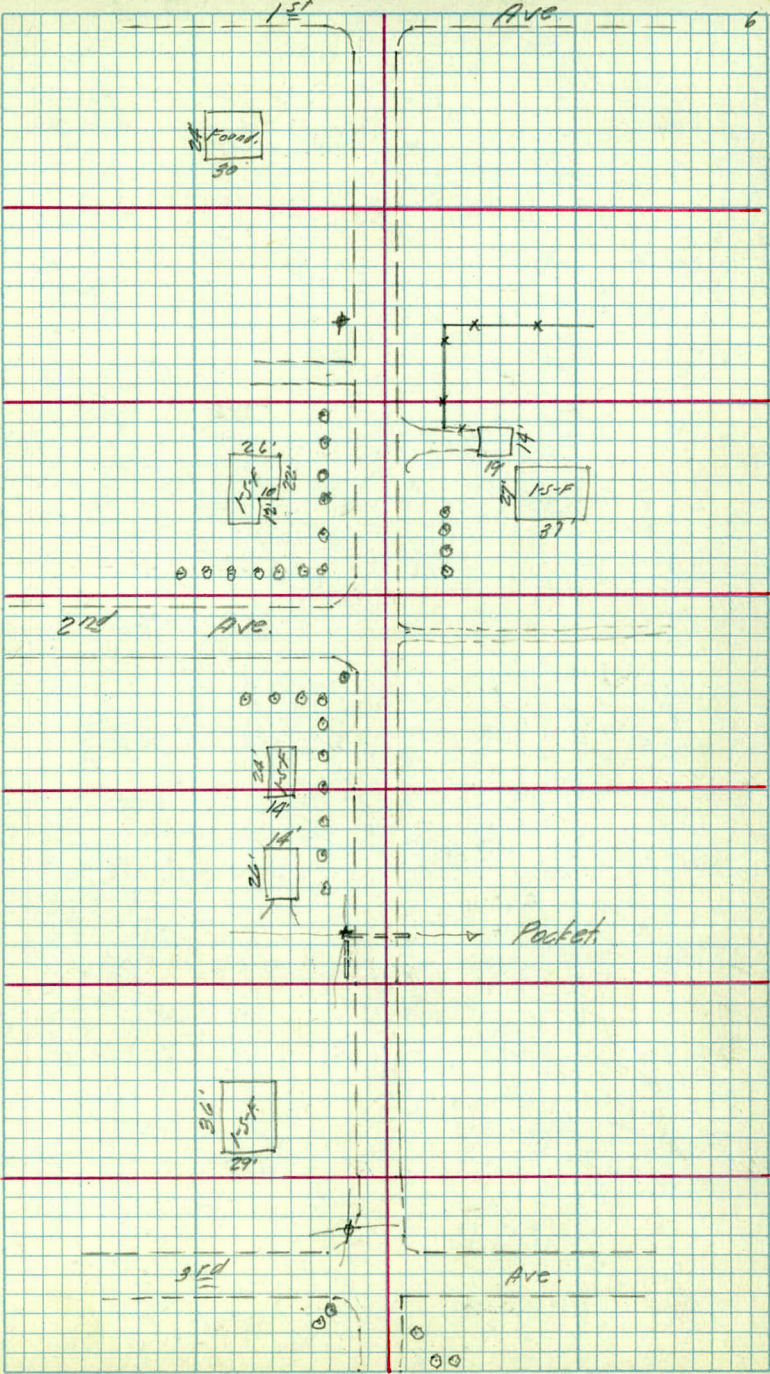
+38 = 29' 7'

+21 = 14'

+21 - 24' 0' - 15'

+05 - 24' 0' - 24' 35'

6 Tr. Line - 32' 15' 7'



+22-Edge Bl. Top

16 T.P.-33'

+95 = 15' 6"

15

16' 4"

+57-PP-24'

14

16' 4"

+42=16'

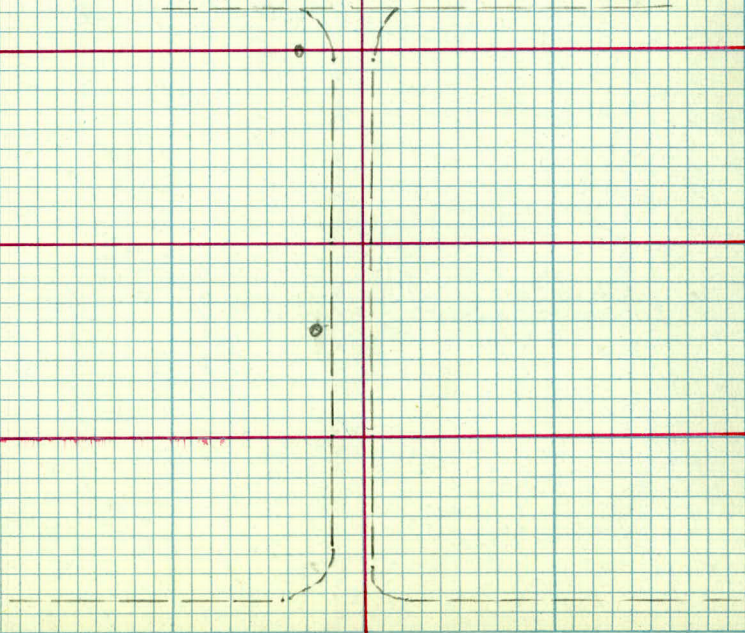
4 = +34'

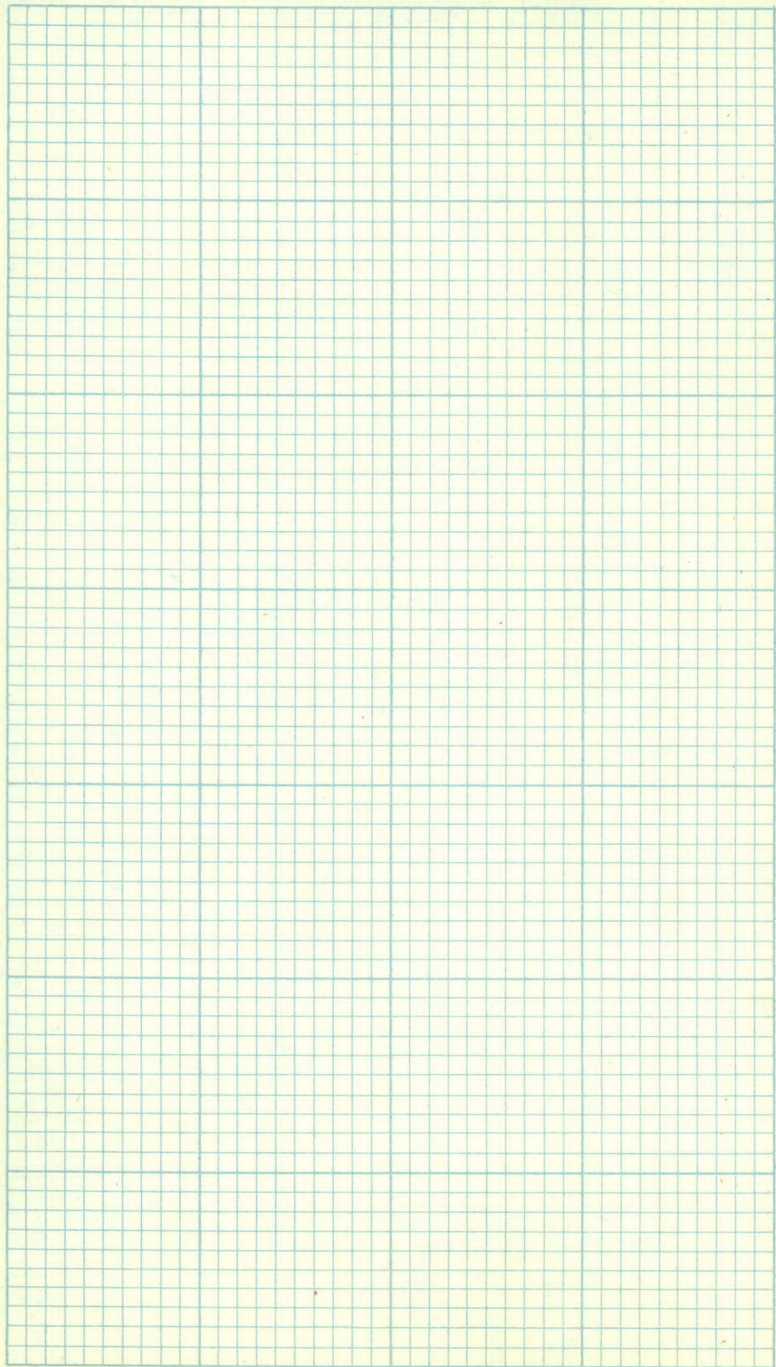
+16 = 43' 22"

13

For more information of Int. see 1946 Long Lake
Road Survey.

Long Lake Rd.





Xsections

Sta.	+	π	-	Elev.
B.M.	3.28	892.15		(888.87)

0 +00				81.4
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+15				85.0
-----	--	--	--	------

+29				86.3
-----	--	--	--	------

+50				88.1
-----	--	--	--	------

+73				90.8
B.M.	13.71	902.58	3.28	888.87

1				94.0
---	--	--	--	------

+28				97.2
-----	--	--	--	------

+51				99.7
-----	--	--	--	------

L.A.
A.M.
M.B.
P.K.

3-27-47

40-M.P.H. Winds-Snow

9

L

E

R

P.R. Spt in 24° S.E. Cor 5th & Washington Ave's.

8.8 8.0 10.8 11.0 11.6 11.6 ✓
50 25 15 30 50

8.1 7.3 6.9 7.2 9.3 10.1 9.7 ✓
50 27 8 8 25 50

3.0 5.2 5.7 6.6 6.4 5.9 5.7 7.4 8.1 8.4 ✓
50 4.4 3.8 3.2 1.9 3 9 25 50

L.O. + 5.7 +5.3 2.6 4.4 4.3 4.1 4.0 4.4 5.2 5.9 ✓
50 40 29 22 10 5 11 27 50

Cor. Ho.

+6.7 +6.4 +5.2 1.2 1.8 1.4 1.4 1.5 2.8 3.8 ✓
7.1 4.1 3.2 2.3 1.7 1.3 9 16 30 50

3.3 3.6 5.1 5.9 8.1 8.5 8.6 8.9 8.4 9.3 11.0 ✓
50 4.4 3.3 2.4 2.0 1.1 8 9 18 50

2.9 3.3 5.0 5.2 5.4 5.7 4.0 4.2 4.0 ✓
50 3.5 2.1 1.0 8 11 26 50

1.4 2.1 2.7 2.7 2.9 3.3 3.1 4.0 4.2 = Ho. ✓
50 2.5 1.5 6 6 12 25 4.3

Sta.	+	π	-	Elev.
		902.58		

1	+53			900.0
T.P.	12.61	915.03	0.16	902.42

	+69			01.6
--	-----	--	--	------

	+80			02.8
--	-----	--	--	------

2				04.9
---	--	--	--	------

	+50			09.7
--	-----	--	--	------

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

3				13.8
---	--	--	--	------

		923.17		913.82
T.P.	9.35	923.16	1.21	913.81

	+10			14.7
--	-----	--	--	------

	+10			
--	-----	--	--	--

	+14			14.9
--	-----	--	--	------

L

E

E

+30
~~+20~~ 11.3 1.9 2.3 2.4 2.6 3.5 2.9 Dup. +51 ✓
 50 26 24 15 5 6 12

8.9 12.0 13.0 13.2 13.4 13.7 13.5 16.3 17.0 ✓
 50 28 18 12 7 12 35 50

6.7 8.2 9.9 11.5 11.9 12.2 12.4 12.4 11.2 12.3 13.5 ✓
 50 27 25 18 9 6 10 15 32 50

4.7 6.1 8.4 10.1 10.0 10.1 10.3 10.2 9.9 8.7 9.7 11.2 ✓
 50 26 23 16 6 6 12 15 16 29 50

0.4 1.8 3.7 5.1 5.4 5.3 5.6 4.5 4.2 5.4 6.7 ✓
 50 24 23 19 12 8 16 17 33 50

+25 +1.4 0.4 1.0 1.2 1.7 1.2 1.6 3.3 ✓
 50 23 21 13 8 15 28 50

5.2 6.4 7.7 8.2 8.5 9.0 8.8 8.9 10.0 11.2 ✓
 50 24 22 14 8 10 18 35 50

6.0 6.9 7.5 8.0 8.3 9.0 8.8 8.9 10.0 11.2 ✓
 50 32 23 16 8 10 18 35 50

Sta	+	π	-	Elev.
		923.17 923.16		

3 + 26.76 = 2 4¹/₂ Ave.

15.8

+41

16.5

+46

16.7

+60

17.2

4

18.1

+50

17.9

5

17.9

+50

17.3

L E E etc

30 33 40 53 67 74
200 150 100 50 18

103 128 155 *draw*
50 100 150 *South*

58 63 64
50 27 14

67 75 85
14 22

39 49 64 62 65
50 20 18 8

75 85 *top* 98
14 22 50

37 46 59 59
50 19 18 15

60 65 67 62 63
11 15 24 50

33 37 40 51 ~~51~~ 51
50 33 17 14 9

34 58 56 - *at ho.*
8 13 38

38 39 45 52 53 57 55 56 55
50 37 18 14 6 7 28 50

5.11
Got floor

49 51 48 56 53
50 33 16 14 8

53 56 54 49 47
6 7 28 50

56 53 51 59 57 59 63 59 54 50
50 37 18 14 9 7 9 25 50

Sta	+	π	-	Elev.
		923.17 923.16		

6				16.1
---	--	--	--	------

+22				15.4
-----	--	--	--	------

+36				15.0
-----	--	--	--	------

+53.52 = 2.35		AVC.		14.4	1.66 2.91 5.57
B.M.	0.30	917.90 917.89	5.57	917.60 917.59	(917.59)

+70				13.9
-----	--	--	--	------

7				12.7
---	--	--	--	------

+50				11.4
-----	--	--	--	------

8				10.3
---	--	--	--	------

3-27-47

12

L

E

R

6.0	6.3	6.4	7.1	6.9	7.1	7.5	7.2	5.5	4.8	✓
50	30	19	14	7		6	11	19	50	

6.4	6.7	7.7	7.5	7.8	8.2	7.6	5.7	5.4	✓
50	20	15	9		7	12	19	50	

7.1	7.8	8.1	8.2		8.5	8.0	7.6	✓
50	23	12			7	21	50	

Drains

North

0.7	2.5	5.0	7.5	8.7	8.8	8.2	7.5	6.7	6.3	✓
200	150	100	50	14		50	100	150	200	

1.8	2.5	3.7	4.2	4.0	4.4	3.8	3.5	3.8	3.3	✓
50	31	22	20	8		7	10	16	35	50

3.0	3.0	4.7	4.7	5.1	5.1	5.2	5.4	6.0	5.1	5.4	5.4	✓
50	29	23	20	16	9		9	13	15	30	50	

3.6	3.7	4.2	6.2	6.5	6.5	6.8	7.6	8.4	9.2	✓
50	39	33	24	16		7	17	25	50	

6.1	7.2	8.1	7.2	7.6		7.8	10.6	11.8	✓
50	25	21	18			7	32	50	

Sta.	+	π	-	Elev.
		917.90		
		917.89		

8	+24			10.0
---	-----	--	--	------

	+60			09.7
--	-----	--	--	------

9				10.0
		917.71		912.49
T.P.	5.22	917.70	5.41	912.48

	+50			10.8
--	-----	--	--	------

	+80.38 = E 2 nd Ave.			11.3
--	---------------------------------	--	--	------

10				11.6
----	--	--	--	------

	+50			12.3
--	-----	--	--	------

11	+70 [±]			
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K.H. 3-28-47

13

A.M.
M.B.
R.E.

L

E

R

+60 = Cert. Low
Pocket

6.5 76 9.9 9.53 7.5 7.8 7.9 8.3 10.6 12.7 13.3 10.47 ✓
50 24 21 20 18 7 8 26 50 60 12
FL.

at gar: 6.2 6.9 7.2 8.5 7.8 8.2 8.3 9.5 11.2 12.3 ✓
47 31 25 21 19 7 17 33 50

at br: 5.9 6.2 7.0 7.7 7.3 7.7 7.7 7.9 8.1 8.9 9.0 8.6 9.7 10.1 ✓
48 36 25 23 21 19 17 8 7 10 12 13 28 50

5.2 5.5 6.8 6.1 6.9 6.7 6.9 7.3 7.6 6.7 7.2 7.5 ✓
50 26 23 20 18 16 6 7 12 15 33 50

3.9 4.4 5.1 5.6 6.3 6.4 6.7 6.1 6.4 5.8 5.4 4.5 ✓
200 150 100 50 20 10 17 50 100 150 200

5.3 5.3 6.2 5.9 6.1 6.1 6.3 5.9 6.4 5.6 6.0 6.0 ✓
50 26 21 5 7 9 11 15 33 50

4.6 4.9 5.5 5.0 5.6 5.3 5.4 5.5 5.0 5.3 4.7 4.9 4.7 ✓
50 23 19 17 15 5 7 9 11 14 29 50

3.91
Gar. floor

Sta	+	π	-	Elev
		917.71 917.70		

11				12.7
----	--	--	--	------

+50				12.5
-----	--	--	--	------

12				12.3
----	--	--	--	------

+50				12.3
-----	--	--	--	------

+77				12.5
T.P.	9.48	922.28 922.27	4.91	912.80 912.79

13			9.4	12.9
----	--	--	-----	------

13 +07.09 = E 12 th Ave.				12.9
-------------------------------------	--	--	--	------

+37				13.2
-----	--	--	--	------

+61				13.8
-----	--	--	--	------

L

E

E

49 50 52 50 50 50 43 39 1.0 ✓
 50 18 15 8 6 13 30

+58 4.96 55 56 53 55 51 52 54 46 41 41 36 ✓
 600 Floor 50 32 18 16 6 6 8 17 31 50

59 58 57 54 56 50 40 44 45 3.6 ✓
 50 25 16 6 8 15 20 31 50

53 59 55 54 54 48 53 45 ✓
 50 22 7 6 16 28 50

53 6.0 58 54 52 52 53 49 56 50 ✓
 50 37 22 18 7 6 16 20 26 50

provide drainage?

Low

96 104 111 114 112 103 103 98 94 90 86 75 63 51 ✓
 350 300 250 200 150 100 50 28 25 50 100 150 200

10.1 10.0 92 98 90 91 92 89 92 90 87 ✓
 50 36 19 16 6 5 6 15 35 50

9.0 8.9 9.1 8.5 8.8 8.5 8.5 8.7 8.1 8.4 8.5 8.4 ✓
 50 29 20 17 15 5 5 6 18 38 50

Sta	+	π	-	Elev.
		922.28		
		922.27		

14				15.0
----	--	--	--	------

+50				16.5
-----	--	--	--	------

15				17.4
----	--	--	--	------

+50				16.9
-----	--	--	--	------

+80				16.1
-----	--	--	--	------

+97				15.8
-----	--	--	--	------

16 +06				15.9
--------	--	--	--	------

+17				15.7
-----	--	--	--	------

L

E

R

6.8 72 65 73 67 73 72 73 74 67 6.2 62 64 ✓
 50 24 23 20 17 16 7 4 7 16 27 60

45 49 50 47 58 57 58 59 51 45 44 46 ✓
 50 30 21 18 16 7 5 6 14 29 50

47 46 42 49 48 49 50 36 34 37 ✓
 50 32 18 16 5 4 10 25 50

41 36 46 53 52 54 55 42 27 36 ✓
 50 25 17 16 5 5 8 20 50

32 29 36 54 43 60 62 63 46 31 29 39 60. ✓
 50 35 26 18 16 5 6 8 13 19 40

45 43 26 68 63 45 67 55 44 45 43 ✓
 50 42 33 16 6 8 10 18 29 50

67 68 67 72 65 64 69 62 61 62 ✓
 50 33 25 20 6 14 18 35 50

77 74 77 70 46 66 69 68 46 ✓
 50 43 32 18 6 13 26 50

Sta.	+	π	-	Elev
		922.28		
		922.27		

16	+3380 = 8 Long Lake Rd.	6.6	15.7
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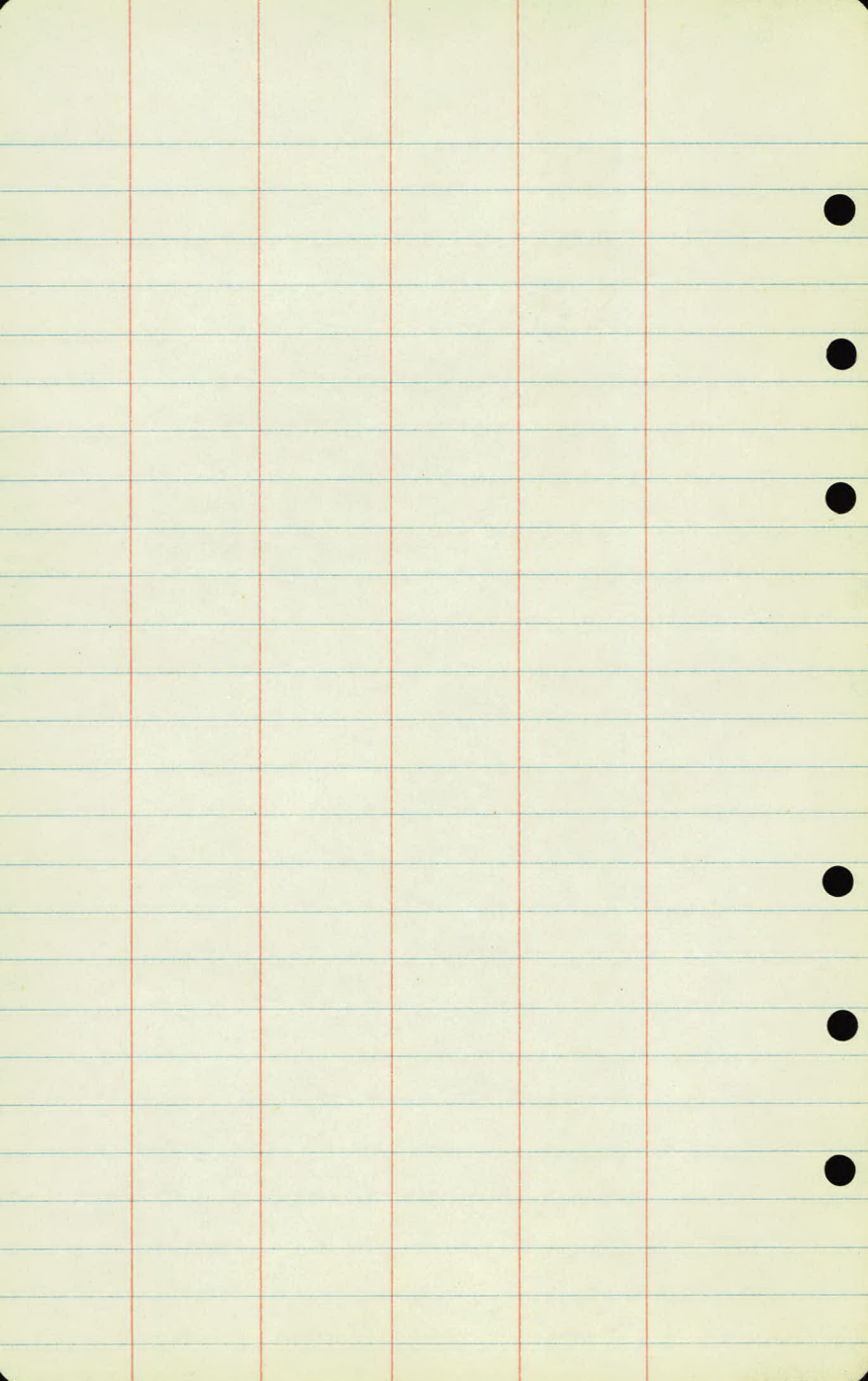
+50.2 = Edge Pav.	6.56	15.72	
		915.11	
B.M.	7.17	915.10	915.08

L

E

E.

Brass Plug P.C. of S.T.H. & Curve 147.4' S. of Wash.
Ave.



BENCH-LEVELS

STA	+	π	-	ELEV	
B.M	6.11	913.25		907.14	
	10.21	921.93	1.53	911.72	
	3.76	925.20	0.49	921.44	
	0.47	913.06	12.61	912.59	
	4.67	904.05	13.68	899.38	
B.M	6.58	904.05	6.58	897.47	(897.45)
	0.83	897.19	7.69	896.36	
B.M	12.50	901.40	8.29	888.90	(888.87)
	13.34	914.48	0.26	901.14	
	8.77	922.96	0.29	914.19	
B.M	5.34	922.96	5.34	917.62	(917.59)
T.P	3.14	915.87	10.23	912.73	
T.P	10.42	922.49	3.80	912.07	
B.M			7.37	915.12	(915.08)

K.A.
A.M.

3-27-47 Windy 130°

18

Top HYDT S.E. COR CEMETARY + LONG LAKE RD.

N END OF Front of
DOOR - SILL HO. S.W. COR 5TH AVE + CEMETARY RD.

P.R.
SPK. IN 24" OAK S.E. COR 5TH AVE + WASHINGTON

P.R. Spk in 24" O N.W. COR 3RD + Washington Ave's.

Brass Plug at P.C. of Curve 167.4' S. of Wash. &
Long Lake Rd.

