

SURVEYS  
MISCELLANEOUS  
F-48  
WALKER TOWER SURVEY

MINING  
TRANSIT BOOK

#120

TUESDAY'S DISTANDING RADIO FEATURES

- RETURN TO -

U.S. FOREST SERVICE,  
WALKER, MINN.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING-  
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

INDEX

Job  
Walker Tower Survey

PAGE  
1-3

Nov. 6 1935

Standard - 7

## SURVEY FOR TOWER LOCATION - WALKER

Survey made with transit and 2 ch. tape. Starting point is corner to secs. 27<sup>22 23</sup> 26 - T142-R.31, established in 1921 by U.S.G.L.O., and marked with a 2" Brass capped pipe. The N. line of Sec. 27 was run, and 1" I.P. was intersected at 4.23 1/2 chs., 19.66 chs., and at 39.26 chs. Intersected U.S. 14 corner. Bearings shown are true bearings by G.L.O.

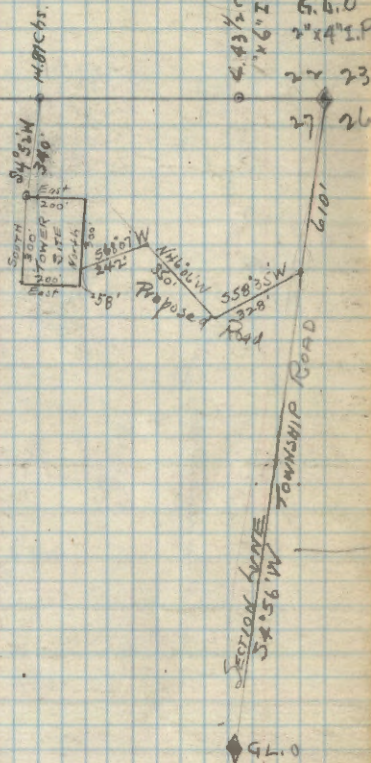
COURSE	CLOSURE OF TOWER SURVEY			
	DIST.	N	S	W
North	300.0	300.0		
N4°56'E	340.0	338.77		28.84
N87°25'E	981.4	44.23		979.63
S4°56'W	610.0		607.74	52.46
S28°31'N	378.0		170.97	279.91
N46°06'W	350.0	242.69		252.19
S68°07'W	240.0		90.70	224.56
South	58.0		58.00	
West	700.0			700.00
Totals		925.69	926.91	1008.47
			1008.47	1009.12

Sec. 27-142-31

39.26 chs.  
G.L.O. Brass Cap  
1" I.P.  
1" I.P.  
1" I.P.

Section Line  
587°25'W

19.66 chs.  
1" I.P.



Sec. 27

SECTION LINE  
34°56'W

G.L.O.



LEVELS FOR WALKER TOWER

Sta	+	H. I.	-	T. P.	Elevation
B.M.	2.01	1468.68			1466.67
	0.11	1456.96		11.83	1456.85
	0.18	1445.38		11.76	1445.20
	1.35	1435.44		11.29	1434.09
	10.80	1446.04		0.20	1435.24
	7.81	1453.62		0.73	1445.81
	6.62	1448.66		11.58	1442.04
B.M.			14.38		1433.28
	11.21	1458.88		1.09	1447.57
	10.95	1467.60		0.23	1458.65
	8.73	1475.93		0.40	1467.20
	3.93	1468.51		11.35	1464.58
	4.03	1460.85		11.69	1456.82
	4.41	1464.76		0.50	1460.35
	11.68	1475.12		1.32	1463.44
	11.32	1486.00		0.44	1474.68
	4.72	1488.91		1.81	1484.19
	10.36	1498.95		0.32	1488.59
			4.80		1494.15
B.M.			4.68		1494.27

Nail in 2" R. Oak - established March 1935 in connection with tower survey, Walker

TRANS. REIN

Top of G.L.O. Sec. Corner 22/23 27/26

Ground Elev. at Tower Site  
Nail in 3" Aspen



Steadland T  
Dec 3- , 1935

5

LEVELS FOR WHIPHOLT TOWER

Sta.	+	H.I.	-	T.P.	Elev.
	11.85	1306.85			1295.0
	11.49	1318.03		0.31	1306.54
	5.50	1323.13		0.40	1317.63
	7.26	1329.91		0.48	1322.65
	4.72	1334.12		0.51	1329.40
	4.55	1327.41		11.26	1322.86
	9.06	1336.31		0.16	1327.25
	5.34	1338.65		3.00	1333.31
	1.85	1337.24		3.26	1335.39
	8.48	1341.02		4.70	1332.54
	11.55	1350.45		2.12	1338.90
	0.65	1345.28		5.82	1344.63
	4.06	1342.26		7.08	1338.20
B.M.			3.79		1338.47
	4.29	1343.97		2.58	1339.68
	8.65	1348.24		4.38	1339.59
	11.09	1358.33		1.00	1347.24
	6.42	1364.63		0.12	1358.21
	6.95	1367.31		4.27	1360.36
	4.94	1367.72		4.53	1362.78
	1.70	1368.21		1.21	1366.51
	3.07	1361.94		9.34	1358.87
	7.94	1367.29		2.59	1359.35
	10.42	1377.71		0.00	1367.29
	0.51	1377.87		0.35	1377.36

Ice level of Leach Lake-

Nail in tel. pole - E. side Road - in marsh



1377.87

	H.I.	T.P.	ELEV.
	6.58 1378.10	6.35	1371.52
	8.17 1378.94	7.33	1370.77
	7.80 1382.55	4.19	1374.75
	10.19 1392.36	0.38	1382.17
B.M.	1.03		1385.33
	0.96 1382.60	10.72	1381.64
	0.14 1371.44	11.30	1371.30
	10.84 1378.44	3.84	1367.60
	6.03 1375.50	8.97	1369.47
	10.96 1386.12	0.34	1375.16
	11.46 1397.44	0.14	1385.98
	11.14 1408.35	0.23	1397.21
	10.95 1419.16	0.14	1408.21
	11.23 1430.38	0.01	1419.15
	11.35 1441.32	0.41	1429.97
	11.66 1452.63	0.35	1440.97
	11.45 1463.29	0.79	1451.84
B.M.	2.74		1460.55
	11.30 1474.01	0.58	1462.71
B.M.	0.05		1472.96
	6.91 1479.87		
	10.22		1469.65
	11.71 1481.36		
	5.9 1481.95		
	11.15 1493.10		

Nail in tel. pole on E. side of Road about  
400' South of corner 16-17-20-21.

Nail in 6" oak in farm yard

Nail in SW corner of old farmhouse in Sec. 21-141-29

~~65 1493.75~~  
~~12.00 1505.75~~  
~~53 1506.28~~  
~~10.99 1517.27~~

B.S.	H.I.	F.S.	H.I.
6.91		.90	3.77
7.17		5.21	4.34
10.56		.54	4.10
9.74		8.66	4.55

5/8 B.S.	H.I.	F.S.	Elev
B.M.			1472.96
6.91	1479.87	.90	
T.P.1			1478.97
7.17	1486.14	5.21	
T.P.2			1480.93
10.56	1491.49	.54	
T.P.3			1490.95
9.74	1500.69	8.66	
T.P.4			1492.03
1.22	1493.25	7.61	
T.P.5 H.			1485.64
11.82	1497.46	.18	
T.P.6			1497.28

Nail in SW Corner of old Farm house  
Sec. 21 141-29

B.S. H.I. F.S. Elev

11.25 1508.53.20

T.P. 7

1508.33

10.41 1518.74 3.11

1515.63

15.15.63 B.M. stake on  
top of hill SW of old  
cabin Pine covered

Starting Point

Sec. 17, 16, 141-29

5 40 chains to <sup>20/21</sup> 1/4 cor

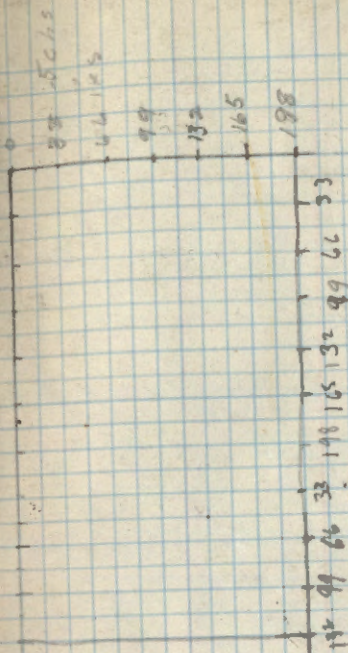
Bear Dist (Transverse to B.M. 1515.63)

531°15'W 7.24

533°20'W 8.44

545°W 10.89

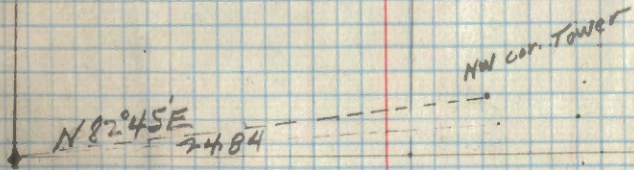
510°30'W .18 B.M. 1515.63



T141 R29

9

1/2 S21.572



Traverse to L.O. Point  
From  $\frac{1}{4}$  21522 141-29

Bearing Dist.

51°E 10.65

535°30'E 19.75 chs

558°15'E 5.85

550°E 10.04

515°E 2.09

B.M. 1545162

	B. S.	H. I.	F. S.	Elev.
				1472.96
	11.51	1484.47	1.05	
T.P. 1				1483.42
	11.84	1495.26	9.00	
T.P. 2				1486.26
	8.12	1494.38	11.39	
T.P. 3				1482.99
	0.13	1483.12	2.05	
T.P. 4				1481.07
	8.50	1489.57	1.81	
T.P. 5				1487.76
	5.99	1493.75	8.40	
T.P. 6				1485.35
	4.30	1489.65	.70	
T.P. 7				1488.95
	2.41	1491.36	9.82	
T.P. 8				1481.54
	7.92	1489.46	.22	
T.P. 9				1489.24
	11.65	1500.89	1.61	
T.P. 10				1499.28
	8.73	1508.01	2.21	
T.P. 11				1505.80

11

Elev at nail in SW corner bldg 521 141-29

E.M. Stake on peak of hill

15,0580

380

150960

~~150960~~

940

150680

1509

8

NW  
98

93 NE

1500

1499

1498

1498

1495

04

05

05

1503

1501

1499

06

05

05

1504

1501

1500

01

04

03

1501

1498

1496

98

1498

1497

1494

1492

TRAVERSE OF TRAIL TO Tower Site

COURSE	DIST	Starting from Longville Grade.
S 2 E	5.54	A.P. 1 in SW part of S. 15-14-29
S 6 3/4 W	3.70	" 2
S 13 3/4 E	1.50	" 3
S 5 1/2 E	6.00	" 4
S 10 E	8.60	" 5
S 14 1/2 E	2.90	" 6
S 3 1/4 E	1.75	" 7
S 4 1/2 W	.92	" 8
S 3 3/4 W	1.30	" 9
S 5 3/4 W	1.70	" 10
S 2 5 W	1.30	" 11
S 1 1/4 W	2.00	" 12
S 3 5 3/4 W	2.40	" 13
S 9 1/2 W	2.30	" 14
S 8 1 1/4 W	1.40	" 15
S 3 7 1/4 W	3.00	" 16
S 3 8 1/2 W	3.10	" 17
S 6 4 1/4 W	2.40	" 18
S 2 4 W	1.30	" 19
S 9 1/2 W	1.20	" 20
S 3 6 1/2 W	1.80	" 21
S 5 1 3/4 W	1.90	" 22 Leave Road
S 1 7 3/4 E	4.00	" 23 To old grade
S 1 9 3/4 W	1.70	" 24
S 1 3 6 1/4 W	2.00	" 25

N	S	E	W
	5.54	.19	
	3.18		.38
	1.46	.36	
	3.65	4.76	
	8.47	1.49	
	2.81	.73	
	1.48	.94	
	.92		.07
	1.06		.75
	1.01		1.37
	1.18		.55
	2.00		.04
	1.95		1.40
	1.27		1.92
	.21		1.38
	2.37		1.84
	2.42		1.93
	1.04		2.16
	1.08		.73
	1.18		.70
	1.44		1.07
	1.17		1.49
	3.81	1.22	
	1.60		.57
	1.61		1.18
	53.91	9.69	19.03



36.71

S15W	2.00	#26	
S16 <sup>3</sup> / <sub>4</sub> E	2.00	#27	
S36E	1.10	#28	
S40E	1.50	#29	
S26 <sup>1</sup> / <sub>2</sub> E	2.40	#30	
S12E	2.40	#31	
S5 <sup>1</sup> / <sub>4</sub> W	4.50	#32	
S17E	1.50	#33	
S1 <sup>1</sup> / <sub>4</sub> W	2.00	#34	
S8 <sup>1</sup> / <sub>2</sub> W	.90	#35	
S18E	1.10	#36	
S56 <sup>3</sup> / <sub>4</sub> E	2.00	#37	
S73 <sup>1</sup> / <sub>2</sub> E	1.80	#38	
S86E	1.60	#39	
S52 <sup>1</sup> / <sub>4</sub> E	1.80	#40	
S32 <sup>1</sup> / <sub>4</sub> E	1.70	#41	
S10 <sup>1</sup> / <sub>2</sub> E	1.70	#42	on Grade
S17W	1.70	#43	leave Grade
S60 <sup>1</sup> / <sub>4</sub> W	1.16	#44	
West	1.30	#45	
N9 <sup>1</sup> / <sub>2</sub> W	.55		To SE cor. Tower Site

36.71

N	S	E	W
	1.93		.52
	1.92	.58	
	.89	.65	
	1.04	1.08	
	2.15	1.07	
	2.35	.50	
	4.48		.41
	1.43	.44	
	2.00		.04
	.89		.13
	1.05	.34	
	1.10	1.67	
	.51	1.72	
	1.12	1.60	
	1.09	1.43	
	1.44	.91	
	1.67	.31	
	1.62		.50
	.57		1.01
			1.30
.54			.09
54	29.25	12.30	4.00
	53.91	9.69	19.03
54	83.16	21.99	23.03
	.54		21.99
	83.62 South		1.04 West

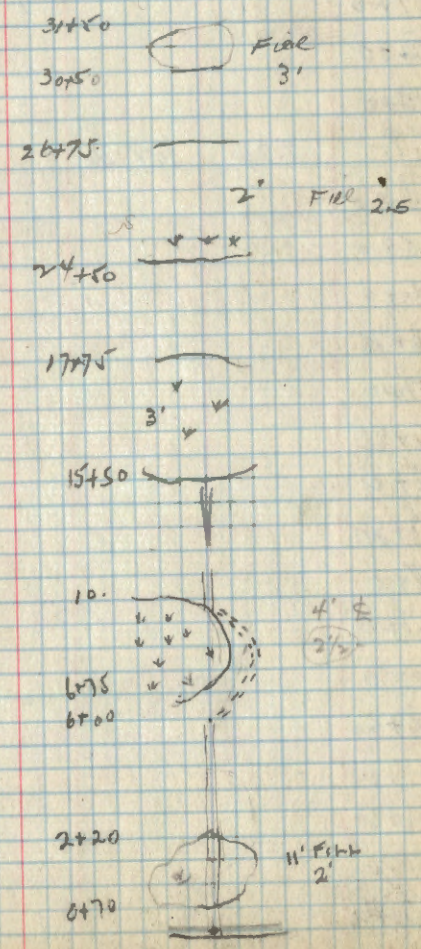
Steadland 7/5/36  
07  
27

N  
|

LEVELS ON CAMA ROAD

Sta	+	H.I.	-	T.P.	Elev.
0+00	6.99	106.99			100.00
1+00					
2+00					
2+50					
3+00					
T.P.(A)	8.90	114.41		1048	105.51
3+50					
4+00					
4+50					
5+0					
T.P.(B)	.26	102.93		11.74	102.67
6+0					
T.P.	4.36	95.70		11.59	91.34
7+0					
8+0					
9+0					
10+0					
T.P.(C)	9.03	102.48		2.25	93.45
11+0					
12+0					
T.P.	4.76	107.11		0.13	102.35
13+0					
13+60					
14+0					
15+0					
T.P.	9.68	105.22		11.57	95.54

☼ Rod.	Elev.
Int. #34 + Camp Road	
9.3	97.7
9.0	98.0
7.1	99.9
2.3	104.7
4.4	110.0
3.9	110.5
3.8	110.6
7.4	107.0
5.0	97.9
10.0	85.7
14.0	81.7
11.4	84.3
6.1	89.6
8.5	94.0
4.8	97.7
5.1	102.0
1.8	105.3
4+00	103.1
9.7	97.4



105.22

T.P.

16+0				
17+0				
18+0				
19+0				
20+0				
21+0				
22+0				
23+0				
T.P.	8.24	102.36	11.10	94.12
24+0				
25+0				
26+0				
26+75				
27+0				
27+50				
28+0				
28+50				
29+0				
29+80				
30+0				
30+60				
31+00				
31+50				
32+0				
32+60				

Red	Elev.
10.5	94.7
11.0	94.2
9.2	95.9
4.8	100.4
3.8	101.4
3.7	101.5
1.9	103.3
9.0	96.2
8.8	93.6
10.8	91.6
11.2	91.2
9.5	92.9
7.2	95.2
2.1	100.3
2.5	99.9
5.8	96.6
6.1	96.3
4.5	97.9
7.1	95.3
12.7	89.7
15.0	87.4
13.5	88.9
7.2	95.2
5.7	96.7

T.P.

33+0				
T.P.	1.20	94.75	9.21	93.05
34+0				
35+0				
35+20				
36+0				
37+0				
37+75				
38+0				
38+80				
39+0				
T.P.	8.73	97.14	10.84	83.41
40+0				
T.P.	10.32	101.67	0.79	91.35
41+0				
42+0				
T.P.	8.05	109.15	0.57	101.10
43+0				
43+60				
44+0				
45+0				
45+50	0.48			
T.P.	0.48	98.95	10.68	98.47
46+0				
47+0				

Rod

Elev.

N53<sup>34</sup>E 200 from 6  
 N1674E 130  
 N4072W 300 to 10+72

10.1	97.3
8.0	86.7
4.5	89.7
3.1	91.1
4.8	89.4
6.7	87.5
6.8	87.4
9.8	84.4
10.6	83.6
12.8	81.4
11.2	80.9
8.9	92.8
5.7	96.0
4.4	104.8
2.0	107.1 @ 44.00 = Co. St
5.0	104.1
10.3	98.8 @ 45.00 Road to Garage
11.3	97.8
3.8	95.1
9.0	89.9

98.75

T.P. 0.37 87.57 11.75 87.20

48+0  
49+0  
50+0  
51+0  
52+0  
52+00

5.14 98.59 93.45

8+0  
7+0  
1+00  
0+00  
0+65  
1+20  
1+0  
2+0=6

Curve from Sta. 6+0 to Sta. 10+72  
Distance = 630'

Rod Elev

4.0 83.6  
6.4 81.7  
11.6 76.0  
17.8 74.8  
12.7 74.9  
13.5 74.0

T.P. (c) see page 15-8

5.3 93.3  
4.7 94.4  
4.9 93.7  
8.6 90.0  
7.9 90.7  
6.7 91.9  
4.3 94.3  
1.7 97.4

March 27-1936 -

Steadland, N.

19

## LEVELS N. line S. 27-142-31

Sta.	+	H.I.	-	T.P.	Elev.
B.M. 0+00	11.12	1444.40			1433.28
1+0			4.14		1440.26
T.P.	11.12	1455.36		0.16	1444.24
2+0			1.49		1453.87
T.P.	11.70	1462.00		0.06	1455.30
2+50			5.10		1461.90
3+0			4.40		1467.60
4+0			2.80		1464.20
T.P.	9.72	1476.32		0.40	1466.60
5+00			2.42		1473.90
6+00			6.92		1469.60
6+50			7.98		1468.34
T.P.	4.84	1469.78		11.38	1464.94
7+0			10.08		1459.70
7+50			11.74		1458.04
8+0			9.58		1460.20
8+50			4.50		1465.28
9+0			6.15		1463.63
T.P.	1.27	1461.01	<del>11.04</del>	10.04	1459.74
B.M.			5.48	<del>5.48</del>	1455.53
10+0			7.33	<del>7.33</del>	1453.68
10+50			10.00		1451.01
T.P.	0.25	1449.66		11.60	1449.44
11+0			5.02		1444.64
11+50			4.70		1444.96

Top of G.L.O. sec. corner  $\frac{22}{23}$   
 $\frac{29}{26}$  T142-R31

Nail in 3" Birch - 10' S, + 99' West of Sec corner  
 Top of stake - 99.4' West of Sec corner

March 27-1936

20

Stoddland  $\pi$ 

Sta.	+	H.I.	-	T.P.	Elev
		1449.66			
1740			10.70		1438.96
T.P.	0.85	1439.81		10.70	1438.96
12+97.56			9.27		1430.54
B.M.			8.98		1430.83

Top of  $\frac{3}{4}$  I.P. - E 1/16 Cor. Secs 22 + 27 - T142 R31

MARCH 30, 1926

STEADHAND

21

## PROFILES OF TOWER ROAD (WALKER)

Sta.	+	H.I.	-	T.P.	Elev.
B.M.	3.32	1497.59			1494.27
<del>15+20</del>	0.64	1486.49		11.74	1485.85
18+20			2.40		1484.09
18+0			2.69		1483.80
17+0			9.43		1477.06
T.P.	2.90	1477.66		11.73	1474.76
16+0			5.20		1472.46
15+50			5.40		1472.26
15+0			11.82		1465.84
T.P.	1.04	1468.24		10.46	1467.20
14+30			6.30		1461.94
T.P.	0.42	1457.44		11.22	1457.02
14+0			2.10		1455.34
13+75			10.72		1446.72
13+0			7.41		1450.03
T.P.	2.75	1459.61		0.08	1457.36
12+50			3.70		1456.41
12+0			3.31		1456.30
11+64.5			6.10		1453.51
11+0			10.80		1448.81
10+50			10.30		1449.31
T.P.	0.84	1449.24	<del>1449.24</del>	11.21	1448.40
10+0			7.80		1441.44
9+50			7.50		1441.74
9+0			9.90		1439.34

Nail in 3" Aspen at Tower Site. (See Page 3)



Sta	r	H.I.	-	T.P	Elev
T.P.	1.48	1439.78		10.94	1438.30
8+30			5.80		1433.98
8+0			10.30		1429.48
T.P.	4.18	1433.45		10.51	1429.27
7+70			8.70		1425.75
7+0			3.60		1429.85
6+75			5.00		1428.45
6+50			11.10		1422.35
T.P.	0.61	1423.54		10.52	1422.93
6+0			4.80		1418.74
5+75			8.80		1414.74
TR	0.92	1412.71		11.75	1411.79
5+0			2.50		1410.21
4+0			6.60		1406.11
3+0			9.40		1403.31
T.P.	2.00	1403.65		11.06	1401.65
2+0			3.60		1400.05
1+0			7.30		1396.35
0+0			11.00		1392.65

APRIL - 28 - 1936 -

Line to Tower, WALKER

S 0° 11' N

From Tower

- N 17° 32' E 1/2 Mile Burner
- N 58° 18' E N 58° 20' E Water Tank - Onquin
- N 38° 15' W " " - Lanna Farms
- S 18° 42' E 18° 43' Smoke Stake - State Saw
- S 32° 15' W Water Tank - West of Golf Course
- S 63° 39' E East end gable - Fishers Barn
- N 2° 52' E X on Catholic Church
- N 20° 34' W East end of First Point
- N 36° 45' E " " Pine Point
- N 58° 36' W KABEKONA TOWER
- S 76° 57' W NEVIS "
- S 18° 58' E S 18° 59' E BIRCH WAKE "
- S 49° 24' E E. end of F. J. Guage - F-48
- N 88° 44' W Mantook

CUBA 16° 05' ?  
16° 14' ?

Nice Cross N 1° 10' W

Visibility points

- N Cut on Highway 371 8 miles
- 8 Miles - N 14° 46' W
- School House, S 94° 4' W
- Pt. - N 6° 9' E 5 1/2 miles
- Cottage at Ojibway
- Red roof N 10° 42' E 2 1/2 miles
- Clump of trees Middle of Pelican Island
- N 82° 15' E 9 miles
- Field S 72° 12' E 4 - \* miles
- Barn sec. 25, 142-31
- S 67° 2' E 2 Miles
- Old Church at Agency
- N 70° 49' E 4 miles
- White House near Allen's Resort
- S 38° 26' E 2 miles
- North end of Bear Island 13 miles
- N 72° 21' E
- Roof of Barn 4 miles
- S 18° 36' E
- Roof of Barn at Sun. 1 1/2 miles
- S 9° 28' E.
- House on Highway 34 2 miles
- S 28° 11' W

House To right of TANK  
stand 3 1/2 miles S

S 53° 3' W

Gruber's Barn 2 1/2 miles

S 79° 53' W

Barn roof

8 1/2 miles

N 46° 54' W

May 4 - 1936 -

From E line S. 27 - Set stake N. 3 chs

from corner 76. 27. 22. 23.

From this point the tower  
bears S 42° 59' W

## TRAVERSE KNUTSON DAM C.G.

Va T°

From Knutson Dam.

West 294.0

S 11° W 300.0

S 16 3/4 W 300.00

S 24 1/2 W ~~200.00~~  
196.0

S 75 1/4 E 275.0

N 49 3/4 E 180.0

N 78 E 250.0 X

N 10 W 200.0

~~to Road N 50 W 575 E~~

N 35 3/4 E 250.0

N 52 1/4 W 295.0

N 35 1/4 E 81.0 along dam to pt. at beginning.

From 1/4 21422 - T146 - R 30

N 70 W 550.0 - Y on loop

N 5 1/4 W 370.0

N 35 1/2 W 251.0 To Angle Pt. marked X above

## TRAVERSE OILWAY CAMP GROUND

From NK  $\frac{18}{19}$  145-30S23 $\frac{1}{2}$ E 565.0 to ~~NE~~ corner camp ground

## TRAVERSE CAMP GROUND

S44 $\frac{1}{2}$ E 480.0 along fire lineN74E 201.0 to  $\frac{1}{2}$  Pike Bay Loop

N21W 65.0 Along loop

N51 $\frac{1}{2}$ E 150.0 " fire lineN18 $\frac{1}{2}$ E 80.0 " " "N34 $\frac{1}{2}$ W 65.0 " " "N71W 194.0 to  $\frac{1}{2}$  LoopN13 $\frac{1}{2}$ rd 120.0 Along loop

S75W 197.0 Along fire line to NW corner

NORWAY BEAR CAMP GROUNDS

From MC 17+18 - T145 R30

S79 $\frac{1}{2}$ W 300.0

S70 $\frac{1}{2}$ W 297.0

S26 $\frac{1}{4}$ W 198.0 to S.E.R. stake

From MC 17+18 - T145 R30

N69E 300.0 ✓

N71 $\frac{1}{2}$ E 238.0 ✓ to NW cor. Lot 18 - Home sites.

S30 $\frac{1}{2}$ E 230.0 ✓

~~N27 $\frac{1}{2}$ W~~ " " " " " "

N67 $\frac{1}{4}$ E 125.0 ✓ along loop

N56 $\frac{1}{2}$ E 200.0 ✓

N66 $\frac{1}{2}$ E 206.0 ✓

N46E 200.0 ✓

N53E 292.0 ✓

S35E 400.0 ✓ @ 1800 fire breaks

S50N 1000 to fire line

S77 $\frac{1}{4}$ W 170.0 along " " S77 $\frac{1}{2}$ W

N87 $\frac{1}{4}$ W 250.0 " " " " N87 $\frac{1}{2}$ W

S45 $\frac{1}{4}$ W 190.0 S52W S44 $\frac{1}{4}$ W 100.0

S58 $\frac{1}{2}$ W 350.0 150.0

S70 $\frac{3}{4}$ W 200.0 2nd line on old P.R. grade - ~~N37W~~

N87 $\frac{1}{2}$ W 400.0

~~N22W~~ 100.0 N27 $\frac{1}{2}$ W

~~N31 $\frac{1}{4}$ W~~ 200.0 N32 $\frac{1}{2}$ W

N27 $\frac{1}{2}$ W 205.0 @ 180  $\pm$  Loop to Stake S.E.R. -



SURVEY May 5-1936

OFFICERS LOTS S. 34  
T. 144  
R. 31

29

N38 1/2 W

Lot 1 -	Cabin	75
" 2	<del>Cabin</del>	75
" 3	No	75
" 4	No	75
" 5	Cabin	75
" 6	Cabin	85
N45 1/2 W		
Lot 7	"	100
Lot 8	"	115
Lot 9	"	115

Lot 1 -	S side -	S51 1/2 W	94
Lot 2	S	"	88
Lot 3	"	"	74
" 4	"	"	74
" 5	"	"	113
" 6	"	"	170
" 7	"	"	220 - 30' to 1/2 wood
" 8	"	S44 1/2 W	220 - 47'
" 9	"	"	220 - 71'
" 9	N	"	220 - 91'

S14 E  
20'

Lot 1 -	N34 W	74.5
Lot 2 -	N48 1/2 W	76.3
" 3	N39 1/2 W	74.5
" 4	N66 W	84.5
" 5	N72 W	88.0
" 6	N66 1/2 W	95.5
" 7	N47 W	74.5
" 8	N45 1/2 W	115.0
" 9	"	115.0

Private Road from  
Loop at SW corner  
Lot 6

from SW corner Lot 9  
West 164.0  
South 677.0 to N W 1/4 S. 34 - T 144 R 31



# SURVEY OF STONY POINT CAMPGROUND

From M.C.  $\frac{3}{10}$  T142N, R30W

North	70.0	API	
N65°W	600.0	" 2	Along sea wall - Willow Rocky
N55 $\frac{3}{4}$ W	201.0	" 3	End of 1935 Thinning
N38 $\frac{1}{2}$ W	175.0	" 4	
N51W	107.0	" 5	
N29 $\frac{1}{2}$ W	145.0	" 6	
S25 $\frac{1}{2}$ W	136.0	" 7	
S63 $\frac{1}{2}$ W	250.0	" 8	
S76 $\frac{1}{2}$ W	175.0	" 9	
N75 $\frac{3}{4}$ W	166.0	" 10	
S69 $\frac{3}{4}$ W	54.0	" 11	
S32 $\frac{3}{4}$ W	134.0		to Stake 9 chs. N31 $\frac{3}{4}$ ° E of M.C. $\frac{3}{10}$
S31 $\frac{3}{4}$ W	429.0		to G.L.O. - M.C. API S.3. T142N R30W
S31 $\frac{3}{4}$ W	165.0		to " M.C. $\frac{3}{10}$ T142N R30W
N82E East	165.0		to $\frac{1}{4}$ S. $\frac{3}{10}$
N88E	540.0	API	to turnaround - trail - 30' Radius
S42 $\frac{3}{4}$ E	148.0		Along trail
N89°E	420.0		"
N83 $\frac{1}{2}$ E	130.0		"
S85E	150.0		"
S55E	107.0		North branch - S80E 104.0
S43 $\frac{3}{4}$ E	106.0		to Y -
S5 $\frac{3}{4}$ W	118.0		Along S.Y. to center line Stony Pt. Tr. Tr. Trail hrs
S61E	250.0	API	to N.W. corner Lot 1 - 52 $\frac{3}{4}$ W
N25 $\frac{1}{4}$ E	200.0	API	@ 174.0 NE corner Lot 1.

C. Steadland, T

May 11, 1935

30

WC API

T142N  
R30W  
S3  
1920 = 165.0' N31 $\frac{3}{4}$ ° E  
of M.C.  $\frac{3}{10}$

Survey of Stone Point Camp Ground

N36 $\frac{1}{2}$ E 200.0 A.P.P.  
 N49 $\frac{1}{2}$ E 187.0 " 4  
 S68E 135.0 " 5  
 N34 $\frac{3}{4}$ E 125.0 " 6  
 N75W 402.0 To A.P.P. - pt. of beginning

From M.C. 3+10 - (East of (4 3+10))

S62W 200.0 Pt. "A"

From Point "A"

N89E 50.0 Pump.  
 N2 $\frac{1}{2}$ W 80.0 Double fireplace  
 S5E 110.0 Single fireplace  
 S33 $\frac{1}{2}$ W 172.0 Council Ring  
 S87 $\frac{3}{4}$ W 211.0 Toilet  
 S78W 187.0 Refuse Pit  
 S70 $\frac{3}{4}$ W 219.0 Toilet  
 S79 $\frac{3}{4}$ W 388.0 to NW corner lot 1 - Stone Pt. Group  
 S57 $\frac{3}{4}$ W 130.0 Center of turn around 30' Radius.

From Center Turn Around - ~~20~~

S83 $\frac{1}{2}$ E 85.0 Along Service Road  
 N66 $\frac{1}{2}$ E 73.0  
 N34 $\frac{1}{4}$ E 83.0  
 N40 $\frac{1}{2}$ W 57.0  
 S72 $\frac{3}{4}$ W 116.0 to Y - 530W - to Turn Around  
 N30E 50.0  
 N27 $\frac{1}{4}$ W 48.0

STONY POINT CAMP GROUND

N82½W 65.0  
S25W 85.0  
S10E to turnaround

From NW corner Lot 1, Stony Point Group

N83½W  
45.0 Stony Pt. Truck Trail  
1599.0 Intersect Re-est. Meander Line  
at point 155.0' S24¾E of MC  $\frac{3}{10}$

From MC  $\frac{3}{10}$  (E. of ¼)

Traverse of timber line

N83W 300.0 A.P. 1  
N51W 110.0 " 2  
S80½W 200.0 " 3 From A.P. 3 →  
N67½W 143.0 " 4  
N14½W 250.0 " 5  
S73W 100.0 " 6  
N85W 300.0 " 7  
N82W 450.0 " 8  
S41¼W 213.0 " 9  
S48½W 121.0 to Re-est. Meander Line - 5 chs. NE of MC

End of Stony Point

Water 1' deep  
Row rocks on S. & E. sides.  
Rocks + Ridge at +1' on N. side  
this fill approx. 60' x 125'

Low Area SW of above - 30' x 250'

N 18E 90.0 to low spot - Cat tails

Traverse of low spot

N62½W 62.0  
N16¼W 173.0 Willow + small Aspen west of low area  
N42½E 20.0  
S60E 200.0  
S17E 80.0  
S75W 106.0

TOPOG. MAP. TOWER SITE (Walker) 33  
C. STEADLAND, T.  
July 1-1936

Line E from SE corner Tower Site.

	T	H.I.	-	T.P.	Elev
BM	.70	1479.70			1479.0
0+50			4.7		1475.0
T.P. 1+00	1.50	1472.70	8.5		1471.2
T.P. 1+50	.00	1462.4	10.3		1462.4
1+75			5.4		1457.0
2+00			4.4		1458.0
T.P. 2+50	1.2	1454.2	9.4		1453.0
3+00			9.0		1445.2
3+50			5.2		1449.0

Line S from SE corner

BM	4.0	1483.0			1479.0
0+50			5.0		1478.0
T.P. 1+00	3.00	1478.2	7.8		1475.2
1+50			5.2		1473.0
2+00			7.1		1471.1

Line from SE corner along til. line N38°E

B.M.	2.4	1481.4			1479.0
0+50			3.4		1478.0
1+00			3.4		1478.0
1+50			6.0		1475.4
2+00			9.4		1472.0
2+50			12.4		1469.0
T.P. 3+00	3.2	1478.6	6.0		1475.4
3+50			6.2		1472.4
4+00			8.2		1470.4
4+50			10.6		1468.0

Ground Level - SE corner 200 x 200 Tower Site

Topog. SURVEY — WALKER TOWER

July 1-1936

34

	+	H.I.	-	TP	Elev
T.P.	1.5	1469.5		10.6	1468.0
5+0			6.5	<del>6</del>	1464.0
5+50			5.8		1463.7
<del>5+0</del> 6+0	7.4	1469.7	7.2		1462.3
6+50			9.3		1460.4
7+0			7.9		1462.0
7+50			4.5		1465.2
8+0			6.4		1463.3

Line E. from 100' N. of S.E. corner

B.M.	<del>7.3</del>	<del>1469.5</del> 1469.3		<del>1482.8</del> 1482.0	Ground level 100' N. of S.E. corner
0+50			<del>4.5</del> 4.3	1479.0 +28	1486.8
T.P. 1+0	0.2	1472.9	10.6	1472.7 +28	1478.5
1+50			4.5	1468.4 +28	1471.2
T.P. 1+75	1.9	1467.3	7.5	1465.4 +28	1468.2
2+0			6.6	1460.7 +28	1463.5
T.P. 2+20	0.8	1456.9	11.2	1456.1 +28	1458.9
2+50			3.2	1453.7 +28	1456.5
3+0			5.6	1451.3 +28	1454.1
3+50			5.8	1451.1 +28	1453.9

## TOPOG. SURVEY - WALKER TOWER

Line E. from 100' S. of NE corner

	+	HI	-	Elev.	Ground Elev. 200' N of SE corner
B.M.	8.5	1484.5		1476.0	
0+50			3.3	1481.2	
T.P. 1+0	0.8	1478.5	6.8	1477.7	
1+50			9.9	1468.6	
2+0	4.8	1478.5	4.8	1473.7	
2+75			2.9	1475.6	
2+50			4.2	1474.3	
T.P.	0.6	1468.9	70.2	1468.3	
3+0			3.4	1465.5	
3+30			10.2	1458.7	
3+50			14.5	1454.4	

Line <sup>East</sup> from NE corner Tower Site

				Elev.	Ground Elev. at NE corner
B.M.	7.5	1477.5		1475.0	
0+50			4.1	1473.4	
1+0			4.3	1473.2	
T.P. 1+50	2.2	1477.5	2.2	1475.3	
2+0			3.5	1474.0	
T.P. 2+50	1.6	1471.6	7.5	1470.0	
3+0			4.6	1467.0	
3+50			4.6	1467.0	

Line N. from NE corner,

				Elev.	Ground Elev. N.E. corner
B.M.	1.1	1476.1		1475.0	
T.P. 0+50	0.6	1466.3	10.4	1465.7	
T.P. <del>0+40</del>	6.5	1461.2	11.6	1454.7	
0+90			9.5	1451.7	
T.P. 1+0			9.8	1451.4	

TOPOG. SURVEY - WALKER TOWER

July 1, 1936

36

H.I.

T.P. 1+50	7.5	1465.6	3.1	1458.1
T.P. 2+0	4.0	1467.3	2.3	1463.3
2+50			5.0	1462.3
T.P. 3+0	5.9	1464.5	8.7	1458.6
3+50			4.6	1459.9

North line from 100' E. of NE corner

Ground Elev. 100' E. of NE corner

B.M.	7.3	1475.5		1473.2
0+50			4.6	1470.9
0+75			8.9	1466.6
T.P. 1+0	4.9	1470.8	9.6	1465.9
1+50			4.1	1466.7
2+0			5.4	1465.4
2+50			4.6	1466.2
T.P. 3+0	7.3	1466.9	6.2	1464.6
3+50			7.4	1459.5

Line along road - from 0+58 N. of SE corner

Gr. El. 1+50 along top line

Gr. El. 50' N. of SE corner

B.M.	4.2	1485.2		1481.0
0+0			3.0	1475.4
0+50			4.6	1482.2
				1480.6
1+0			8.8	1476.4
T.P. 1+50	2.2	1474.1	13.3	1471.9
2+0			3.8	1470.3
2+40 = P.I.			4.4	1469.7
T.P. Along Road	0.4	1463.1	11.4	1462.7
0+50			4.3	1458.8
1+0			8.4	1454.7
1+50			7.9	1455.2
2+0			10.7	1452.4

Topog. Survey - Walker Tower

July 1-1926

37

Line N. from 200' E of NE corner

BM.	H <sub>2</sub>	H <sub>1</sub>	Elev.	Gr. Elev. 200' E. of NE corner
	2.7	1476.7	1474.0	
0+50			4.0	1472.7
1+0			7.1	1469.6
1+75			6.8	1469.9
T.P. 1+50	7.2	1479.6	4.3	1472.4
2+0			3.6	1476.0
2+50			5.6	1474.0
T.P. 3+0	3.5	1474.6	8.5	1471.1
3+50			5.1	1469.5

Line N. from 300' E of NE corner

BM.	H <sub>2</sub>	H <sub>1</sub>	Elev.	Gr. Elev. at 300' E. of NE corner
	7.3	1469.3	1467.0	
0+50			4.3	1465.0
T.P. 1+0	8.2	1475.1	2.5	1466.8
1+50			5.6	1469.5
2+0			4.3	1470.8
T.P. 2+50	6.3	1479.1	2.6	1472.5
3+0			5.1	1474.0
3+50			4.1	1475.0



TOPOG. SURVEY - WALKER TOWER

Line	N. from 100' E. of NW corner	H.I.	Elev.	Gr. Elev. 100' E. of NW corner
B.M.	1.70	1477.7	1476.0	
0+50			8.7	1469.0
T.P.	0.5	1466.5	11.7	1466.0 ← T.P.
T.P.	4.9	1460.4	11.0	1455.5
1+15			8.0	1452.4
1+50			4.7	1455.7
T.P.	10.3	1470.3	0.4	1460.0 ←
2+0			6.6	1463.7
T.P.	2.2	1471.0	1.5	1468.8
3+0			4.3	1466.7
3+50			8.7	1462.3

Line N. from NW corner

Line	N. from NW corner	H.I.	Elev.	Gr. Elev. at NW corner
B.M.	1.1	1479.1		1478.0
T.P.	0+50	1470.0	10.5	1468.6
T.P.	1+0	1460.9	9.4	1460.6
1+50			9.6	1451.3
T.P.	1+75	1457.6	12.0	1448.9
2+0			6.4	1451.2
T.P.	4.7	1461.8	.5	1459.1 ← T.P.
2+50			4.0	1457.1
3+0			4.7	1457.1
3+50			9.6	1452.2

July 1-1936  
2-1936

## TOPOG. SURVEY WALKER TOWER

West from NW corner		H.I.		Elev	NW corner
B.M.	0.5	1478.5		1478.0	1478.0
T.P. 0+50	3.6	1472.9	9.2	1469.3	
T.P. 1+0	1.3	1466.2	8.0	1464.9	
1+50			4.8	1461.4	
2+0			6.4	1459.8	

## N. from 100' W. of NW corner

					Gr. elev. at 100' W. of NW corner
B.M.	1.1	1466.0		1464.9	
0+50			7.3	1458.7	
T.P. 1+0	1.7	1456.9	10.8	1455.2	
T.P.	.9	1446.5	11.3	1445.6	← T.P.
1+50			4.0	1442.5	
2+0			7.0	1439.5	
T.P. 2+50	5.6	1448.7	3.4	1443.1	
3+0			5.4	1443.3	
3+35			4.9	1443.8	
3+50			3.2	1445.5	

TOPOG. SURVEY - WALKER TOWER

July 2-1936

40

line N. from 200' W. of NW corner

B.M.	+ H <sub>2</sub>	- Elev	Graving elev 200' W of NW corner
	1.4	1461.2	1459.8
0+50		8.6	1452.6
T.P.	1.6	1451.5	1449.9 T.P.
1+0		6.1	1445.4
T.P.	<del>1.9</del> 2.0	1441.6	1439.6
1+50		5.5	1436.1
2+0		2.7	1432.9
T.P.			
2+50	6.4	1440.4	1434.0
3+0		4.6	1435.8
3+30		2.9	1437.5
3+50		2.0	1438.4

South from 200' W. of NW corner

B.M.	6.5	1466.3	1459.8
0+50			6.0 1460.3
T.P.			
1+0	4.5	1470.1	.7 1465.6
1+50			3.2 1466.9
2+0			4.5 1465.6
2+50			6.5 1463.6
3+0			4.6 1465.5
T.P.			
3+50	9.3	1476.2	3.2 1466.9
4+0			7.6 1468.6
T.P.			
4+50	5.2	1479.4	2.0 1474.2
5+0			2.8 1476.6

TOPOG. SURVEY - WALKER TOWER

Line E. from 200' W + 400' S. of NW corner

B.M.	<sup>T</sup> 8.7	<sup>H.I.</sup> 1477.3	Elev.	Ground Elev.	
			1468.6	400' S. + 200' W. of NW	corner
0+50			6.1	1471.2	
<sup>T.P.</sup> 1+0	10.2	1486.2	1.3	1476.0	
<sup>T.P.</sup> 1+50	7.6	1492.3	1.5	1484.7	
2+0			4.4	1487.9	
<sup>T.P.</sup> 2+50	4.1	1489.8	8.6	1483.7	
3+0			2.3	1485.5	
3+50			5.6	1482.2	
<sup>T.P.</sup> 4+0	2.6	1478.2	12.2	1475.6	
4+50			3.2	1475.0	
<sup>T.P.</sup> 5+0	0.10	1467.8	10.5	1467.7	
5+50			6.5	1461.3	
<sup>T.P.</sup> 6+0	1.3	1462.5	6.6	1461.2	
6+50			7.8	1454.7	
7+0			9.9	1452.6	
7+50			15.9	1446.6	x approx.

July 2-1936.  
Steadland K

Topog. Survey - WALKER TOWER

July 2-1936

42

Line E. from 200' W. + 500' S. of NW corner

B.M.	Dist.	Elev.	Ground elev. at 500' S + 200' West
	9.5	1486.1	1476.6
0+50		5.2	1480.9
1+0		4.3	1481.8
1+50		5.6	1480.5
2+0		4.9	1481.2
T.P. 2+50	2.0	1482.7	5.4
3+0		3.8	1478.9
T.P. 3+50	1.8	1477.4	7.1
4+0		5.6	1471.8
T.P. 4+50	3.6	1469.7	11.3
5+0		4.5	1465.2
T.P. 5+50	1.2	1461.5	9.4
T.P. 6+0	1.6	1456.1	7.0
6+50		4.5	1451.6
7+0		6.0	1450.1

708

6.90  
6.70  
6.45  
6.51

..... H G F E D C B A

TOPOGRAPHY SURVEY - WALKER, R.S.

3/19/1937

Line from & Hy	St. along E. side	Factory	Street
B.M.	+	HI.	Elev.
6.79	1321.79		1315.00
6.90		7.34	1314.45
6+80		14.0	1307.79
6+45		11.7	1310.09
6+50		5.63	1316.16
6+0		4.15	1317.64
5+50		3.07	1318.72
T.P.			
5+0	14.01	1332.48	1320.47
4+50		9.74	1322.74
4+0		6.72	1325.76
3+50		3.20	1329.88
T.P.	11.71	1342.54	1330.83
			1.65
3+0		9.00	1330.54
2+50	14.22	1349.61	1327.57
2+0		6.55	1343.06
T.P.	11.85	1357.85	1346.03
			3.58
1+50		6.98	1350.90
T.P.	11.66	1365.25	1353.59
			4.29
1+0		3.03	1362.22
T.P.	11.18	1373.64	1362.46
			2.79
0+50	12.13	1382.04	1369.91
T.P.			3.75
			0.48
			1381.56

Hy. at Factory St. - 7+08 from SW corner  
 Shoulder of Hy.  
 Bottom of slope

~~Force of Hy. at 4+0  
 r. at 355.5  
 Force at 706.0~~

Top of Snow at SW corner Block 8  
 is 2.2 ft higher = 1283.56

March 22, 1937

45

Sta.	Line from	hty. 100' E - R	T.P.	
B.M.	13.75	1378.75		1315.00
B.M.			12.77	1315.48
6+70			12.77	1315.48
6+59			17.0	1311.25
6+37			12.8	1315.45
6+15			6.5	1321.75
6+0			3.0	1325.75
T.P.				1327.50
5+50	12.17	1339.67	0.75	1330.87
5+0			8.80	1333.27
4+50			6.4	1334.07
4+0			7.6	1335.67
3+50			4.0	1335.67
T.P.	8.12	1340.79	4.0	1339.09
3+0			4.7	

B.M. & Hgt. of 100' E.



March 27/1937

46

Line from H.Hy  
H.I.200' L. - Run S  
T.P.

1325.75

Start at 670 on line 100 ft. East

BM. 12.12 1337.29

6+15 2.7 1334.67

6+12 2.0 1335.37

6+0 4.8 1322.59

5+50 4.7 1322.67

5+0 0.25 1327.12

T.P. 5.08 1342.70 0.25 1337.12

4+50 6.1 1336.1

4+0 8.0 1324.12

3+50 8.35 1333.85

3+0 7.2 1335.0

March 22, 1937

47

Line from 4-300' to Run S.

BM	6.27	1343.39		1337.12
6+0		10.9		1332.49
5+50		8.8		1324.59
5+0		6.2		1337.19
4+50		9.4		1333.99
4+0		13.80		1329.59
TP	6.2	1335.79	13.80	1329.69
3+50		7.4		1328.39
3+0		10.1		1325.69

Check at Sta 5+0 on line 200' E.

# Check Levels - W. Line

March 27, 1937

48

Sta	+	4I.	-	
B.M	12.85	1327.85		1315.00
6+0			9.9	1317.95
5+50			8.3	1319.65
5+0			5.9	1321.95
4+50			4.0	1325.85
4+0			1.5	1326.35
T.P.	15.95	1342.30	1.50	1326.35
3+50			11.8	1330.50
3+0			7.4	1334.9
2+5			3.5	1338.8
T.P.	14.98	1354.82	2.45	1339.85
2+0			10.3	1344.53
1+50			2.9	1351.93
T.P.	14.47	1366.40	2.90	1451.93
1+0			2.7	1363.7
T.P.	14.37	1378.02	2.75	1363.65
0+50			6.0	1372.02
T.P.	14.96	1390.84	2.24	1375.88
B.M			4.50	1386.34

Top of iron pin at S.W. corner Block 5

Line S. at 400 E - from 2 Hy

BM	6.84	HT 1322.32	-	1315.48
BM			5.60	1316.72
BM			4.92	1317.40
B.M	14.94	1332.32	4.94	1317.38
5+87			5.0	1327.32
5+50			3.6	1328.72
4+0			6.5	1325.82
4+50			11.70	1320.62
T.P.	3.33	1323.95		11.70 1320.62
4+0			8.7	1315.75
2+50			13.3	1310.65
3+0			7.5	1316.45

2/2/1937

32.5  
10.5  
21.8

6.7  
1017.3

49

2 Hy at 100' E.  
 2 Hy at 200 E  
 2 " " 300 E  
 2 " " 400 E

Line A. at 500' E.

+ HI  
2.69 1324.07

PM

PM

2.53

1317.38

9.1

1318.54

10.6

1311.97

13.4

1310.49

15.0

1307.67

13.5

1306.07

4.3

1307.57

T.P. 15.26 1332.05

4.28

1316.77

1316.79

7.60

1314.45

3.50

1328.55

T.P. 8.85 1337.40

3.50

1328.55

3.0

1334.40

3/21/1937

50

to Hy at 400' E.

to Hy at 500' E.

to of slope

34.  
35  
—  
85

to all road

Line B. at 600 £ - from £ Hy.

H.S.

8M	2.48	1321.02		1318.54
8M			1.84	1319.18
5+58			2.1	1317.92
5+35			14.5	1305.54
T.P.	15.25	1321.03		1305.78
5+20			17.0	1304.03
5+0			12.3	1308.93
T.P.	14.62	1335.00		1320.38
4+50			14.40	1310.60
T.P. 4+0	12.83	1347.58		1334.75
3+50			7.3	1340.28
3+0			2.5	1345.08

3/21/1937

51

£ at 500 £.  
£ at 600 £.

Line of Block 5

B.M.	13.31	1332.49		1319.18
B.M.			11.21	1321.28
<del>5+42</del>			15.6	1316.89
5+0			10.4	1322.09
4+50			2.1	1330.39
T.P.	14.75	1346.43	0.81	1331.68
4+0			8.2	1338.23
3+50			4.0	1342.43
3+0			0.8	1345.63

3/22/1937

52

4 My at 600 E.  
 4 My at 700 E.  
 200 of slope

Topog. Survey  
Onigium G.S.

	BS	HI	FS	Elev.	
Sta.	+		-		
A	2.3	102.3	7.0	95.3	Sta. 1
I	2.3	97.6	8.0	89.6	H
H	4.4	94.0	3.0	91.0	G
G	6.8	97.8	3.9	93.9	F
F	7.7	101.6	1.3	100.3	F
E	4.2	104.5	11.7	92.8	D
D	6.3	99.1	1.3	97.8	C 1+50
C 1+50	12.2	110.0	2.0	108.0	C
C	3.3	111.3	3.2	108.1	B
B	2.1	110.2	8.8	101.4	A 1+50
A 1+50	2.3	103.7	3.2	100.5	A 0+50

From BS HI FS

A 0+50 Along line 1

A 0+50	1.2	101.7	8.6	93.1	Station
1+00	5.4	98.5	6.0	92.5	2+00
2+00	2.3	94.8	5.6	89.2	3+00

From

G 91.0	6.3	97.3	3.0	94.3	4+00 (L-2)
G		94.3	6.6	87.7	3+00 (L-2)
3+00 (L-2)	8.3	96.0	5.0	91.0	1+90 (L-2)
1+90	4.4	95.4	4.9	90.5	1+00 (L-2)

Assumed elev. Sta A 100'



Sta	BS +	HI	FS -	El.	
1+00(L-2)	7.9	98.4	2.4	96.0	A1+00

From					
<sup>101.4</sup> A1+50	3.0	104.4	7.2	97.2	1+00(L-3)
1+00	3.3	100.5	7.0	93.5	2+00(L-3)
2+00(L-3)	4.5	98.0	4.9	93.1	3+00(L-3)
3+00(L-3)	6.3	99.4	5.3	94.1	4+00(L-3)

From					
<sup>97.8</sup> C1+50	5.0	102.8	5.4	97.4	2+00(L-4)
2+00	5.4	102.8	3.3	99.5	1+00(L-4)
<sup>1+00</sup> <del>100</del>	9.8	109.3	4.7	104.6	A2+00

A2+00	4.7	109.3	8.2	101.1	1+00(L-5)
A2+00	4.7	109.3	7.6	101.7	0+00(L-6)

90.5

On line 3 going 5

Whipholt Tower -

East line Sec. 20-141-29

$N 0^{\circ} 37' E$

Res line -  $N 76^{\circ} 55' W$  -

## Traverse of Extension of T. 918

Bear. Dist.	A.P.	
N39°W 122	#1	✓
N65°W 155	#2	✓
S70°W 76	#3	✓
S90°W 242	#4	✓
S62°W 130	#5	✓
S89°W 161	#6	✓ HIT 174 because wind
N81°W 281	#7	✓
N65°W 388	#8	✓ Crossed road 296
N53°W 195	#9	✓ HIT Road T.A.P #9
N40°W 299	#10	✓
N89°W 147	#11	✓
S88°W 68	#12	✓
N56°W 264	#13	✓
S86°W 239	#14	✓
N72°W 185	#15	✓
N24°W 247	#16	✓
N50°W 394	#17	✓
N120°W 486	#18	✓
N37°W 191	#19	✓
N64°W 157	#20	✓
N45°W 348	#21	✓ NO room to East Slope Swamp
N53°W 398	#22	✓ Slope small draw crossed
N30°W 97	#23	✓
N6°E 271	#24	✓
N9°W 302	#25	✓
N40°W 126	#26	✓

5-3-77

From Sta 0 Hock-hong road  
 Van SW 20°E

## Traverse of Extension of T.T. 918.

Bear	Dist.	P.I.	
N79°W	01	#27	✓
57°W	97	#28	✓
N66°W	303	#29	✓
N30°W	192	#30	✓
N29°W	110	#31	✓
N10°W	217	#32	✓
N95°W	305	#33	✓
N88°W	147	#34	Runs Thru. Natural draw
N50°W	66	#35	to 354 Next course runs along
N8°W	245	#36	✓
N12°W	195	#37	This area on top of Narrow ridge.
S72°W	206	#38	
N48°W	122	#39	✓
N31°W	203	#40	✓
N43°W	104	#41	✓
N30°W	149	#42	✓
N47°W	135	#43	✓
N27°W	282	#44	✓ Leave road & turn to 918
N82°W	89	#45	✓
S75°W	144	#46	✓
S63°W	166	#47	✓
S35°W	120	#48	✓
S49°W	219	#49	✓
S50°W	170	#50	
S67°W	110	#51	✓
S83°W	113	#52	✓

side hill sloping sharply west

Traverse of Extension of T.T. 418

Bear DIST. A.P.

N71°W 125 #53

N39°W 79 #54 54 E. of T.T. 418

Sta.	P.I.	Course	Offsets	Cut	F.I.I
1+00		S80°W	1750	3400	5750
2+00			5750		8700 to 875
3+00			8760		
4+			15750		
5+					
6+			Tang. Dist. 23'		
7+	7400		External 10'		
8+		N68°W			
9+					
10+					
11+					
12+					
13+					
14+			<del>Tang. Dist. 130'</del>		
	14+41		External 10'		
15+		N70°W			
16+					
17+			Tang. Dist. 60'		
	17+91		External 15'		
18+		S88°W	cut		
19+			Tang. Dist. 140'		
	19+86		External 20'		
20+00		N60°W			
21+					
22+					
	22+33				

23+	P.T. Code 200	Tang. Dist. 90'
24+	22733	External 15'
25+	S 80° W	
26+		Tang. Dist. 90'
27+	26+06	External 30'
28+	N 31° W	
29+	28+98	Tang. Dist. 110'
30+	N 6° W	External 15'
31+		
32+		
33+	33+54	<del>Tang. Dist. 130'</del> External 15'
34+	N 11° W	
35+		
36+		
37+		
38+		
39+	39+65	Tang. Dist. 130'
40+		External 30'
41+	N 67° W	
42+	42+06	

Sta P.I. Course Tang. Dist. 100'

42706 External 12'

43+ N40°W

44+

45+

45769

Tang. Dist. 100'

External 10'

46+

N67°W

47+

48+

49+

50+

cut

50726

Tang. Dist. 80'

51+

N6°E

External 25'

52+

53+

53736

Tang. Dist. 75'

External 10'

54+

N11°W

55+

56+

57+

57755

Tang. Dist. 105'

External 35'

58+

N81°W

59+

60+

60747

External 10'

61+

N72°W

62

62769



Ste P.I. Course Tang. Dist. 110'

62+89 External 15'

63+ N45°W

64+

65+

66+

67+

68+

69+

70+

70+38 Tang. Dist. 110'

71+ N13°W External 90'

72+

73+

74+

75+

76+ Tang. Dist. 210'

76+80 External 50'

77+ S78°W (S83°W)

78+

79+ Tang. Dist. 35'

79+53 External 12' (A.11)

80+ N41°W

81+

82+

83+

84+

Sta P.I. Course

85+

86+

86+20

External 15'

87+

N20°W

88+

89+

Tang. Dist. 130'

90+00

External 30'

91+

S77°W

92+

93+

94+

95+

96+

97+

98+

99+

99+82 E of TT. 418 N.8°W

P.I. 27+10

5059

9980

---

68

P.I. 41+72

P.I. 49+86

P.I. 61+61

Sta	P.I	Course	Culvert	Externa	Tang. Dis. J
1+00		S80°W	17+38 15'x20'		
2+00					
3+00					
4+00					
5+00					
6+00			5+72 15'x20'		
7+00					
8+00		N68°W			
9+00			8+33 15'x20'		
10+00					
11+					
12+					
13+					
14+					
14+41					
15+		N90°W	15+78 15'x20'		
16+					
17+					
17+91					
18+		S88°W			
19+					
19+86					
20+		N76°W			
21+			21+18 15'x20'		
22+					
23+					

ST <sub>0</sub>	P.I	Course	Current
24+			
25+			
26+			
27+			
	27+10		
28+		N 60° W	
29+			
30+			
31+			
32+			
33+			
	33+26		
34+		N 11° W	
35+			
36+			36+22 75" 120'
37+			
38+			
39+			
	39+31		
40+		N 67° W	
41+			
	41+72		
42+		N 53° W	
43+			
44+			
45+			

Sta P.I. Course Culvert

46+

47+

48+

48+55  
15" x 20"

49+

49+86

50+

N80E

51+

52+

52+68

53+

N120W

54+

55+

56+

56+87

57+

N79°W

58+

59+

60+

61+

61+61

62+

N45°W

63+

64+

65+

66+

67+

Sta P.I. Bear Colln

68+

69+

69+71

70+

N13°W

71+

71+13

15" x 20'

72+

73+

74+

75+

76+

76+23

77+

N71°W

78+

79+

80+

80+93

81+

N23°W

82+

83+

84+

85+

86+

86+50

15" x 20'

87+

88+

88+50

15" x 20'

89+

90+

Sta P. L. Course Culvert

90+89

91+

8770W

92+

93+

93450

154120'

94+

95+

96+

97+

98+

99+

100+

100+55 End of road

END OF  
BOOK 120