

Treasury Department,  
U. S. COAST AND GEODETIC SURVEY,

*O. H. Tittmann*, Superintendent.

States: *Pa. - Md.*

# SKETCHBOOK.

## ABSTRACT OF CONTENTS:

*Topography along Mason  
& Dixon's line eastward  
from Monument # 42 to the  
east bank of the Susquehanna  
River, (M.P. 23.)*

*1902*

CHIEF OF PARTY

*W. C. Hoffmann*

*19* Vols.

Vol. *3*



84 00  
30



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*O. H. Tittmann*, Superintendent.

States: *Pa. - Md.*

# SKETCHBOOK.

## ABSTRACT OF CONTENTS:

*Mason and Dixon Line,  
eastward from Milepost 42  
to Milepost 23.*

1902

CHIEF OF PARTY:

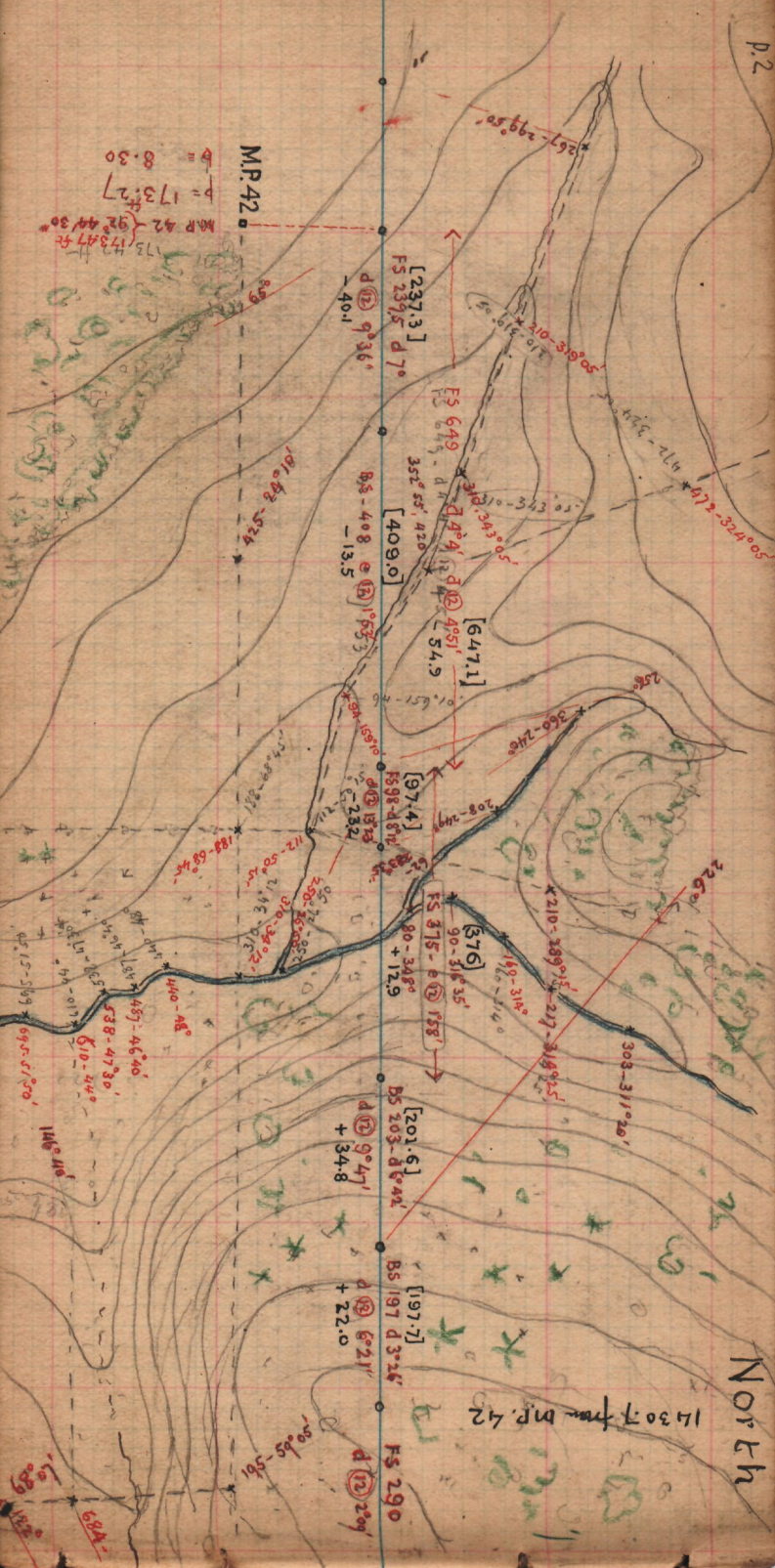
*W C Hodgkins*

*19* Vols.

Vol. *3*

In this book the azimuths are reckoned from the eastern direction of the transit line = 0°; S = 90°; W = 180°; N = 270°

P.2



M.P. 42  
 B = 8.30  
 P = 173.27  
 M.P. 42 (173.47 ft)  
 173.47 ft

[237.3]  
 FS 2395 d 7°  
 d ⑫ 9°36'  
 -40.1

BS 408 e ⑫ 1°53'  
 -13.5  
 [409.0]

FS 649  
 352° 55' 42"  
 d ⑫ 4°51'  
 [647.1]  
 54.9

d ⑫ 13'23"  
 FS 98 d 87°  
 [97.4]  
 23.2

FS 315 e ⑫ 158'  
 80-348°  
 +12.9  
 [576]

d ⑫ 9°47'  
 BS 203 d 64°  
 [201.6]  
 +34.8

d ⑫ 6°21'  
 BS 197 d 32°  
 [197.7]  
 +22.0

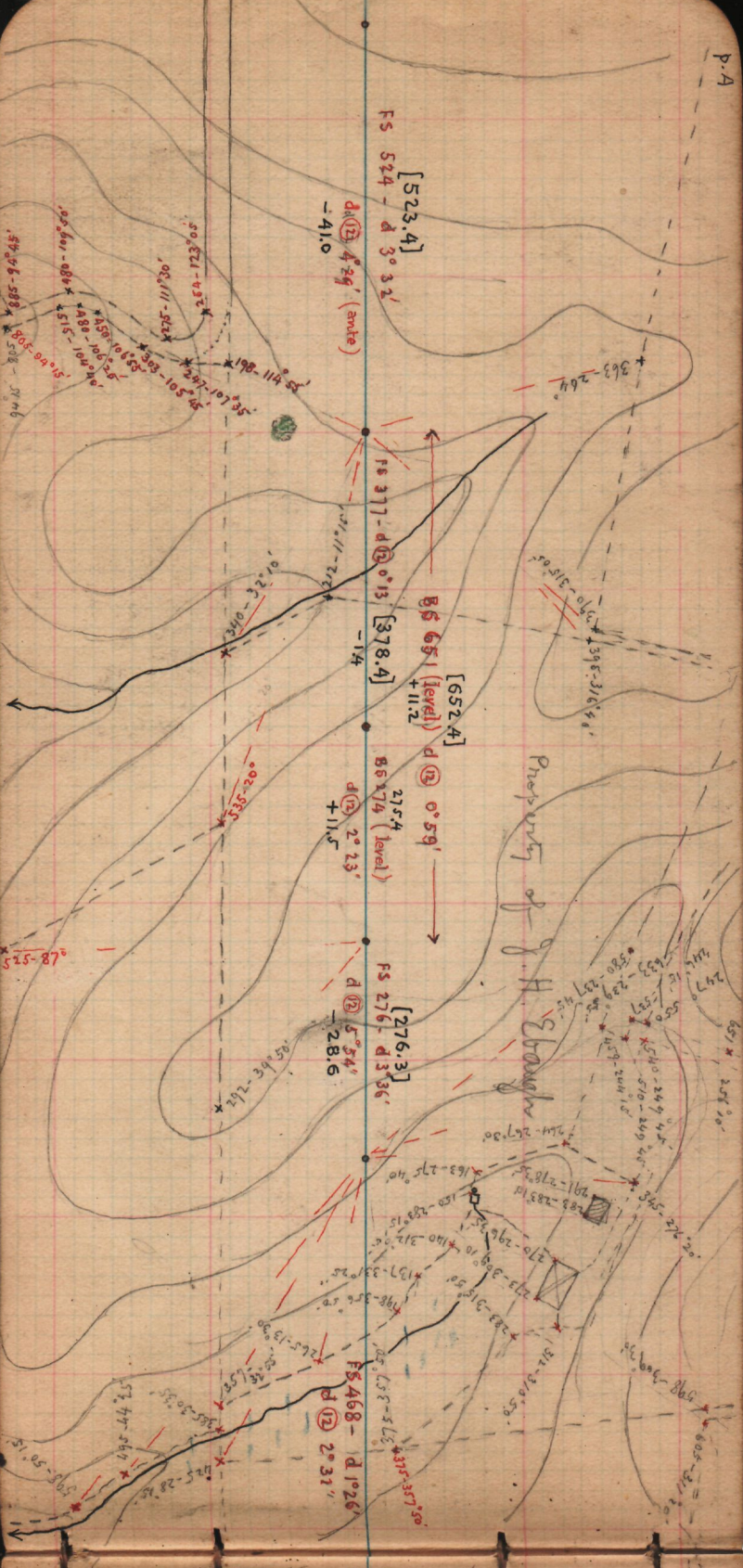
FS 290  
 d ⑫ 2°09'

North

1430 ft from M.P. 42



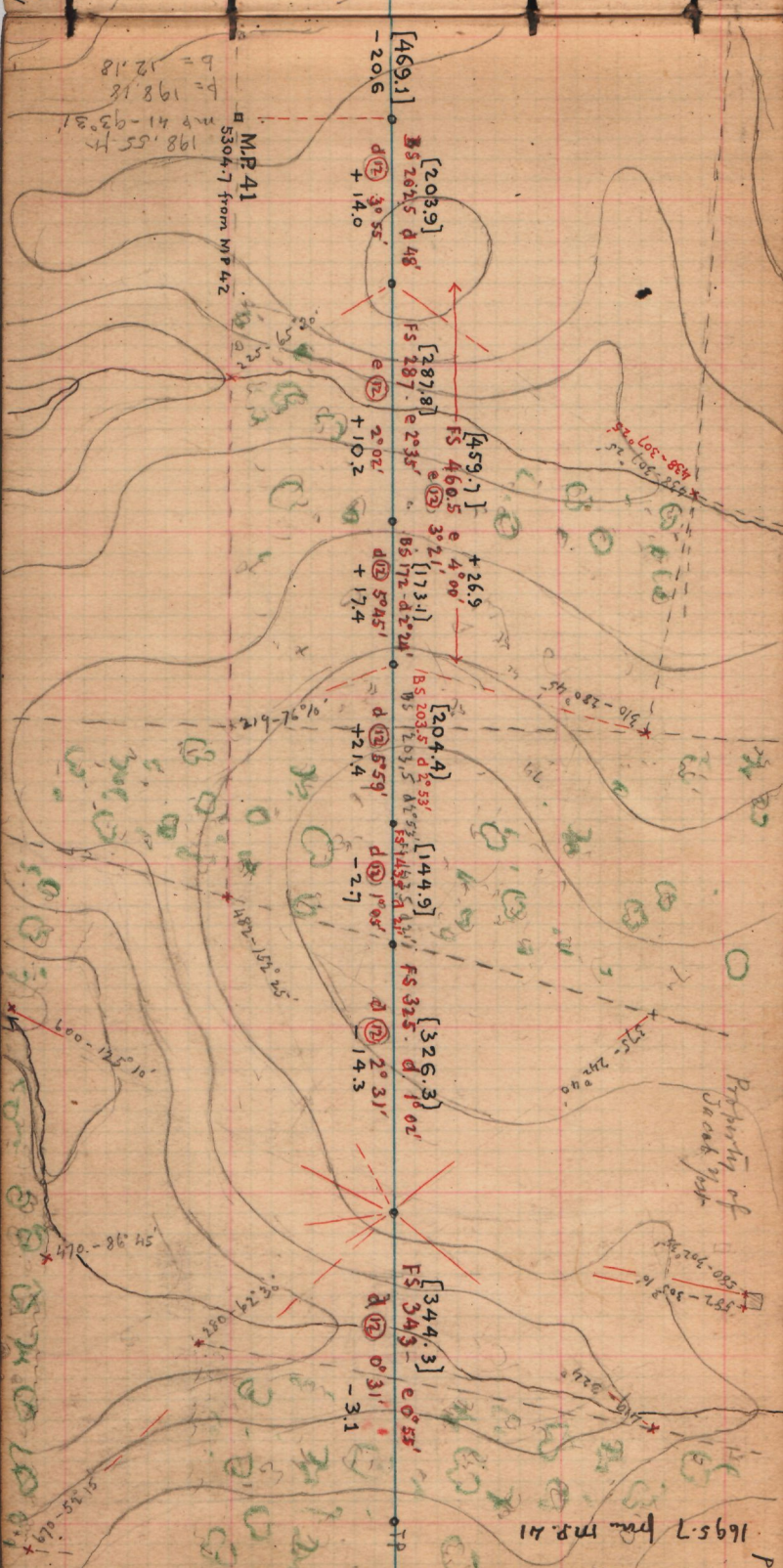






1695.7 from MP 41

Property of Jacob [unclear]



MP 41  
5304.7 from MP 42

198.55 ft  
m p 41 - 93.31  
b = 198.18  
b = 12.18

[469.1]  
-20.6

[203.9]  
BS 202.5 d 48'

[287.8]  
FS 287.8 e 2°35'

[459.7]  
FS 460.5 e 4°00'

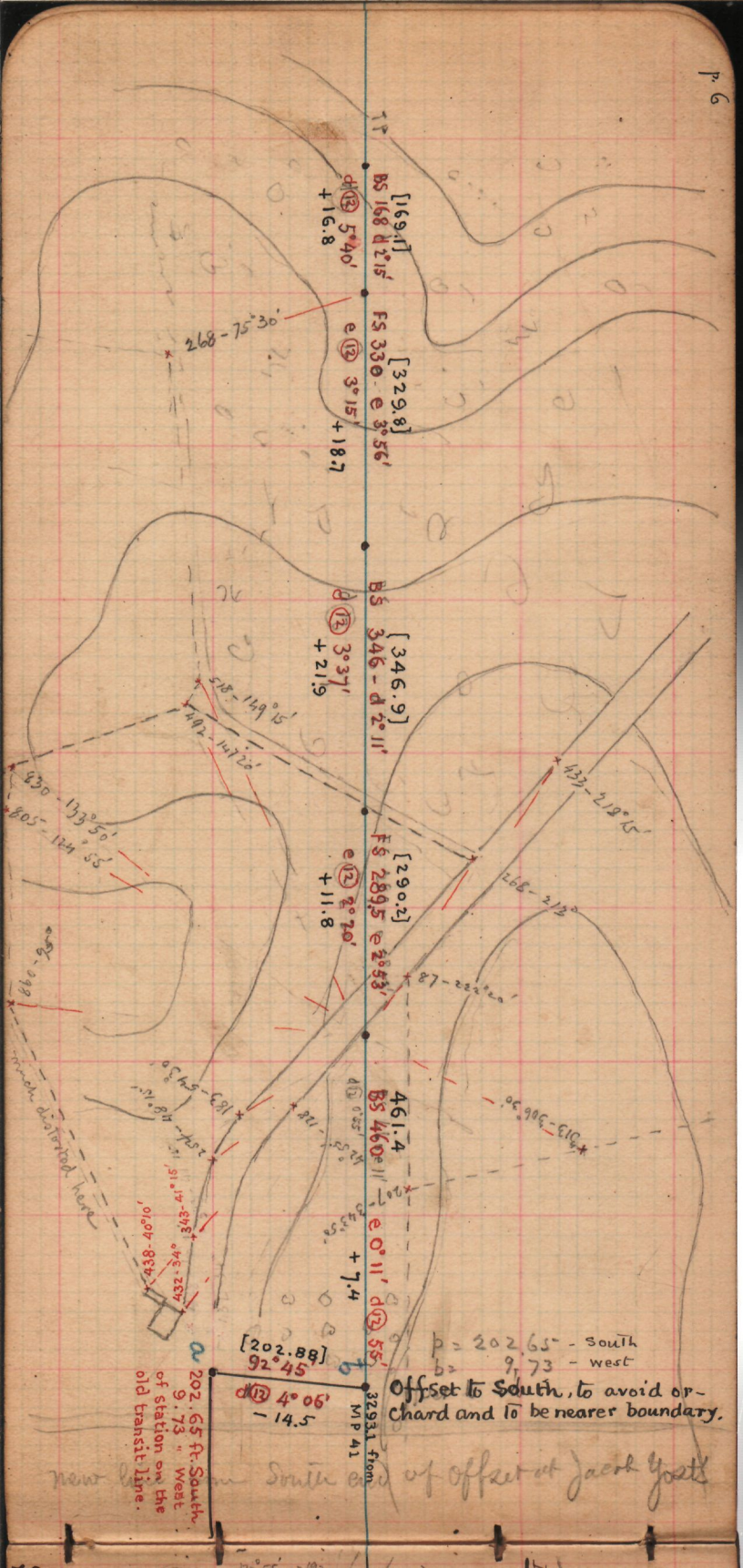
[204.4]  
BS 203.5 d 2°53'

[144.9]  
BS 143.2 d 1°31'

[326.3]  
FS 325.0 d 1°02'

[344.3]  
FS 343.0 e 0°55'

TP



11  
 BS 168 d 2' 15" [169.1]  
 +16.8  
 e 12 5° 40'  
 FS 330 e 3° 56' [329.8]  
 +18.7

BS 346 - d 2' 11" [346.9]  
 +21.9  
 e 12 3° 37'

FS 289.5 e 2° 53' [290.2]  
 +11.8  
 e 12 2° 20'

BS 460 e 11' 46" [461.4]  
 +7.4  
 e 12 0° 11' d 12 55'

[202.88]  
 92° 45'  
 d 12 4° 06'  
 -14.5

202.65 ft. South  
 9.73 " West  
 of station on the  
 old transit line.

p = 202.65 - South  
 b = 9.73 - West  
 Offset to South, to avoid or-  
 chard and to be nearer boundary.

new line in South end of offset at Jacob's gate

830 - 133° 50'  
 805 - 124° 55'  
 860 - 99°  
 much disturbed here

268 - 75° 30'

518 - 149° 15'  
 442 - 147° 20'

432 - 212° 15'

268 - 212°

87 - 222° 20'

3013 - 306° 30'

181 - 121° 5'

121 - 121° 5'

MP 41  
 32931 from



North

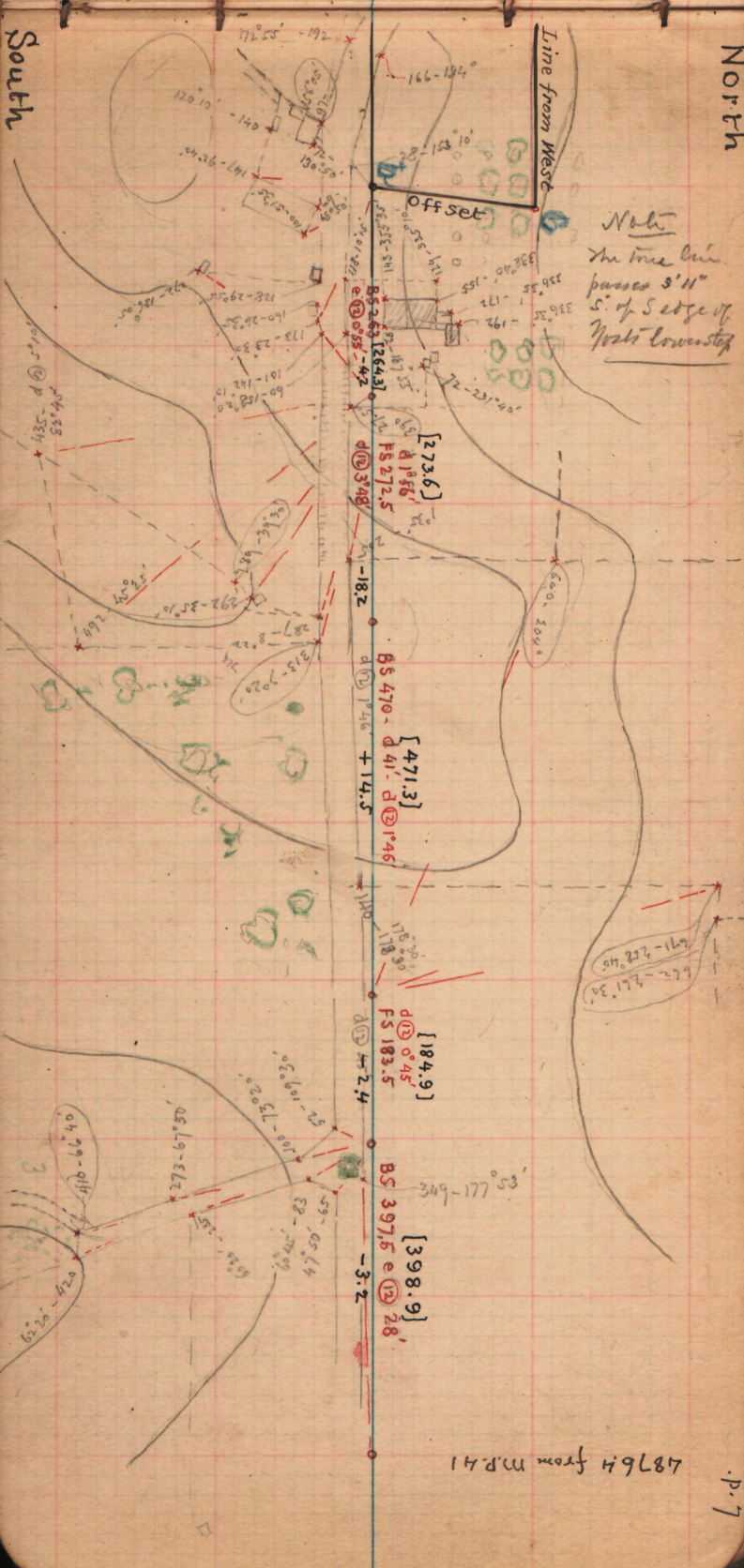
South

Line from West

Offset

Note

The true line passes 3' 11" S. of S edge of North corner stop



BS 263 [264.3]  
FS 272.5  
d 1856'

[273.6]  
d 1856'  
FS 272.5  
d 348'

18.2  
BS 470 - d 41 - d 146  
+ 14.5

[471.3]  
d 1849'  
FS 183.5  
d 2.4'

[184.9]  
d 1849'  
FS 183.5  
d 2.4'

[398.9]  
BS 397.5 e 28'  
- 3.2

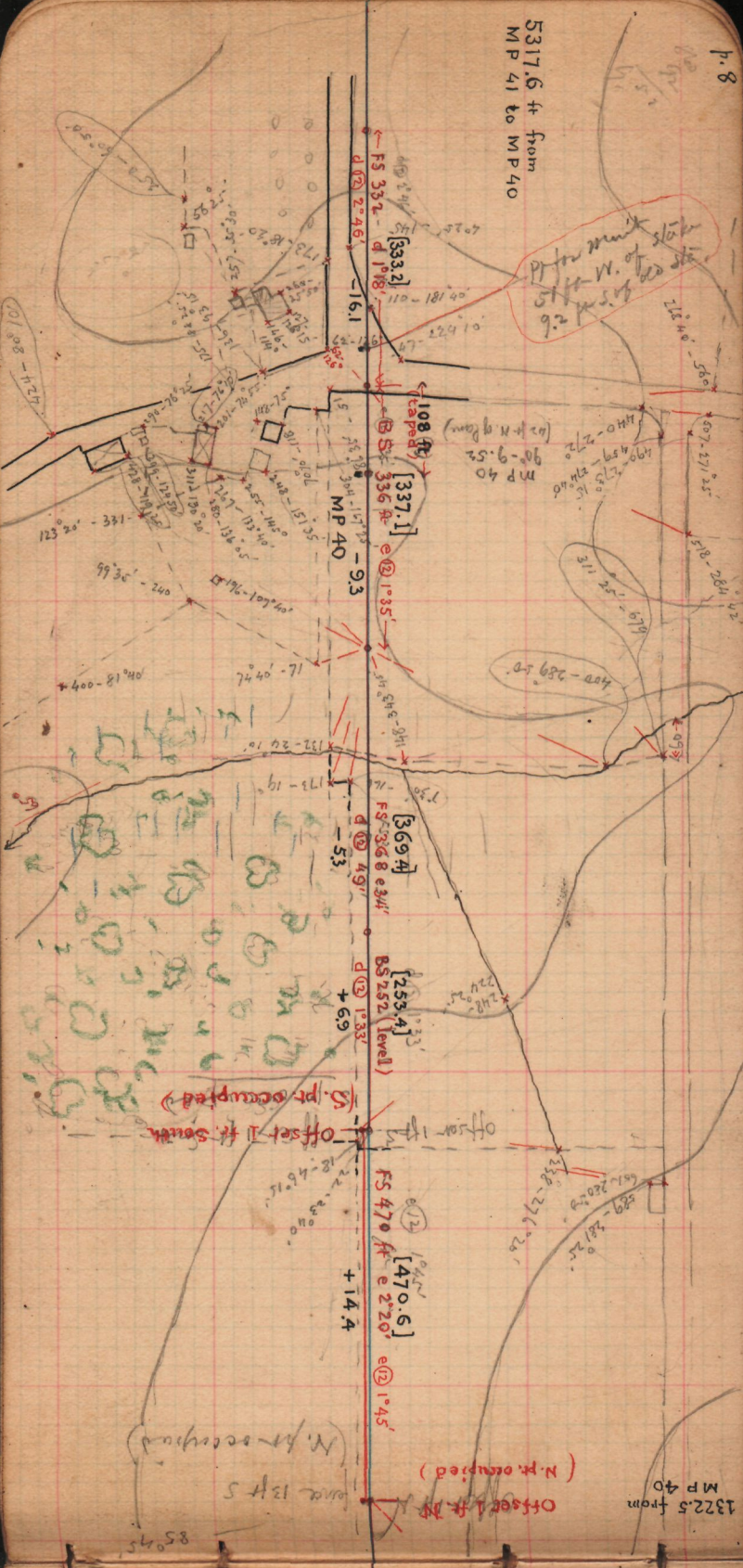
662-261.30'  
671-262.45'

48764 from M.P. 41

p. 7

5317.6 ft from  
MP 41 to MP 40

Prism limit  
5 ft W. of  
9.2 ft S. of old sta.



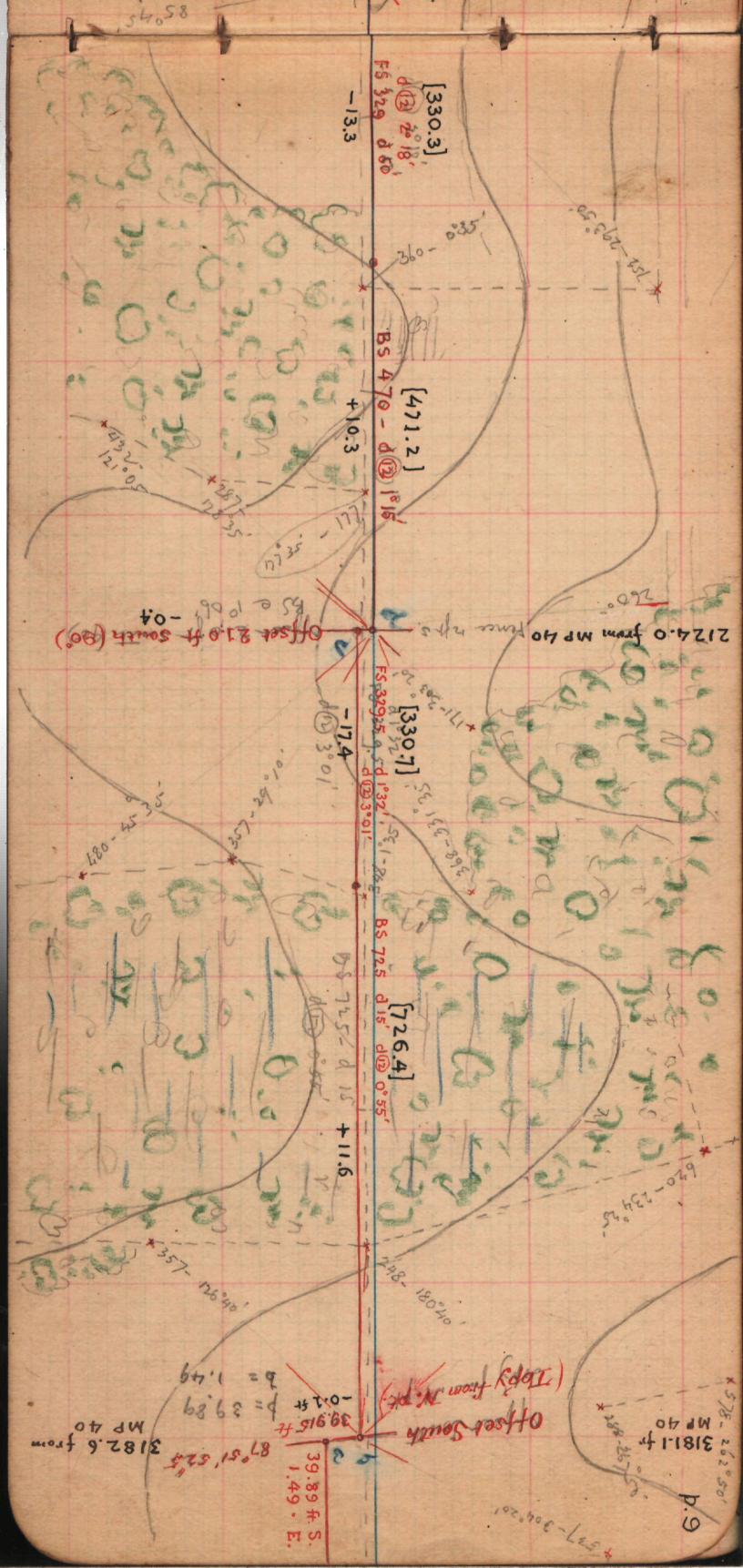
Offset 1 ft N  
Offset 1 ft S  
Offset 1 ft South

Offset 1 ft N  
(N.P. occupied)

1322.5 from  
MP 40

85°45'





3182.6 from  
MP 40

Offset South  
(Topy from N.P.K.)  
39.89 ft S.  
1.49 · E.  
87° 51' 52"  
p = 39.89  
b = 1.49  
-0.1 ft

2124.0 from MP 40 from n.p.s.  
Offset 21.0 ft South (90°)  
BS e 10.06 -04

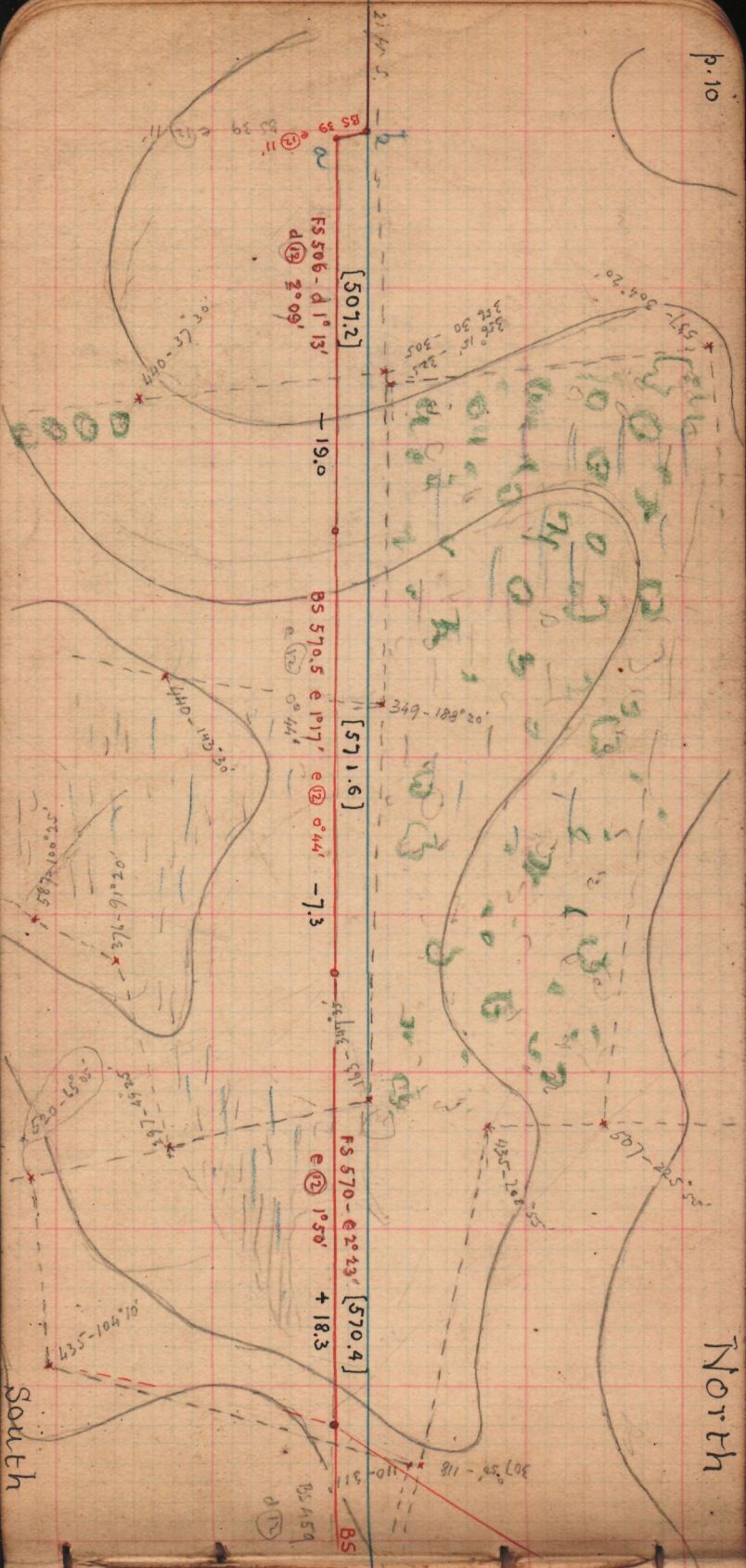
[330.3]  
FS 329 d 50°  
-13.3

[471.2]  
BS 470 - d 18° 18'  
+10.3

[330.7]  
FS 329 d 50°  
-17.4

[726.4]  
BS 725 d 15°  
+11.6

p.9  
3181.1 ft  
MP 40  
57° 26' 50"





Spire of  
"Centre Church"  
316° 39'

5297.6 from  
MP 40 to MP 39

BS 459 e 8' d ⑫ 58' + 7.8

[660.4]  
459 e 8'

229.82 S. of 010  
b = 33.72  
b = 5.38

MP 39

BS 388.5 d ⑫ 33.5' + 20.5  
d ⑫ 30.7  
d ⑫ 30.07'

[388.5]  
FS 387.5 d ⑫ 33.5'

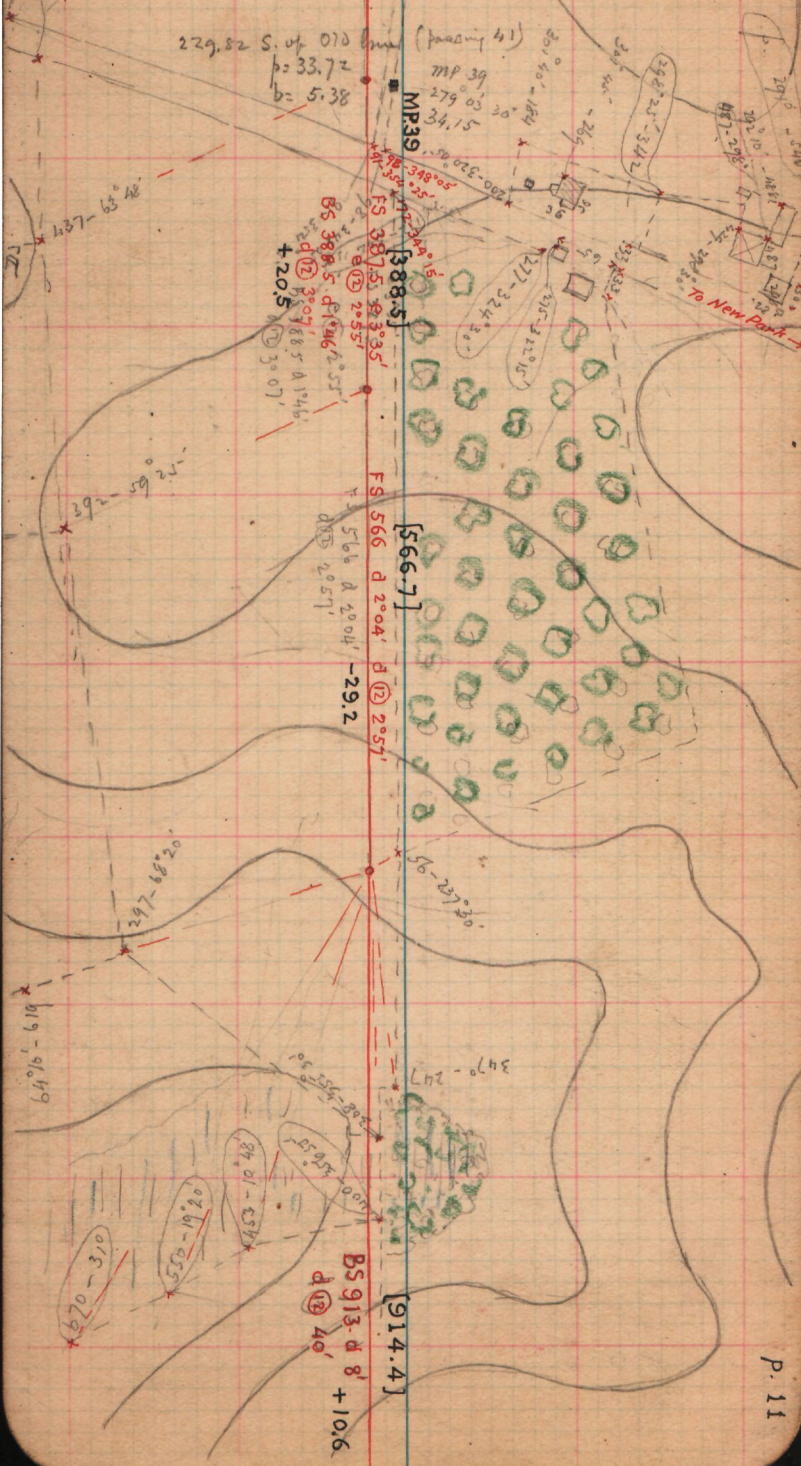
[566.7]

FS 566 d ⑫ 2° 04' d ⑫ 2° 57' - 29.2

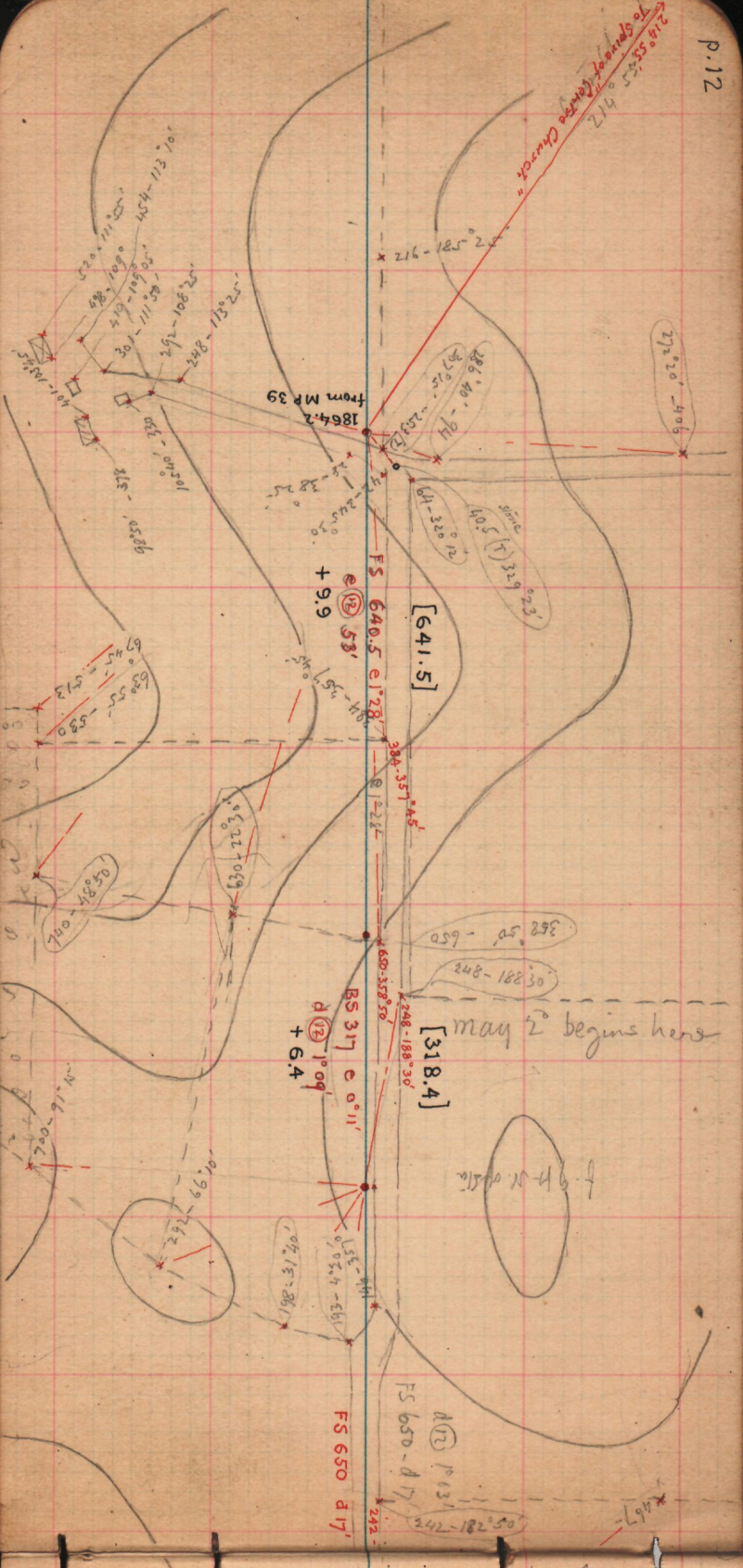
[914.4]

BS 913. d 8' + 10.6  
d ⑫ 40'

2006-7002-541  
2006-914  
2002-2001-541

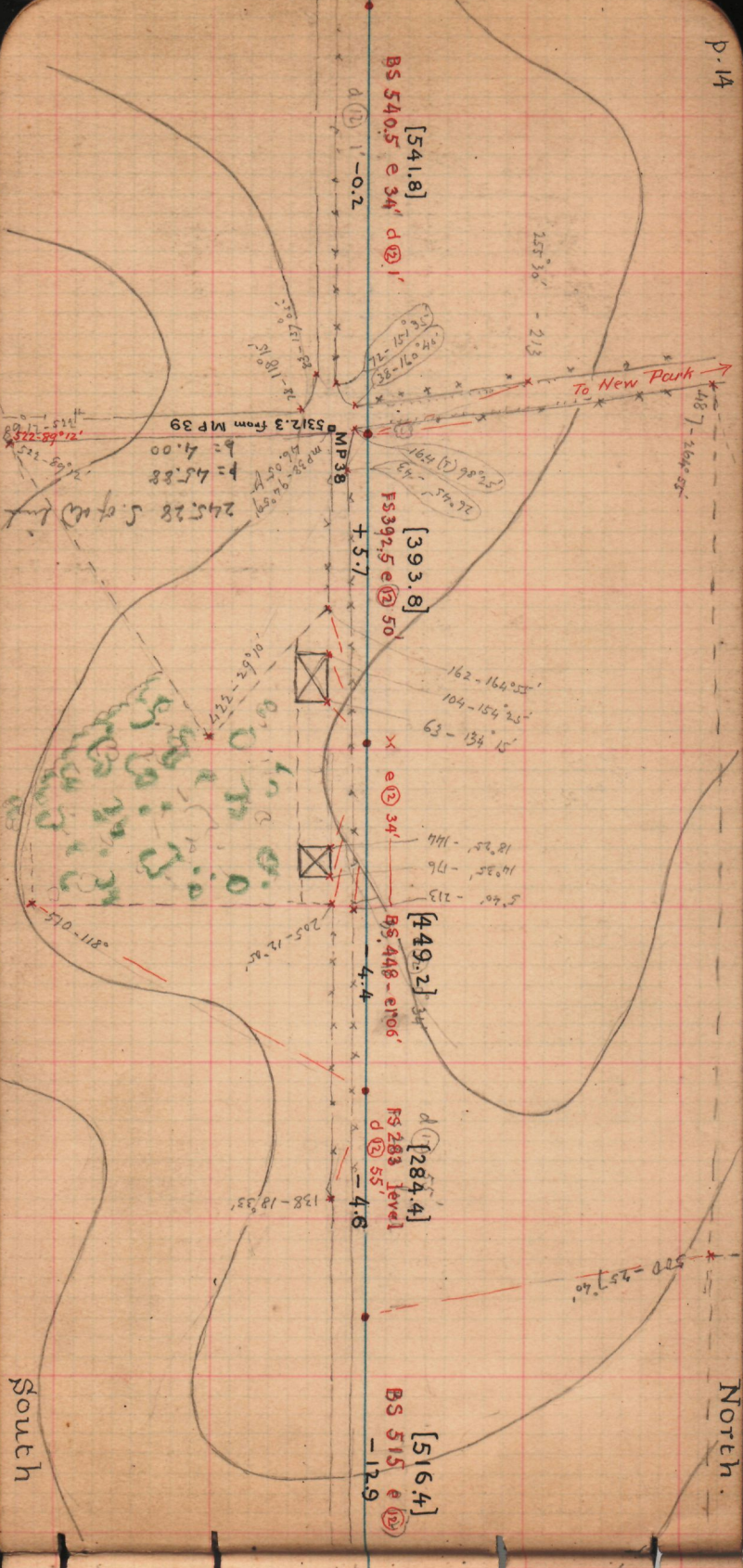


218 55 45 417  
to space of "Cenozo Church"









[541.8]  
 BS 540.5 e 34' d (12) 1'

d (12) 1' - 0.2

257° 30' - 213'

To New Park

MP 38  
 5312.3 from MP 39

p = 4.00  
 f = 45.88

245.28 S. of rd line

[393.8]  
 FS 392.5 e (12) 50'

+ 5.7

e (12) 34'

[449.2]  
 BS 448 - e 106'

- 4.4

[284.4]  
 FS 283 level  
 d (2) 55'

- 4.6

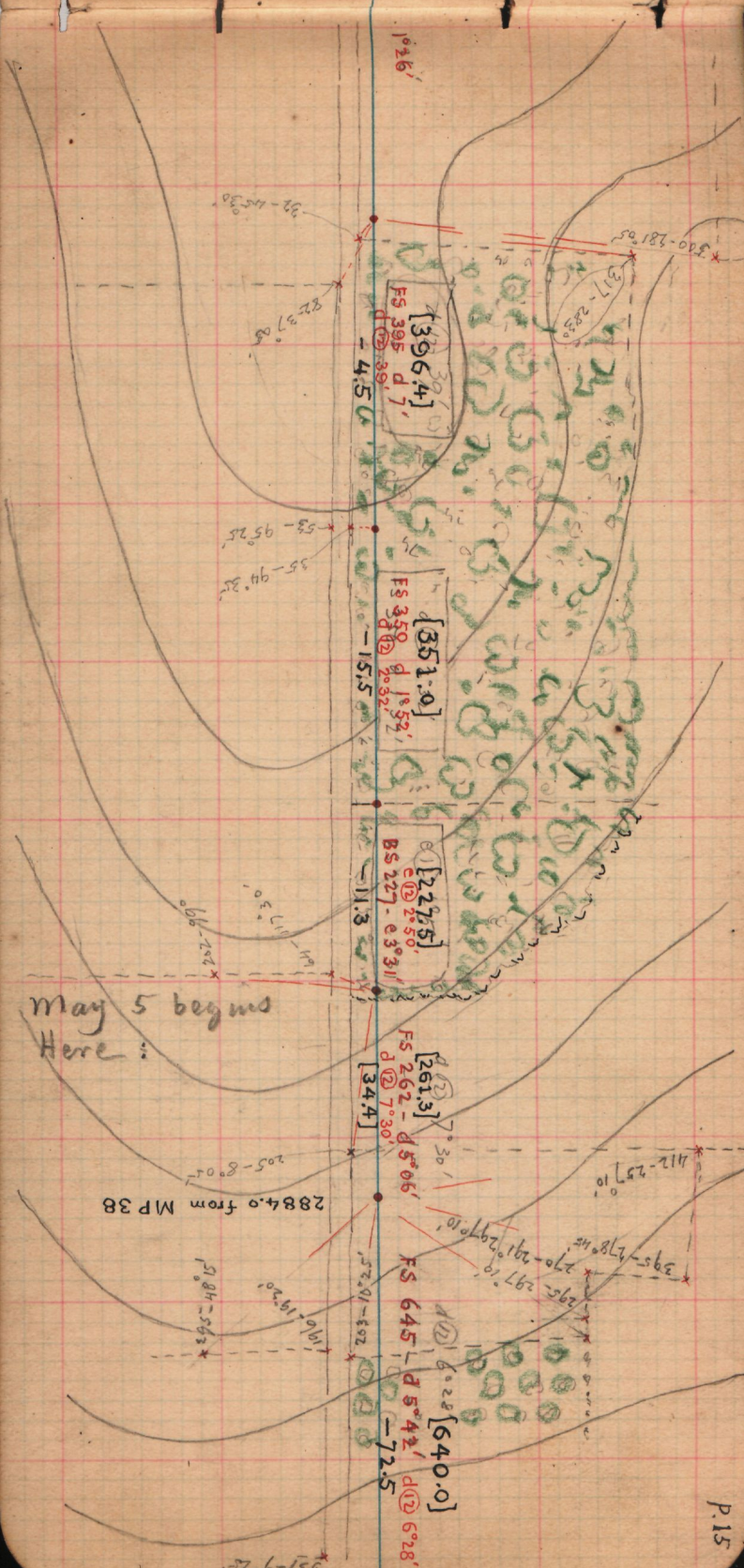
[516.4]  
 BS 515 e (12) 11'

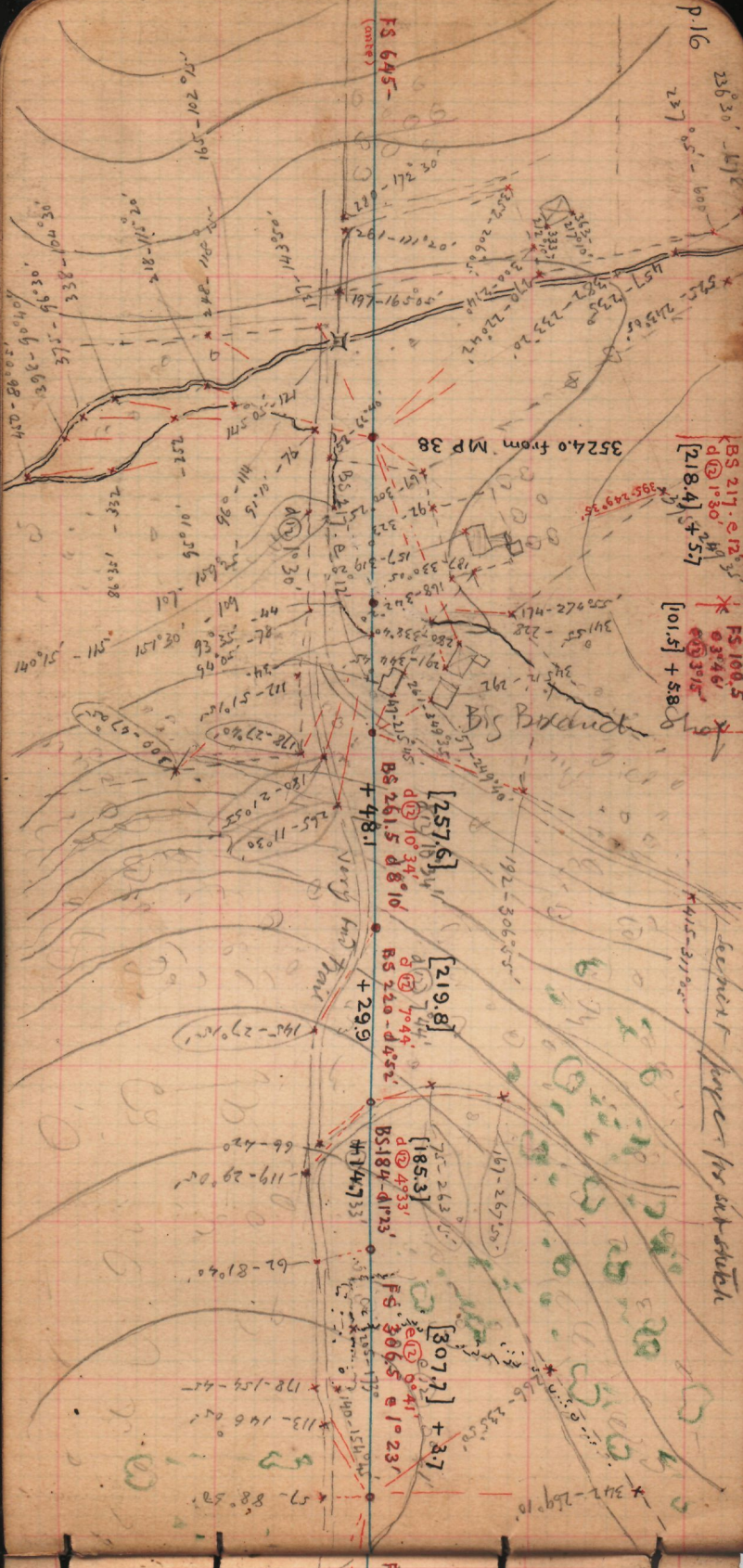
- 12.9

North

South







BS 217-e12  
 d @ 1°30' 49"  
 [218.4] +57

FS 100.5  
 e 3°46'  
 e 3°15'  
 [01.5] +58

FS 645-  
 (center)

3524.0 from MP 38

Big Brand

Very long trail

See next page for sketch

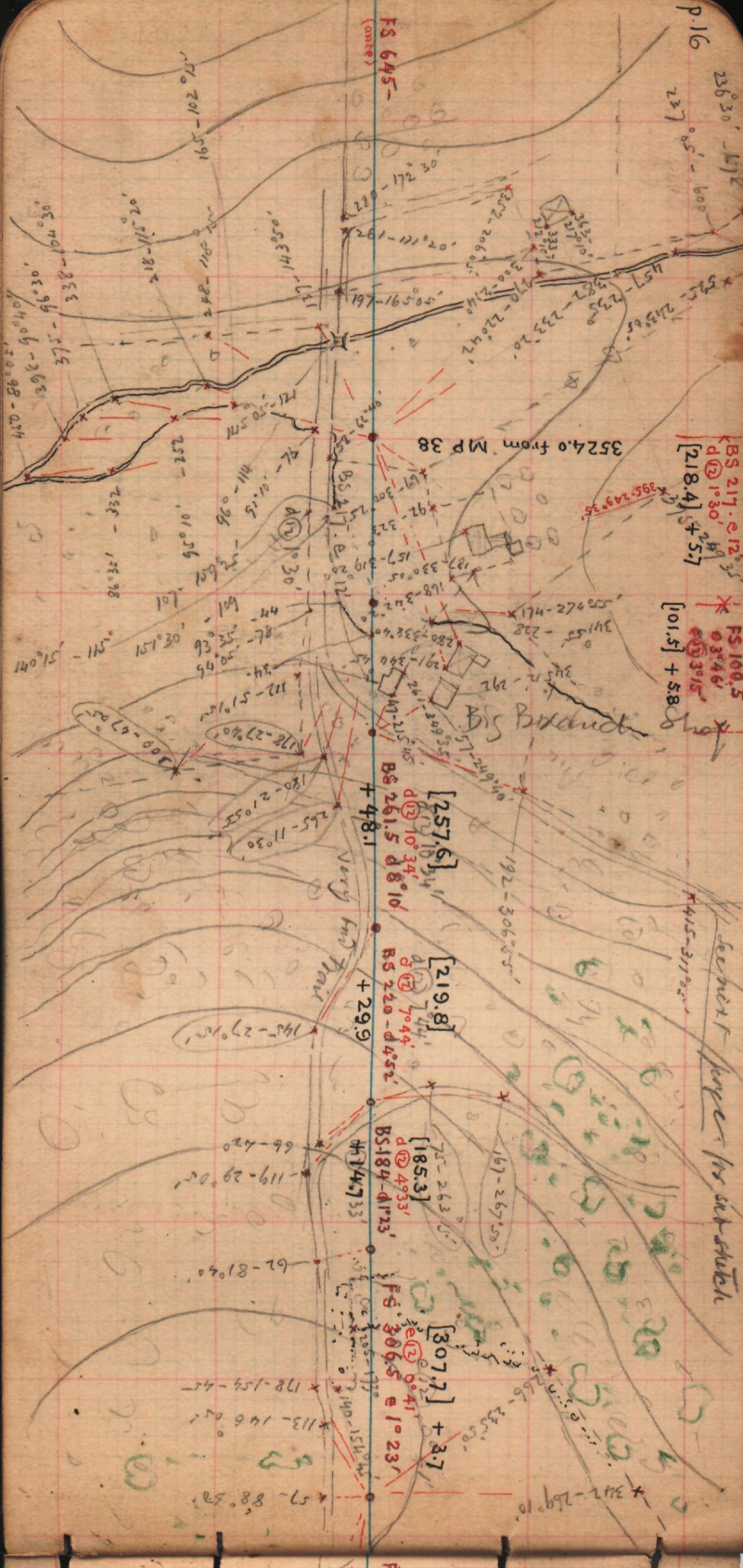
[257.6]  
 d @ 10°34'  
 BS 261.5 d 8°10'

[219.8]  
 d @ 7°44'  
 BS 220-d 452'

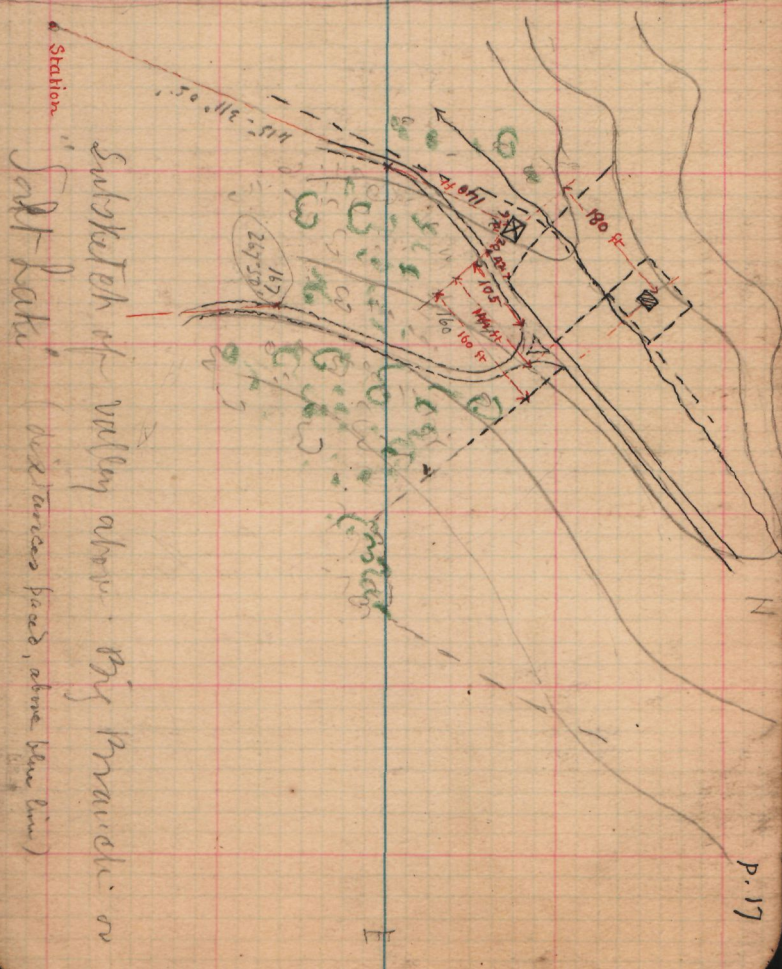
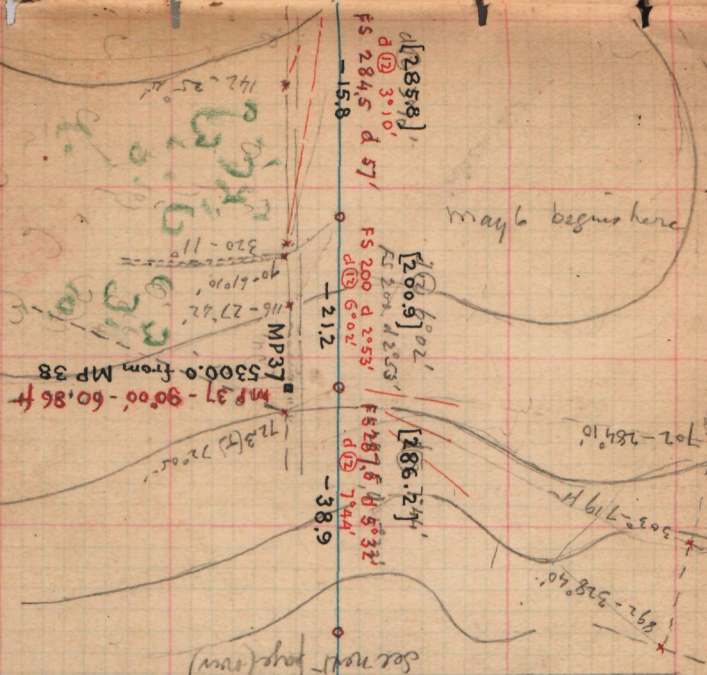
[185.3]  
 d @ 4°33'  
 BS 184-d 123'

[307.7] +2.7  
 e @ 0°41'  
 FS 306.5 e 1°23'

FS





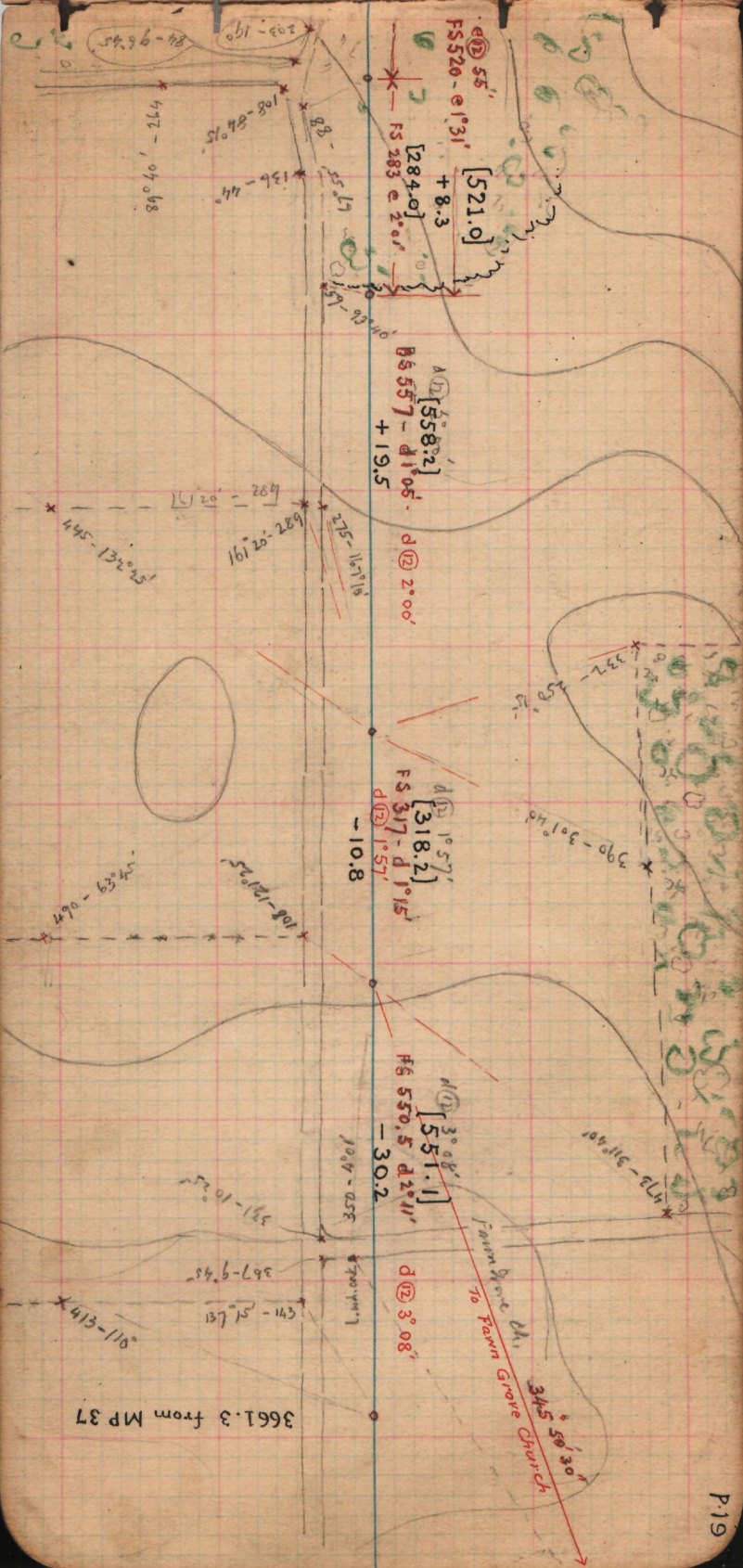


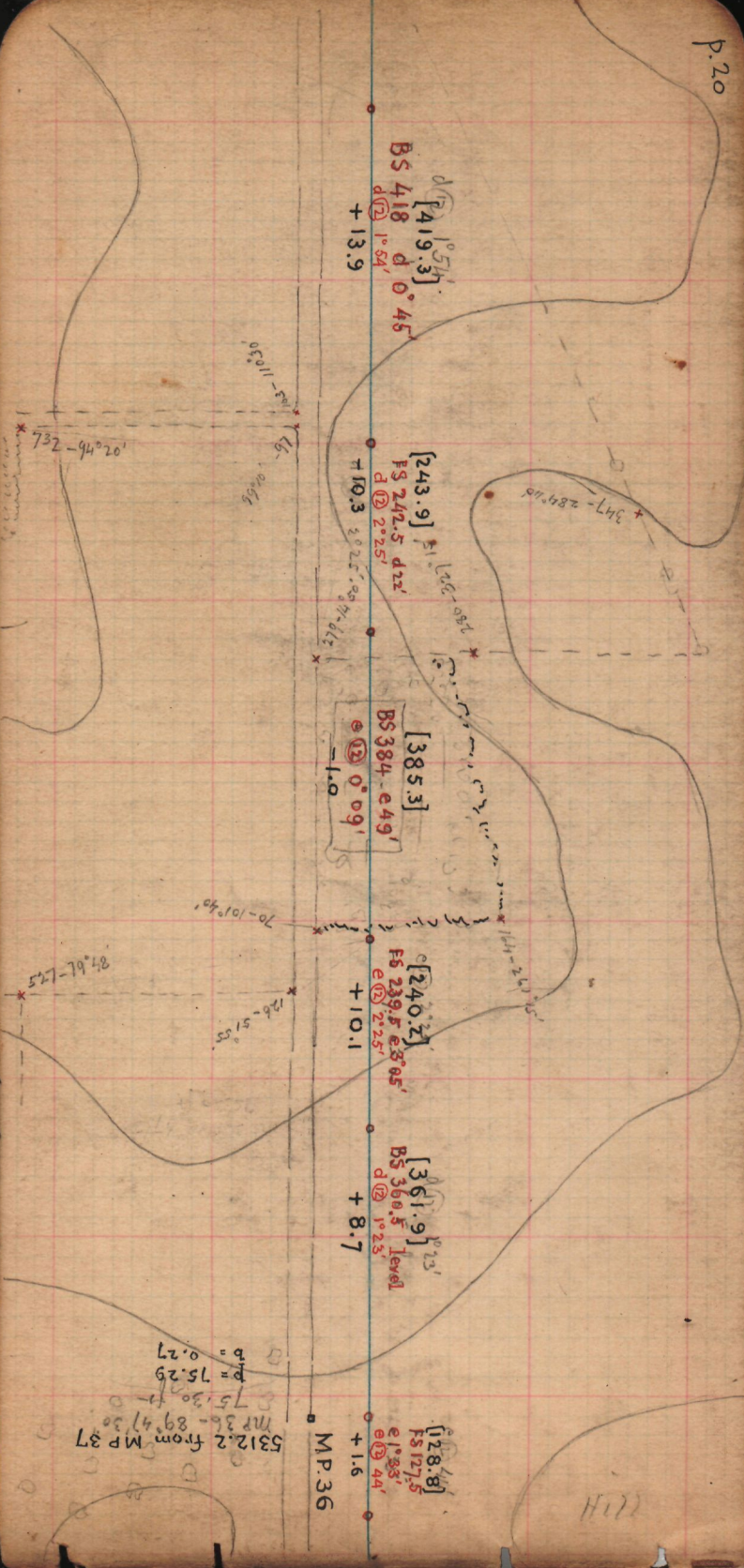




3661.3 from MP 37

Farm Lane Ch.  
to Fawn Grove Church  
345° 50' 30"





$b = 0.27$   
 $p = 75.29$   
 $75.30$   
 $MP 36 - 89^{\circ} 47' 30''$   
 $5312.2$  from  $MP 37$

(111)











Fair & cool  
Fresh N.W. wind  
Using Transit

May 10 am.

mp. 35

MP.35

EX [440.2]  
BS 439 - e 0°20'  
-1.8

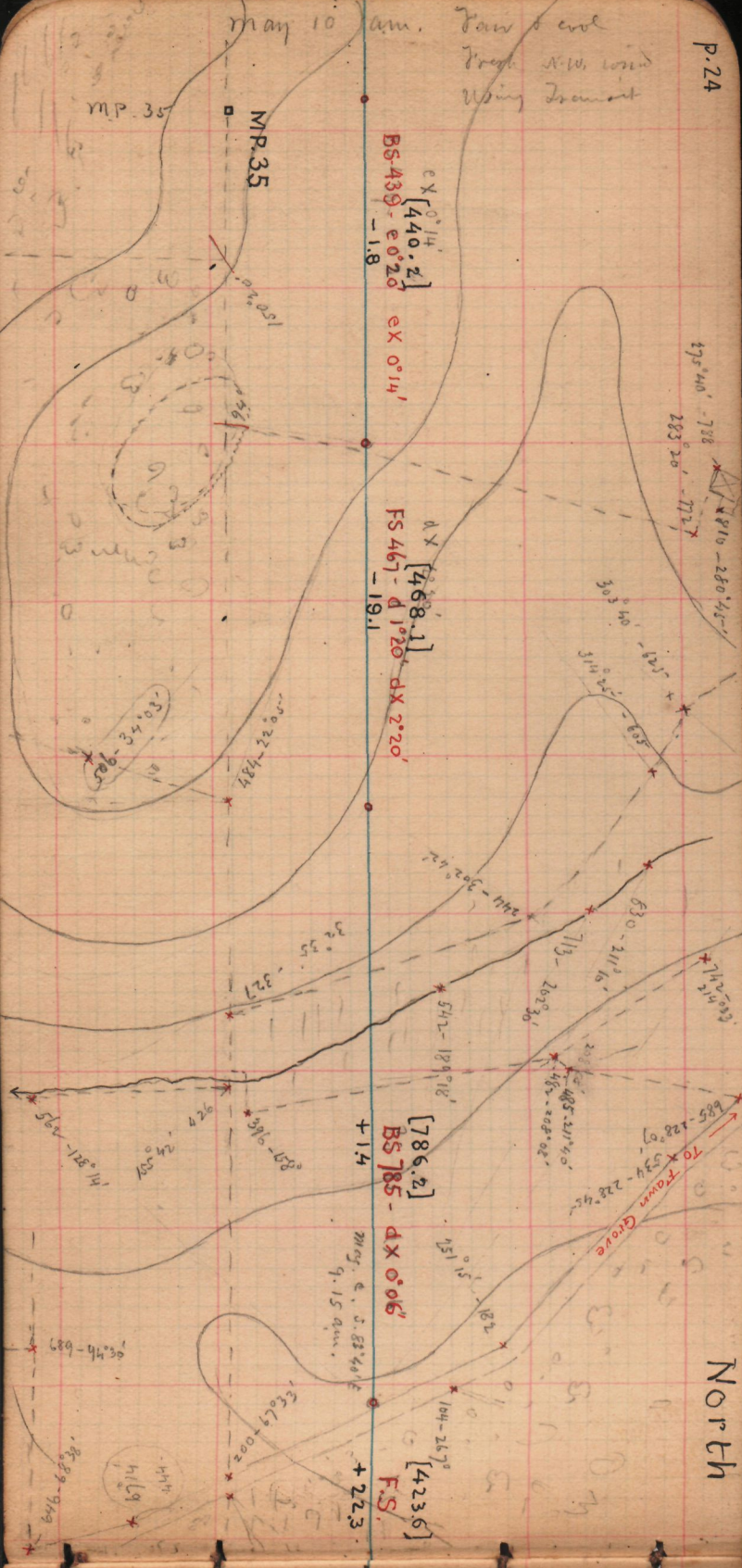
EX 0°14'

DX [468.1]  
FS 467 - d 1°20'  
-19.1  
DX 2°20'

[786.2]  
BS 785 - dx 0°06'  
+14

Mag. & J. 88°40'E  
9.15 am.

[423.6]  
F.S.  
+22.3



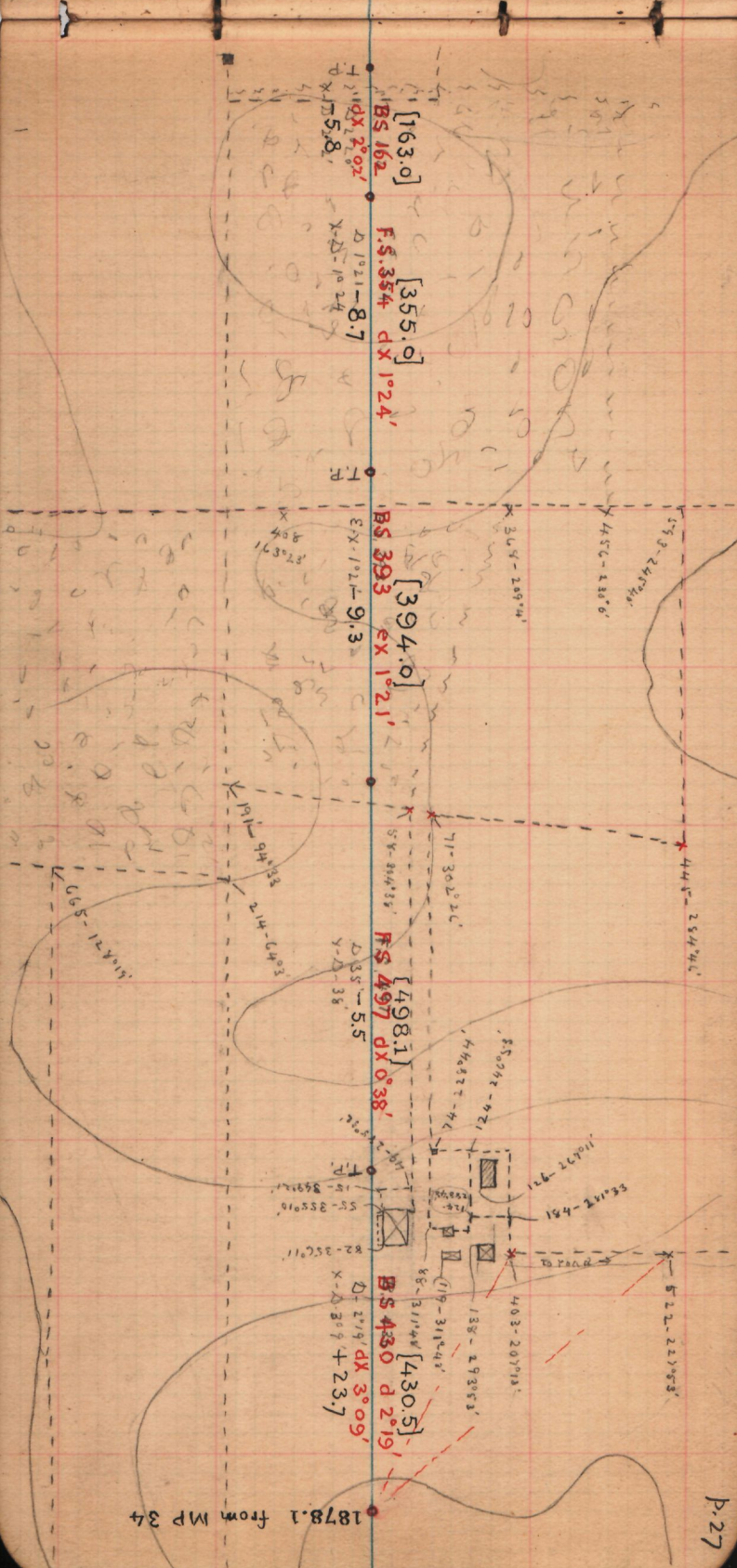








1878.1 from MP 34









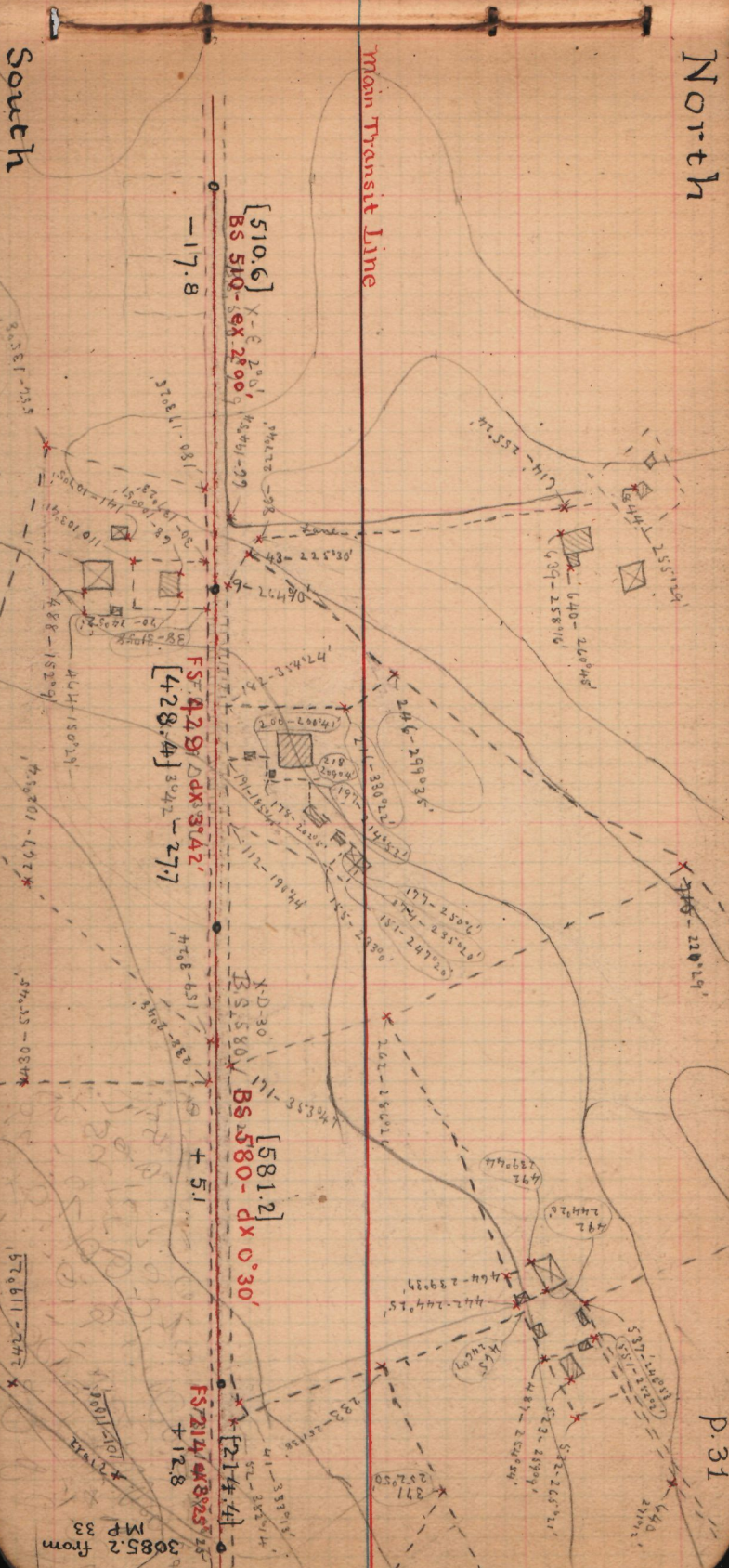




North

South

Main Transit Line



[510.6]  
 BS 510-58 2°00'  
 -17.8

FS 429 dx 3°42'  
 [428.4] 3°42' - 27.7

X.D. 30  
 BS 2580-dx 0°30'  
 [581.2]

FS 214 dx 8°55'  
 [214.4]  
 +12.8

3085.2 from  
 MF 33

P. 31

3139.7 from MP 33

3085.2 from MP 33

diag. offset  $p=17.7$   
 $b=5.13$   
 $5.516$

FS 524  
[521.72] 4°54'45.4"

BS 205 ex 3.91  
-10.8  
C.N.=391

offset line ends here [205.6]

BS 207 ex 2.12  
-8.0

[158.49]

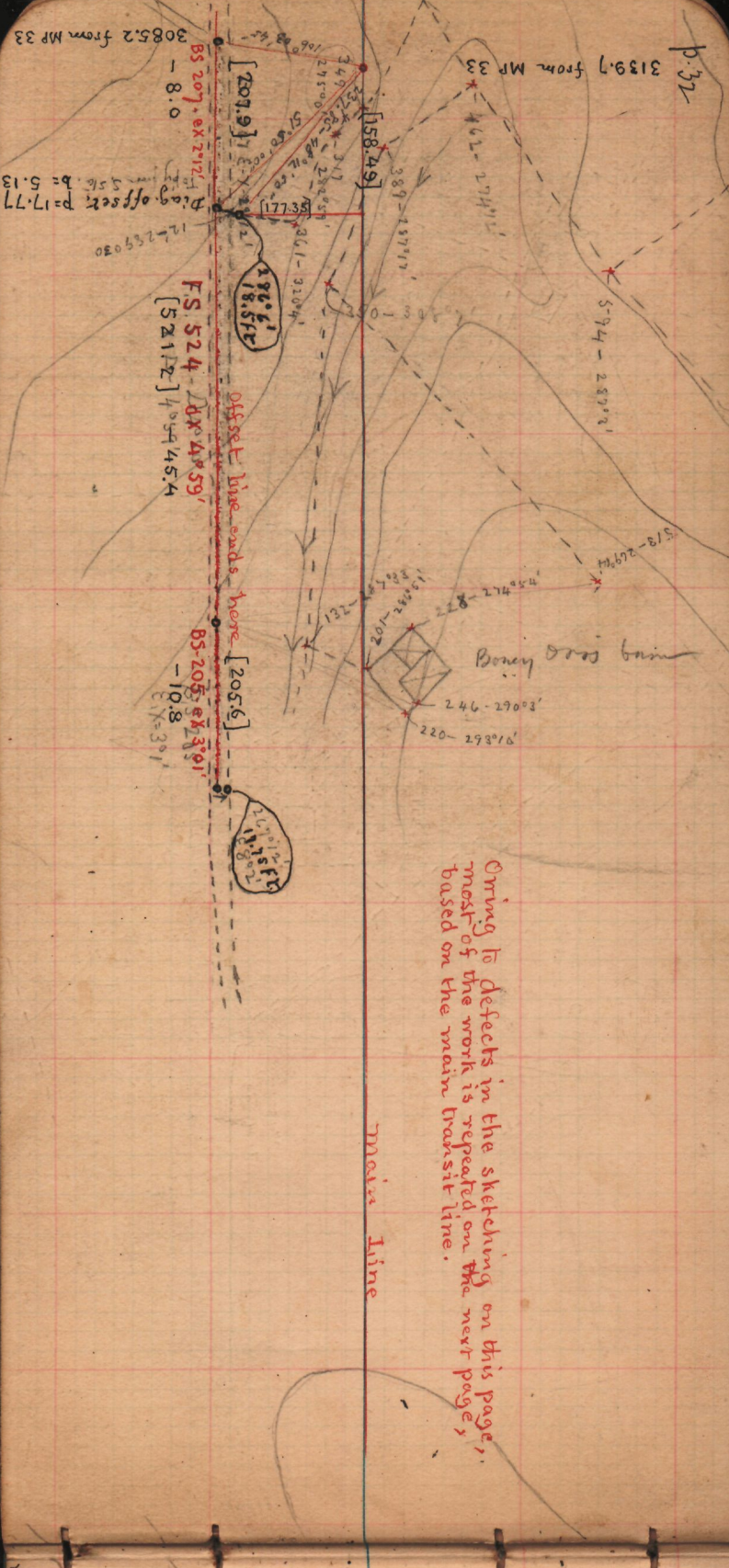
[207.9]

186.61  
18.576

111.156  
11.802

main line

Bring to defects in the sketching on this page, most of the work is repeated on the next page, based on the main transit line.

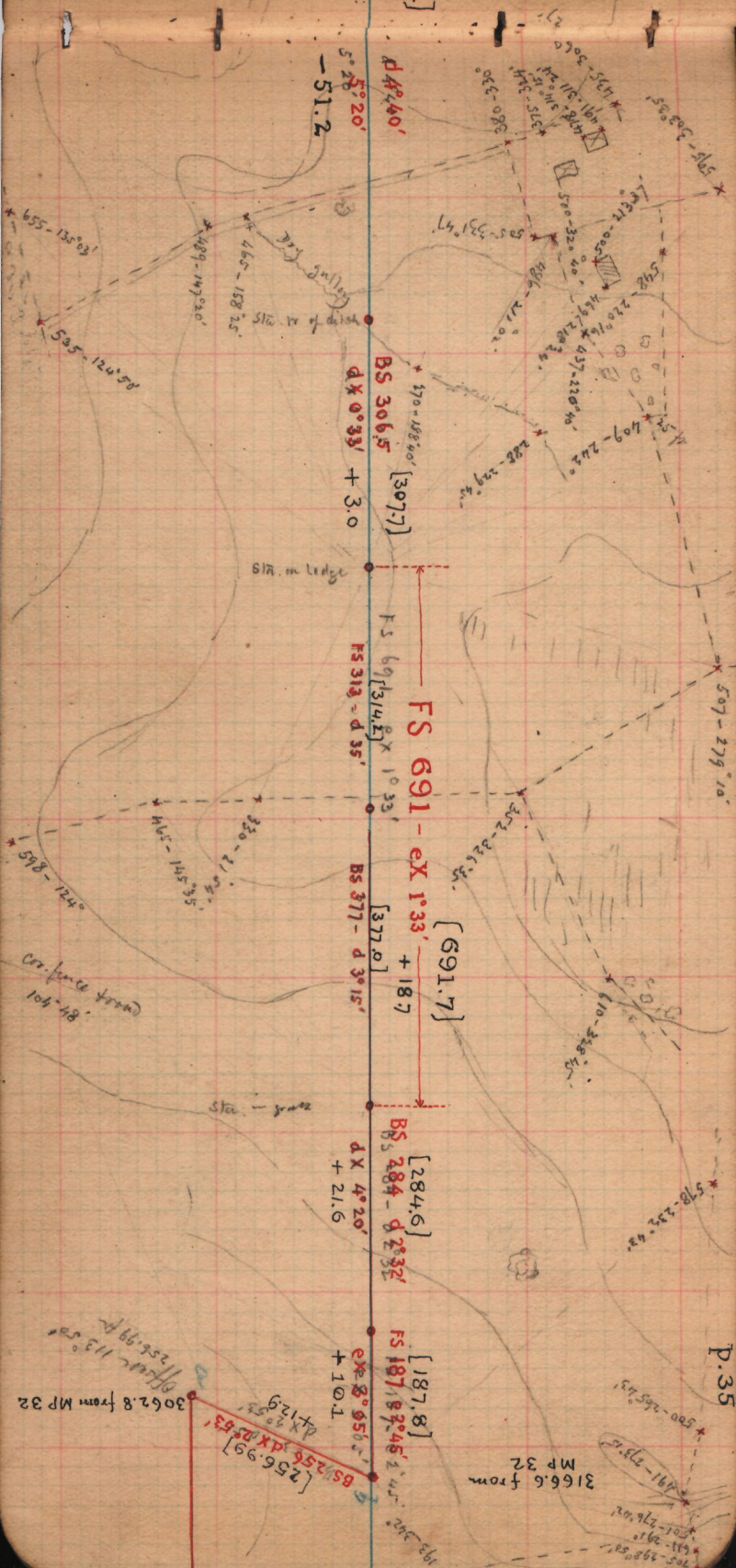












5  
d 42° 40'  
- 51.2

BS 306.5 [307.7]  
d X 0° 33' + 3.0

FS 691 - ex 1° 33' [691.7]  
FS 313 - d 35'  
+ 18.7

BS 284 - d 2° 32'  
d X 4° 20' + 21.6

FS 187  
BS 256.99 [256.99]  
d X 9° 55' + 10.1

3166.6 from MP 32

3062.8 from MP 32

Co. fence road  
101-401

Sta. on ledge

Sta. - 3rd

Sta. on road

Sta. on road

Sta. on road

Sta. on road

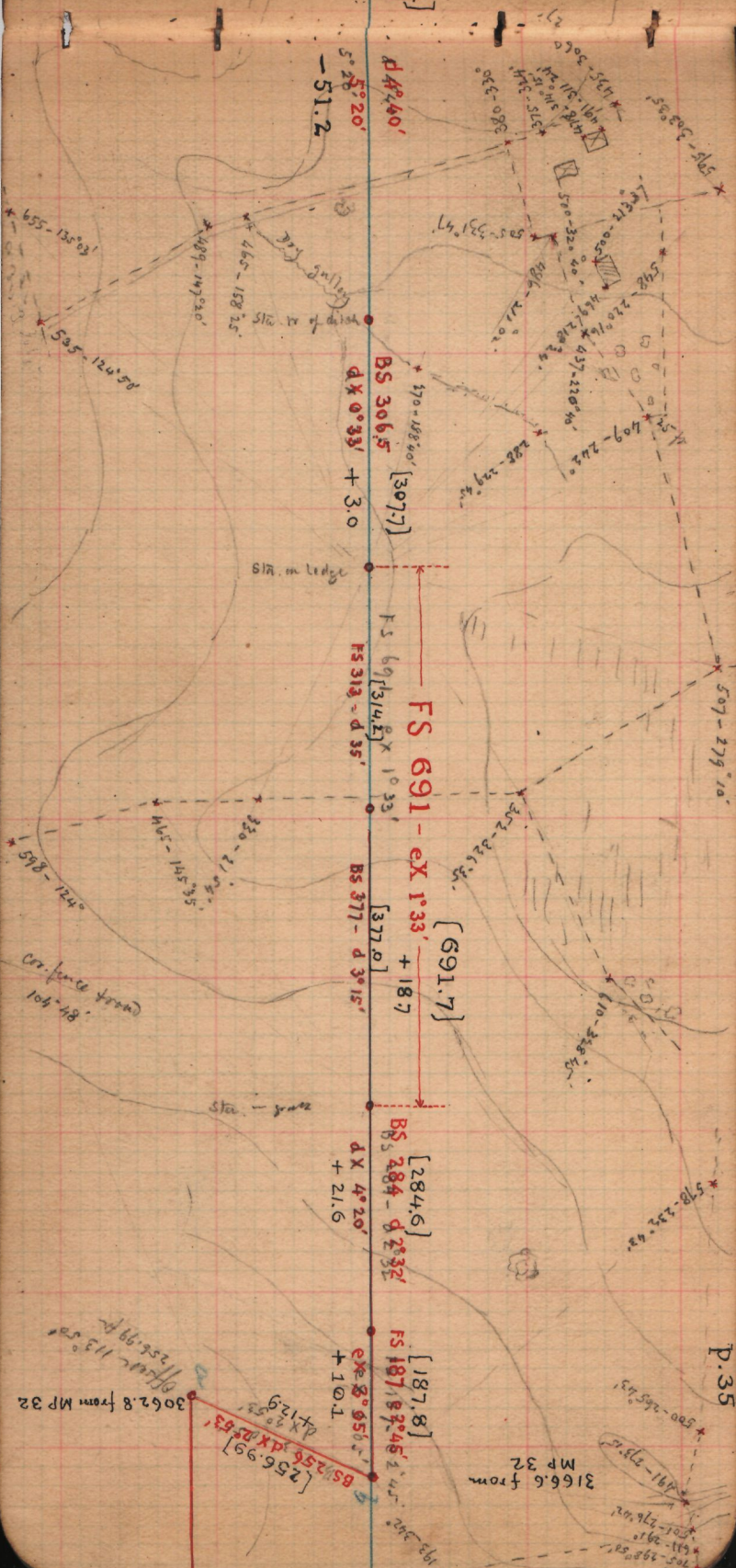
Sta. on road

Sta. on road

Sta. on road

Sta. on road

Sta. on road





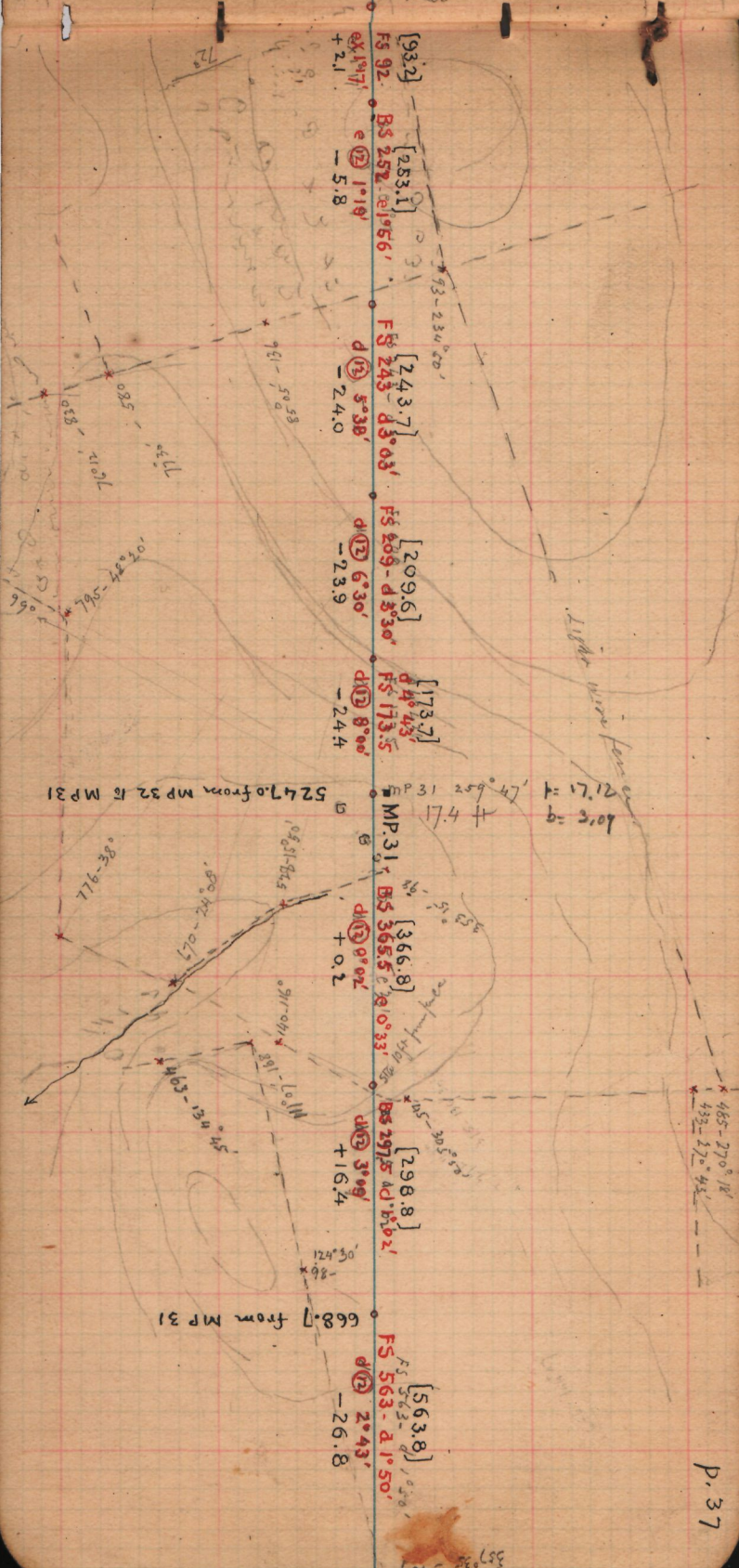


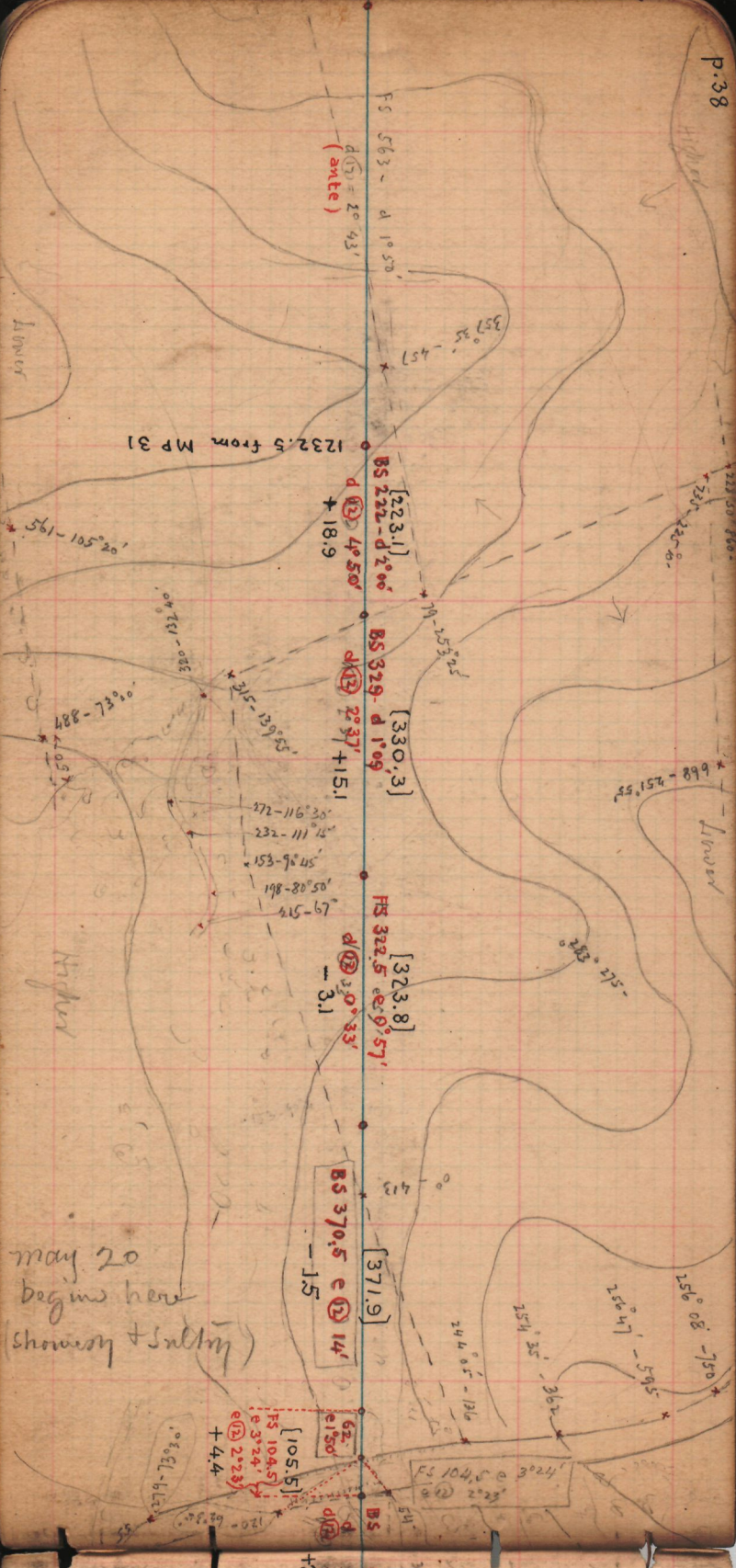
[93.2] - [253.1] - [243.7] - [209.6] - [173.7] - [366.8] - [298.8] - [563.8]  
 FS 92 - BS 252 - FS 243 - FS 209 - FS 173 - BS 365 - BS 297 - FS 563  
 + 2.1 - 5.8 - 24.0 - 23.9 - 24.4 - + 0.2 - + 16.4 - - 26.8  
 d(19) 1°19' - d(15) 5°38' - d(12) 6°30' - d(10) 8°00' - d(13) 9°02' - d(12) 3°09'

5247.0 from MP 32 to MP 31

$a = 17.12$   
 $b = 3.05$   
 $c = 17.4$

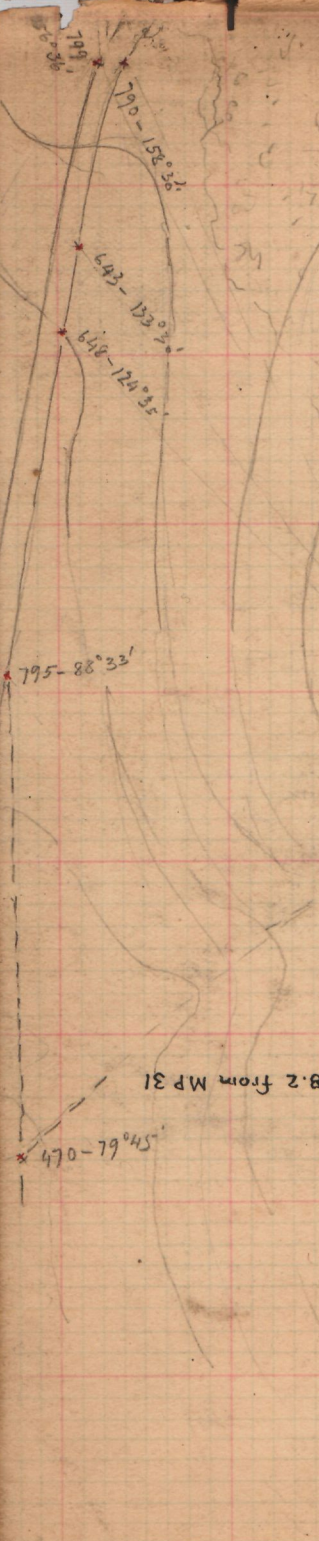
668.7 from MP 31







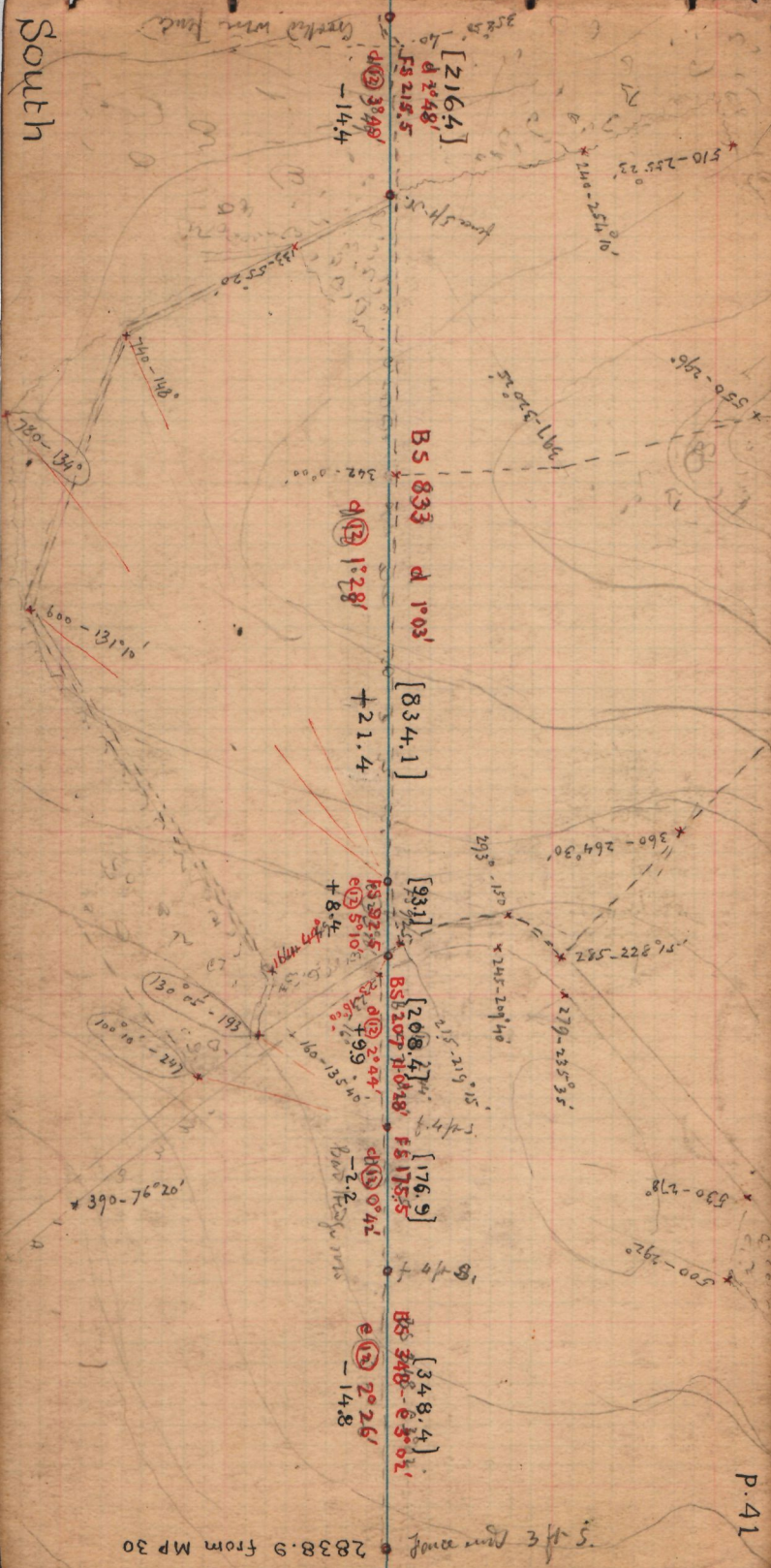
[144.6]  
 144.5  
 FS 285 - e 2° 00'  
 [286.0]  
 + 7.2  
 d(12) 1° 27'  
 BS 215 - d 2° 20'  
 [216.0]  
 + 12.6  
 d(12) 3° 21'  
 FS 174.5 e 1° 30'  
 [175.8]  
 + 2.7  
 e(12) 0° 53'  
 BS 508  
 [50.87]  
 e 2° 07'  
 - 13.3  
 194.6 - 182 \*  
 3918.2 from MP 31  
 FS 926 - d 4° 43'  
 d(12) 5° 14'  
 [921.1]  
 - 84.4







South



2838.9 from MP 30







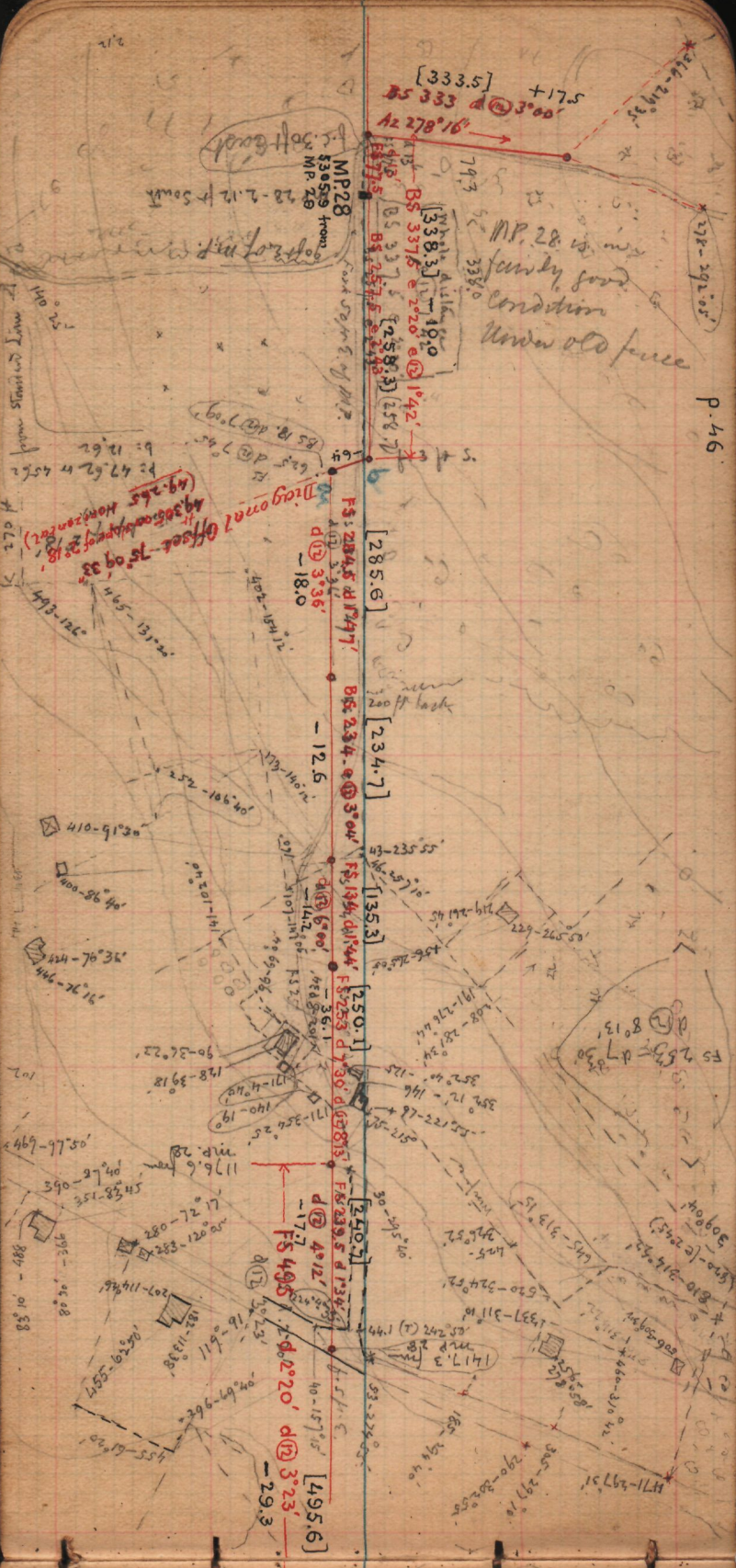












[333.5] +17.5  
 BS 333 d(2) 3° 00'  
 Az 278° 16'

MP 28  
 530.59 from  
 MP 28  
 28-2.12 ft South

MP. 28 is in fairly good condition under old fence

[285.6]  
 FS 284.5 d(1) 747'  
 d(2) 3° 36'  
 -18.0

[234.7]  
 BS 234.4 d(2) 3° 04'

[135.3]  
 FS 134.4 d(1) 44'

[250.1]  
 FS 253 d(1) 30' d(2) 813'

[240.5]  
 FS 239.5 d(1) 33'

[495.6]  
 d(2) 4° 12'  
 FS 495 d(1) 2° 20'  
 d(2) 3° 23'  
 -29.3

140-25'  
 140-25'  
 140-25'  
 140-25'

Diagonal Offset 75° 09' 33"  
 49.265  
 49.305  
 49.345  
 49.385  
 49.425  
 49.465  
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1672.2 from MP 28

B5 340-e 2°58'  
e(12) 2°17' -13.6

[340.5]

F5 547 d 4°00'  
d(12) 4°56'

[545.7]

B5 396 e 3°00'  
e(12) 2°22' -16.4

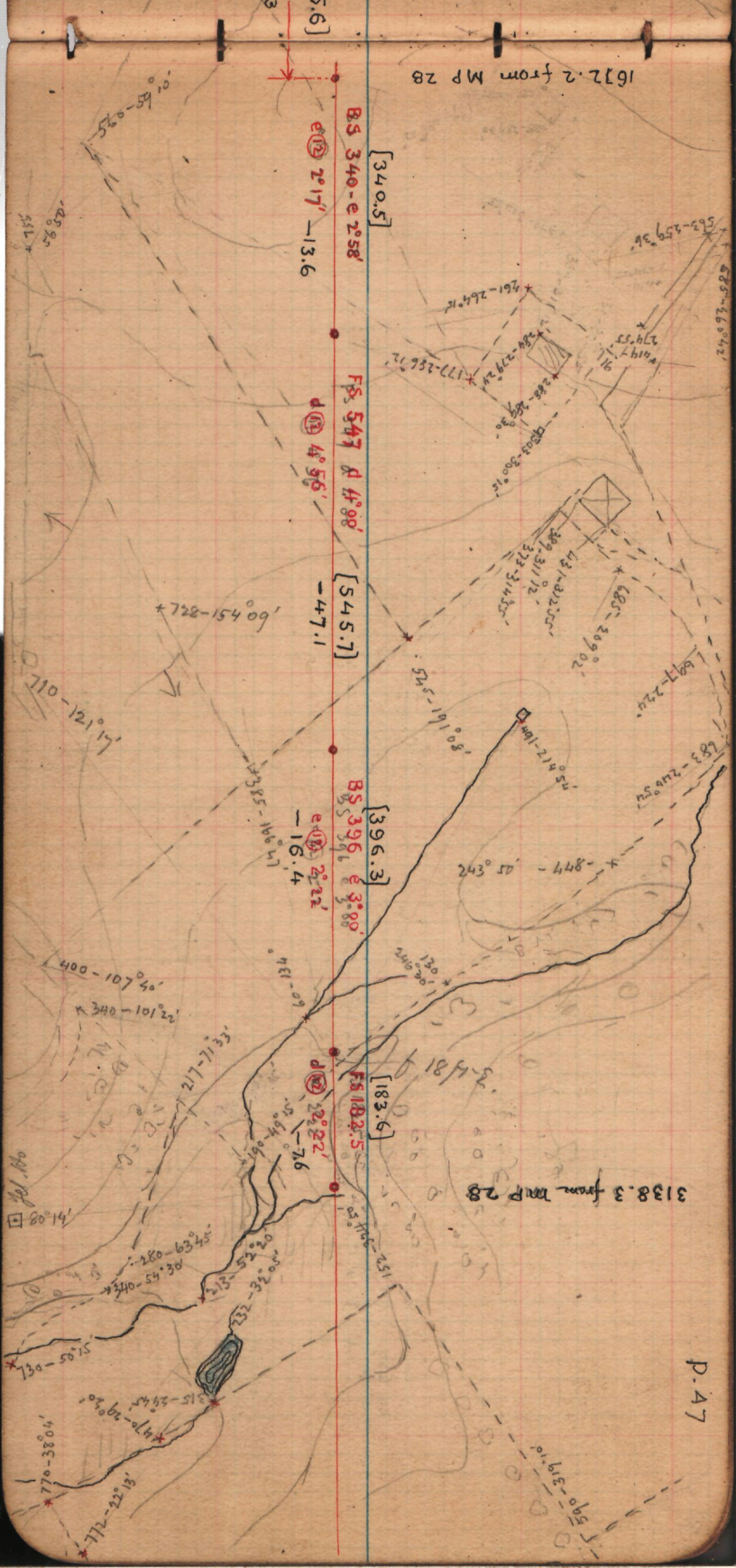
[396.3]

F5 182.5  
d(12) 2°22' -7.6

[183.6]

3138.3 from MP 28

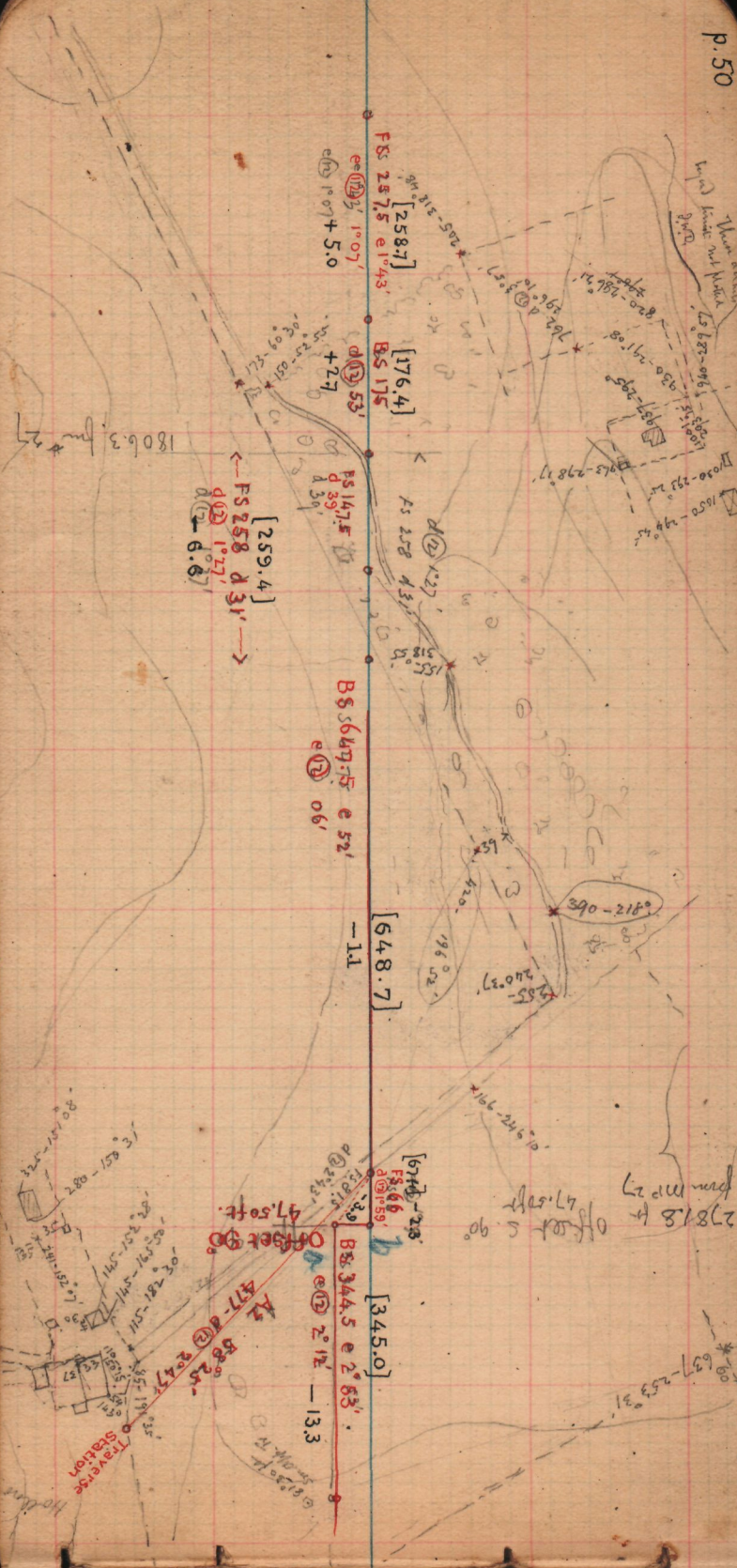
P.47









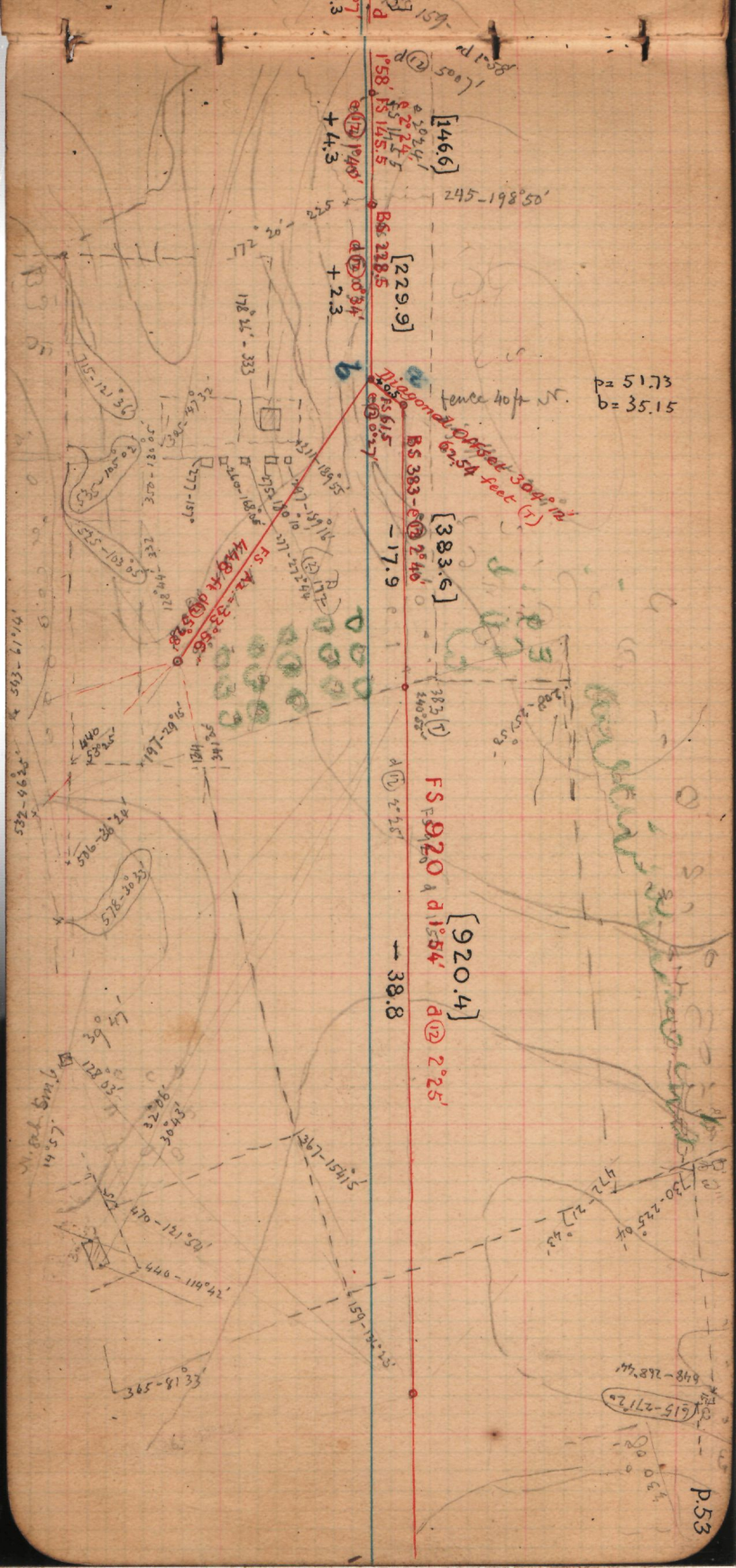




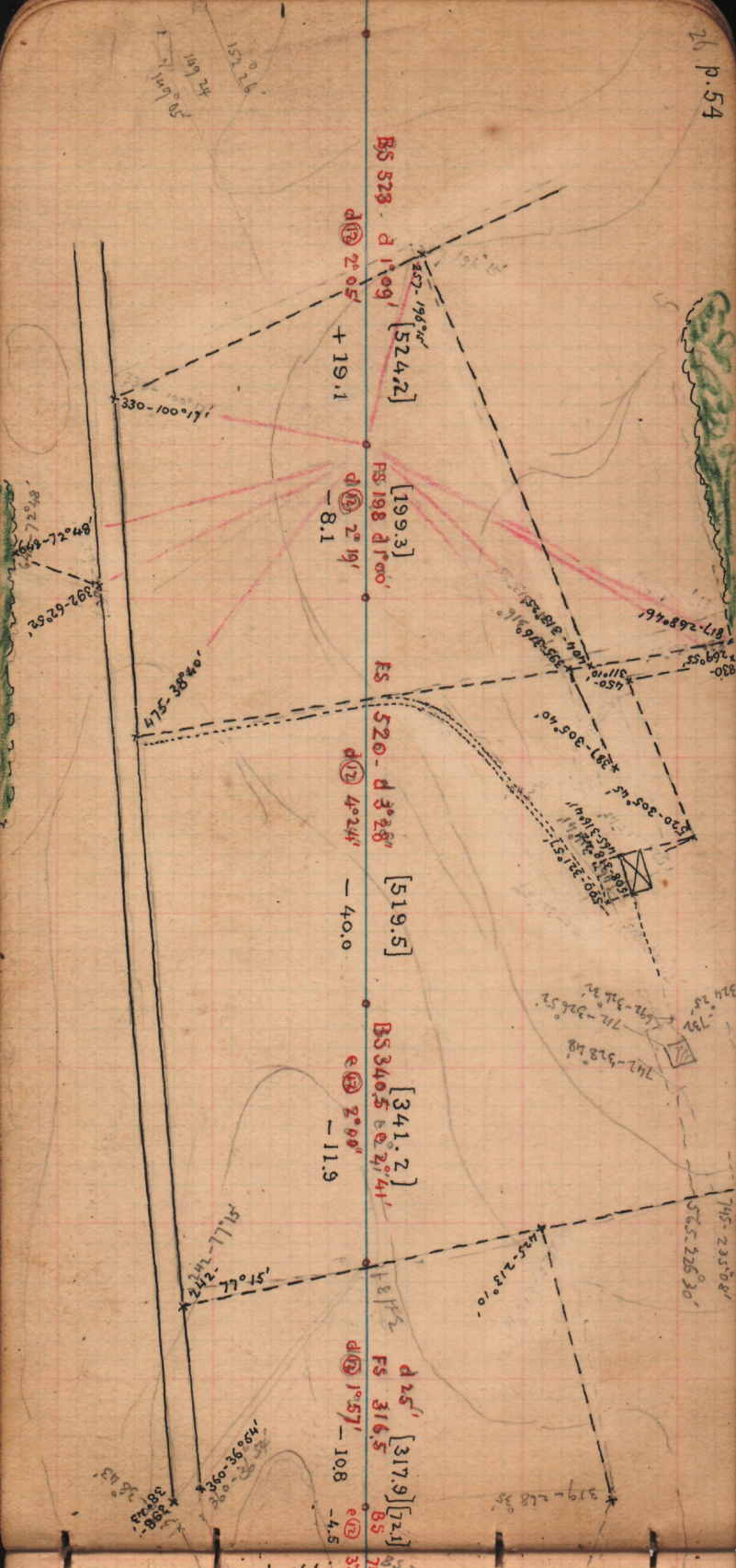








p = 51.73  
b = 35.15



BS 523 - d 1'09' [524.2]

d 12 2'05" + 19.1

FS 198 d 1'00' [199.3]

d 12 2'19" - 8.1

FS 520 - d 3'28" [519.5]

d 12 4'24" - 40.0

BS 340.5 [341.2]

e 12 2'00" - 11.9

FS 316.5 [317.9]

d 25' [72.1] d 12 1'57" - 10.8

149.24  
157.26  
50  
149.05

72.48  
72.48  
392.6252

38.24  
38.24  
38.24

817-268.46  
269.55  
830

720-305.45  
397-305.40  
450  
311.10  
395.3769  
376.916  
350-321.57  
308-328.44  
308-328.44  
308-328.44  
747-628.68  
712-326.52  
692-324.32  
724.28  
721

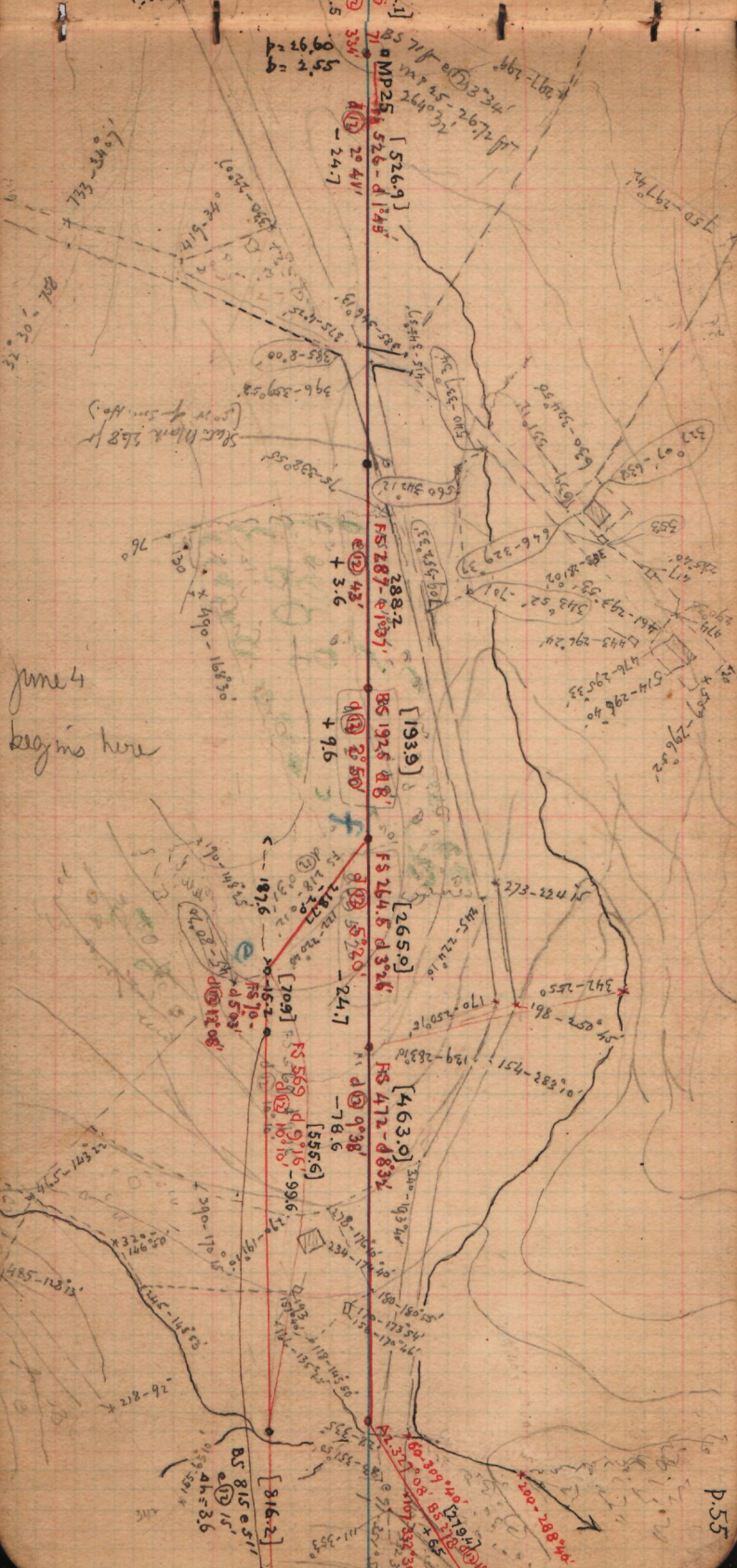
745-235.08  
565-226.30

425-213.10

319-268.35

26.60  
334  
71





June 4  
begins here

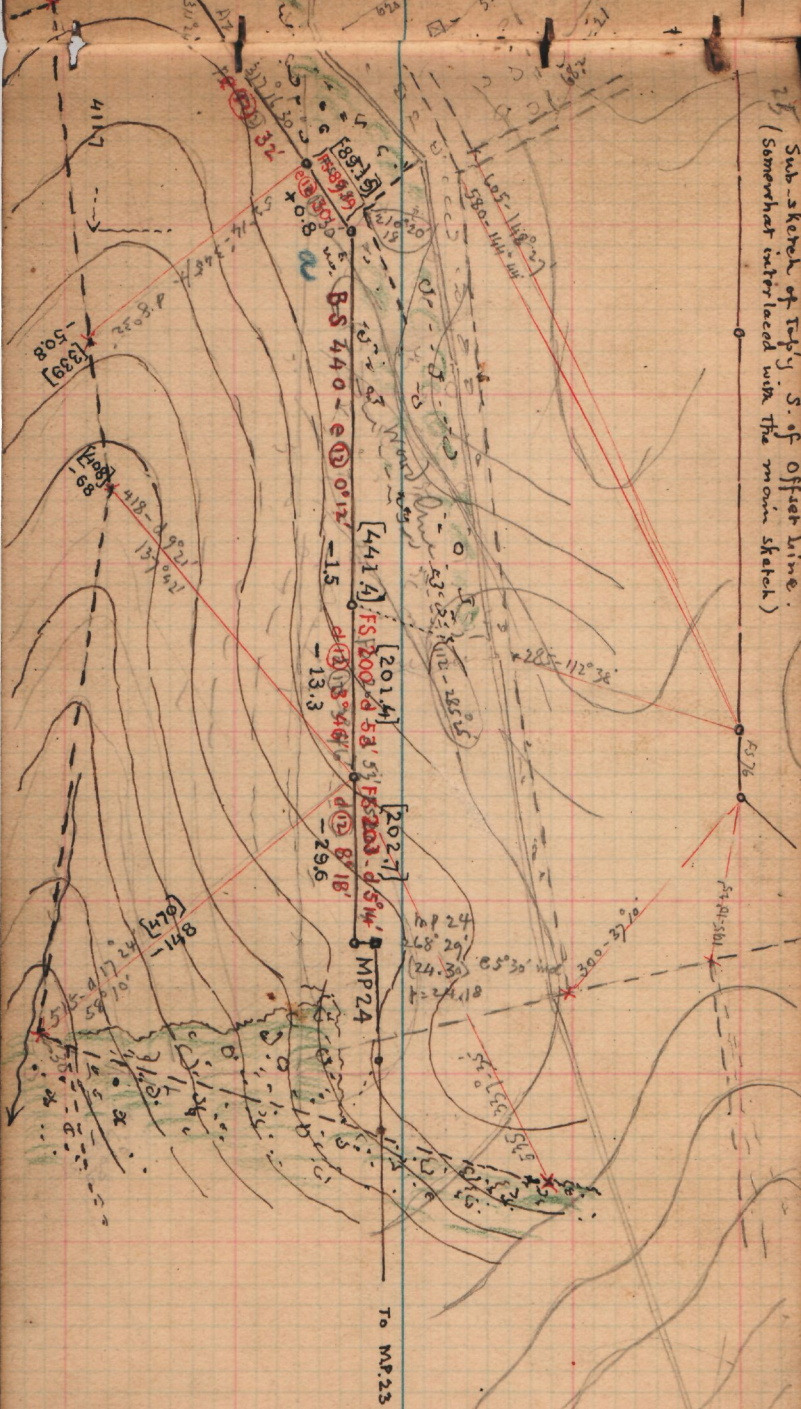
Scan Mark 268 ft







Sub-sketch of top'y S. of Offset line.  
 (Somewhat interlaced with the main sketch)



24 18  
 33  
 23 28



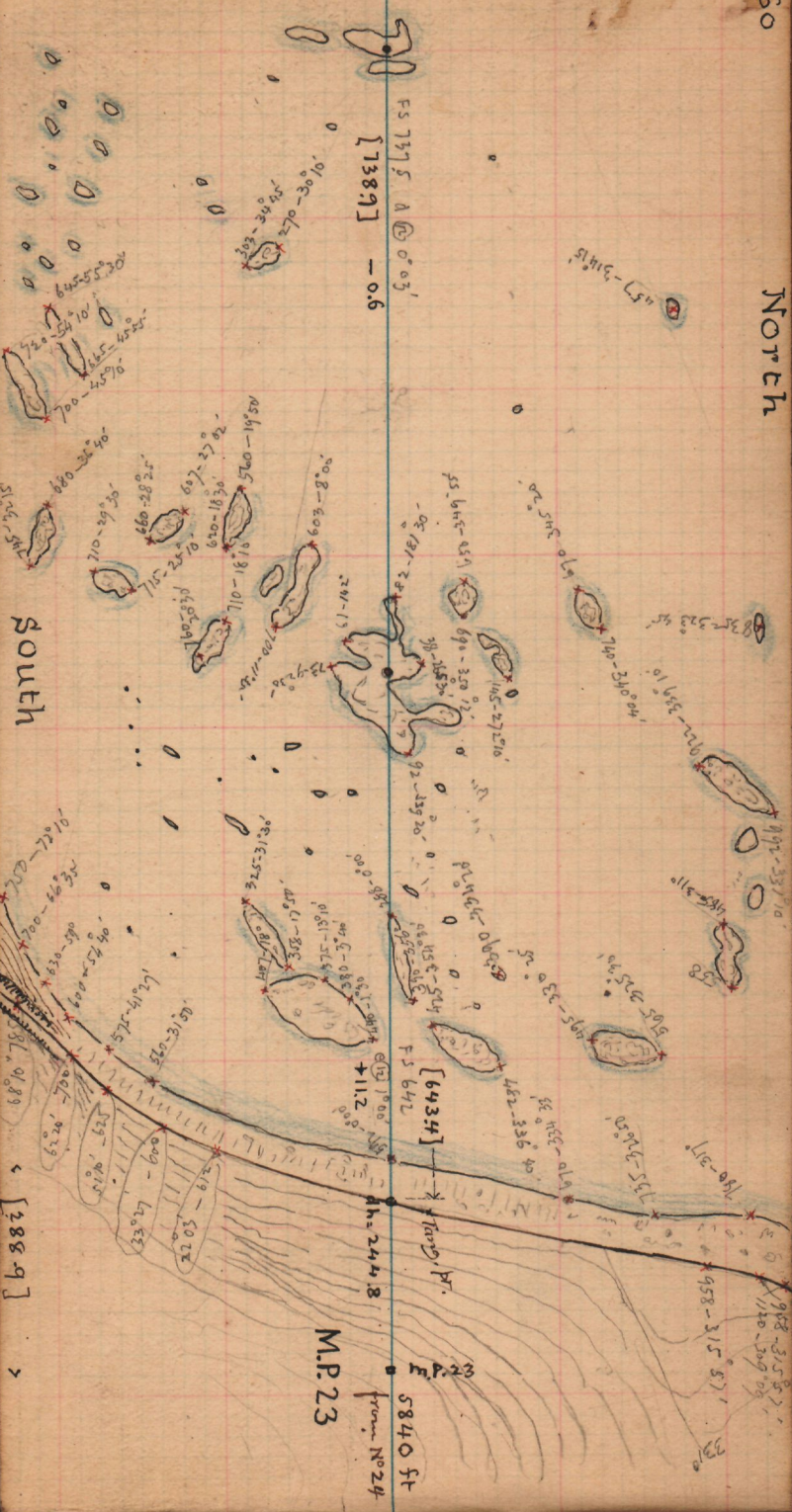






North

FS 7375 A @ 0'03'  
[7389] - 0.6



South

M.P. 23

5840 ft  
from No. 24

[6434]

FS 6472

[2889]

[810189]



3310  
40 ft  
No 24

NOTE: In this book, the azimuths are reckoned from the eastern direction of the transit line, i.e.,  
E. =  $0^\circ$ ; S. =  $90^\circ$ ; W. =  $180^\circ$ ; N. =  $270^\circ$ .

The Transit Line ("C") joins the centres of Mileposts 23 and 24  
Transit Line "D" begins at a point 24.18 ft South of Milepost 24 and is modified by numerous offsets.

Diagonal offset to S.E. d back of McPherson's  
 house east of No 26 mile post 62.54 ft

$p = 51.73$        $b = 35.15$

	D				R			
Back sight	180	00	00	00	0	00	05	00
mark SW.	124	11	58	62	304	11	56	52

Diagonal offset to S.E. d on hill e. of M.P. 25

	D				R				Dist
Back line	180	00	00	00	0	00	06	00	44.74
mark SE.	30	58	12	11	210	58	20	22	36.89
									81.62
									55.52
									218.77
	$p = 112.58$				$b = 187.58$				

Diagonal offset to S.E. d east of last place

	D				R				
Back line	180	00	00	00	0	00	10	00	(2°55' incl) 27.26 27.26
mark SE.	67	24	45	40	247	24	50	50	86.41
									85.03 85.03
									(0°41' incl) 81.81 81.80
									280.62 280.50
	$p = 258.98$				$b = 107.74$				

Offset to N.E. d east of last place

	D				R				
Back line	180	00	00	00	0	00	05	00	42.26
mark SW	137	16	40	50	317	16	35	30	64.00
									59.41
									42.43
									51.65
									72.73
									61.68
									57.09
									471.19
									41.10
									48.09
									560.38
	$p = 380.17$				$b = 411.69$				

June 9 - at line bridge tried new reticule  
 of Theod. 56 on rd for microm. eyepiece

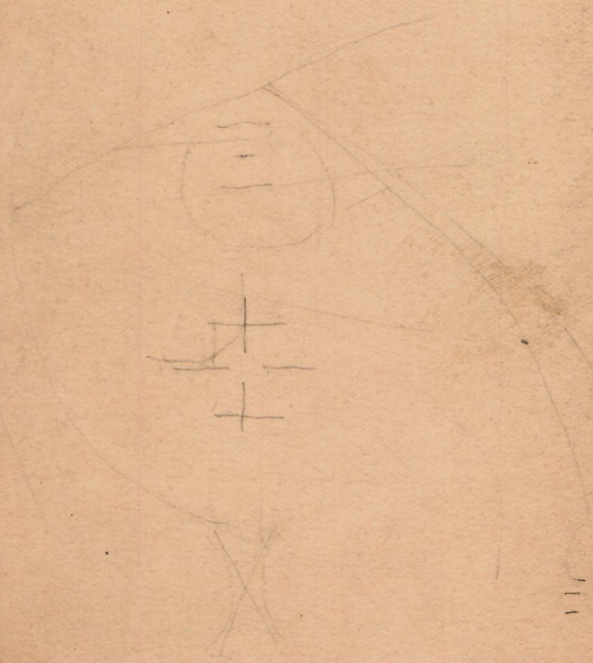
measured dist	observed reading
100 ± 14	124.5 + 14
200 + 14	249.0 + 14
300 + 14	374.0 + 14
400 + 14	498.0 + 14

400 + 14 = 414  
 498 + 14 = 512  
 512 - 414 = 98  
 98.0 (197)

112.52  
 252.98  
 371.56



	Constitution line	Corr Diff line	Eastern line	
m P 35	179.70 S.	55.37 N	102.99 N	14.00
34	193.70 S.	41.37 N	88.99	9.21
33	202.91 S.	32.16 N	79.78	9.85
32	212.76 S.	22.31 N	69.93	5.19
	offset of 235.07			
31	17.12 N.	17.12 N	64.74	7.30
30	9.82 N.	9.82 N	57.44	3.51
29	6.31 N.	6.31 N	53.93	6.43
28	0.12 S.	0.12 S	47.50	5.48
	offset S	47.62	42.02	89.52
27		offset S	47.50	89.73
26			42.23	
25			36.33	83.83
24				



level 35 539. d(12) 40'  
 35 470 @ 22' d(12) 44'  
 24 4 m P 24

Apr 25 Offset on West York

BS 180° 00' 00" 0 00 00 00

92 45 472 41

dist. 65.27 level

0° 34' 69.85

0° 15' 67.17

202.88

D

R

180 00 05 55

0 00 00 00

87 01 00 45

267 51 05 60

472

575

20.07

19.845

39.915

Offset to N.E. D  
MP 38

D

R

180 00 00 00

0 00 00 00

95 44 45 45

275 44 50 50

64.47 on slope d 1° 10'

✓ 64.46 level

MP 38 S. of line

46.05 ft

MP 36 89° 47' 30"

75.30 ft

Offset to N.E. D S. of MP 36

D

R

BS 180° 00' 00" 00 00 00 00

49.90

Offset 322 11 20 18 142 11 10 18

49.87

19"

14"

49.99

180 00 00  
142 11 16

149.76

37.48 44 sin 9.78751

000 9.89764

by 149.76 2.17539

27 2.17539

1,96290

2.07303

91.81

118.31

North

91.81  
75.30

East

167.11 from Budy



Dawn Church from Pylesville Road

212° 28' 30"

70  
375  
107.5  
56.2

Mile Post - No 34 from Stake around

100° 57' 30"

b = 193.70  
b = 37.51

58.16  
44.90  
45.97  
51.27  
197.30

Mile Post No 33 118° 47'

b = 202.91  
b = 81.09

93.36  
73.57  
51.58  
218.51

Mile Post No 32 126° 00'

(on a pt 0.16 S. of middle of N. face)  
or 0.34 N. of centre of road

b = 154.33

62.11  
68.45  
66.19  
71.81  
262.56

diag. offset to sd at road E. of No 32

D R

1 46.79  
2 43.48  
3 64.70  
4 68.12  
5 43.90  
256.99

Back line 180° 00' 00" 05" 0° 00' 00" 05"  
max to rd 293 50 00 08 113 50 00 05  
02 00  
113 50 01  
66 09 59

b = 235.07  
b = 103.84

Offset to S.D. at Cardiff general pt

88° 32' 45" \* 30.00 ft  
b = 29.99 b = 0.76

Offset to S.D. part E. of M.P. No 28

D R

	D				R			
	A	B			A	B		
BS	180° 00'	55" 05"			0° 00'			154.20
offset	75° 09'	28 30			255° 09'	40 30		
max	71° 41'	22 24			251° 41'	20 30		
	75° 09'	29			255° 09'	39		
		27						
		23						

Dist = 49.265 b = 47.622 b = 12.62

Mile Post 29 from stake in short offset line 29.99 S. of line  
282° 03' 24.21 ft

b = 23.68  
offset 29.99 b = 5.05  
6.31

Mile Post 26 from 268° 39' 89.73 slope 457'