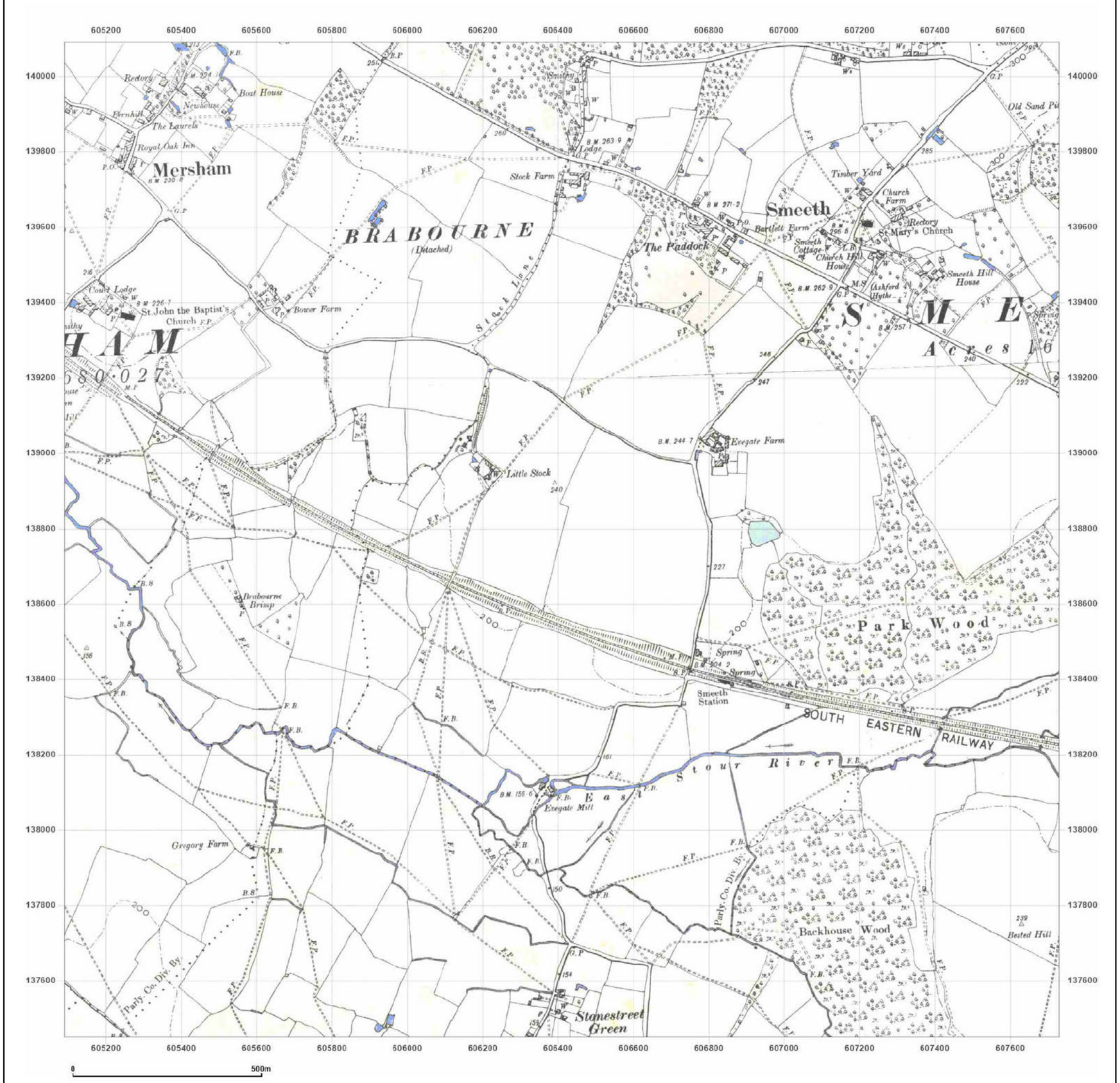
Stonestreet Green Solar

Environmental Statement
Volume 4: Appendices
Chapter 11: Land Contamination
Appendix 11.2: Phase 1 Geoenvironmental and Geotechnical Desk Study Part 4 of 5

PINS Ref: EN010135
Doc Ref. 5.4
Version 1
June 2024

APFP Regulation 5(2)(a)
Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: County Series
Map date: **1896**
Scale: 1:10,560
Printed at: 1:10,560

N
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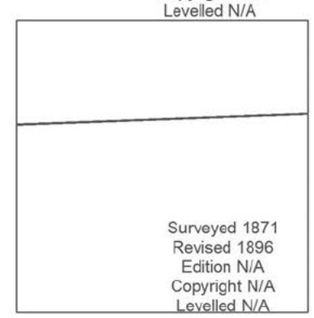
Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

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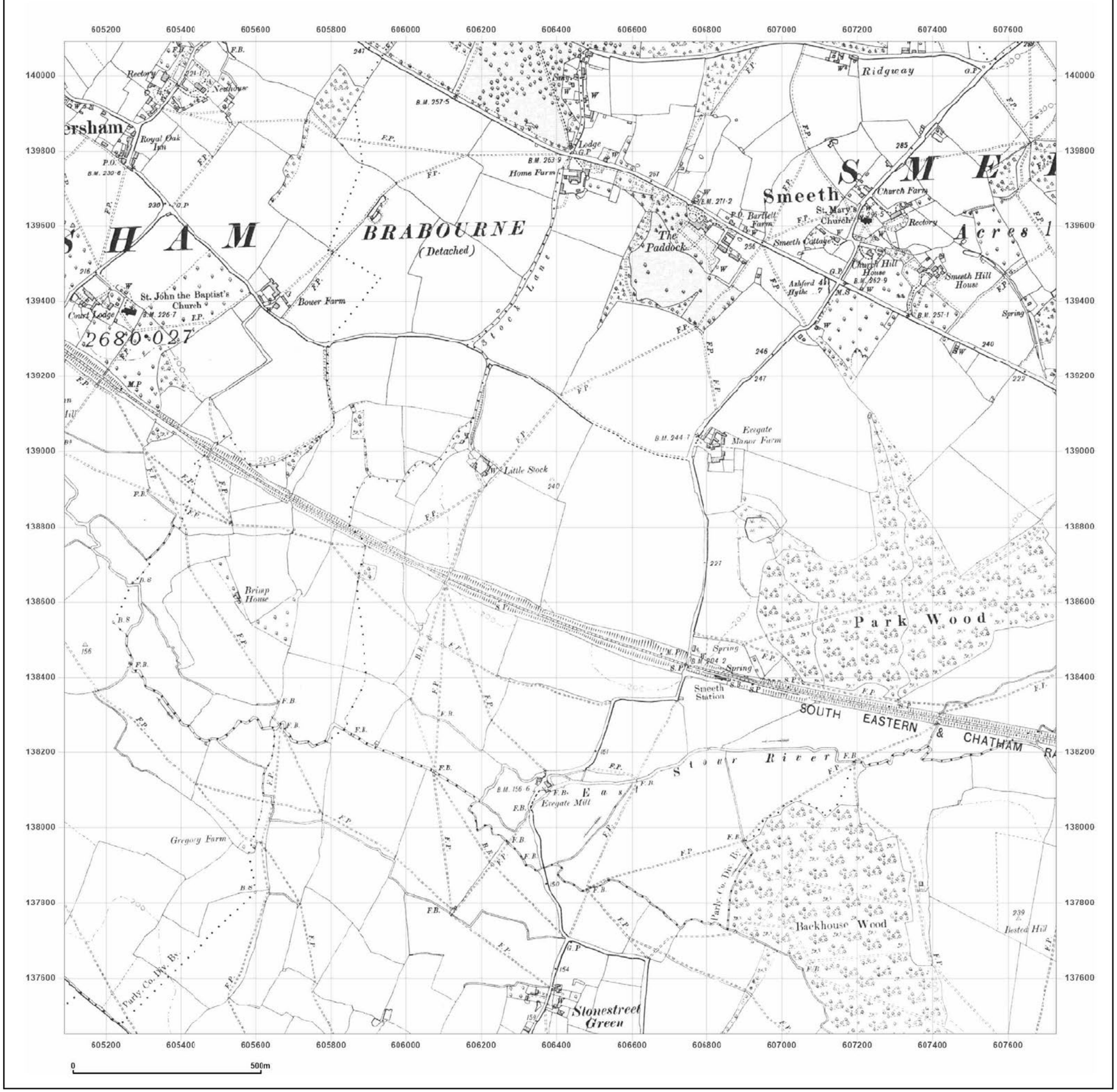

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: County Series

Map date: 1906

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
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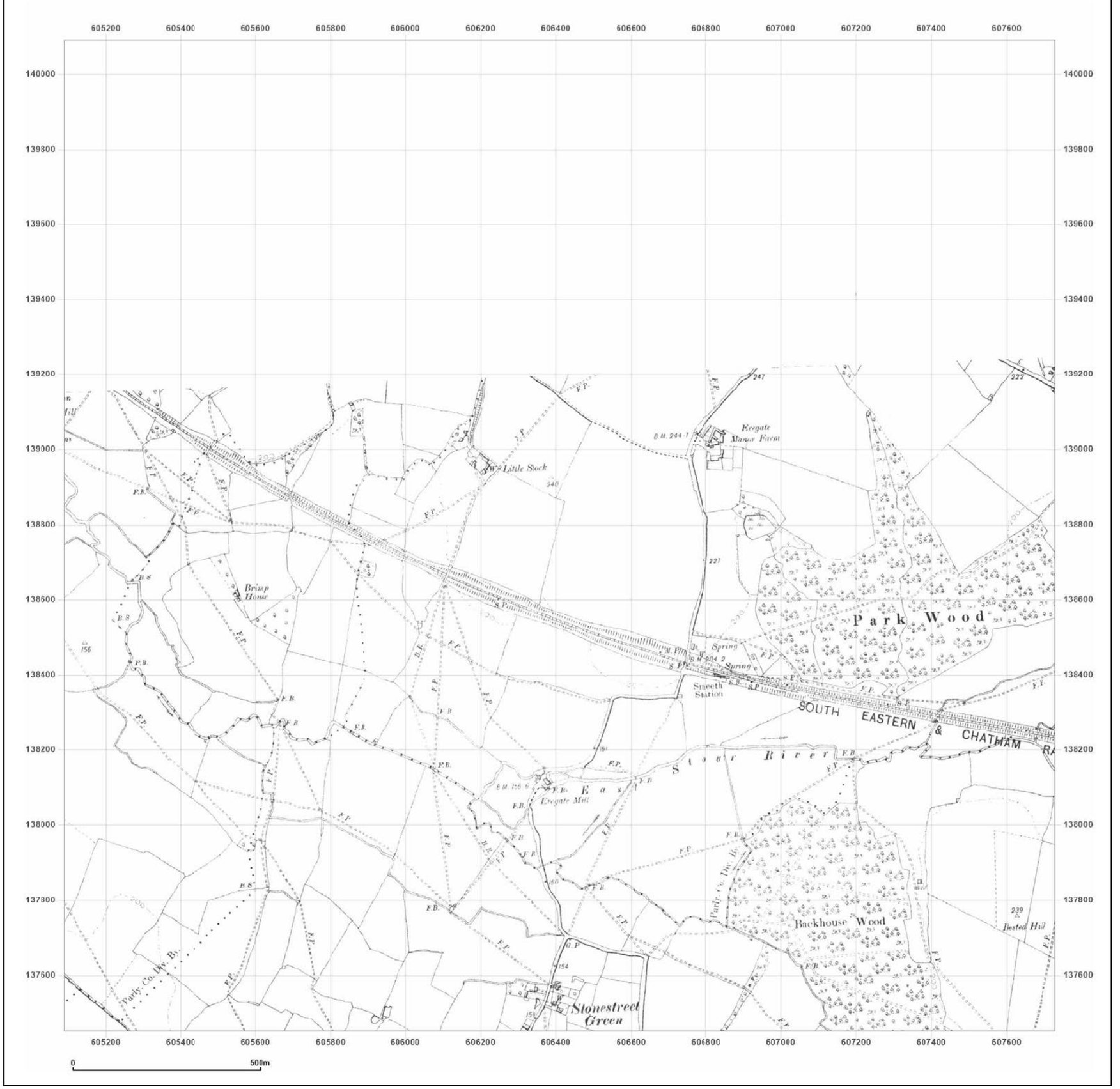

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: County Series
Map date: **1906**
Scale: 1:10,560
Printed at: 1:10,560

N
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S

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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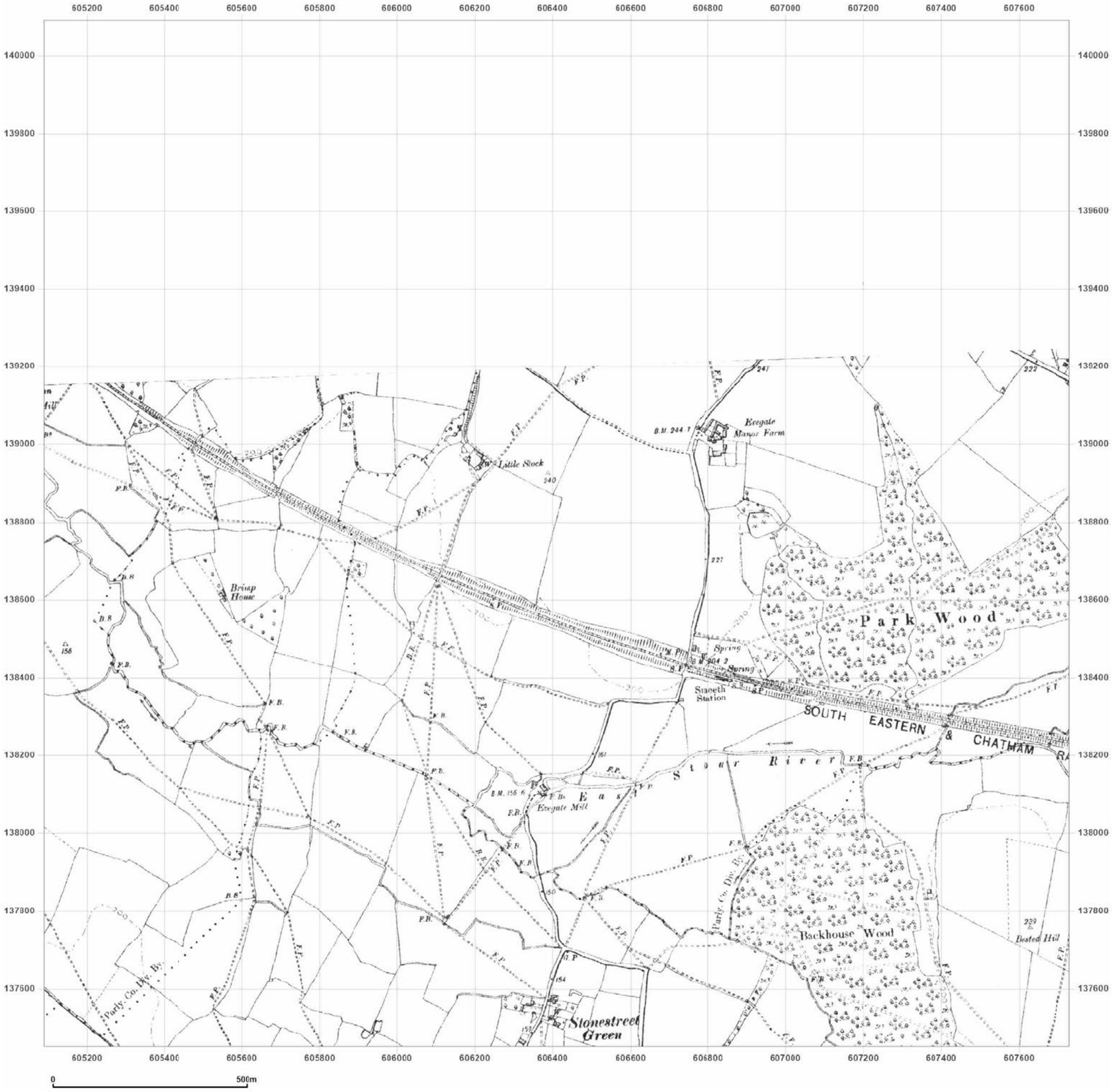

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: County Series
Map date: **1906**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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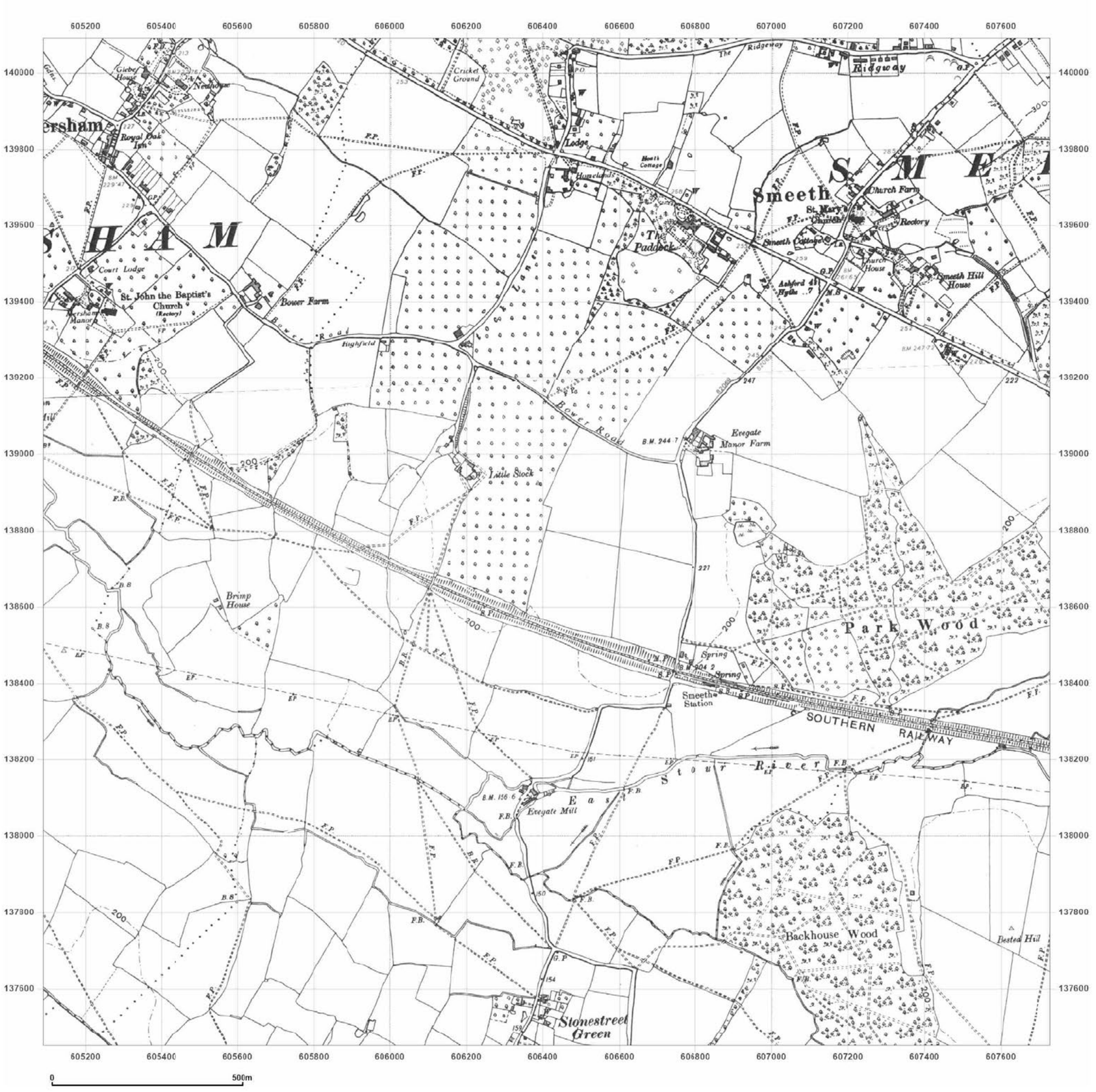

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: County Series

Map date: **1939-1940**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A

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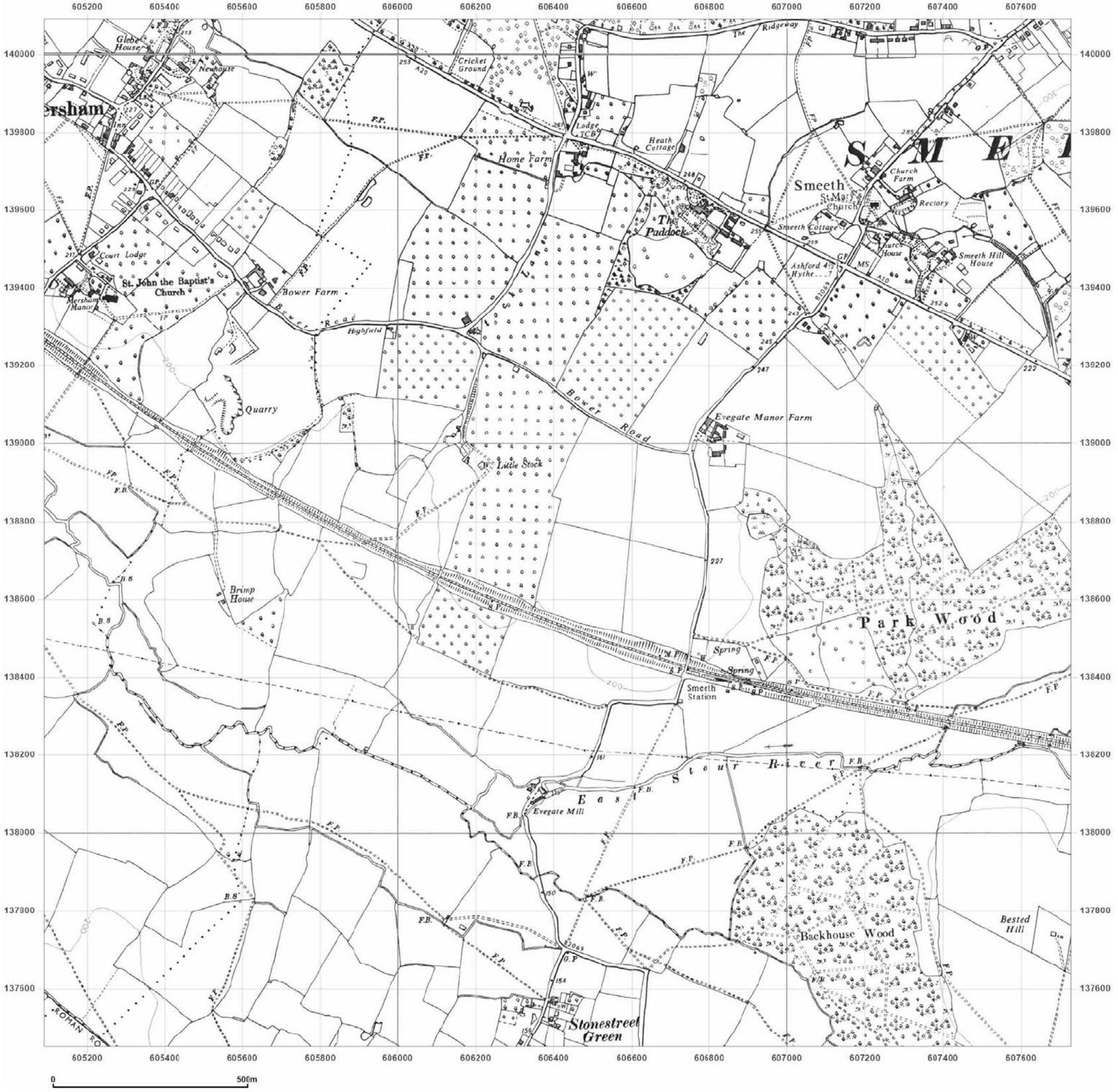

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: Provisional

Map date: **1954-1955**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

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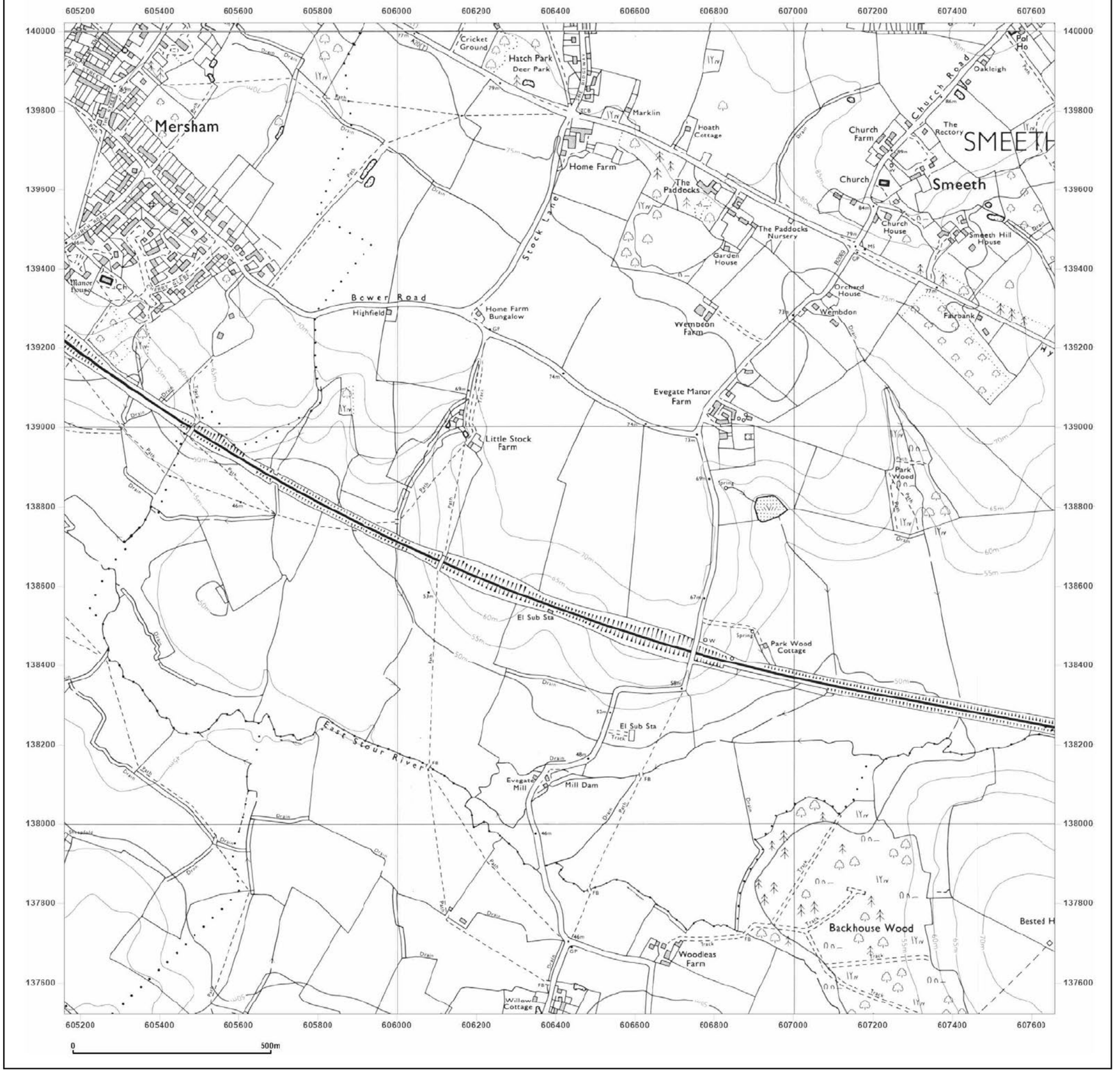

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid

Map date: **1975-1978**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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Surveyed 1974
Revised 1977
Edition N/A
Copyright 1978
Levelled N/A

Surveyed 1971
Revised 1975
Edition N/A
Copyright 1975
Levelled N/A

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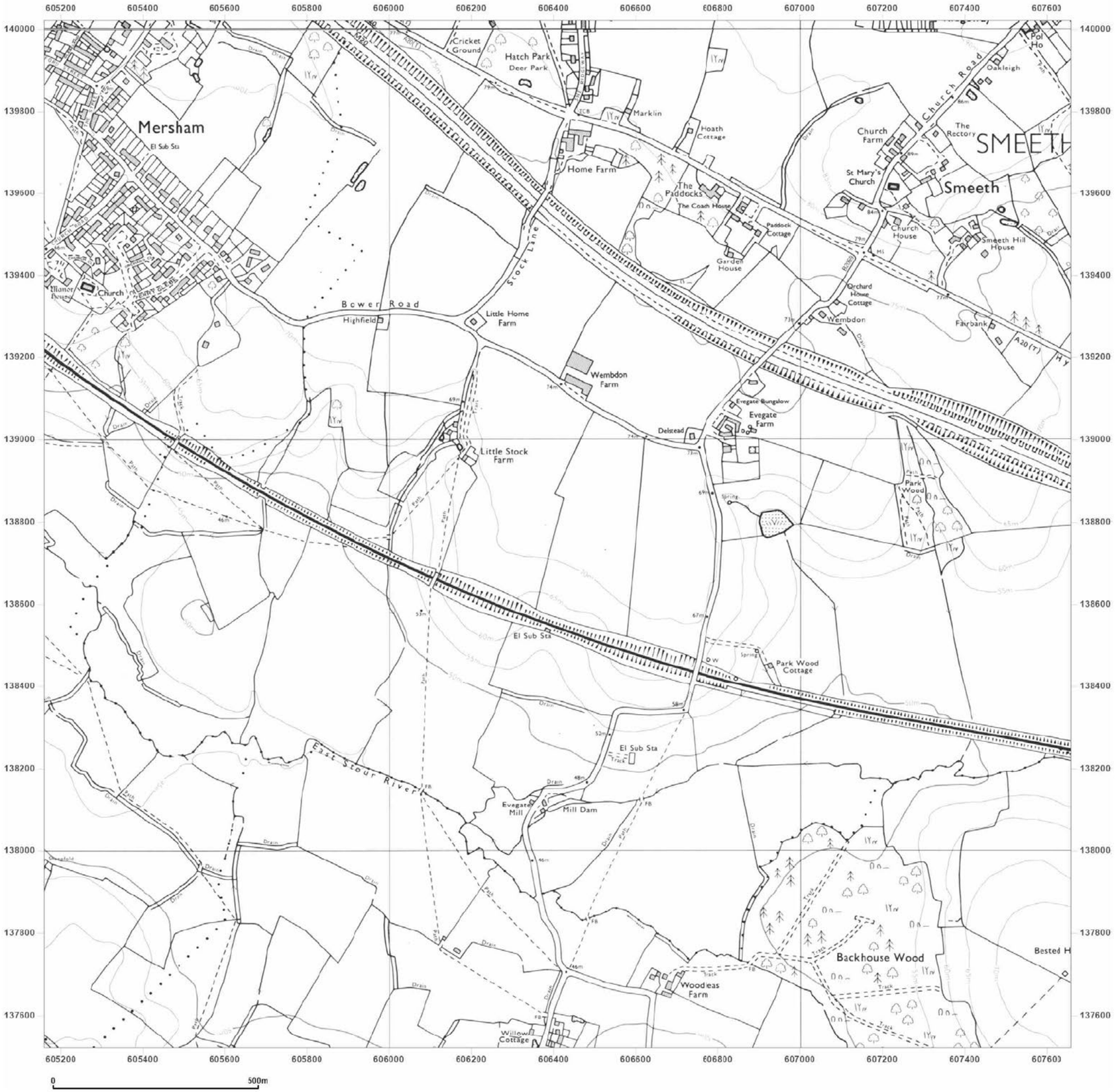

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1974
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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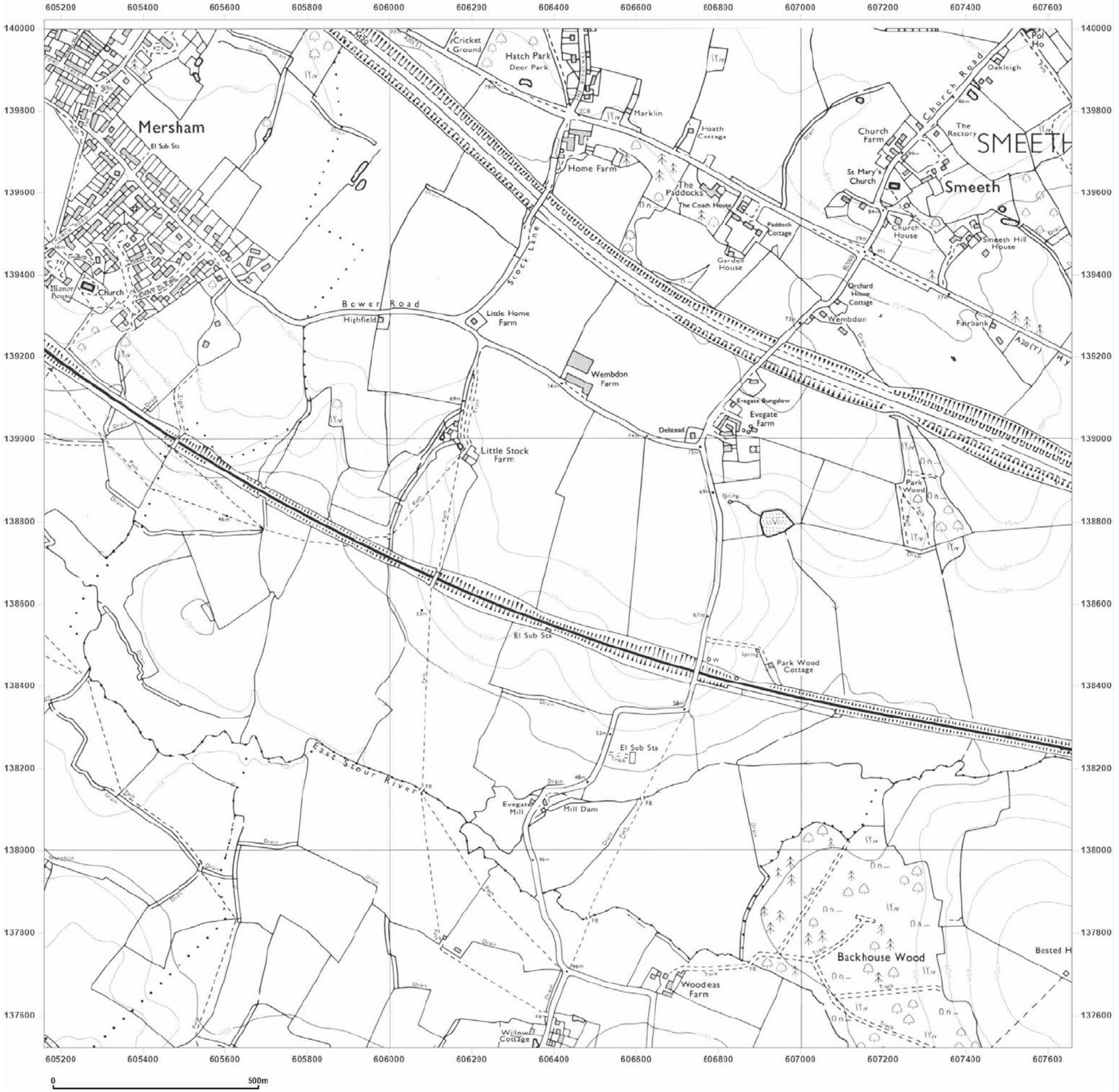

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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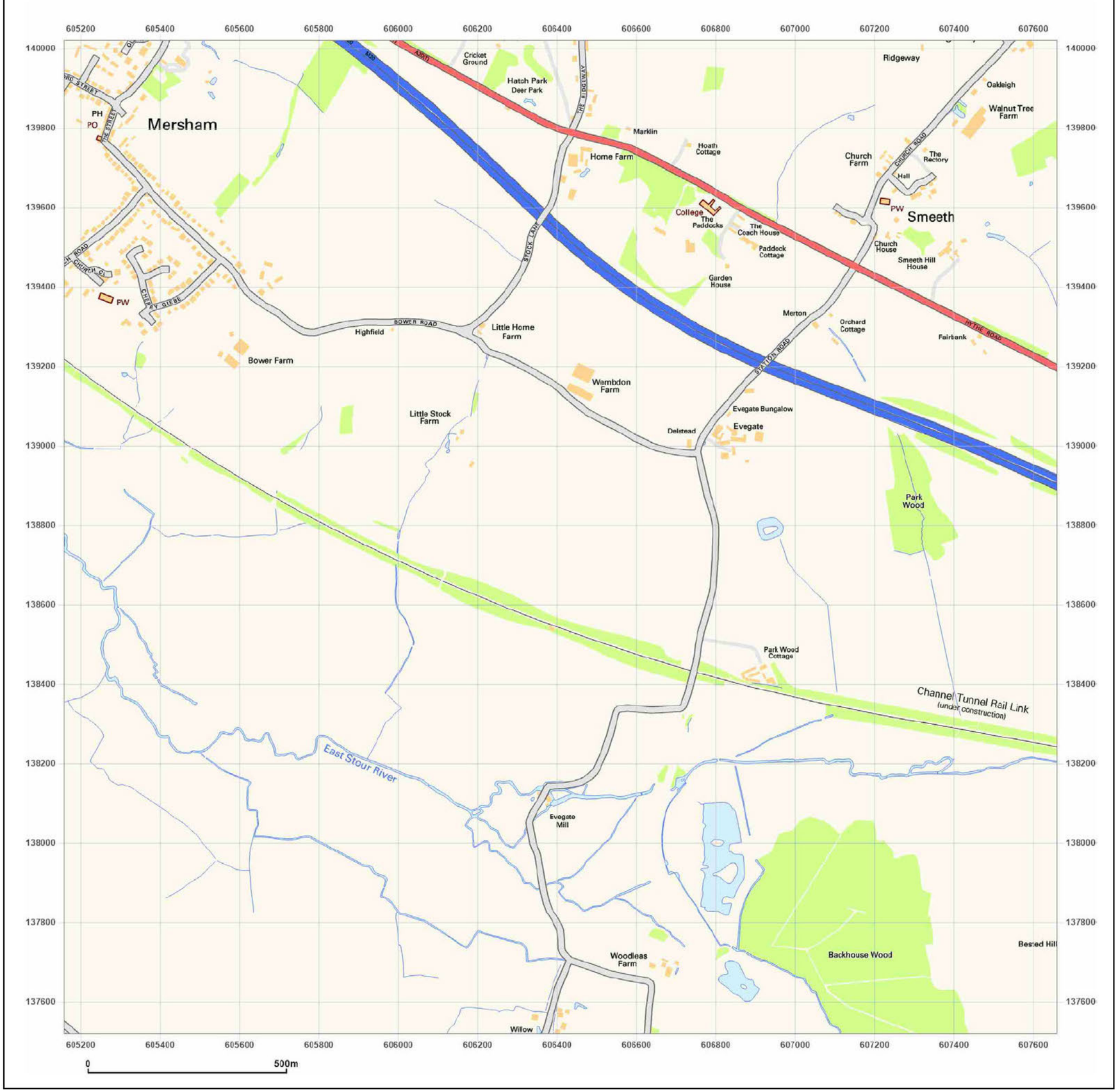

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid
Map date: **2001**
Scale: 1:10,000
Printed at: 1:10,000

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2001

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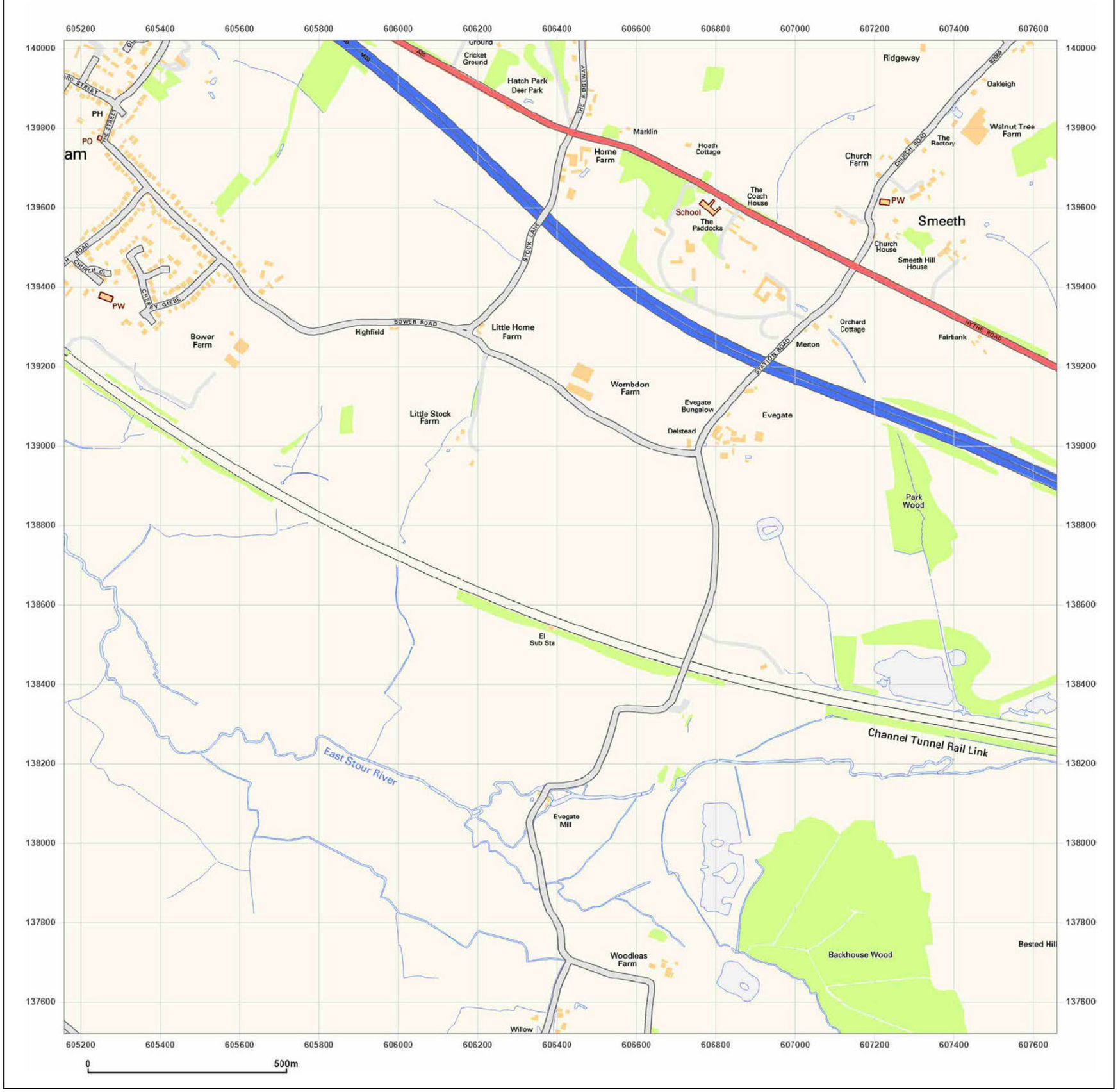

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

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2010

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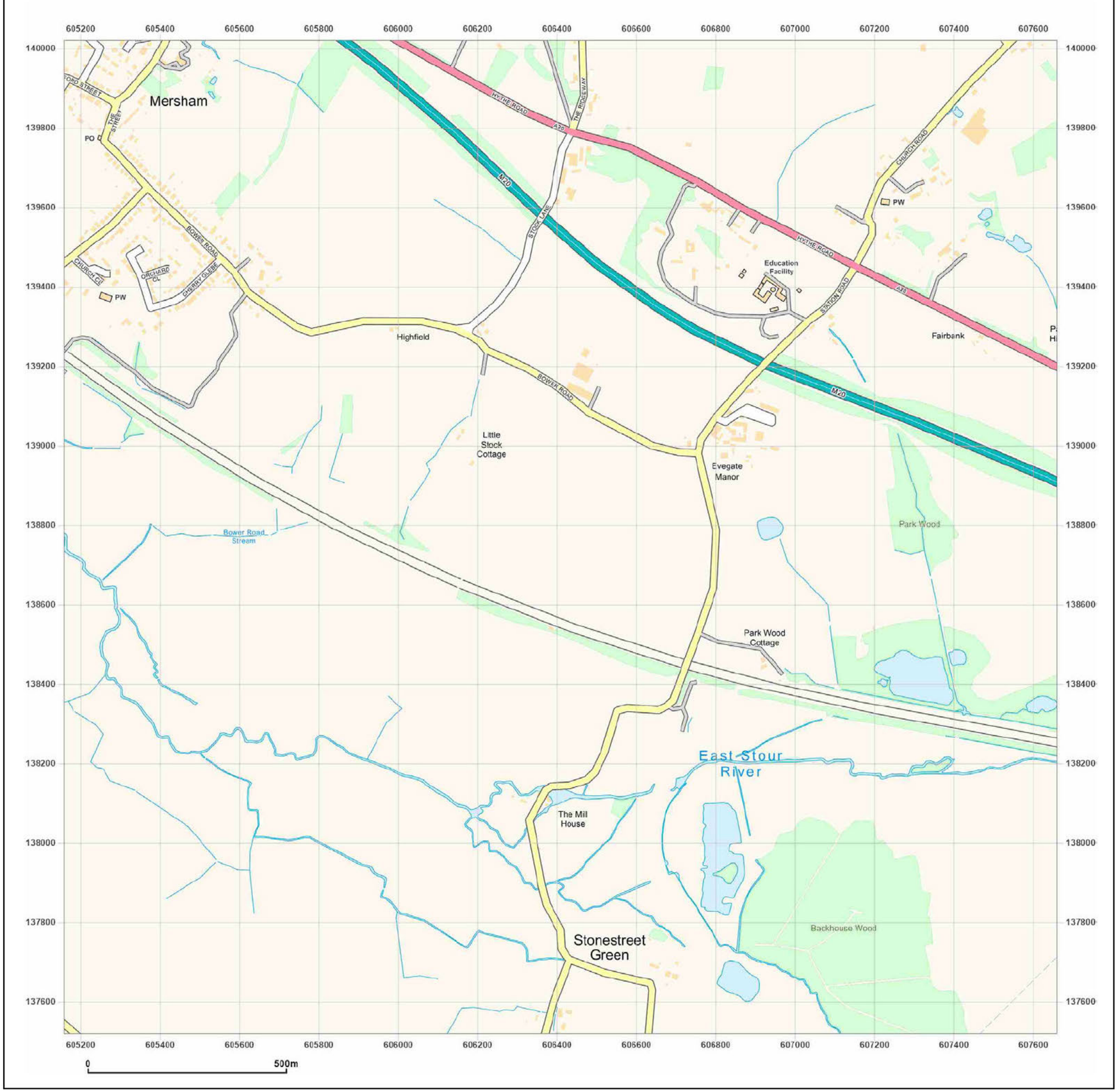

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_2_2
Grid Ref: 606409, 138770

Map Name: National Grid
Map date: 2024
Scale: 1:10,000
Printed at: 1:10,000

N W E S

2024

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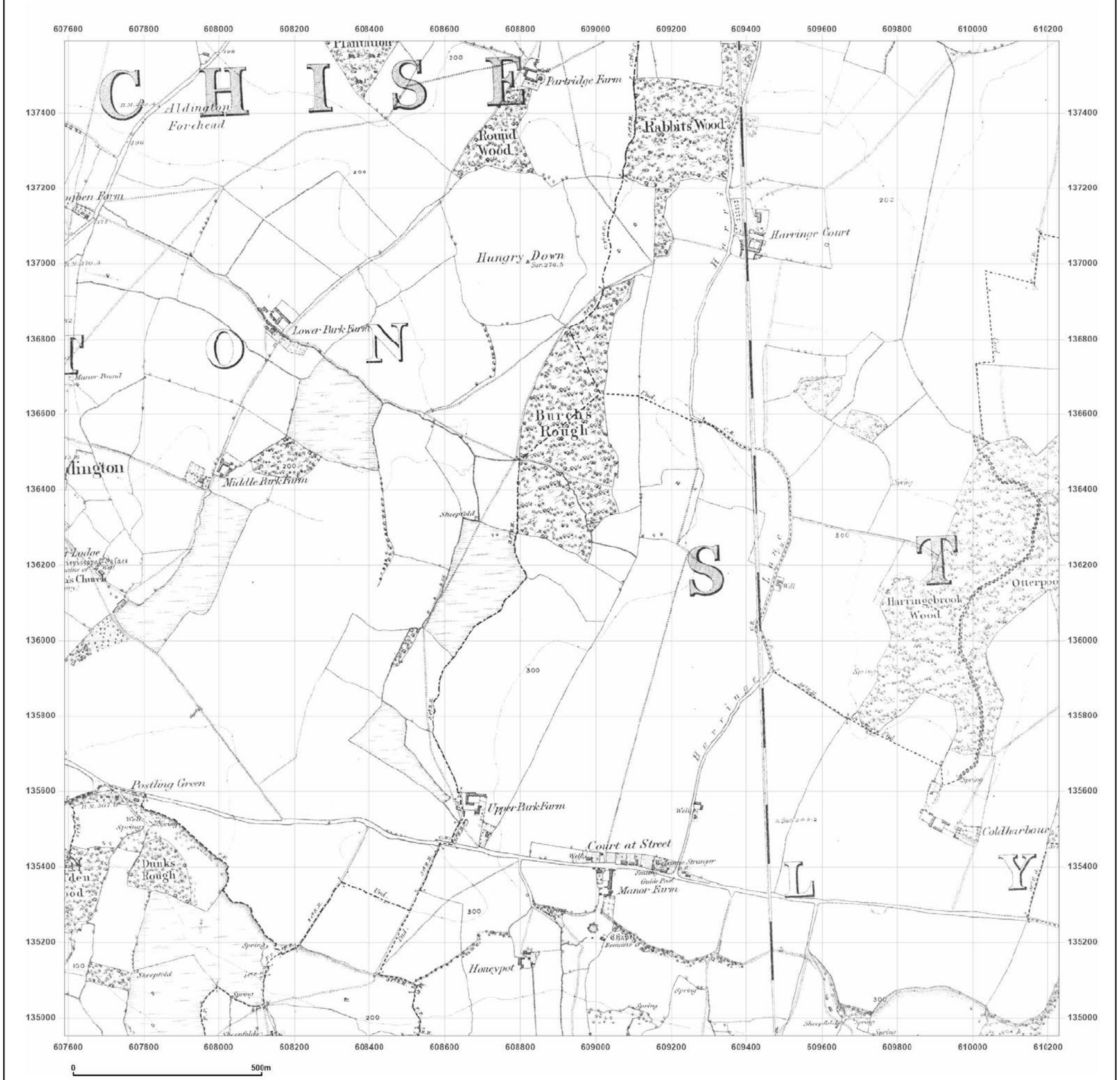

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1871-1872**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1871
Revised 1871
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 April 2024

Map legend available at:
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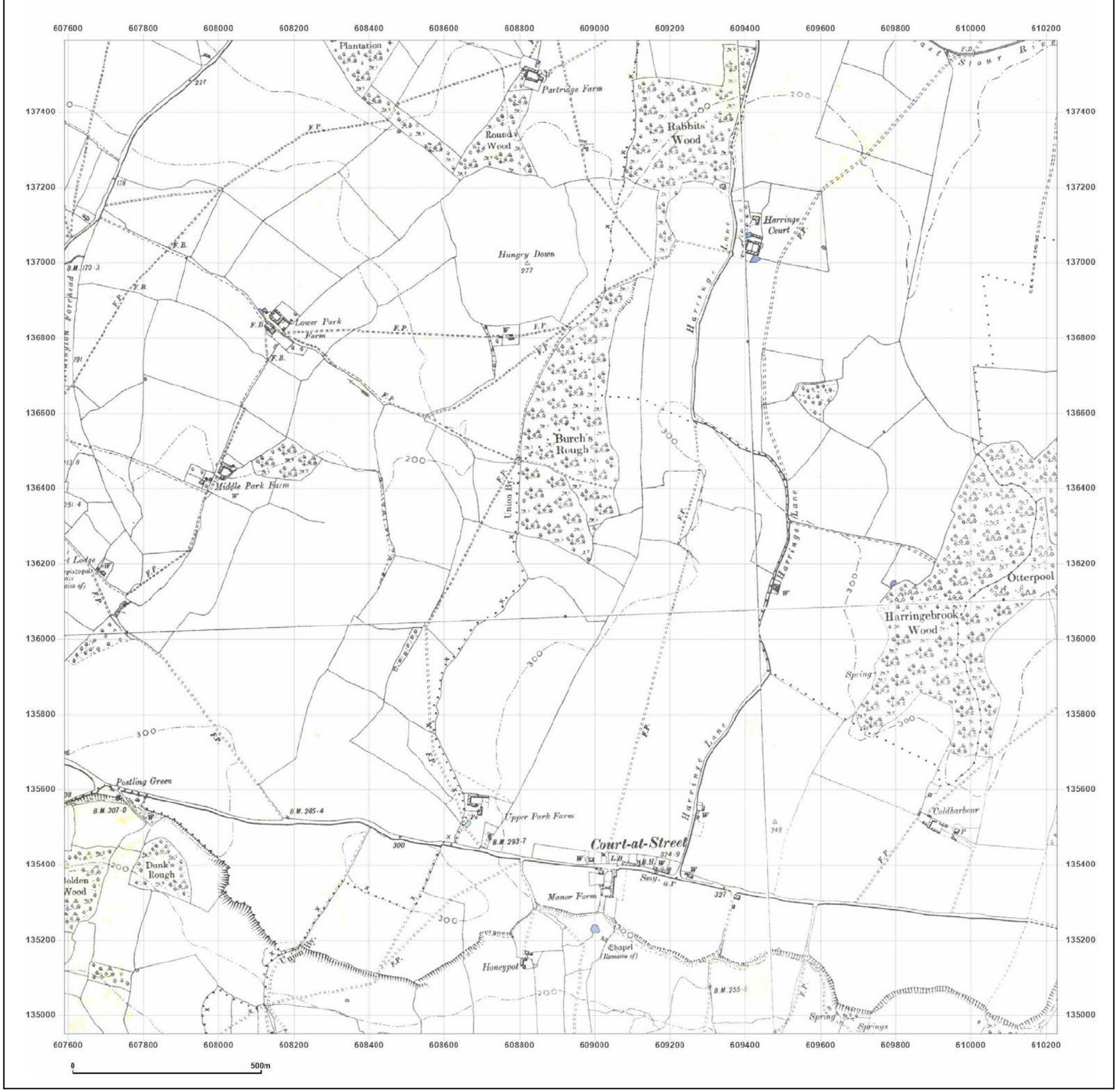

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1896**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

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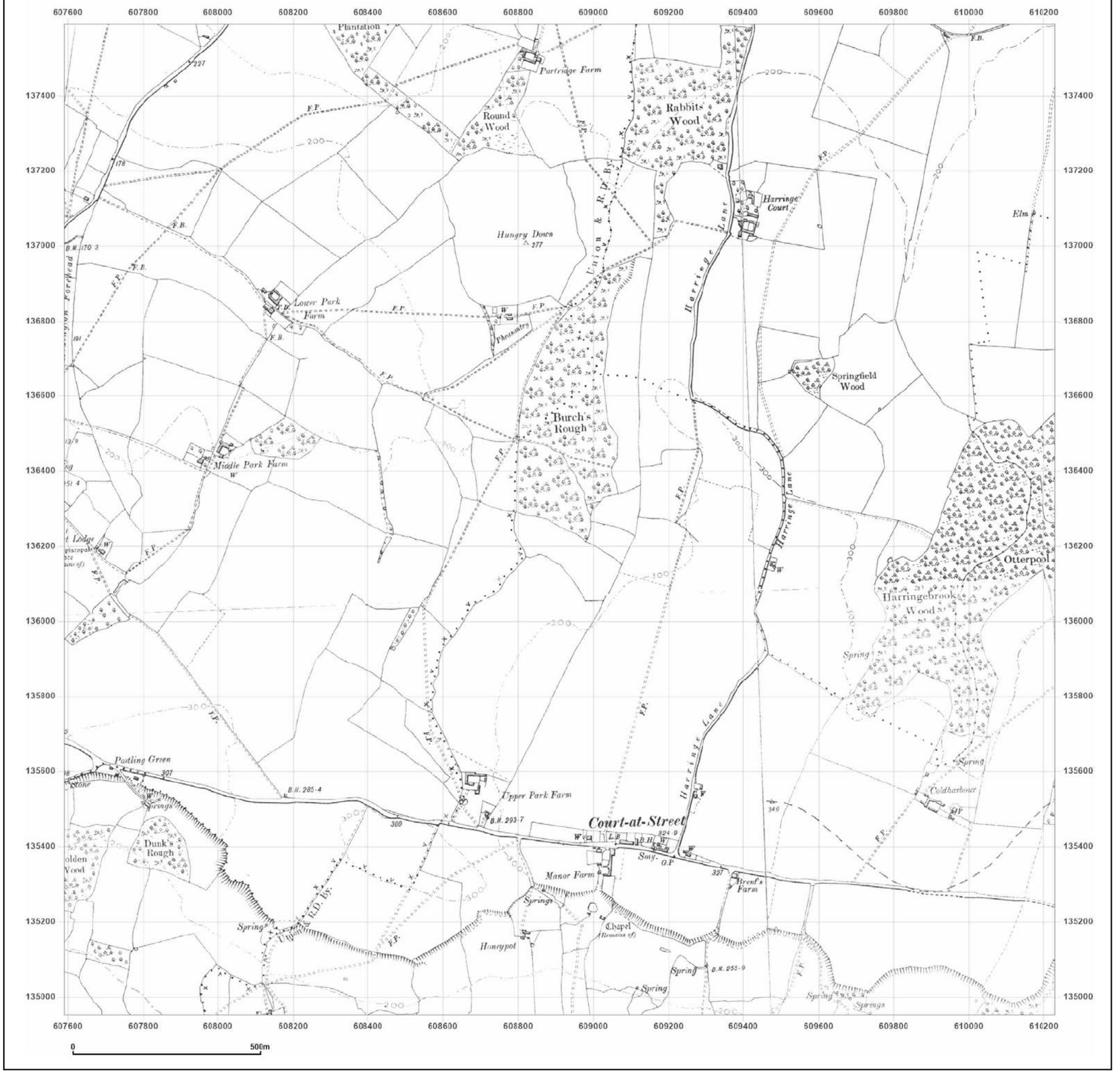

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series

Map date: **1906**

Scale: 1:10,560

Printed at: 1:10,560

N
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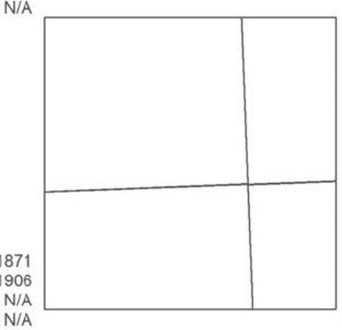
Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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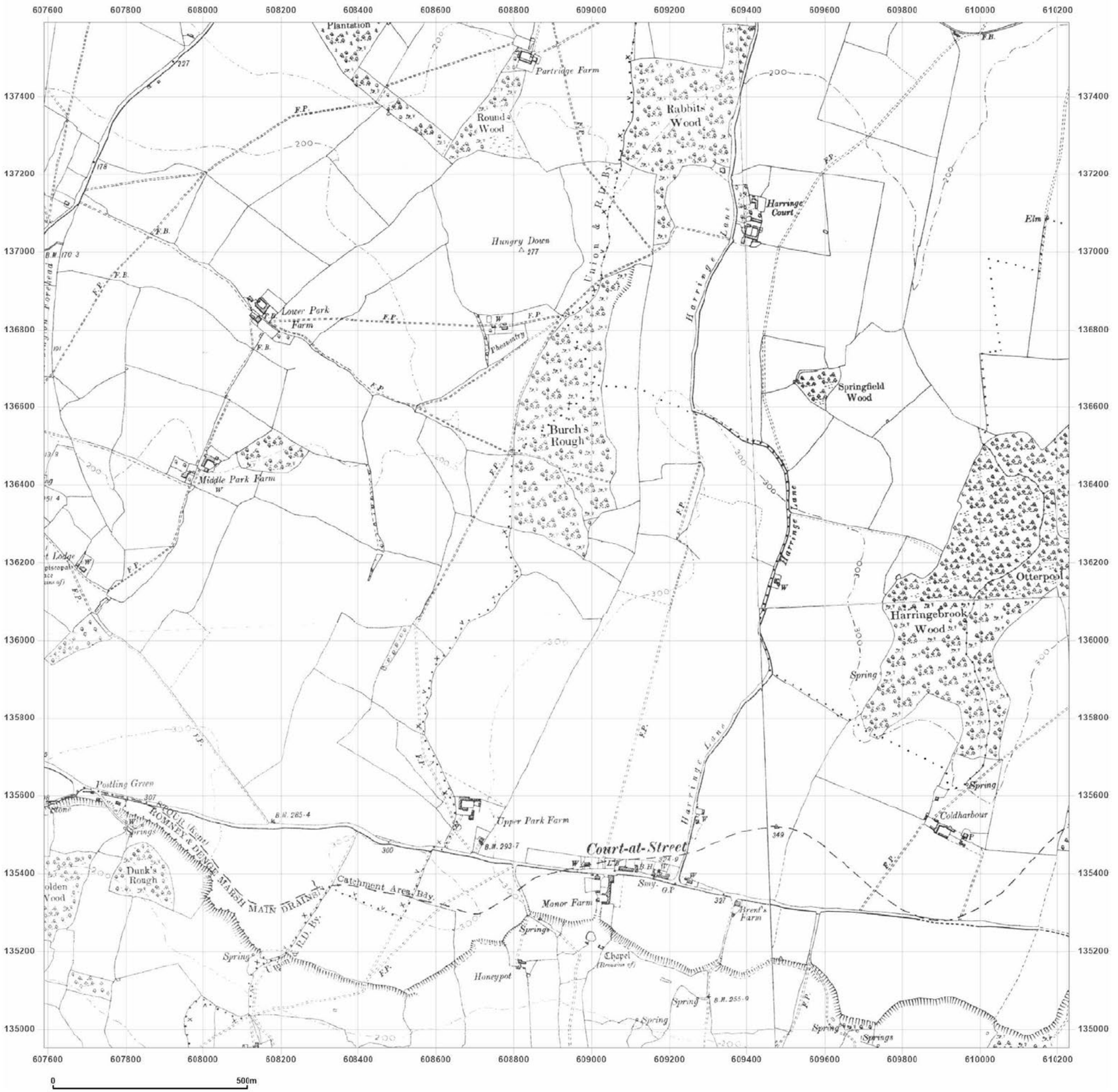

Groundsure INSIGHTS

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Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1906**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
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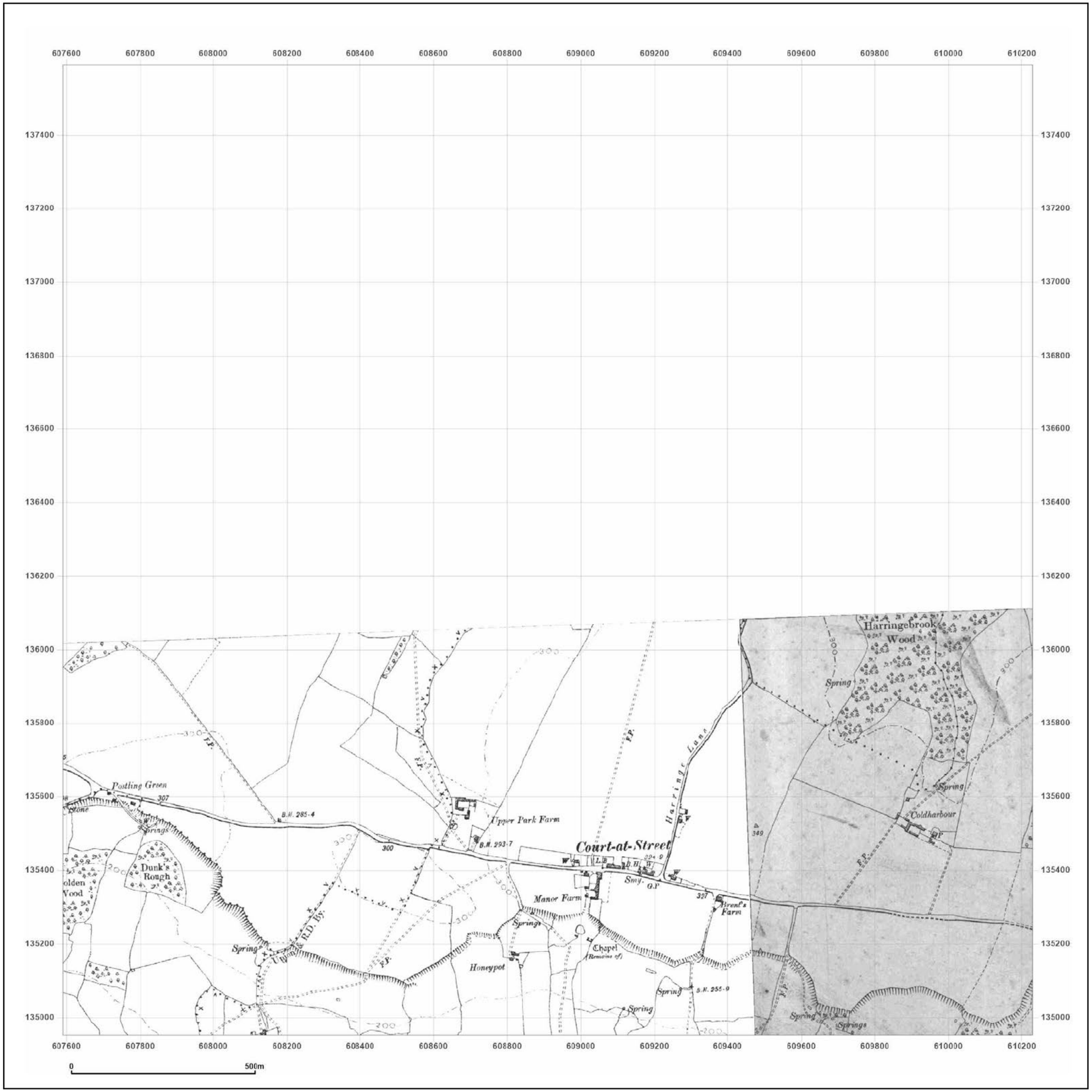

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: 1906
Scale: 1:10,560
Printed at: 1:10,560

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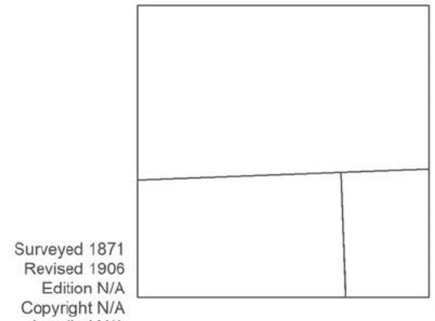

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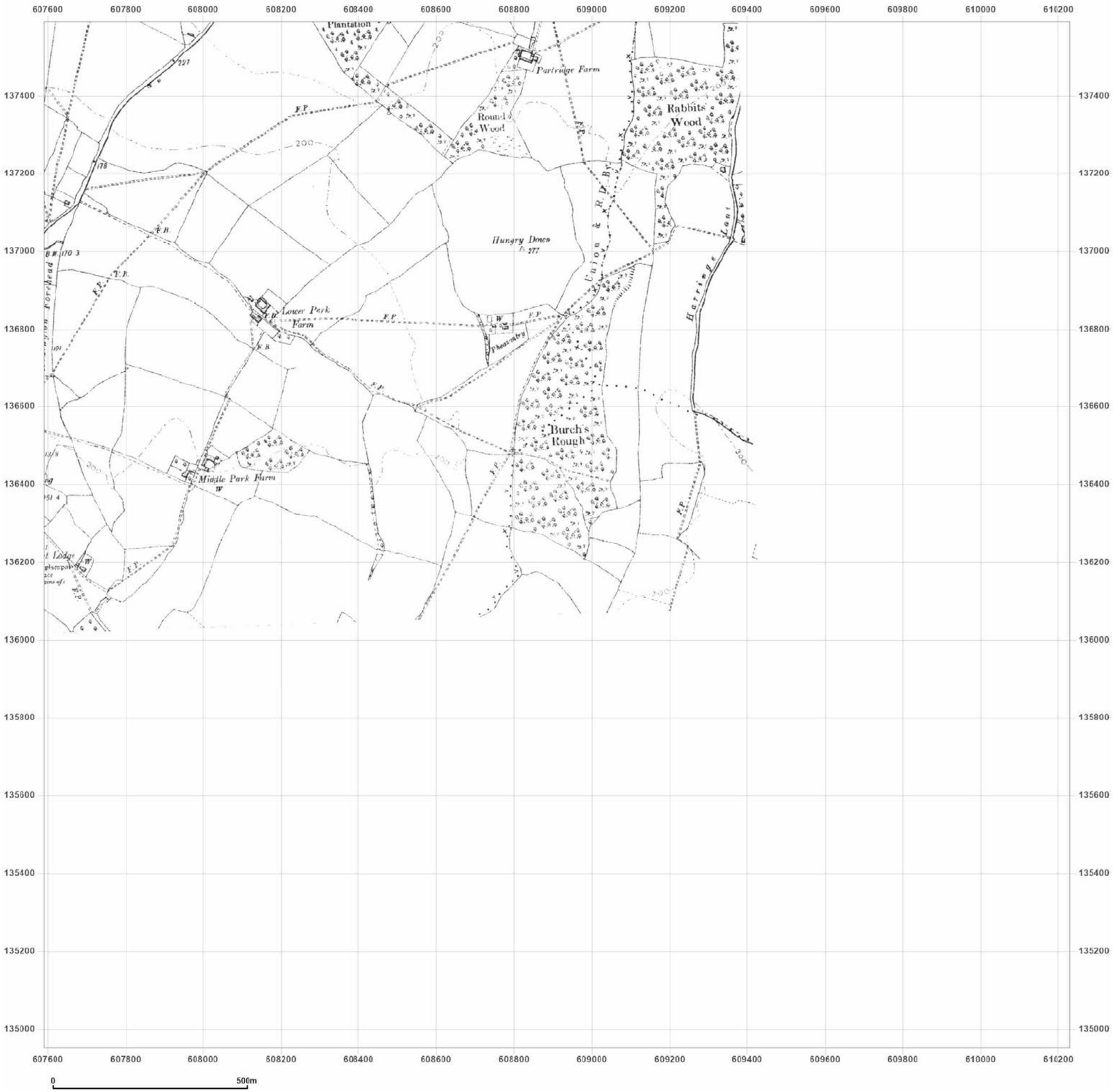

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series

Map date: **1906**

Scale: 1:10,560

Printed at: 1:10,560

N
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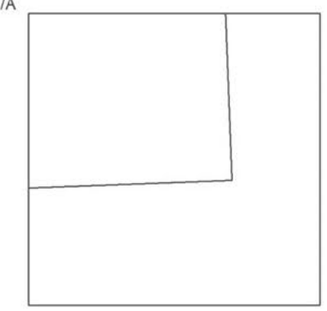
Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A



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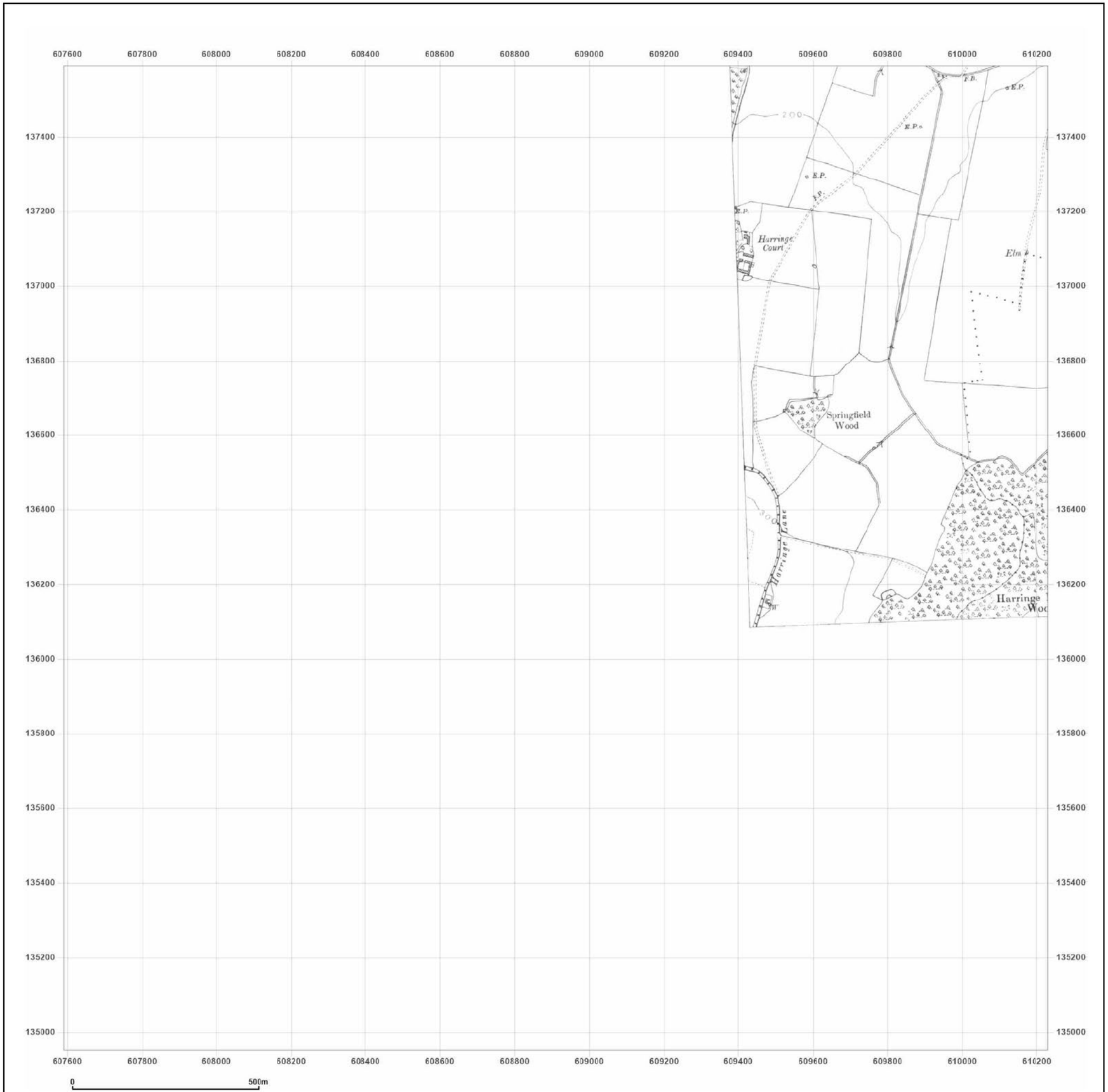

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

N
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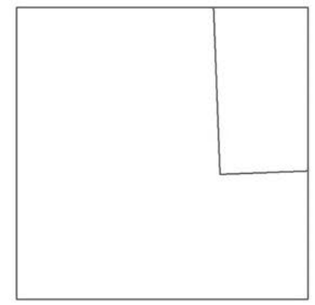
Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A



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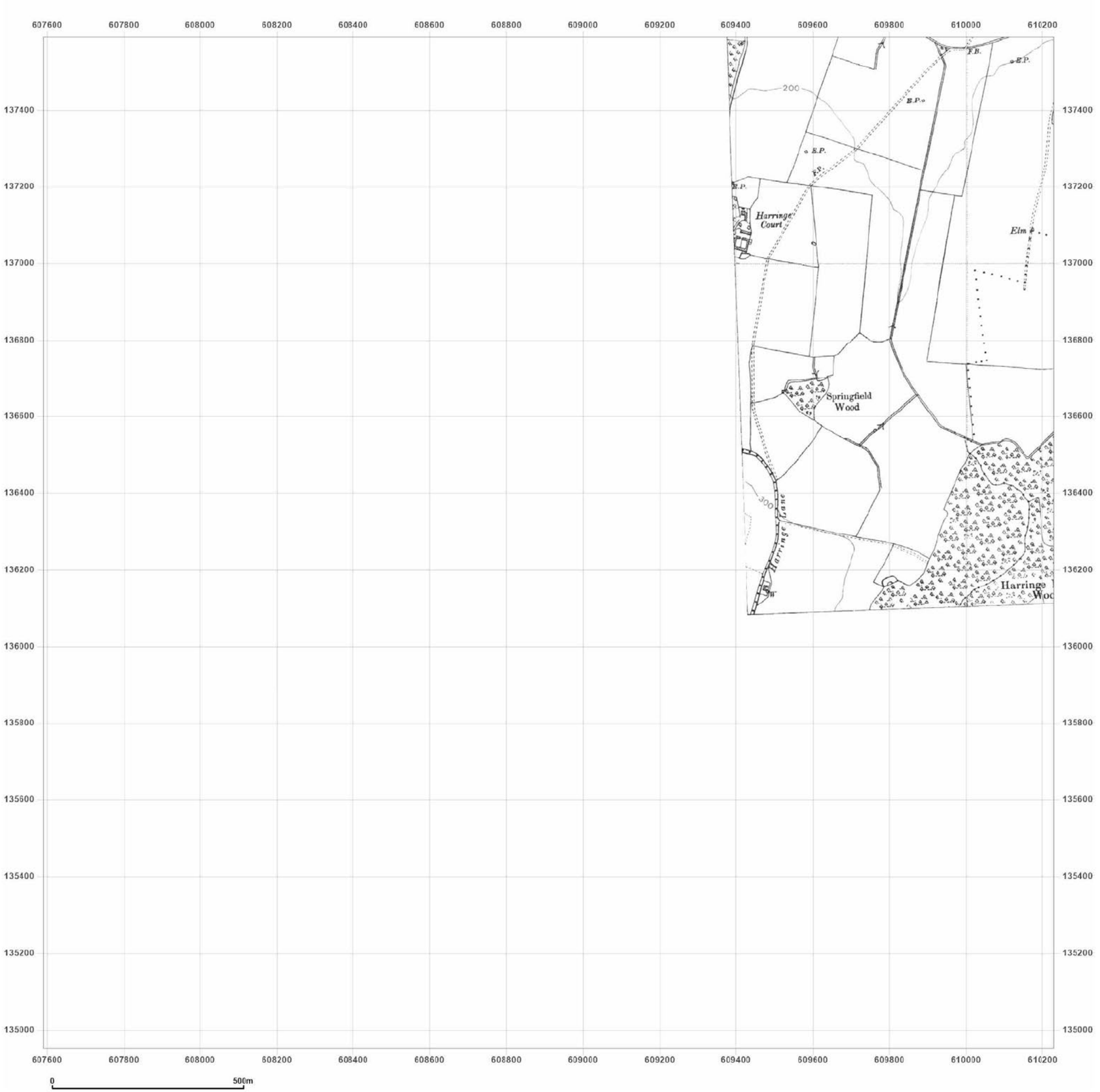

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Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

N
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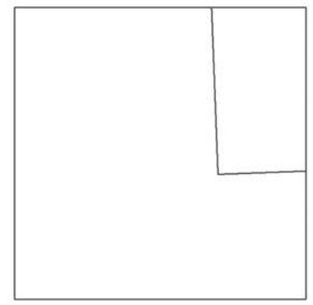
Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A



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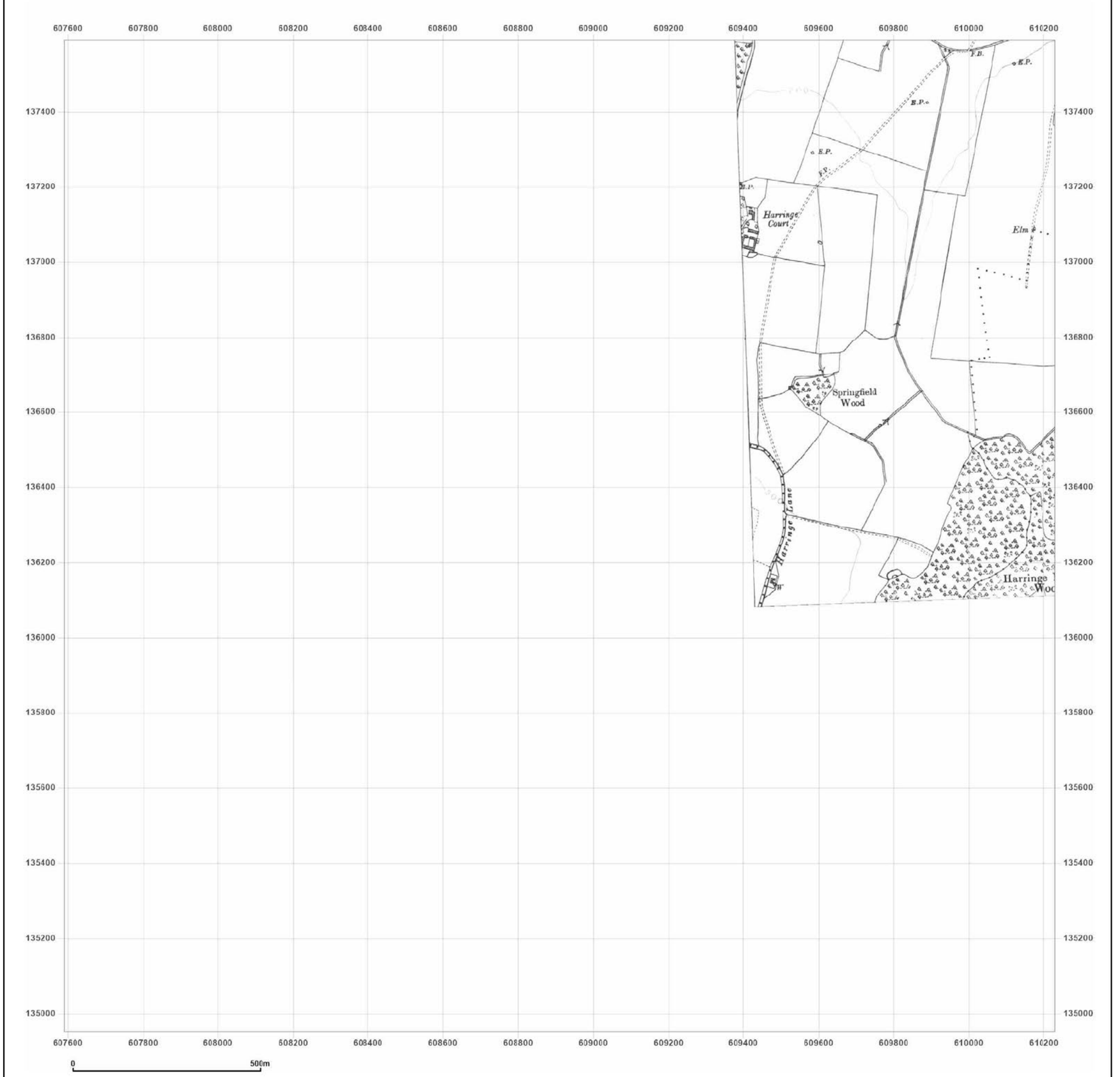
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series

Map date: **1931**

Scale: 1:10,560

Printed at: 1:10,560

N
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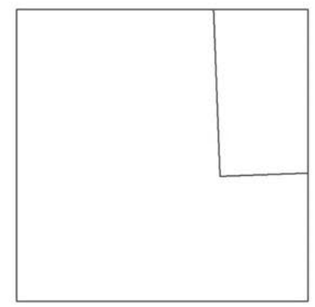
Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A



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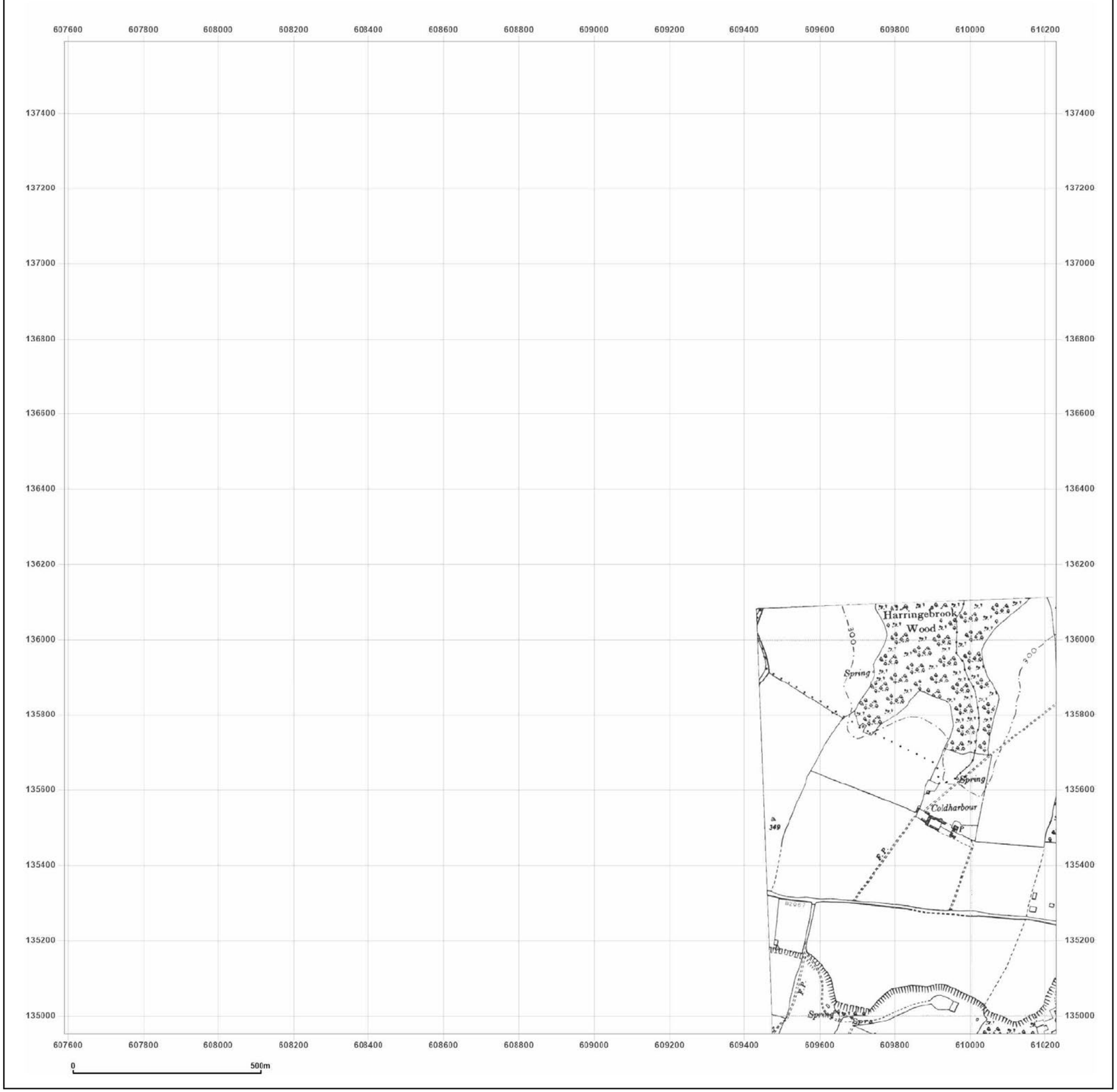
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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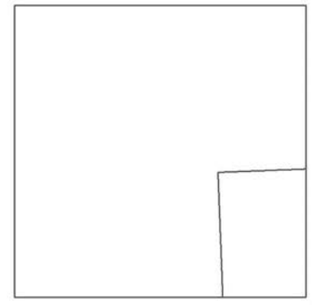

Surveyed 1871
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

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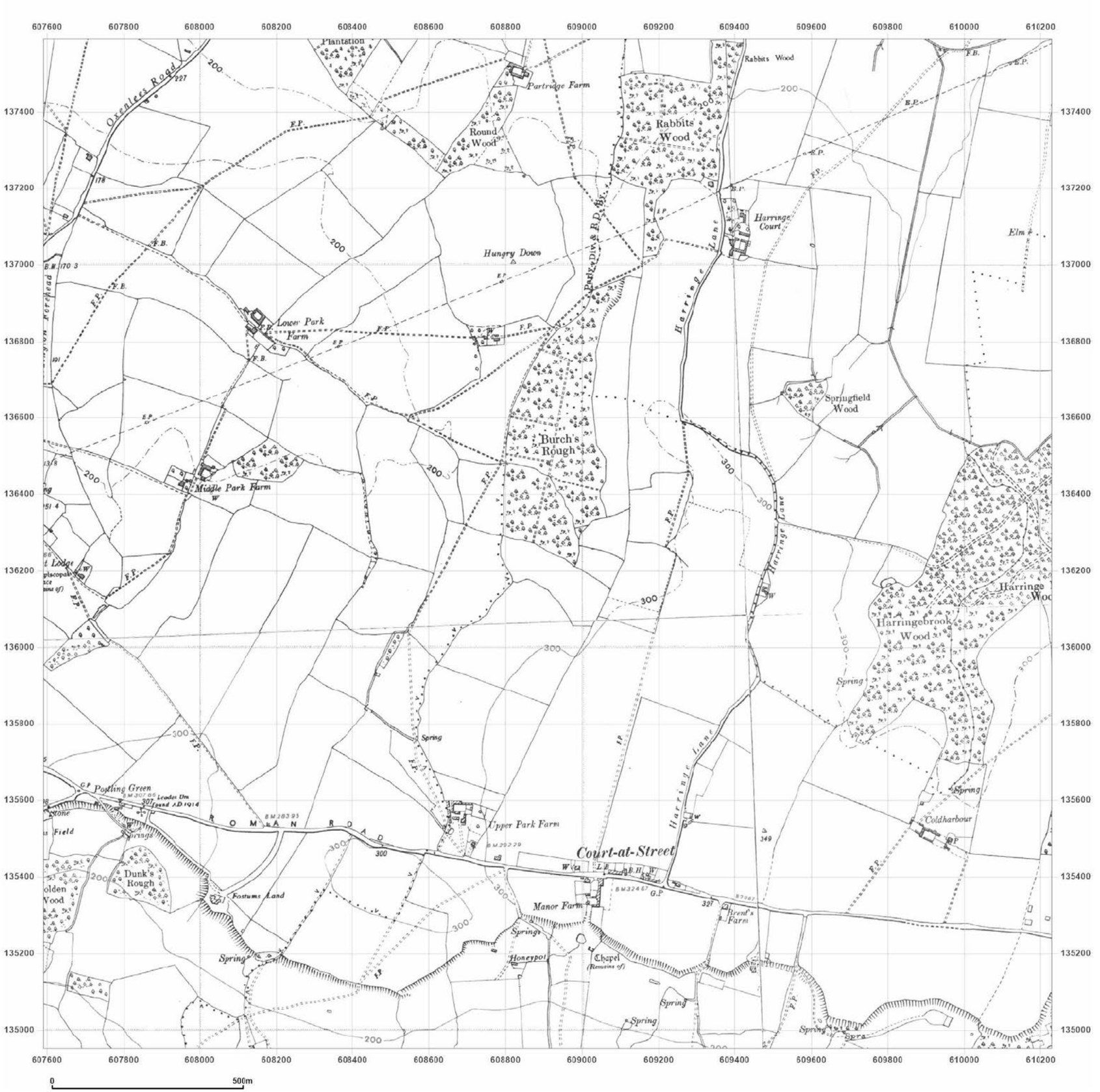

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series

Map date: **1938-1940**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1877
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

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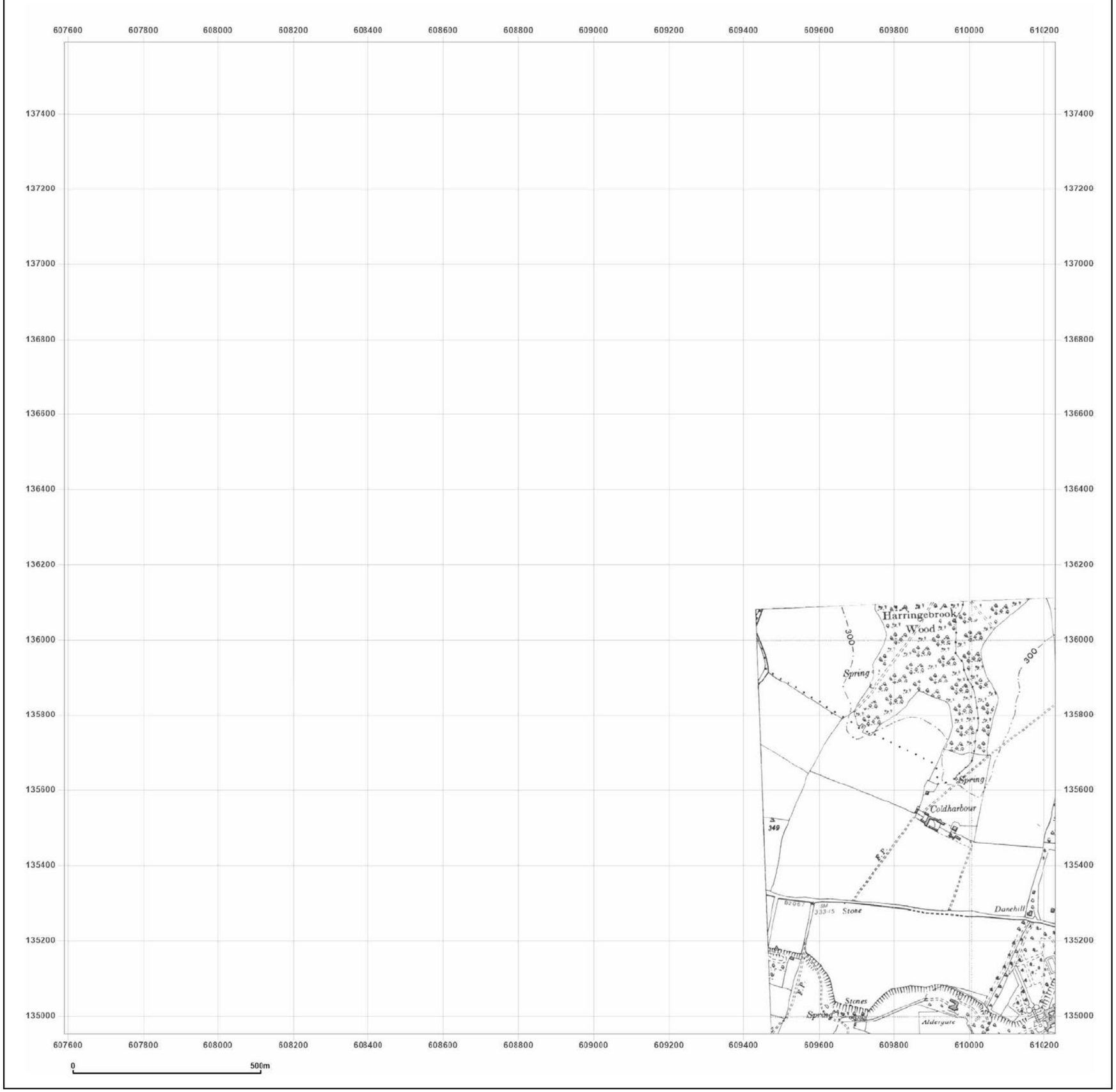
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: County Series
Map date: **1948**
Scale: 1:10,560
Printed at: 1:10,560

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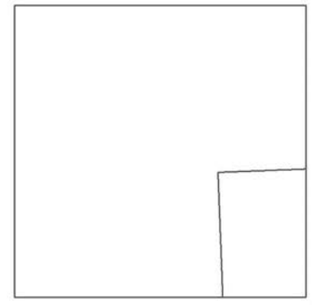

Surveyed 1871
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

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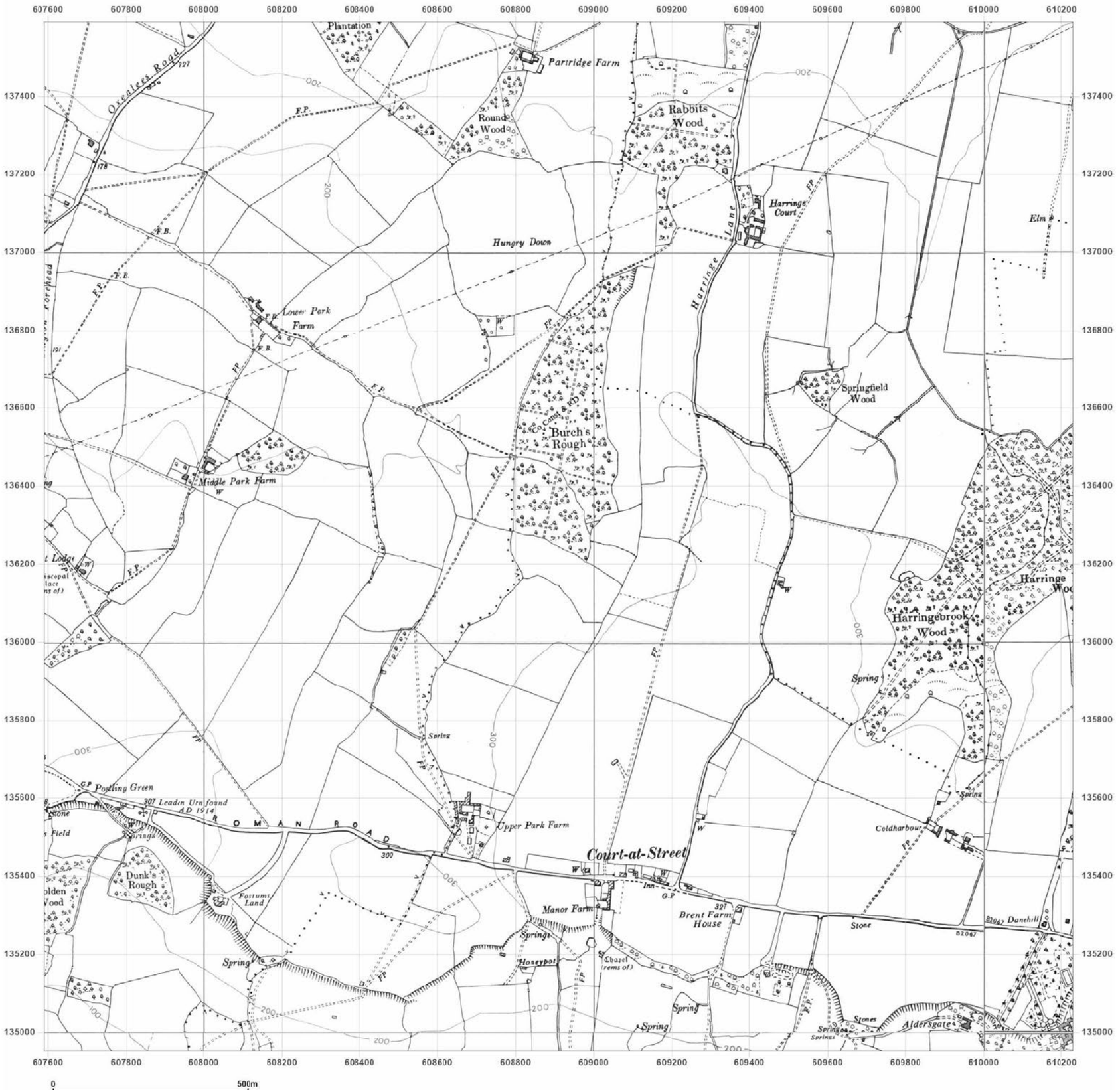

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: Provisional
Map date: **1954-1957**
Scale: 1:10,560
Printed at: 1:10,560

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Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
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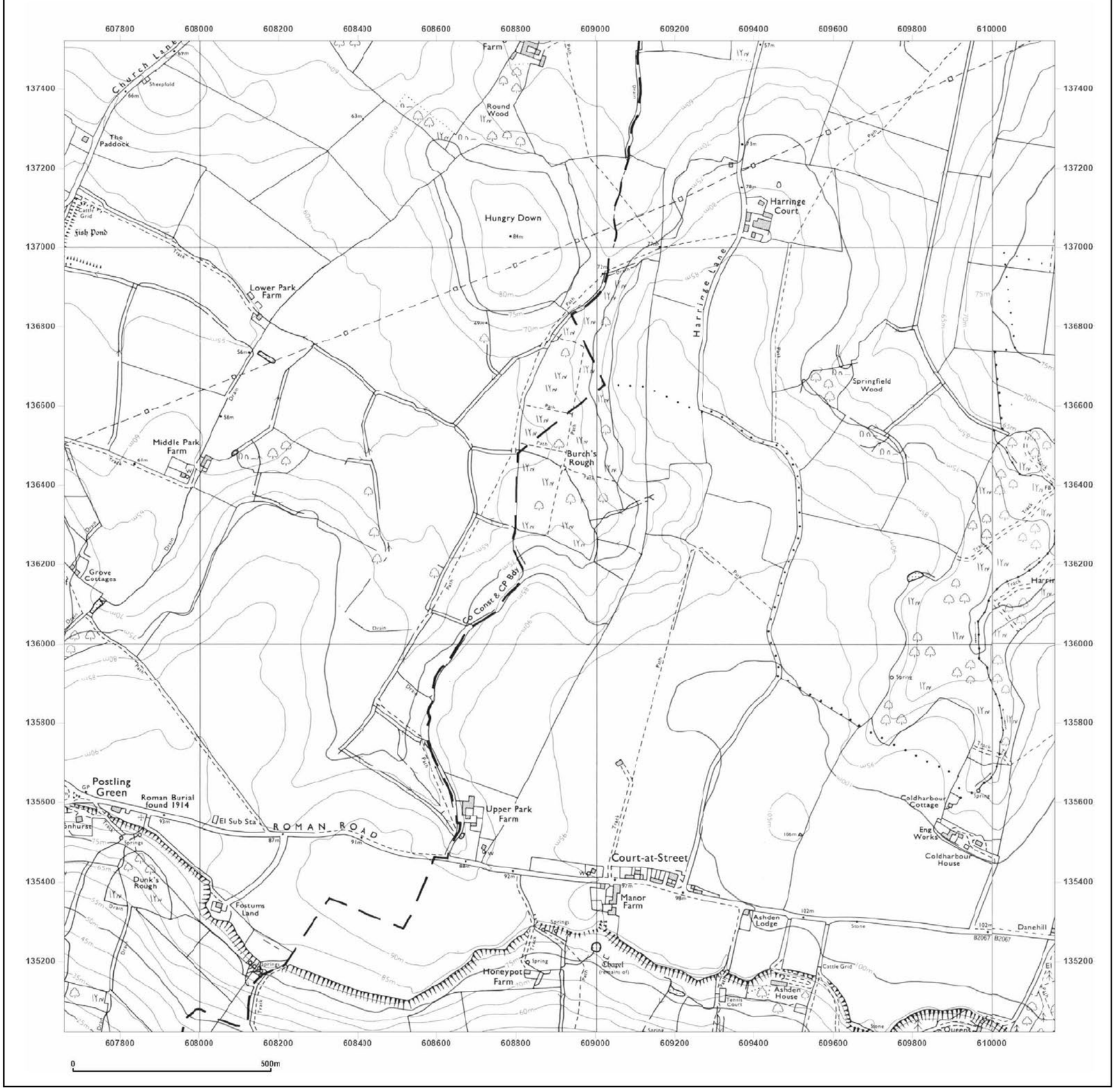

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid

Map date: **1973-1975**

Scale: 1:10,000

Printed at: 1:10,000

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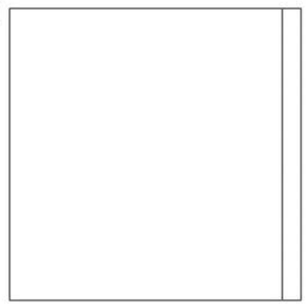
Surveyed 1971
Revised 1975
Edition N/A
Copyright 1975
Levelled N/A

Surveyed 1970
Revised 1973
Edition N/A
Copyright 1973
Levelled N/A



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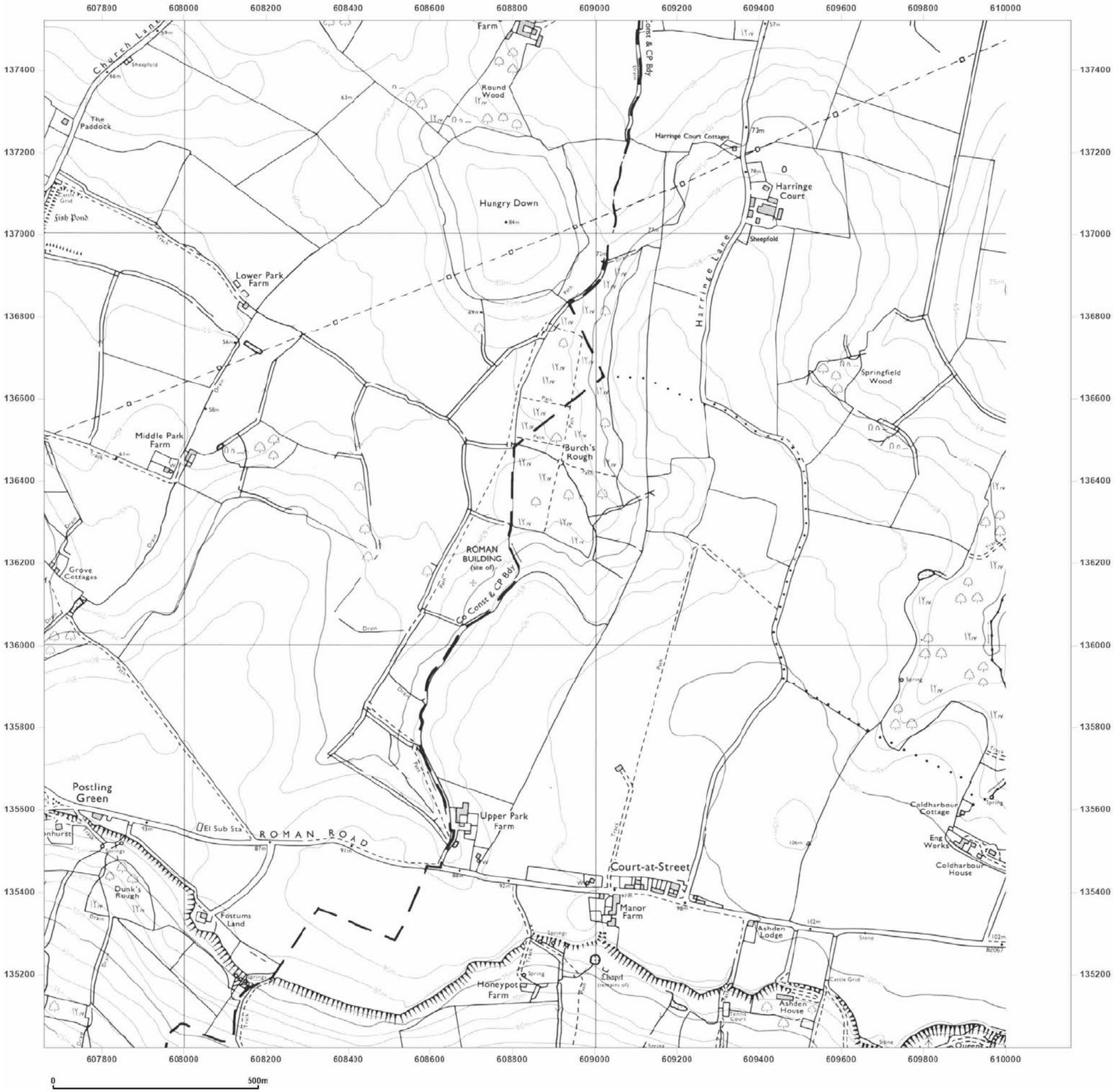

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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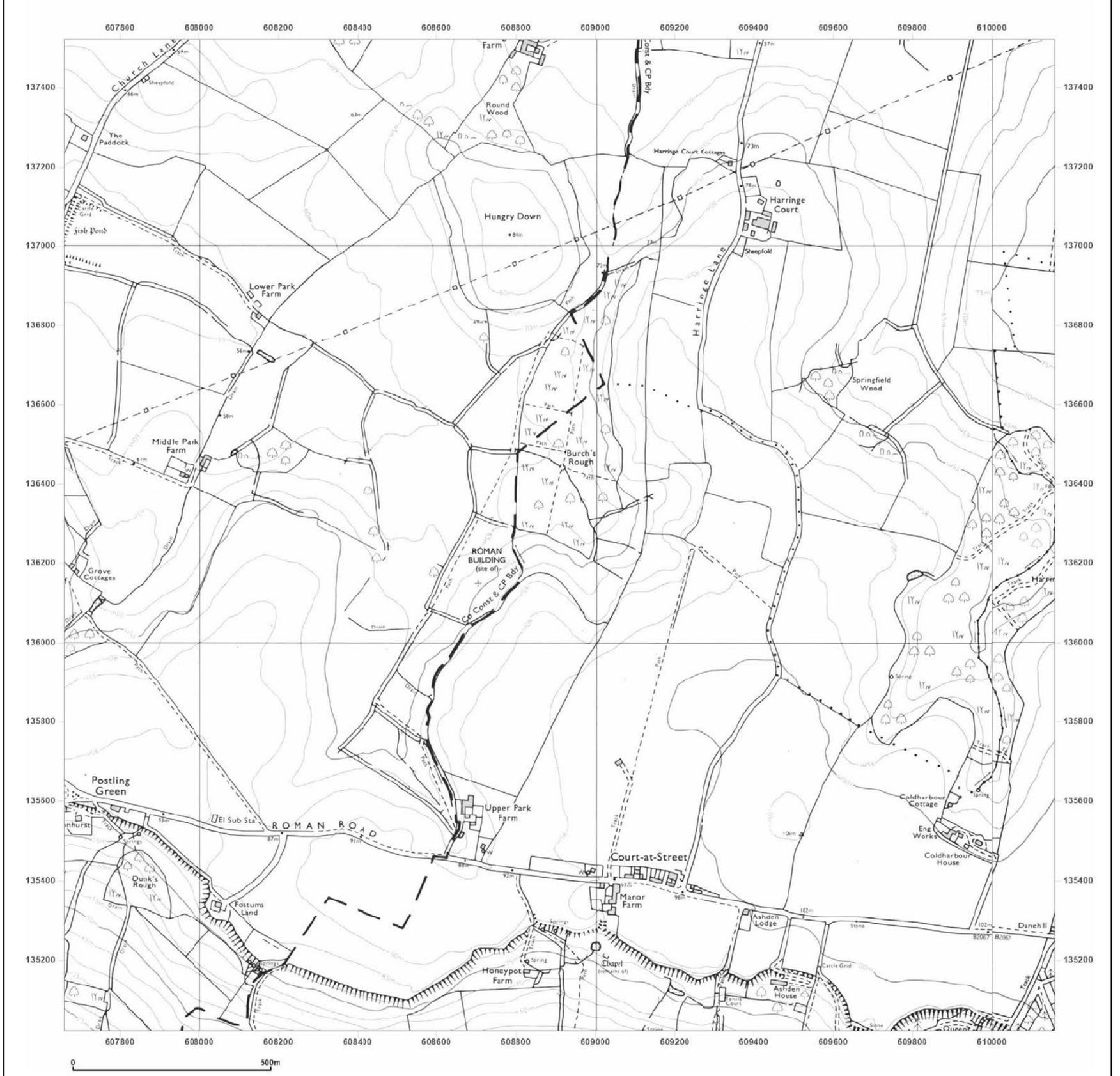

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid
Map date: **1988-1989**
Scale: 1:10,000
Printed at: 1:10,000

N
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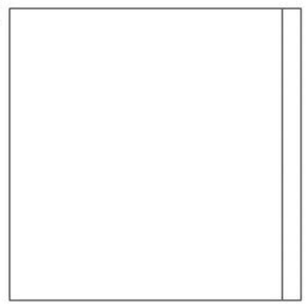
Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1985
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A



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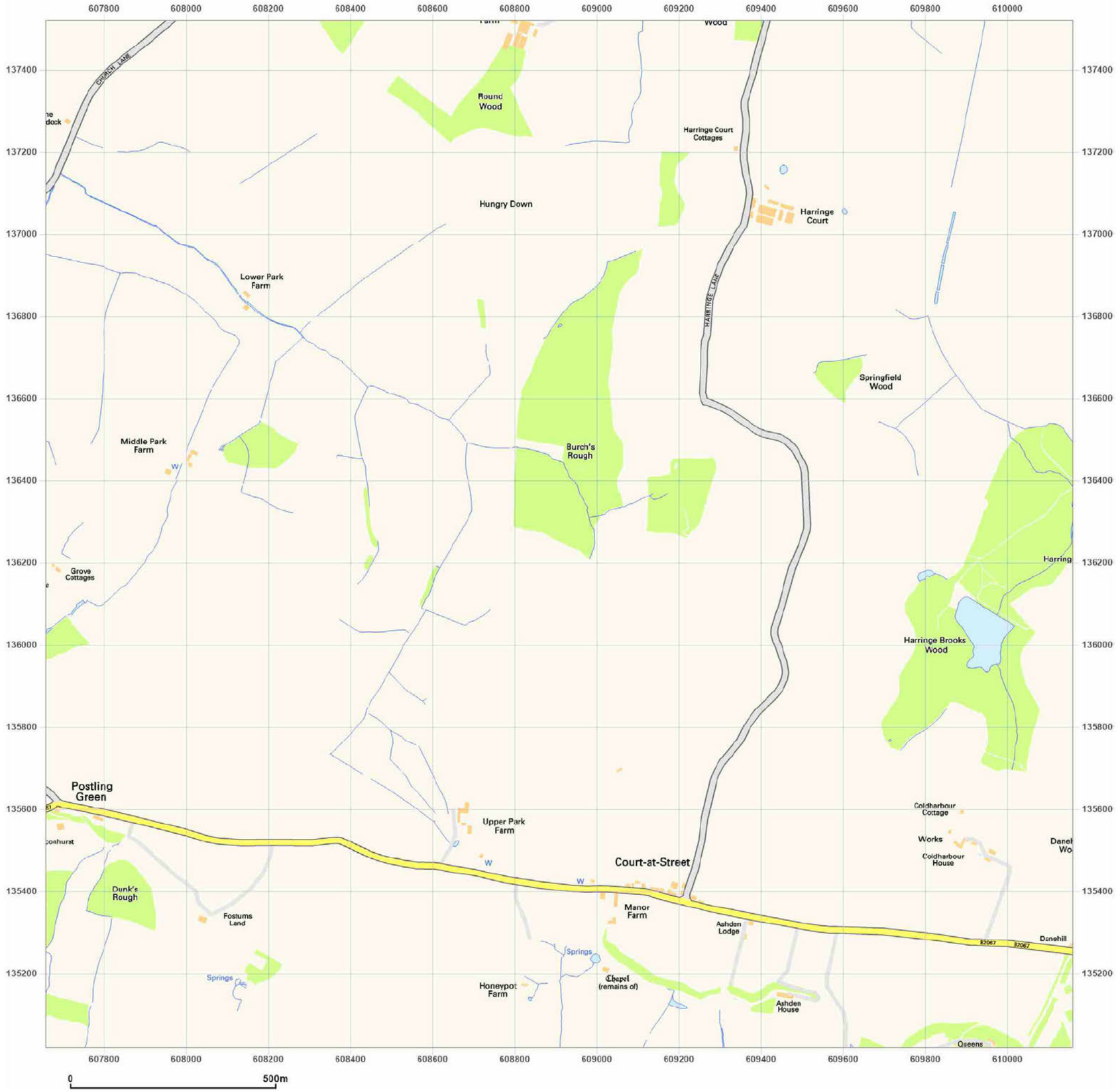

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

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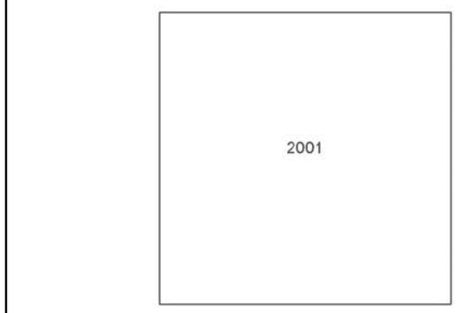

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Production date: 22 April 2024

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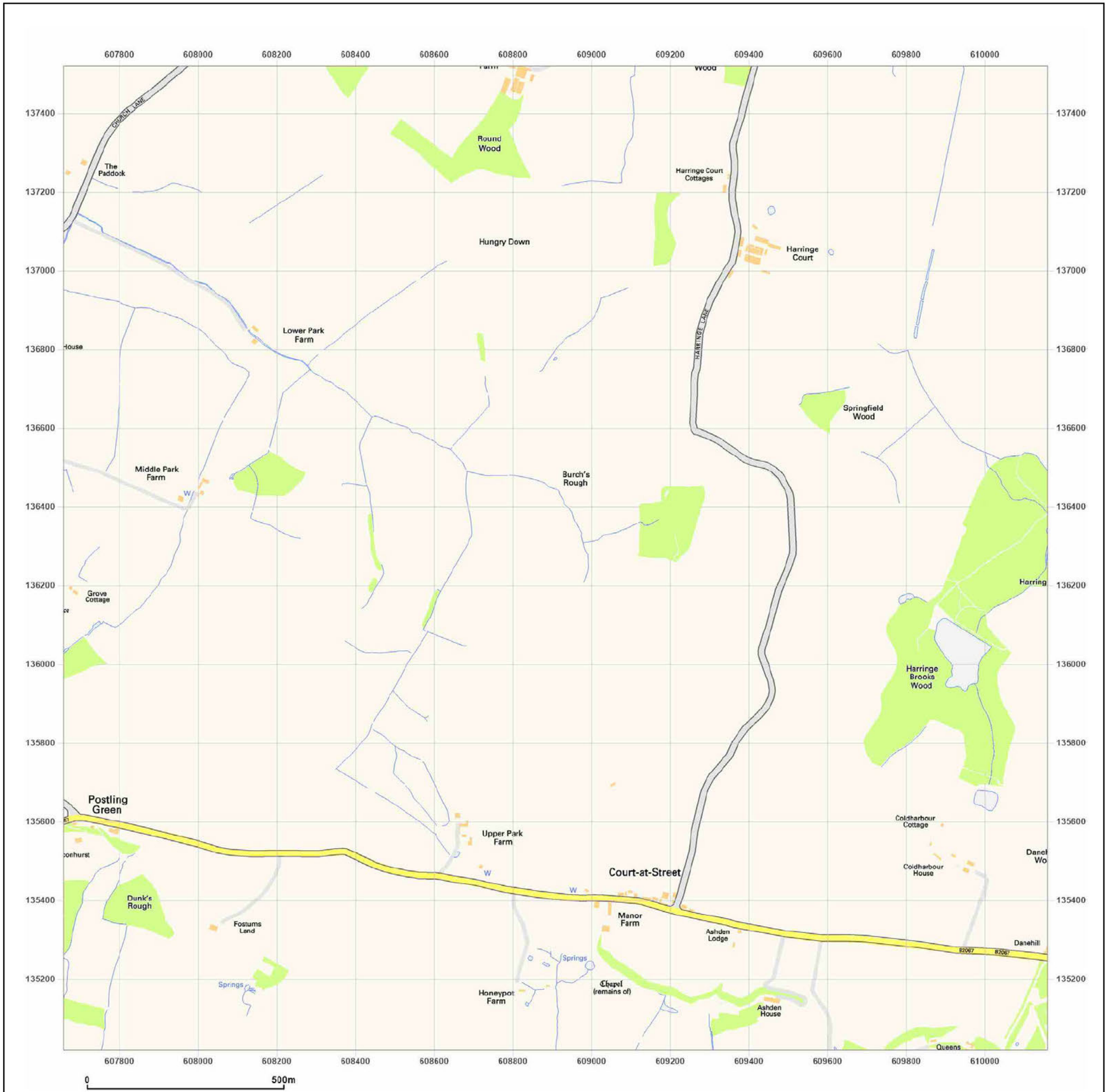

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid
Map date: 2010
Scale: 1:10,000
Printed at: 1:10,000

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2010

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Production date: 22 April 2024

Map legend available at:
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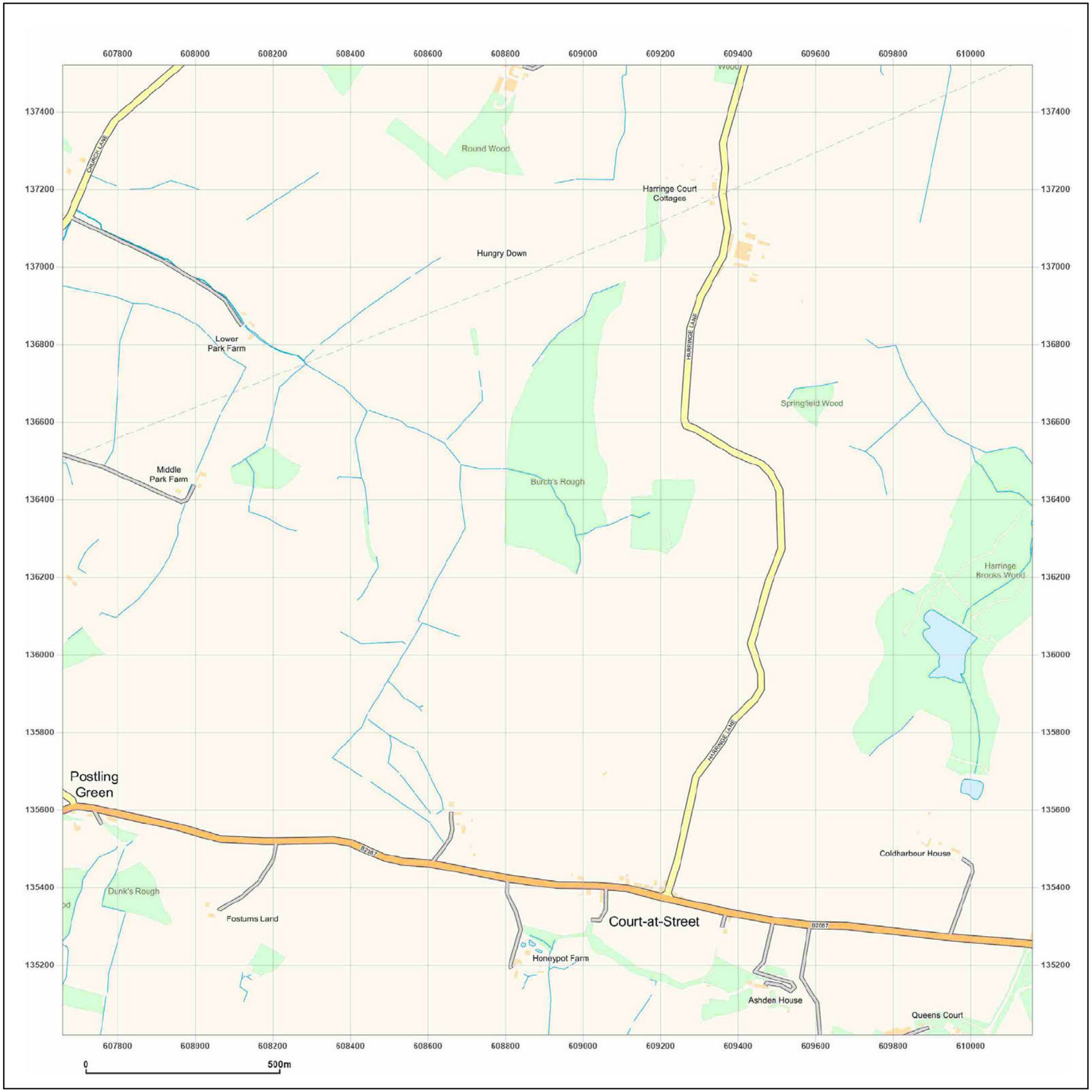

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_1
Grid Ref: 608909, 136270

Map Name: National Grid
Map date: **2024**
Scale: 1:10,000
Printed at: 1:10,000

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2024

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Production date: 22 April 2024

Map legend available at:
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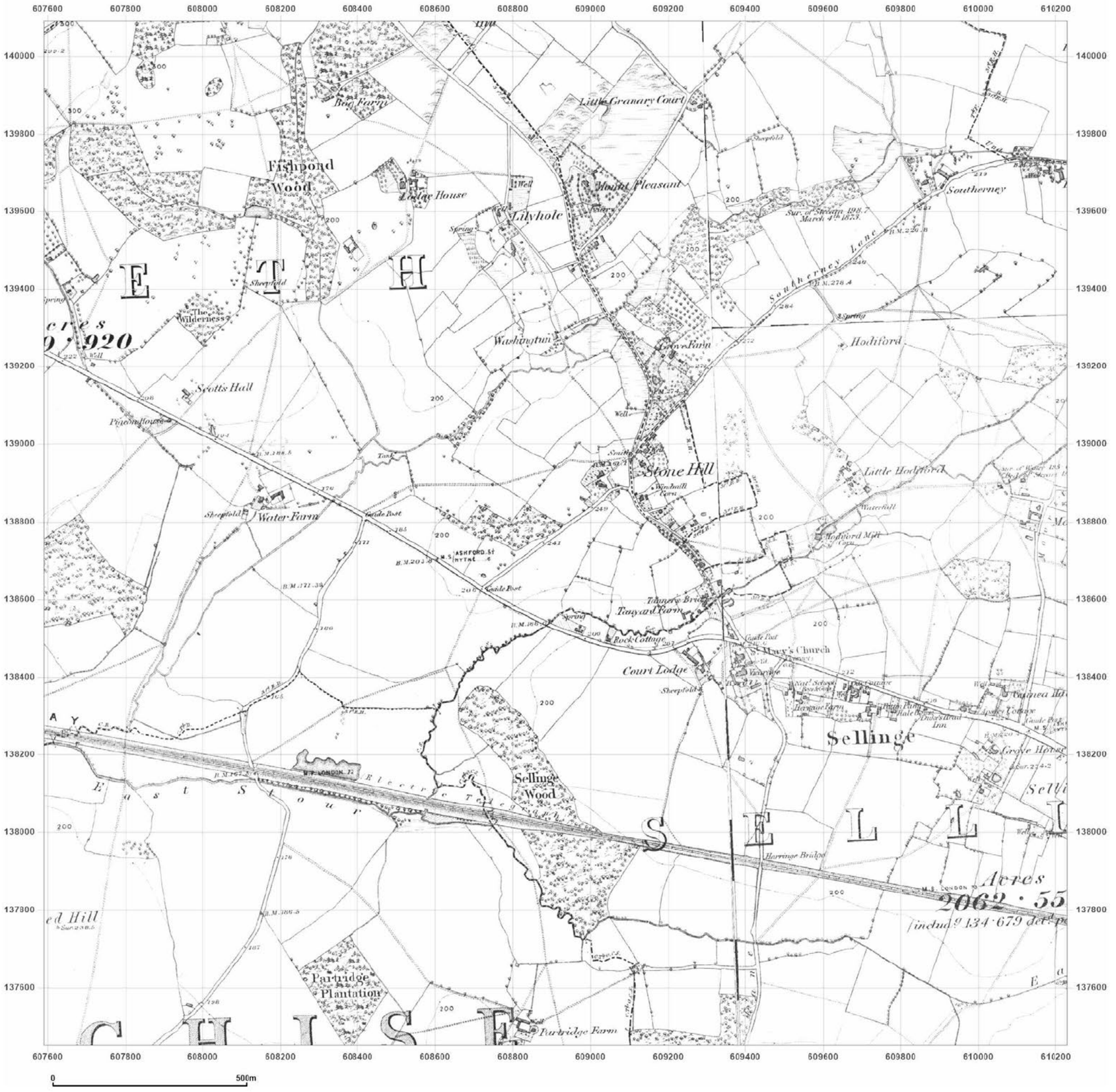

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series

Map date: **1871-1872**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1871
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 23 April 2024

Map legend available at:
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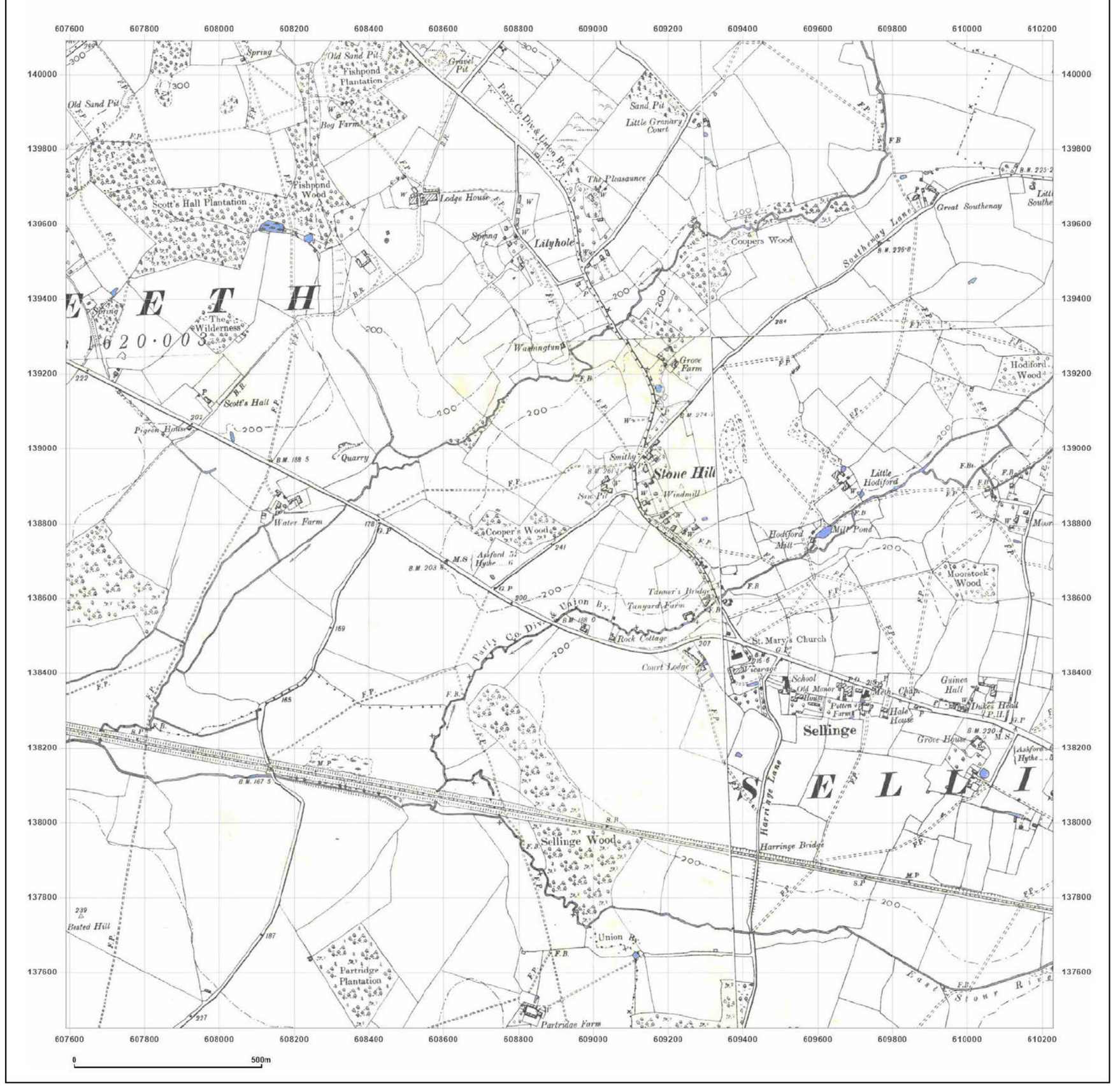

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

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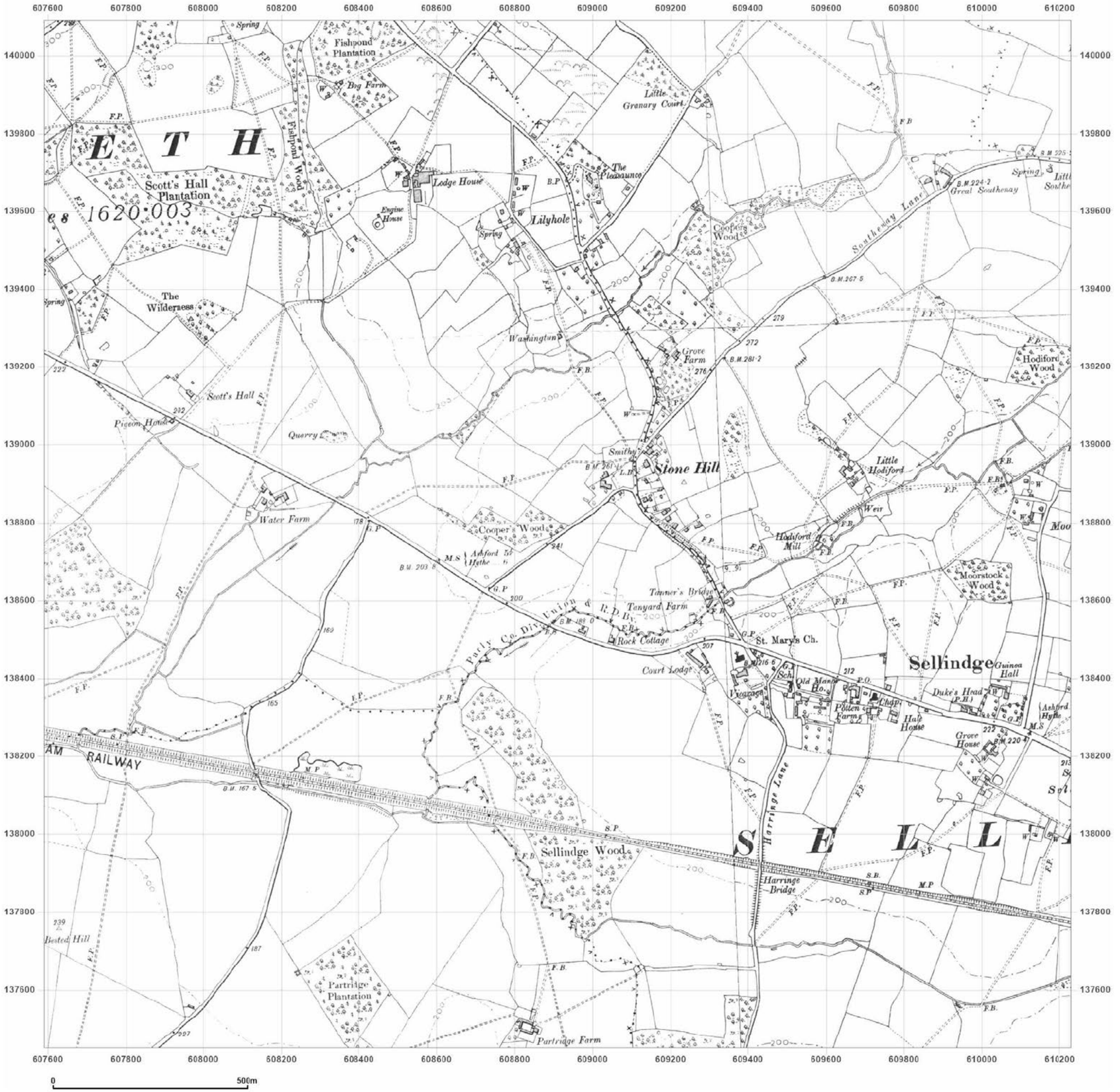

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series

Map date: **1906**

Scale: 1:10,560

Printed at: 1:10,560

N
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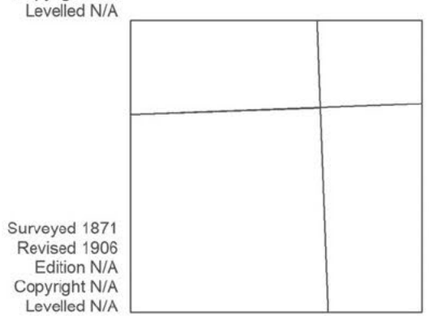
Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
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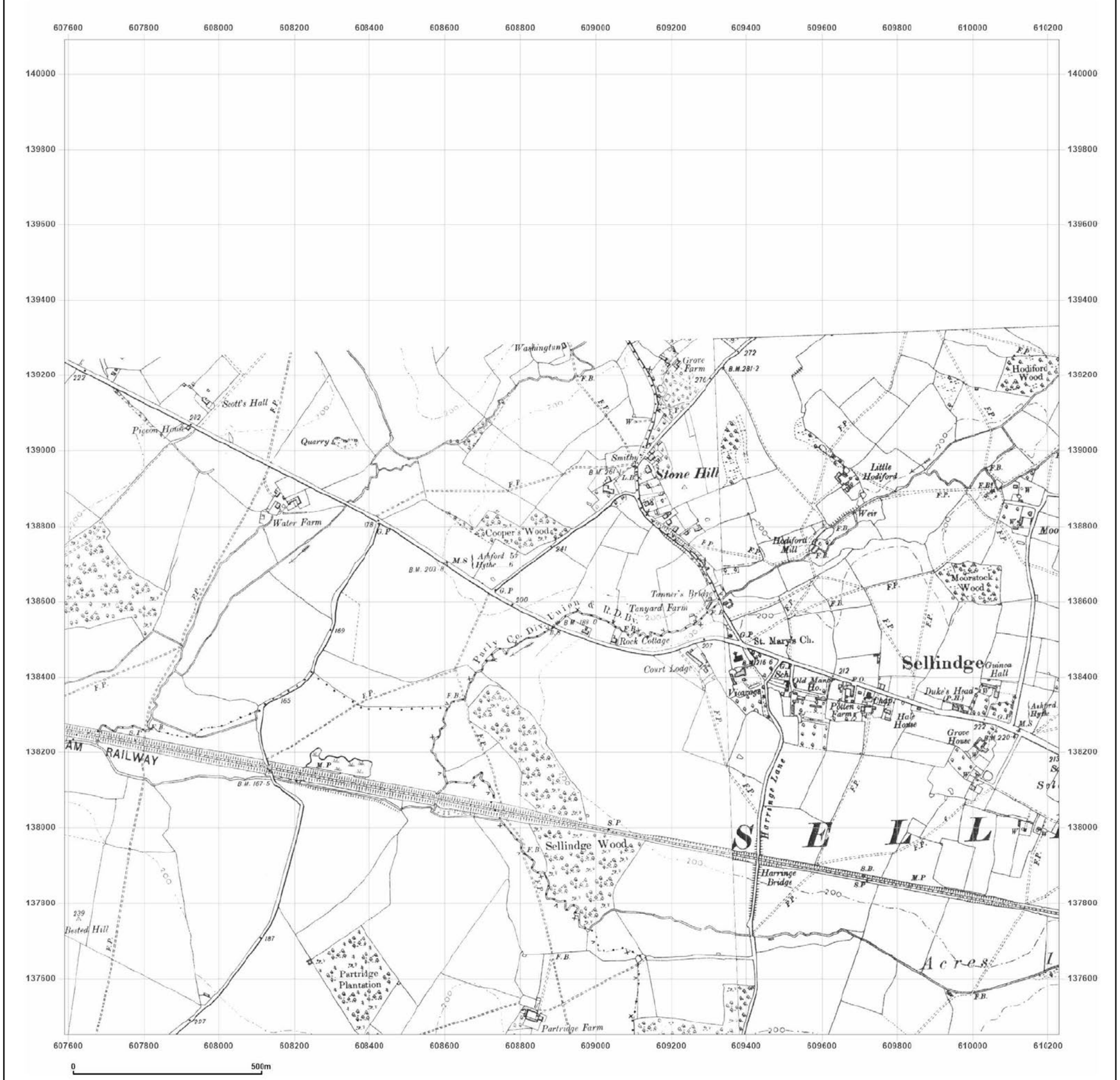

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series

Map date: **1906**

Scale: 1:10,560

Printed at: 1:10,560

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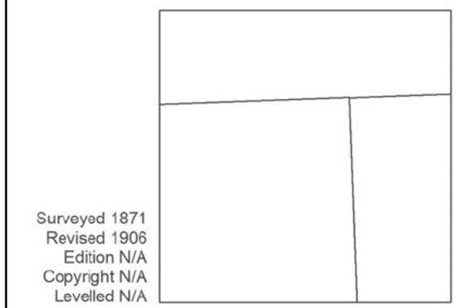

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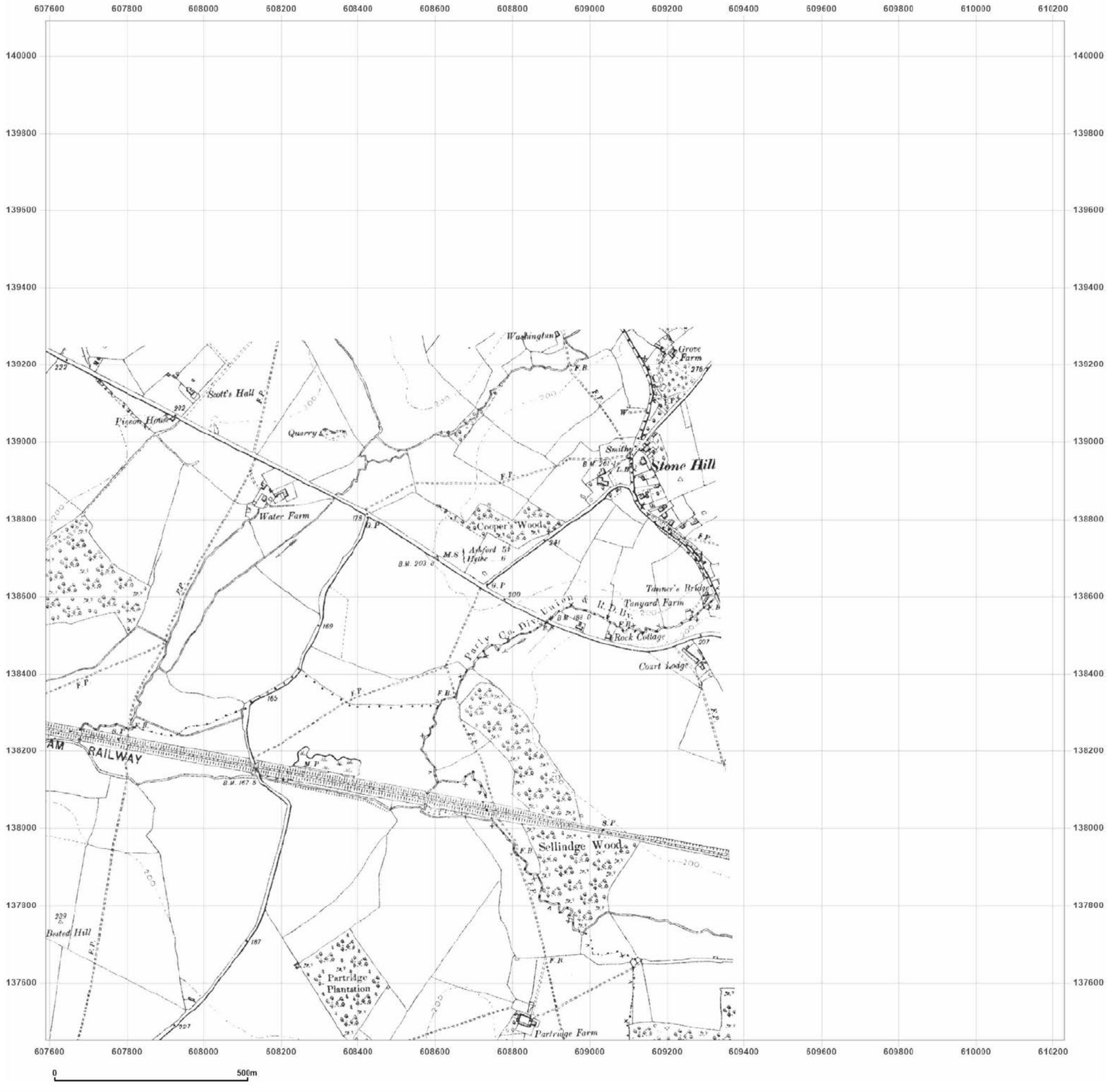

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series
Map date: **1906**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
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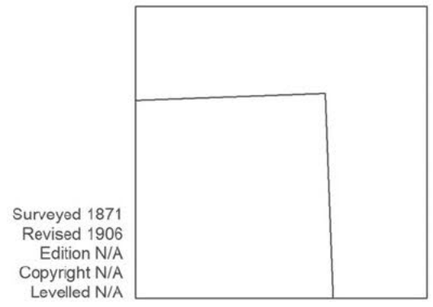

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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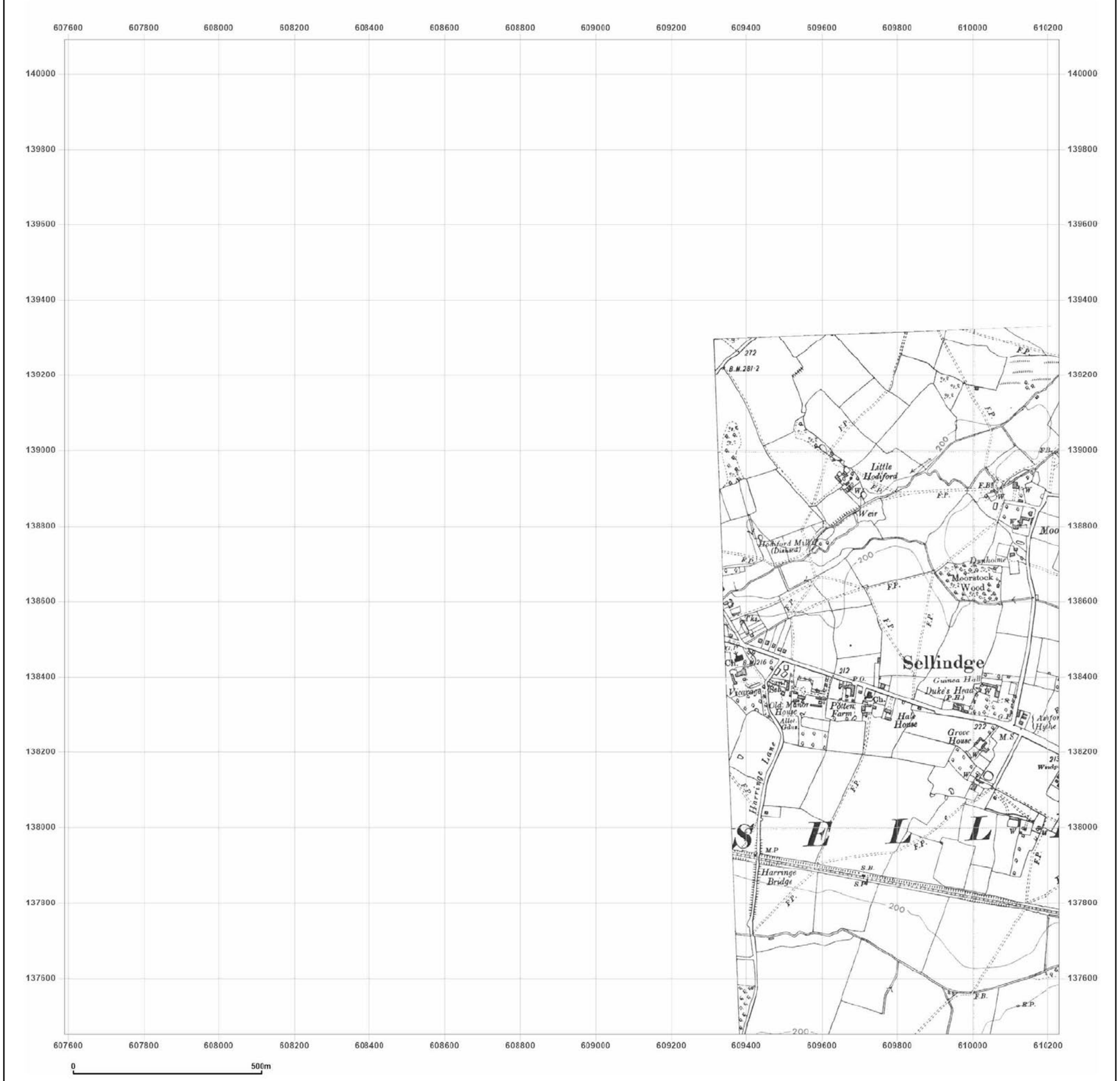

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

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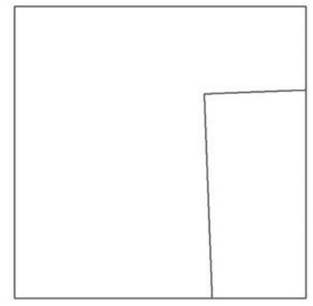

Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

Production date: 23 April 2024

Map legend available at:
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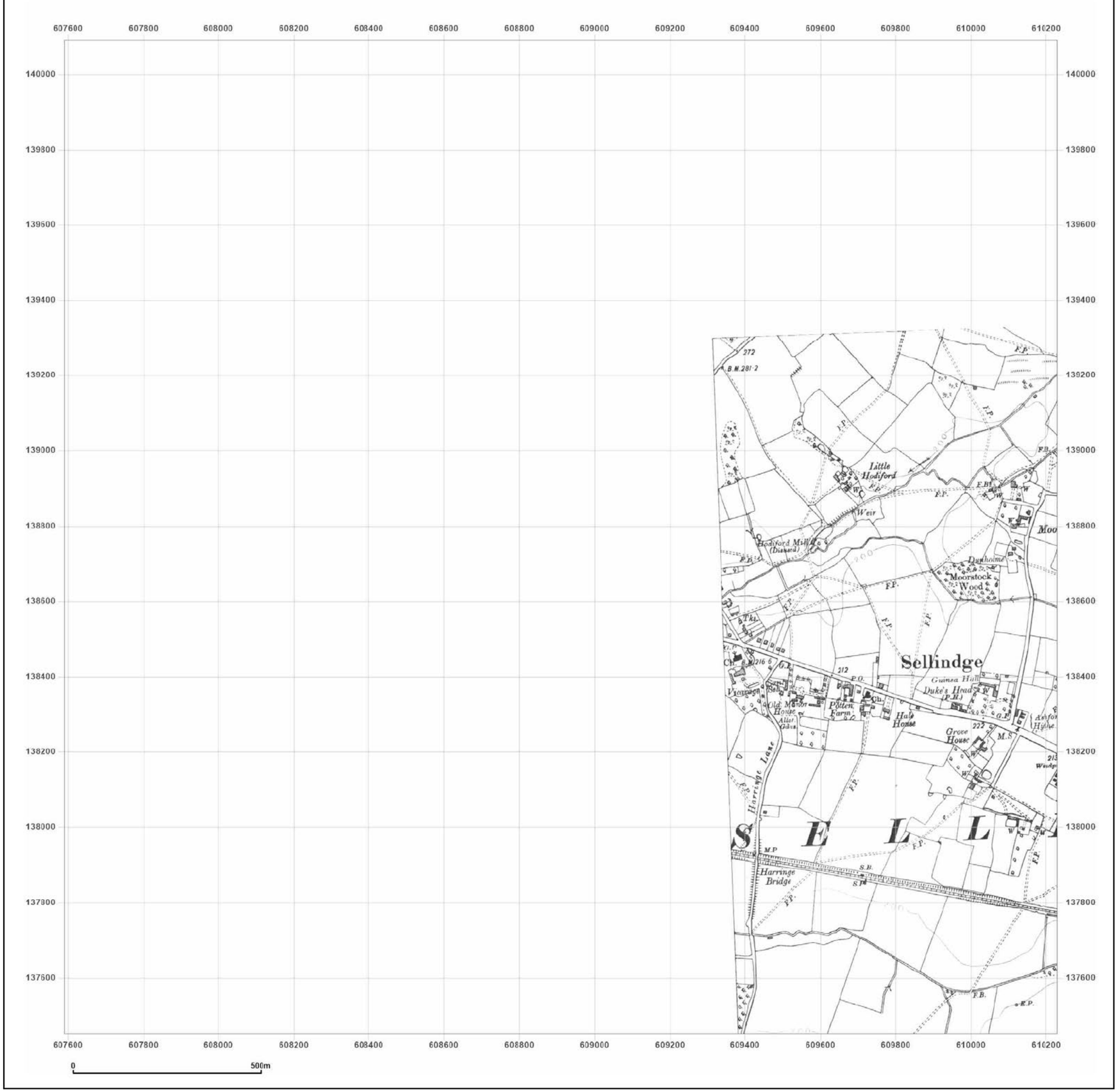

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

N
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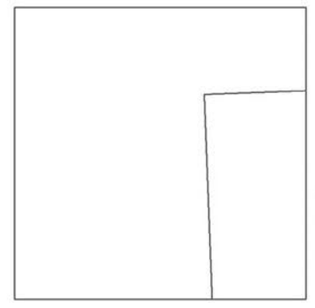

Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

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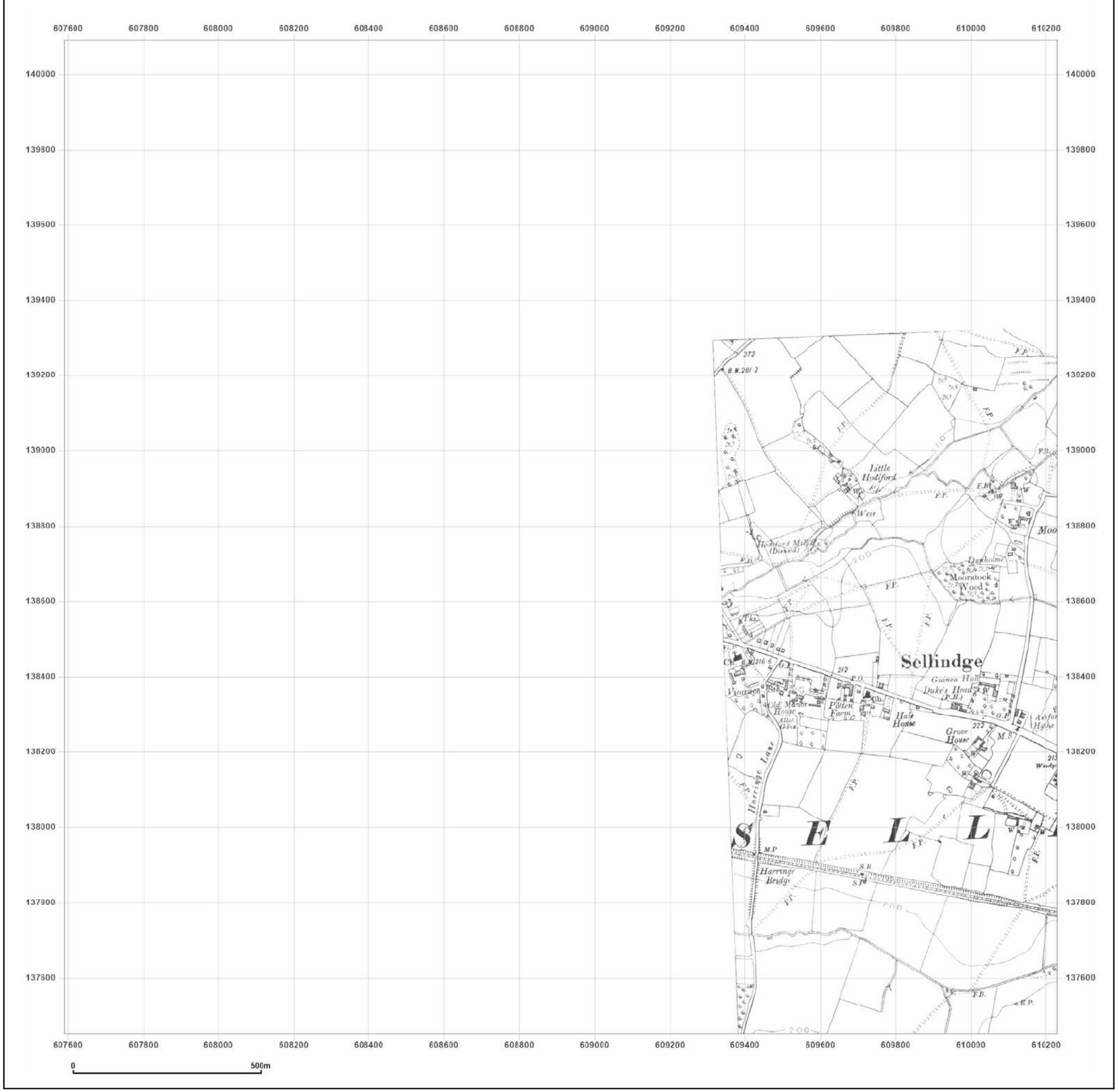
Production date: 23 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

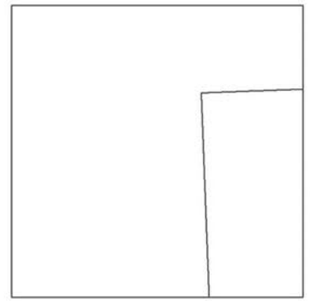
Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S



Surveyed 1871
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

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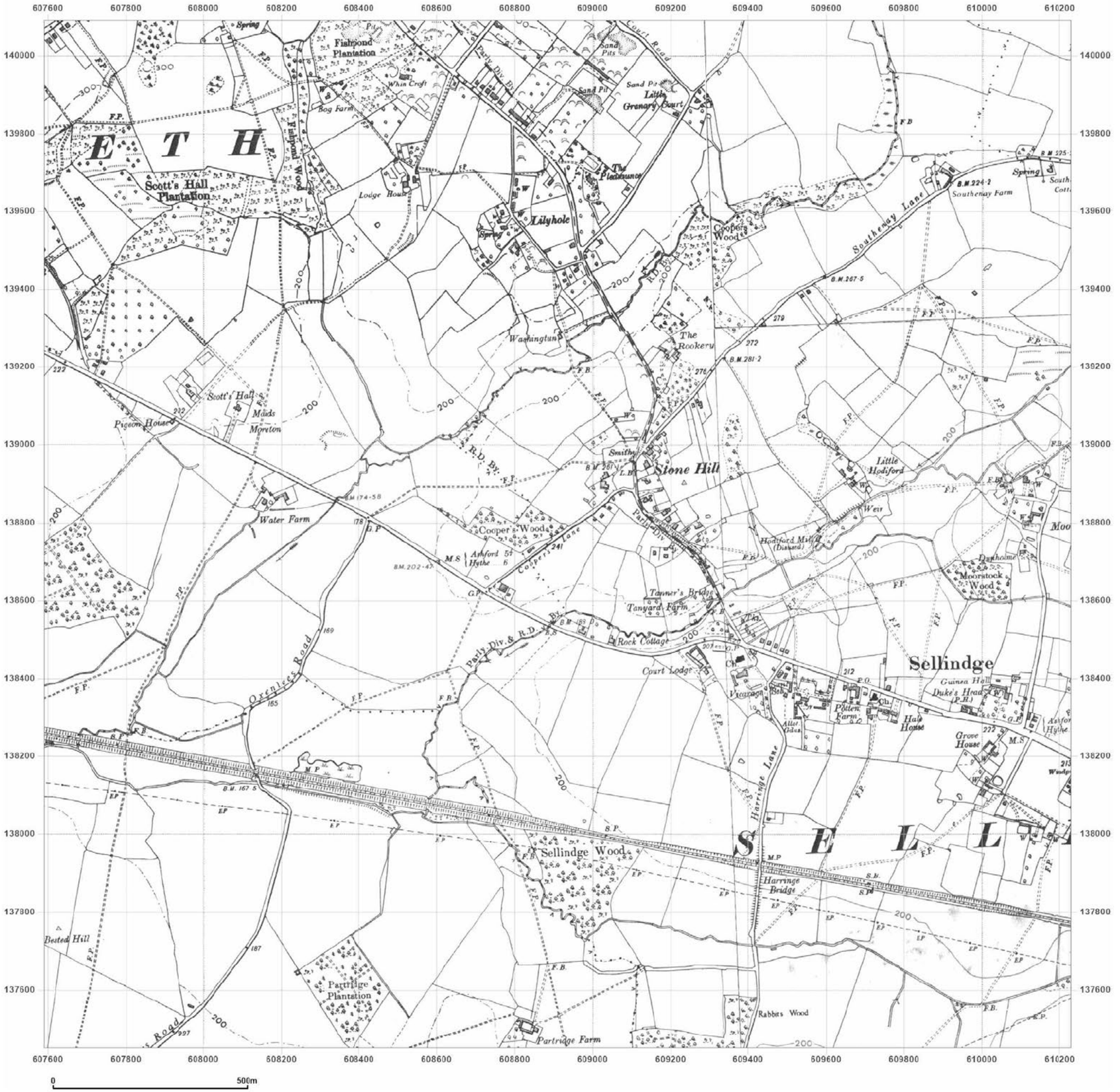
Production date: 23 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: County Series

Map date: **1939-1940**

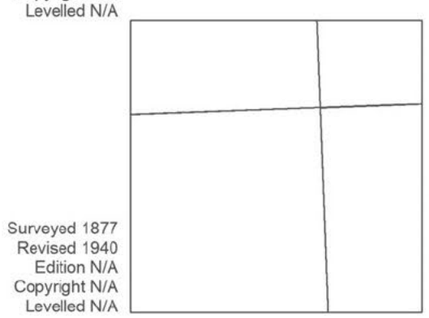
Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1877
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

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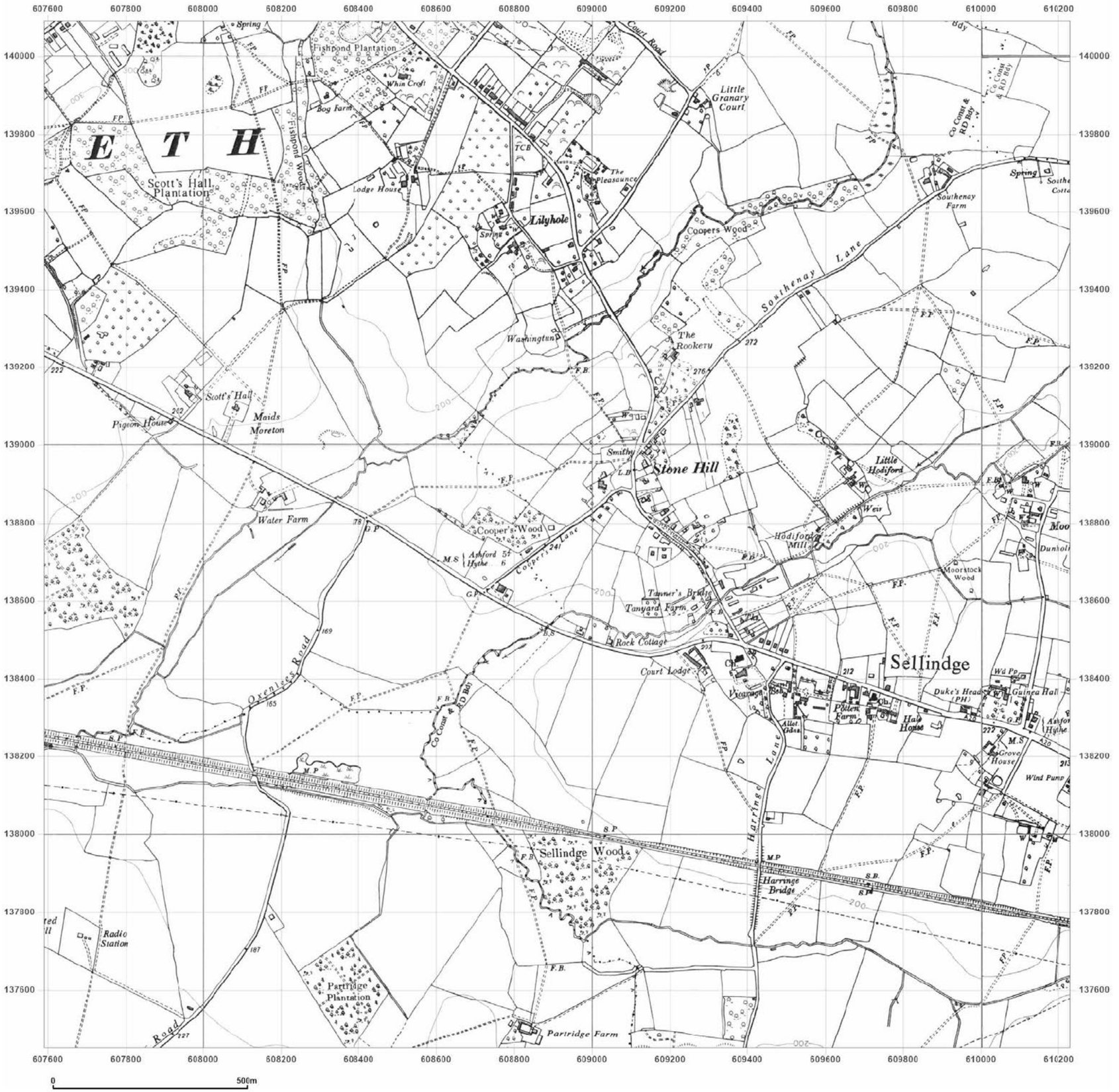
Production date: 23 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: Provisional
Map date: **1954-1957**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

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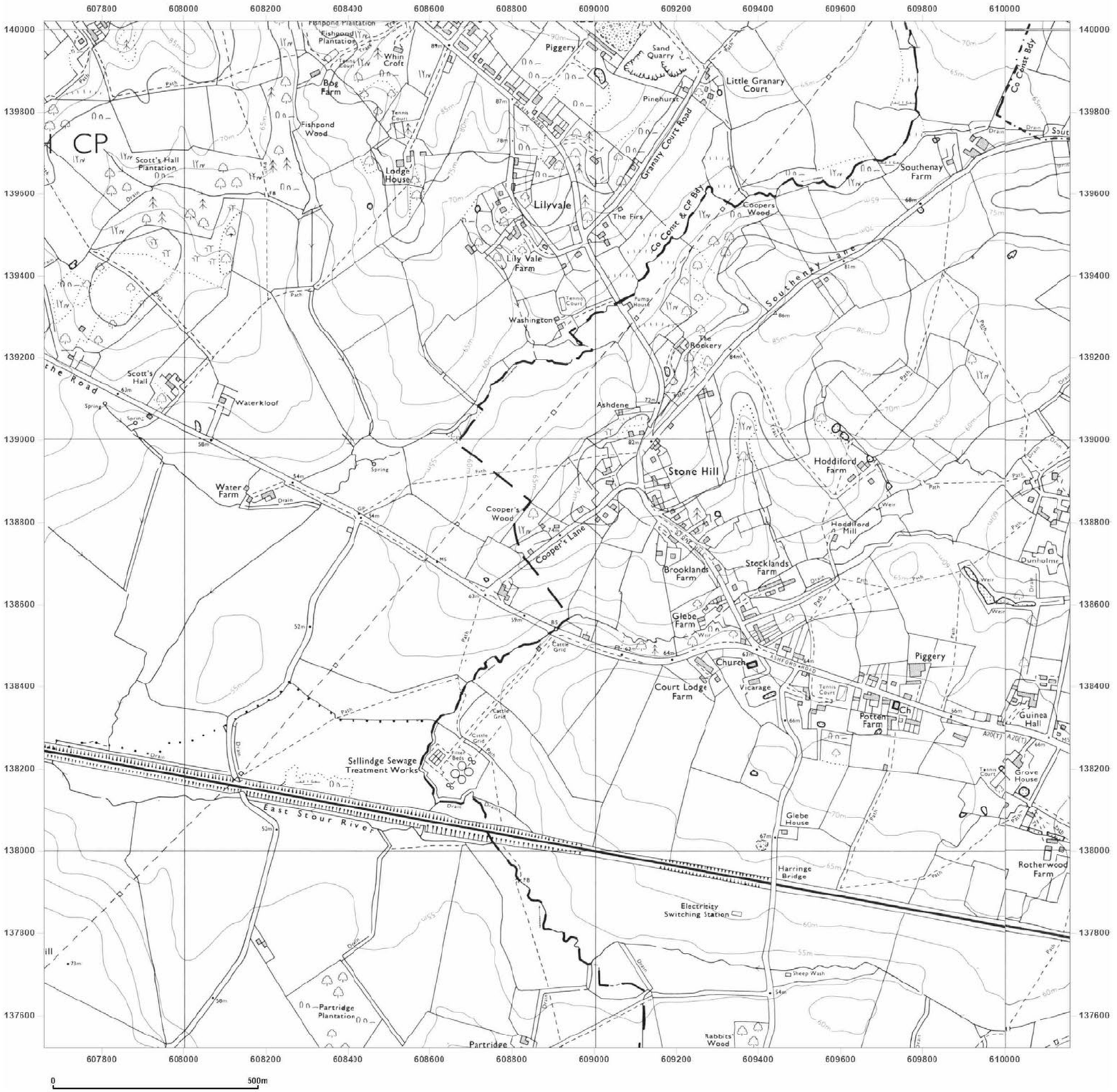

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid

Map date: **1973-1978**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1974
Revised 1977
Edition N/A
Copyright 1978
Levelled N/A

Surveyed 1973
Revised 1977
Edition N/A
Copyright 1977
Levelled N/A

Surveyed 1971
Revised 1975
Edition N/A
Copyright 1975
Levelled N/A

Surveyed 1970
Revised 1973
Edition N/A
Copyright 1973
Levelled N/A

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Production date: 23 April 2024

Map legend available at:
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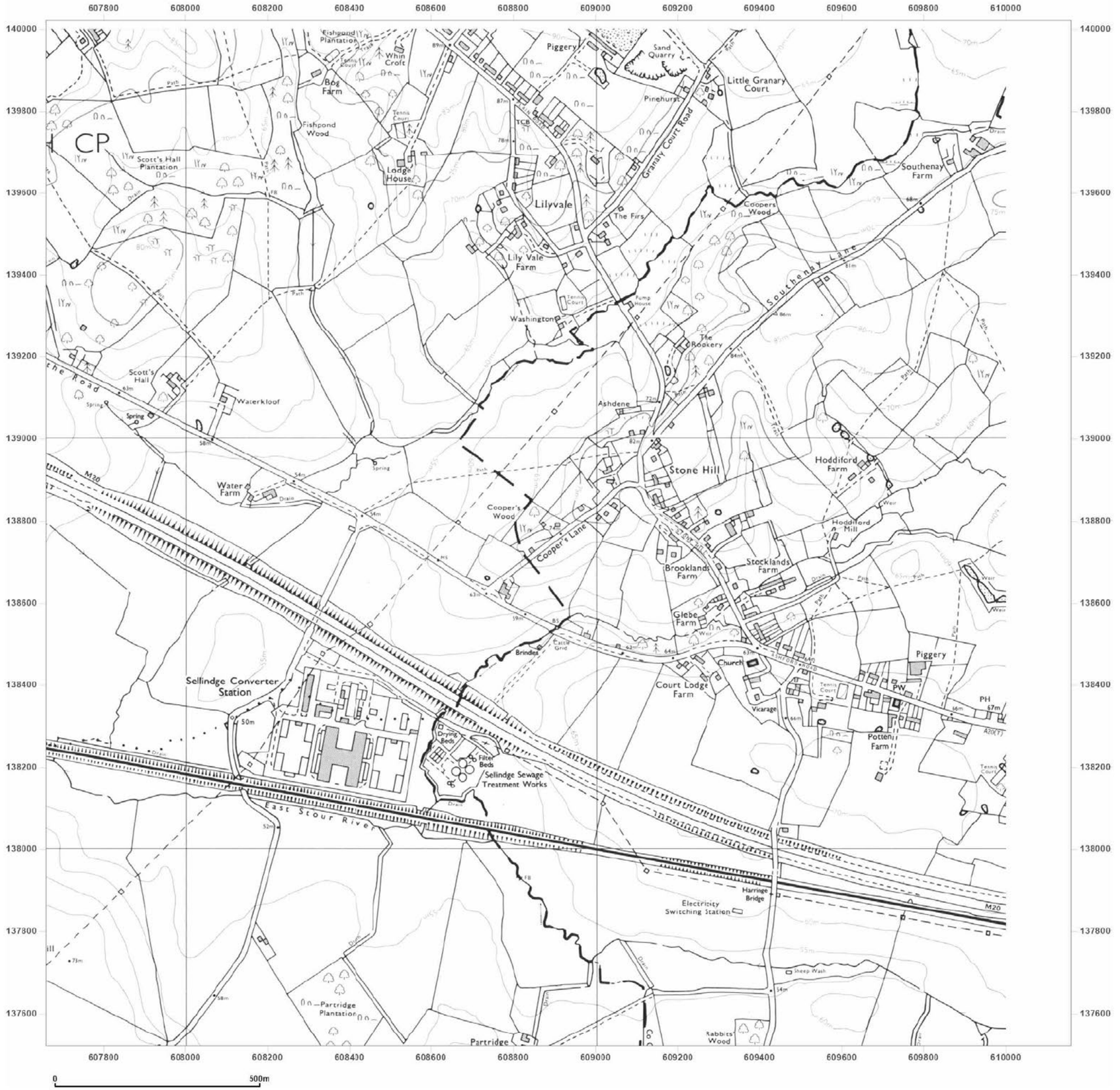

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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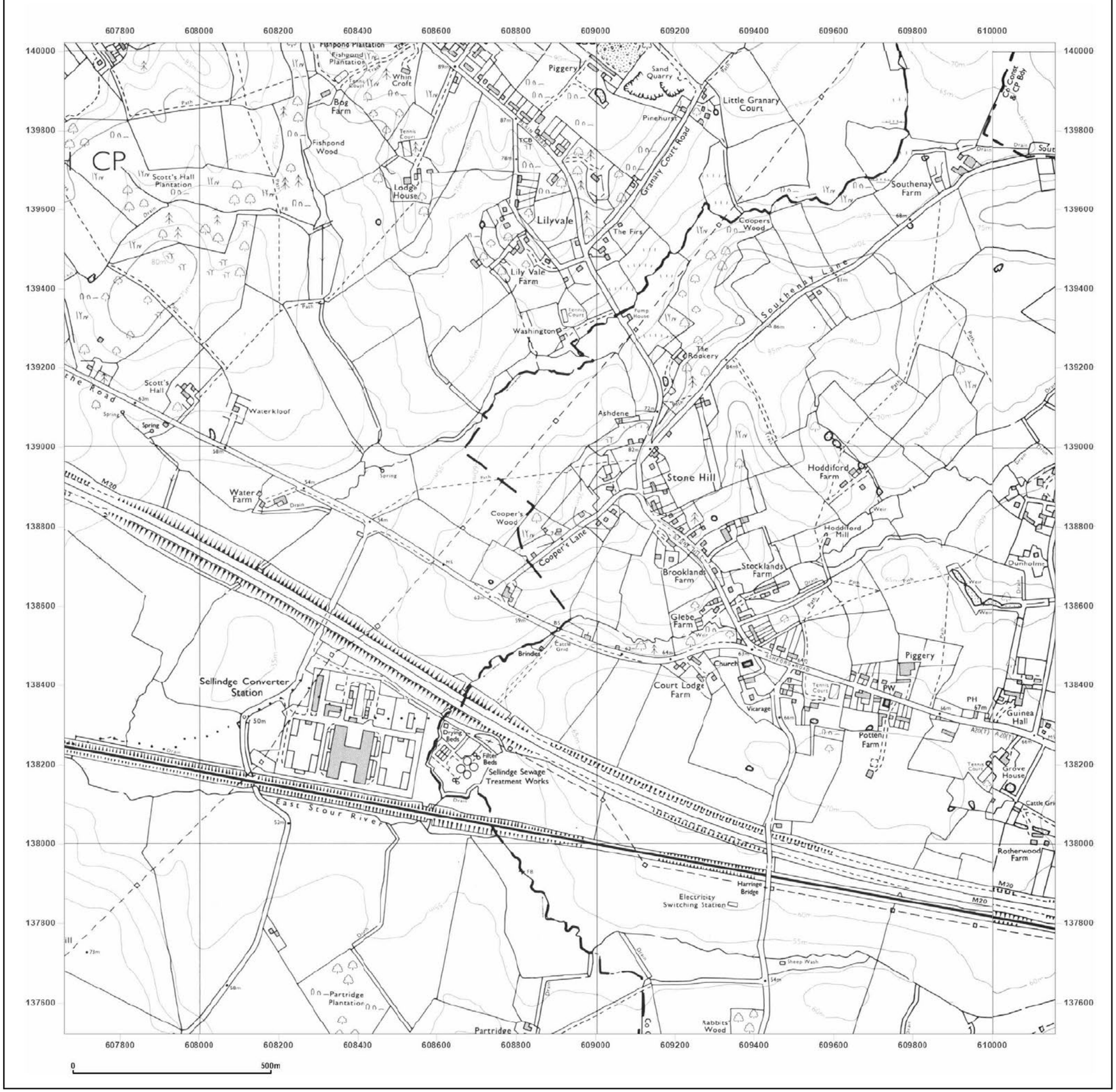

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid

Map date: **1988-1989**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1974
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1972
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1985
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

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Map legend available at:
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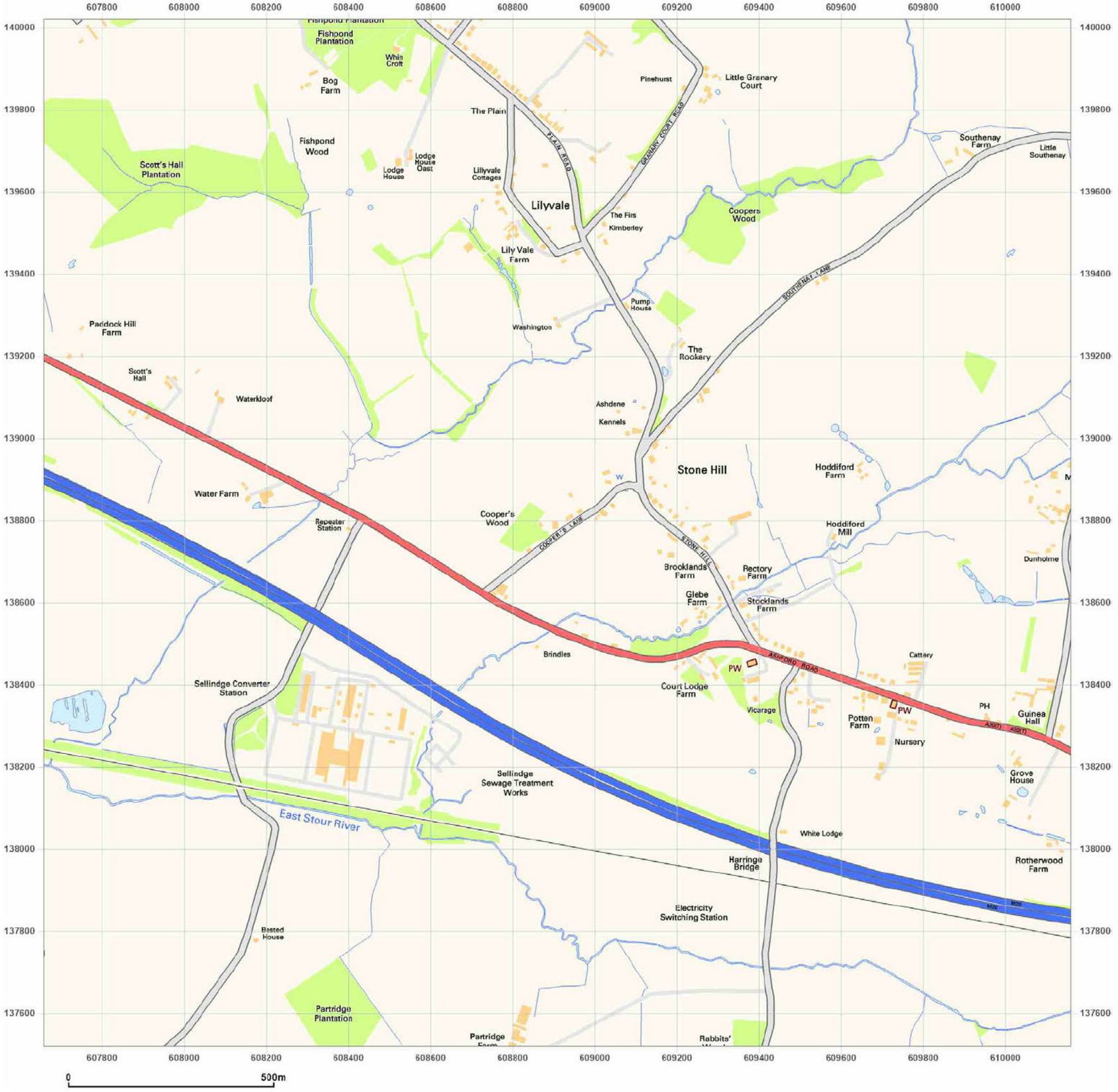

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000

N
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2001

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Production date: 23 April 2024

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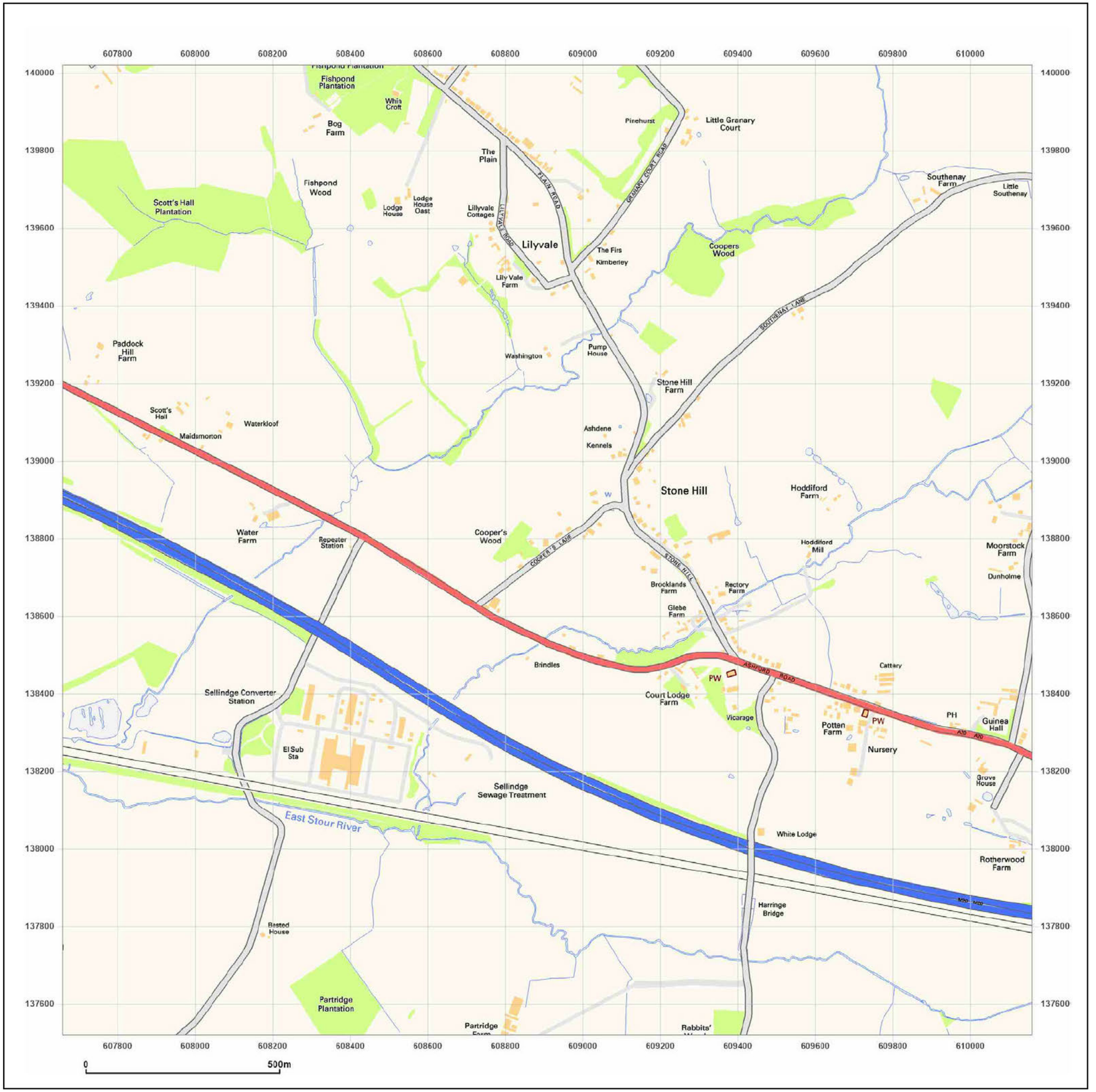

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

N
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2010

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Production date: 23 April 2024

Map legend available at:
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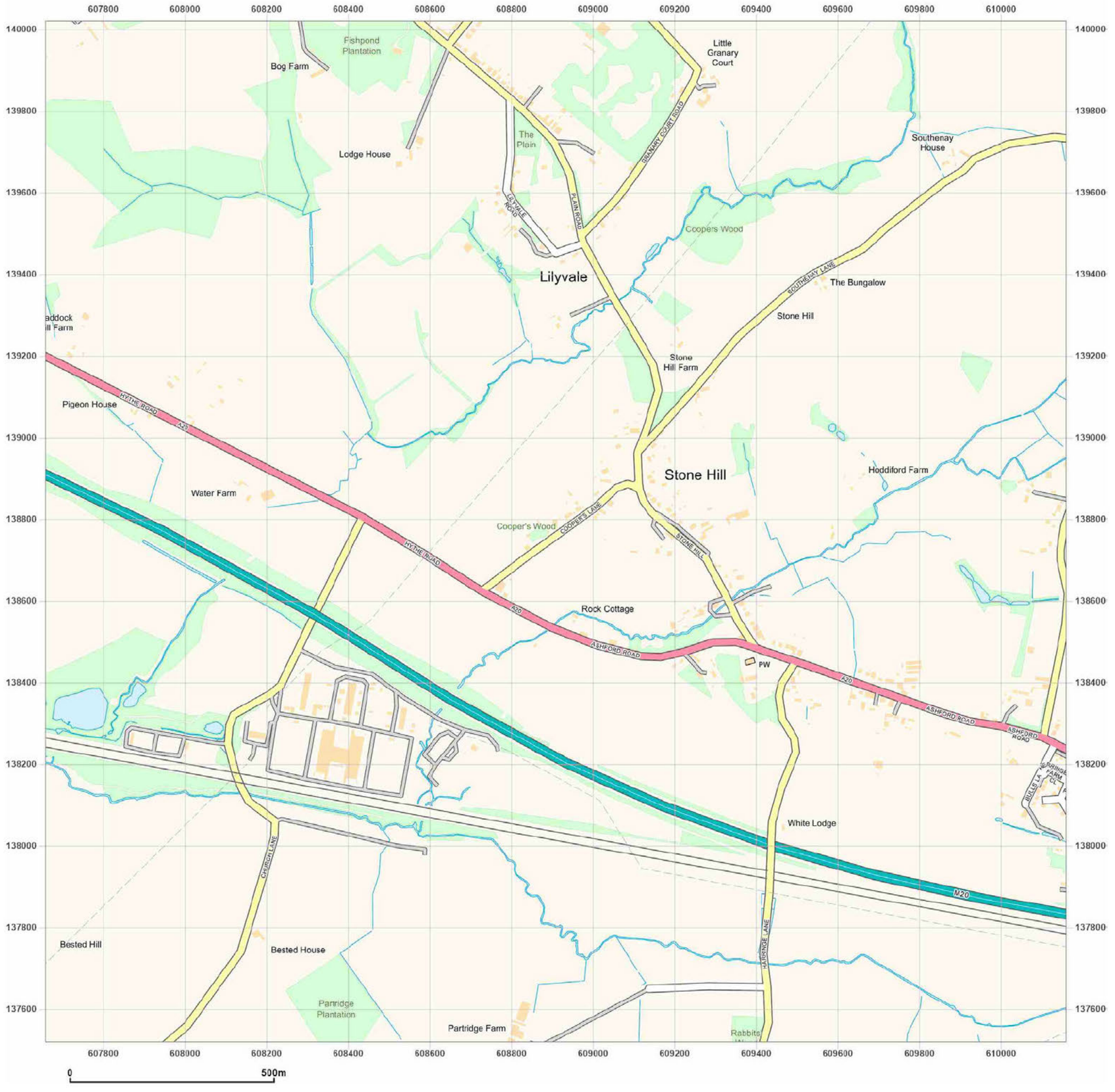

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_3_2
Grid Ref: 608909, 138770

Map Name: National Grid
Map date: **2024**
Scale: 1:10,000
Printed at: 1:10,000

N
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2024

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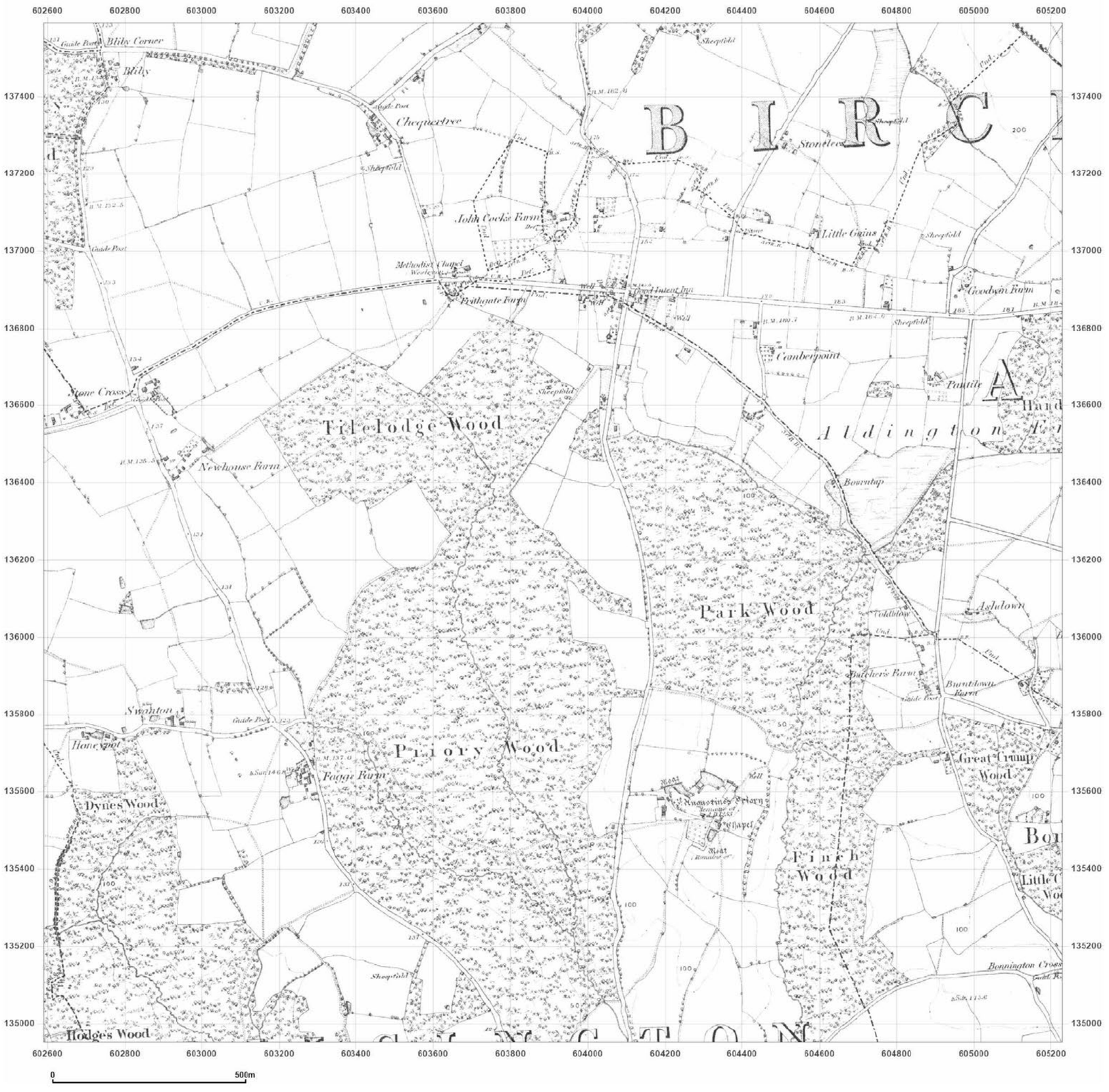
Production date: 23 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: County Series
Map date: **1871**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised 1871
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
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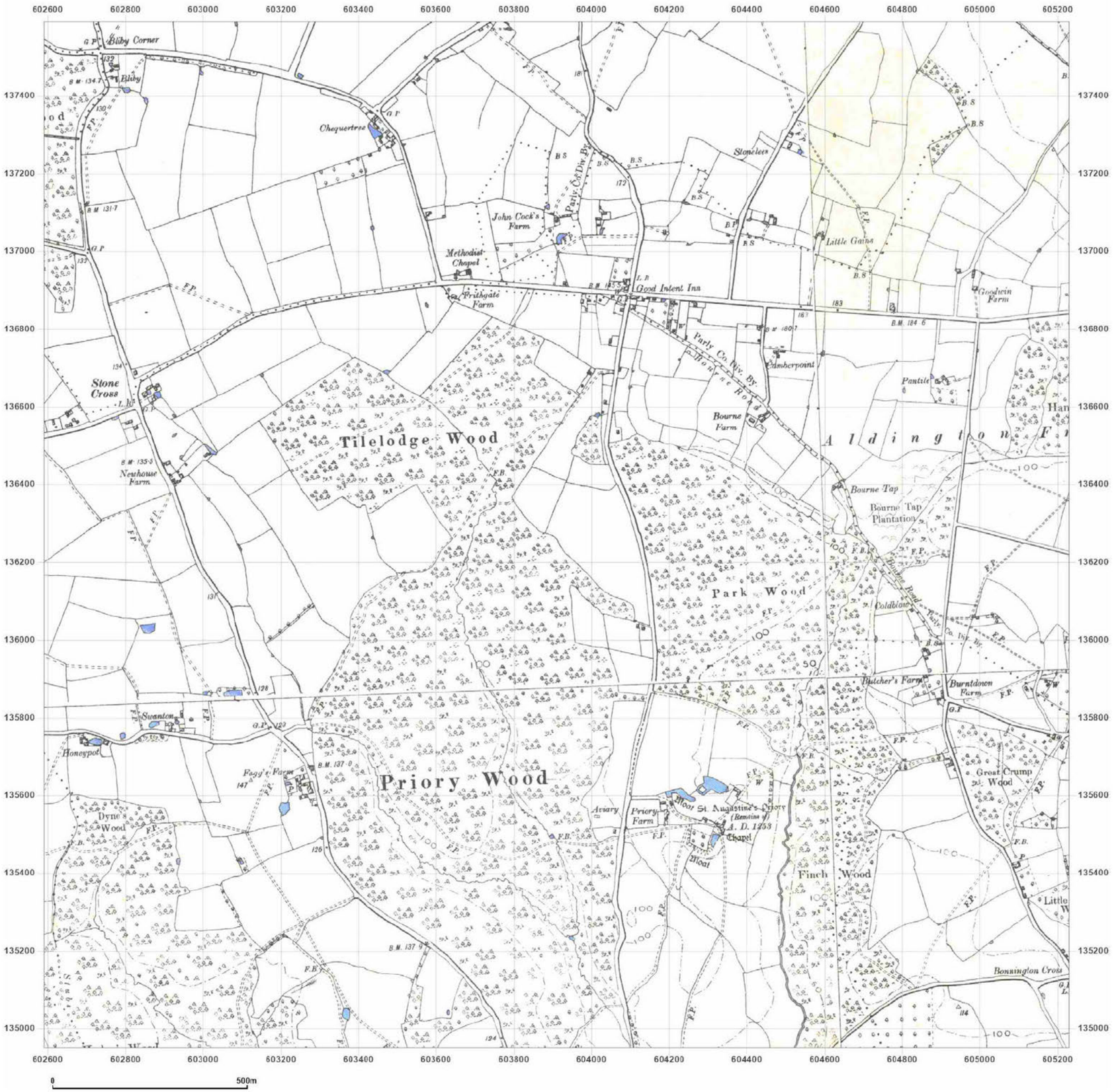
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 April 2024

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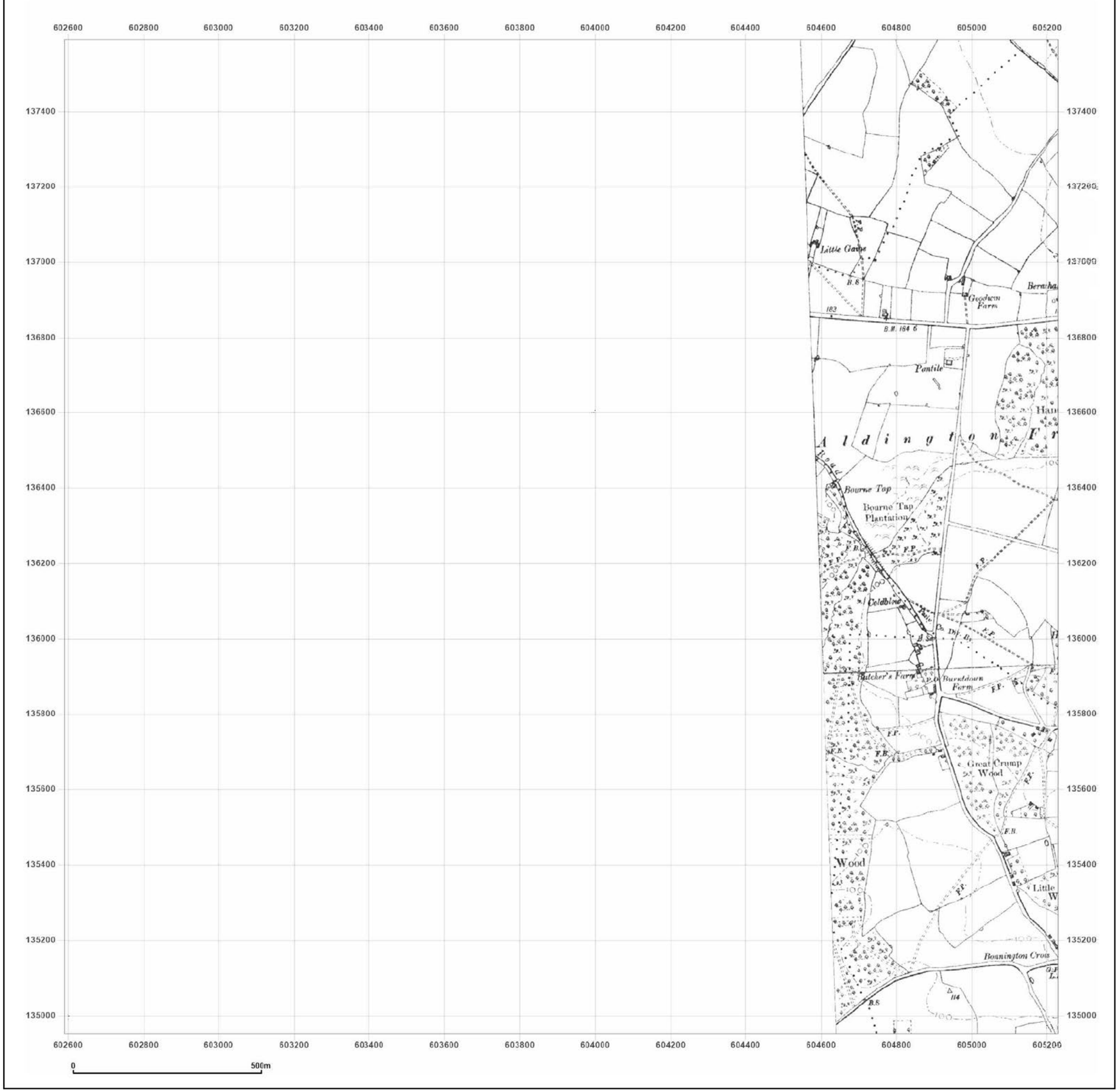


Groundsure INSIGHTS

Site Details:

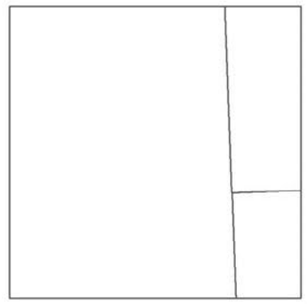
Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: County Series
Map date: **1906**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 April 2024

Map legend available at:
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Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: County Series

Map date: **1906-1908**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1908
Edition 1908
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1908
Edition 1908
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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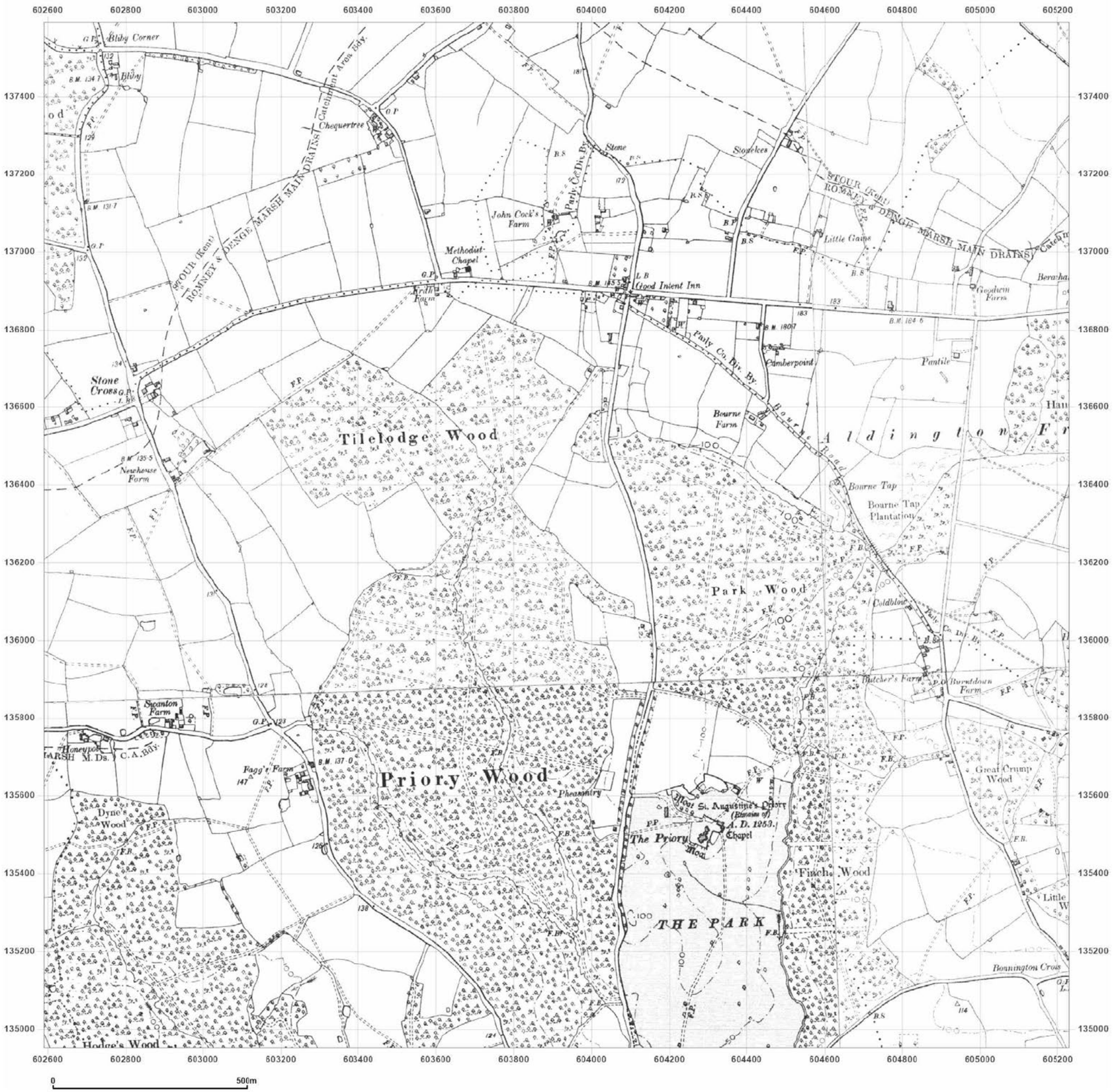
W: www.groundsure.com

Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: County Series

Map date: **1906-1908**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

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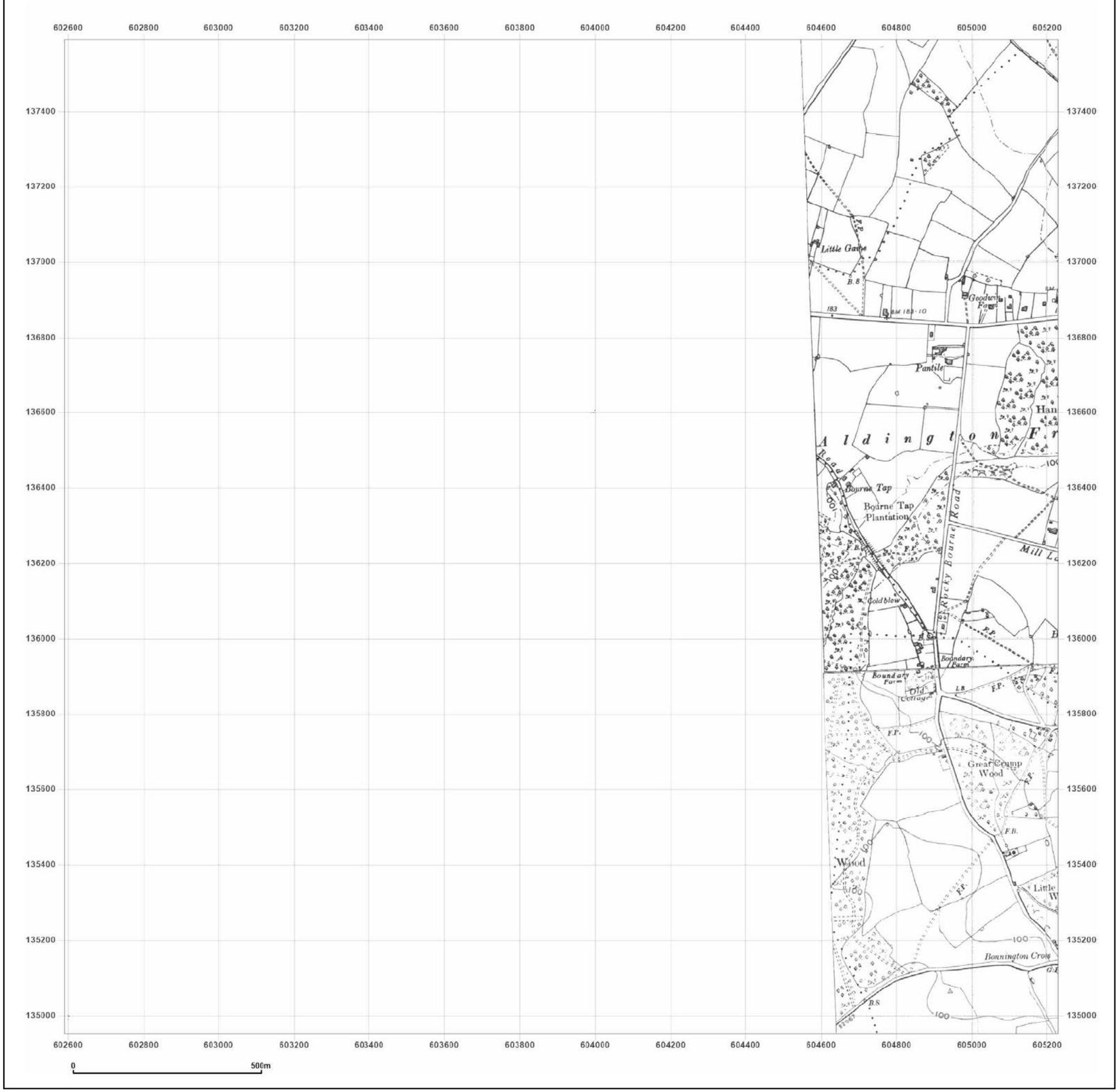
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

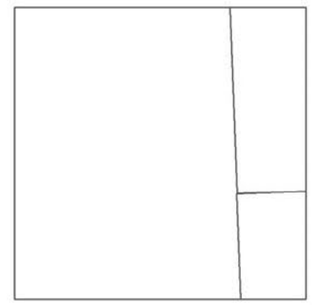
Map Name: County Series

Map date: **1939-1940**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



Surveyed 1877
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 22 April 2024

Map legend available at:
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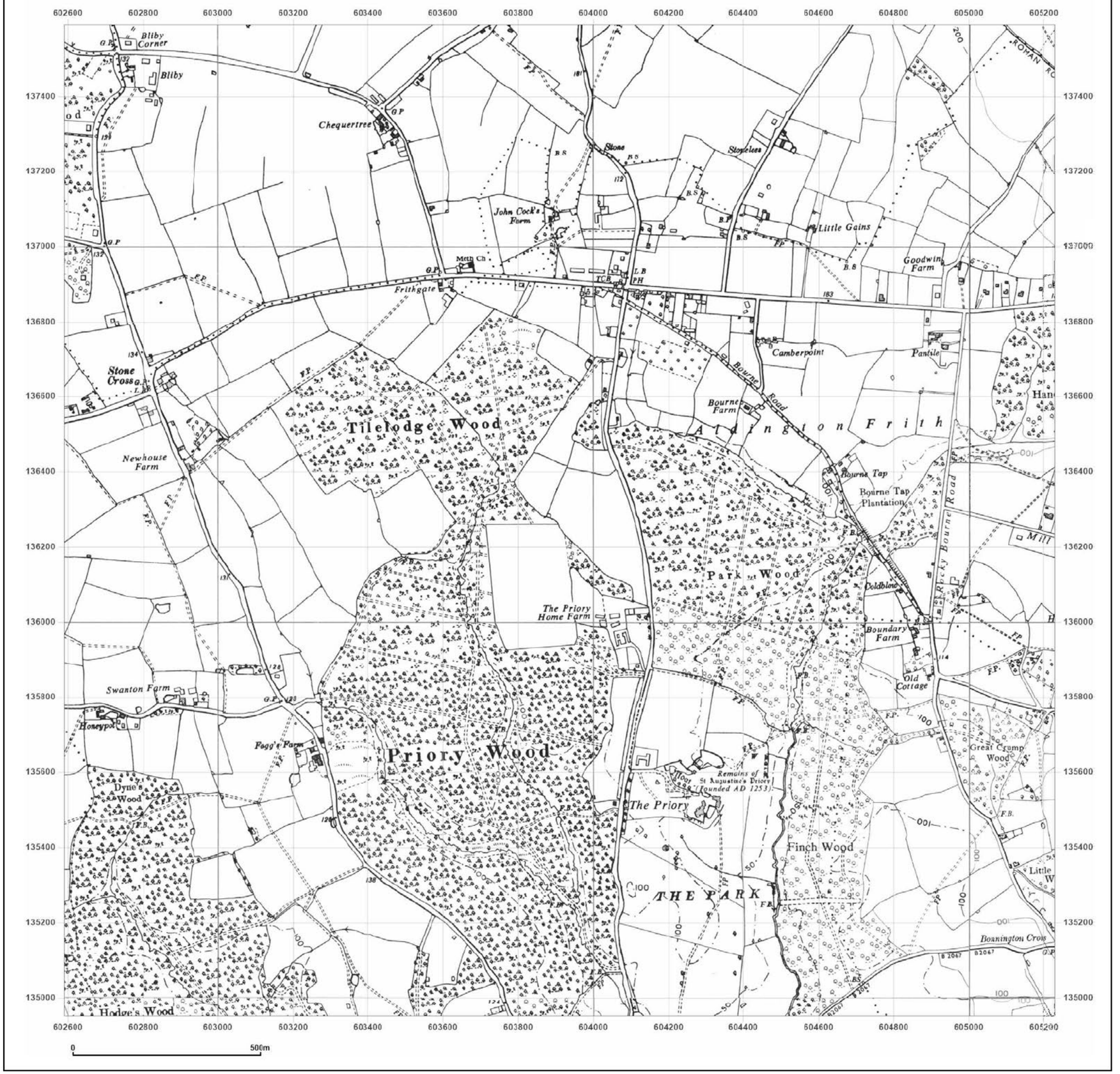

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: Provisional
Map date: **1954-1957**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

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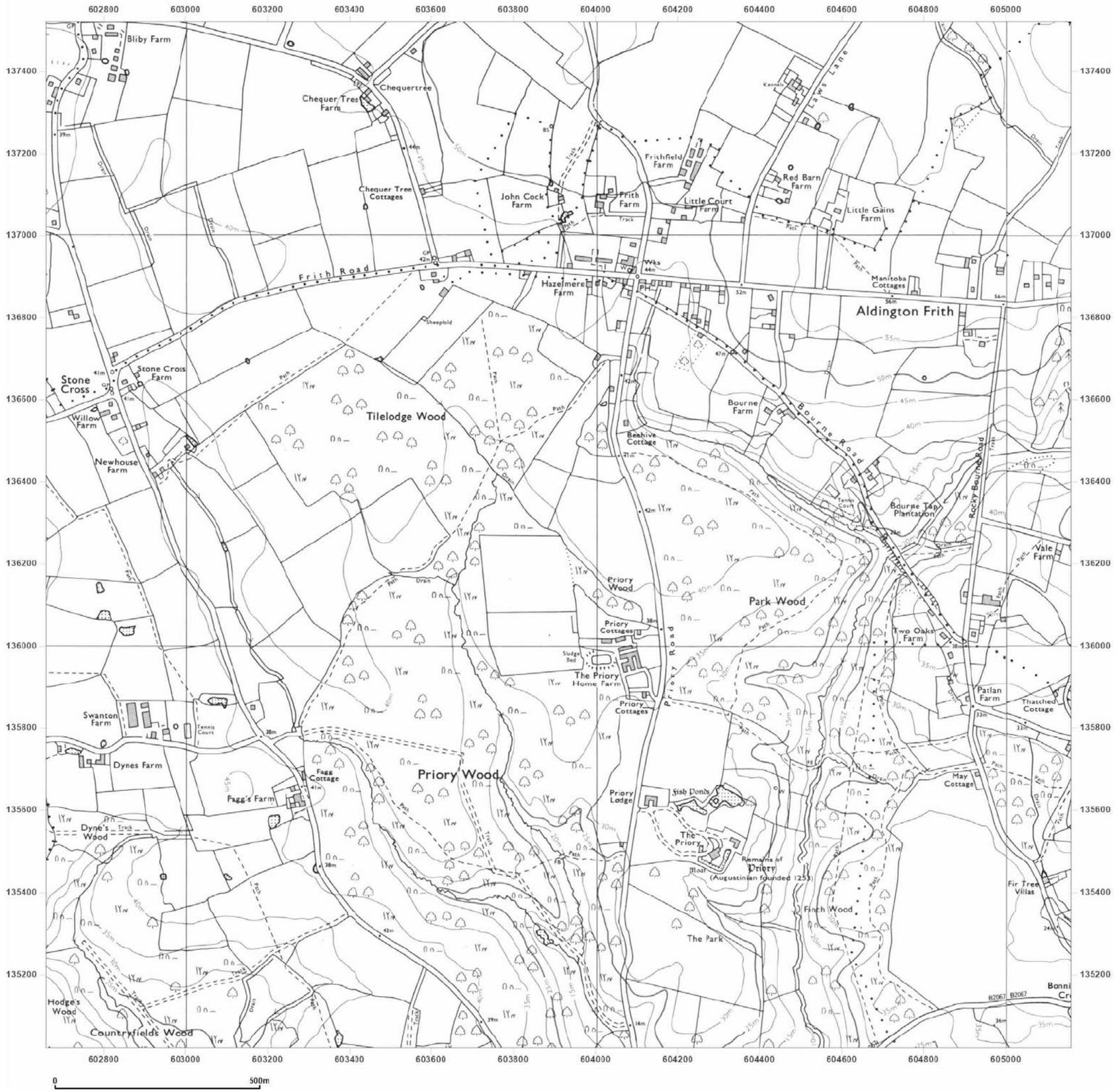

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: National Grid

Map date: **1975**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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Surveyed 1972
Revised 1975
Edition N/A
Copyright 1975
Levelled N/A

Surveyed 1971
Revised 1975
Edition N/A
Copyright 1975
Levelled N/A

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Production date: 22 April 2024

Map legend available at:
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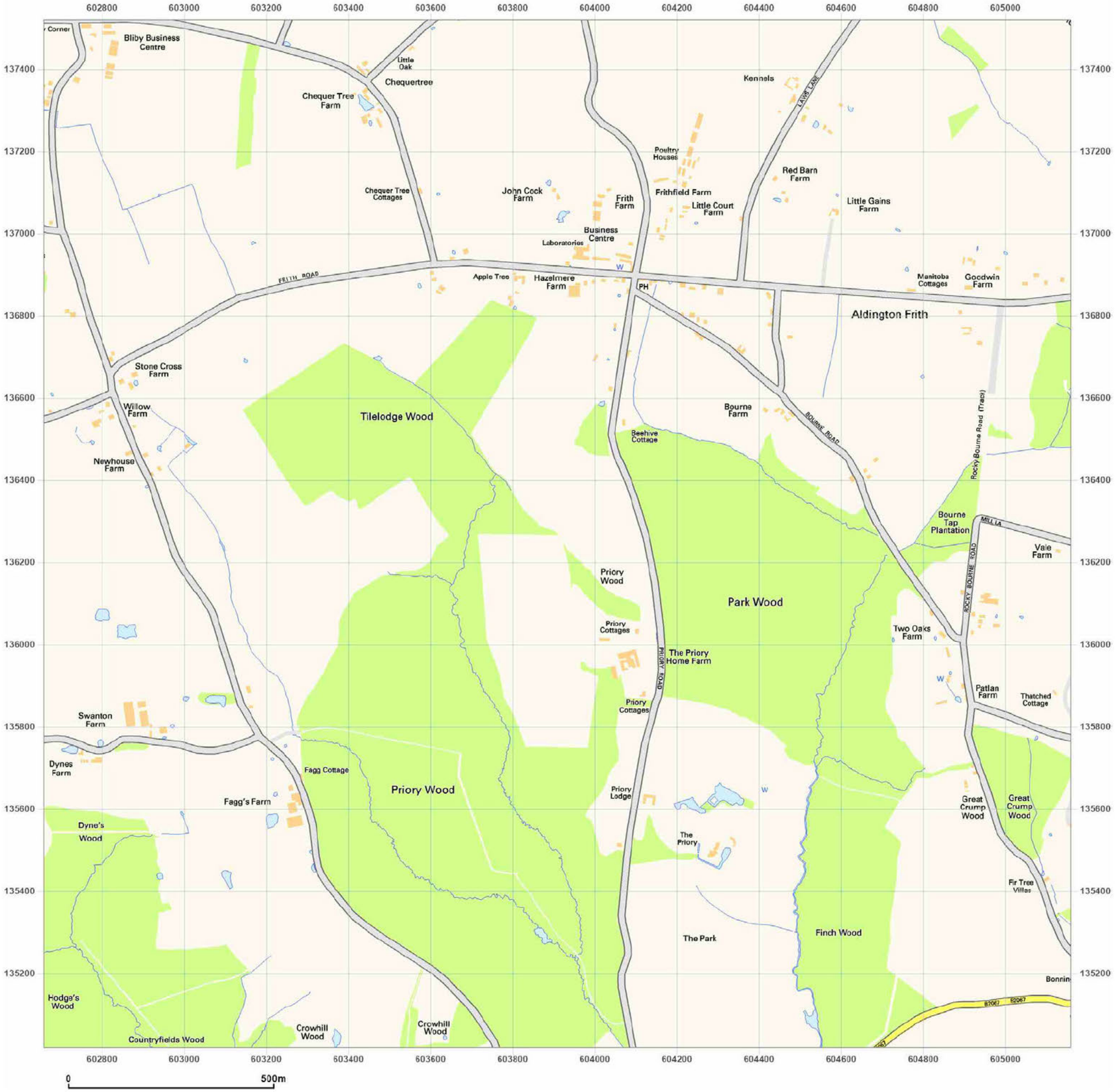


Groundsure INSIGHTS

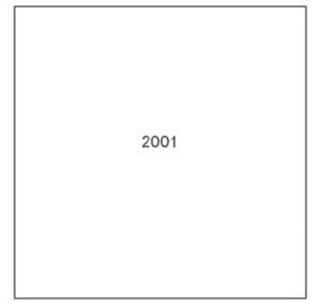
Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S



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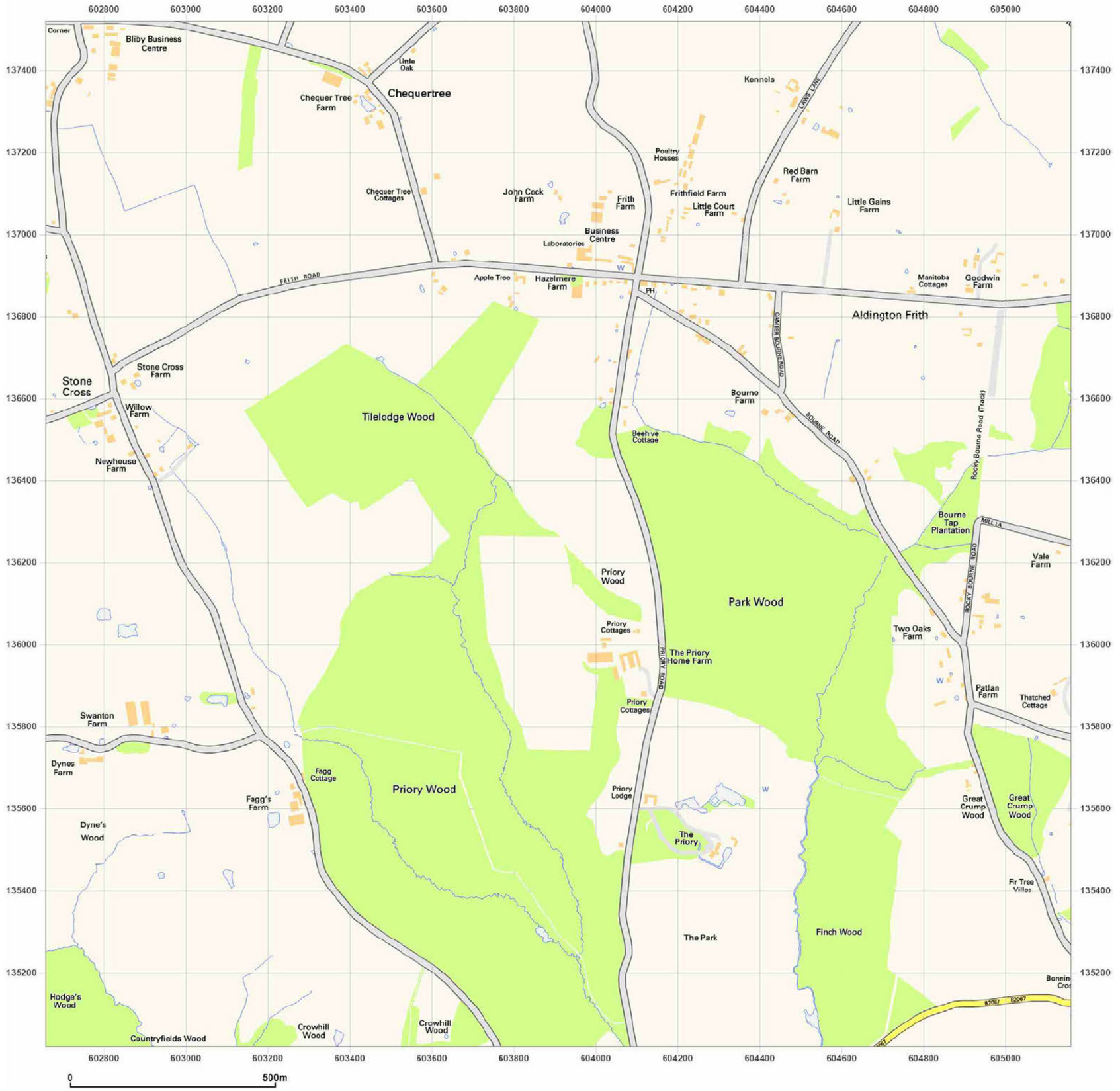
Production date: 22 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

N
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2010

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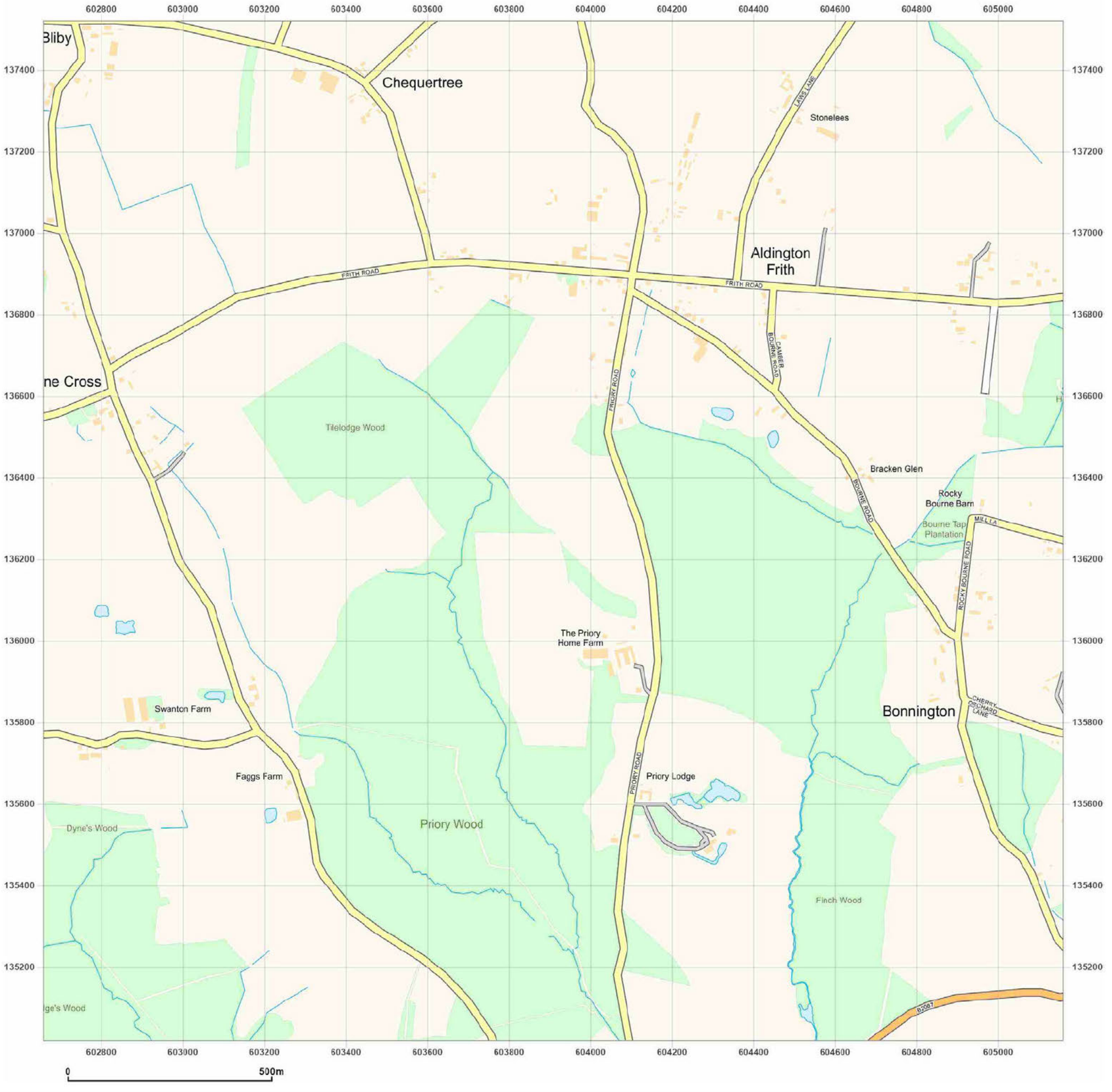

Groundsure INSIGHTS

Site Details:

Stonestreet Revised

Client Ref: Stonestreet Revised
Report Ref: GSIP-2023-13822-18395_SS_1_1
Grid Ref: 603909, 136270

Map Name: National Grid
Map date: 2024
Scale: 1:10,000
Printed at: 1:10,000

N
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2024

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Annex C

Site Walkover Notes

SITE VISIT RECORD	
Date of visit	29th November – 1st December 2021
Weather	Dry, cloudy.
Client	Evolution Power
Enquiry/Job No.	GM12014
Site name	Stonestreet Green
Drawings / photographs attached?	
Visited by	Beth Hallett
Site contact details	07500 703689
Access details	Access to fields via Roman Road, Goldwell Lane and Station Road.
Site area (Ha)	Approximately 191 hectares.
The walkover survey form should be read in conjunction with drawing GM12014-001. The numbers included within the walkover form relate to the numbered fields within the drawing.	

Observations	**Comments**	**Further action required?**
General Site Details		
Relevant Identification *(names of buildings, roads etc)*	Roman road	
Present Land Use	The entire site is being utilised as agricultural land or pastureland. Field 1 is mainly composed of pastureland however there is an area within the north which contains farm buildings, waste stockpiles, caravans and storage containers. Both fields 3 and 6 contain stockpiles of manure and shavings. Field 16 contains a substation building.	
Adjacent Land Use	Adjacent land us is comprised of further agricultural land use and pasture in all directions.	

Observations	Comments	Further action required?
	Woodland lies adjacent to the south of field 19. A railway line traverses the boundary of field 17 and 18 in an east-west direction. There is a fishing pond located to the west of field 19. A farm area including farm buildings storage, tractors, caravans, and residential buildings lie to the east of fields 22, 21, 11 and 8. Residential buildings and horse stables lie to the south of field 9.	
Adjacent public highways, roads leading to /crossing/servicing the site	Station road traverses the western boundary of field 16 and continues south where it changes to Goldwell Lane. Calleywell Lane traverses the eastern boundaries of fields 21 and 11. Roman road is located between fields 6 and 7, and 1,3, 5 and 8.	
Site Access (*main access points, dimensions, by rig/excavator etc, footpaths)*	Fields 17, 18, 19, 16, 15 and 22 are accessed through a gate off Station Road and there are gates and footpaths connecting each field. Fields Field 16 can also be accessed from the south of Station Road. Field 106 may also be accessed from the south of Station Road. Field 21 may be access off Calleywell Lane. Field 8 can be accessed from the farm area located to the south east. Fields 9 and the eastern portion of field 4 can be accessed along Laws Lane which is located off Frith Road. The remaining fields may be accessed from Roman Road. The following fields are connected to each other through footpaths, gates or open areas: • Fields 17, 18 and 19. • Fields 16,15 and 22. • Fields 106, 21,11, 7 and 6. • Fields 5, 3, 2 and 4. • Fields 13 and 14.	

Observations	Comments	Further action required?
	The remining fields (1, 9 and 8) are accessed as standalone fields from the associated roadways or access points.	
Site Boundary *(walls, hedges and fences open etc)*	The majority of fields are bounded by hedges and trees. Some fields contain open boundaries (south of field 1 and south of field 106).	
Topography *(general site setting, land gradients, slopes etc)*	Generally, the site topography is undulating.	
Evidence of land use		
Archaeology *(old buildings, monuments, mounds, ditches, artefacts in soil, pottery/glass)*	N/A	
Site Relics *(evidence of past land use, building remains, roads, humps, bumps, hollows etc)*	N/A	
Buildings *(general condition/construction; eg brick/ steel framed, asbestos, pits/basement, use)*	Steel and wood framed farm building located within field 1. Caravans are also located near the entrance of field 1.	
Storage Facilities *(eg: tanks/drums/chemicals/capacity /condition/bunding/containment)*	Three storage containers are located near the entrance of field 1.	
Activities/processes on site *(past and present)*	Most of the site is used as agricultural and pastureland. Evidence of recently ploughed fields are visible in fields 13, 14 and 19.	
Observable Environment *(noise/dust/odours/emissions)*	N/A	
Waste Management *(fly tipping/ waste disposal/fires)*	Evidence of a waste bonfire was observed to the north of field 106. A sign located within the entrance of field 1 displayed 'site closed no tipping', which suggests that the area is sometimes used for tipping. There are also small stockpiles of stone, wood, sheet metal and soil.	
Underground Services *(evidence of manholes, grates, culverts, water supply, telephone)*	Manholes were present within the north of field 15 (water) and north-east of field 106.	

Observations	Comments	Further action required?
Overhead Services *(overhead cables/pipes)*	Overhead services were noted within the northern, eastern and central fields.	
Evidence of ground conditions		
Vegetation *(description and condition, tree, frequency and age, bare patches, saplings, new growth)*	The site was covered by grass and plants.	
Ecology *(woodland, trees, hedges, ponds, running water, water loving plants, wildflowers, wildlife)*	Woodland was present within the south of field 18. Trees and hedges were present along most field boundaries.	
Soil Cover *(vegetated, unvegetated, soil/made ground/hardstanding/ condition/cracks/staining)*	Hardstanding was present within the west of field 17. The reminder of the site was covered by softstanding.	
Evidence of Geological Setting *(made ground, natural superficials and underlying rock)*	It can be assumed that all fields contain reworked natural Made Ground due to the presence of brick material on the surface (observed across the site). Soil on the surface displayed a sandy gravelly CLAY texture.	
Groundwater and Drainage *(ponding, streams, springs, wells, marshes, tides, rivers etc)*	Eastern fields – river within the centre and extending to the north. Central fields – river located within the east, extending north. A second river was noted between separating fields 106 and 7/21. A further river was located traversing the northern boundary of field 106. Western fields – river located between fields 1 and 2. Northern fields – river located adjacent to the northern boundary of field 22, and between fields 16 and 15.	
Subsidence *(fissures, abrupt changes in slope, collapse, tilting tree/posts, property damage)*	N/A	
Evidence of Mining *(surface features, shafts, trenches, tunnels, caves, wells, boreholes, gas etc)*	N/A	
Hazards identified		

Observations	Comments	Further action required?
(e.g. contamination, mine entries, ground fissures, sharps etc)	Utilities observed within field 15 and 16. Overhead power cables.	
Anecdotal information		
Local knowledge		
Interview with residents/staff		
Further observations		
Additional remarks		

Originator: Bethan Hallett **Date: 1/12/21**

SITE VISIT RECORD	
Date of visit	04/01/2023
Weather	Cloudy, dry
Client	EPL 004
Enquiry/Job No.	GM12014
Site name	Stonestreet Green – Cable Route
Drawings / photographs attached?	
Visited by	Beth Thomas
Site contact details	Kevin Mcghee (Lightsource)
Access details	
Site area (Ha)	3 hectares

Observations	**Comments**	**Further action required?**
General Site Details		
Relevant Identification *(names of buildings, roads etc)*		
Present Land Use	The cable route is currently utilised for agricultural land. Sheep are present within the eastern field.	
Adjacent Land Use	Adjacent land use mainly comprises agricultural land. There is a solar farm to the south of the eastern portion of the cable route. The East Stour River travereses the immediate northern boundary of the cable route.	
Adjacent public highways, roads leading to /crossing/servicing the site	The site can be accessed off Church Lane in the west and Harringe Lane in the east.	
Site Access (*main access points, dimensions, by rig/excavator etc, footpaths)*	The cable route can be access through gates off Church Lane and Harring Lane. There is an open boundary to the cable route within the west.	
Site Boundary	The cable route has an open boundary.	

Observations	Comments	Further action required?
(walls, hedges and fences open etc)		
Topography *(general site setting, land gradients, slopes etc)*	The cable route within the east is of higher elevation to the remainder of the route. The route generally slopes towards the west and is flat lying.	
Evidence of land use		
Archaeology *(old buildings, monuments, mounds, ditches, artefacts in soil, pottery/glass)*	N/A	
Site Relics *(evidence of past land use, building remains, roads, humps, bumps, hollows etc)*	N/A	
Buildings *(general condition/construction; eg brick/ steel framed, asbestos, pits/basement, use)*	N/A	
Storage Facilities *(eg: tanks/drums/chemicals/capacity /condition/bunding/containment)*	N/A	
Activities/processes on site *(past and present)*	N/A	
Observable Environment *(noise/dust/odours/emissions)*	Noise from the nearby railway line.	
Waste Management *(fly tipping/ waste disposal/fires)*	N/A	
Underground Services *(evidence of manholes, grates, culverts, water supply, telephone)*	N/A	
Overhead Services *(overhead cables/pipes)*	Overhead services traverse most of the fields.	
Evidence of ground conditions		
Vegetation *(description and condition, tree, frequency and age, bare patches, saplings, new growth)*	N/A	
Ecology *(woodland, trees, hedges, ponds, running water, water loving plants, wildflowers, wildlife)*	N/A	
Soil Cover	The cable route is mostly covered by grass.	

Observations	Comments	Further action required?
(vegetated, unvegetated,soil/made ground/hardstanding/ condition/cracks/staining)		
Evidence of Geological Setting *(made ground, natural superficials and underlying rock)*	N/A	
Groundwater and Drainage *(ponding, streams, springs, wells, marshes, tides, rivers etc)*	The ground along the route was saturated.	
Subsidence *(fissures, abrupt changes in slope, collapse, tilting tree/posts, property damage)*	N/A	
Evidence of Mining *(surface features, shafts, trenches, tunnels, caves, wells, boreholes, gas etc)*	N/A	
Hazards identified		
(e.g. contamination, mine entries, ground fissures, sharps etc)	N/A	
Anecdotal information		
Local knowledge		
Interview with residents/staff		
Further observations		
Additional remarks		

Originator: Bethan Thomas **Date: 05/01/2023**

SITE VISIT RECORD

Date of Visit:	29/02/24 – 01/03/24
Client:	
Site Name:	Bank Solar Farm
Refer to Drawing No:	.....
Visited by:	Sam Jones
Job No:	GM12014
Site Contact Name:	N/A
Access (key required):	N/A
Site Area (Ha):	.....

GENERAL SITE DETAILS

Relevant Identification (*names of buildings, roads etc*):

The site is vast and located within the open areas in and around the villages of Stonestreet Green and Aldington, Kent. Access is via many roads depending on your location; Bank Road and Laws Lane to the west, Roman Road for the central areas, Calleywell Lane and Goldwell Lane for the north and Church Lane for the west of the site.

Present Land Use:

The site is currently in use for agricultural/grazing purposes. At the time of the visit all fields were empty of livestock and appeared fallow.

Adjacent Land Uses:

The site covers a wide area of land currently in use for agricultural/grazing purposes. Adjacent land uses include farming, the village of Stonestreet Green and Aldington and various induvial residential properties. The train track (Folkstone to Ashford) runs along the north of the boundary. With an electricity sub-station and the M20 motorway located to the north of the track.

In the east of the thin strip of site land accessible from Church Lane runs adjacent to an already in-situ solar farm located on adjacent land.

In the central northern area of the site is a large pond/lake in use for private fishing purposes along with Woodlea's Camping and Caravanning site.

Adjacent public highways, roads leading to / crossing / servicing the site:

The train line runs to the north of the site with an electricity substation and the M20 present on the northern side of the track.

Site Access (*main access points, dimensions, by rig/excavator etc, footpaths*):

Site access to the majority of the areas is via the field gates currently in place leading off from the various roads which are mostly single access with passing places.

In the far east of the site entry to the narrow strip of land is through the gate of an already in-situ solar farm leading off from the road. The gate will be locked with a small parking space to the front. In the majority of cases the various fields around the site accessed by the field gates in currently in place.

Site Boundary (*hedges, walls and fences open etc*):

As the site is currently in use for agricultural purposes the majority of site boundaries are either fenced/and or hedges with the tributary and train line marking the northern edge of the site.

Topography (*general site setting, land gradients, slopes etc*):

The site locations are of varying topography. In the south the land dips towards the north and in the north west the land dips to the south east. In the central areas of the site the land is mostly flat.

EVIDENCE OF LAND USE:

Archaeology (*old buildings, monuments, mounds, ditches, artefacts in soil, pottery/glass*):

None encountered.

Site Relics (*evidence of past land use, building remains, roads, humps, bumps, hollows etc*):

None encountered.

Buildings (*general condition/construction, eg: brick/steel framed, asbestos, pits / basement, use*):

None encountered.

Storage Facilities (*eg: tanks/drums/chemicals/ capacity/condition/bunding/containment*):

None encountered.

Activities/Processes on Site (past and present/materials/equipment):

In the north of the site a fertiliser storage tank is located in the field leading of from Goldwell Lane. There is also a tarmacked area ideal for parking. During the site visit several large piles of animal waste were noted in the north of the field (see photographs). In the field north west from this location also accessed by Goldwell Lane an electricity sub-station was present.

Observable Environment (*noise/dust/odours/emissions*):

During the site visit there were no noise, dust, odour or emissions from land use on site.

Waste Management (*fly tipping/waste disposal/fires*):

No waste management issues were noted apart from the previously mentioned animal waste stockpiles (see activities/process on site).

Underground Services (*evidence of manholes, grates, culverts, water supply, telephone*):

None encountered.

Overhead Services (overhead cables/pipes etc):

An electricity pylon line was observed within the site boundary trending north east-south west with pylons noted in 606907 136969 and 606846 136718.

EVIDENCE OF GROUND CONDITIONS

Vegetation (*description and condition, tree, frequency and age, bare patches, saplings, new growth*):

The majority of wooded vegetation encountered on site was restricted to the field boundaries save for several small areas of woodland.

Ecology (*woodland, trees, hedges, ponds, running water, water loving plants, wild flowers, wildlife*):

As noted above small areas of woodland were present. Running water was noted in he north of the site with a tributary (East Stour, Kent) running east to west. In the west of the site field boundaries were occasionally unfenced and instead marked by trenches allowing the drainage of excess water. Water loving plants were noted within these areas.

Several potential badger setts were noted on the site. No wildlife was observed other than solitary occasional birds.

Soil Cover (*vegetated/unvegetated soil/made ground/hardstanding/condition/cracks/staining*):

A hardstanding area was located in the north of the site off Goldwell Lane. All soil cover was observed to be vegetation. At the time of the visit the ground was saturated.

Evidence of Geological Setting (*made ground, natural superficials and underlying rock*):

N/A

Groundwater and Drainage (*ponding, streams, springs, wells, marshes, tides, rivers, etc*):

A tributary (East Stour, Kent) runs along the northern boundary in the east. At the time of the visit this was heavy after recent rain. In the north of the site flooding from recent rain had caused the pond/lake to overflow from adjacent land leading to flooding to a large area of the site.

Subsidence (*fissures, abrupt changes in slope, collapse, tilting trees/posts, property damage*):

None observed.

Evidence of Mining (*surface features, shafts, trenches, tunnels, caves, wells, boreholes, gas, etc*):

None observed.

HAZARDS identified:

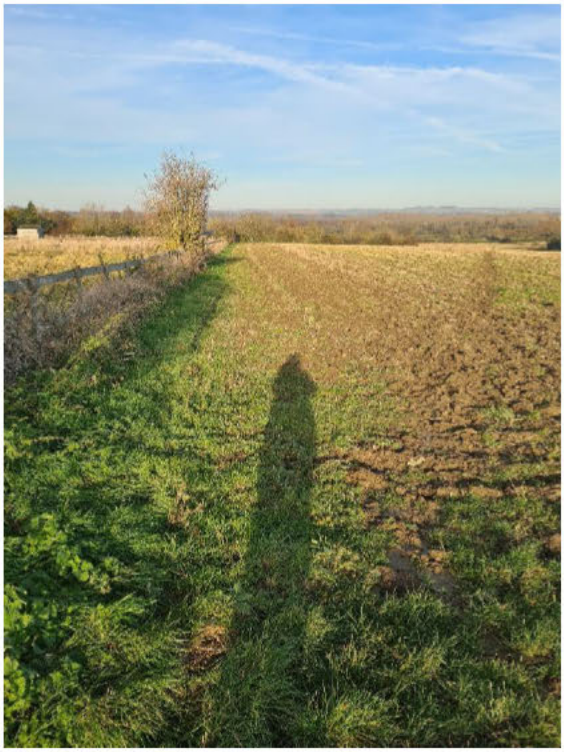
Additional Remarks:

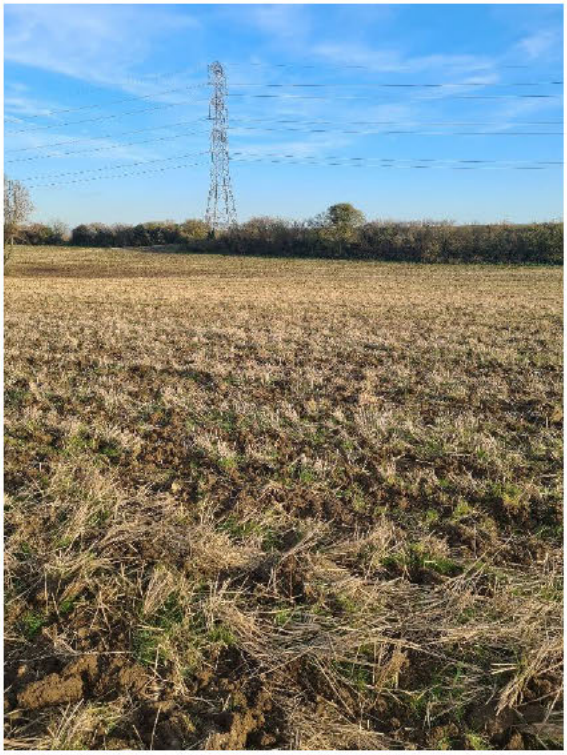
Photographs

Available on request

Annex D

Site Walkover Photographic Record





Picture Taken: 29/11/2021	Plate No. 1	Title: A view of south-eastern fields.

Picture Taken: 29/11/2021	Plate No. 2	Title: A view of vegetation within the south-eastern fields.

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Stonestreet Green

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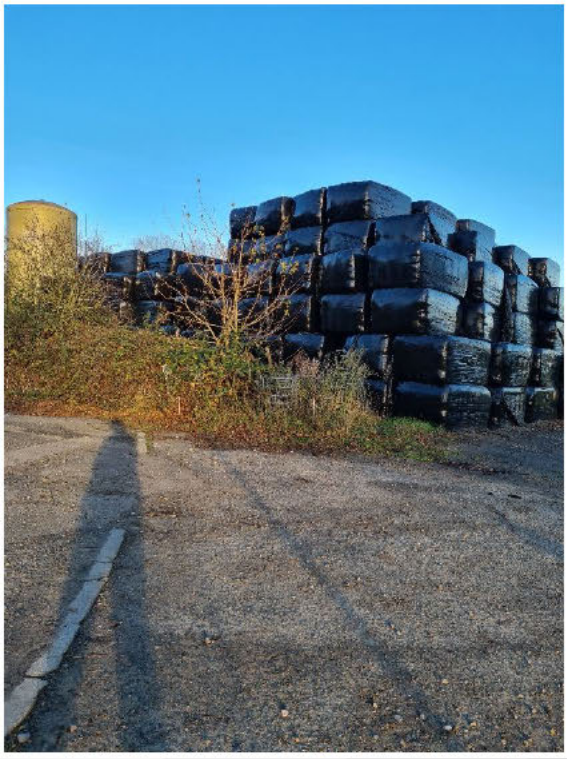
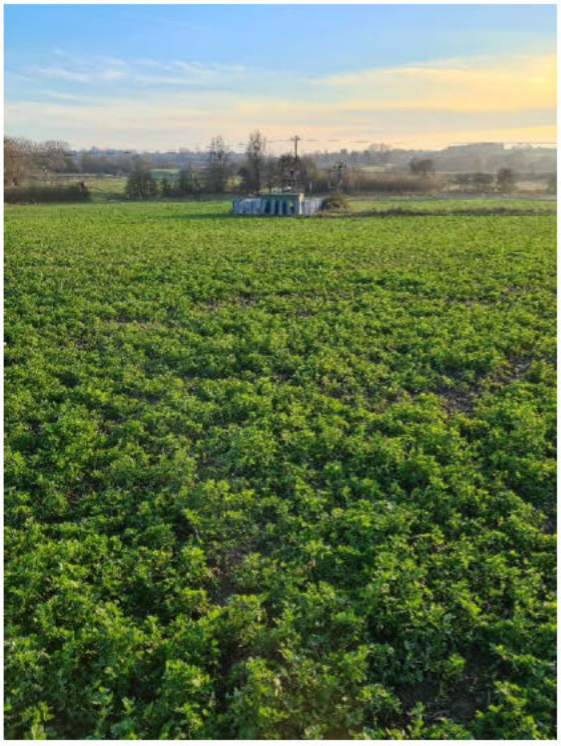
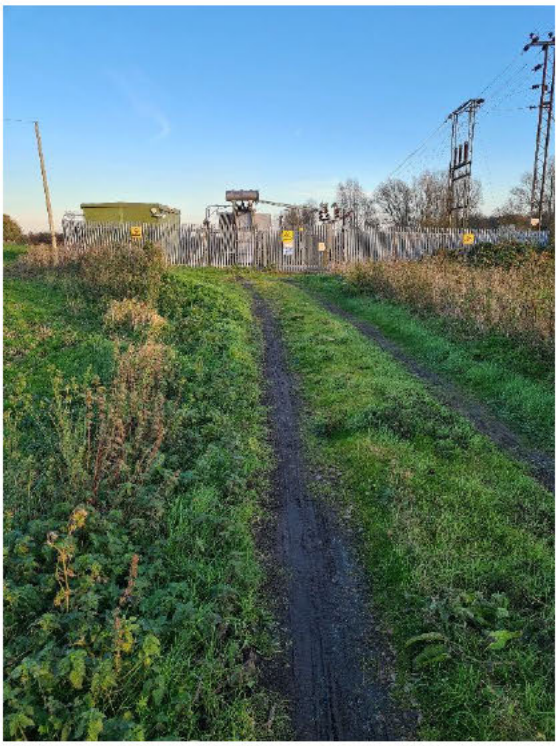


Picture Taken: 29/11/2021	Plate No. 3	Title: A view of the hardstanding area and hay storage within north-east.





Picture Taken: 29/11/2021	Plate No. 4	Title: A view of the north-eastern fields and substation.

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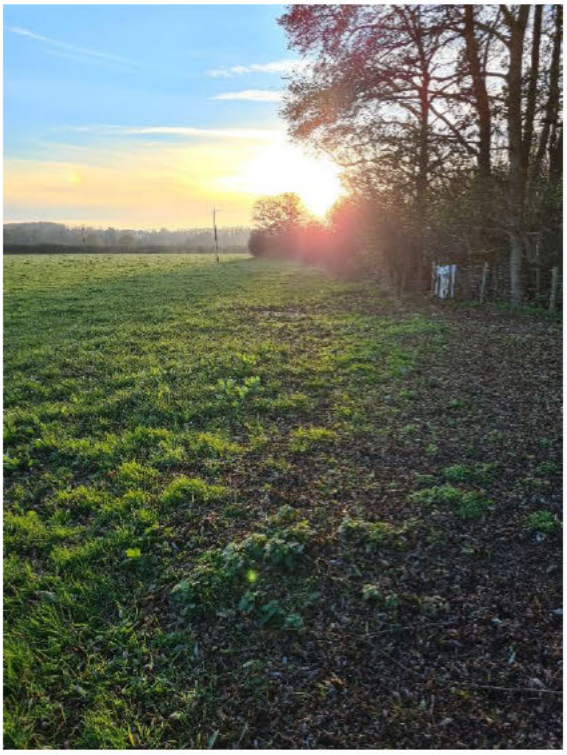
Contract Number: GM12014



Picture Taken: 29/11/2021	Plate No. 5	Title: A view of the fields within the north-east.

Picture Taken: 29/11/2021	Plate No. 6	Title: A view of services within the north-eastern fields.

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Contract Number: GM12014

Picture Taken: 29/11/2021	Plate No. 7	Title: A view of the manholes within the north-east.

Picture Taken: 29/11/2021	Plate No. 8	Title: A view of a footpath connecting the north-eastern fields and the East Stour River.

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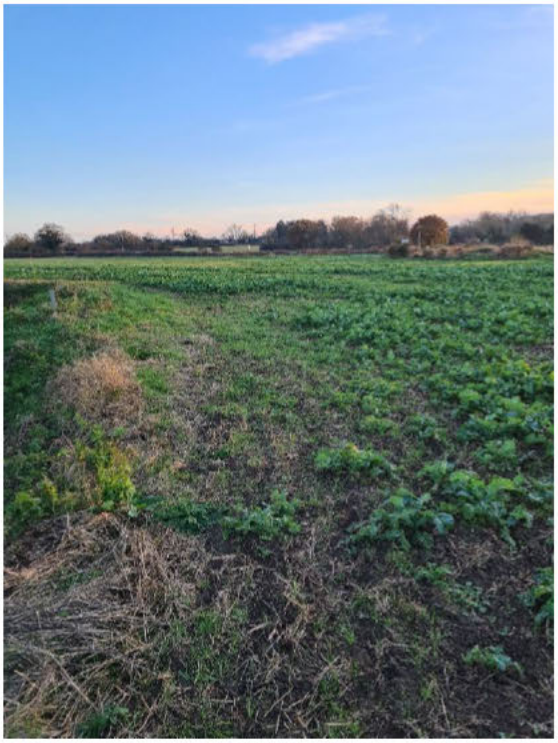

Picture Taken: 29/11/2021	Plate No. 9	Title: A view of the north-eastern fields.

Picture Taken: 29/11/2021	Plate No. 10	Title: A view of a footpath connecting the north-eastern fields and the East Stour River.

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Contract Number: GM12014

Picture Taken: 29/11/2021	Plate No. 11	Title: A view of the north-eastern fields.

Picture Taken: 29/11/2021	Plate No. 12	Title: A view pylons within the north-east.

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Contract Number: GM12014

Picture Taken: 29/11/2021	Plate No. 13	Title: A view of woodland within the north-east.

Picture Taken: 29/11/2021	Plate No. 14	Title: A view of the railway embankment traversing the north east boundary of the site.

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Contract Number: GM12014

Picture Taken: 30/11/2021	Plate No. 15	Title: A view of the central fields.

Picture Taken: 30/11/2021	Plate No. 16	Title: A view of a river and vegetation within the central fields.

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Contract Number: GM12014

Picture Taken: 30/11/2021	Plate No. 17	Title: A view of the northern fields.

Picture Taken: 30/11/2021	Plate No. 18	Title: Substation located adjacent to the northern fields.

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Picture Taken: 30/11/2021	Plate No. 19	Title: Stockpiles of manure within the west.

Picture Taken: 30/11/2021	Plate No. 20	Title: A view of the southern fields.

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Stonestreet Green

Contract Number: GM12014

Picture Taken: 30/11/2021	Plate No. 21	Title: A view of a stockpile of manure within the southern field.

Picture Taken: 30/11/2021	Plate No. 22	Title: Area containing tipped material and storage within the south west.

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Stonestreet Green

Contract Number: GM12014

Picture Taken: 04/01/2023	Plate No. 23	Title: A view of the eastern area of the cable route.

Picture Taken: 04/01/2023	Plate No. 24	Title: A view of the eastern area of the cable route.

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Contract Number: GM12014

Picture Taken: 04/01/2023	Plate No. 23	Title: Substations located adjacent to the centre of the cable route area.

Picture Taken: 04/01/2023	Plate No. 24	Title: Substation located adjacent to the centre of the cable route.

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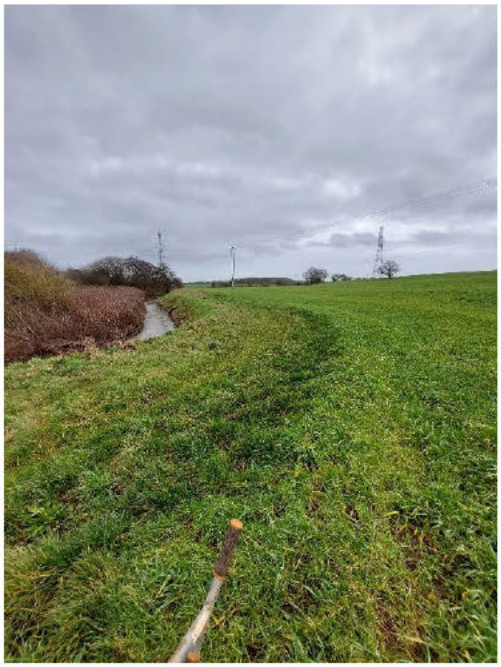
Contract Number: GM12014

Picture Taken: 04/01/2023	Plate No. 25	Title: A view of the western area of the cable route.



Picture Taken: 04/01/2023	Plate No. 26	Title: View of the cable route area within the west of the site.

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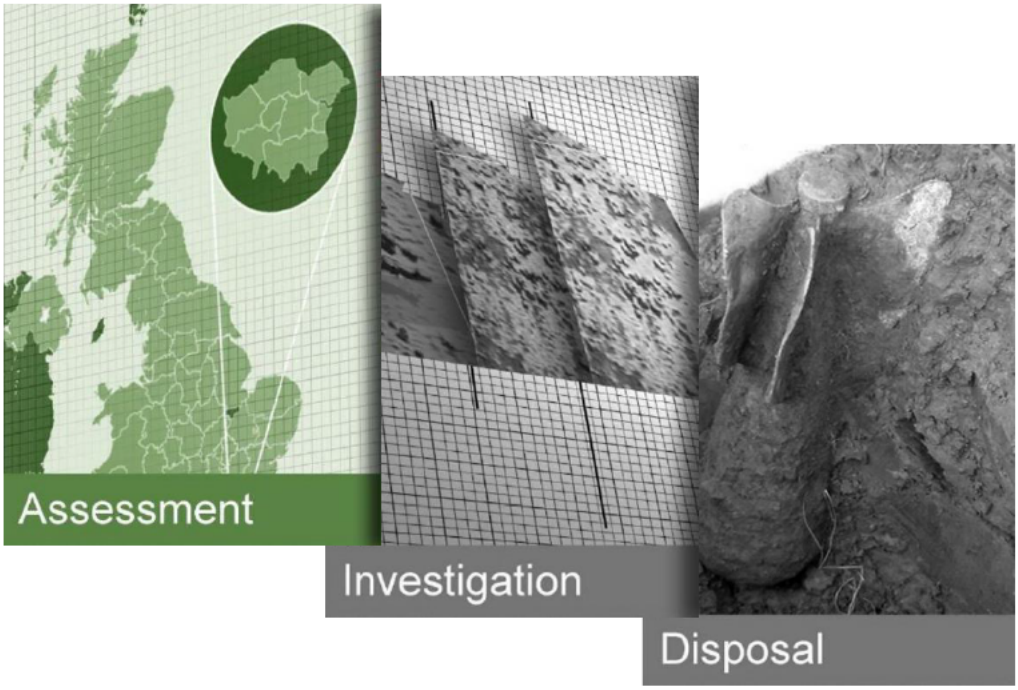
Stonestreet Green

Contract Number: GM12014

Annex E

Zetica UXO Report



Stonestreet Green Solar - UXO Desk Study & Risk Assessment

Drafted by [redacted]

Checked by

Authorised by

Document Title	**UXO Desk Study & Risk Assessment**
Document Ref.	**P11544-22-R1**
Revision	**G**
Project Location	**Stonestreet Green Solar**
Client	**Evolution Power Limited**
Date	**7th June 2024**

UXO DESK STUDY & RISK ASSESSMENT

EXECUTIVE SUMMARY

Key findings: No significant sources of Unexploded Ordnance (UXO) hazard have been identified.

Key actions: Proceed with works.

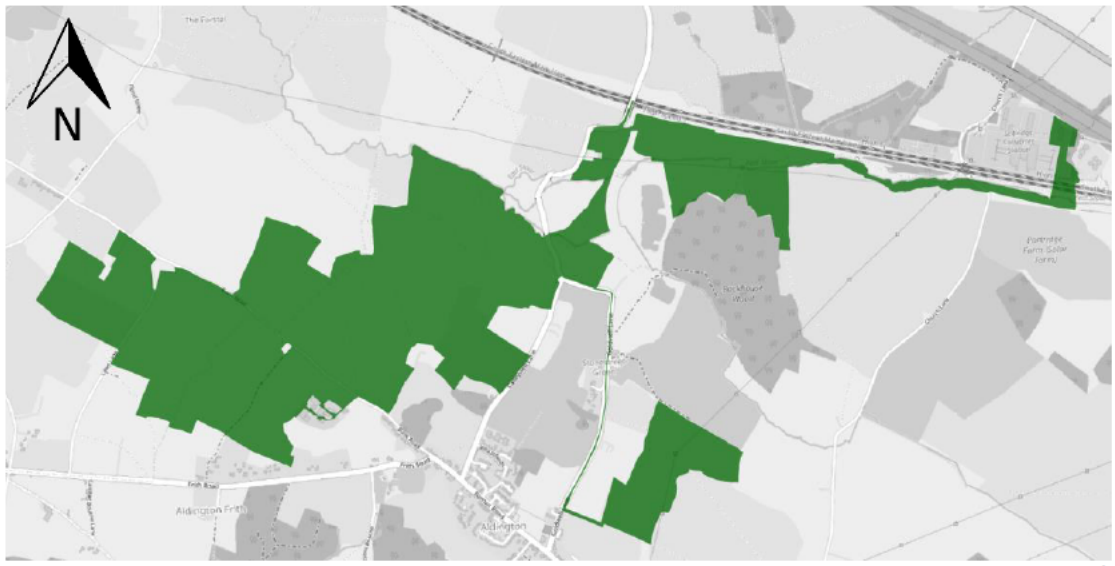
UXO Hazard Assessment

No records have been found indicating that the Site was bombed and no other significant sources of UXO hazard have been identified on the Site.

Given this, it is considered that the Site has a low UXO hazard level, as shown in the following Figure, reproduced as Figure 4 in the main report.

The UXO hazard zone plan of the Site is also given in the accompanying P11544-22-R1-MAP01-E.

UXO hazard zone plan of the Site



Source: OpenStreetMap *Not to Scale*

Legend	Very Low		Low	Moderate	
	High		Very High		

The main findings of the report are summarised below.

- No records of bombing or military activity on the Site during World War One (WWI) have been found.
- During World War Two (WWII) the main strategic targets in the vicinity of the Site included military airfields, transport infrastructure and public utilities, and engineering works.
- On 5th September 1940, 1No. Messerschmitt Bf109E-4 German fighter aircraft force landed in or within the vicinity of the Site. The Ministry of Defence (MoD) has issued a licence to the Applicant under the Protection of Military Remains Act 1986 that identifies the location as the area of land having a radius of 100 metres around OS map reference: TR 059374.
- No records have been found indicating that the Site was bombed during WWII. Records indicate that the nearest High Explosive (HE) bomb fell on the railway line near Smeeth Station, approximately 30m north of the Site on the 19th April 1944.

- No records of military activity on the Site post-WWII have been found.

Data Confidence Level

The findings of this report were based on good corroborative evidence of the military activity and bombing on the Site.

Proposed Works

It is understood that the Site will be redeveloped into a solar farm.

For the purpose of this risk assessment, it is assumed that works on the Site may include intrusive ground investigations, excavations and piling.

Risk Assessment

The Table below, reproduced as Table 4 in the main report, provides a UXO risk assessment for the proposed works on the Site.

Further details on the methodology for the risk assessment are provided in Section 7.2 of the main report.

UXO risk assessment for the Site

Potential UXO Hazard	Anticipated Works	PE	PD	P = PE x PD	Likelihood	Severity	Risk Rating	UXO Risk
UXB	Shallow Excavations	1	1	1	1	5	5	Low
	Deep Excavations	1	1	1	1	5	5	Low
	Boreholes/Piling	1	1	1	1	4	4	Low
Other UXO	Shallow Excavations	1	1	1	1	4	4	Low
	Deep Excavations	1	1	1	1	4	4	Low
	Boreholes/Piling	1	1	1	1	3	3	Low
PE (Probability of Encounter), PD (Probability of Detonation), P (Overall Probability)								
Shallow Excavations defined as <1.0m below ground level (bgl.)								

Risk Mitigation Plan

The Table below, reproduced as Table 5 in the main report, summarises the UXO risk for proposed works on the Site and recommended actions.

Summary of UXO risk and mitigation recommendations

Proposed Works	UXO Risk	Recommended Mitigation
Excavations		**Proceed with works** – if additional comfort is required to address the residual UXO hazard, a formal UXO awareness briefing can be provided.
Boreholes/Piling		**Proceed with works**

In summary, no additional measures are considered essential to reduce the UXO risk on the Site to As Low As is Reasonably Practicable (ALARP).

What Do I Do Next?

If you have any comments or require further assistance, contact us via phone (01993 886682) or email (uxo@zetica.com) and we can help.

If you have requirements to identify other buried hazards (such as mapping utilities or obstructions) we can provide these surveys.

If proposed works on the Site change, or additional works are planned, contact Zetica for a re-assessment of the UXO risk and the risk mitigation requirements.

CONTENTS

Appendix 5 Bibliography

Figures, Plates & Tables

Accompanying GIS Data

P11544-22-R1-MAP01-E (UXO Desk Study)

ABBREVIATIONS

AA	Anti-Aircraft
AAP	Air Acceptance Park
ALARP	As Low As Reasonably Practicable
ARP	Air Raid Precaution
AXO	Abandoned Explosive Ordnance
BD	Bomb Disposal
BDO	Bomb Disposal Officer
BDU	Bomb Disposal Unit
CMD	Conventional Munitions Disposal
DCLG	Department of Communities and Local Government
EO	Explosive Ordnance
EOC	Explosive Ordnance Clearance
EOR	Explosive Ordnance Reconnaissance
ERW	Explosive Remnants of War
ESA	Explosive Substances and Articles
FFE	Free From Explosives
HAA	Heavy Anti-Aircraft
HE	High Explosive
HSE	Health and Safety Executive
IB	Incendiary Bomb
IED	Improvised Explosive Device
IEDD	Improvised Explosive Device Disposal
JSEODOC	Joint Services EOD Operations Centre
LAA	Light Anti-Aircraft
MoD	Ministry of Defence
OB	Oil Bomb
PM	Parachute Mine
PUCA	Pick Up and Carry Away
RAF	Royal Air Force
RFC	Royal Flying Corps
TEP	Time Expired Pyrotechnics
USAAF	United States Army Air Force
UXAA	Unexploded Anti-Aircraft
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
WWI	World War One
WWII	World War Two

UXO DESK STUDY & RISK ASSESSMENT

Please read: Zetica has colour coded each paragraph. Paragraphs with black text on a white background are paragraphs that provide site-specific information or information specifically researched as part of this project.

Boxed paragraphs in a dark green text with a green background are paragraphs providing general information and, where appropriate, links to online resources giving further detail. These are all available at www.zeticauxo.com. If you cannot gain access to these resources, Zetica can forward them on request.

1 INTRODUCTION

1.1 Project Outline

Zetica Ltd was commissioned by Wardell Armstrong to carry out a detailed Unexploded Ordnance (UXO) Desk Study and Risk Assessment for an area of approximately 192 hectares (ha) at Stonestreet Green, in Ashford, Kent (the 'Site').

The aim of this report is to gain a fair and representative view of the UXO hazard for the Site and its immediate surrounding area in accordance with the Construction Industry Research and Information Association (CIRIA) C681 'Unexploded Ordnance (UXO), a Guide for the Construction Industry'.

Where appropriate, this hazard assessment includes:

- Likelihood of ordnance being present.
- Type of ordnance (size, filling, fuze mechanisms).
- Quantity of ordnance.
- Potential for live ordnance.
- Probable location.
- Ordnance condition.

It should be noted that some military activity providing a source of UXO hazard may not be recorded and therefore there cannot be any guarantee that all UXO hazards affecting the Site have been identified in this report.

1.2 Sources of Information

Zetica Ltd researched the military history of the Site and its surrounding area using a range of information sources. The main sources of information are detailed in the following sections and referenced at the end of this report.

1.2.1 Zetica Ltd Defence Related Site Records

Zetica Ltd's in-house records were consulted, including reference books and archived materials from past work in the region. Relevant documents have been cited within the bibliography of this report.

1.2.2 Zetica Ltd Bombing Density Records and Maps

Reference has been made to the Zetica Ltd bomb risk maps located on Zetica's website (http://zeticauxo.com/downloads-and-resources/risk-maps/)

1.2.3 Ministry of Defence and Government Records

Government departments and units within the Ministry of Defence (MoD) were approached for information of past and present military activity in the area. These included the Department of Communities and Local Government (DCLG) records of abandoned bombs.

1.2.4 Other Historical Records, Maps and Drawings

Numerous reference documents including historical maps, aerial photographs and drawings have been consulted from sources such as the National Archives, the US National Archives & Records Administration (NARA), the Imperial War Museum (IWM), Historic England and the Defence of Britain Project.

The British Geological Survey (BGS) was consulted for borehole information.

1.2.5 Local Authority Records

Information was obtained from Ashford Borough Council and Kent County Council.

1.2.6 Local Record Offices and Libraries

The Kent History & Library Centre was consulted for information.

1.2.7 Local Historical and Other Groups

Local history groups and archaeological bodies were consulted, including the Kent Historic Environment Record (HER).

1.3 Data Confidence Level

In general, there is a high level of confidence in the researched information sources used for this report. Exceptions to this are specifically detailed in the text of the report.

2 THE SITE

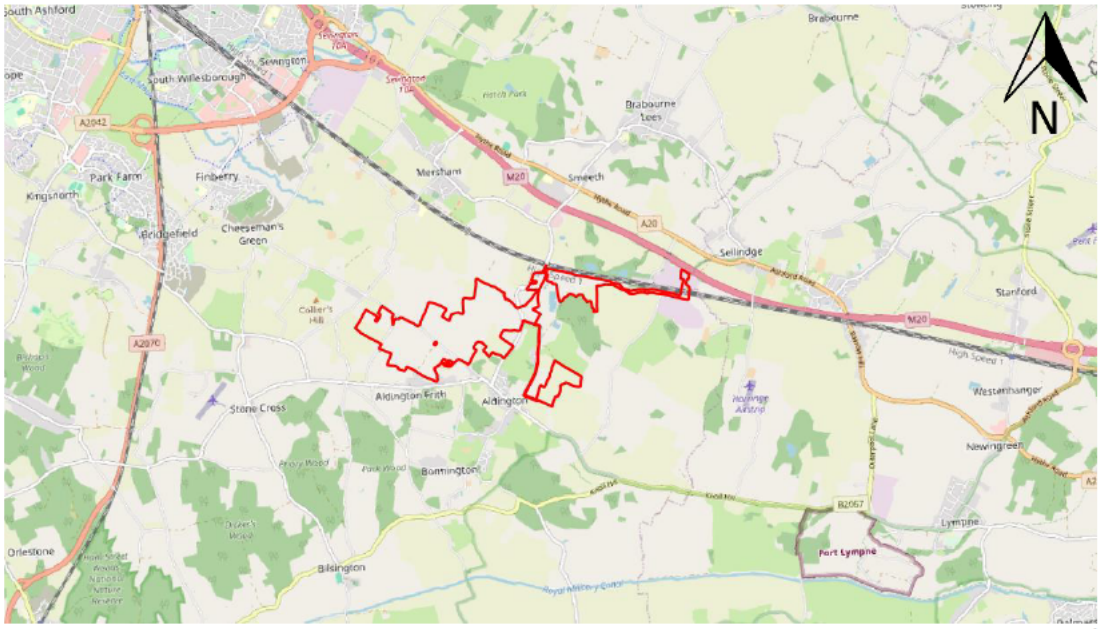
2.1 Site Location

The Site is centred on Ordnance Survey National Grid Reference (OSNGR) TR 065377. It is located approximately 6.5km southeast of Ashford town centre.

The Site comprises open ground, 4No. roadways, and Sellindge Converter Station. It is crossed by the Southern Railway line. It is bounded to the north by open ground, the Southern Railway line, and the M20, to the east by open ground and Southern Railway line, to the south by open ground and Aldington village, and to the west by open ground and Coopers Lane.

Figure 1 is a Site location map and Plate 1 is a recent aerial photograph of the Site.

Figure 1 Site location map



Source: OpenStreetMap *Not to Scale*

Legend	Site boundary

Plate 1 Recent aerial photograph of the Site

Source: Google Earth *Not to Scale*

Legend	Site boundary

3 MILITARY ACTIVITY

The following sections outline the recorded military activity in the vicinity of the Site. The potential UXO hazard from World War One (WWI) and World War Two (WWII) bombing is detailed in Section 4.

Each sub-section provides hyperlinks to further information on potential sources of UXO hazard. These are also available at www.zeticauxo.com. If you cannot gain access to these resources, Zetica can forward them on request.

3.1 Defences

For further information on military defences, and the potential UXO hazards associated with them, follow the links below:

- Anti-Aircraft Guns
- Anti-Invasion Defences
- Barrage Balloons
- Bombing Decoys
- Home Guard
- Mined Locations
- Mortar & Gun Emplacements
- Pillboxes

No military defences have been identified on the Site. The nearest are described below.

3.1.1 Anti-Aircraft Guns

Records indicate that during WWI there were no Anti-Aircraft (AA) batteries within 10km of the Site.

Records indicate that during WWII there were 3No. Heavy AA (HAA) and ZAA batteries within 10km of the Site. The nearest was located at Mersham (TR 047400), approximately 2.1km north of the Site. It was armed with 4No. 3-inch (") guns.

The nearest recorded WWII AA shell incidents to the Site are described below.

11th May 1944

1No. AA shell fell on a field at Aldington, on the centre of the Site. This was recorded as an Unexploded AA (UXAA) shell.

28th August 1944

1No. AA shell fell in a field off Mill Road, within approximately 1km south of the Site. This was recorded as an UXAA shell.

Potential UXO Hazard

Given the number of HAA gun batteries in the surrounding area during WWII, the potential for an UXAA shell to have fallen on the Site unnoticed, whilst unlikely, cannot be totally discounted.

3.1.2 Bombing Decoys

The nearest recorded bombing decoy was located at Burmarsh (TR 091328), approximately 4.4km southeast of the Site.

Bombing decoys are not considered to provide a source of UXO hazard to the Site.

3.2 Military Airfields

For further information on military airfields, and the potential UXO hazards associated with them, follow the link below:

- Military Airfields

No records of any military airfields on or in close proximity to the Site have been found.

During WWI, the nearest military airfield was Royal Flying Corps (RFC) Lympne (TR 114353), approximately 2.8km southeast of the Site. Established in 1916, it was used throughout WWI for a variety of purposes, including flight training and as an Air Acceptance Park (AAP).

Post-WWI, the airfield was used as a civic aerodrome and for Royal Air Force (RAF) summer camps.

The nearest operational airfield during WWII was RAF Kingsnorth (TQ 024377), approximately 1km west of the Site. It was initially constructed in preparation for the allied invasion of Europe and was equipped with Spitfire fighter aircraft until October 1943.

In 1944 the airfield was transferred to the United States Army Air Force (USAAF), accommodating fighter squadrons. It was derequisitioned in September 1944 and returned to agriculture.

Military airfields are not considered to provide a source of UXO hazard to the Site.

3.3 Aircraft Crashes

For further information on military aircraft crashes, and the potential UXO hazards associated with them, follow the link below:

- Aircraft Crashes

No records of any aircraft crashes on the Site have been found. The nearest recorded aircraft crashes to the Site are described below.

5th September 1940

1No. Messerschmitt Bf109E-4 (1985) German fighter aircraft force landed in or within the vicinity of the Site. The MoD has issued a licence to the Applicant under the Protection of Military Remains Act 1986 that identifies the location as the area of land having a radius of 100 metres around OS map reference: TR 059374.

Records indicate that the aircraft was on return from a bombing mission and likely held no bomb load when it landed.

Plate 2 is a colourised photograph of the Messerschmitt Bf109E-4 on the 5th September 1940 after its forced landing. This shows that the aircraft did not explode on impact and stayed relatively intact with only minimal spread of debris.

Plate 2 Colourised photograph of the crashed Messerschmitt Bf109E-4, 5th September 1940

Source: Rich Cooper *Not to Scale*

The aircraft was removed from the field and broken up away from the Site.

6th September 1940

1No. Hawker Hurricane I (P3032) British fighter aircraft crashed in a field close to RAF Kingsnorth, approximately 0.7km west of the Site.

27th January 1944

1No. Supermarine Spitfire IX (BS452) British fighter aircraft crashed in a field at Stonestreet Green Farm, approximately 0.8km northwest of the Site.

Potential UXO Hazard

It is possible that Small Arms Ammunition (SAA) from the aircraft guns was scattered across a wide area during the above crashes, potentially including the Site. SAA is not considered to provide a significant UXO hazard (see Appendix 1).

Aircraft crashes are not considered to provide a significant source of UXO hazard to the Site.

3.4 Explosives Factories, Munitions Depots and Disposal Areas

For further information on explosives factories, munitions depots and disposal areas, and the potential UXO hazards associated with them, follow the links below:

- Explosives Factories
- Munitions Depots
- Munitions Disposal Areas

No records of any explosives factories, munitions depots or munitions disposal areas on or in close proximity to the Site have been found.

3.5 Firing Ranges and Military Training Areas

For further information on firing ranges and military training areas, and the potential UXO hazards associated with them, follow the links below:

- Artillery Ranges
- Bombing Ranges
- Military Training Areas
- Small Arms Ranges

No records of any firing ranges or military training areas on or in close proximity to the Site have been found.

3.6 Other Military Establishments

No other military establishments have been identified on or in close proximity to the Site.

4 BOMBING

4.1 WWI Bombing

For further information on WWI bombing in the UK, and the potential UXO hazard associated with it, see Appendix 2.2. Alternatively, use the following link.

- WWI Bombing

No records have been found indicating that the Site was bombed during WWI.

4.2 WWII Bombing

For further information on WWII bombing in the UK, and the potential UXO hazard associated with it, see Appendix 2.3. Alternatively, use the following link.

- WWII Bombing

No records have been found indicating that the Site was bombed during WWII. Details of WWII bombing in the vicinity of the Site are provided in the following sections.

4.2.1 Bombing in East Kent

There were many strategic targets in the East Kent area during WWII and the region was also prone to 'tip and run' raids, where bomber crews would drop their bombs to avoid AA fire or Allied fighter aircraft.

The first air raids took place during July 1940 when small numbers of German aircraft bombed Ashford and surrounding areas. From mid-September until the end of that year, Kent was bombed on most nights. The air raids continued through the early months of 1941 becoming less frequent, although often more intense.

From July 1941 the bombing campaign against the Kent region entered a period of relative inactivity. Air raids still took place but tended to be relatively minor. Manned bomber raids returned to Kent in the first few months of 1944. After a brief respite, these were followed by the start of the Pilotless Aircraft (V1) offensive in June 1944.

These weapons arrived at any time of day and caused massive blast damage (although little fire damage). The V1 offensive was nearly over by September 1944, although some continued to fall until March 1945.

In September 1944 the Long-Range Rocket (V2) offensive began. Falling from a height of some 80km above the ground, these ballistic missiles caused larger craters and greater damage to underground utilities than the V1s, although their surface blast effect was generally less.

Approximately 29,272No. High Explosive (HE) bombs and 777,784No. Incendiary Bombs (IBs) fell on Kent during WWII. 1,422No. V1s, 67No. V2s and 3,513No. shells also fell across the county.

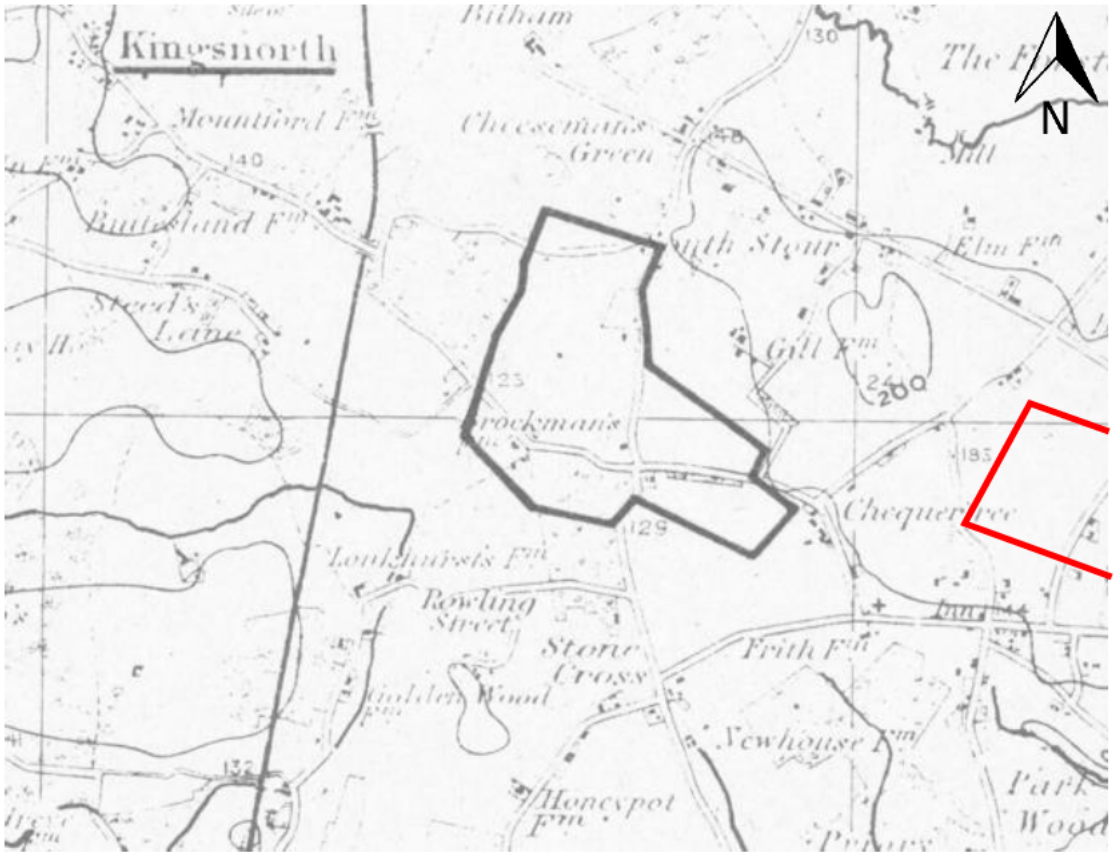
In the Ashford area, 974No. HE bombs, 12,645No. IBs and 184No. V1s were recorded.

4.2.2 Strategic Targets

The Site was located in an area which contained numerous potential strategic targets, including military airfields, transport infrastructure and public utilities, and engineering works.

Figure 2 is a Luftwaffe target map of RAF Kingsnorth, approximately 1km west of the Site, dating from 1943.

Figure 2 Luftwaffe target map of RAF Kingsnorth, c. 1943



Source: NARA *Not to Scale*

Legend	Site boundary

4.2.3 Bombing Densities and Incidents

Table 1 gives details of the overall bombing statistics recorded for the Local Authority Districts of the Site (highlighted by bold text) and surrounding districts. These were categorised as Rural Districts (RD), Urban Districts (UD), Municipal or Metropolitan Boroughs (MB) and County Boroughs (CB). WWII bomb density levels are defined below:

<5 bombs per 405ha is a Very Low regional bombing density.

5-15 bombs per 405ha is Low.

15-50 bombs per 405ha is Moderate.

50-250 bombs per 405ha is High.

>250 bombs per 405ha is Very High.

Table 1 Bombing statistics

Area	Bombs Recorded				
	High Explosive	Parachute Mines	Other	Total	Bombs per 405ha (1000 acres)
Elham RD	**856**	**6**	**7**	**869**	**23.7**
East Ashford RD	**249**	**6**	**5**	**260**	**5.1**
Ashford UD	161	2	3	166	29.3
Romney Marsh RD	327	0	5	332	10.7
West Ashford RD	351	0	3	354	9.0
Tenterden RD	312	3	12	327	8.6

Note that Table 1 excludes the figures for V1s, V2s, and IBs. Discrepancies between this list and other records, such as bomb clearance records, demonstrate that this data is likely to under-represent actual bombing.

Details of the nearest recorded bombing incidents to the Site are given in the following section.

4th September 1940

5No. HE bombs fell on Sellindge, between approximately 0.3km and 1.2km east-northeast of the Site.

25th September 1940

1No. HE bomb fell on a field at Rotherhythe Farm, Sellindge, approximately 1km east of the Site. It was recorded as an Unexploded Bomb (UXB).

26th February 1941

3No. HE bombs fell on a field at Evegate Manor Farm, approximately 1km north of the Site.

24th April 1941

1No. HE bomb fell on Walnut Tree Farm, approximately 0.5km southeast of the Site.

21st January 1944

1,200No. 1kg IBs fell on and in the vicinity of Somerfield Court Farm, Sellindge, approximately 1.7km east of the Site. Some of these were recorded as Unexploded IBs (UXIBs).

19th April 1944

1No. HE bomb fell on the railway line near Smeeth Station, approximately 30m north of the Site.

24th April 1944

1No. HE bomb fell on fields at Walnut Tree Farm, approximately 0.5km southeast of the Site.

30th June 1944

1No. V1 fell off Goldwell Lane, within approximately 10m west of the Site.

11th July 1944

1No. V1 fell on the railway line west of Smeeth Station, approximately 0.5km north of the Site.

19th July 1944

1No. V1 fell on fields off Church Lane, approximately 0.5km east of the Site.

22nd July 1944

1No. V1 fell on a field off Bower Road, Mersham, approximately 1km north of the Site.

23rd July 1944

1No. V1 fell on fields at Little Stonegreen Farm, approximately 0.5km northwest of the Site.

3rd August 1944

1No. V1 fell on a field south of Smeeth Station, on the northern part of the Site.

1No. V1 fell on fields off Calleywell Lane, within approximately 20m east of the Site.

4th August 1944

1No. V1 fell off Goldwell Lane, within approximately 10m west of the Site.

6th August 1944

1No. V1 fell on a bakery in Stone Hill, Sellindge, approximately 0.8km east-northeast of the Site.

7th August 1944

1No. V1 fell on a field between Bower Road and the railway line, approximately 0.6km north of the Site.

24th August 1944

1No. V1 fell close to St Martin's Church, approximately 0.8km southeast of the Site.

31st August 1944

1No. V1 fell on fields off Roman Road, approximately 0.5km south of the Site.

It should be noted that during WWII, many UXBs were mapped and subsequently removed as and when conditions and demands on Bomb Disposal teams allowed. Their removal was not always accurately recorded and sometimes records were later destroyed. In practice, most UXBs were probably removed and only a much smaller number were actually registered as officially abandoned bombs.

Figure 3 is a map showing the approximate location of recorded bomb impacts in the immediate vicinity of the Site.

The map has been compiled from a number of different sources, including air raid incident reports, historical aerial photographs and bomb census maps.

The bomb map is also given in the accompanying P11544-22-R1-MAP01-E.

Figure 3 Compiled bomb impact map for the vicinity of the Site

Source: OpenStreetMap *Not to Scale*

Legend	Site boundary	HE bomb	UXB
	V1	IBs	UXIBs

Plate 3 is an aerial photograph dating from 1946 of the western part of the Site. No bomb damage or cratering has been identified on the Site.

Plate 3 Aerial photograph of the western part of the Site, c. 1946

Source: NLS *Not to Scale*

Legend	Site boundary

Plate 4 is an aerial photograph dated the 30th April 1946 of the central part of the Site. No bomb damage or cratering has been identified on the Site.

Plate 4 Aerial photograph of the central part of the Site, 30th April 1946

Source: Historic England *Not to Scale*

Legend	Site boundary

Plate 5 is an aerial photograph dated the 1st May 1946 of the north-eastern part of the Site. No bomb damage or cratering has been identified on the Site.

Plate 5 Aerial photograph of the north-eastern part of the Site, 1st May 1946

Source: Historic England *Not to Scale*

Legend	Site boundary

Plate 6 is an aerial photograph dating from 1946 of the eastern part of the Site. No bomb damage or cratering has been identified on the Site.

Plate 6 Aerial photograph of the eastern part of the Site, c. 1946

Source: NLS *Not to Scale*

Legend	Site boundary

Potential UXO Hazard

No records have been found indicating that the Site was bombed and no bomb damage has been identified on the Site on historical aerial photography.

WWII bombing is not considered to provide a source of UXO hazard to the Site.

4.2.4 Geology and Bomb Penetration Depths

It is important to consider the geological materials present at the time that a bomb was dropped in order to establish its maximum penetration depth.

At the time of writing, no Site-specific ground investigation data was available.

British Geological Survey (BGS) 1:50,000 305 and 306 Folkestone & Dover (Solid & Drift) and BGS borehole records from nearby investigations have been consulted to get an indicative overview of the Site geology.

The geology of the northern part of the Site is understood to consist of topsoil, over Alluvial deposits of clay and silt, overlying mudstone of the Weald Clay Formation.

Table 2 provides an estimate of average maximum bomb penetration depths for the northern part of the Site assuming WWII ground conditions of 0.5m of topsoil, over 3m of silty clay, overlying more than 20m of stiff to very stiff clay.

Table 2 Estimated average maximum bomb penetration depths (northern part of the Site)

Estimated average bomb penetration depths for anticipated geology		
Bomb Weight	50kg	4.5m
	250kg	6.0m
	500kg	8.5m

The geology of the southern part of the Site is understood to consist of topsoil, over Alluvial deposits of clay and silt, overlying Sandstone and Limestone Sedimentary Bedrock.

Table 3 provides an estimate of average maximum bomb penetration depths for the southern part of the Site assuming WWII ground conditions of 0.5m of topsoil, over 3m of silty clay, overlying more than 20m of weak rock.

Table 3 Estimated average maximum bomb penetration depths (southern part of the Site)

Estimated average bomb penetration depths for anticipated geology		
Bomb Weight	50kg	4.0m
	250kg	5.0m
	500kg	7.5m

These calculations can be refined on receipt of Site-specific information.

The estimated bomb penetration depths given in Tables 2 and 3 are from the WWII ground level and are based on the following assumptions:

a) High level release of the bomb resulting in an impact velocity of 260m/s (>5,000m altitude).

b) A strike angle of 10 to 15 degrees to the vertical.

c) That the bomb is stable, both in flight and on penetration.

d) That no retarding units are fitted to the bomb.

e) That the soil type is homogenous.

A high altitude release of a bomb will result in ground entry at between 10° and 15° to the vertical with the bomb travelling on this trajectory until momentum is nearly lost. The bomb will then turn abruptly to the horizontal before coming to rest. The distance between the centre of the entry hole and the centre of the bomb at rest is known as the 'offset'. A marked lateral movement from the original line of entry is common.

Low-level attacks may have an impact angle of 45° or more, which will frequently lead to a much greater amount of offset movement during soil penetration.

The average offset is one third of the penetration depth, i.e. an offset of 2m may be expected for a 50kg bomb in dry silts and clays. If hard standings or Made Ground were present during WWII, bomb penetration depths would have been significantly reduced but offset distances may have been up to four times greater.

5 EXPLOSIVE ORDNANCE CLEARANCE ACTIVITIES

Official UK bombing statistics have been compiled from both British and German sources. There were differences in the way the figures were originally reported and collated which has led to discrepancies in the summary data.

Based on data from 1939 to 1945, War Office statistics indicate that 200,195No. HE bombs exploded within Great Britain. Additionally, 25,195No. HE bombs (representing 11%) were recorded as UXBs. However, records from the Royal Engineers who were responsible for bomb disposal at the time indicate that as of 27th February 1946 upwards of 45,000No. UXBs were disposed of.

On average 8.5% of UXBs later self-exploded. In some cases the bombs had delayed action fuzes or were never intended to explode, their purpose being to cause inconvenience and fear. Given the discrepancy in records and the fact that UXBs are still being found unexpectedly, it is clear that the original figures are understated and provide only an approximation of the number of potential UXBs in the UK.

War Office statistics also show that between October 1940 and May 1941 most of the UXBs (93%) were either 50kg or 250kg. It should be noted that details of the recovery and the size of the UXB were not always accurately reported.

The larger WWII UXBs are often difficult to recover due to both penetration depths and the presence of two or more fuzes, combined with more sensitive fillings of explosive mixtures including Amatol and Trialen.

5.1 Abandoned Bombs

For further information on abandoned bombs, and the potential UXO hazard associated with them, follow the link below:

- Abandoned Bombs

No records have been found indicating that any officially abandoned bombs are located on the Site.

5.2 EOC Tasks

Zetica holds no records of post-WWII EOC tasks having taken place in the vicinity of the Site.

6 UXO HAZARD ASSESSMENT

6.1 UXO Hazard Level

The definitions for the levels of UXO hazard are provided below.

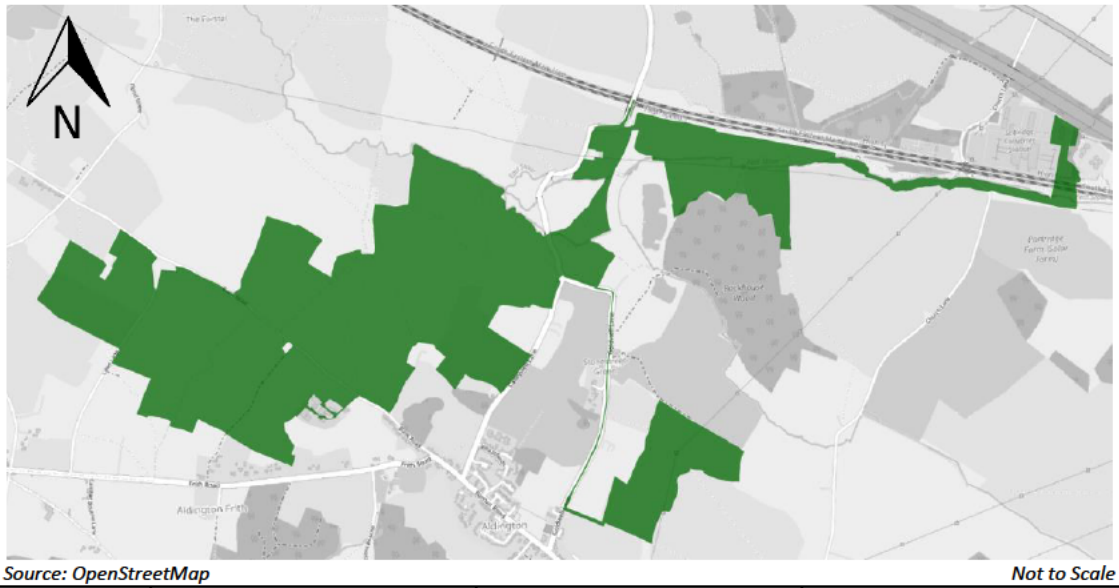
Definitions of UXO Hazard Level for a Site	
Hazard Level	**Definition**
Very Low	There is positive evidence that UXO is not present, e.g. through physical constraints or removal.
Low	There is no positive evidence that UXO is present, but its occurrence cannot be totally discounted.
Moderate	There is positive evidence that ordnance was present or that other uncharted ordnance may be present as UXO.
High	There is positive evidence that UXO is present.
Very High	As high, but requires immediate or special attention due to the potential hazard.

No records have been found indicating that the Site was bombed and no other significant sources of UXO hazard have been identified on the Site.

Given this, it is considered that the Site has a low UXO hazard level, as shown in Figure 4.

The UXO hazard zone plan of the Site is also given in the accompanying P11544-24-R1-MAP01-E.

Figure 4 UXO hazard zone plan of the Site



Source: OpenStreetMap *Not to Scale*

Legend	Very Low	Low	Moderate
	High	Very High	

7 UXO RISK ASSESSMENT

7.1 Proposed Works

It is understood that the Site will be redeveloped into a solar farm.

For the purpose of this risk assessment, it is assumed that works on the Site may include intrusive ground investigations, excavations and piling.

7.2 Risk Assessment Methodology

A UXO risk assessment has been undertaken for the proposed works, taking into consideration the identified UXO hazard.

Firstly, the probability of encountering UXO (PE) has been considered and rated for the different construction techniques, as detailed below.

Probability of Encounter (PE)	Rating
Frequent, highly likely, almost certain.	5
Probable, more likely to happen than not.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could.	2
Improbable, highly unlikely.	1
Impossible	0

Secondly, the probability of detonating a UXO (PD) has been considered and rated for the different construction techniques, as detailed below.

Probability of Detonation (PD)	Rating
Frequent, highly likely, almost certain.	5
Probable, more likely to happen than not.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could.	2
Improbable, highly unlikely.	1
Impossible	0

Next, the probability of encountering and detonating the UXO (PE x PD) have been used to generate an overall likelihood rating (P).

P = PE x PD	LIKELIHOOD of Encounter and Detonation	Rating
21 to 25	Frequent, highly likely, almost certain.	5
16 to 20	Probable, more likely to happen than not.	4
6 to 15	Occasional, increased chance or probability.	3
2 to 5	Remote, unlikely to happen but could.	2
1	Improbable, highly unlikely.	1
0	Impossible	0
P ranges from 25, a certainty of UXO being encountered and detonated on the Site by engineering activity, to 0, a certainty that UXO does not occur on the Site and will not be detonated by engineering activity.		

The likelihood of encountering and detonating UXO during site works is multiplied by the severity of such an event occurring (P x S), in order to provide a risk level using the following matrix.

Severity (S)	Rating
Multiple fatalities	5
Major injury, long term health issues, single fatality.	4
Minor injury, short term health issues, no fatalities.	3
First aid case but no lost time or ill health.	2
Minor injuries, no first aid.	1
No injuries.	0

UXO Risk Matrix							
	SEVERITY (S)						
LIKELIHOOD (P)		5	4	3	2	1	0
	5	25	20	15	10	5	0
	4	20	16	12	8	4	0
	3	15	12	9	6	3	0
	2	10	8	6	4	2	0
	1	5	4	3	2	1	0
	0	0	0	0	0	0	0

7.3 UXO Risk Level

The UXO risk assessment for proposed works on the Site is given in Table 4.

Table 4 UXO risk assessment for the Site

Potential UXO Hazard	Anticipated Works	PE	PD	P = PE x PD	Likelihood	Severity	Risk Rating	UXO Risk
UXB	Shallow Excavations	1	1	1	1	5	5	Low
	Deep Excavations	1	1	1	1	5	5	Low
	Boreholes/Piling	1	1	1	1	4	4	Low
Other UXO	Shallow Excavations	1	1	1	1	4	4	Low
	Deep Excavations	1	1	1	1	4	4	Low
	Boreholes/Piling	1	1	1	1	3	3	Low
PE (Probability of Encounter), PD (Probability of Detonation), P (Overall Probability)								
Shallow Excavations defined as <1.0m below ground level (bgl.)								

8 RISK MITIGATION PLAN

Key findings: No significant sources of UXO hazard have been identified.

Key actions: Proceed with works.

8.1 UXO Risk Summary

Table 5 summarises the UXO risk for proposed works on the Site and recommended actions.

Table 5 Summary of UXO risk and mitigation recommendations

Proposed Works	UXO Risk	Recommended Mitigation
Excavations		**Proceed with works** – if additional comfort is required to address the residual UXO hazard, a formal UXO awareness briefing can be provided.
Boreholes/Piling		**Proceed with works**

In summary, no additional measures are considered essential to reduce the UXO risk on the Site to As Low As is Reasonably Practicable (ALARP).

8.2 Risk Mitigation Techniques

Should you wish to provide staff involved in excavations with increased awareness regarding the potential (albeit low) for UXO encounter, this can be done through a formal briefing.

8.2.1 UXO Awareness Briefing

Typically ~1hour in duration, these briefings will be expected to provide site workers with:-

- Background to the potential UXO hazards that could be encountered.
- Awareness of how the UXO hazard could present a risk.
- Knowledge of what to do in the event that a suspect item is encountered.

The briefing is to be provided along with back-up materials such as UXO awareness posters, emergency contact numbers and other background information to assist site workers in becoming familiar with what potential UXO can look like.

The materials can also be used by key staff to pass on the relevant points of the induction to others who visit or work on the Site.

By providing the UXO awareness briefing, it ensures that in the unlikely event that UXO is encountered:-

- All site staff take appropriate action.
- A support mechanism and points of contact are established.
- The likelihood of harm to people or property is reduced.
- Significant delays to site work are prevented.

8.3 What Do I Do Next?

If you have any comments or require further assistance, contact us via phone (01993 886682) or email (uxo@zetica.com) and we can help.

If you have requirements to identify other buried hazards (such as mapping utilities or obstructions) we can provide these surveys.

If proposed works on the Site change, or additional works are planned, contact Zetica for a re-assessment of the UXO risk and the risk mitigation requirements.

APPENDICES

Appendix 1 Anticipated Ordnance Types

The probability of encountering UXO on the Site is considered to be low. As with any similar site in the UK, there is always a background risk of finding ordnance and potential types to be encountered are detailed below. For a more comprehensive set of ordnance data sheets, see http://zeticauxo.com/downloads-and-resources/ordnance-data-sheets/.

Information Data Sheet

Category Small Arms Ammunition
Type Various

Description Small Arms Ammunition (SAA) is one of the more recognisable categories of ordnance which is primarily designed for anti-personnel use. SAA include items such as bullets, generally up to a calibre (diameter) of 20mm.

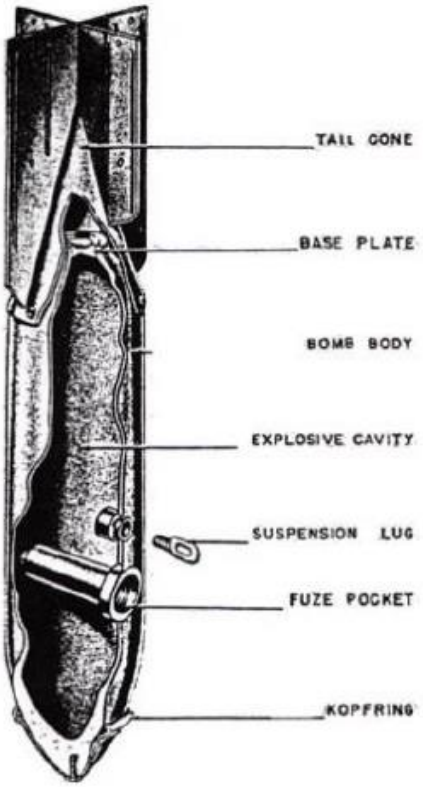
Generally small arms ordnance has a relatively low risk as UXO, although the larger calibre categories may have the same detonation risk as larger high explosive ordnance.

SAA is often associated with discarded ammunition boxes around firing practice ranges and training areas and is often found scattered across former military airfields as a result of aircraft crashes and localised disposal

Information Data Sheet

Category Bomb (Luftwaffe)
Type Sprengbombe-Cylindrisch (SC) 50kg

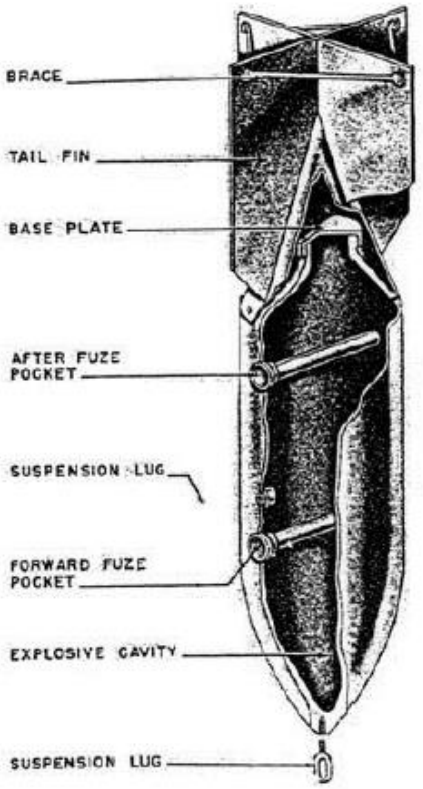
Variants	8
Body Dimensions	762 x 200mm (30" x 7.9")
Weight	55kg (122lbs)
Charge Weight	25kg (54lbs)
Fuze	Single electric impact fuze. Some have short time delay
Composition	Sheet steel
Description	Thick nose welded to a steel body. Nose may be attached to Kopfring (a triangular section steel ring) or spike. Suspension bolt in eye/body and sheet metal tail attached to body with rivets/screws. Originally painted green-grey with a yellow stripe on the tail. Cast TNT, Amatol or Trialen filling.
Function	Designed to maximise shock waves through air, water and earth and for general demolition. Used against easily damageable targets, including roads, aircraft hangars, rolling stock and small buildings. Spike bombs/ 'Stabo' (SC 50 with spikes attached to nose) were used against rail lines and country roads, with Kopfring used against naval targets.



Information Data Sheet

Category Bomb
Type Sprengbombe-Cylindrisch (SC) 250kg

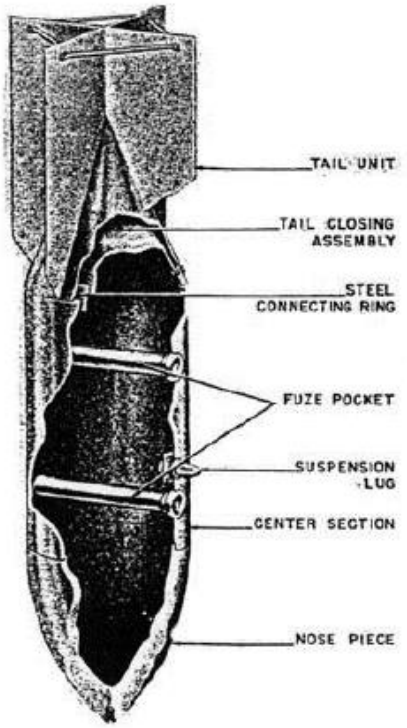
Variants	8
Body Dimensions	1194mm x 368mm (47" x 14.5")
Weight	249-264 kg (548-582lbs)
Charge Weight	130-145 kg (287-320lbs)
Fuze	Electric impact fuze/electric clockwork time fuse & electric anti-disturbance fuze
Composition	Sheet steel with stays
Description	Thick nose welded to steel body. Nose may be attached to Kopfring (triangular section steel ring) or spike. Sheet metal tail attached to body with rivets/ screws. Suspension eye bolt in the nose/body. Originally painted green-grey with a yellow stripe on the tail. TNT; amatol; TNT and aluminium powder, naphthalene, ammonium nitrate and wax/ wood meal filling.
Function	Designed to maximise shock waves through air, water and earth and general demolition. Used against railway installations, large buildings, ammunition depots and below-ground installations (to 8m). Spike bombs/ 'Stabo' (SC 50 with spikes attached to nose) used against rail lines and country roads.



Information Data Sheet

Category Bomb
Type Sprengbombe-Cylindrisch (SC) 500kg

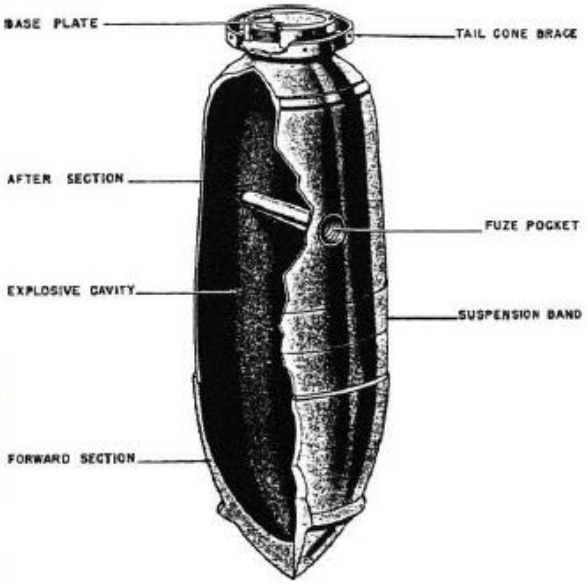
Variants	-
Body Dimensions	1414–1486mm x 470mm (55.7-58.5" x 18.5")
Weight	500kg (1,100lbs)
Charge Weight	220kg (484lbs)
Fuze	Electric impact fuze/electric clockwork time fuse & electric anti-disturbance fuze.
Composition	Sheet steel with stays or drum
Description	Thick nose welded to steel body. Nose may be attached to Kopfring (triangular section steel ring). Tail either steel sheet or drum-shaped. Suspension band. Originally painted green-grey/ buff (some later versions sky blue) with yellow stripe on tail. Filled with amatol, TNT or trialen.
Function	Designed to maximise shock waves through air, water and earth and for general demolition. Used against railway property, large buildings, shipping and below-ground installations.

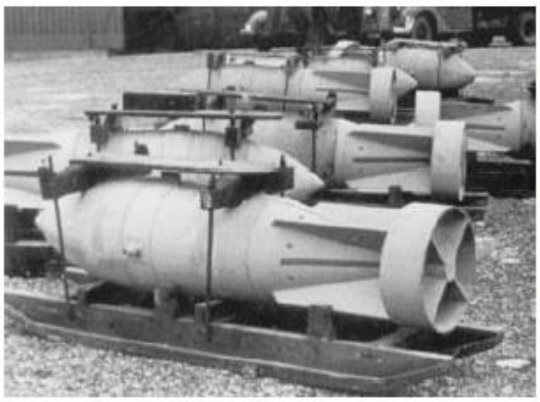


Information Data Sheet

Category Bomb
Type Sprengbombe-Cylindrisch (SC) 1,000kg (HERMANN)

Variants	3
Body Dimensions	1742-1905mm x 648–660mm (68.6-75" x 25.5-26")
Weight	1,000-1,088kg (2,204-2,398lbs)
Charge Weight	529-619kg (1,166-1,364lbs)
Fuze	Electric impact fuze/ electric clockwork time fuze & electric anti-disturbance fuze
Composition	Magnesium alloy with drum
Description	Thick nose welded to steel body. Nose attached to Kopfring (triangular section steel ring). Drum-shaped tail made of magnesium alloy. Suspension band. Originally painted sky-blue. Filled with amatol, TNT/aluminium/wood meal or trialen.
Function	Designed to maximise shock waves through air, water and earth and for general demolition.

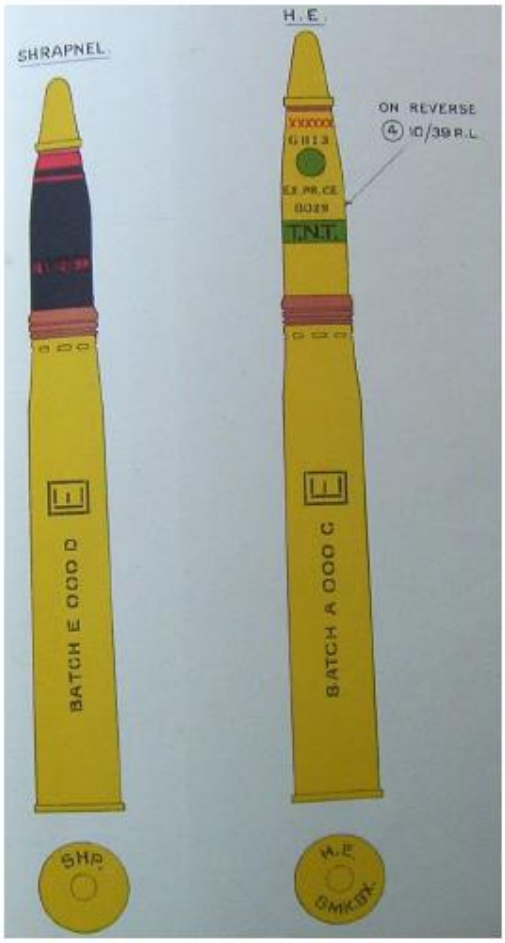




Information Data Sheet

Category Projectile
Type 3.7" Anti-Aircraft Shell

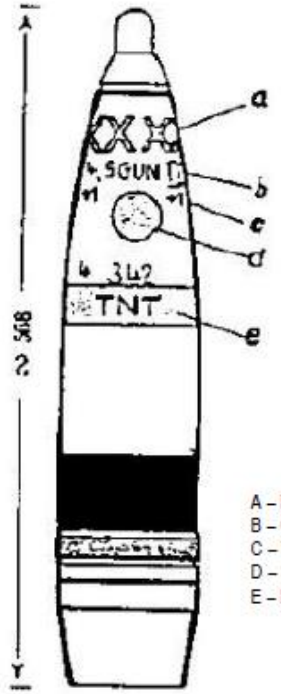
Variants	6
Body Dimensions	94mm x 360mm (3.7 x 14.7")
Weight	12.7kg (28lb)
Fuze	Mechanical time fuze
Composition	Cast steel
Description	Brass cartridge case. Square-based shell with tapered nose, filled with Amatol, TNT or RDX/TNT. MK6 had forward centring bands and a wider driving band.
Function	Used as a defence against enemy aircraft, fired from fixed batteries and mobile mountings. Could fire approximately 20 rounds per minute with a maximum ceiling of 41,000ft and horizontal range of 20,600 yards.



Information Data Sheet

Category Projectile
Type 4.5" Shell (Mark II – Anti-Aircraft)

Variants	-
Body Dimensions	114mm x 566mm (4.5" x 21.9")
Weight	24.9kg (55lb)
Fuze	Mechanical time fuze
Composition	Cast steel
Description	Square-based, tapered-nosed shell filled with TNT or Amatol. Steel casing, rotating band of either copper or gilding metal located 3.5" in front of the base end with single groove.
Function	Used as field artillery and adapted for use in anti-aircraft defence from fixed batteries. Rate of fire of 8 rounds per minute, maximum ceiling of 44,000ft and horizontal range of 22,800 yards.



A – Missile Identification
B – Gun and Bullet Type
C – Weight
D – Smoke pot
E – Explosives Ring

Appendix 2 Sources of UXO Hazard

The sections below provide background information on the potential sources of UXO hazard (albeit low) affecting the Site. For a more comprehensive set of UXO information sheets, see http://zeticauxo.com/downloads-and-resources/uxo-information-sheets/.

Appendix 2.1 Aircraft Crashes

Military aircraft operations will occasionally result in aircraft crashes. These were a common occurrence during the exigencies of wartime. Collisions, damage sustained during operational duty, pilot error and adverse weather conditions were all causes for crashes.

The nature of aircraft crashes means that debris was often scattered over a wide area around the crash site, sometimes up to a distance of two miles.

Aircraft crash sites provide a potential source of UXO hazard, largely depending on the type of aircraft that crashed, its operational status, its ordnance load and any efforts made to clear up the crash site. The MoD advises that if crashed aircraft are found, the safest policy is to leave them alone where possible. Unless disturbed there is no statutory requirement for the MoD to clear such sites.

The most common source of ordnance associated with aircraft crash sites is small arms ammunition from the aircraft's defensive guns. This may be scattered over a wide area but does not typically constitute a significant UXO hazard. Some later aircraft designs were armed with cannons, the shells of which contain a higher explosive content.

Bomber aircraft crashing with full or partial bomb loads provide a further potential hazard. If the crash site was inaccessible or remote it would commonly be left during wartime. As such, UXBs may still be present around bomber aircraft crash sites.

It is generally the case that post-WWII crash sites are more thoroughly cleared of debris and residues than those which occurred during wartime.

It should be noted that in some cases where a fatal crash site is located, the disturbance of the site may be prohibited due to its status as a war grave.

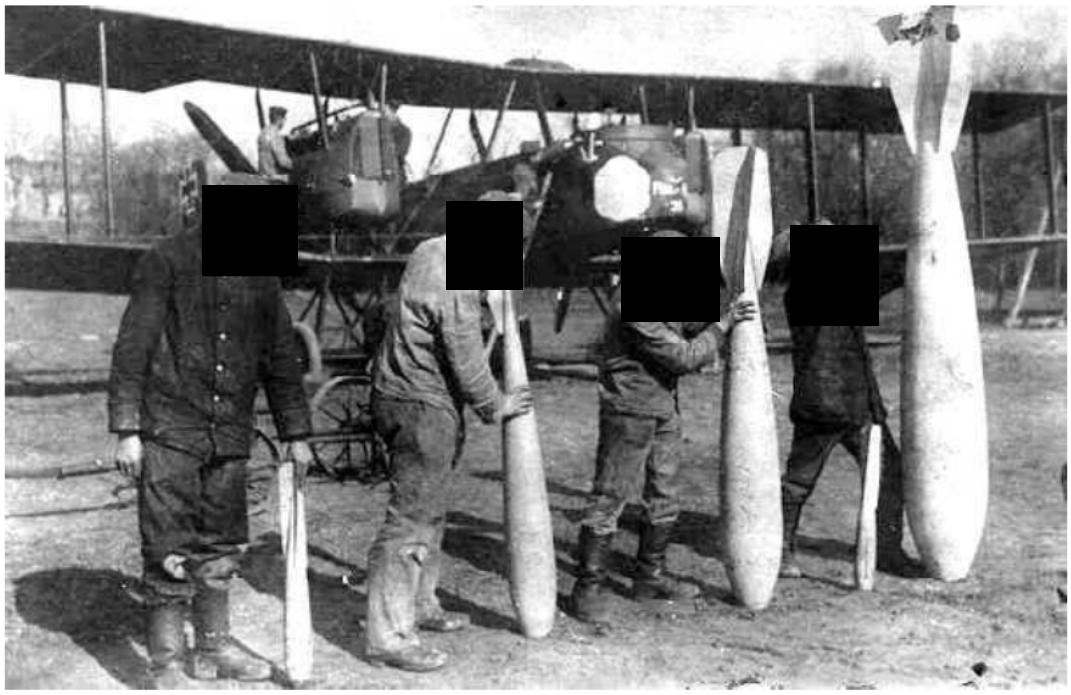
Appendix 2.2 WWI Bombing

It is not generally realised that during World War One (WWI) significant bombing took place across some areas of the UK. An estimated 9,000No. German bombs were dropped on Britain during the course of 51No. airship and 52No. aircraft raids. It was the first time that strategic aerial bombardment had been used. More than 1,400No. people were killed during these raids.

Most air raids were carried out on London and Southeast England. Areas along the East Coast were also targeted regularly due to their proximity to the European continent. Bombing raids further inland were rare and West England and Wales were out of reach for German aircraft of the time.

Aerial bombing during WWI initially relied on visual aiming, with bombsights not developed until later in the war. The inaccuracy inherent in this method meant that bombs often fell some way from their intended targets.

The first recorded raid against England occurred on the 21st December 1914 when 2No. high explosive bombs fell near the Admiralty Pier at Dover. Zeppelin raids intensified during 1915 and 1916, with aircraft raids becoming more frequent after 1917. The last raid of WWI took place on the 19th May 1918, when 38 Gotha and 3 Giant aircraft bombed London and surrounding districts, dropping a total of more than 2,500lbs of bombs.



The potential of coming across an Unexploded Bomb (UXB) from WWI is far less likely than a WWII UXB given the lower bombing densities during raids in the Great War.

Some areas which were subjected to sustained bombing raids, such as parts of London and coastal towns, recorded a higher number of UXB. In these areas, where there has been no significant development for the last century, the potential of a UXB remaining from WWI cannot be totally discounted.

Appendix 2.3 WWII Bombing

Bombing raids began in the summer of 1940 and continued until the end of WWII. Bombing densities generally increased towards major cities or strategic targets such as docks, harbours, industrial premises, power stations and airfields. In addition to London, industrial cities and ports, including Birmingham, Coventry, Southampton, Liverpool, Hull and Glasgow, were heavily targeted, as well as seaside towns such as Eastbourne and cathedral cities such as Canterbury.

The German bombing campaign saw the extensive use of both High Explosive (HE) bombs and Incendiary Bombs (IBs). The most common HE bombs were the 50kg and 250kg bombs, although 500kg were also used to a lesser extent. More rarely 1,000kg, 1,400kg and 1,800kg bombs were dropped.

The HE bombs tended to contain about half of their weight in explosives and were fitted with one or sometimes two fuzes. Not all HE bombs were intended to explode on impact. Some contained timing mechanisms where detonation could occur more than 70 hours after impact.

Incendiary devices ranged from small 1kg thermite filled, magnesium bodied Incendiary Bombs (IBs) to a 250kg 'Oil Bomb' (OB) and a 500kg 'C300' IB. In some cases the IBs were fitted with a bursting charge. This exploded after the bomb had been alight for a few minutes causing burning debris to be scattered over a greater area. The C300 bombs were similar in appearance to 500kg HE bombs, although their design was sufficiently different to warrant a specially trained unit of the Royal Engineers to deal with their disposal.

Anti-Personnel (AP) bombs and Parachute Mines (PMs) were also deployed. 2No. types of anti-personnel bombs were in common use, the 2kg and the 12kg bomb. The 2kg bomb could inflict injury across an area up to 150m away from the impact. PMs (which were up to 4m in length) could be detonated either magnetically or by noise/vibration.

Anti-shipping parachute mines were commonly dropped over navigable rivers, dockland areas and coastlines. The Royal Navy was responsible for ensuring that the bombs were made safe. Removal and disposal was still the responsibility of the Bomb Disposal Unit of the Royal Engineers.

In 1944, the Germans introduced new weapons; the V1, a 'flying bomb' and guided missile, and the V2, a ballistic missile rocket that travelled at such speed that no one could see or hear its approach. London was the main target for these attacks.

WWII bomb targeting was inaccurate, especially in the first year of the war. A typical bomb load of 50kg HE bombs mixed with IBs which was aimed at a specific location might not just miss the intended target but fall some considerable distance away.

It is understood that the local Civil Defence authorities in urban areas had a comprehensive system for reporting bomb incidents and dealing with any Unexploded Bombs (UXB) or other UXO. In more rural areas, fewer bombing raids occurred. It is known that Air Raid Precaution (ARP) records under-represent the number and frequency of bombs falling in rural and coastal areas. Bombs were either released over targets or as part of 'tip and run' raids where bomber crews would drop their bombs to avoid anti-aircraft fire or Allied fighter aircraft on the route to and from other strategic targets. Bombs dropped as a result of poor targeting or 'tip and run' raids on rural and coastal areas often went unrecorded or entered as 'fell in open country' or 'fell in the sea'. The Luftwaffe are thought to have dropped approximately 75,000 tons of bombs on Britain throughout the Second World War and an estimated 11% of all bombs dropped during the war failed to detonate.

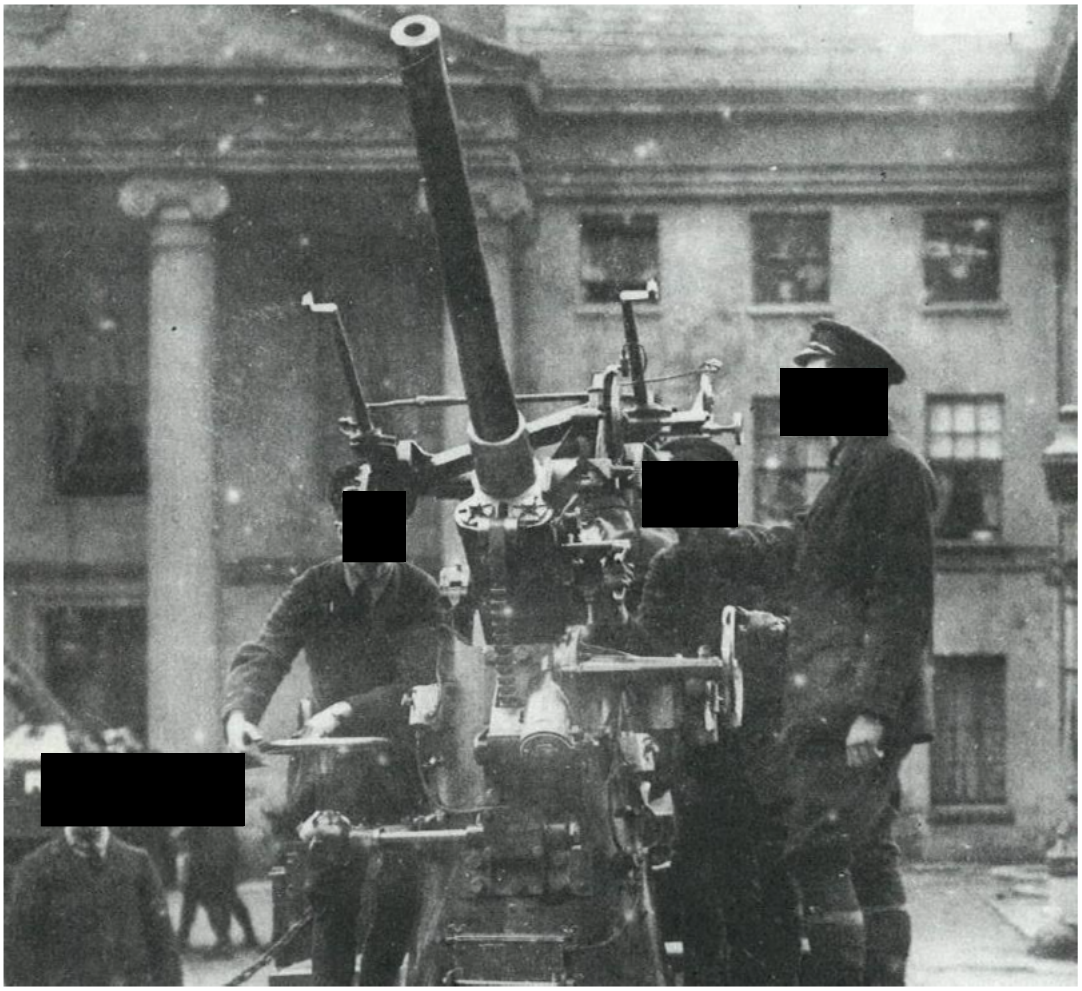
The potential for a UXB hazard to exist on a site depends on a variety of factors. Were there strategic targets in the surrounding area? Was the site bombed? Could a UXB impact have been missed? Even in rural areas, the potential for UXB cannot be totally discounted and therefore it is essential that detailed local bombing records are obtained when assessing the UXB hazard on any site.

Appendix 2.4 Anti-Aircraft Guns

As aerial bombardment first began during WWI, Anti-Aircraft (AA) gun batteries were established were gradually established throughout much of England to counter German bombing raids. By June 1916, there were approximately 271No. AA guns and 258No. searchlight installations defending London alone.

Common AA defences during WWI included 3-inch, 75 millimetre, 6-pounder and 1-pounder guns. Many of these guns were mobile, being mounted on lorry chassis. They were driven about following the course of an airship and fired from any area of open land.

During WWI, Unexploded AA (UXAA) shells, could land up to 13km from the firing point, although more typically fell within 10km.



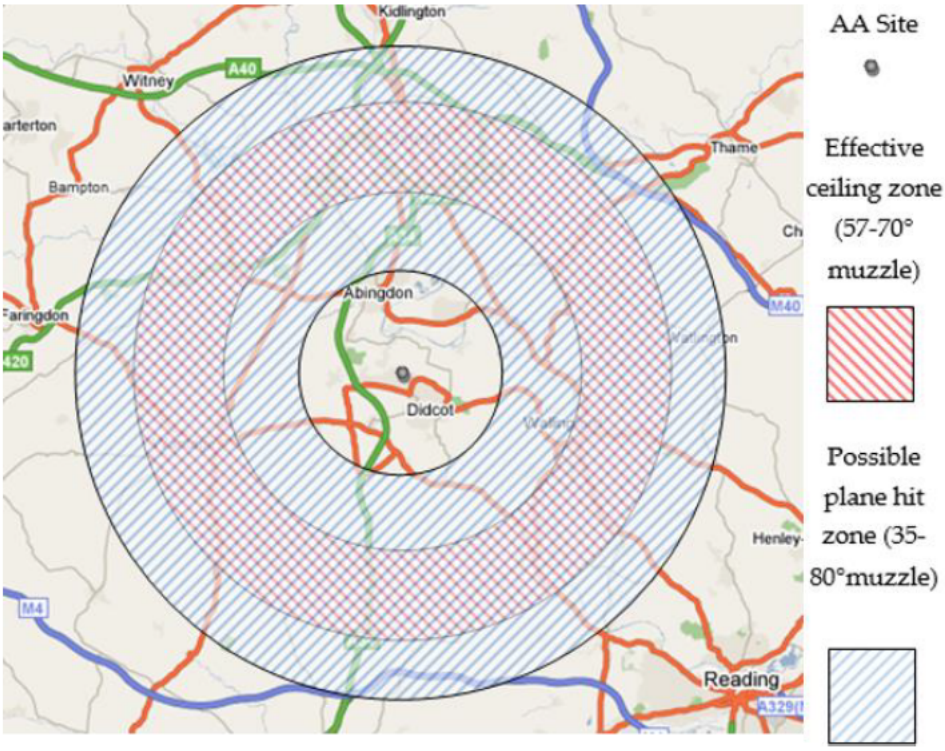
AA gun batteries were used extensively during WWII to counter the threat posed by enemy aircraft. In many instances, AA shells caused damage to Allied territory and in some areas caused significant numbers of civilian fatalities.

During WWII, AA shells could land up to 27km from the firing point, although more typically fell within 15km. These could be distributed over a wide area.

3No. types of AA batteries existed:

- **Heavy Anti-Aircraft (HAA)** batteries of large guns (typically 3.7", 4.5" and 5.25" calibre) designed to engage high flying bomber aircraft. These tended to be relatively permanent gun emplacements.
- **Light Anti-Aircraft (LAA)** weaponry, designed to counter low flying aircraft. These were often mobile and were moved periodically to new locations around strategic targets such as airfields. They typically fired 40mm shells and machine gun ammunition.
- **Rocket batteries (ZAA)** firing 3" or 3.7" AA rockets with a maximum altitude of 5,800m and a ground range of 9km were typically permanent emplacements.

Unexploded AA (UXAA) shells were a common occurrence during WWII. As the figure below demonstrates, shells were unlikely to fall in the immediate vicinity of a gun battery but in the surrounding area. This would be dependent upon the angle of fire and the flight height of the attacking aircraft.



AA batteries were deliberately targeted by the Luftwaffe and therefore areas surrounding a gun battery may have a greater risk of UXB being present.

Munitions stores were also established around AA batteries. These stored the shells for the batteries and small arms ammunition for troops manning the position. Such stores were typically removed at the end of WWII, although some disposal may have occurred in the immediate vicinity of the gun battery.

Appendix 3 Recent UXO Finds

UXO finds in the UK are a regular occurrence, although they almost never result in an accidental detonation.

It is still important to note that explosives rarely lose effectiveness with age. In some instances, mechanisms such as fuzes and gaines can become more sensitive and more prone to detonation, regardless of whether the device has been submersed in water or embedded in silt, clay or similar materials.

The effects of an accidental UXO detonation are usually extremely fast, often catastrophic and invariably traumatic to any personnel involved. Such occurrences are largely restricted to current theatres of war and overseas minefields, with occasional events in mainland Europe.

Zetica, and other commercial EOD companies, uncover and make safe thousands of items of UXO each year, though details are rarely made public knowledge.

Publicly-recorded discoveries do also occur regularly, as demonstrated by the list of recent significant UXO finds in the UK below. To keep up to date with the latest UXO finds, visit http://zeticauxo.com/news/.

On the 3rd February 2020, a 500kg German UXB was found on a building site in Soho, London. It was removed by an EOD team.

On the 18th April 2020, a 500lb British UXB was discovered by a farmer near Drayton in Oxfordshire. The area had been used as an RAF practice bombing range during WWII and after an in-situ disposal was completed the item was found to have contained no explosives.

On the 4th May 2020, a UXB was discovered by builders at Kings Hill on the former RAF West Malling airfield, the fourth found since 2017. It was destroyed in a controlled explosion.

On the 1st December 2020, a research vessel discovered an unexploded marine mine containing 350kg of explosives in Wemyss Bay in the Firth of Clyde. RN divers investigated the item and destroyed it.

On the 4th February, 2No. anti-tank mines were discovered on Slapton Sands in Devon. They had been uncovered by recent storms and were destroyed.

On the 26th February 2021, a 1,000kg German "Hermann" UXB was discovered by builders at Exeter University campus (see plate below). It was investigated and detonated in-situ following the evacuation of nearby properties and University halls of residence.