

EAST PARK ENERGY

East Park Energy

EN010141

Environmental Statement Volume 2 – Technical Appendices

Appendix 12-1: Phase 1 Geo-Environmental

Assessment - Part 3 of 3

Document Reference: EN010141/DR/6.2

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

EAST PARK ENERGY

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Environmental Statement Volume 2 – Technical Appendices

Appendix 12-1: Phase 1 Geo- Environmental Assessment (Part 3 of 3)

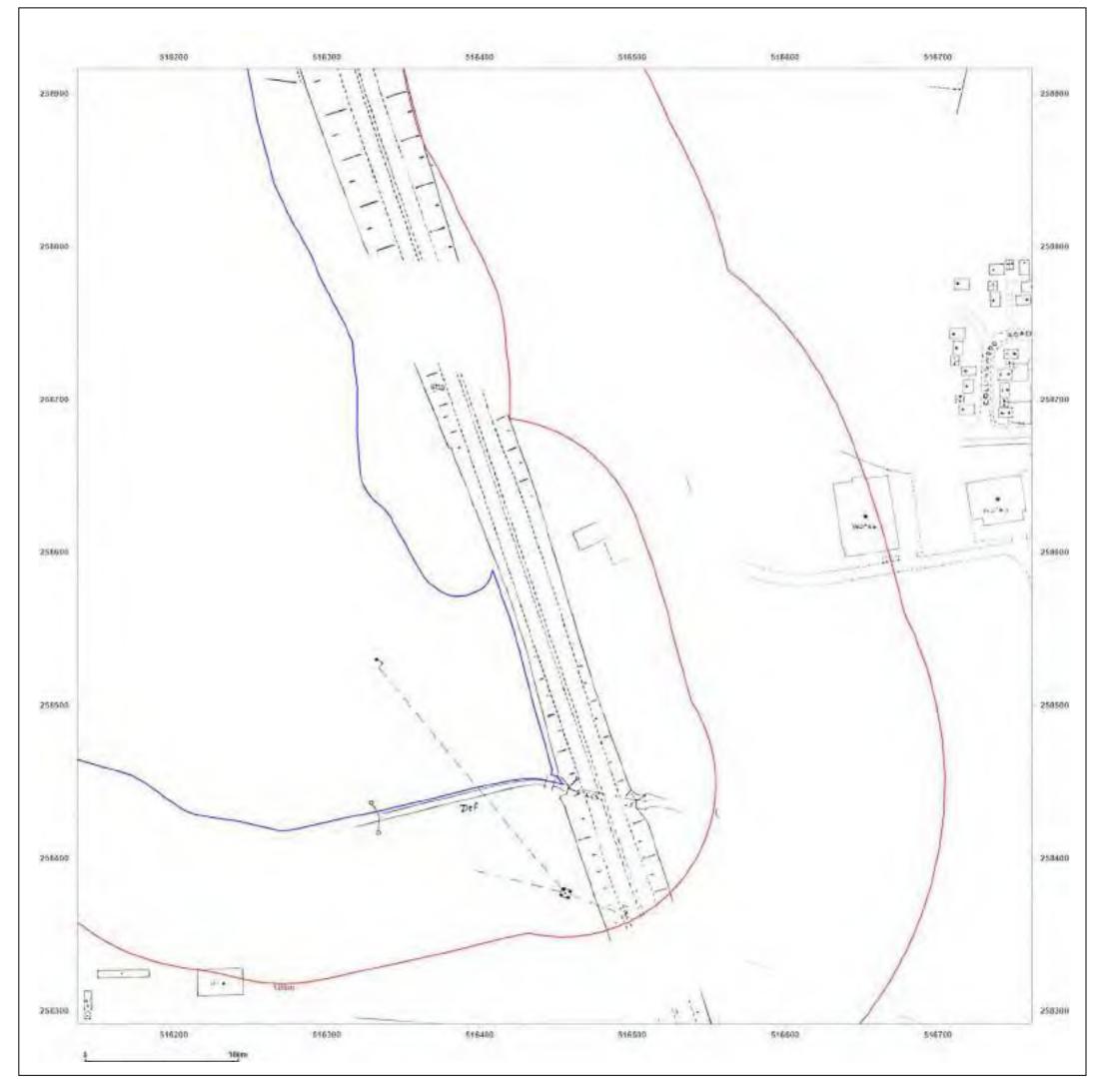
APFP Regulation Reference:	Regulation 5(2)(a)	
Planning Inspectorate Scheme Reference:	EN010141	
Application Document Number:	EN010141/DR/6.2	
Author:	Smith Grant LLP	

Version	Date	Status
P01	September 2025	DCO Submission

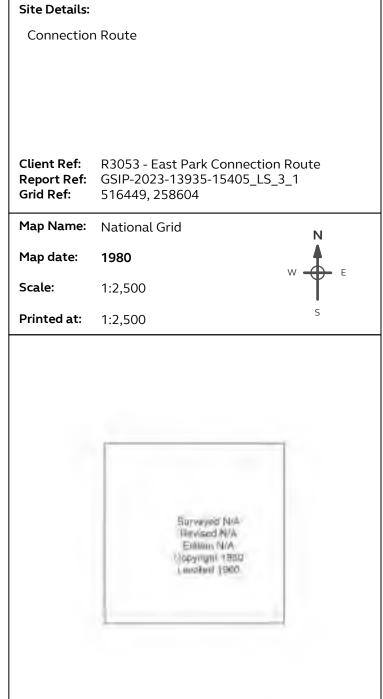
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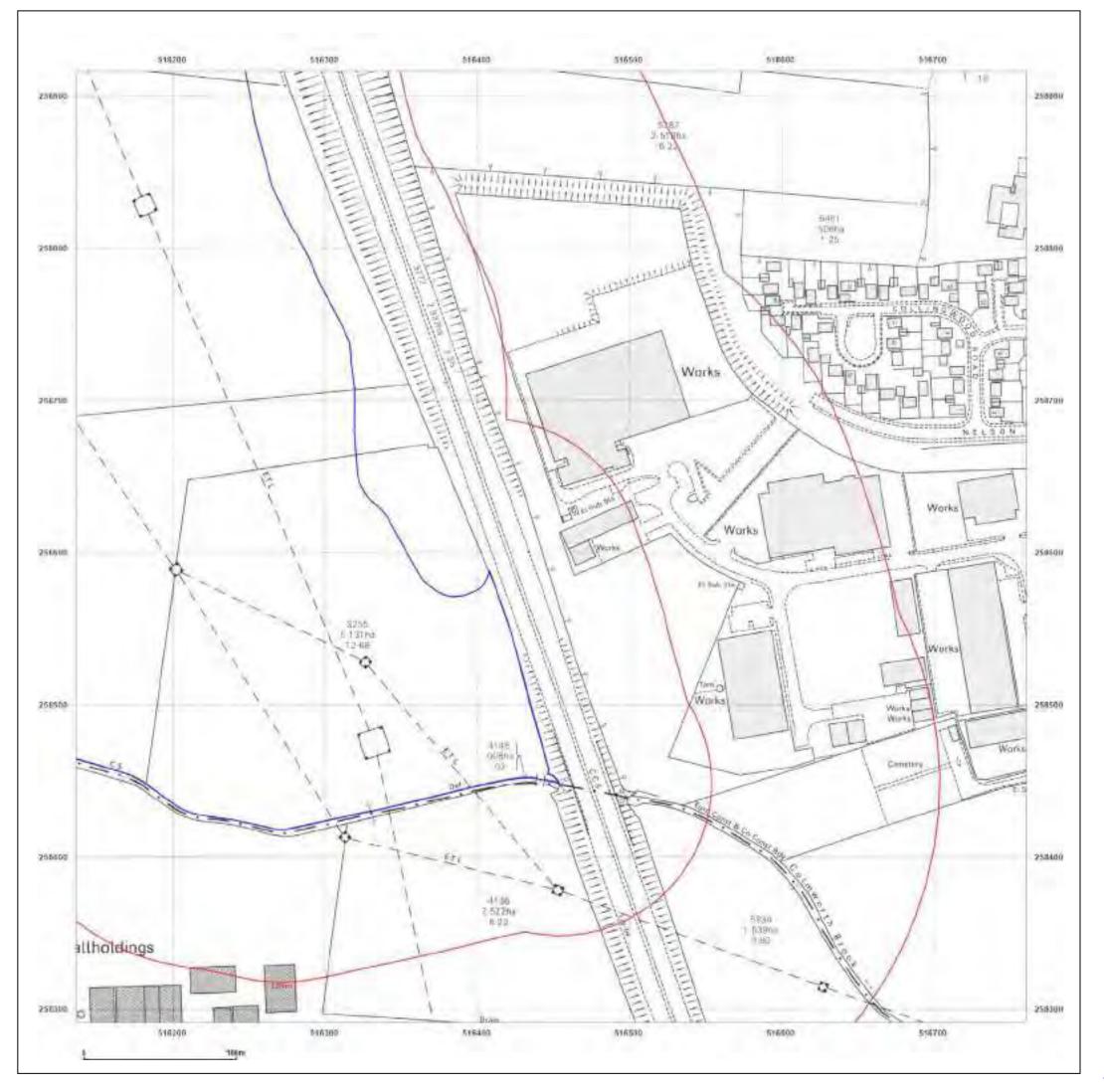




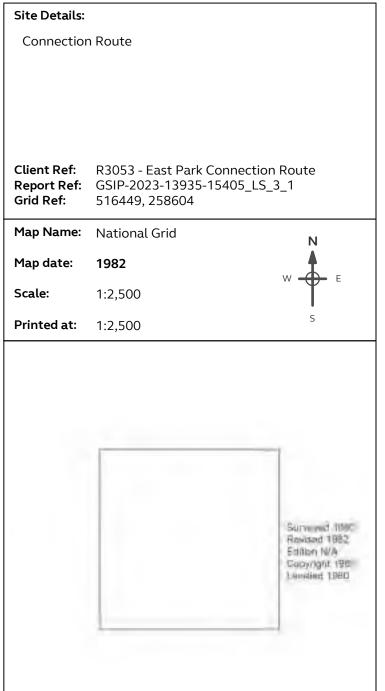
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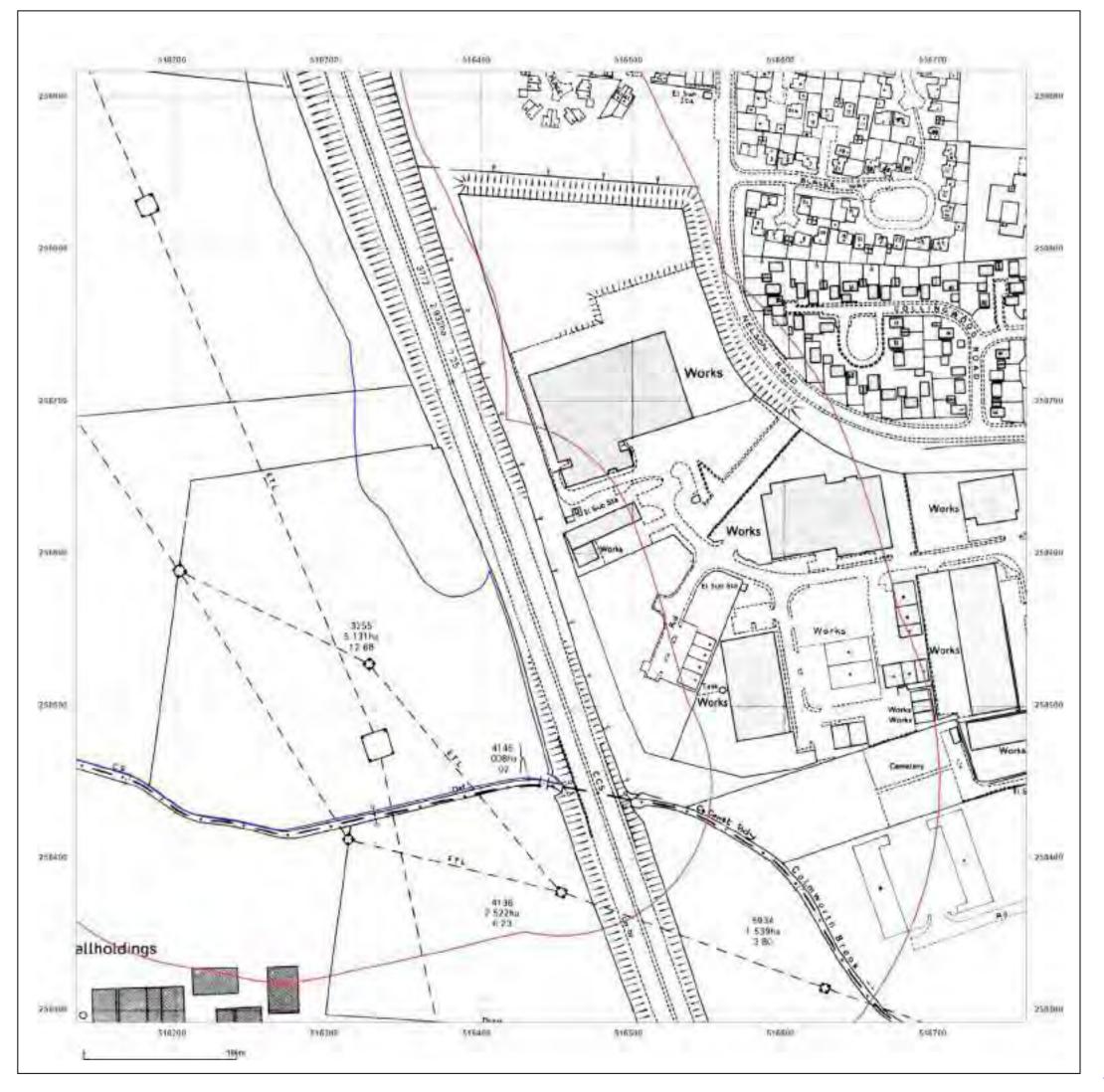




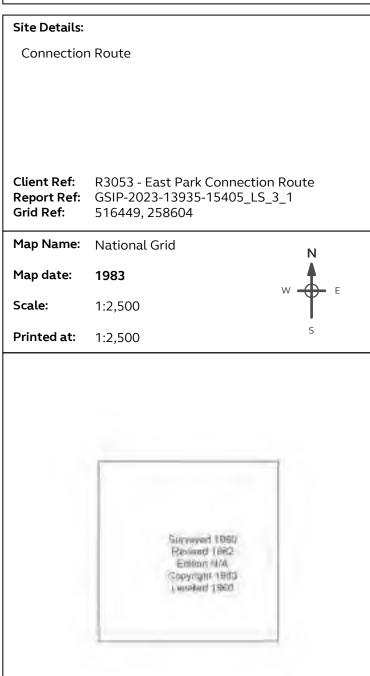
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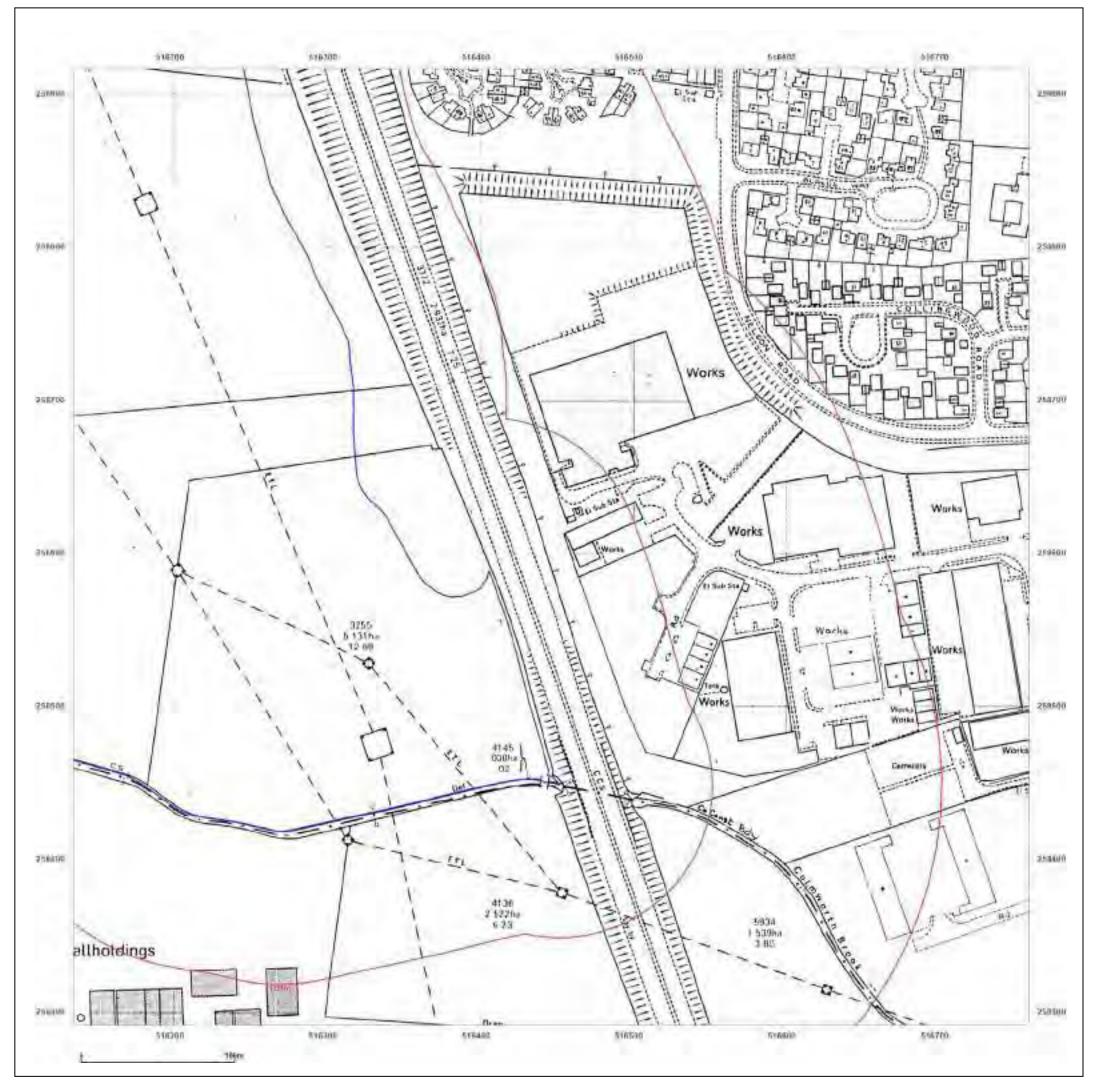




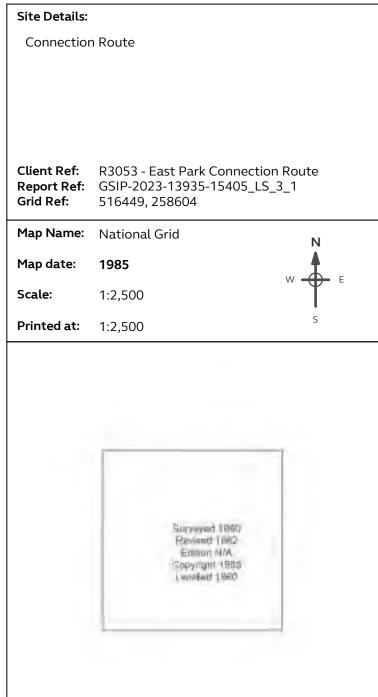
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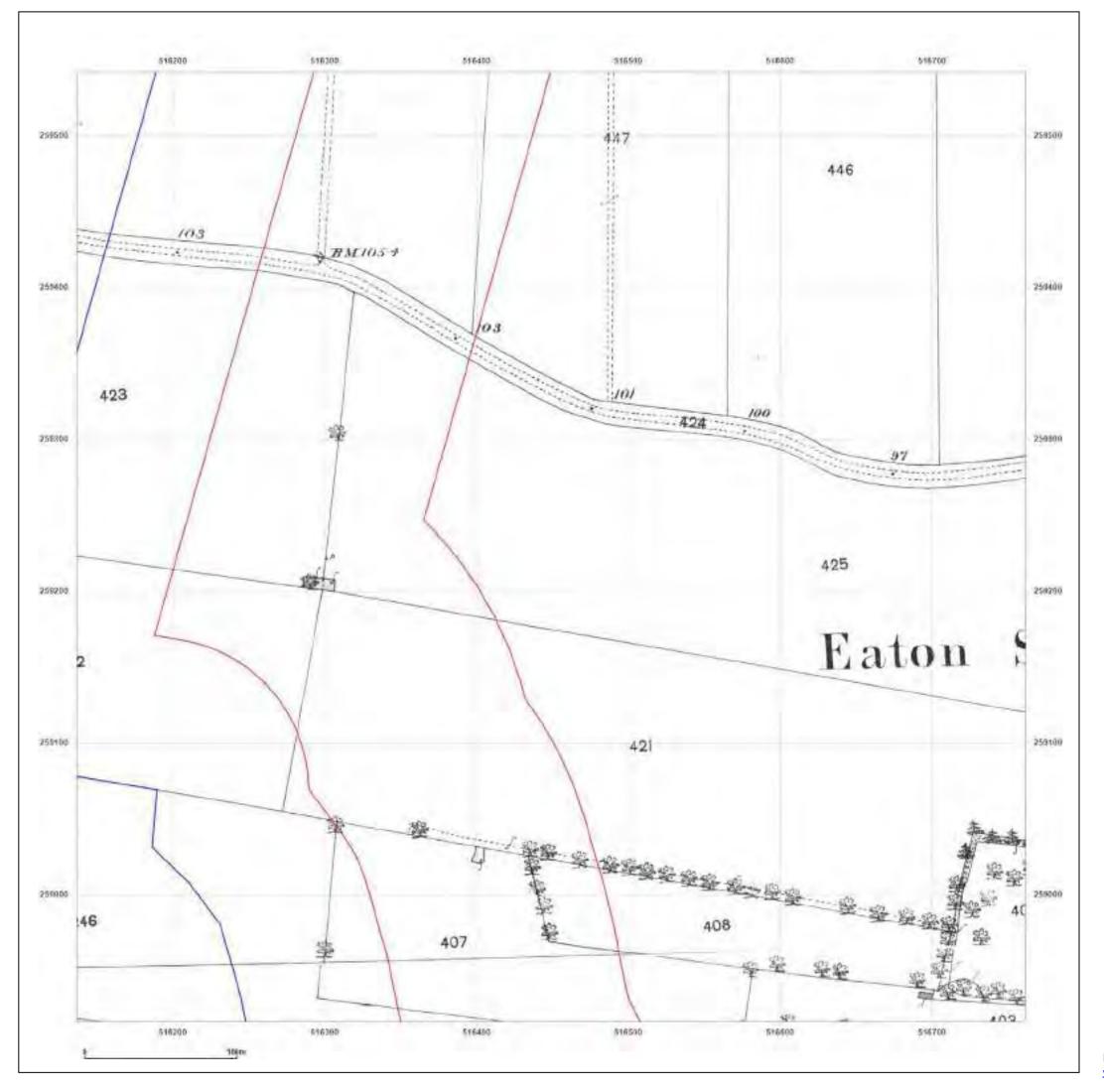




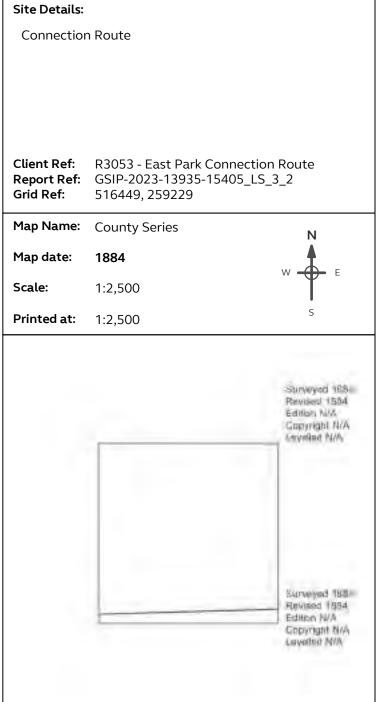
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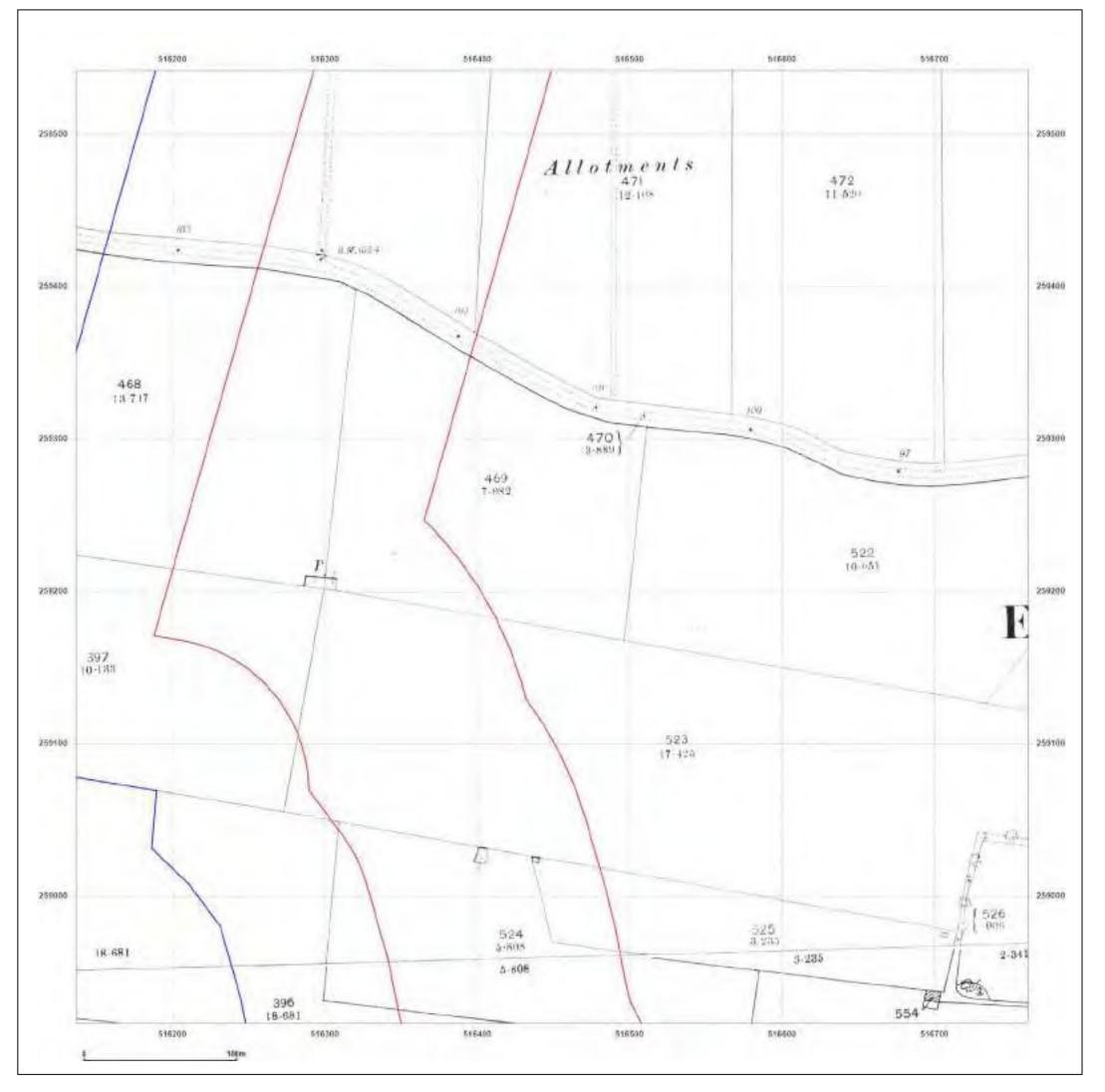




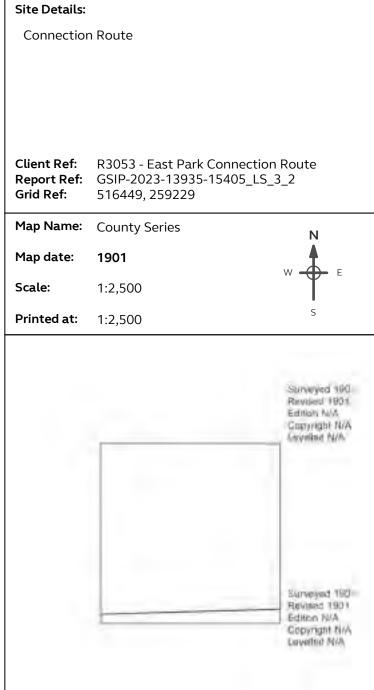
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Map Name: National Grid

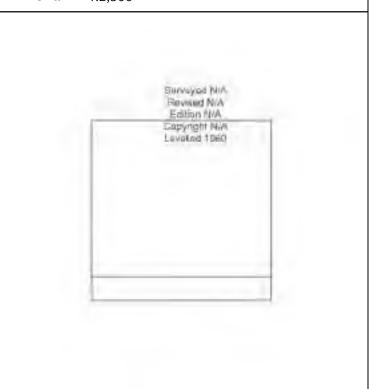
Map date: 1960

Site Details:

Connection Route

Scale: 1:2,500

Printed at: 1:2,500





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Connection Route

R3053 - East Park Connection Route

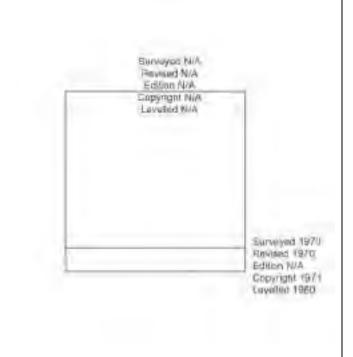
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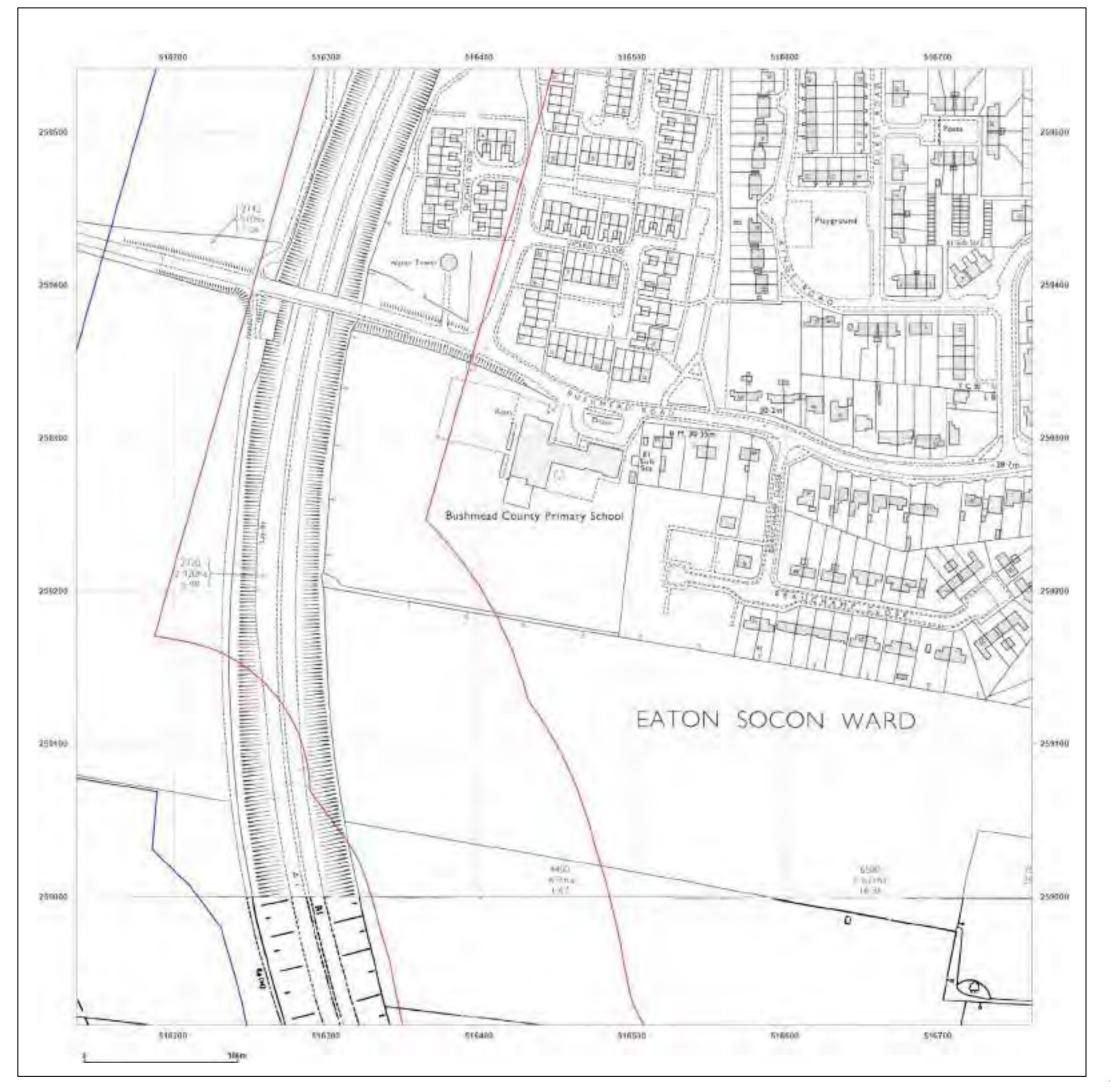


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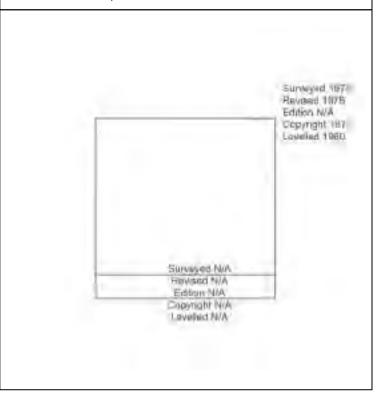
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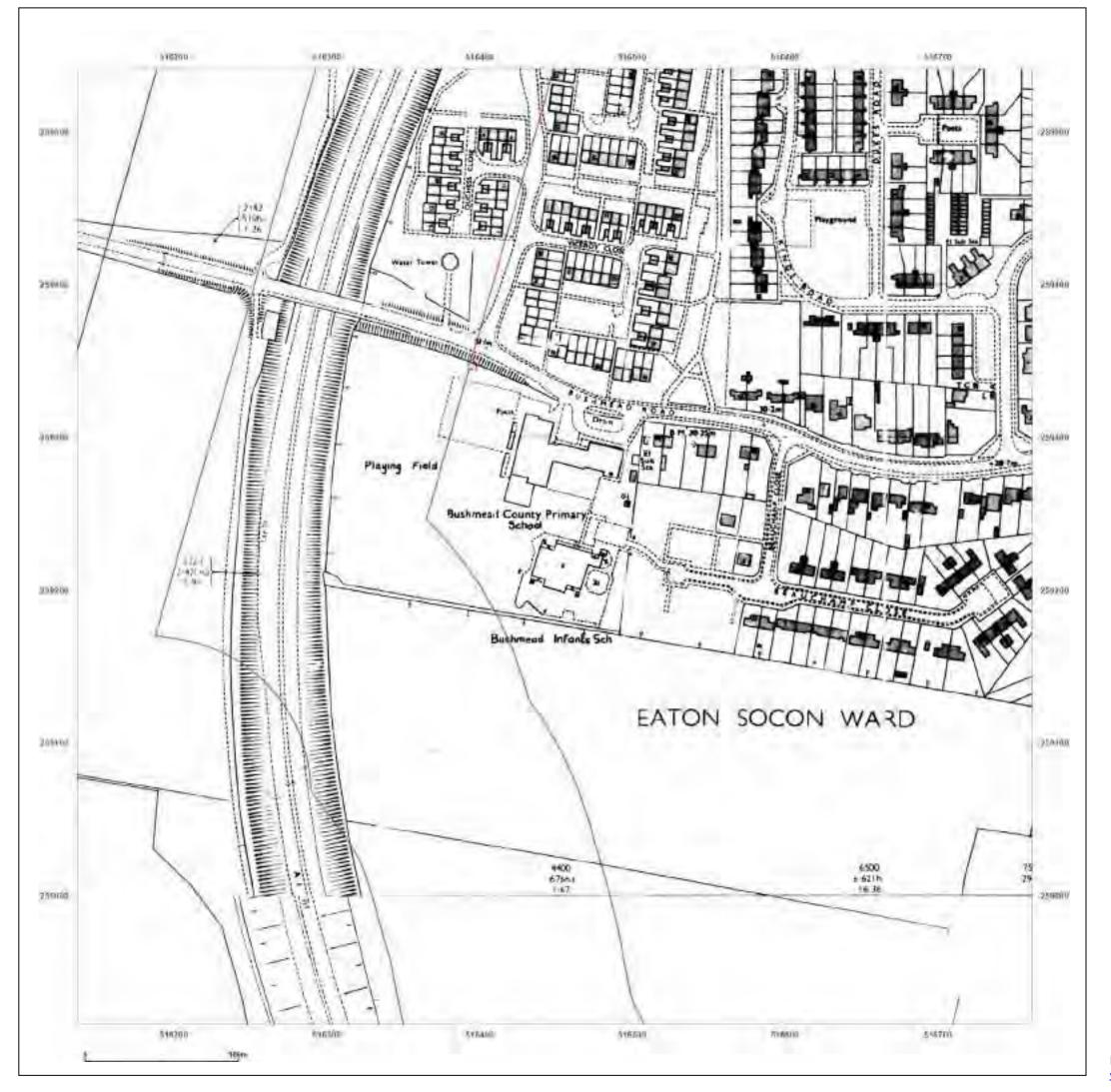


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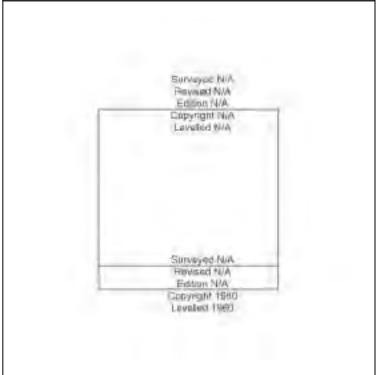
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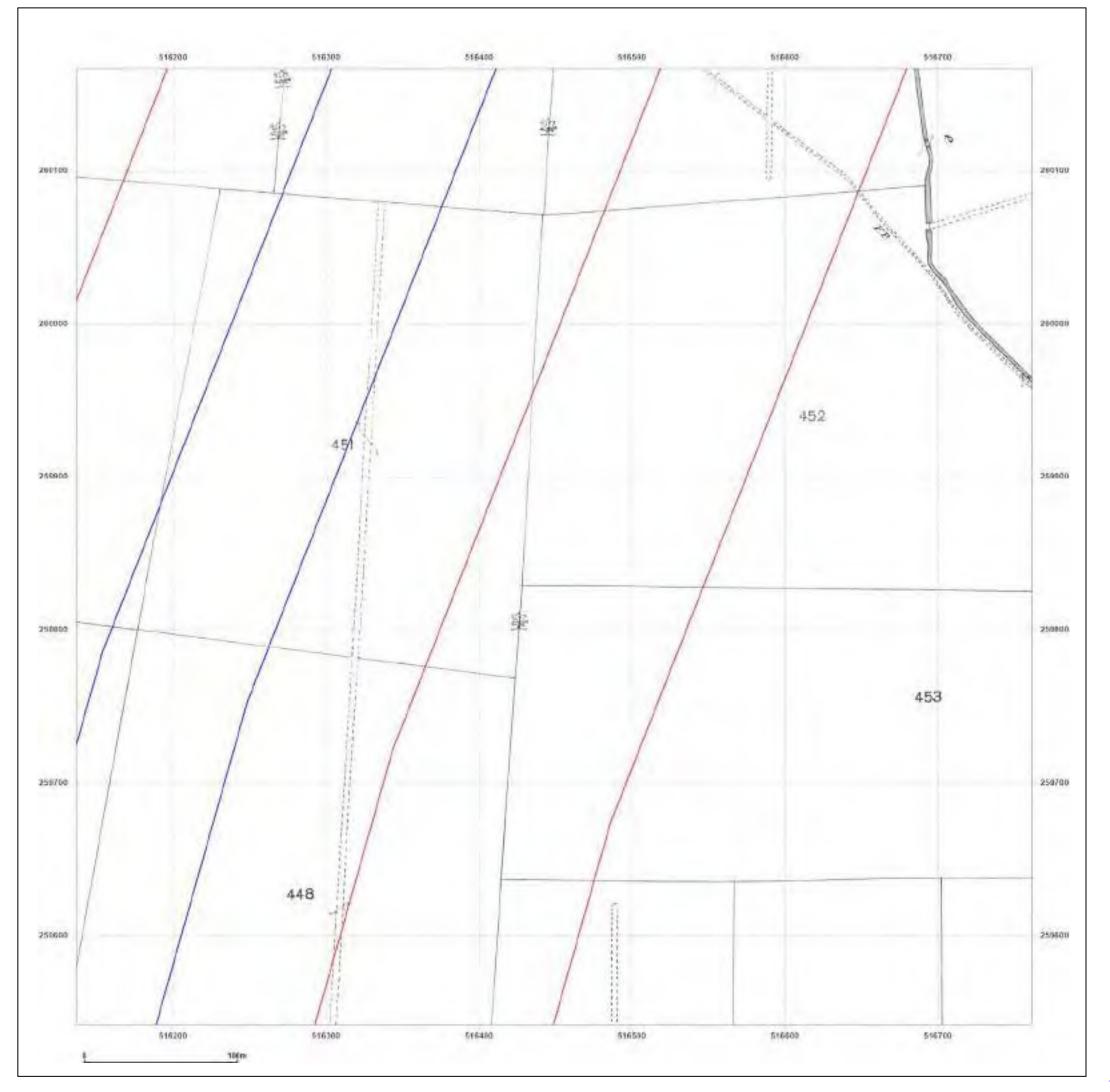


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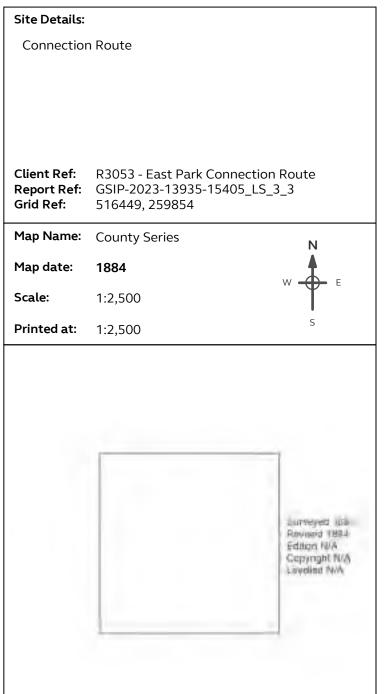
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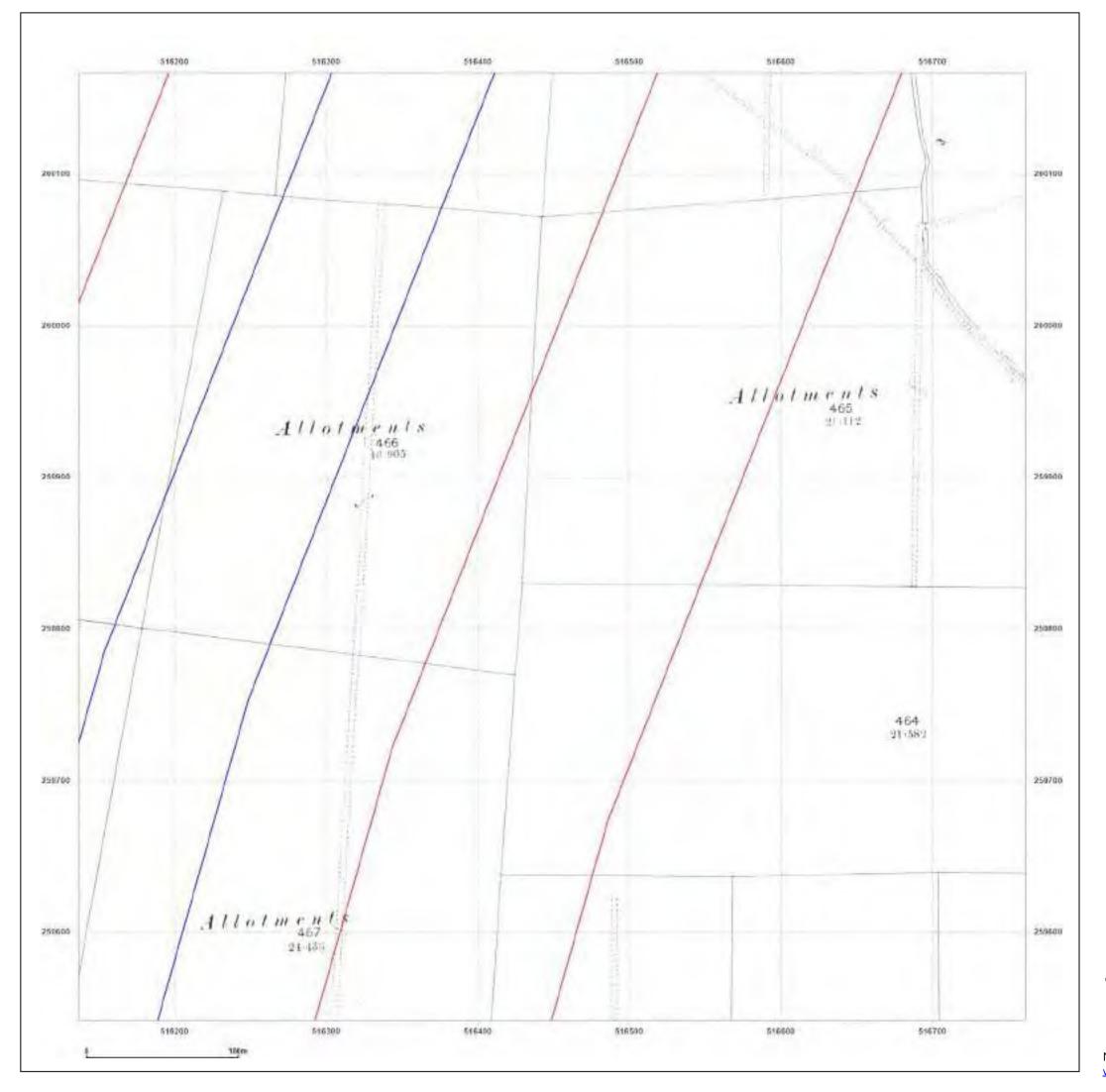




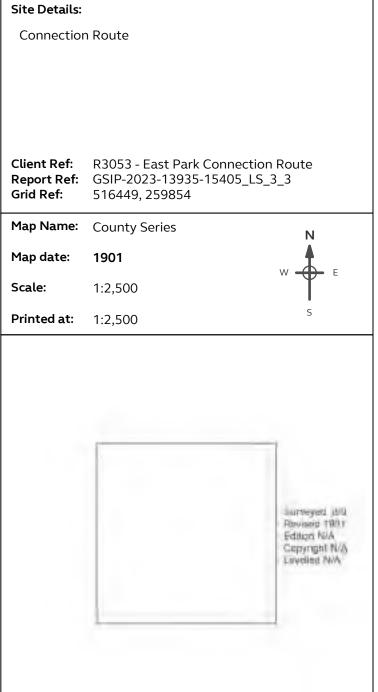
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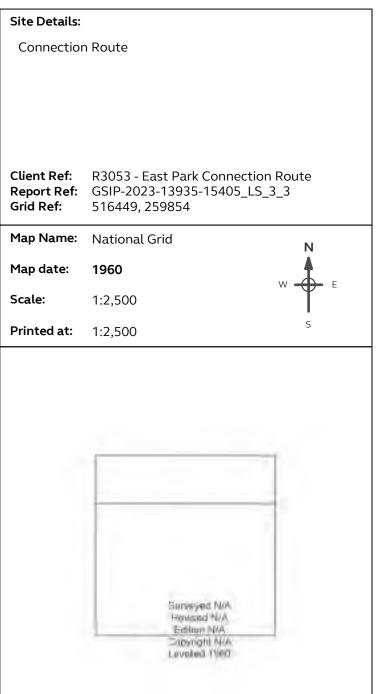
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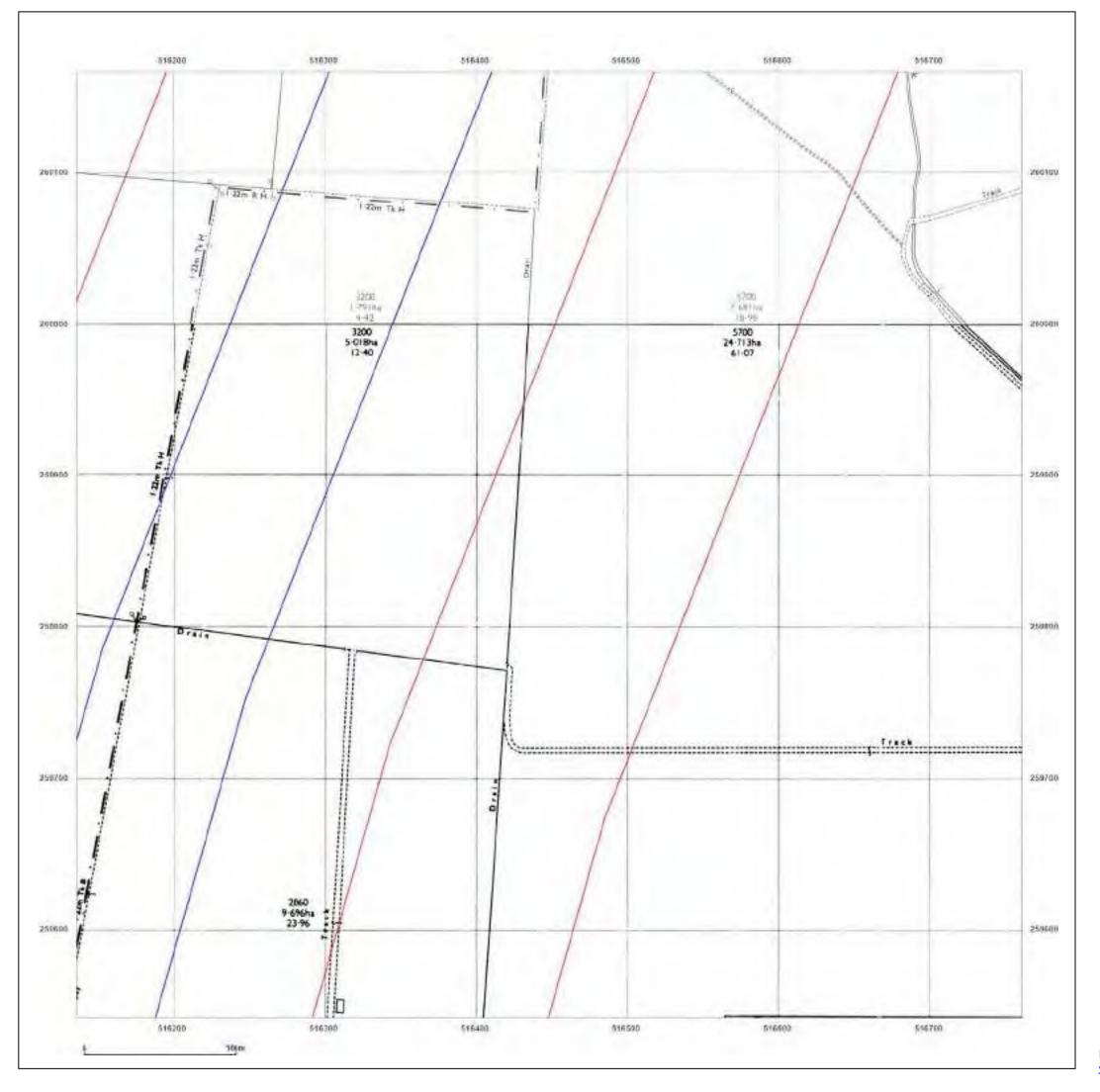




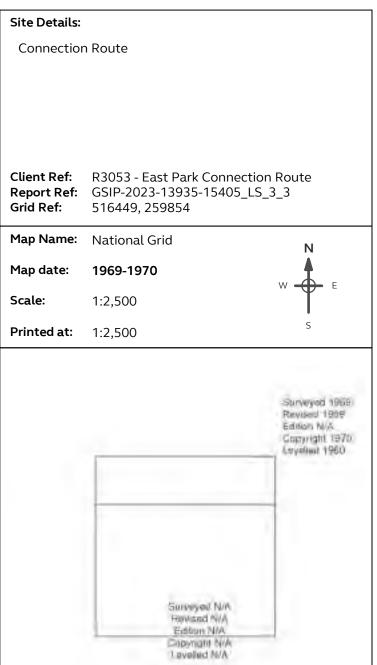
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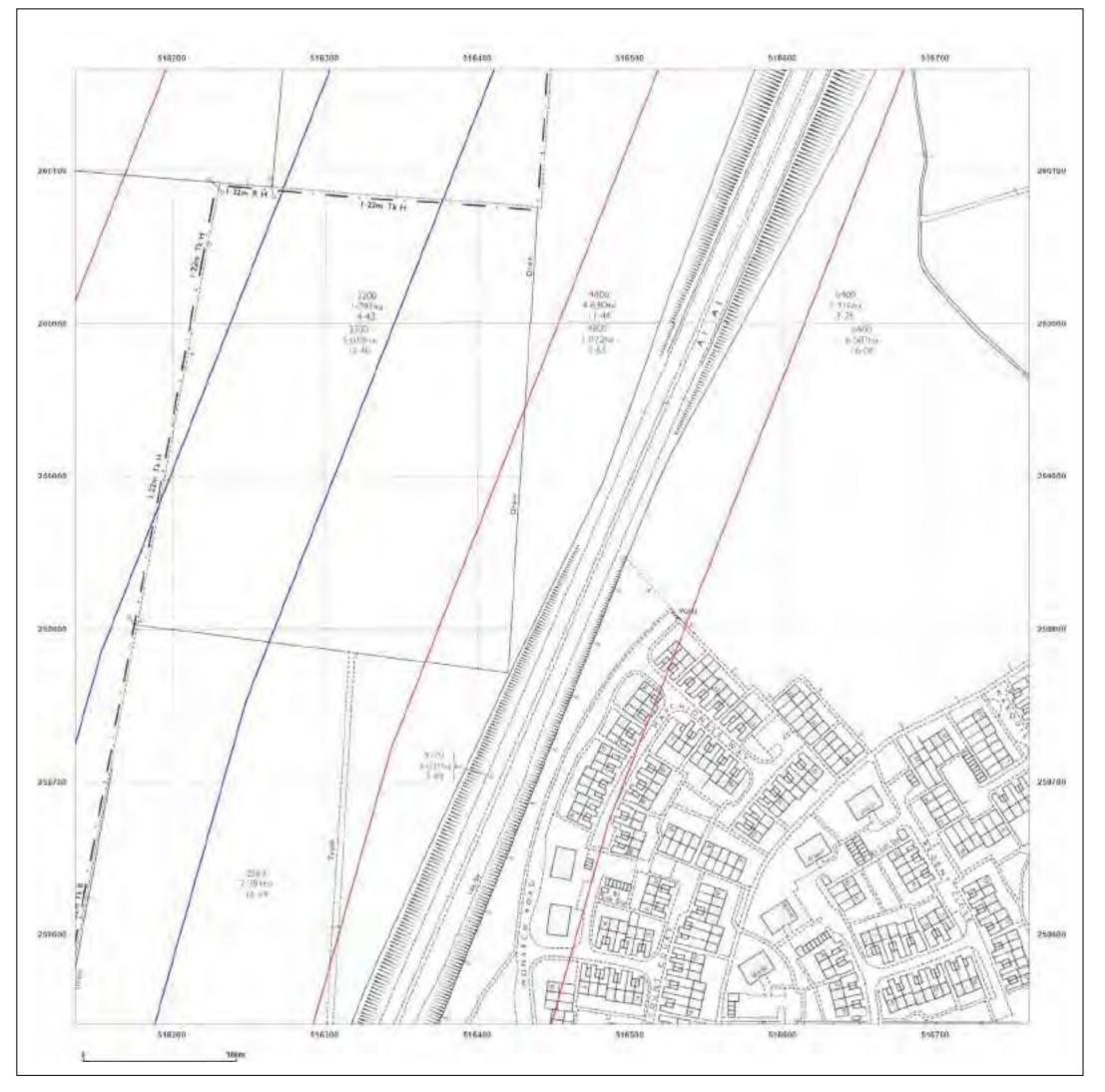




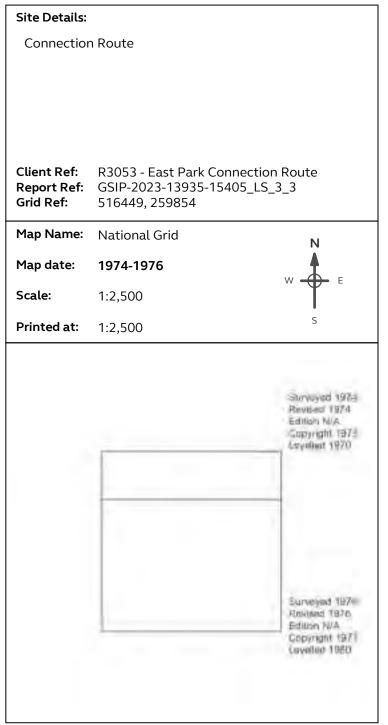
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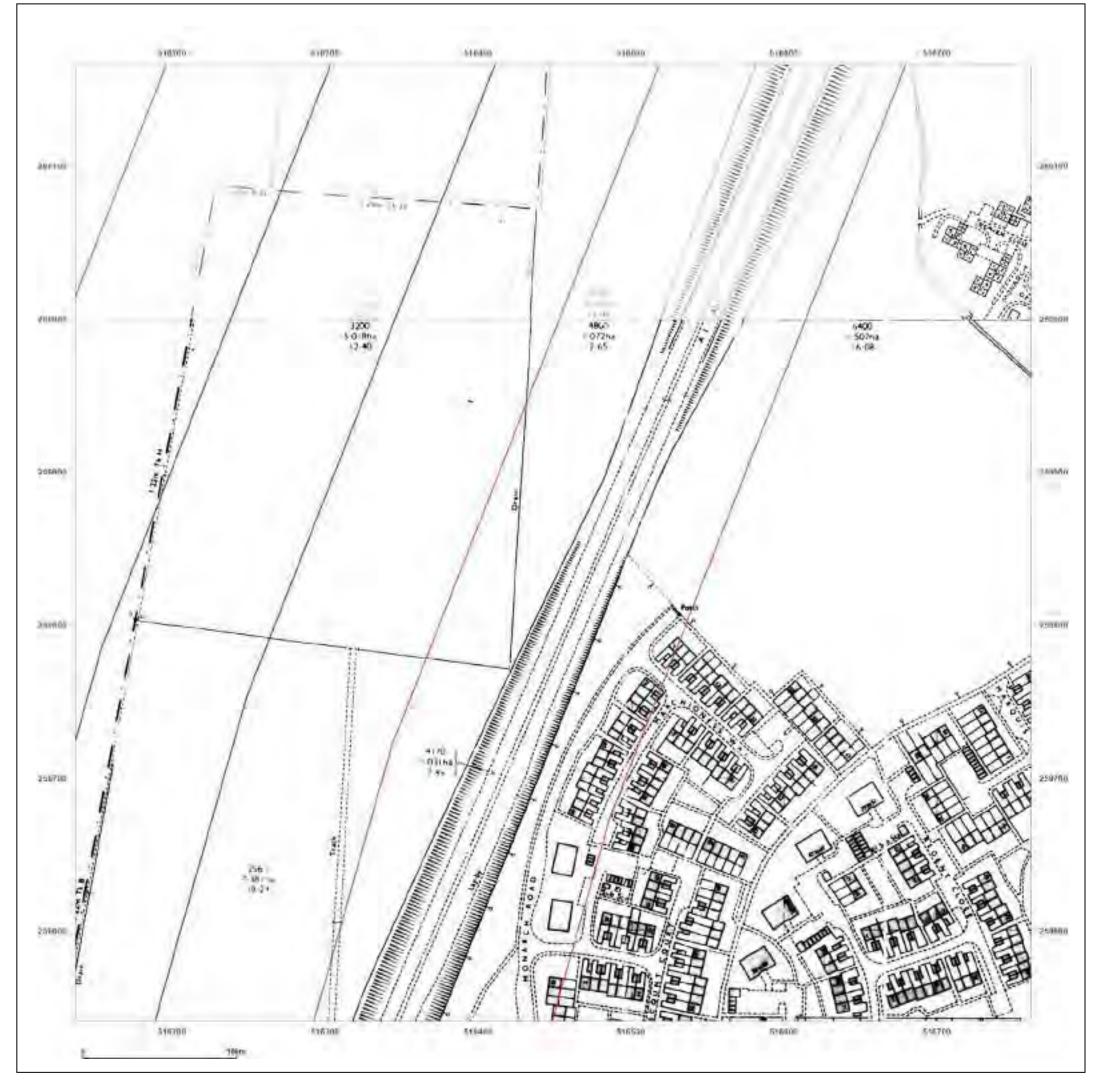




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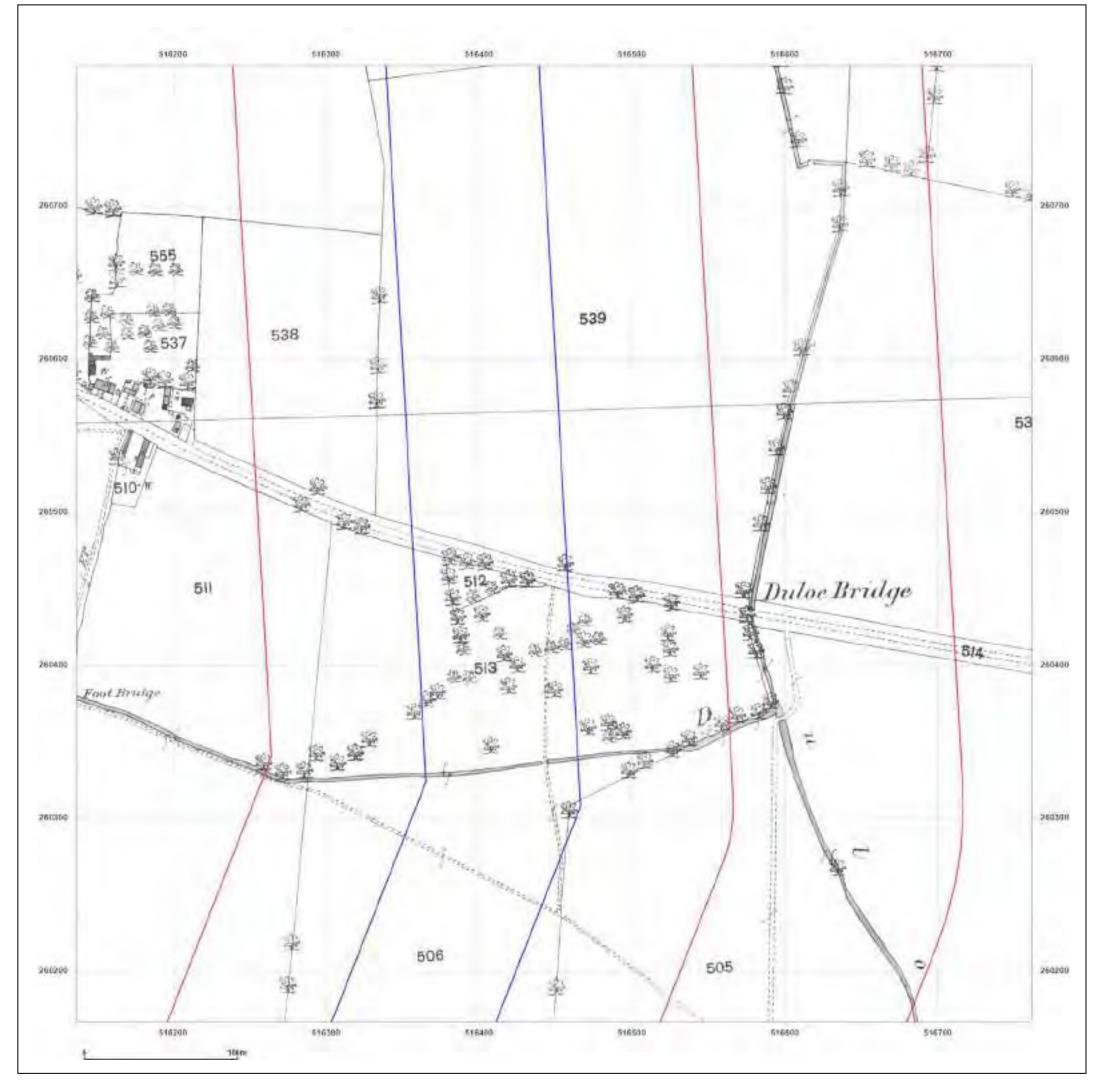


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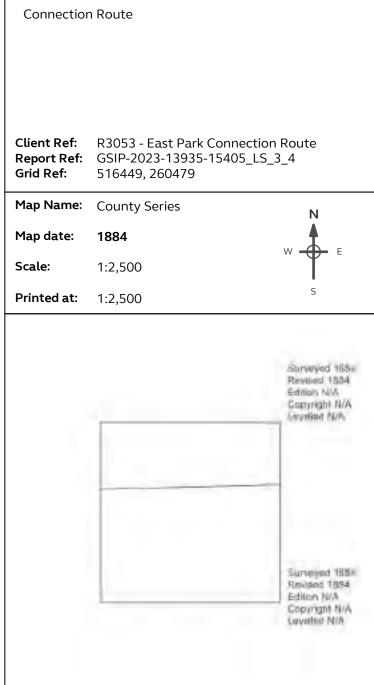
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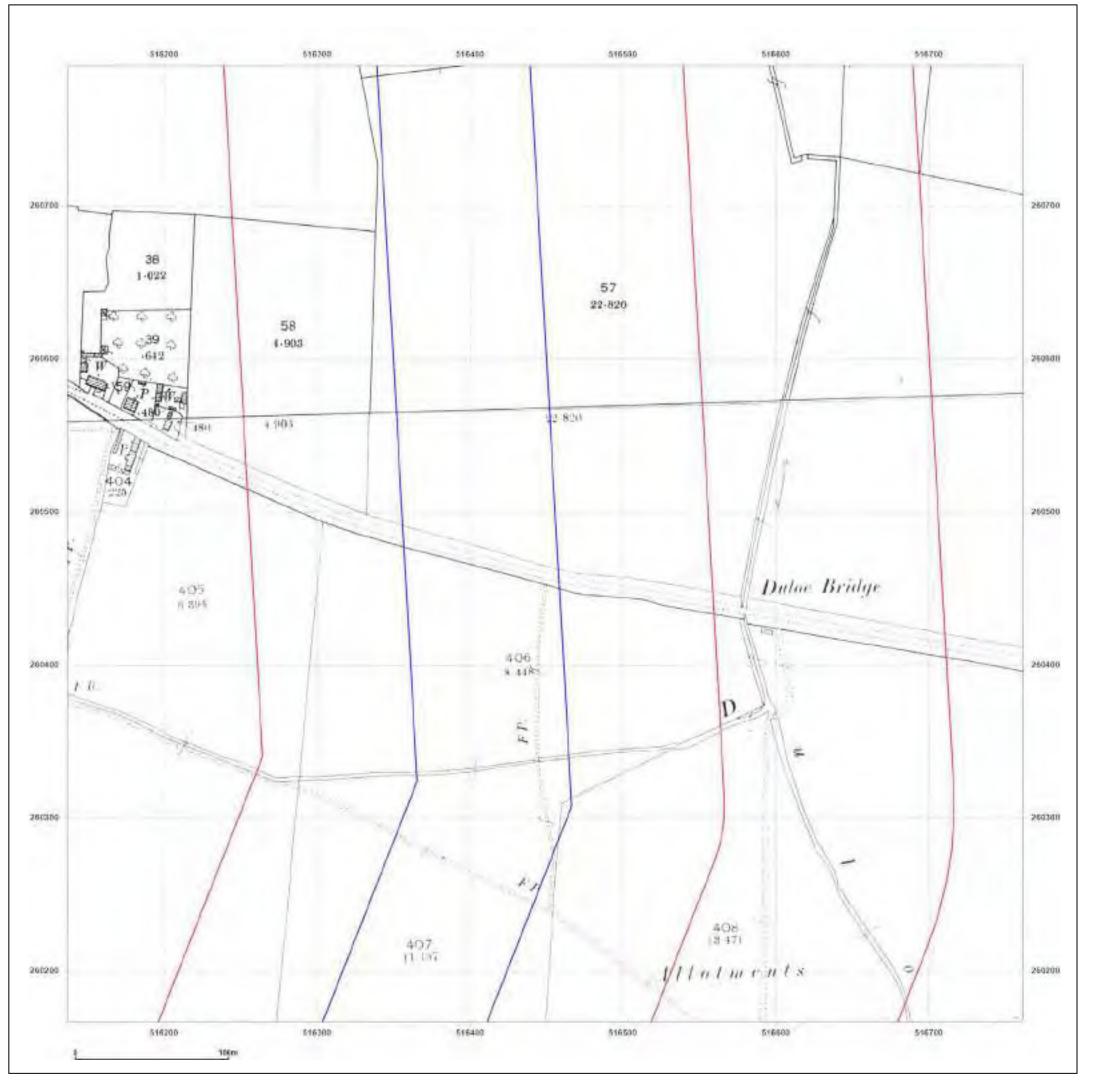


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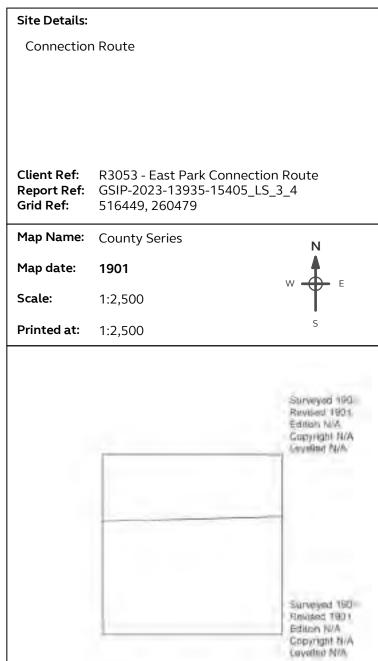
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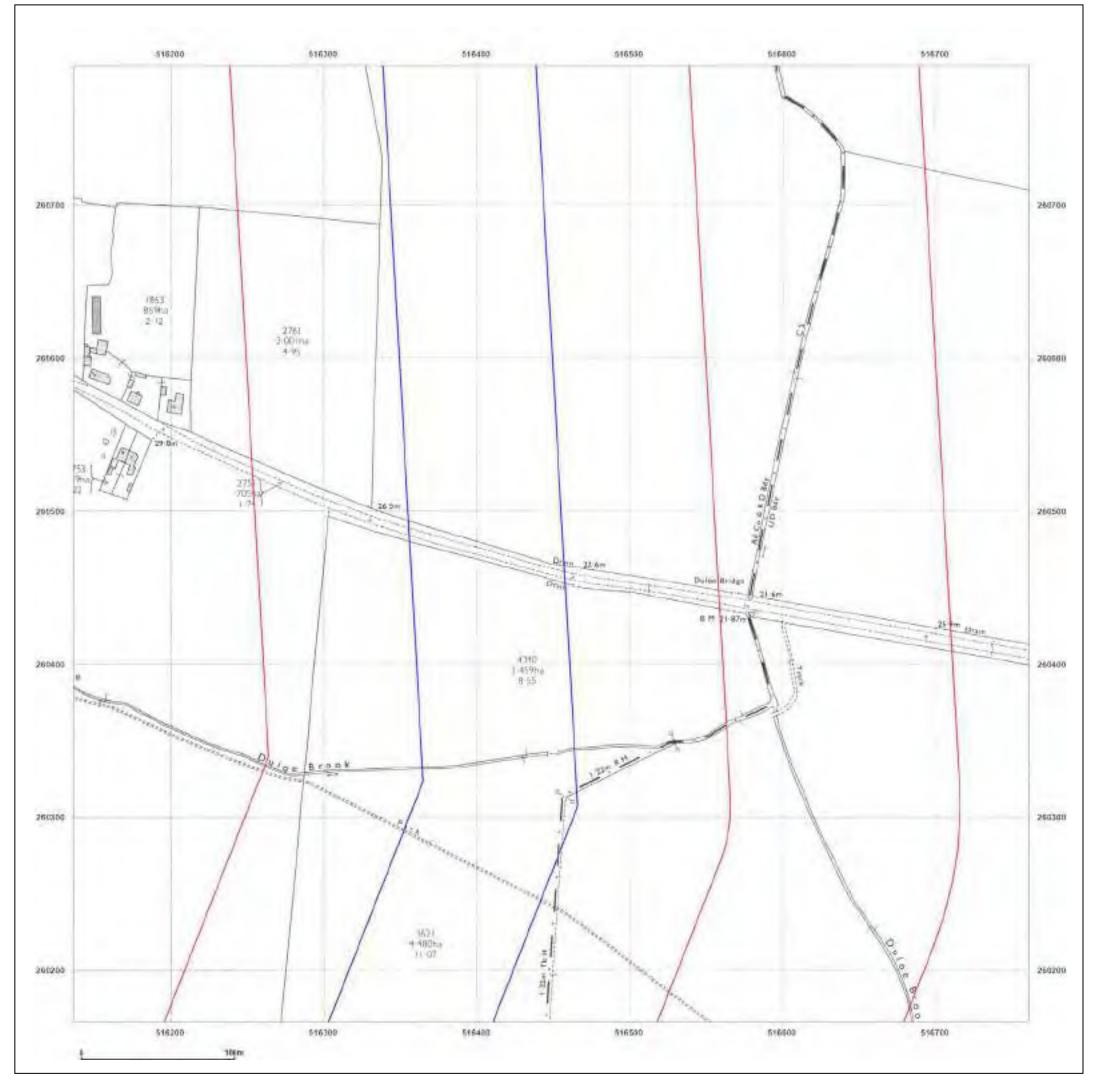




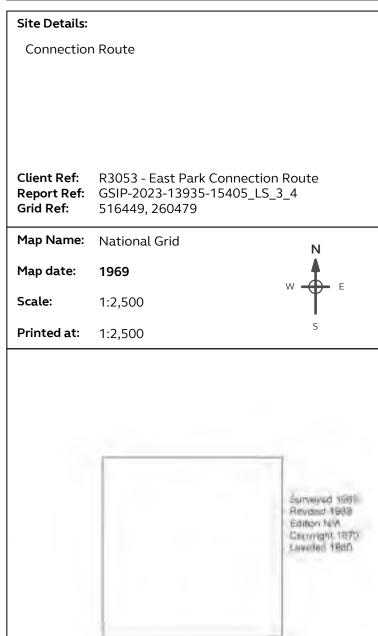
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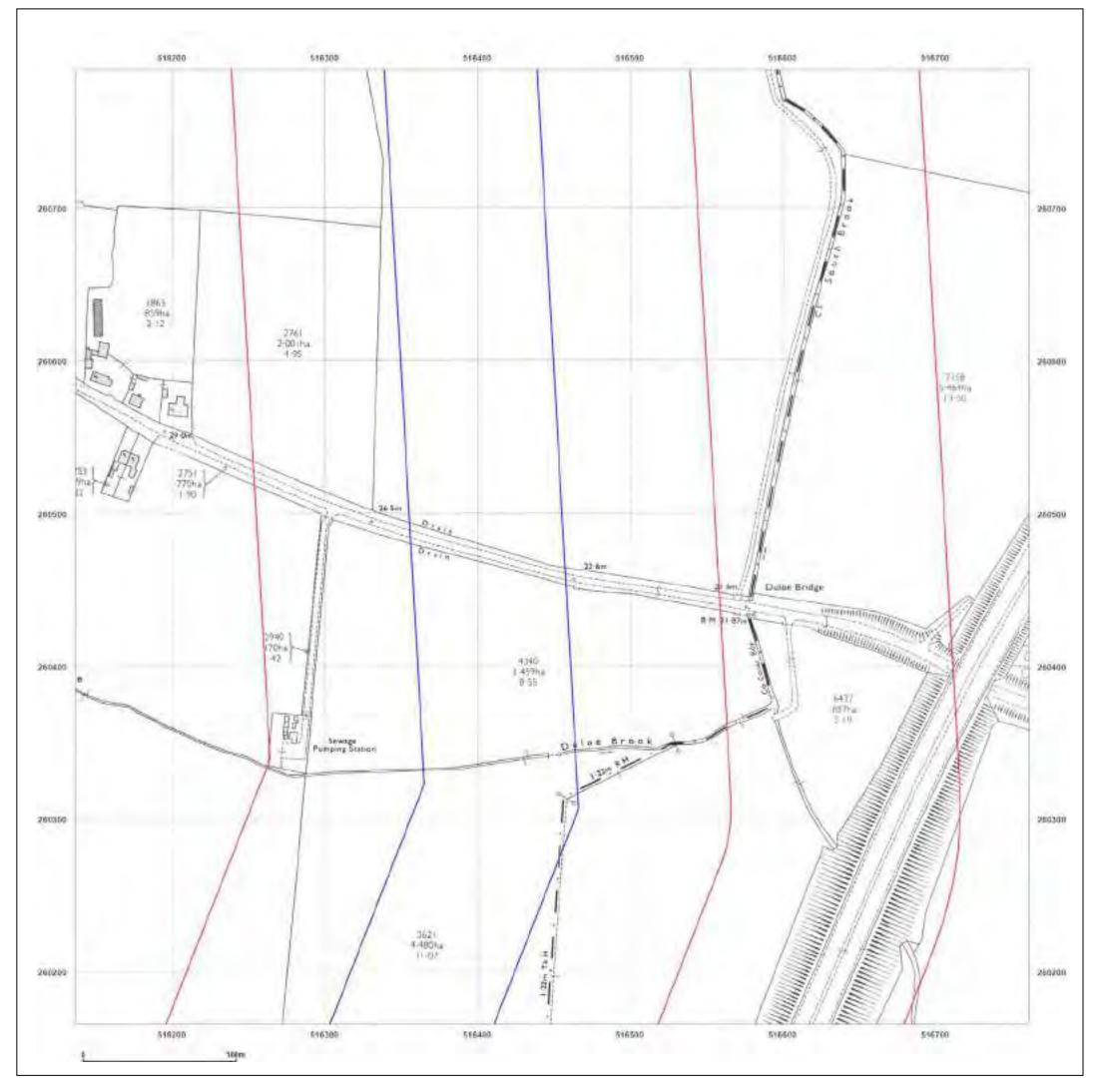




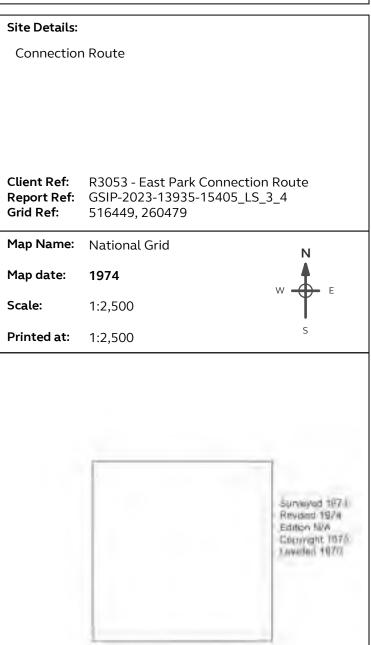
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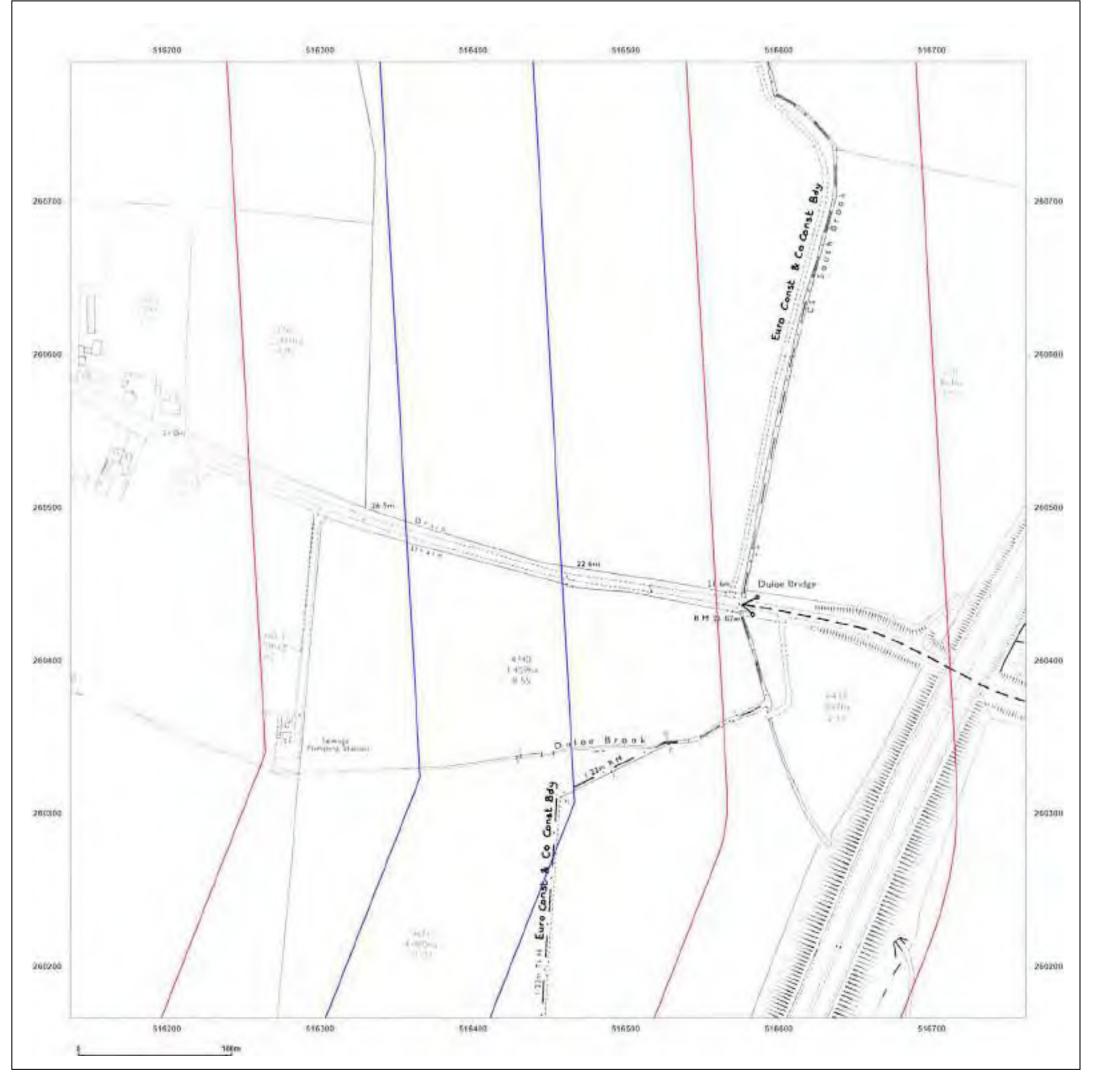




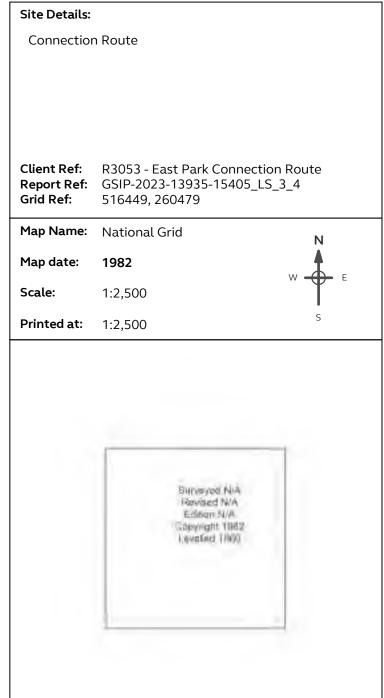
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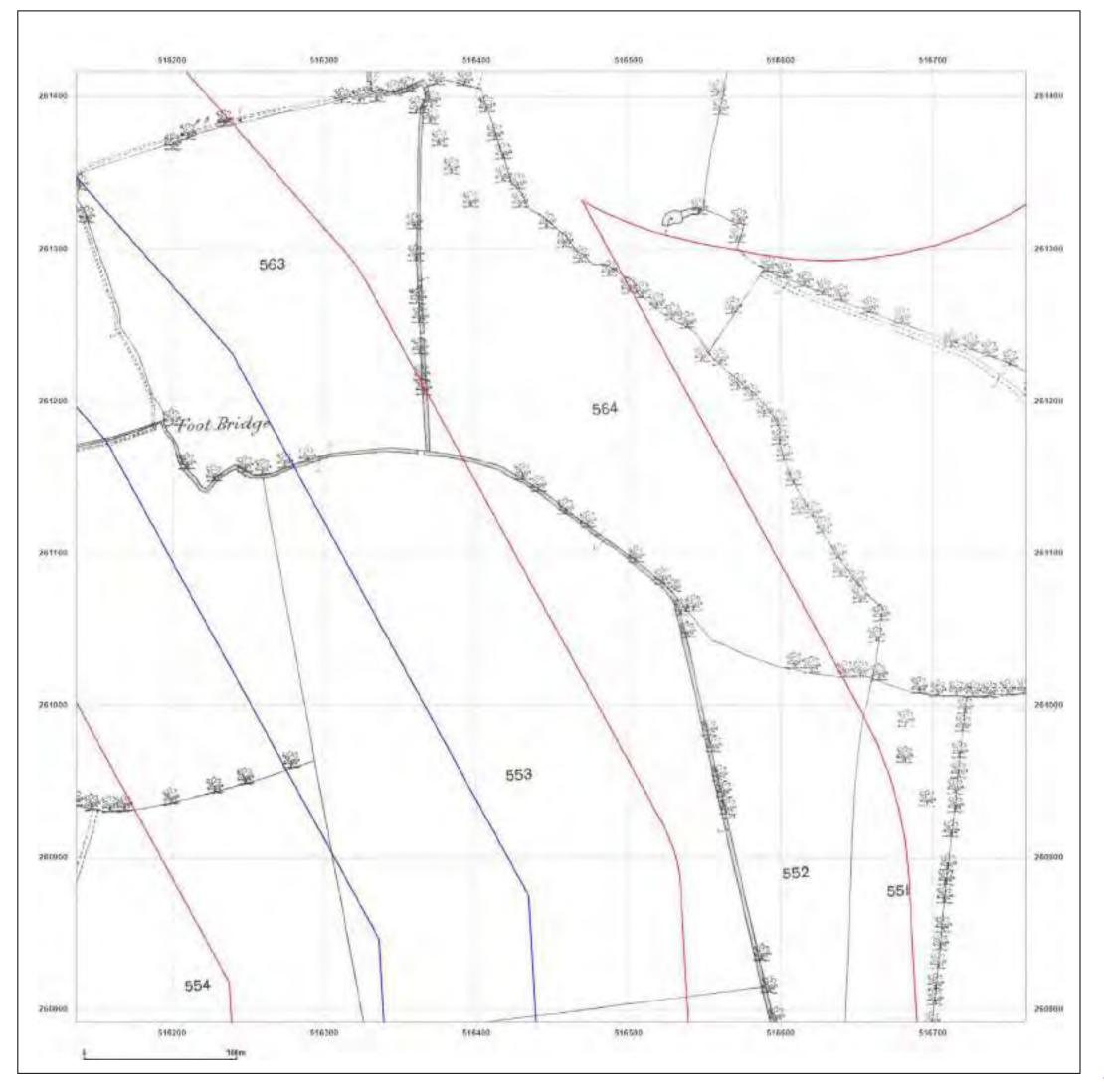




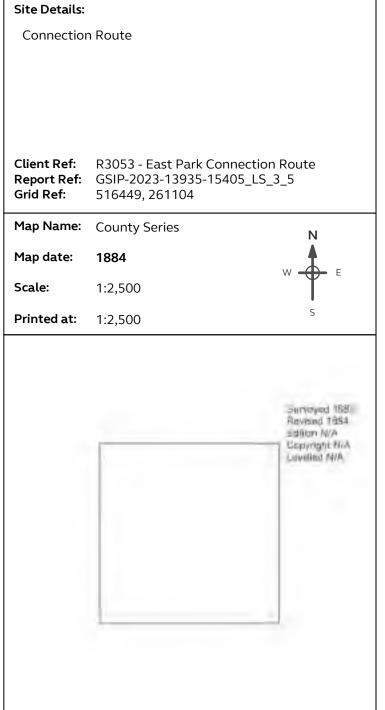
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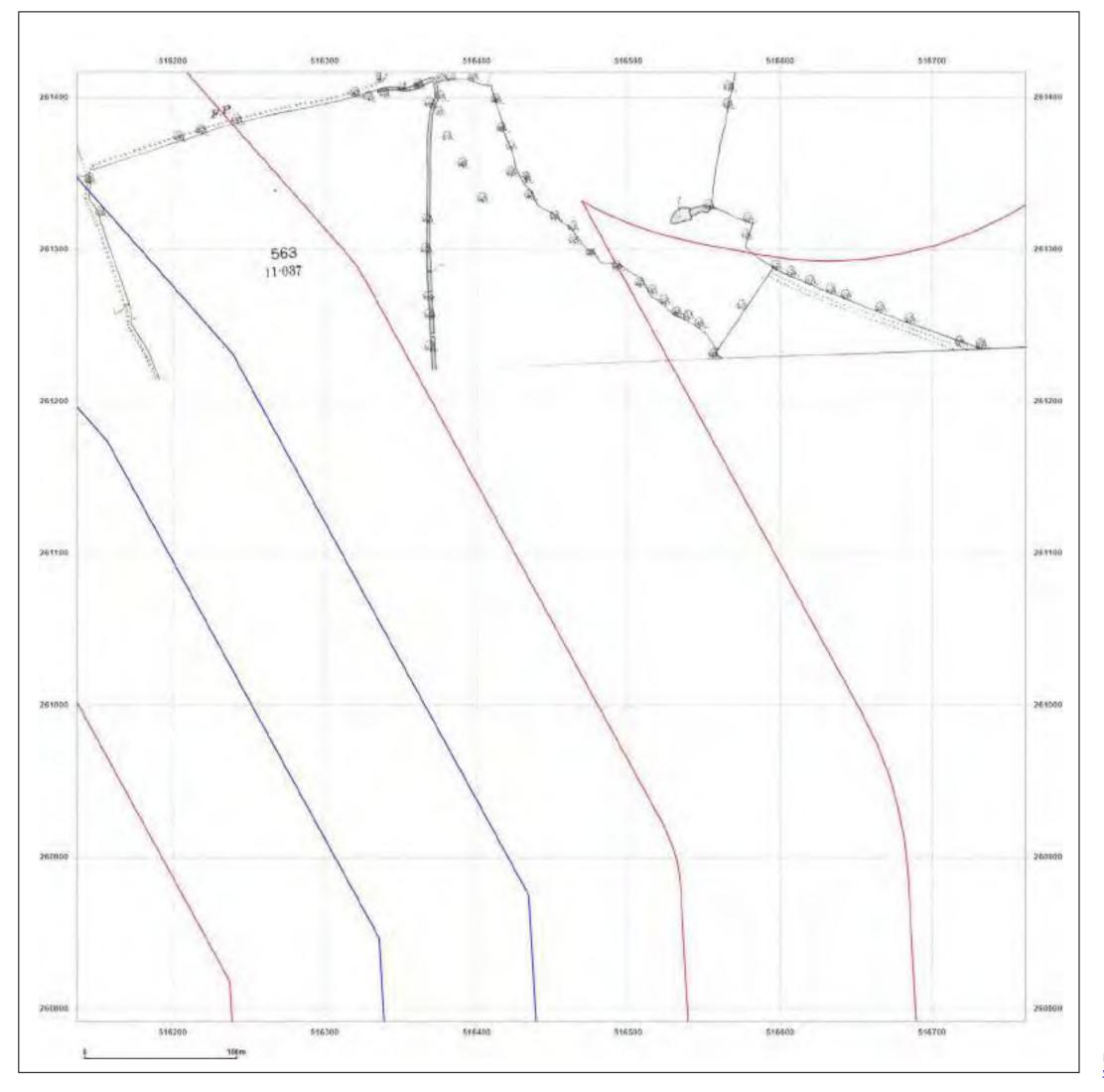




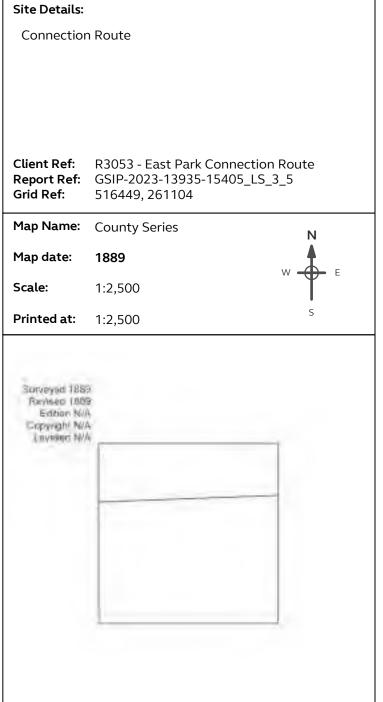
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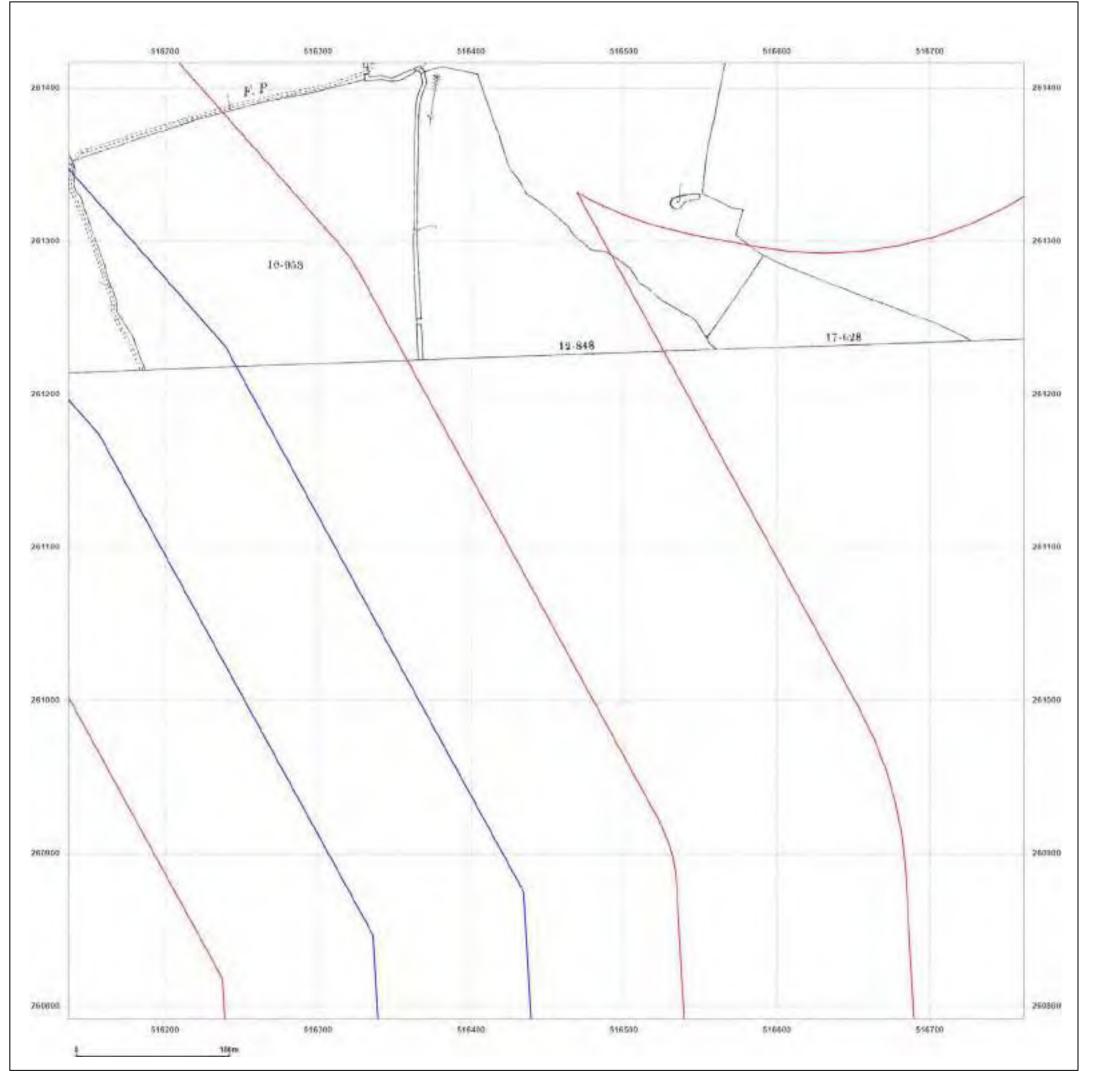




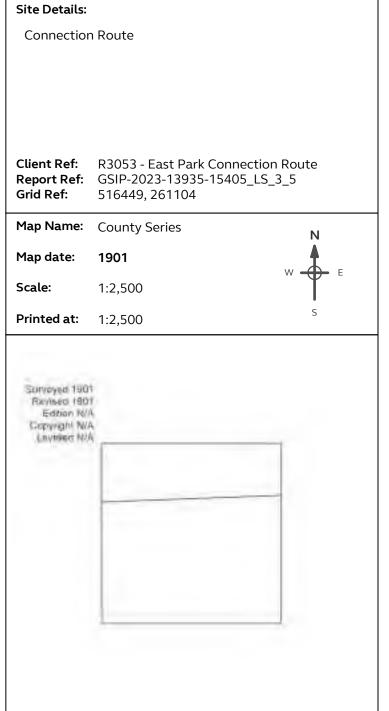
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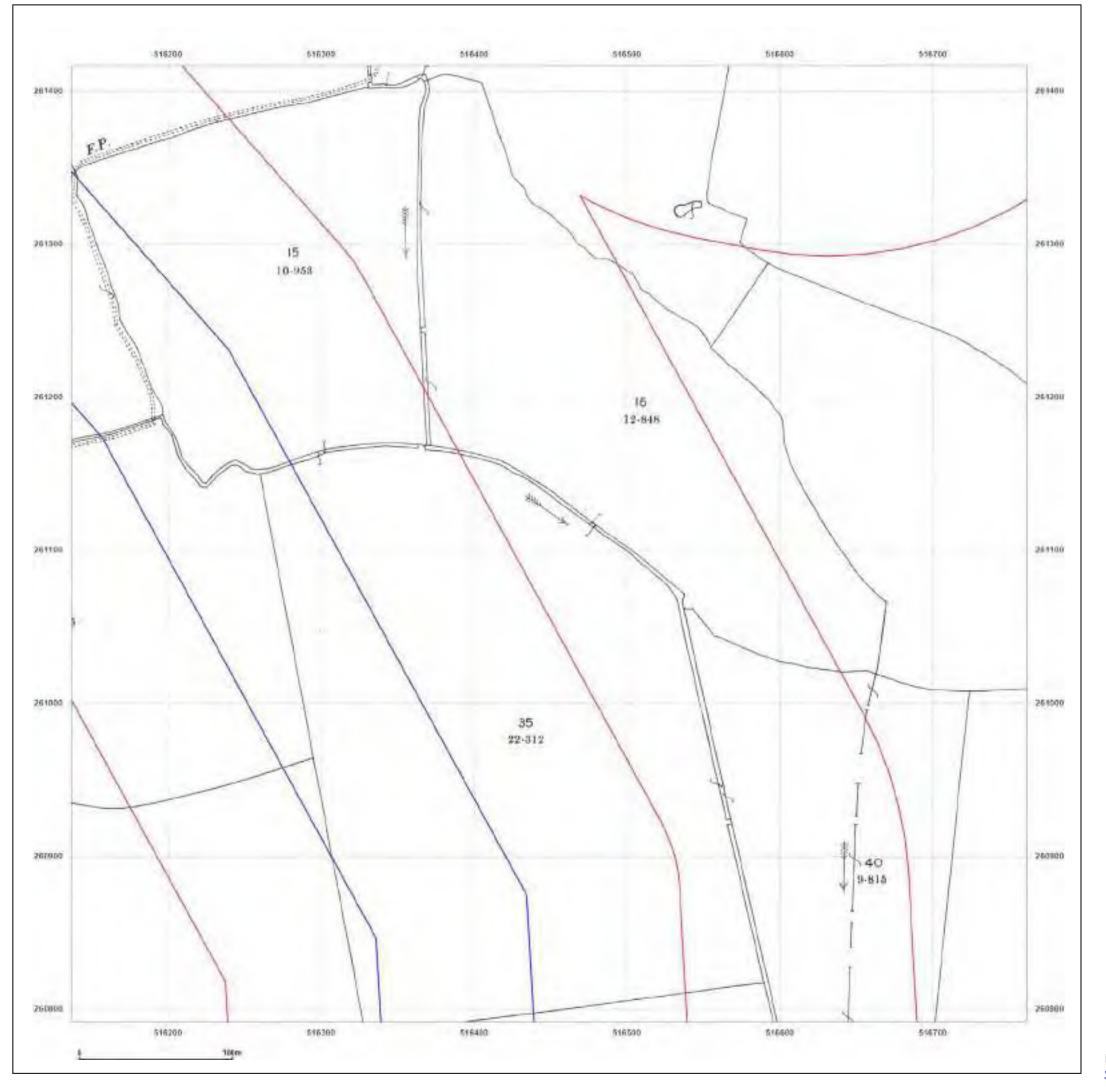




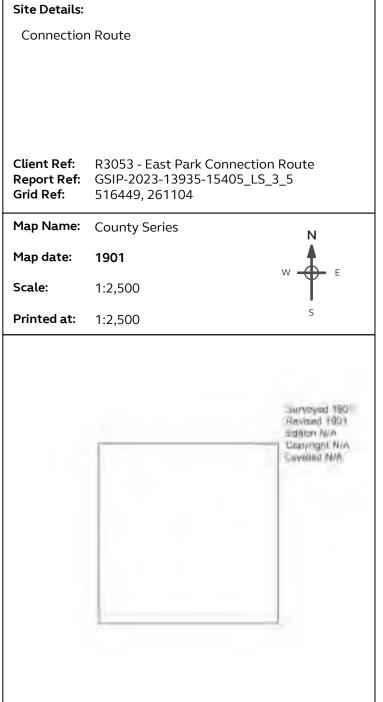
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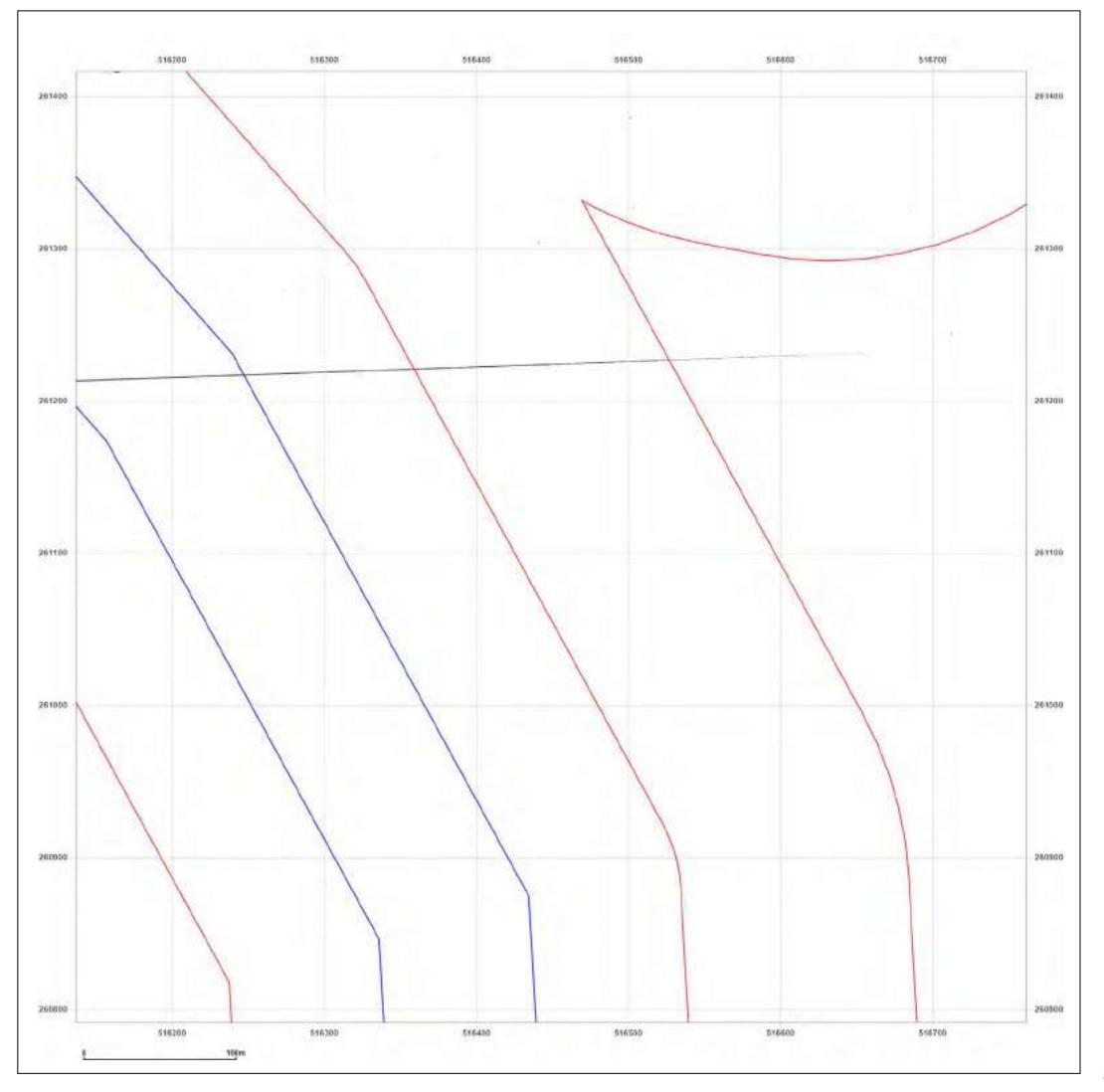




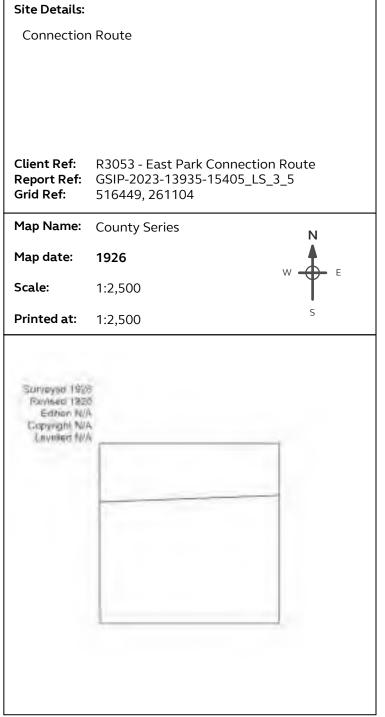
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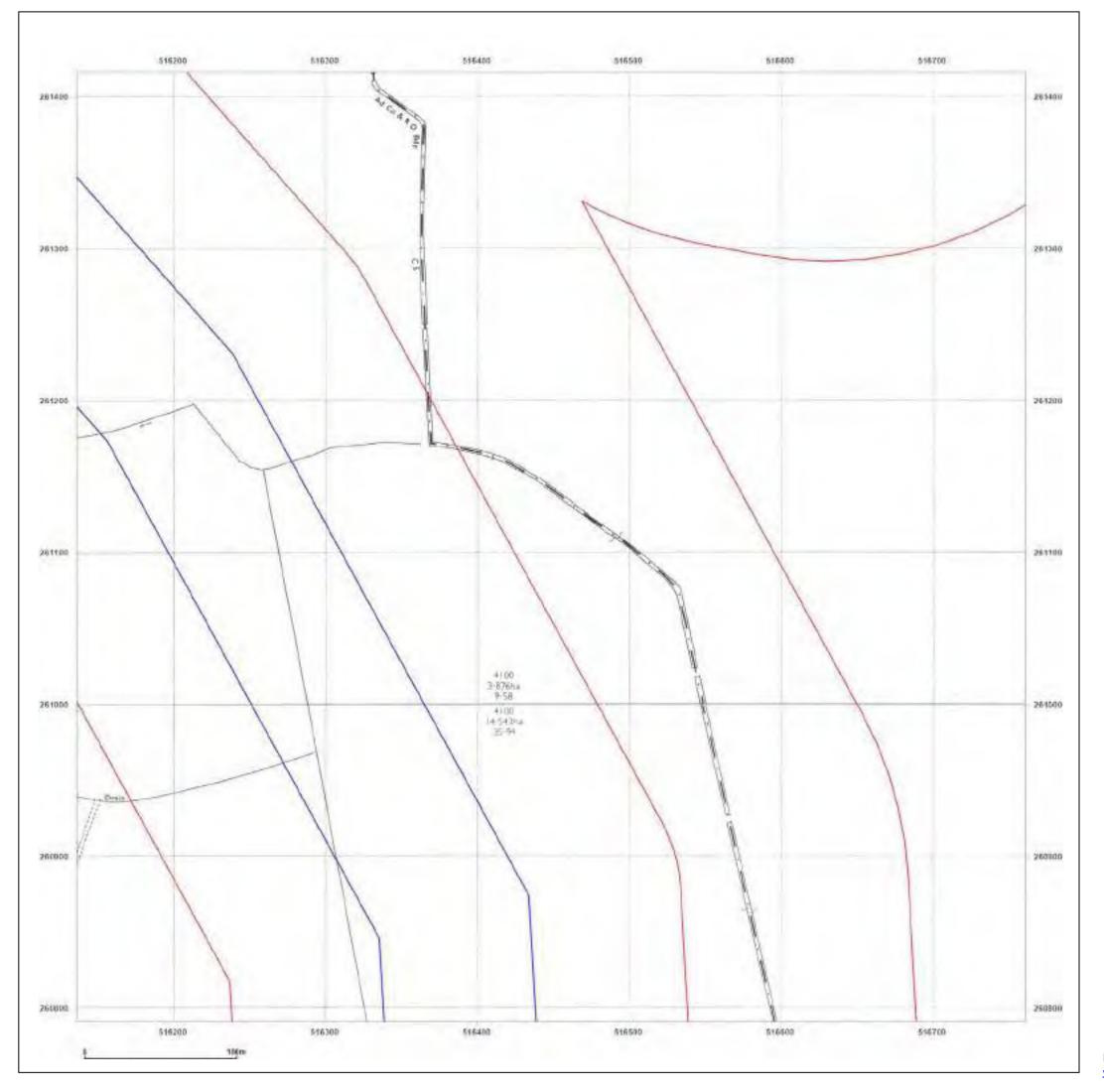




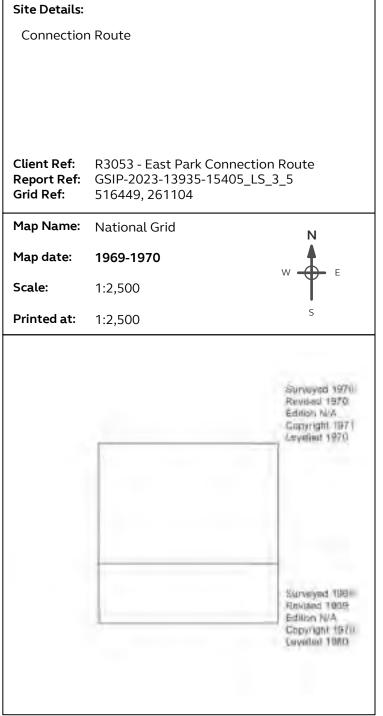
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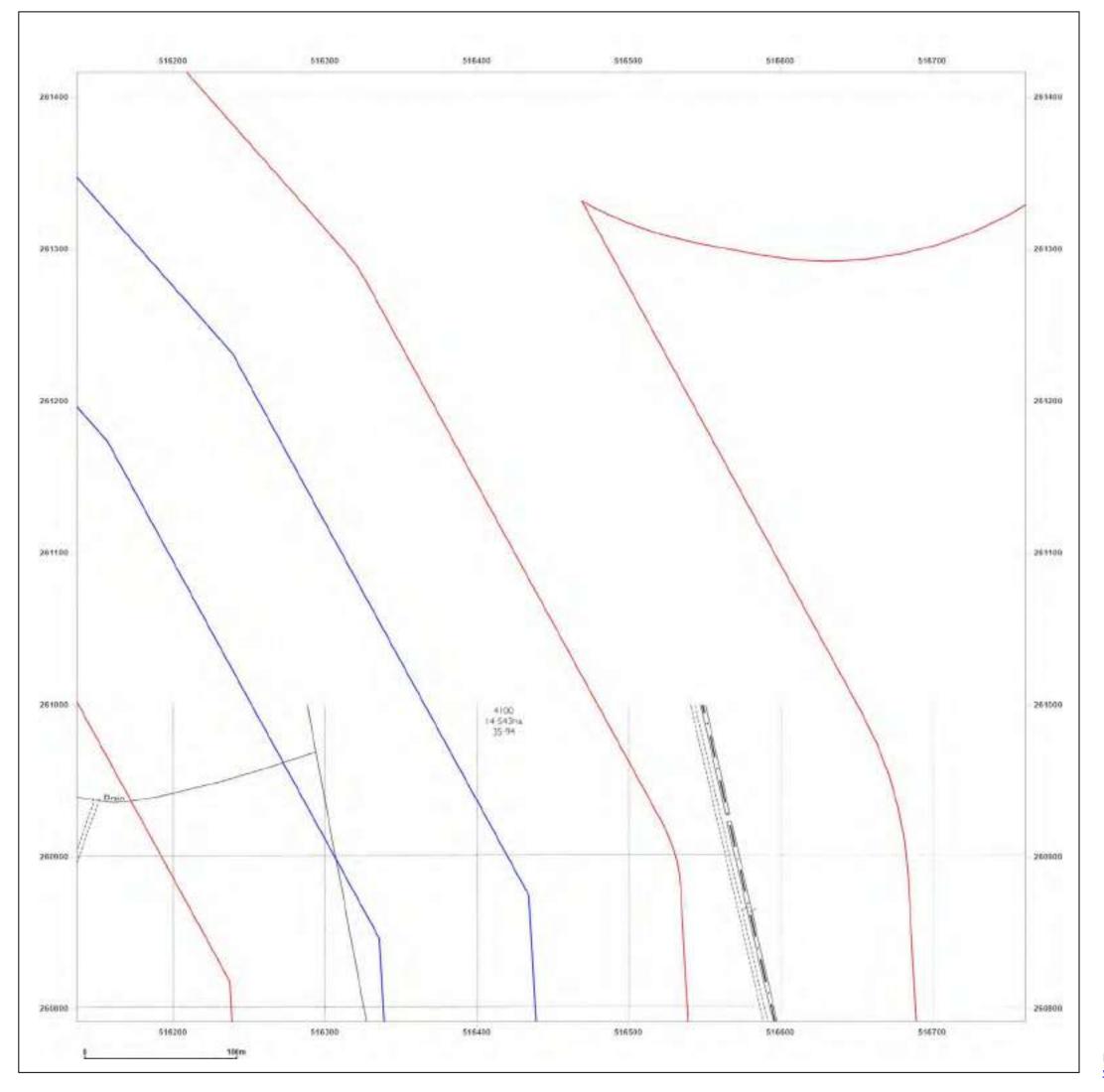




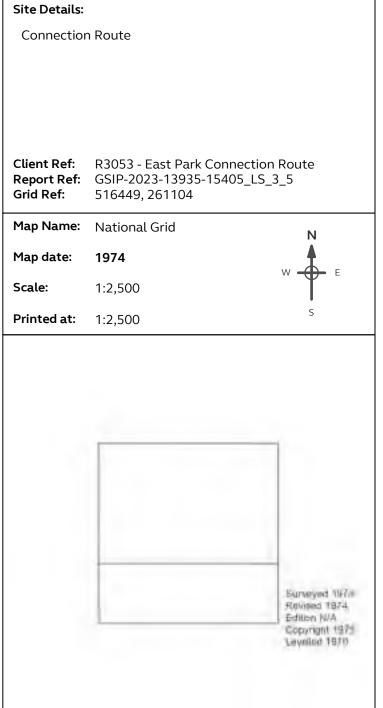
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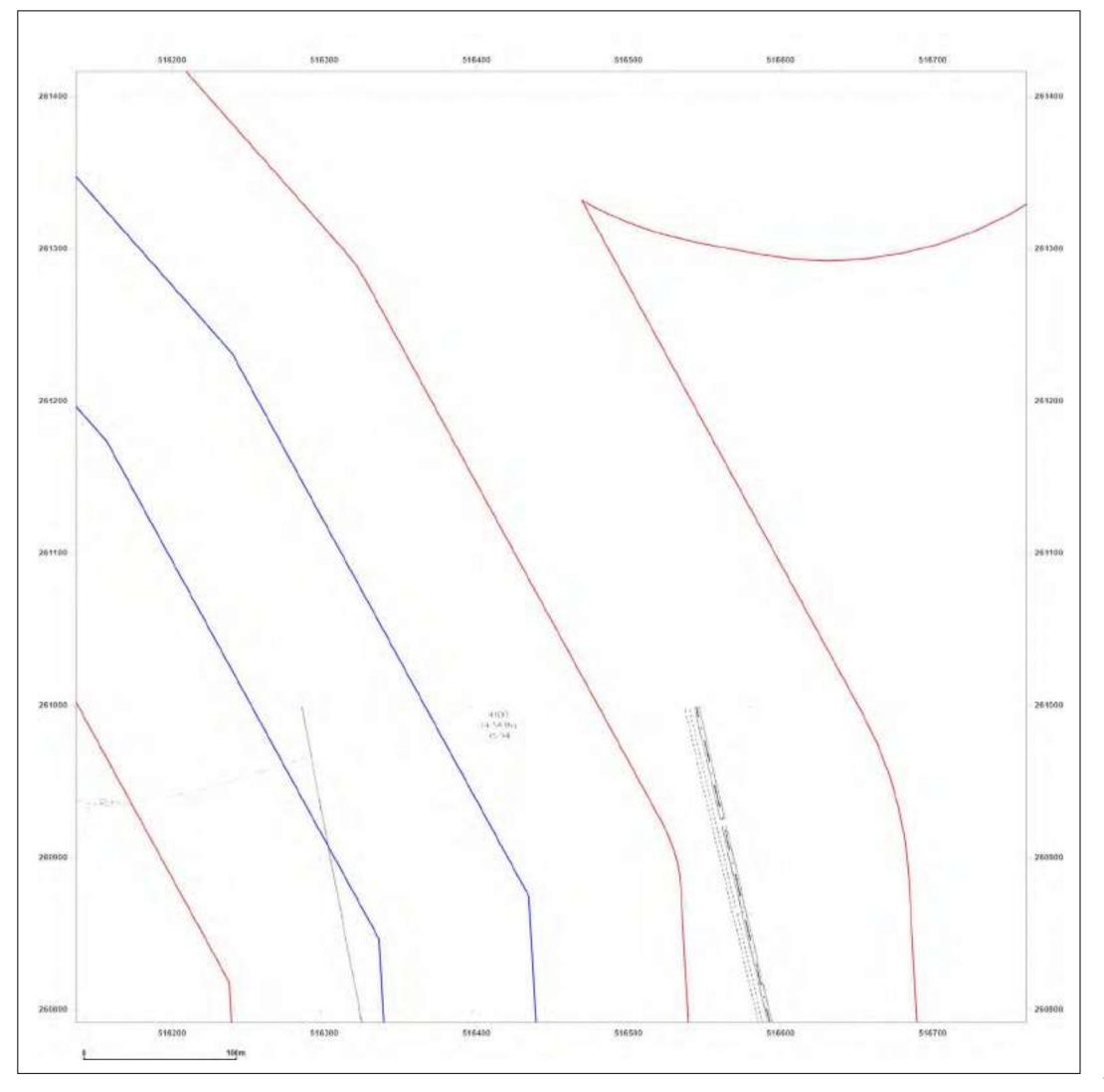




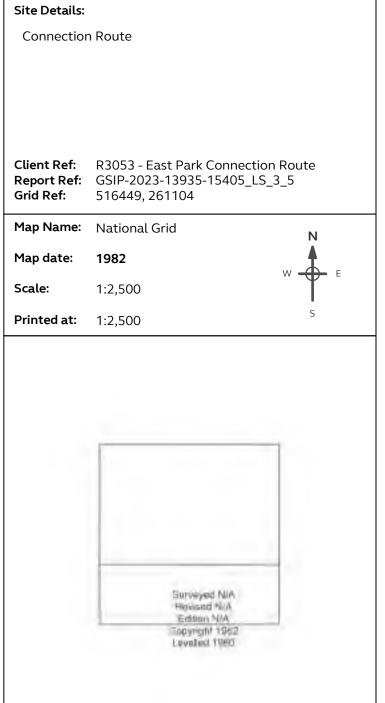
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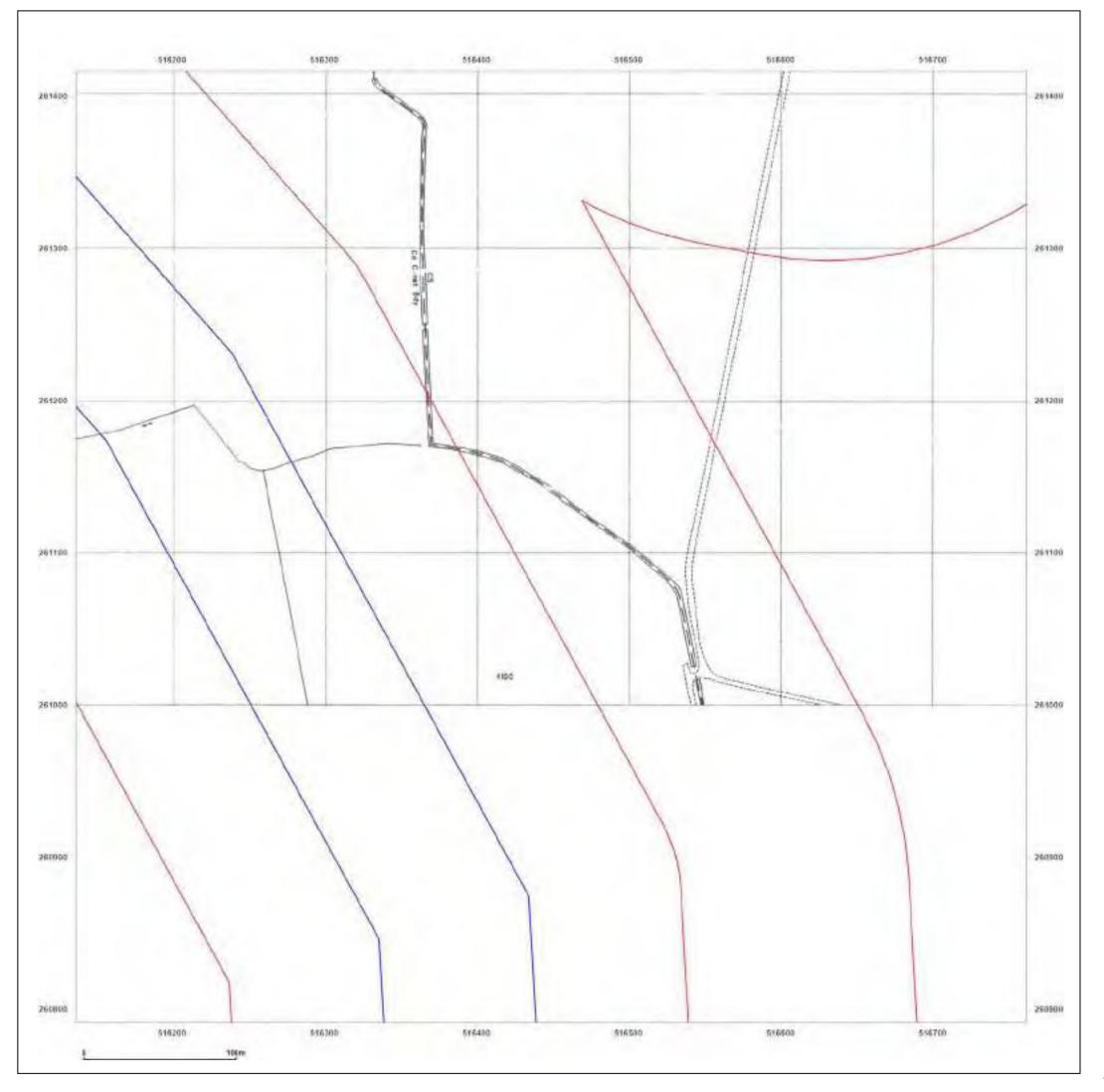




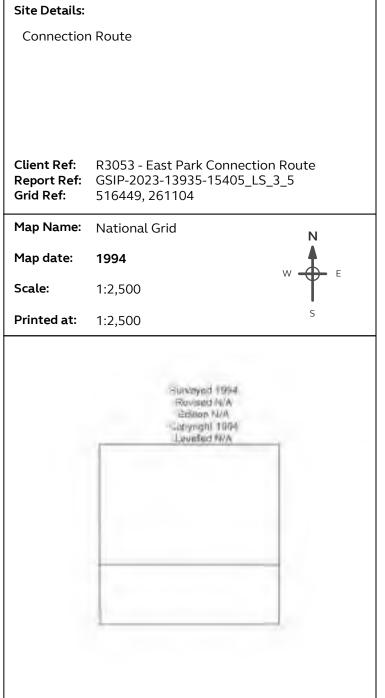
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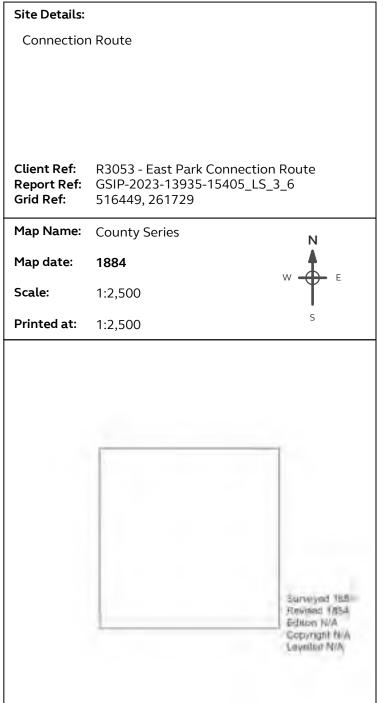
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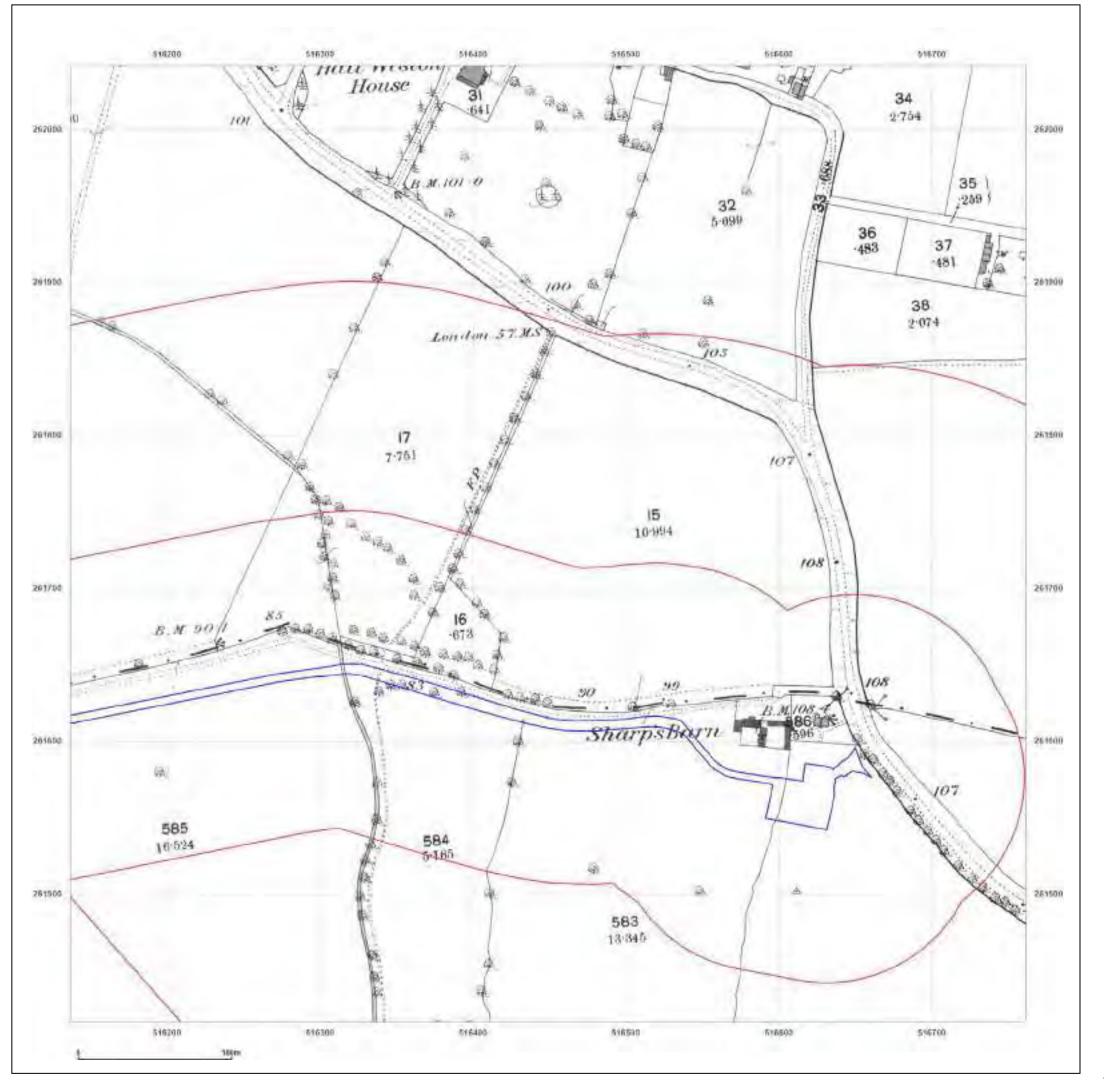




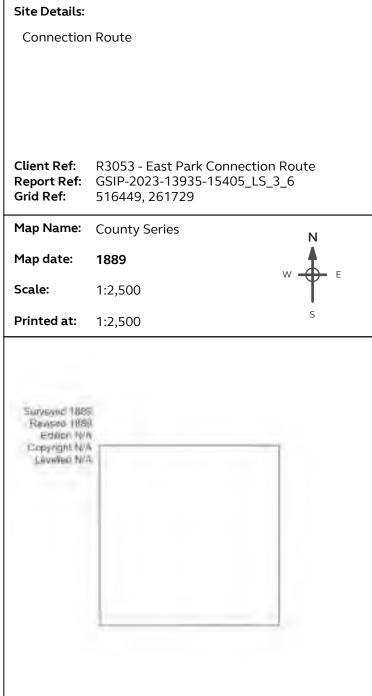
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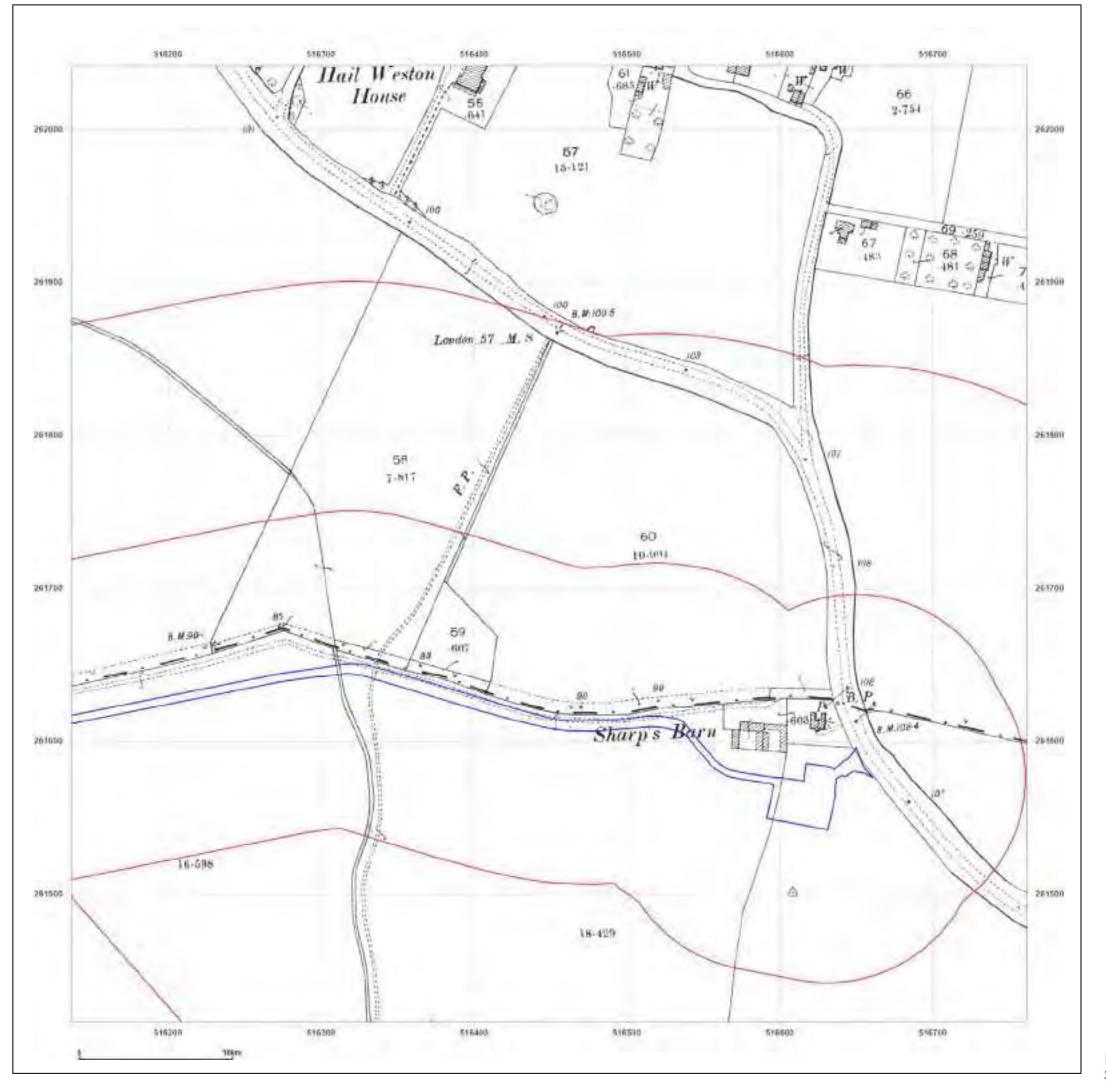




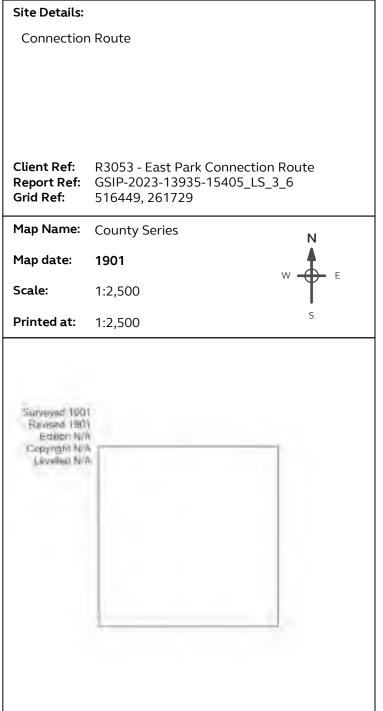
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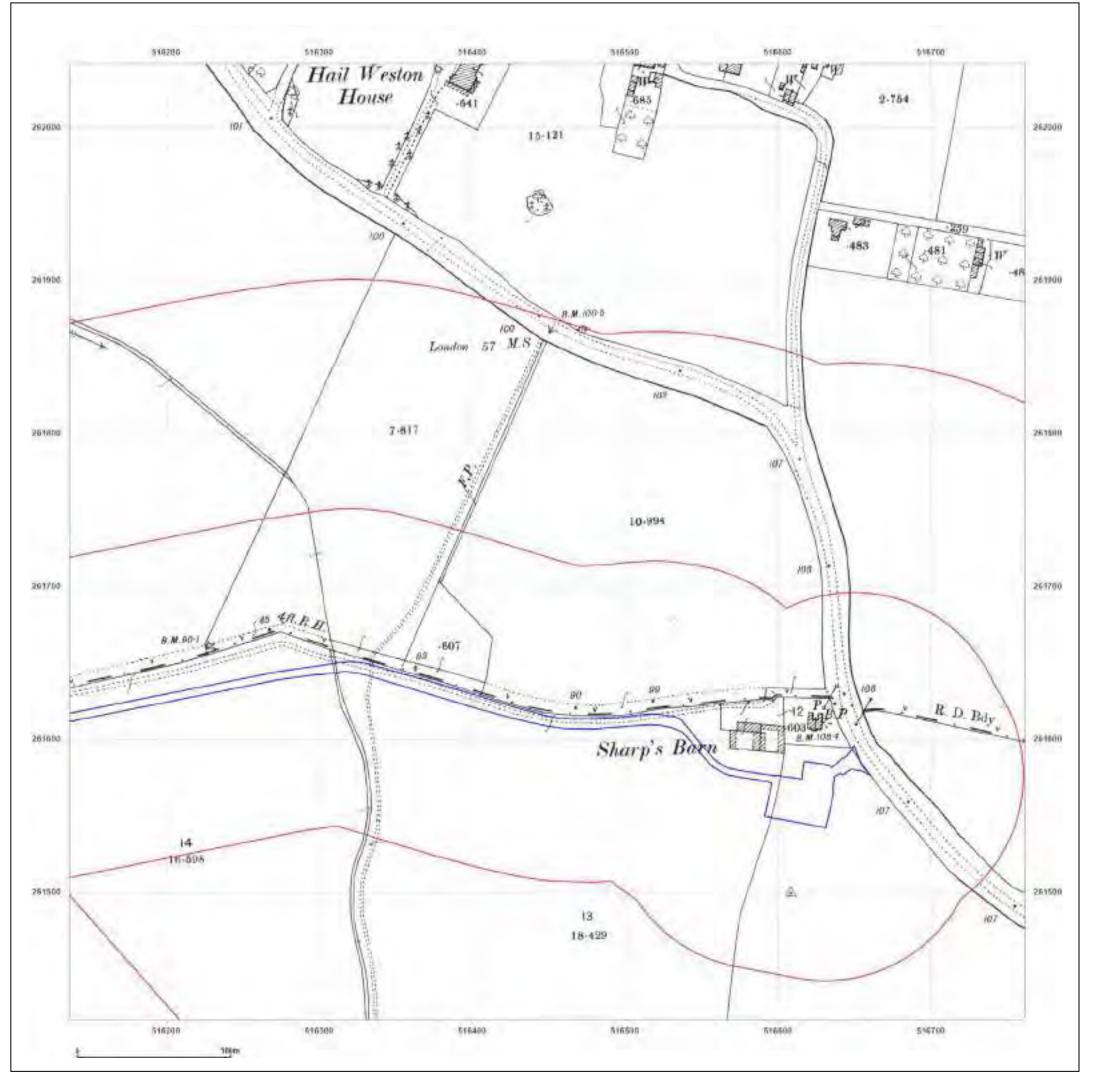




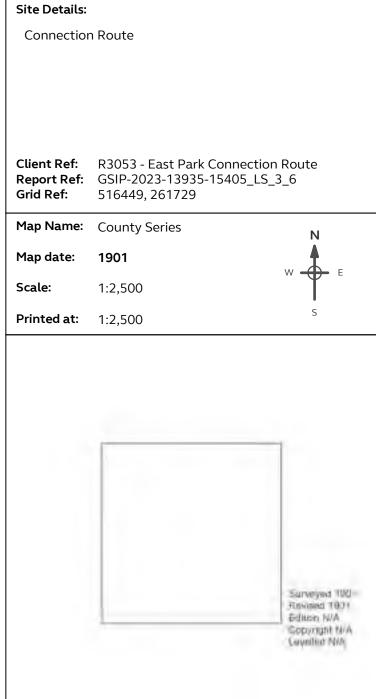
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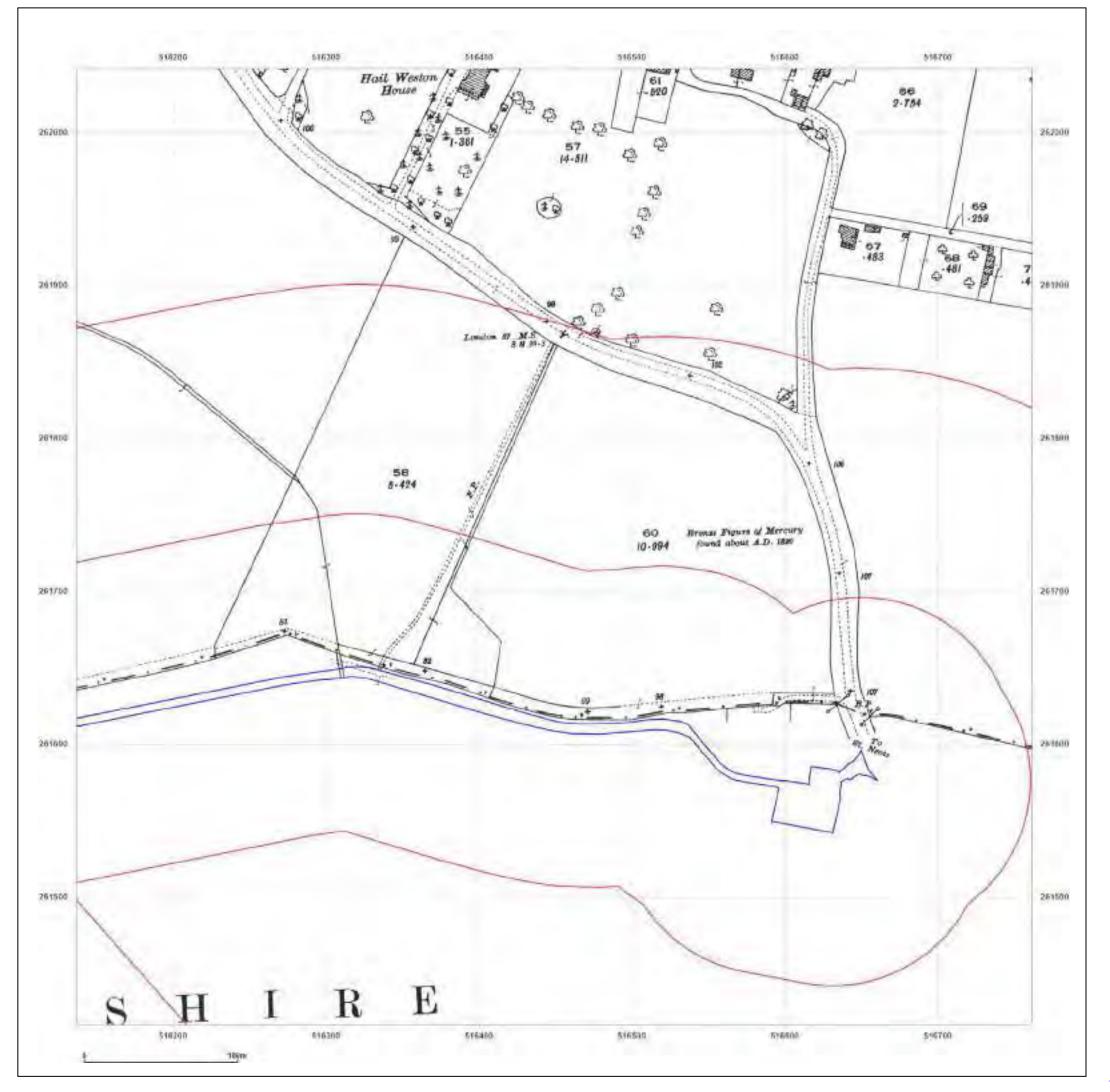




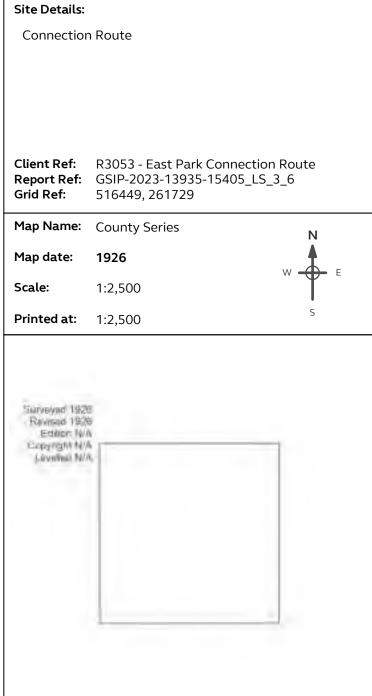
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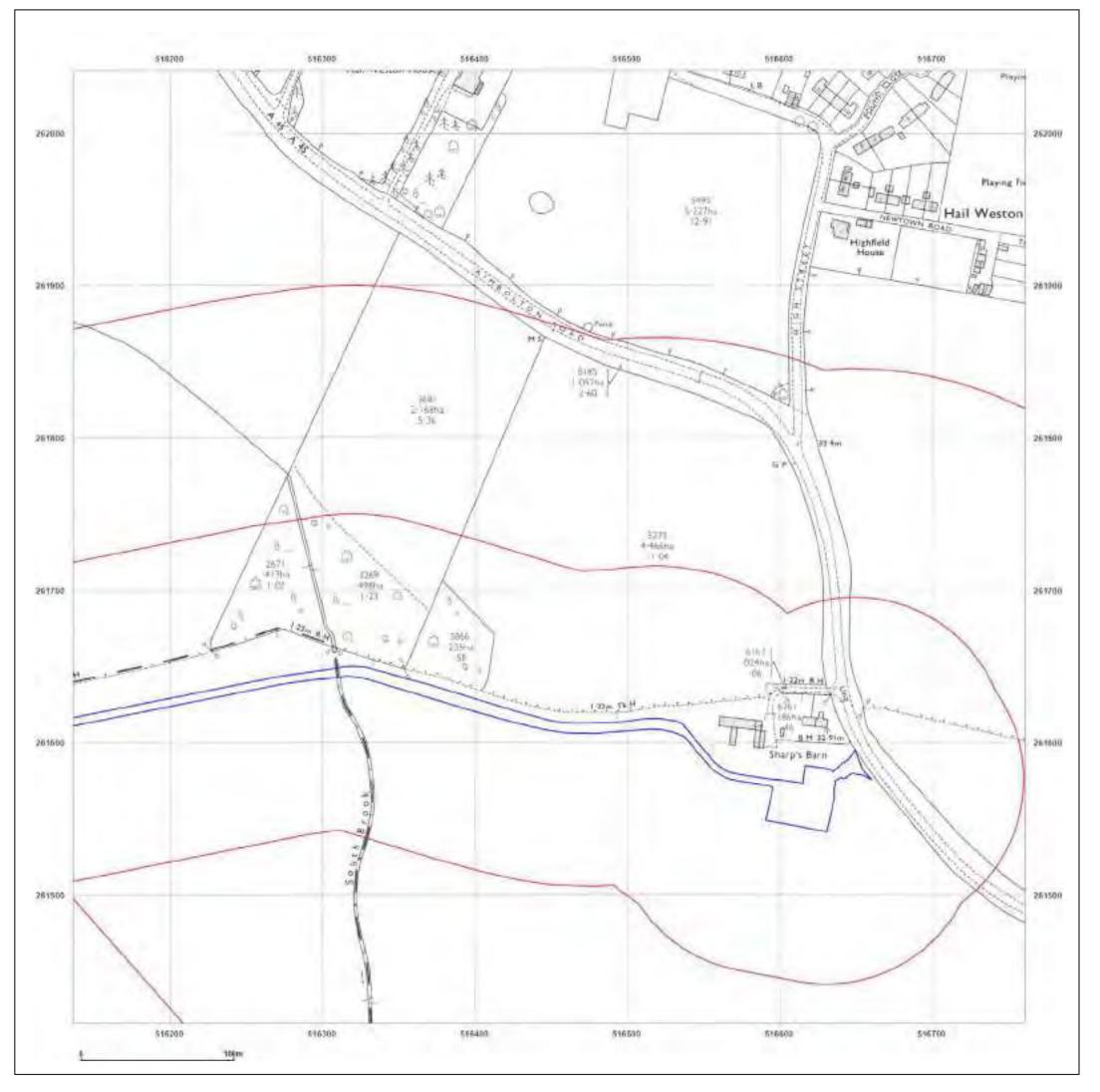




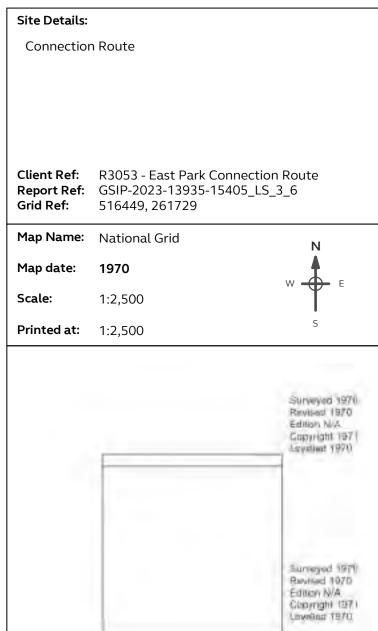
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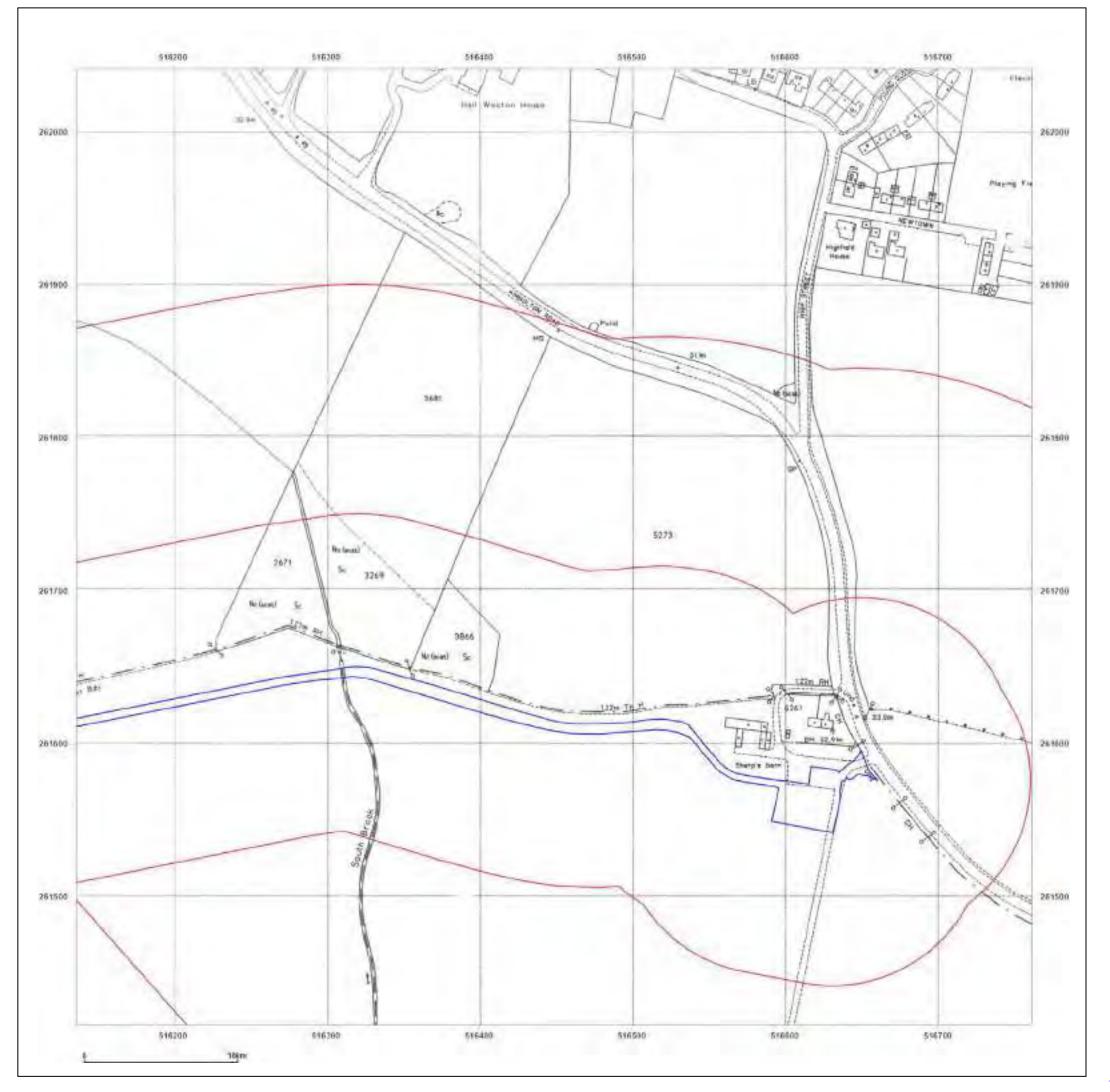




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Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_LS_3_6 Grid Ref: 516449, 261729

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500

Revised N/A Edition N/A Copyright 1964 Leveled N/A Surveyed 1994 Revised N/A Edition N/A Copyright 1984 Levelled N/A

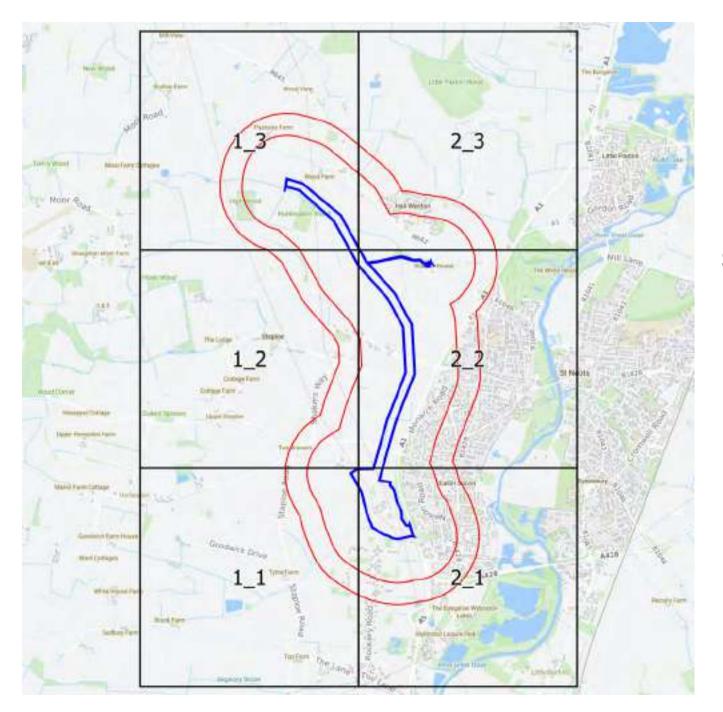


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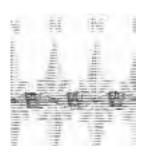
Production date: 30 August 2023

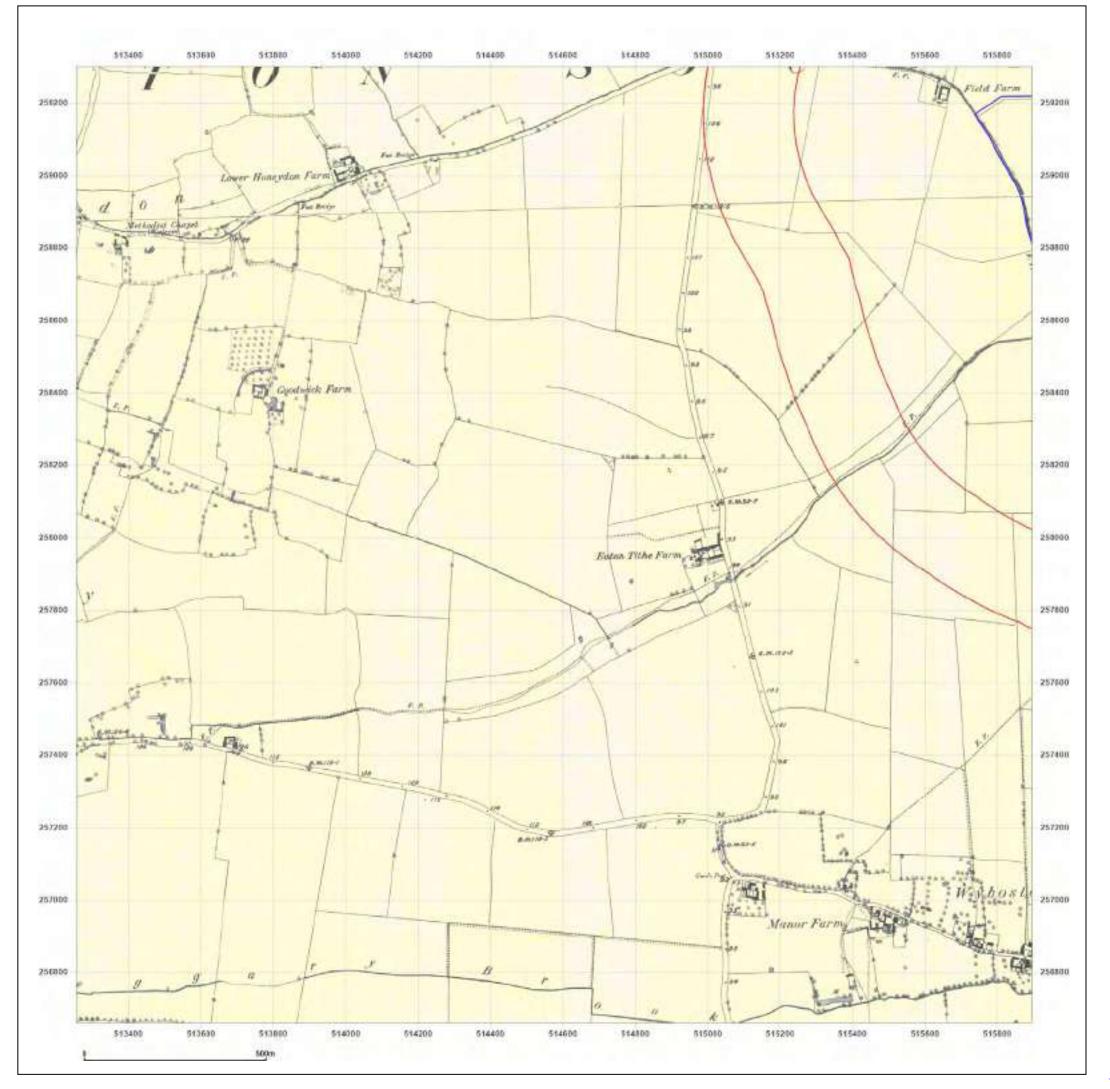
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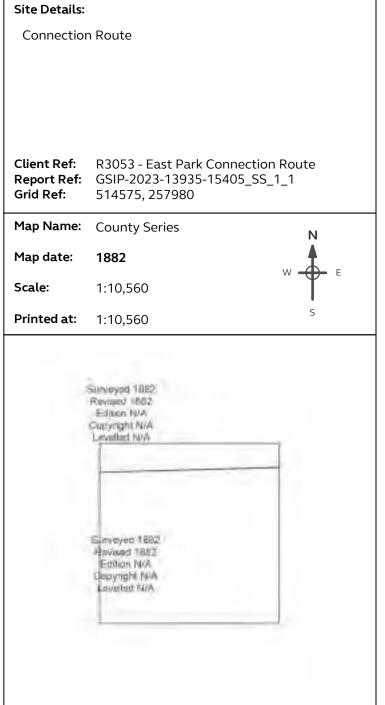


Small Scale Grid Index







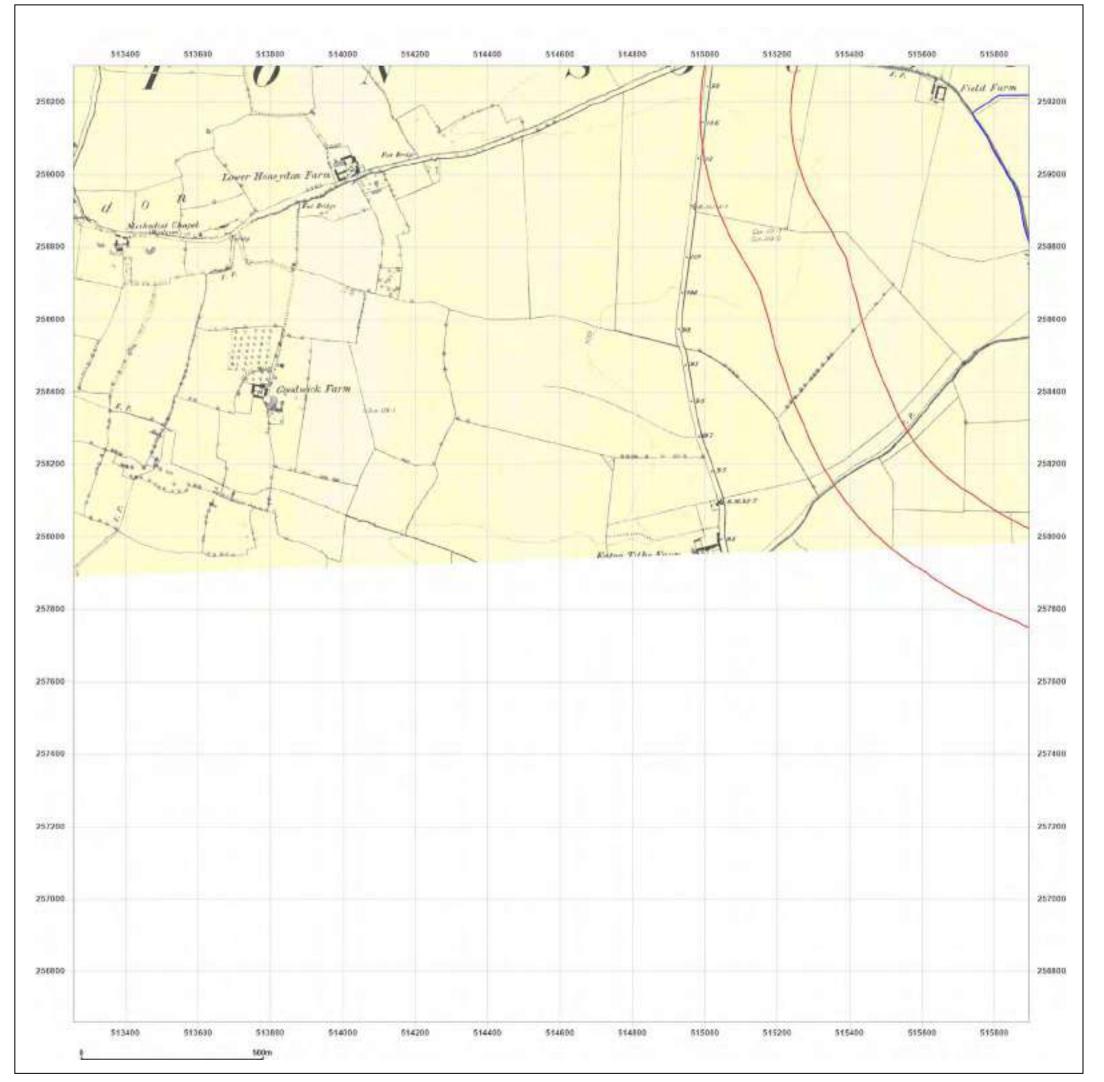




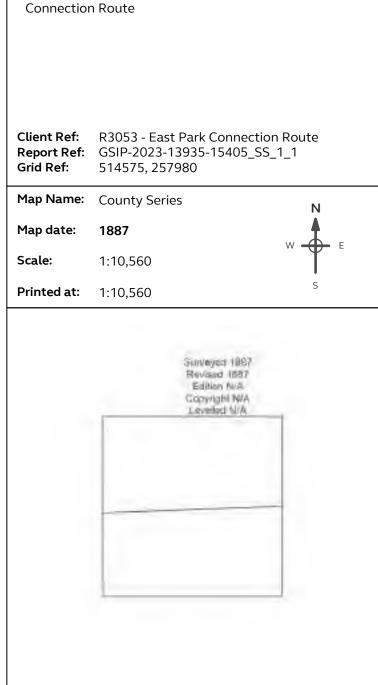
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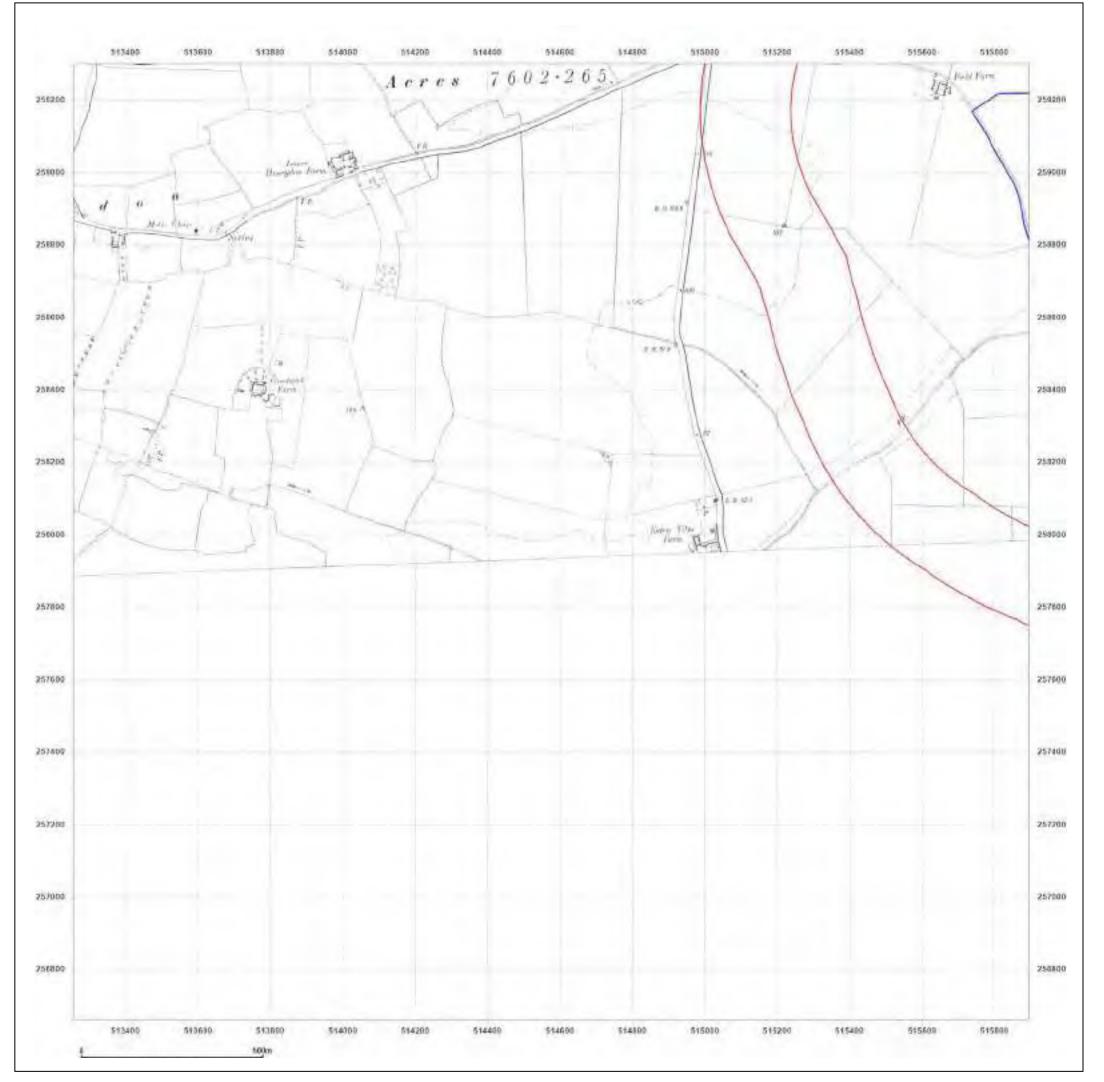


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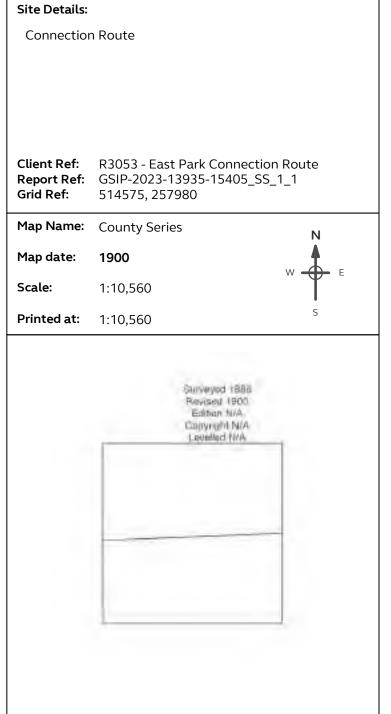
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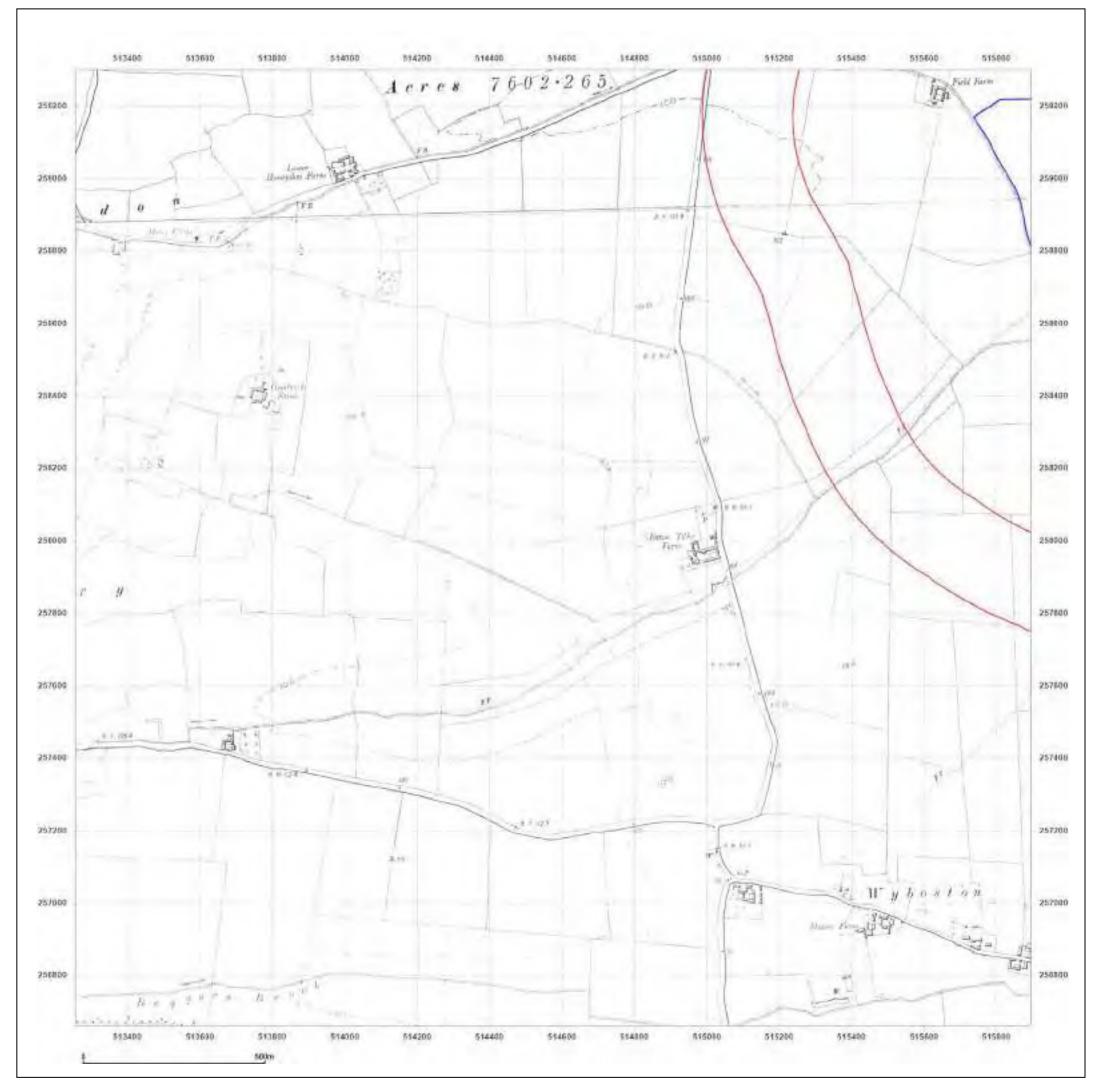




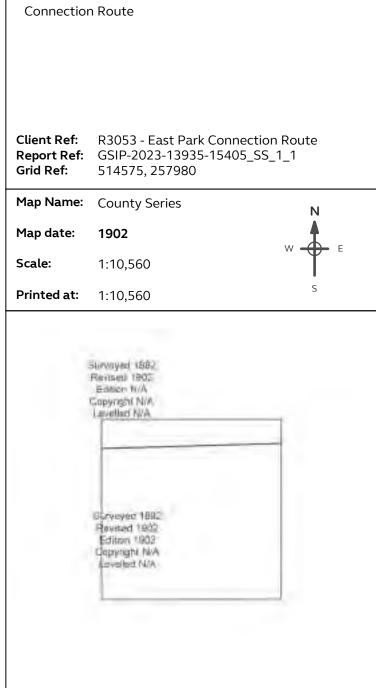
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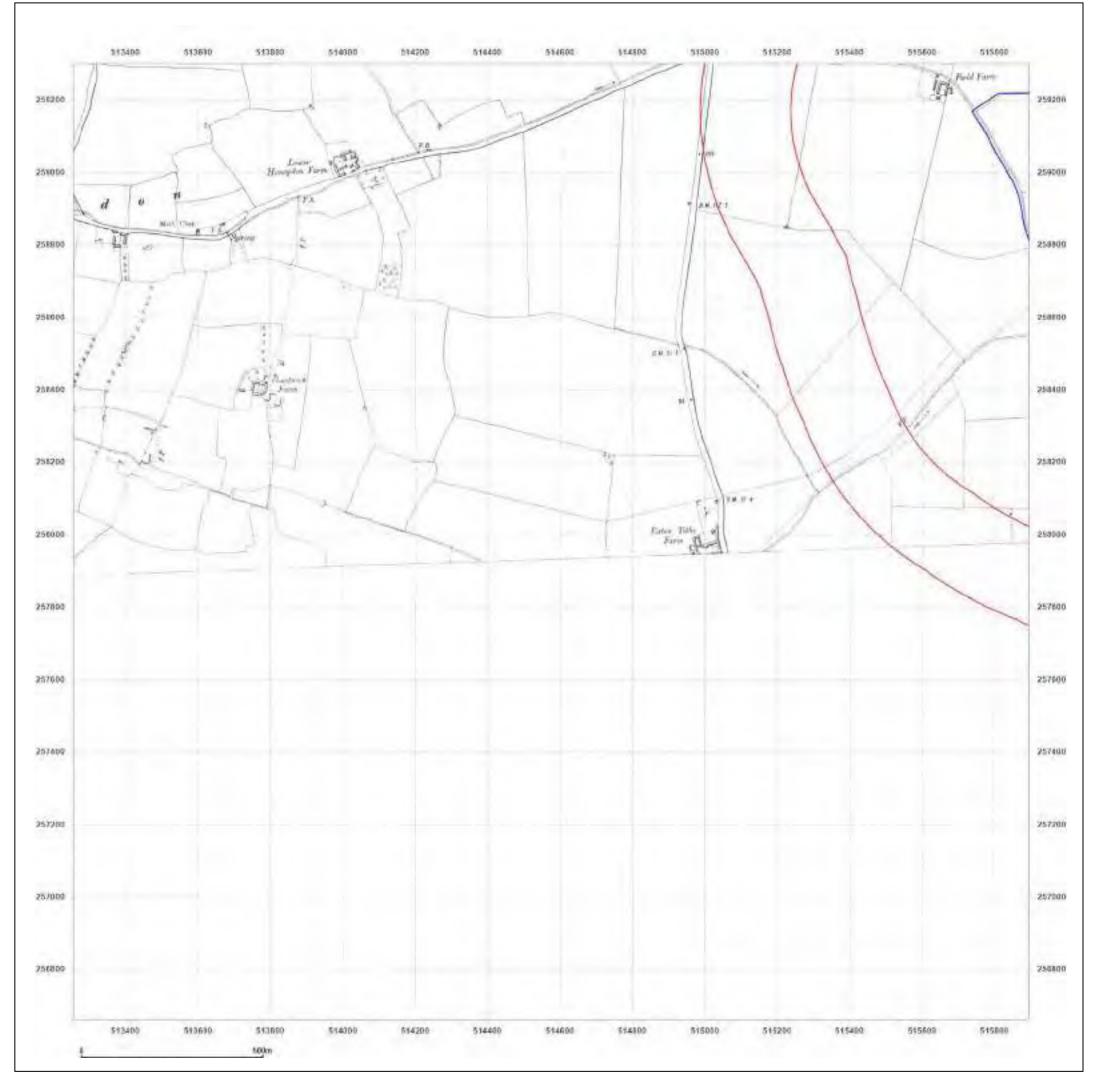


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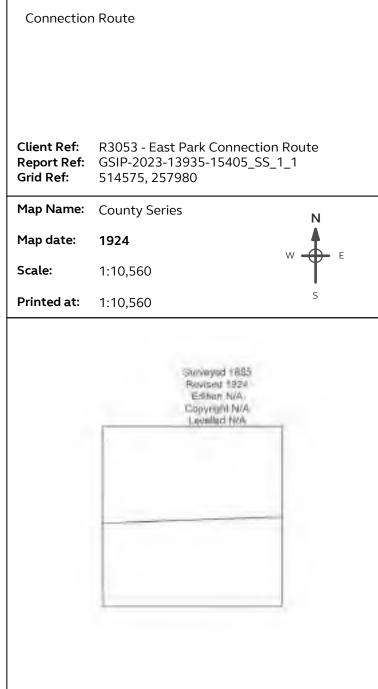
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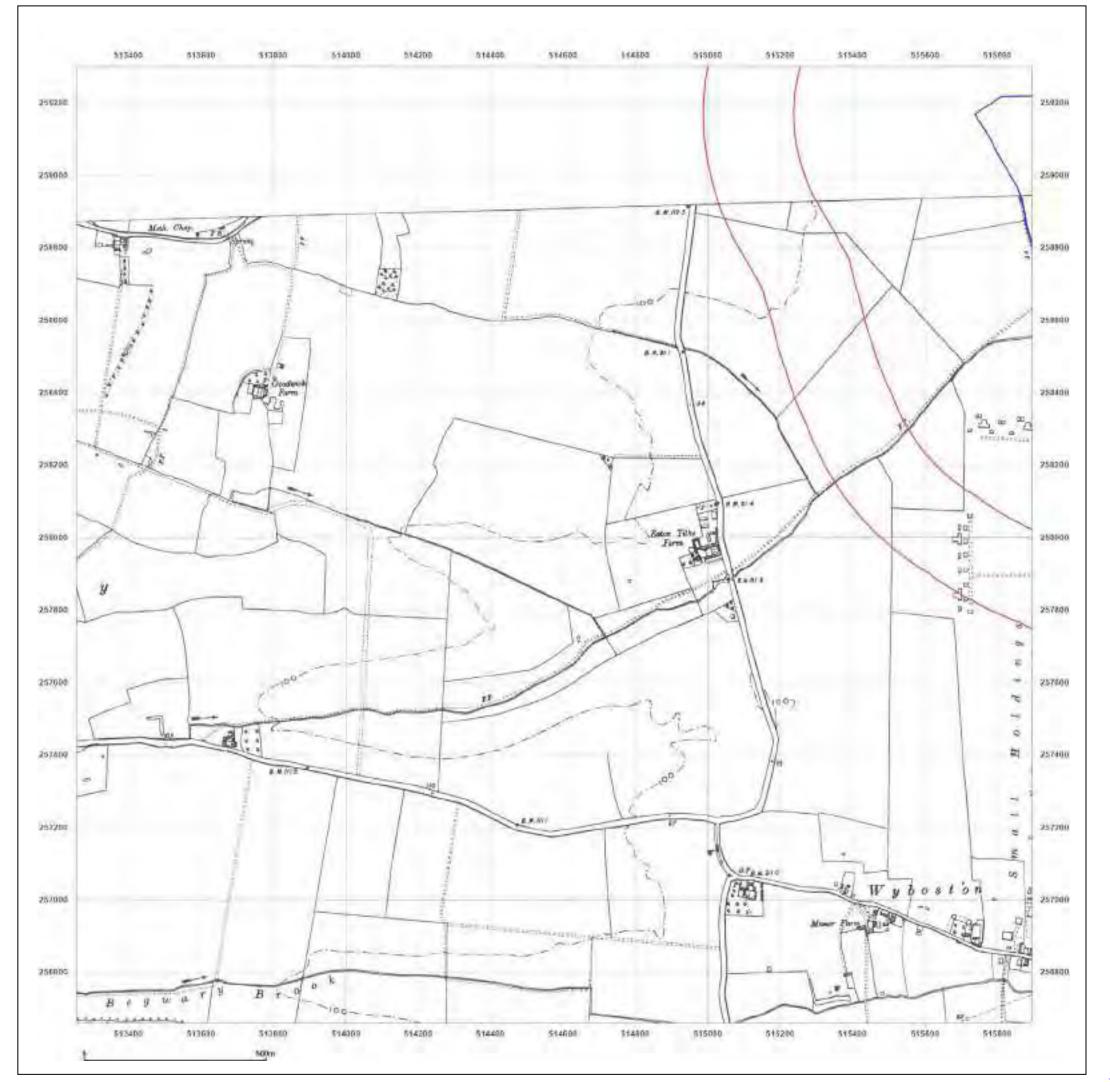


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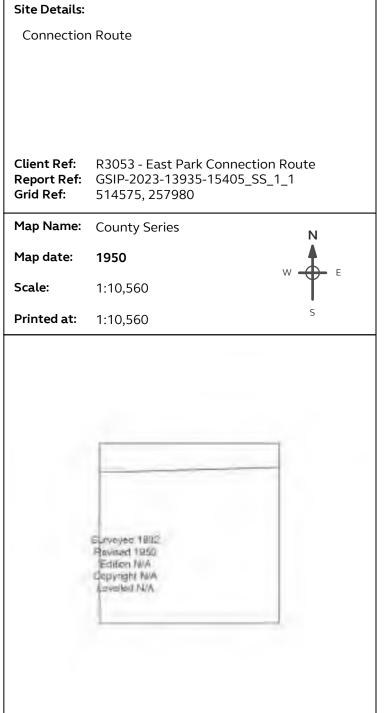
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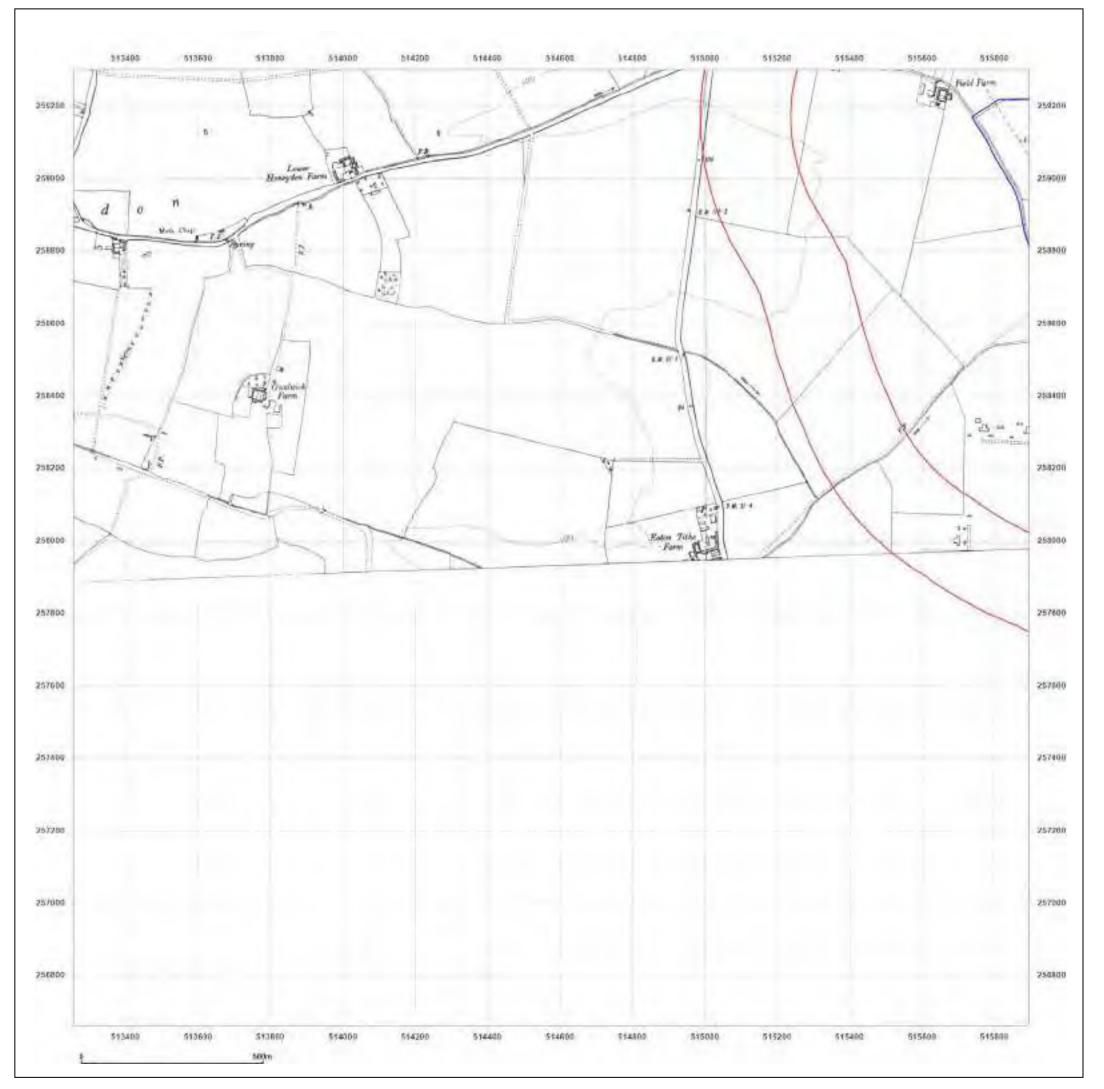




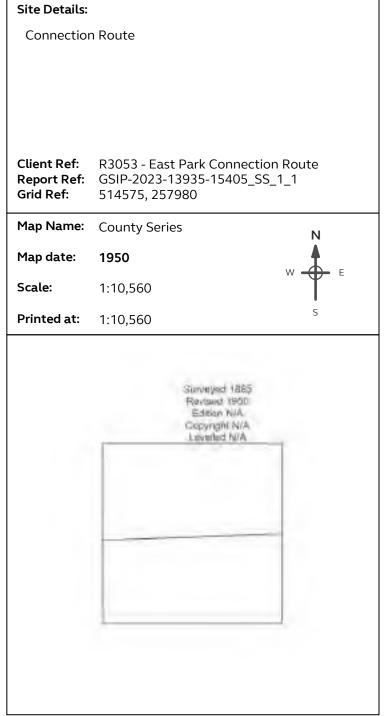
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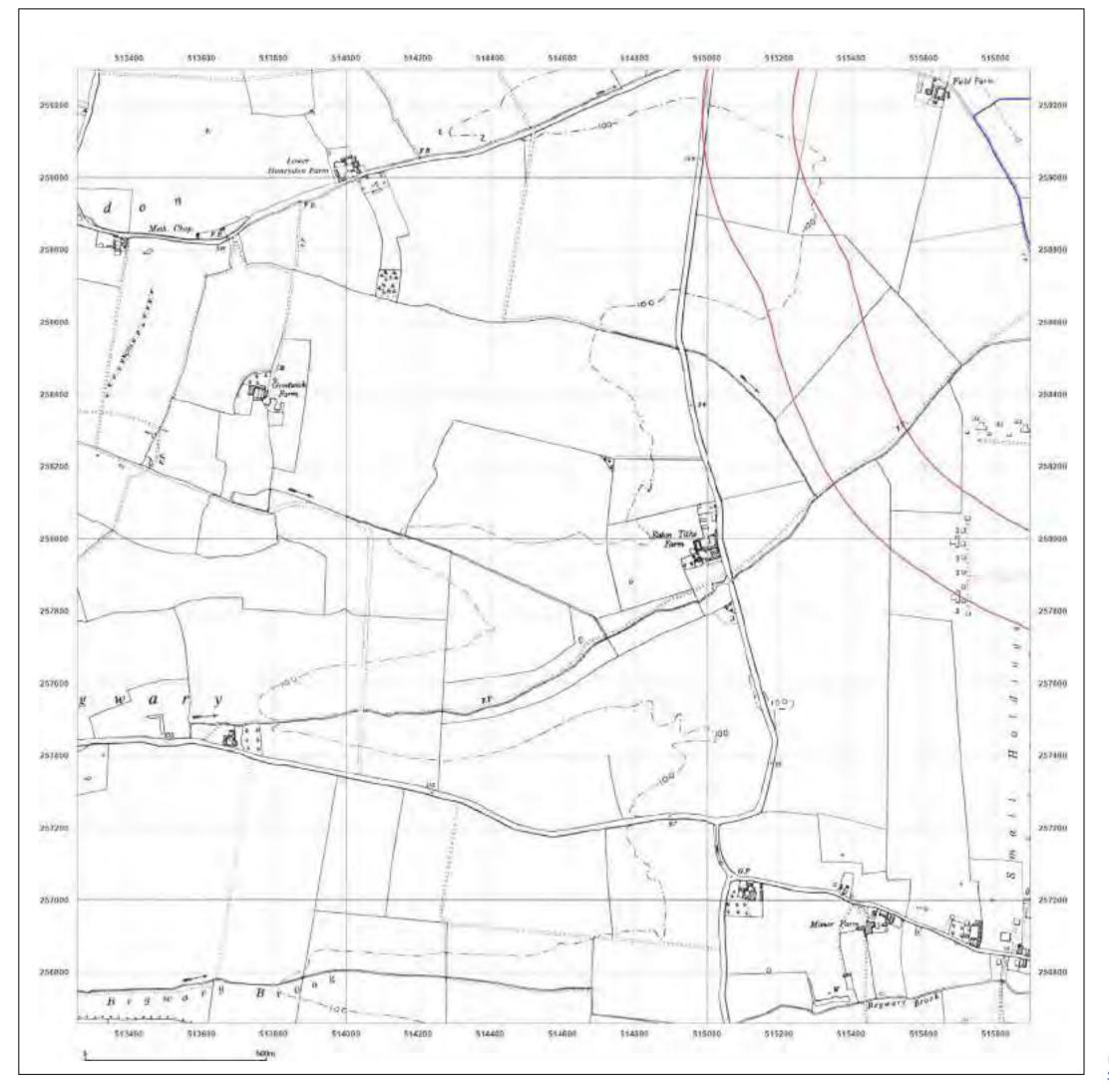




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Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_1_1

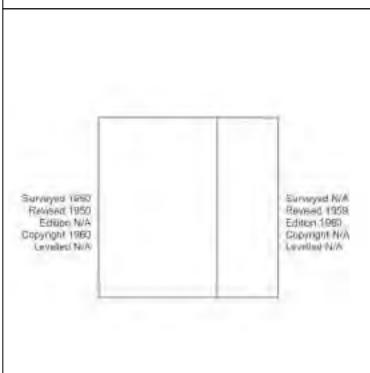
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Map date: 1960

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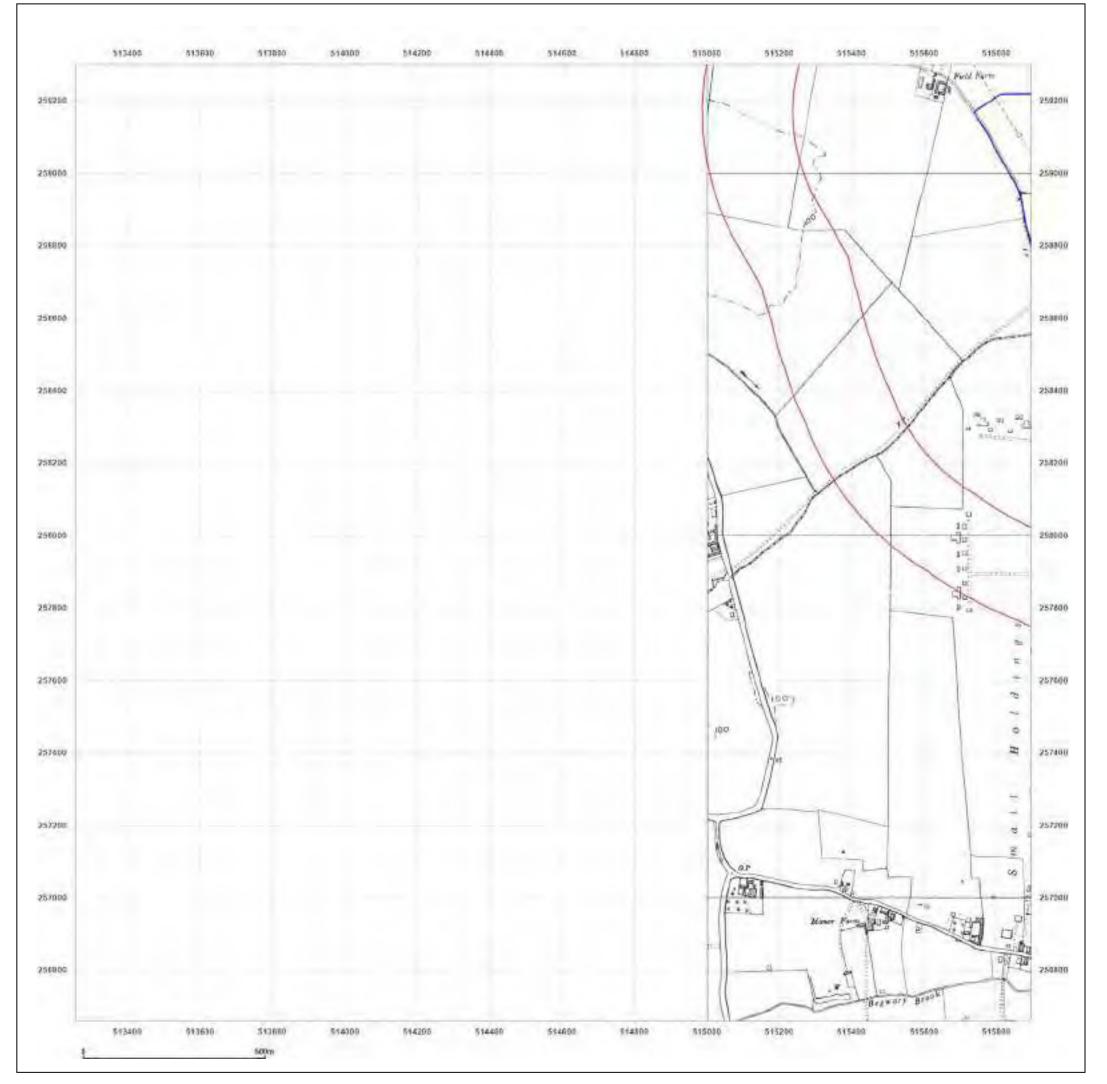


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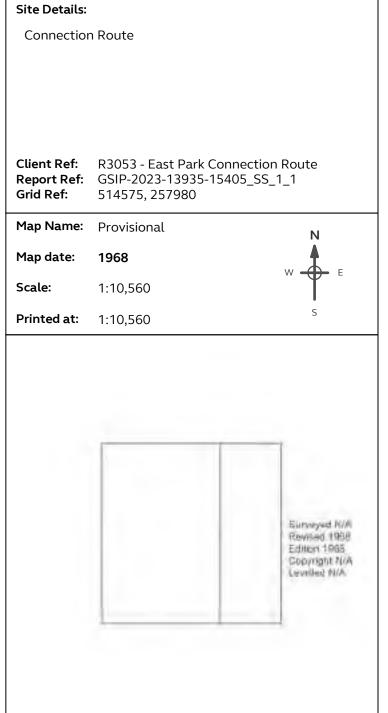
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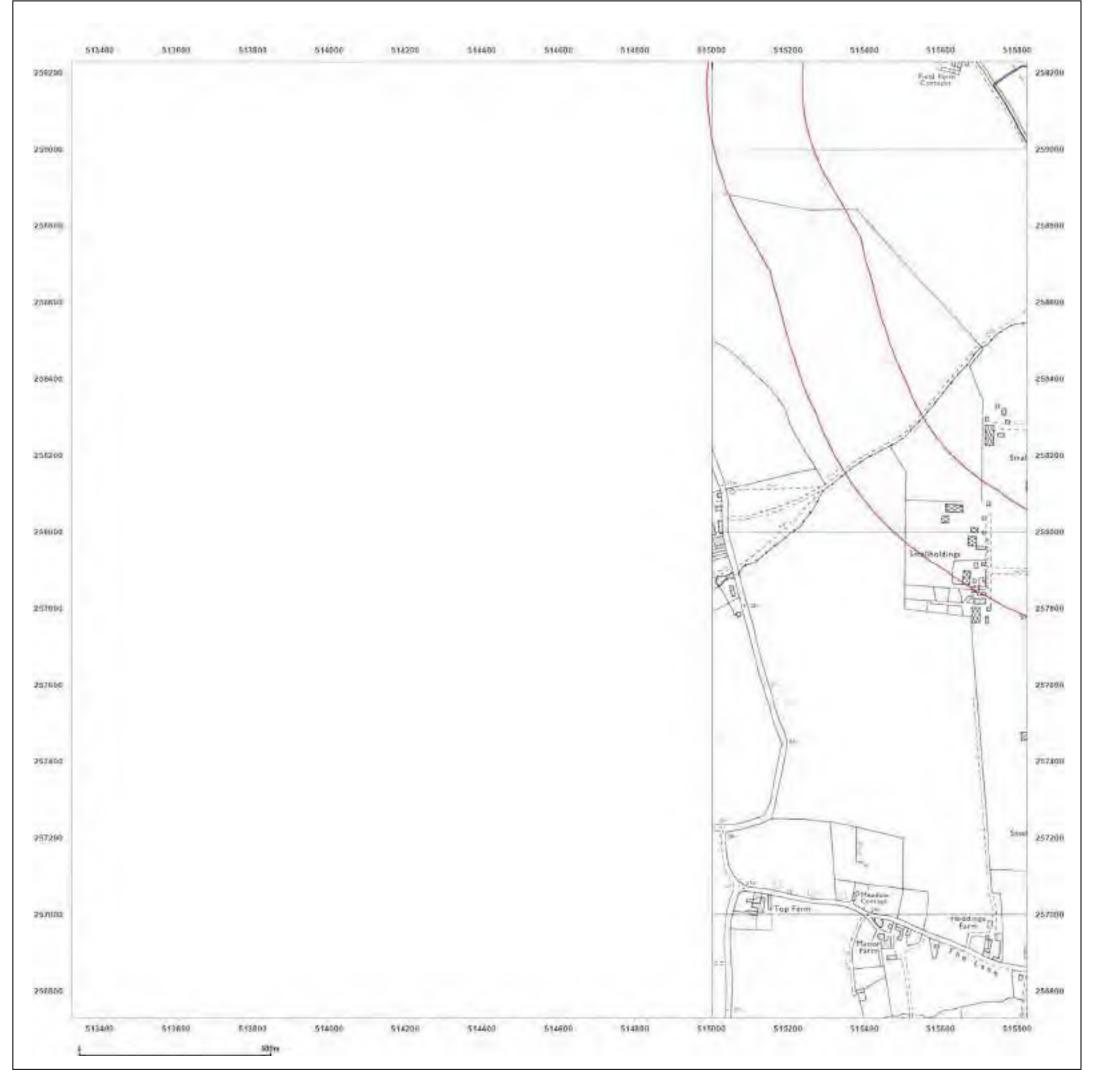




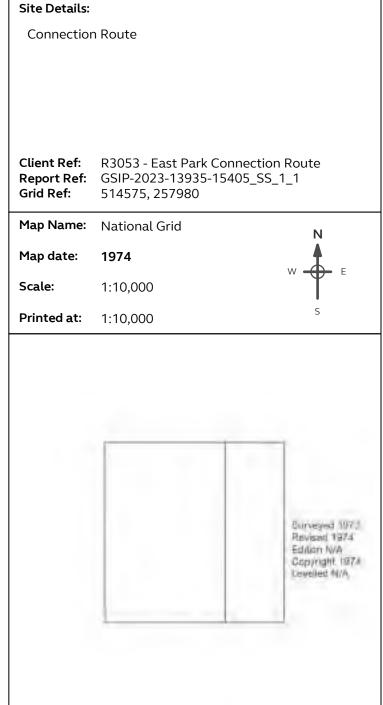
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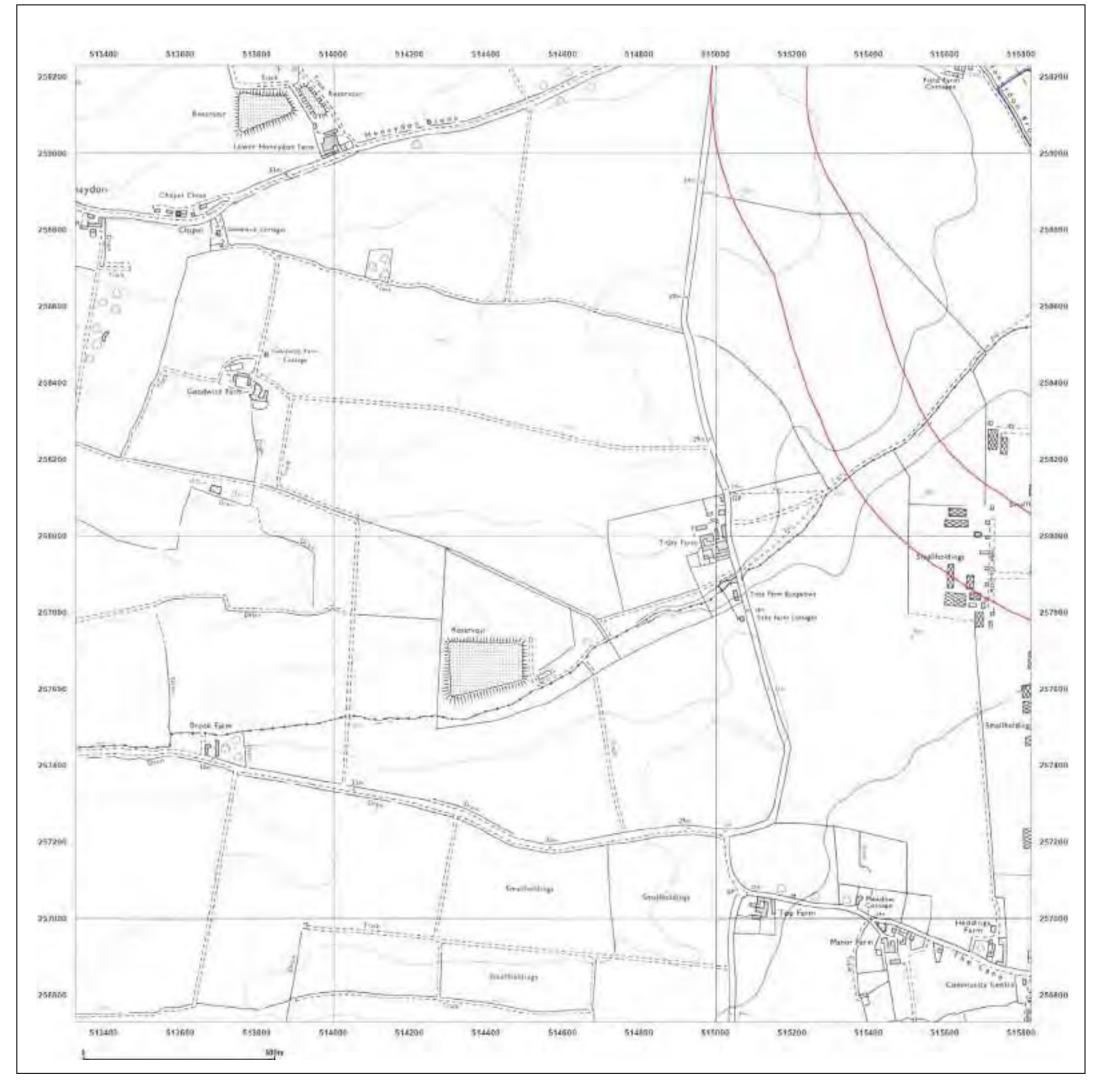




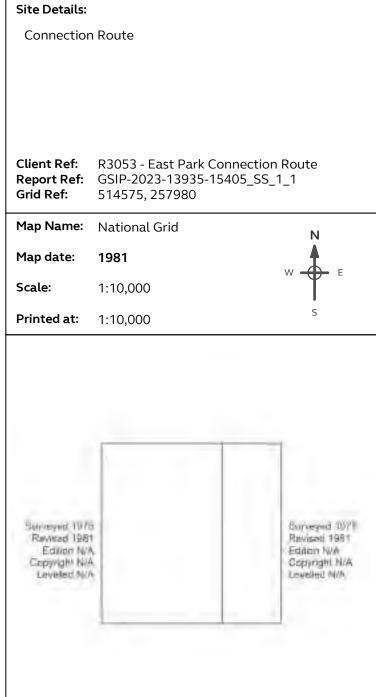
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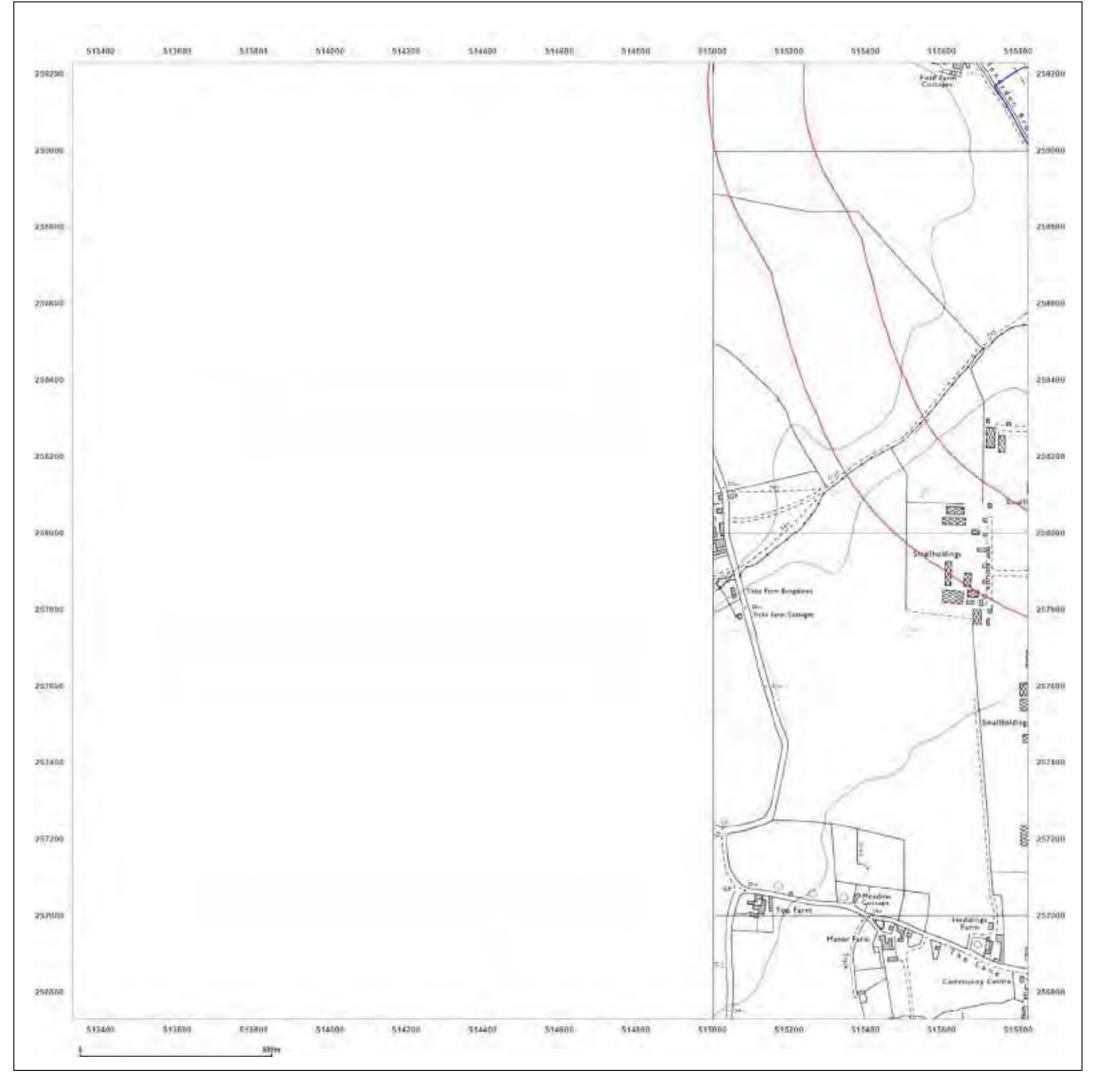




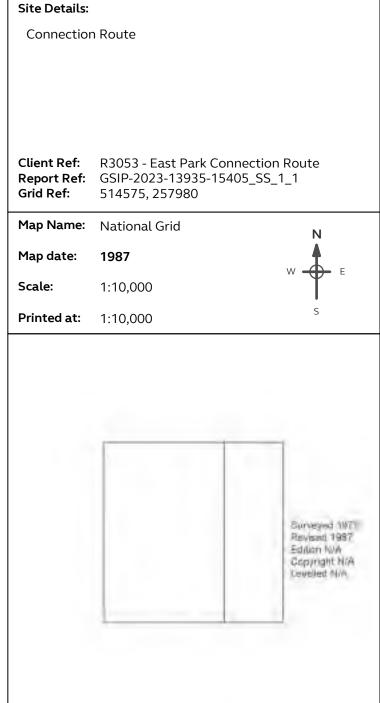
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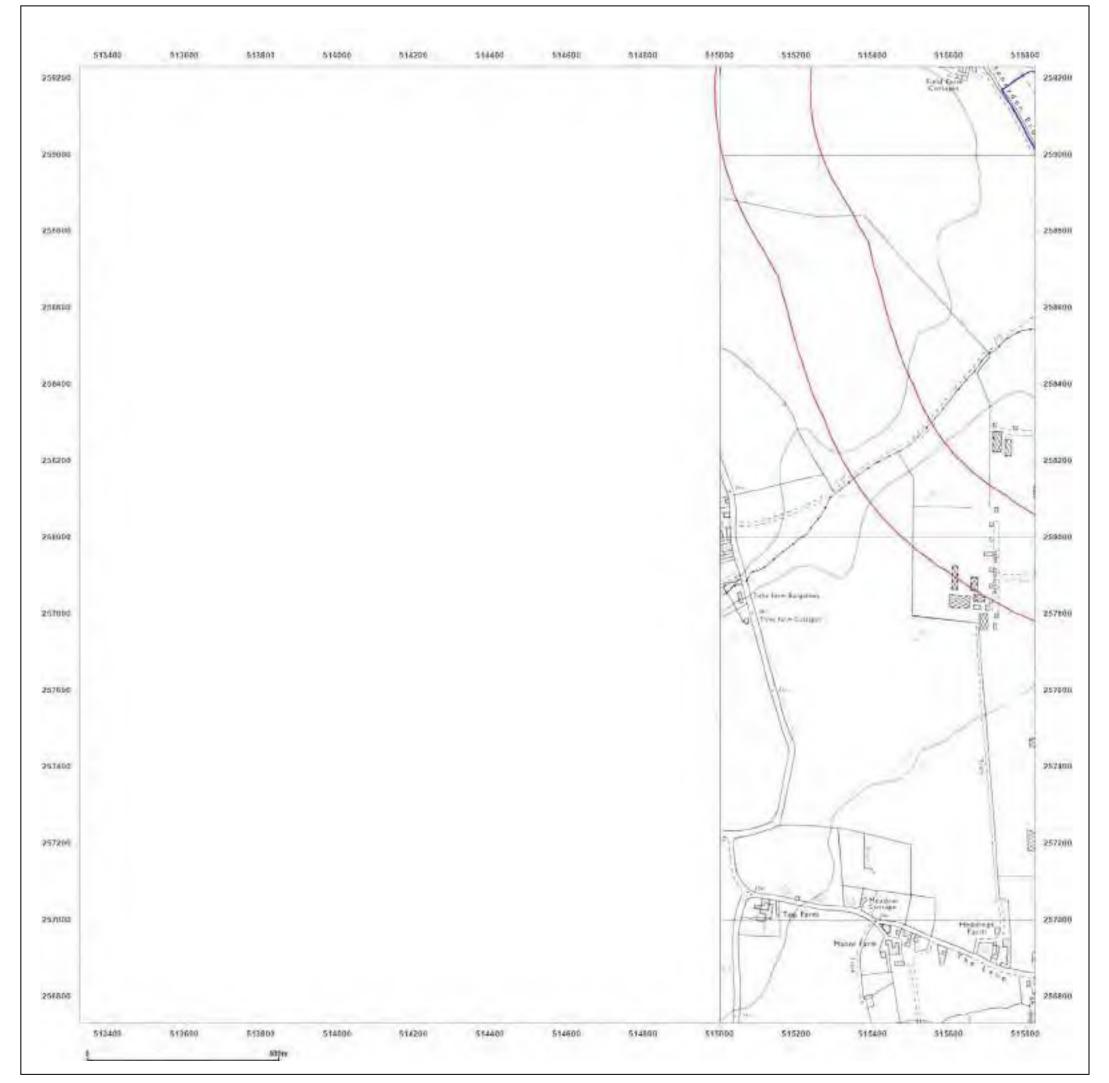




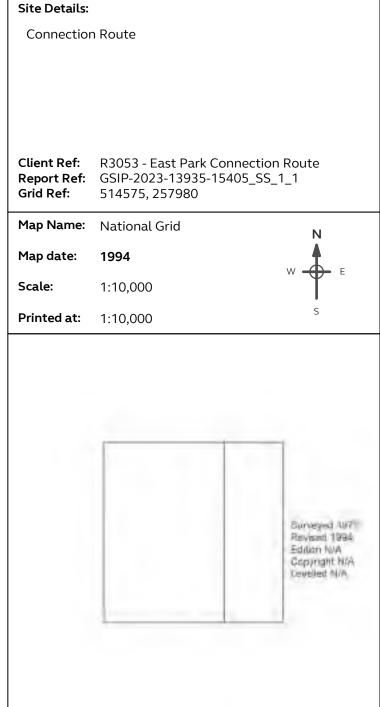
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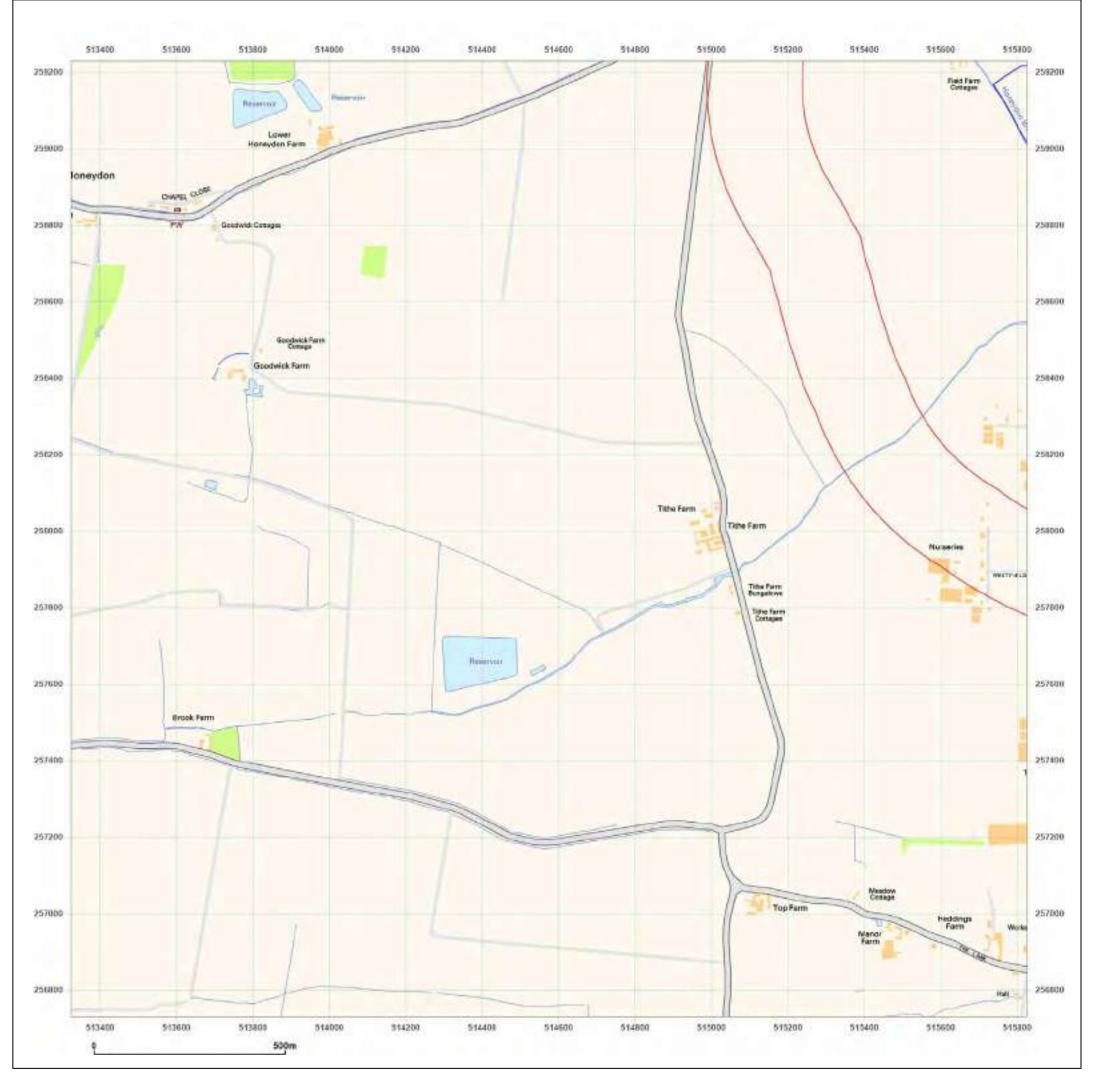




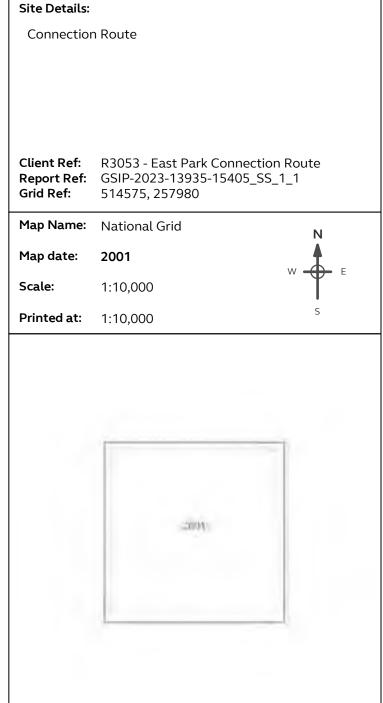
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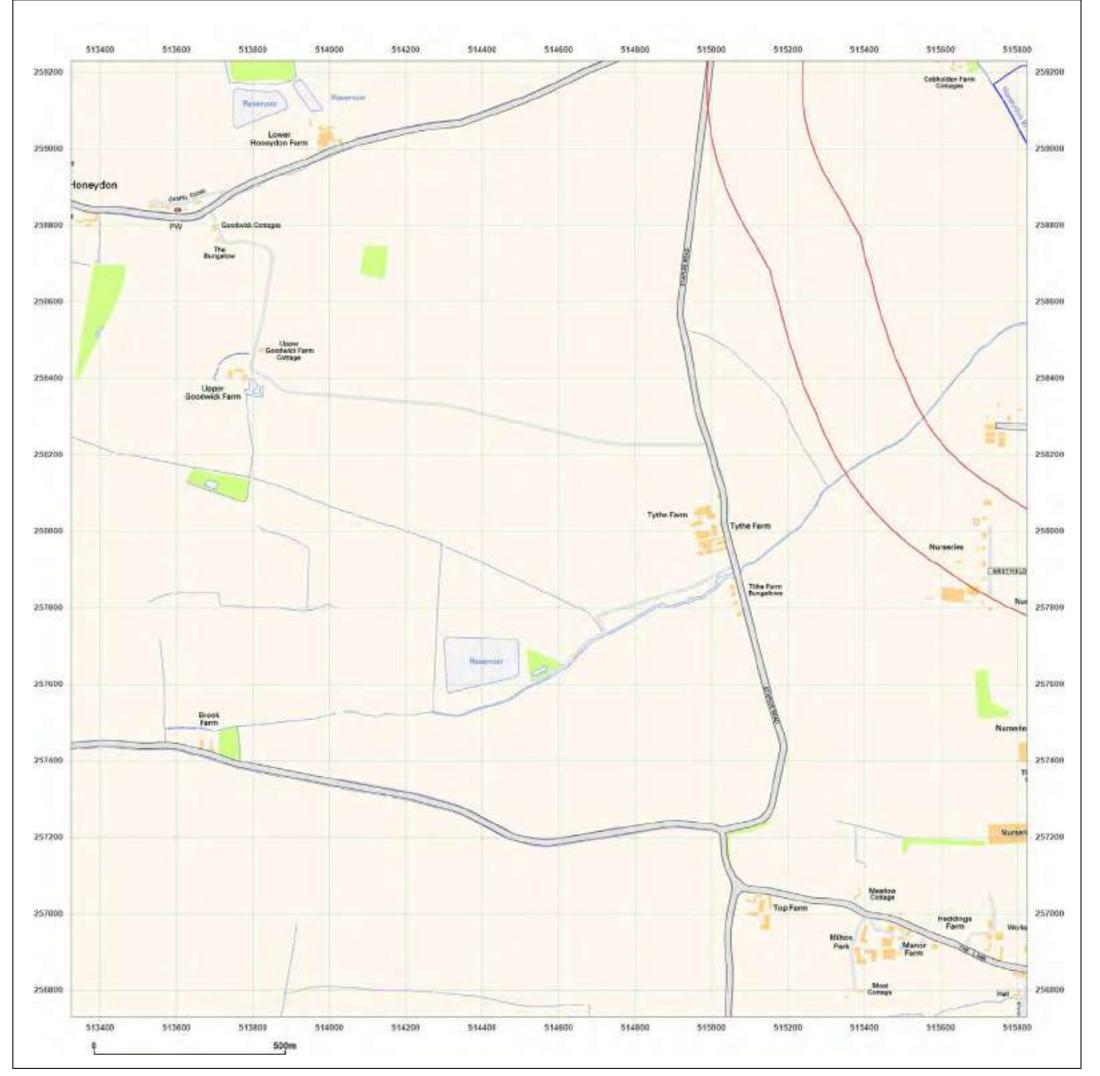




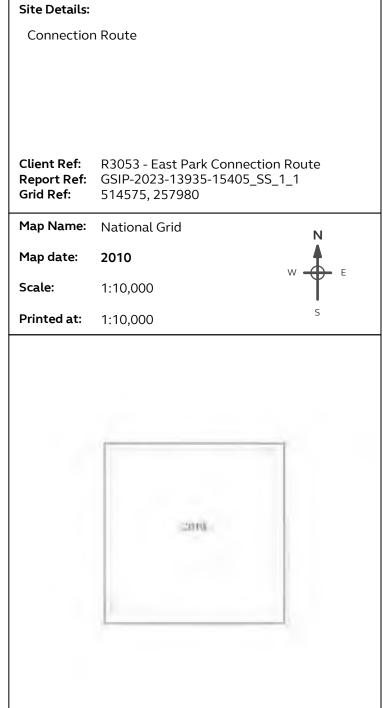
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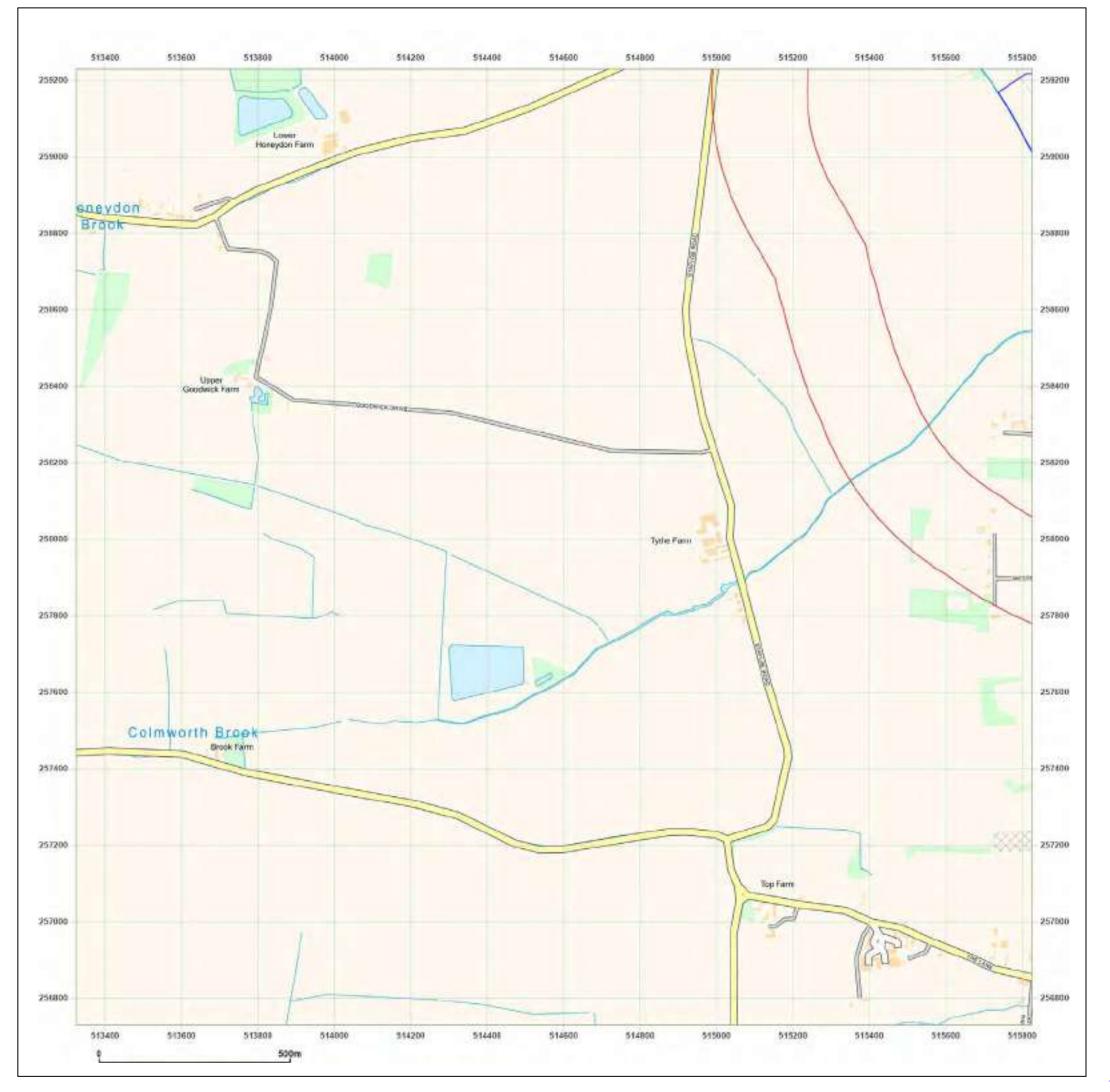




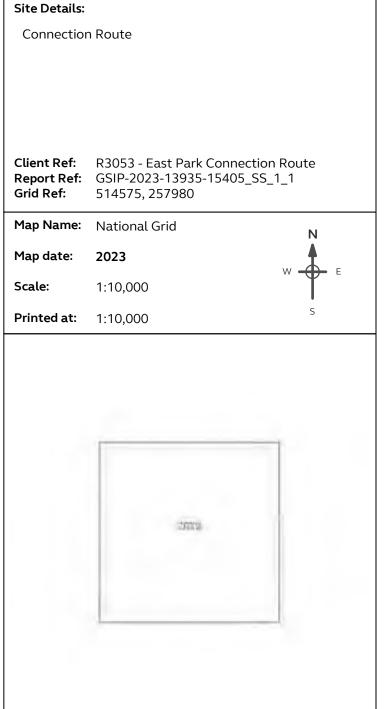
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Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_1_2

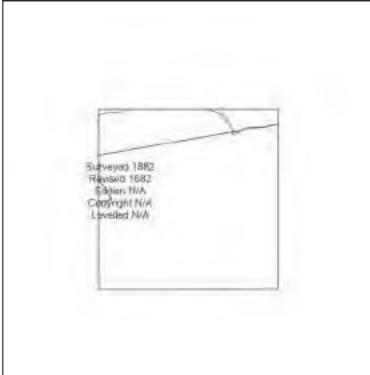
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Map date: 1882

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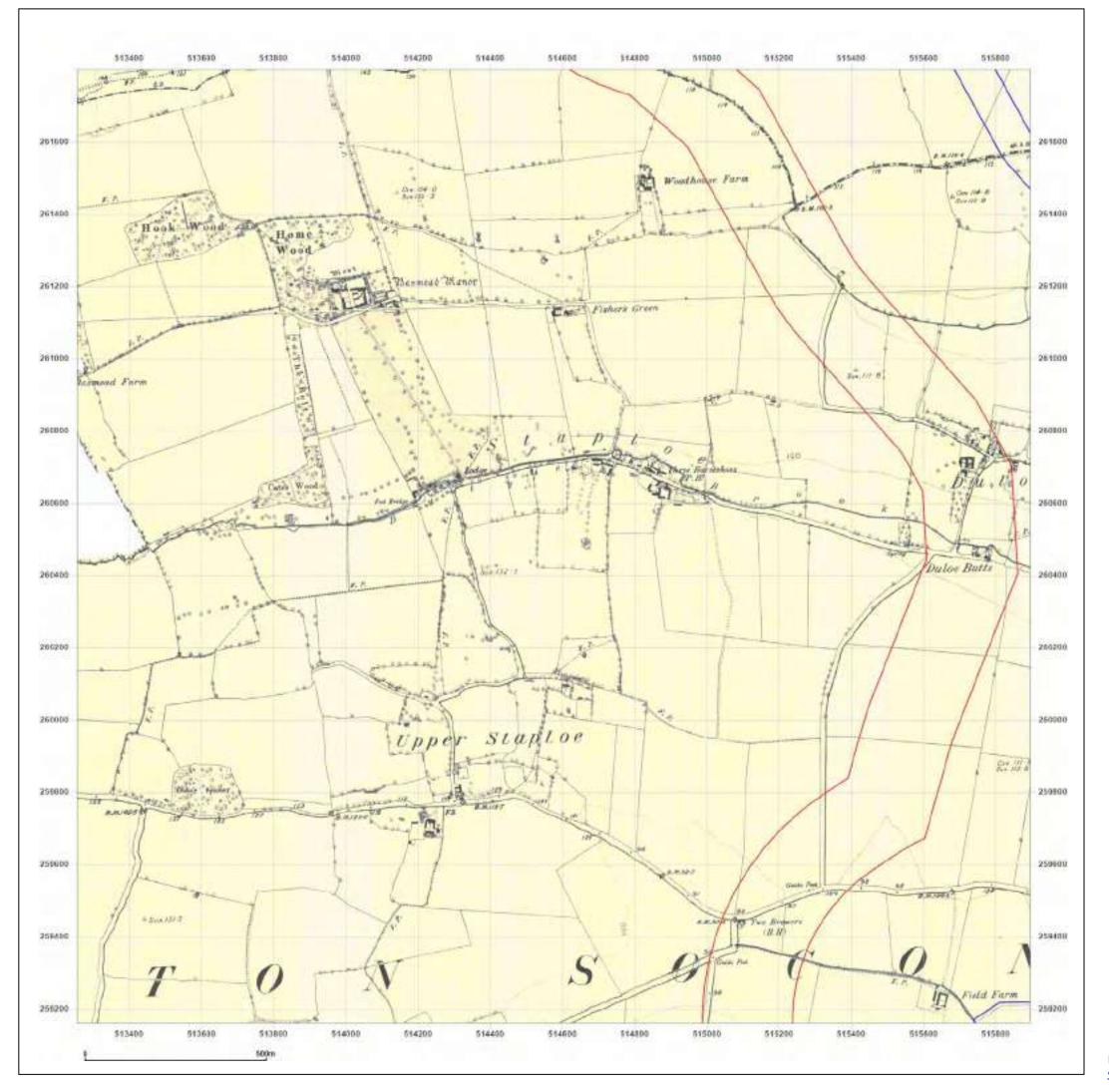


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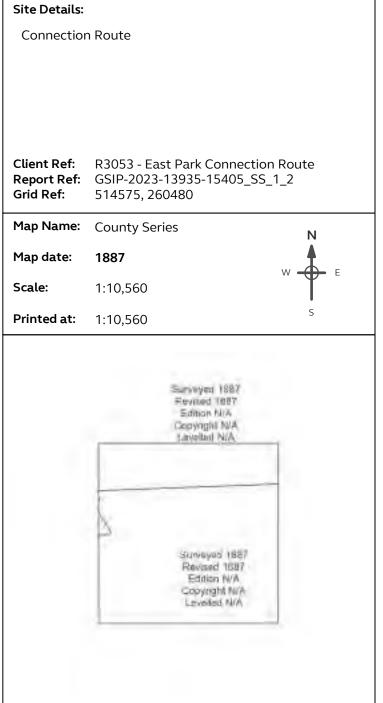
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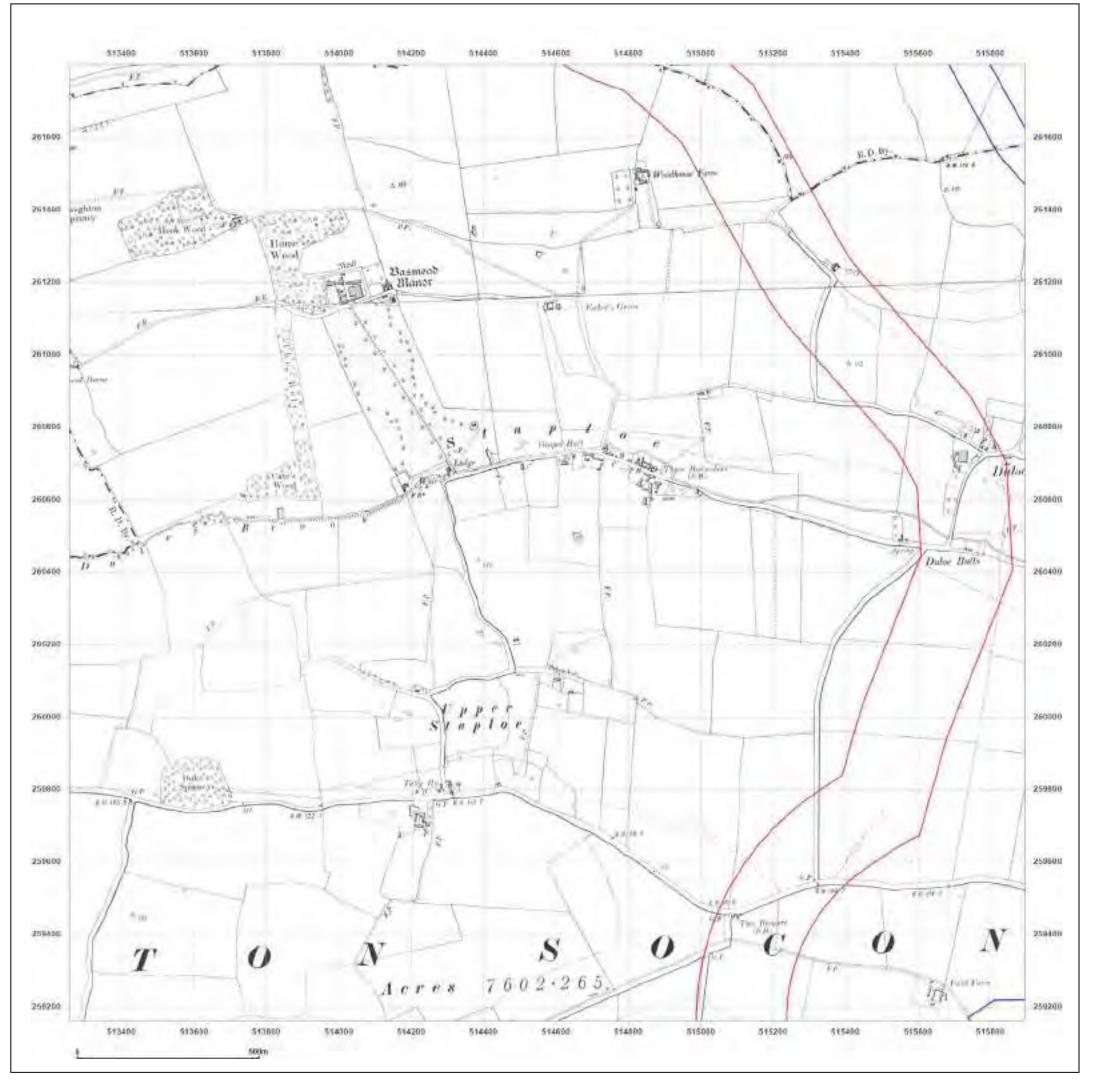




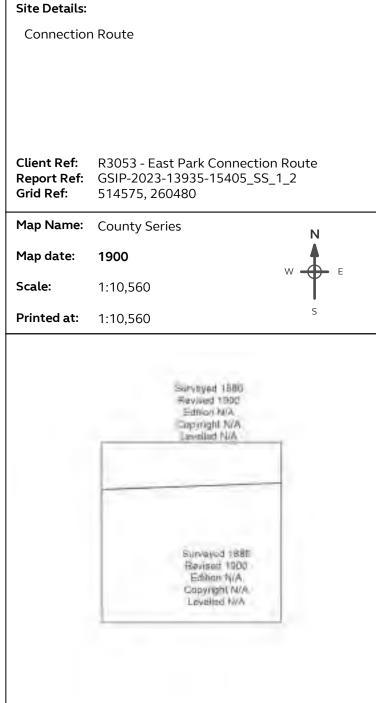
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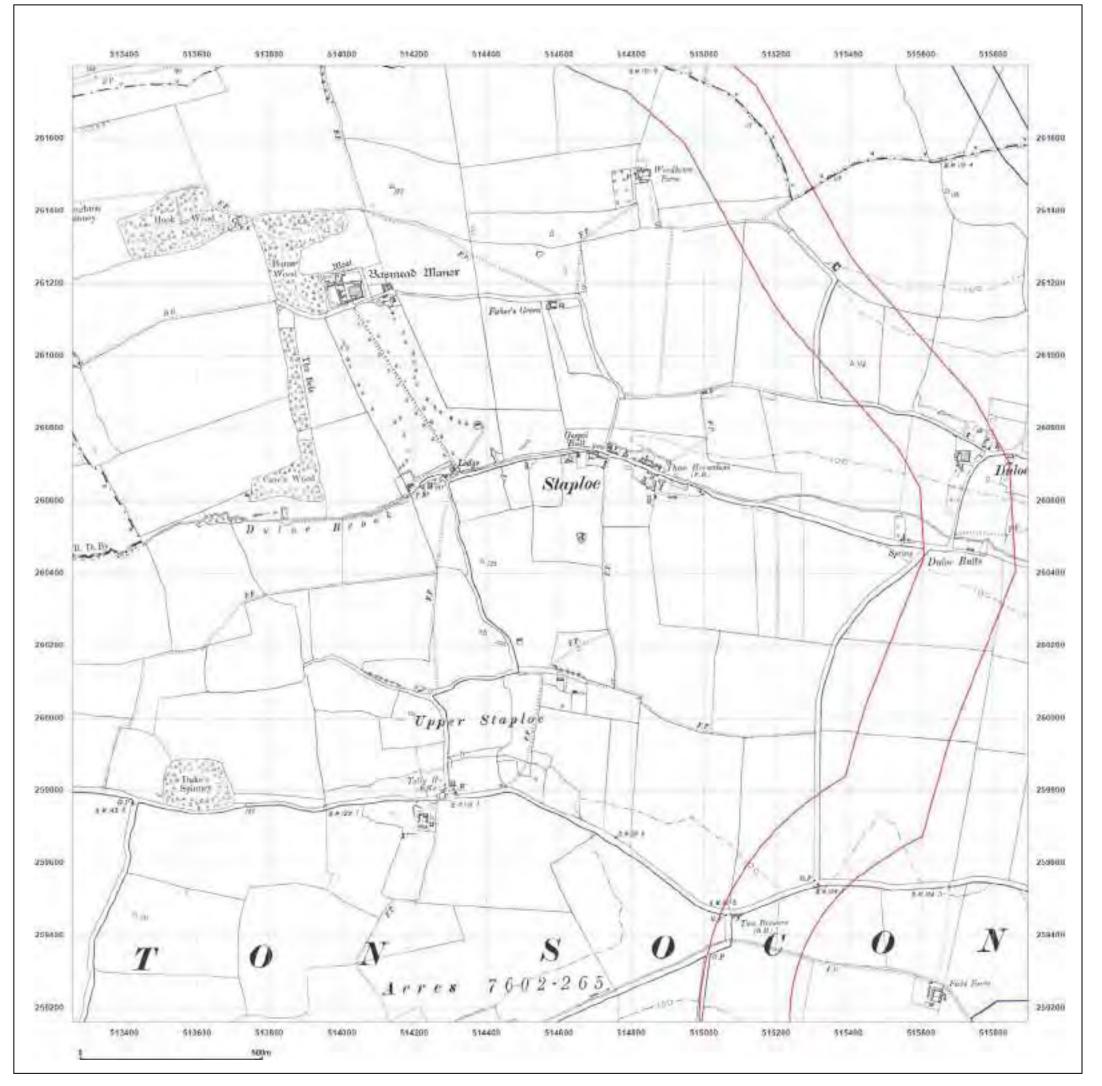




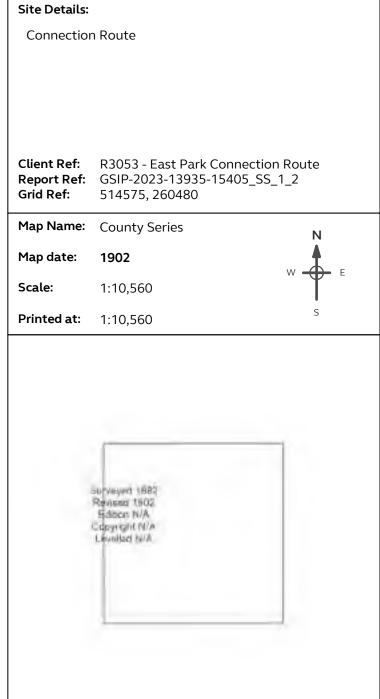
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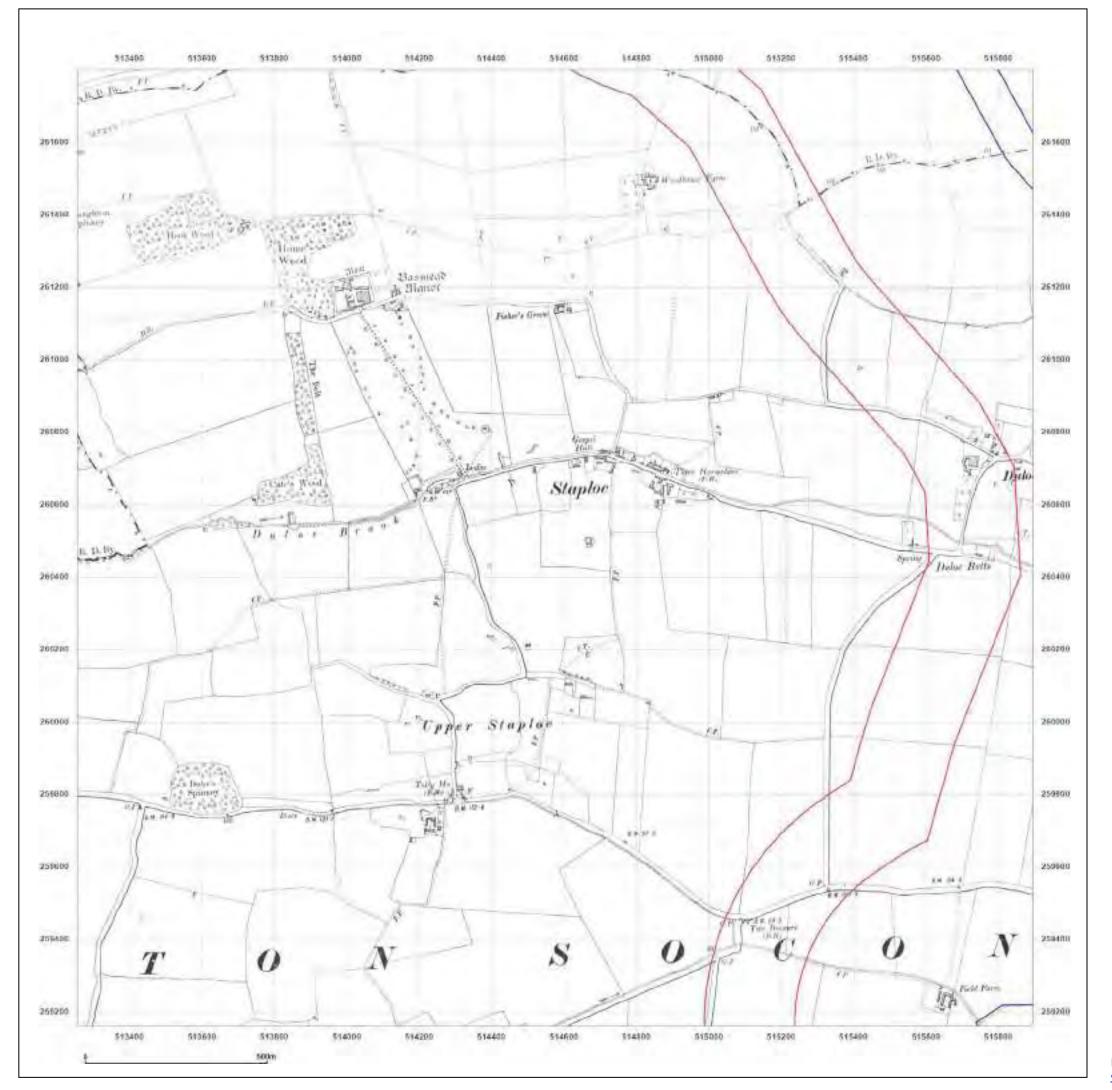




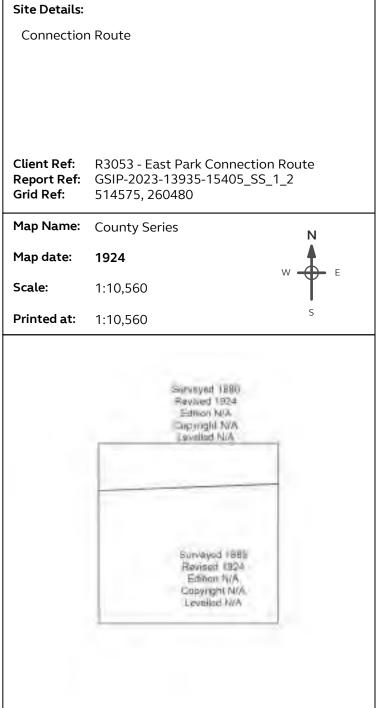
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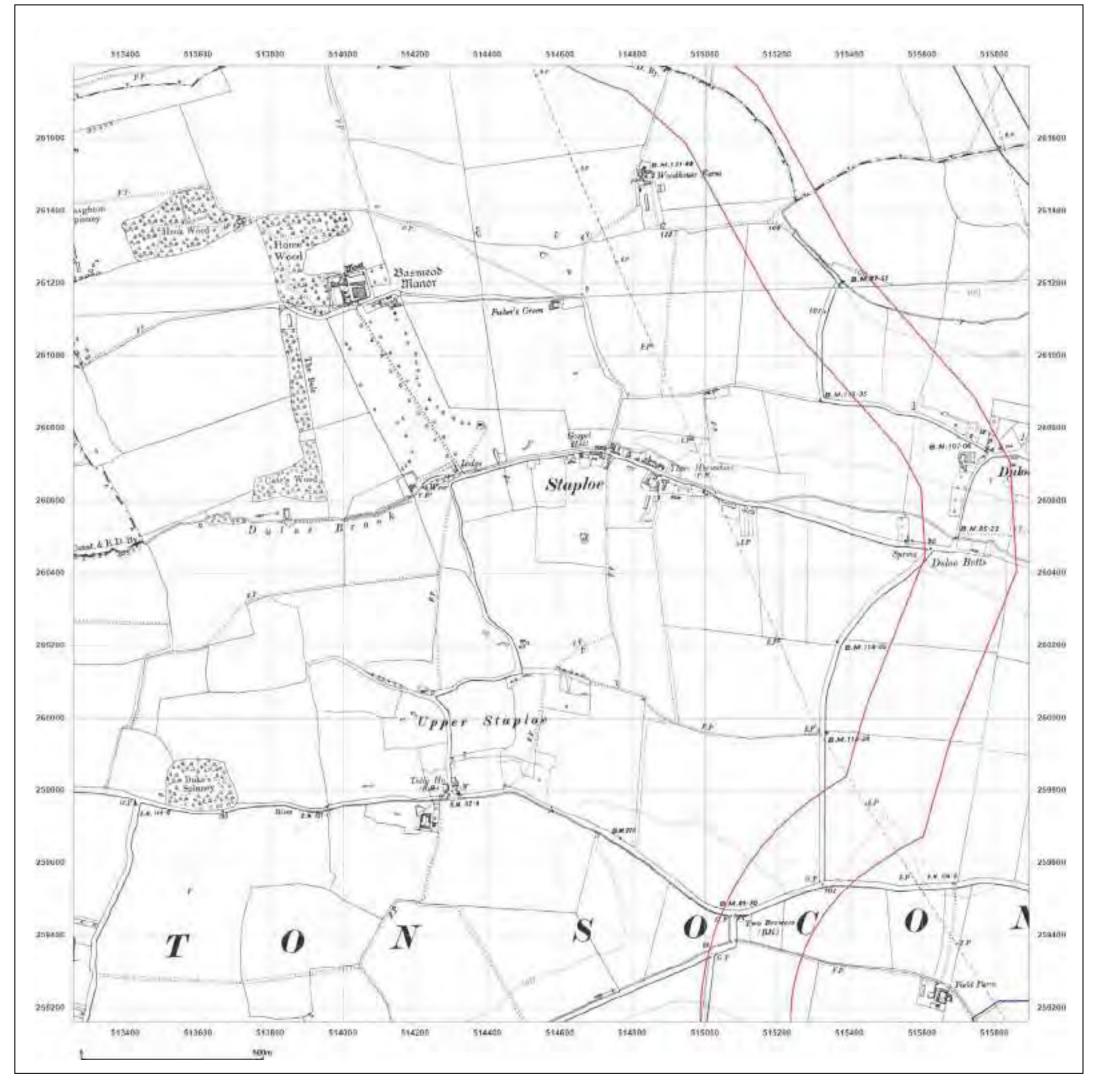




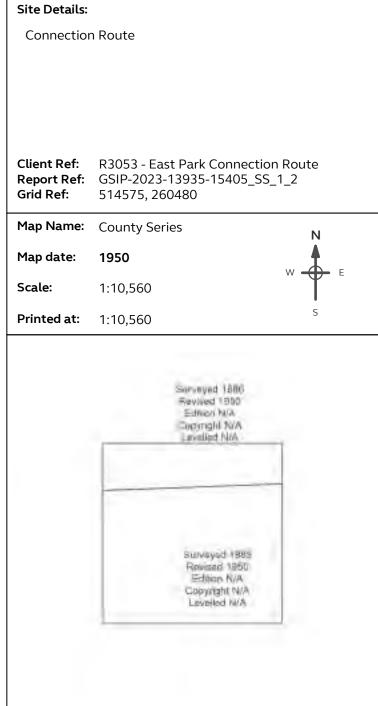
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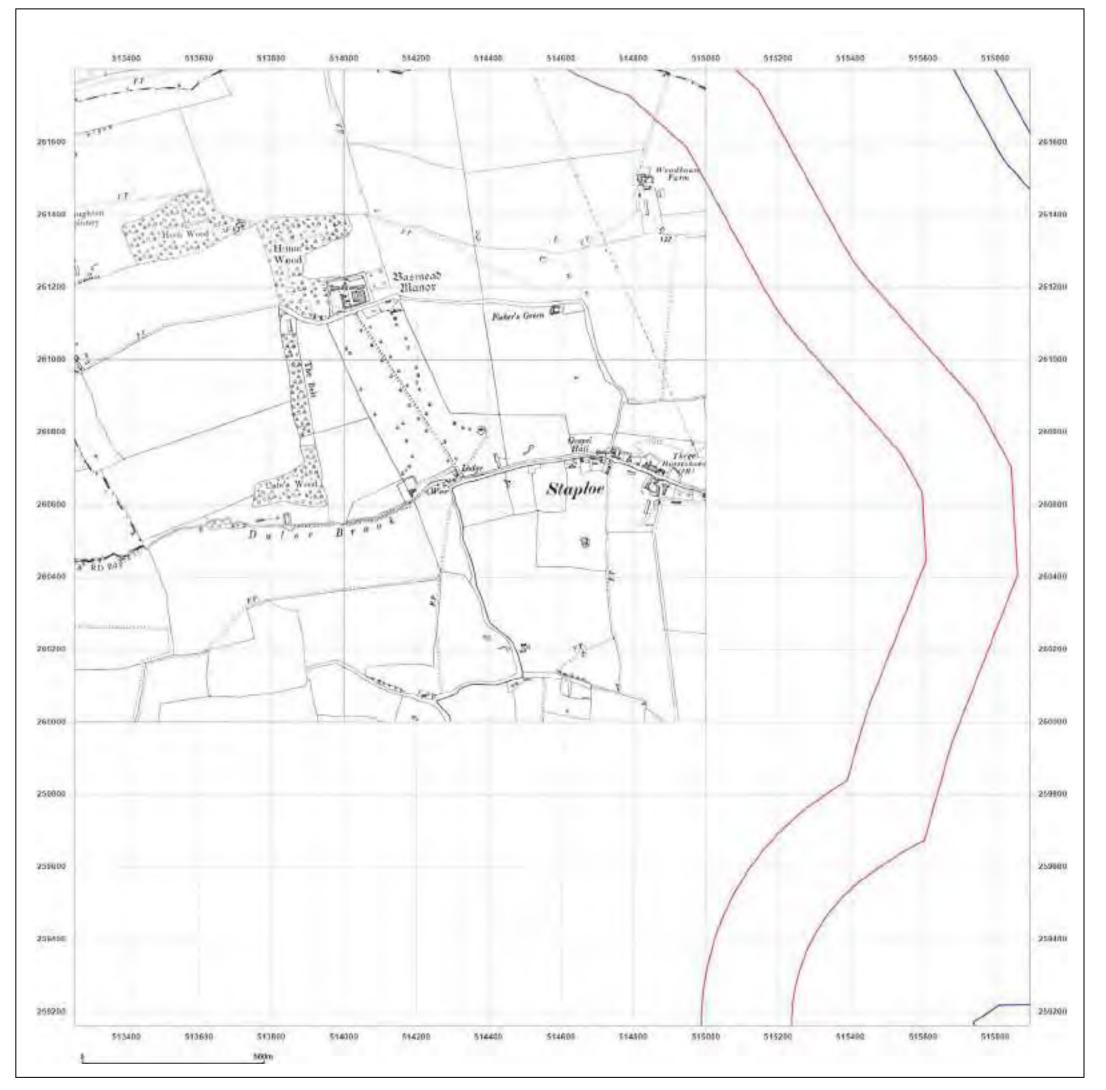




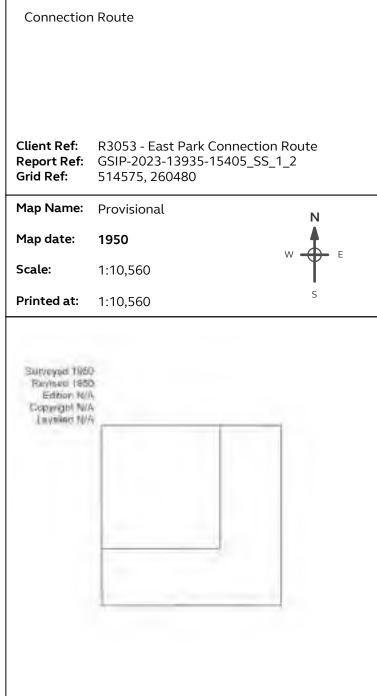
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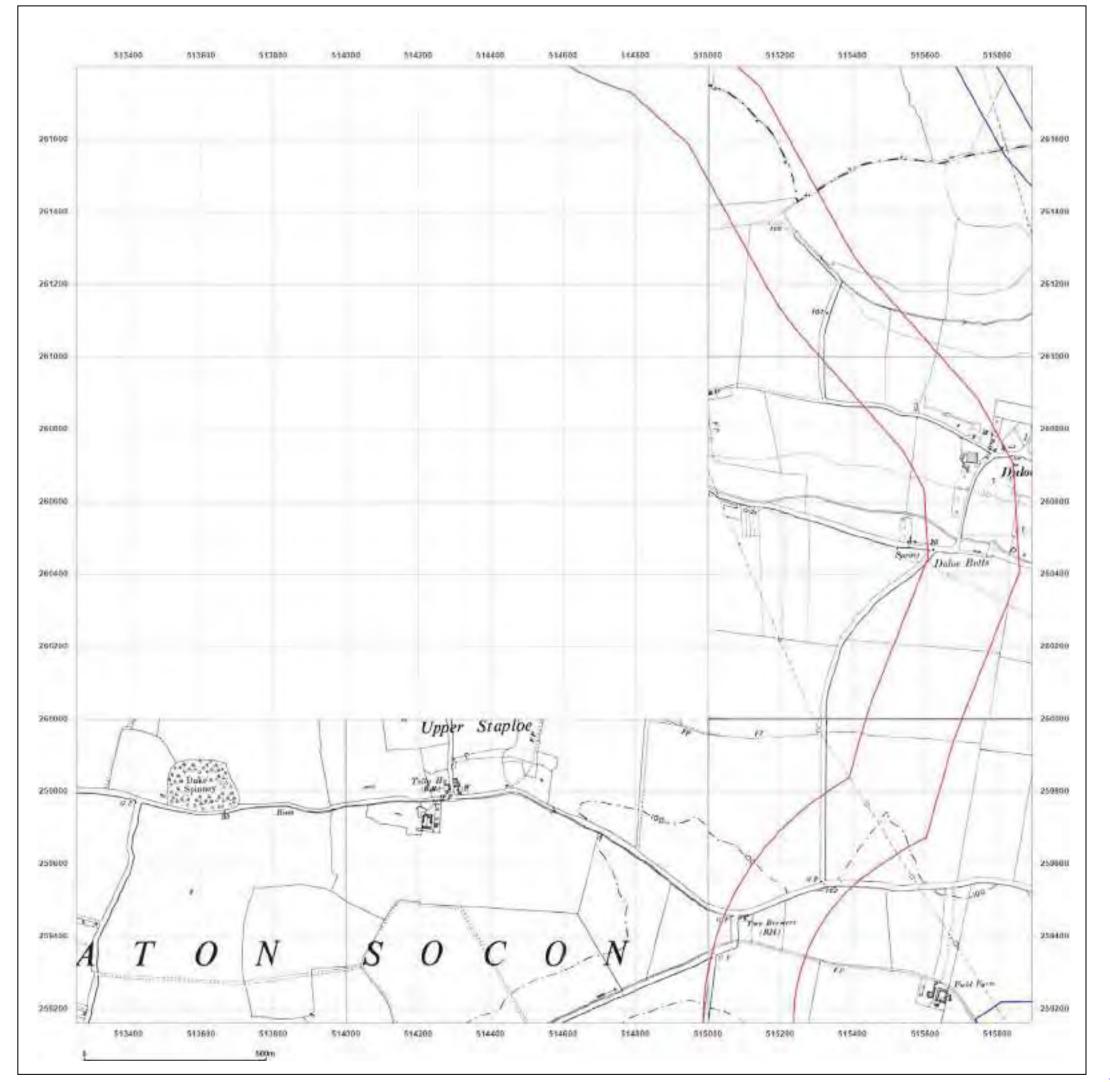


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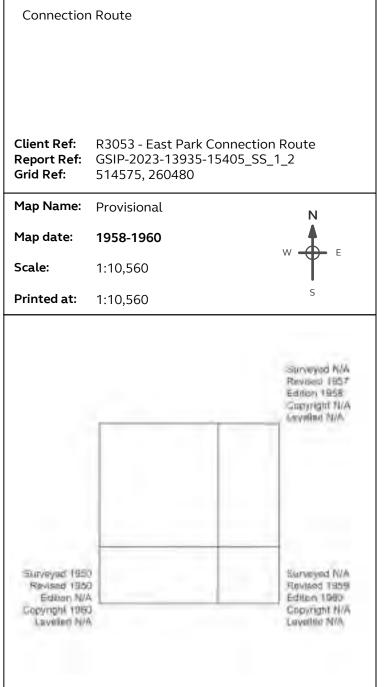
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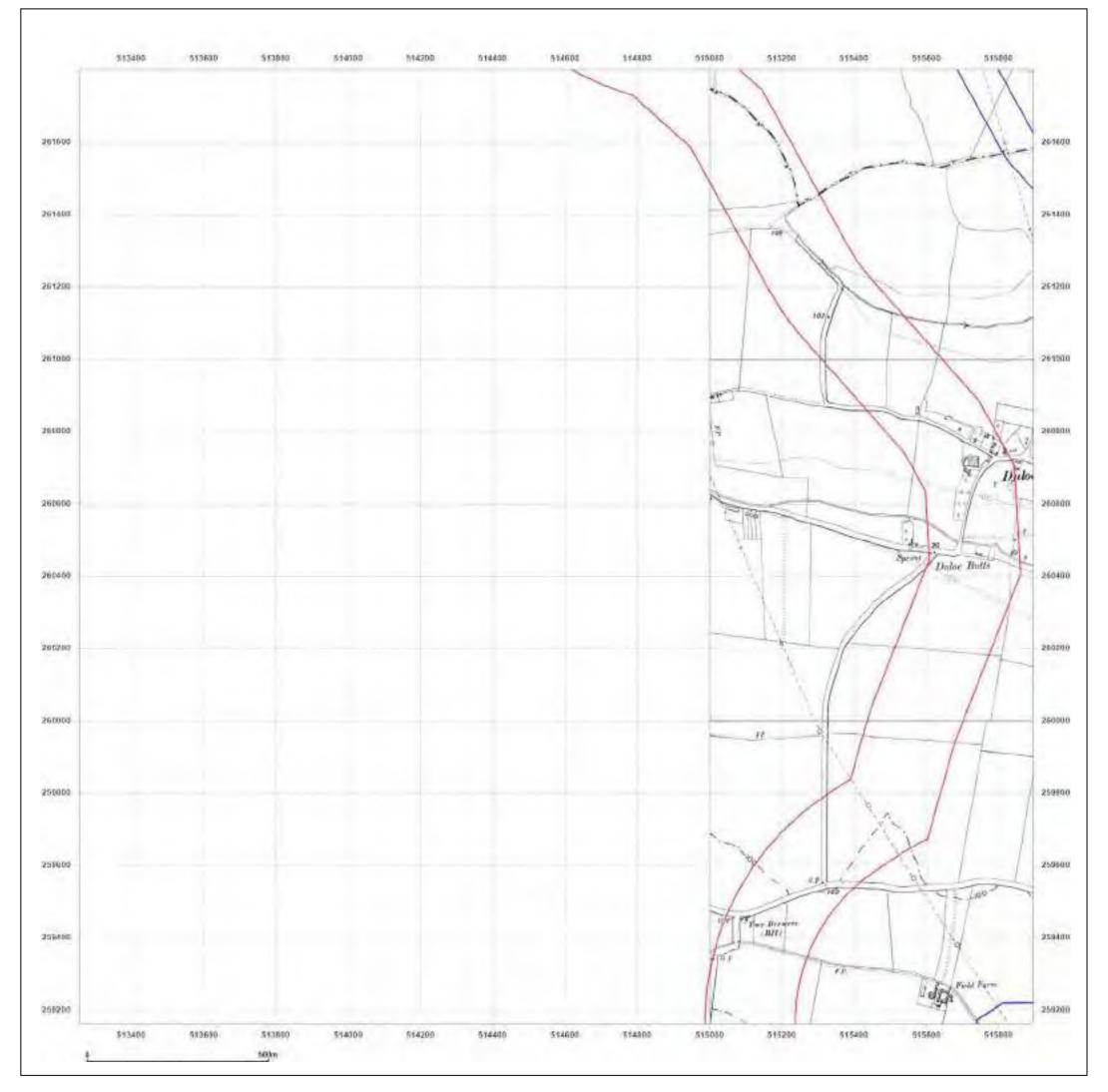


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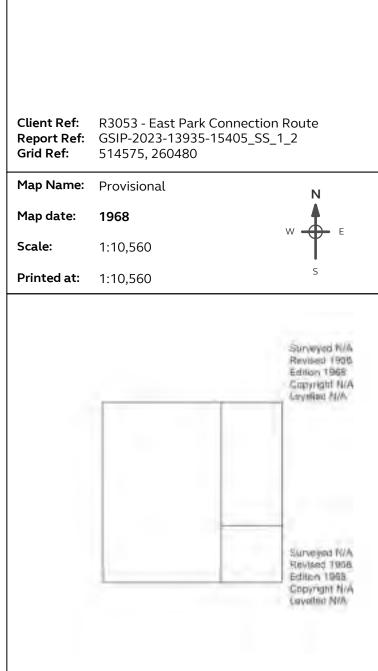
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Connection Route



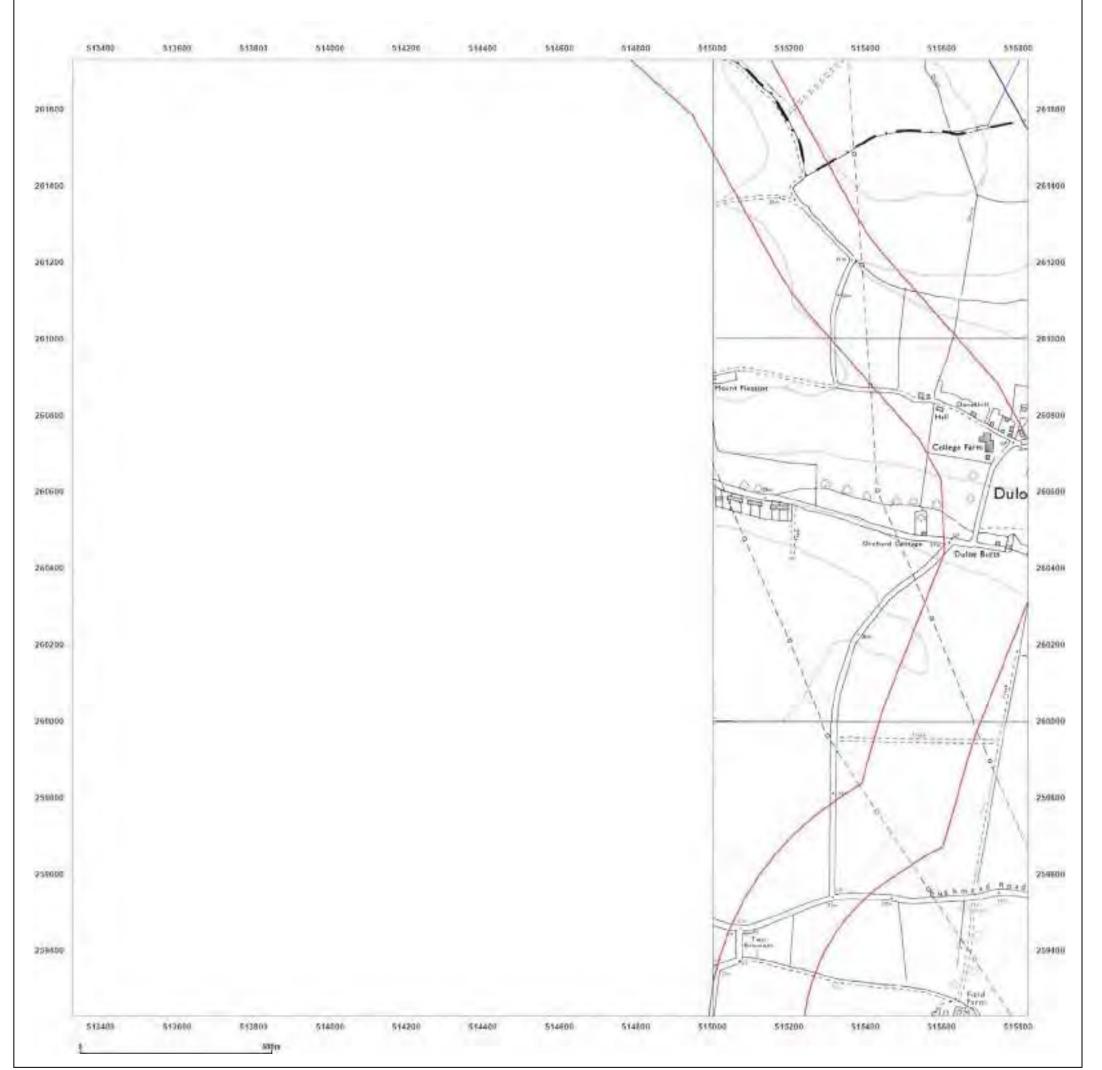


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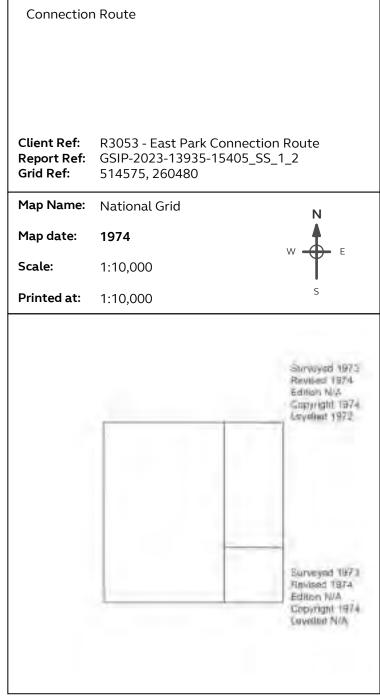
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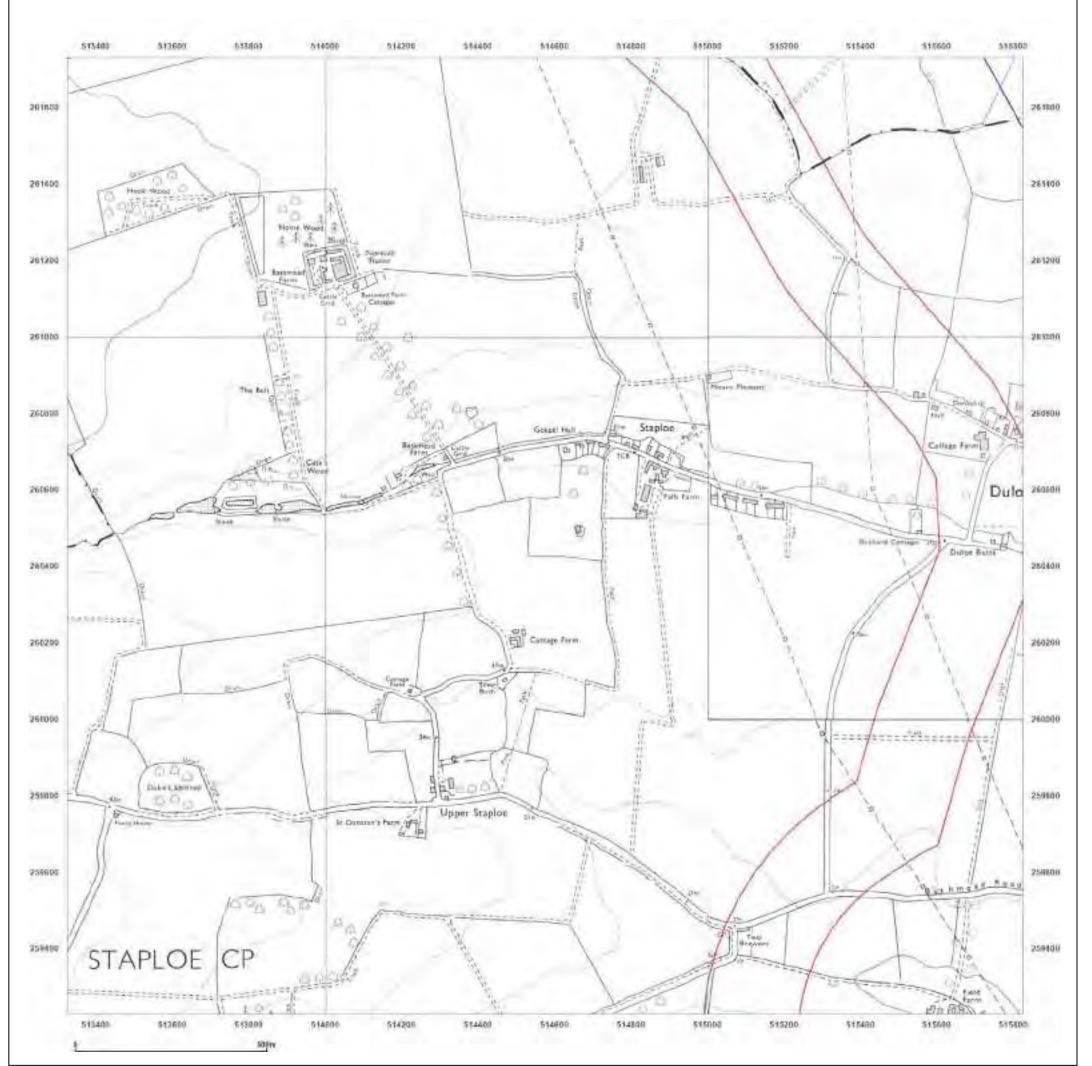


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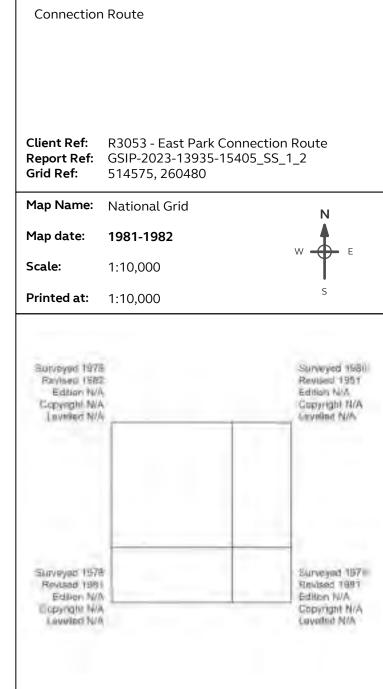
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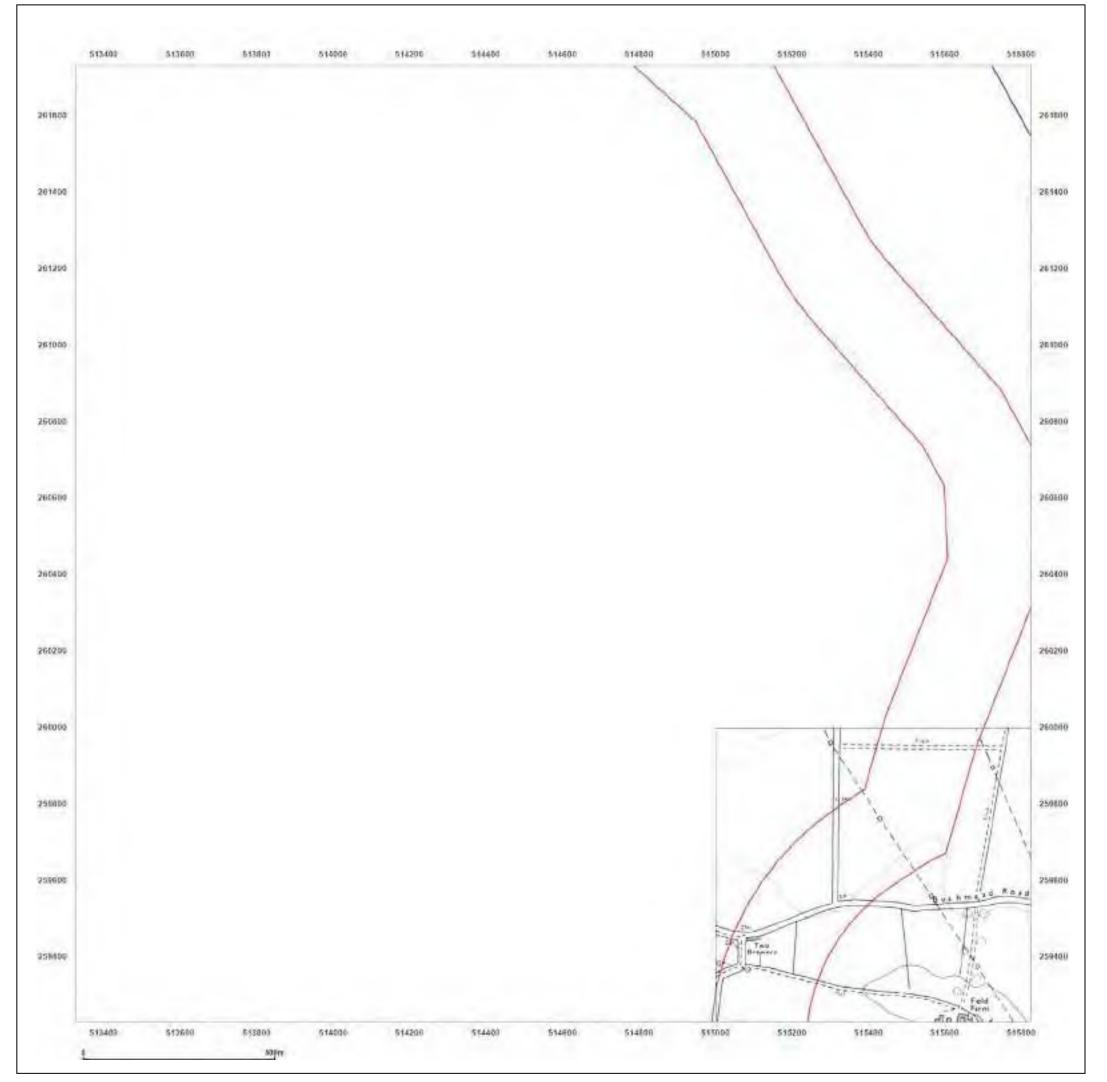


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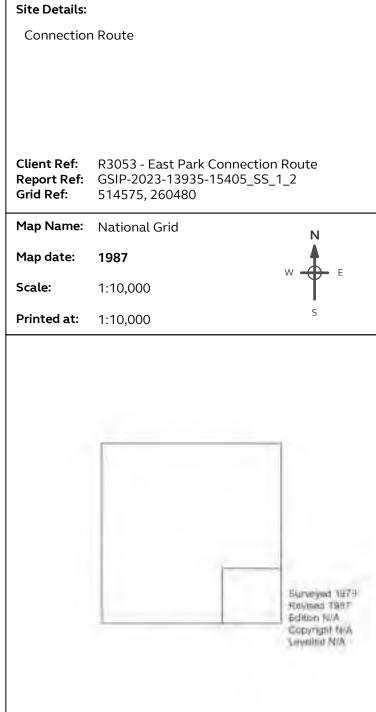
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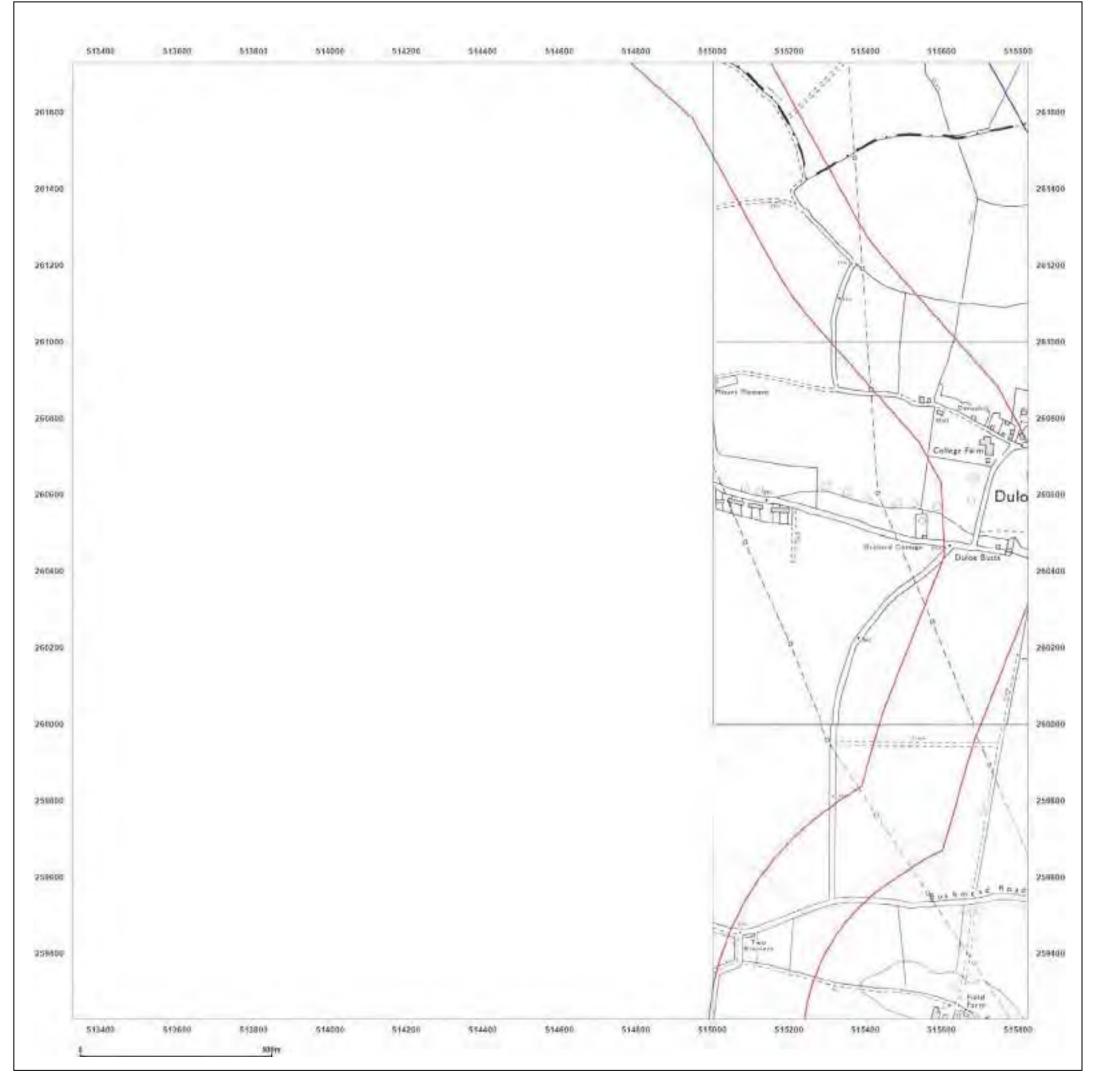




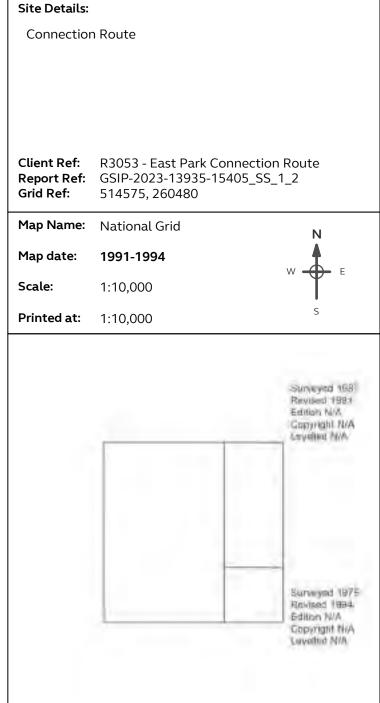
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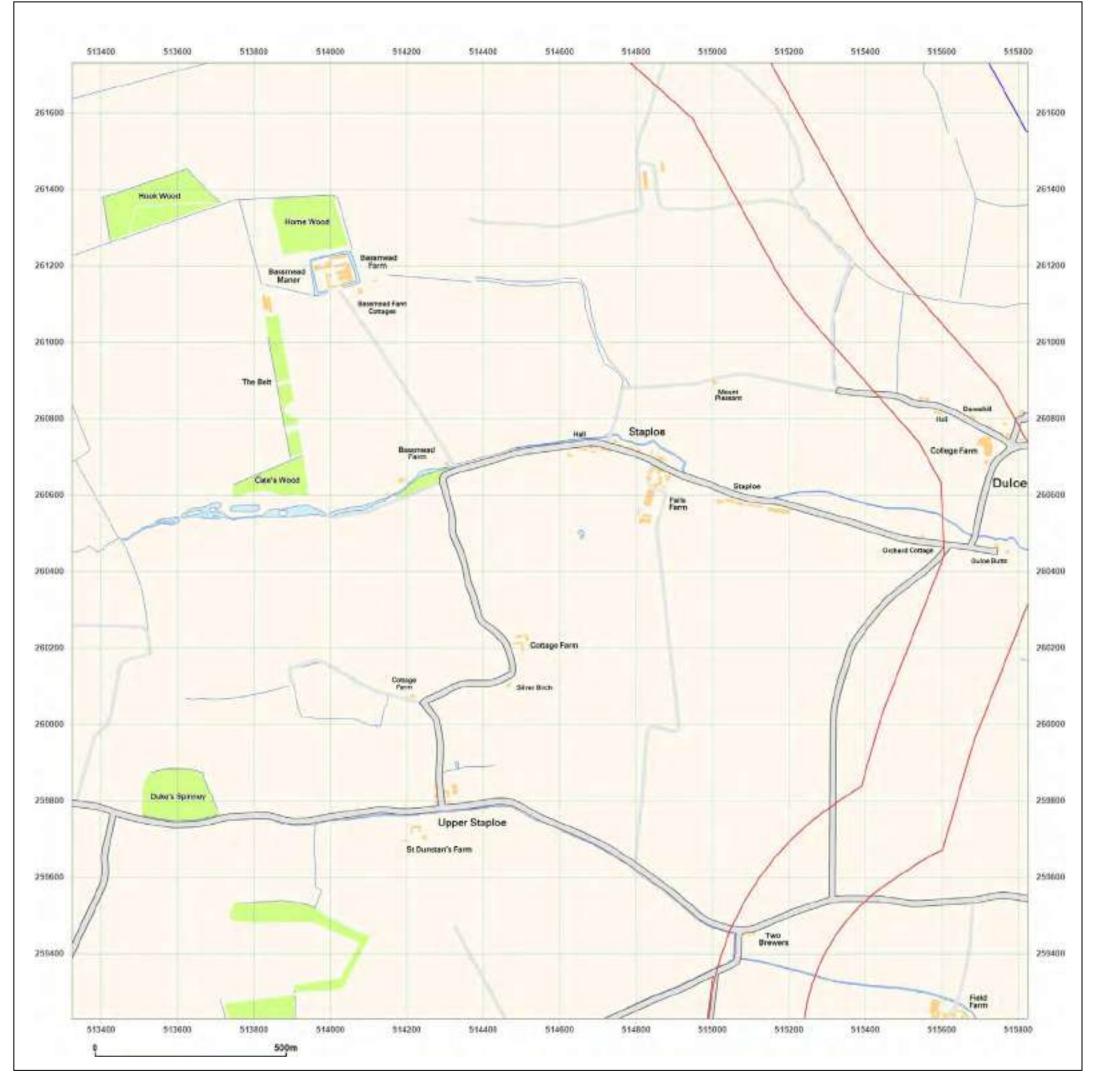




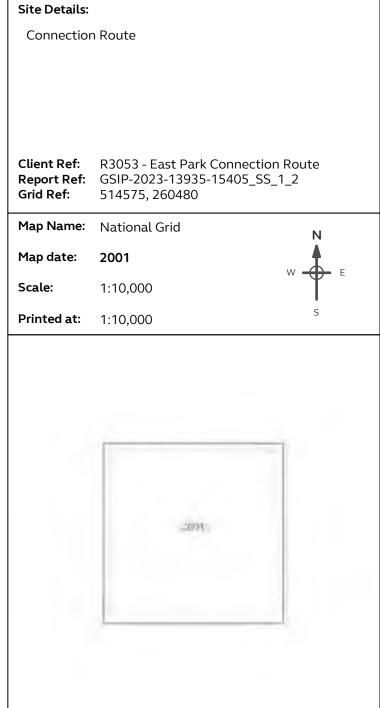
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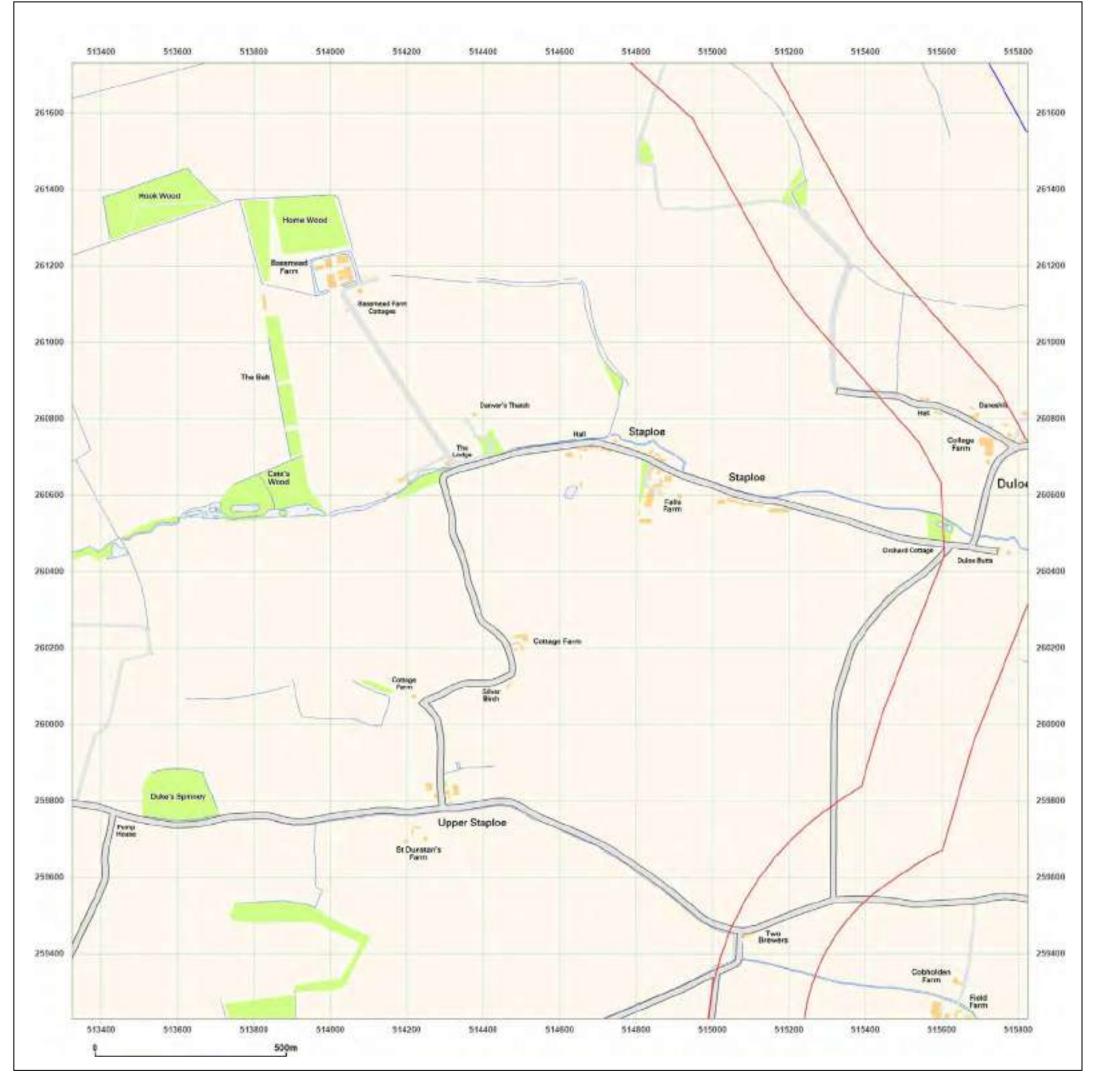




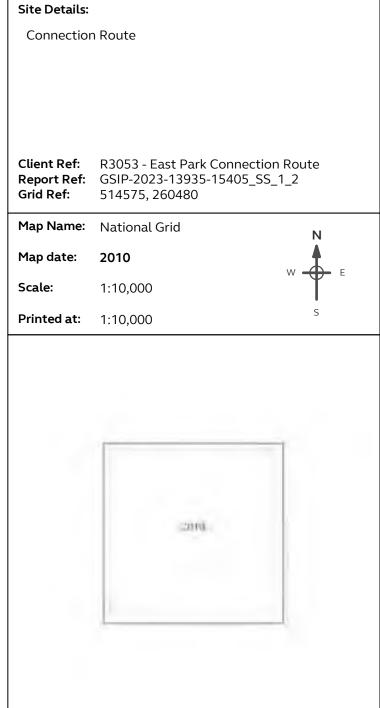
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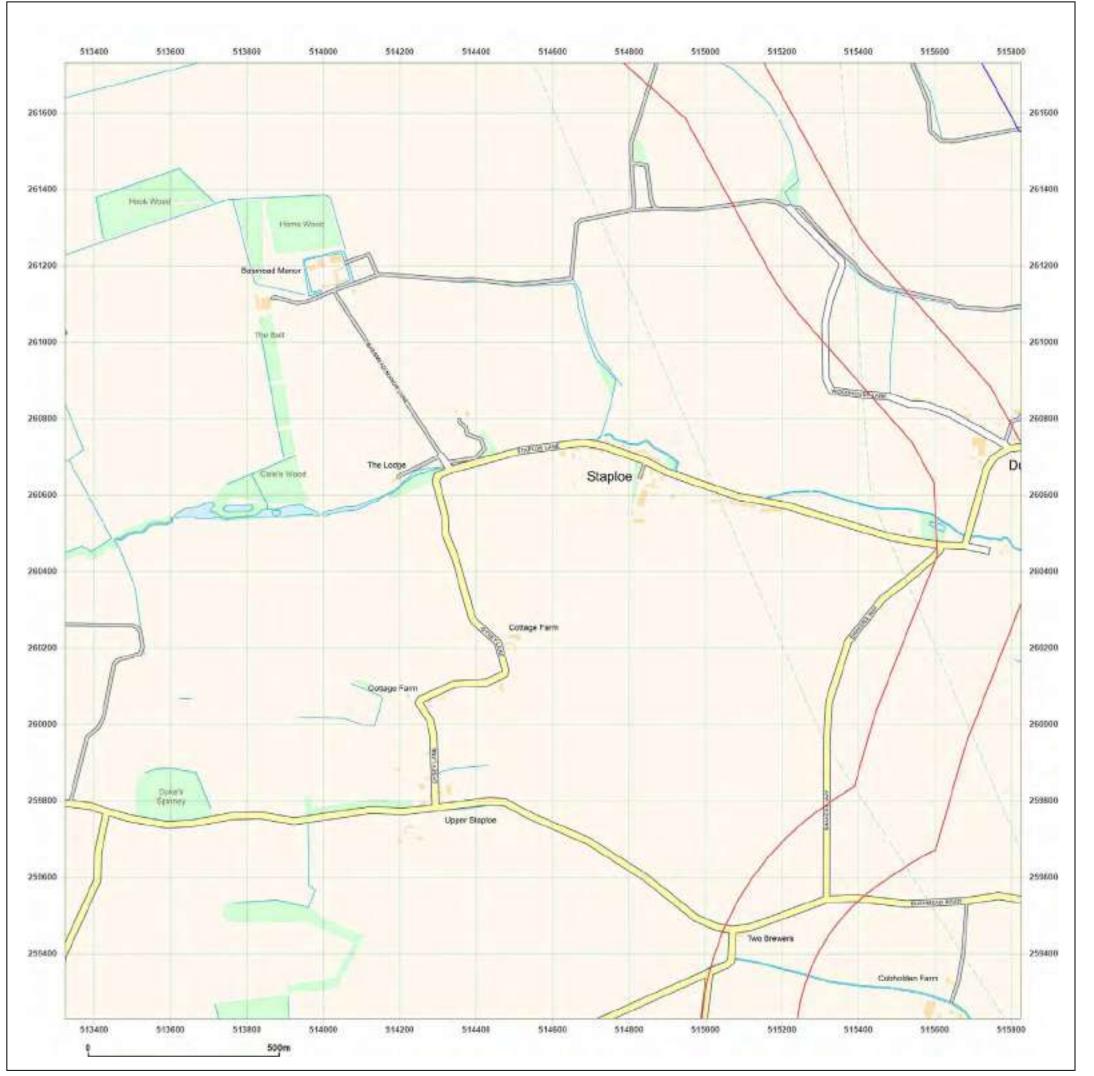




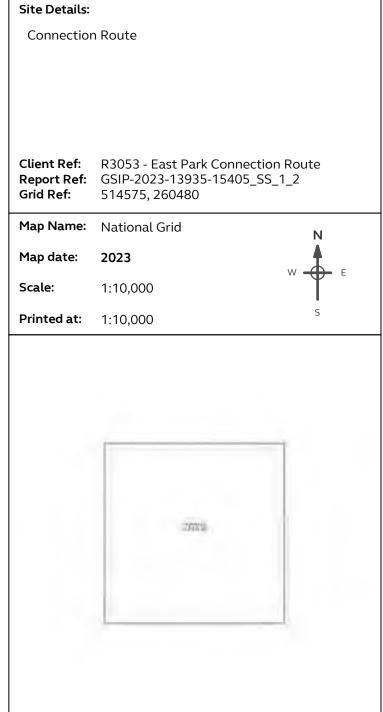
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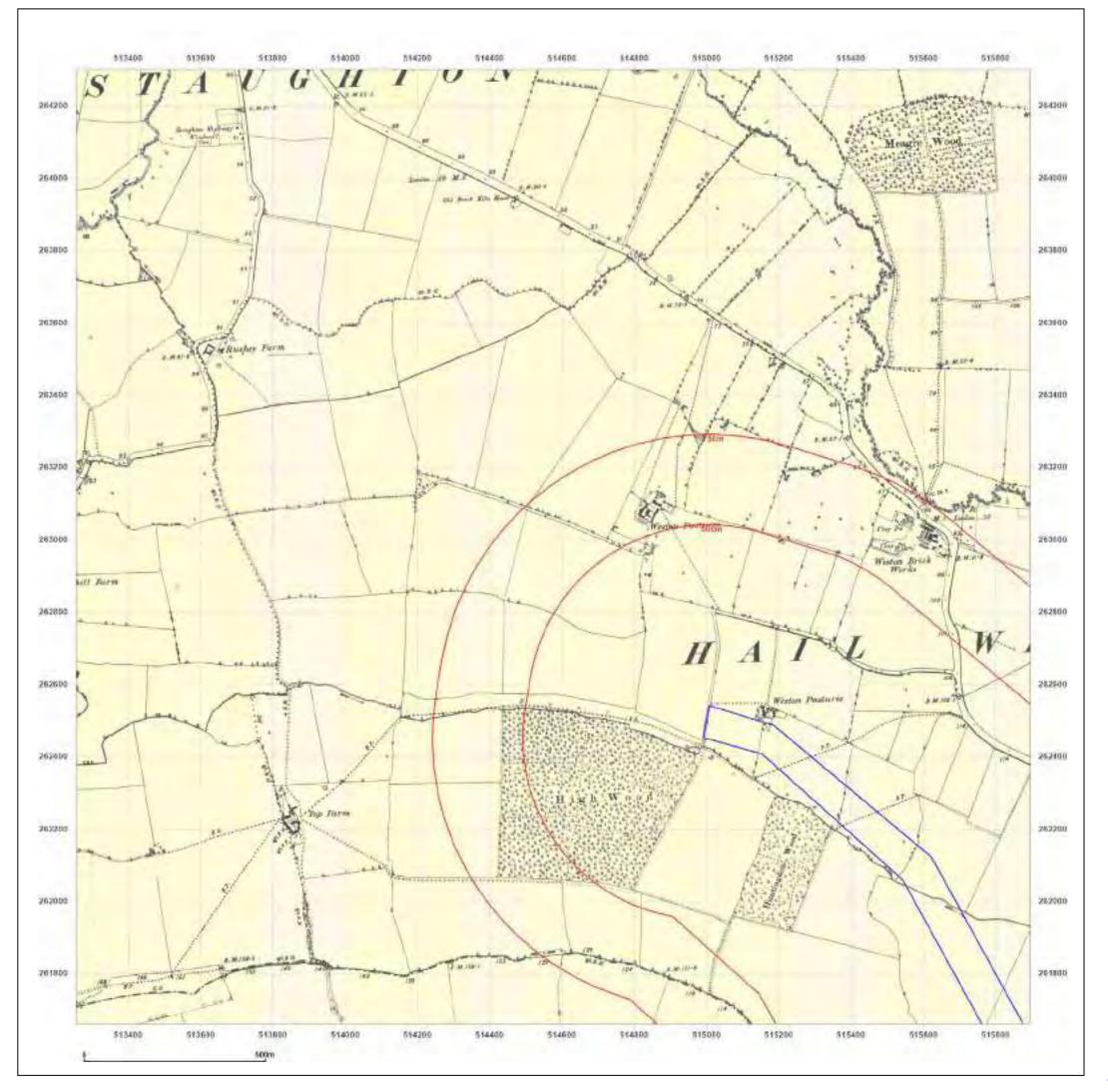




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Map legend available at:







Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_1_3

Grid Ref: 514575, 262980

Map Name: County Series

Map date: 1882-1887

Scale: 1:10,560

Printed at: 1:10,560



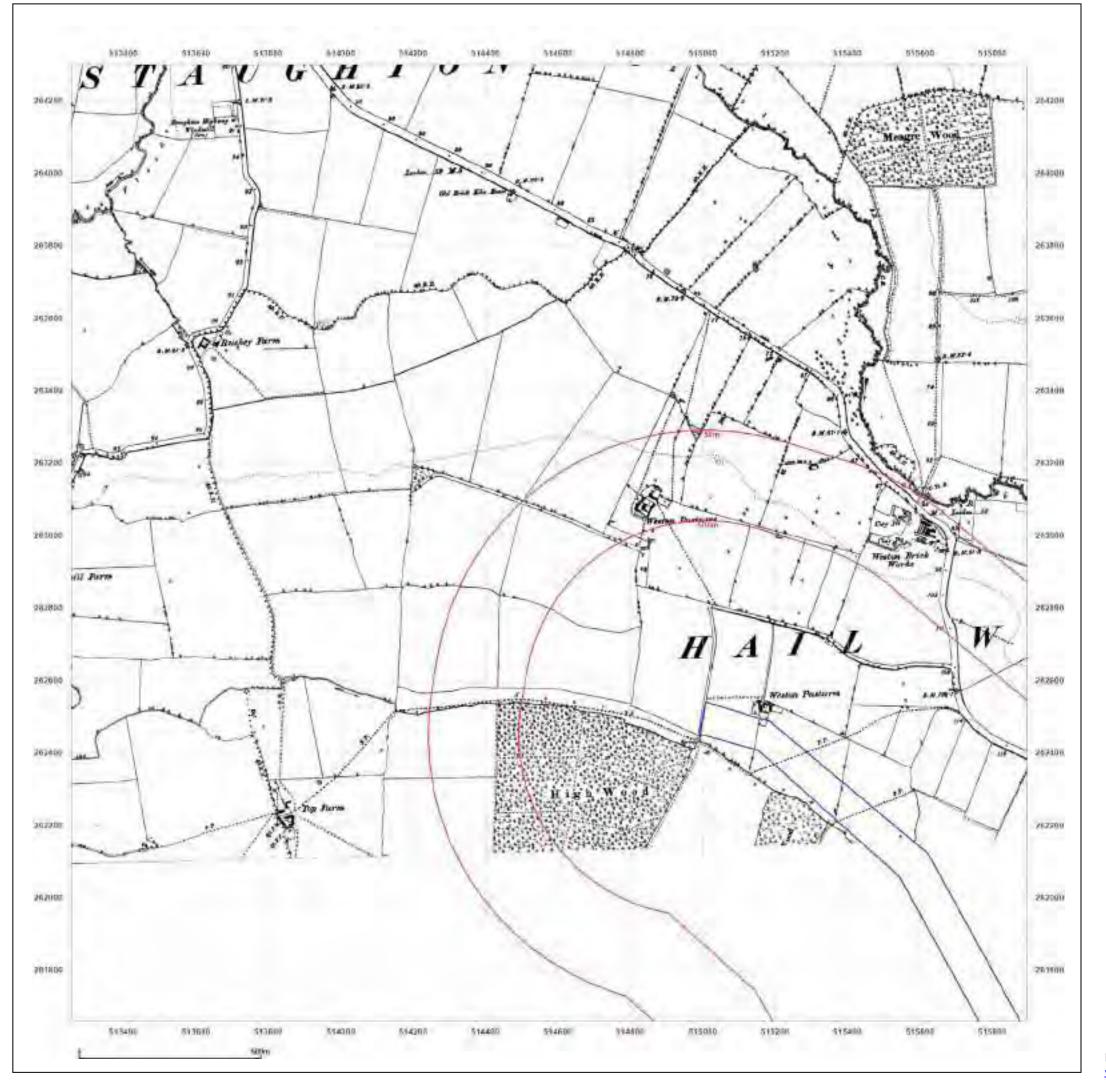


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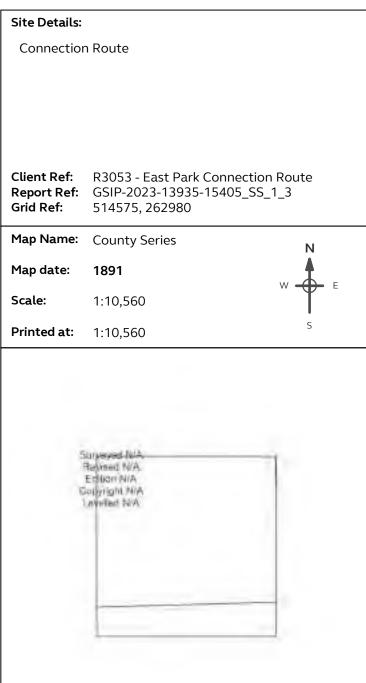
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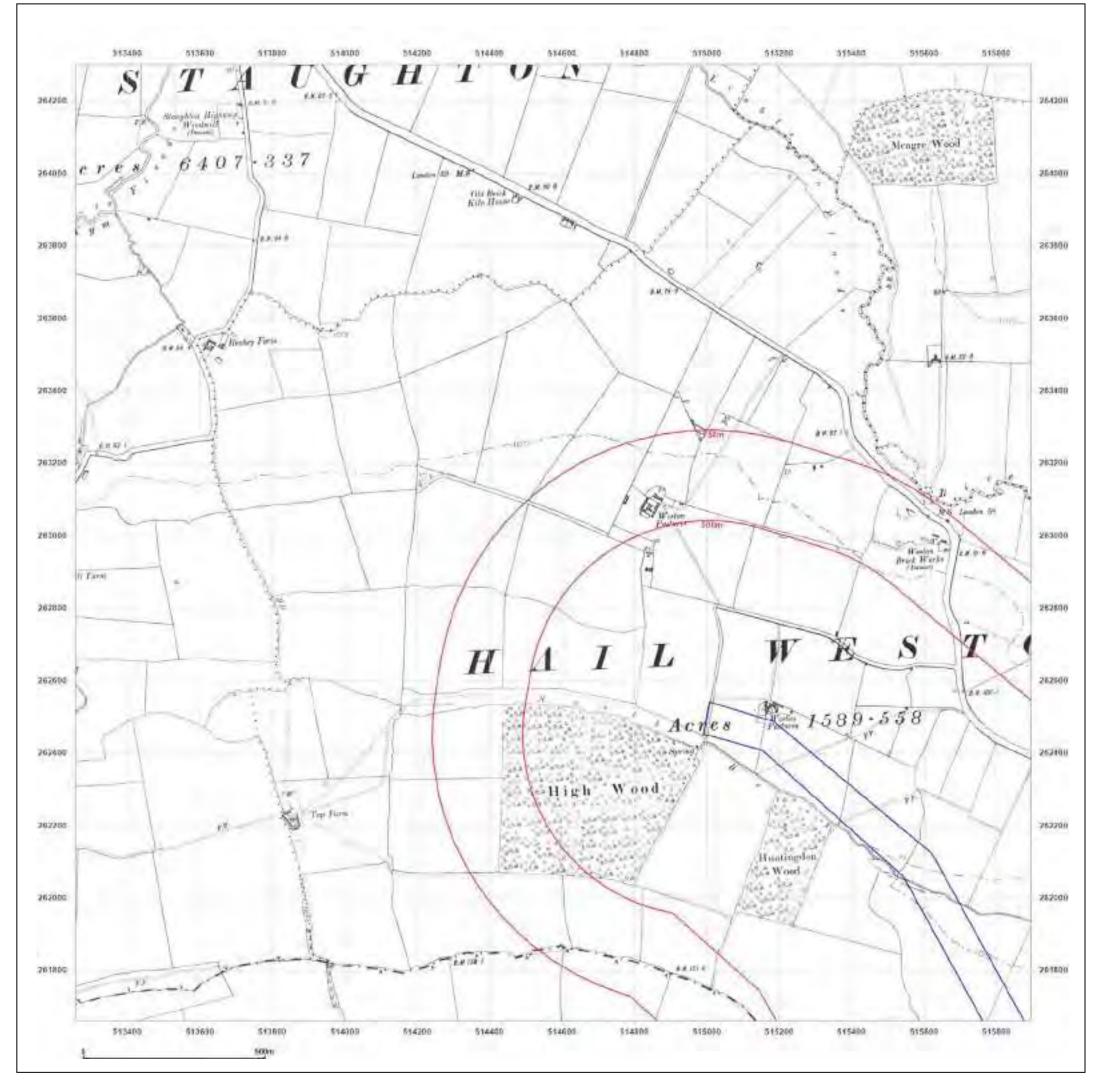




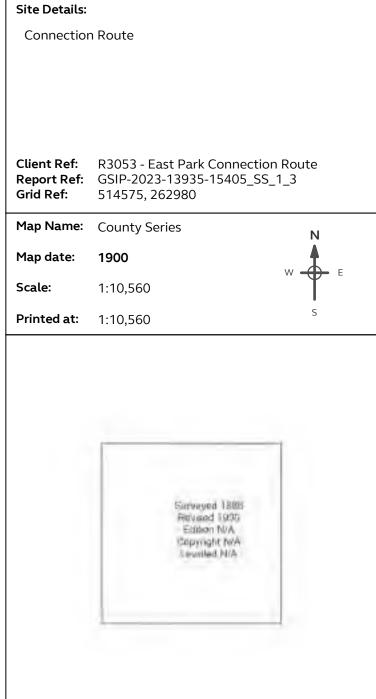
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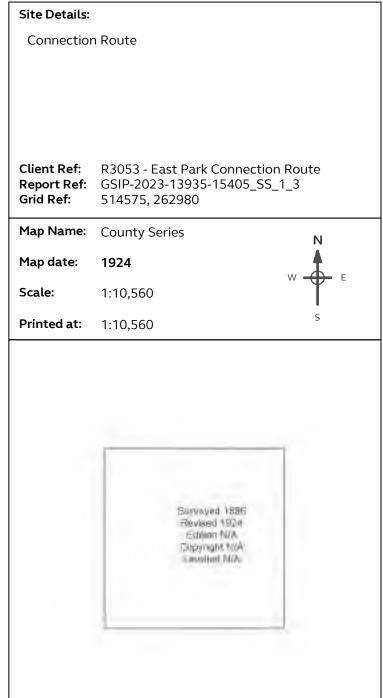
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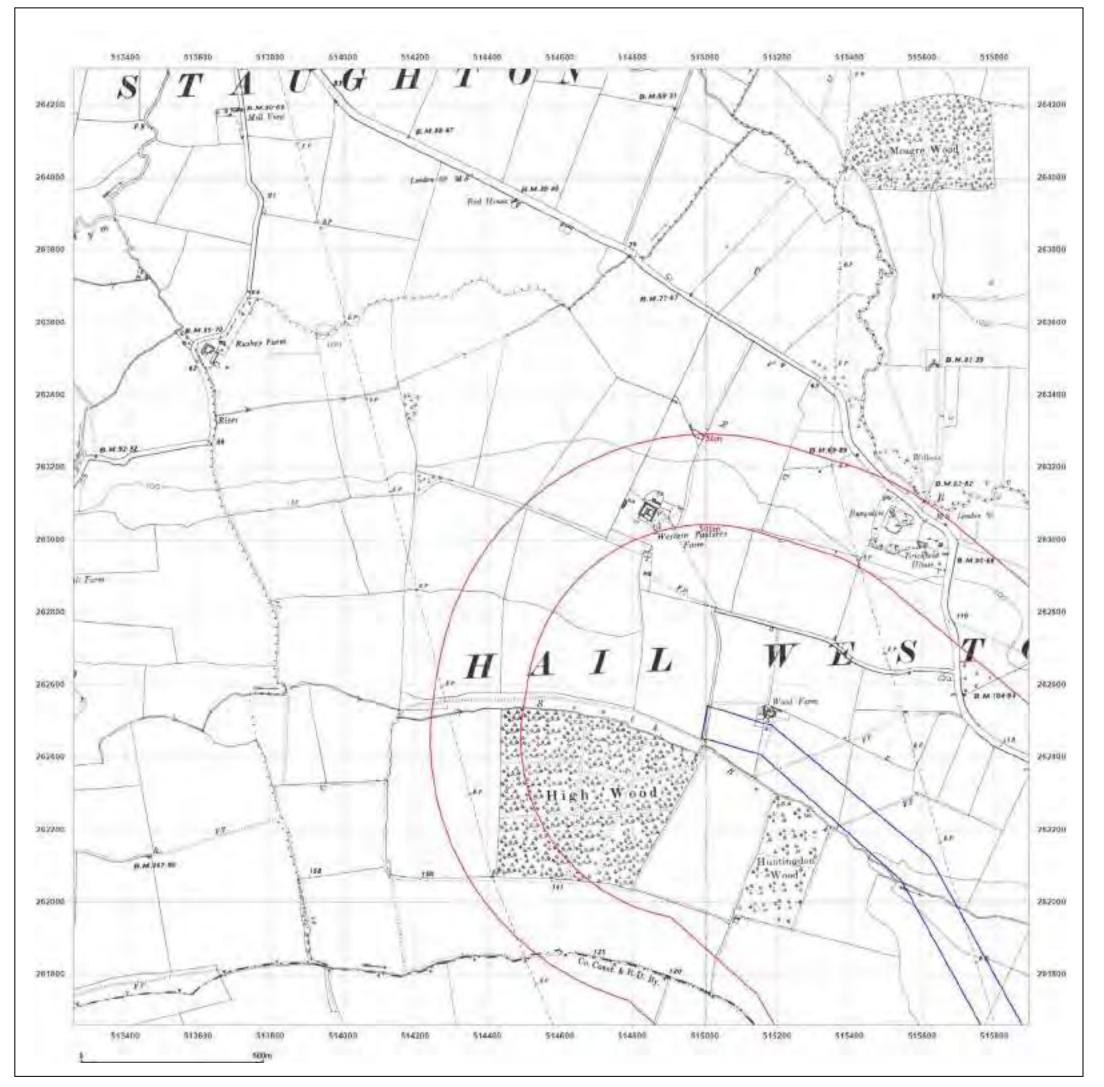




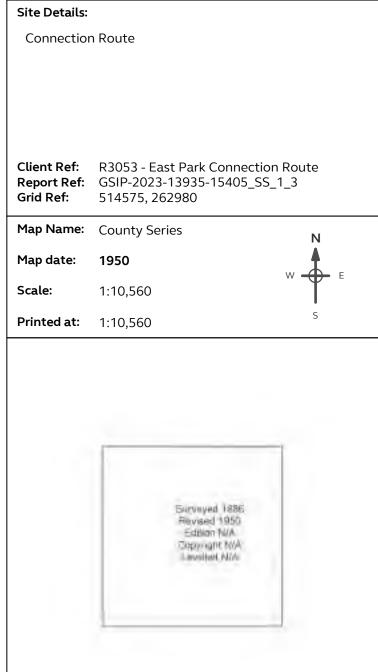
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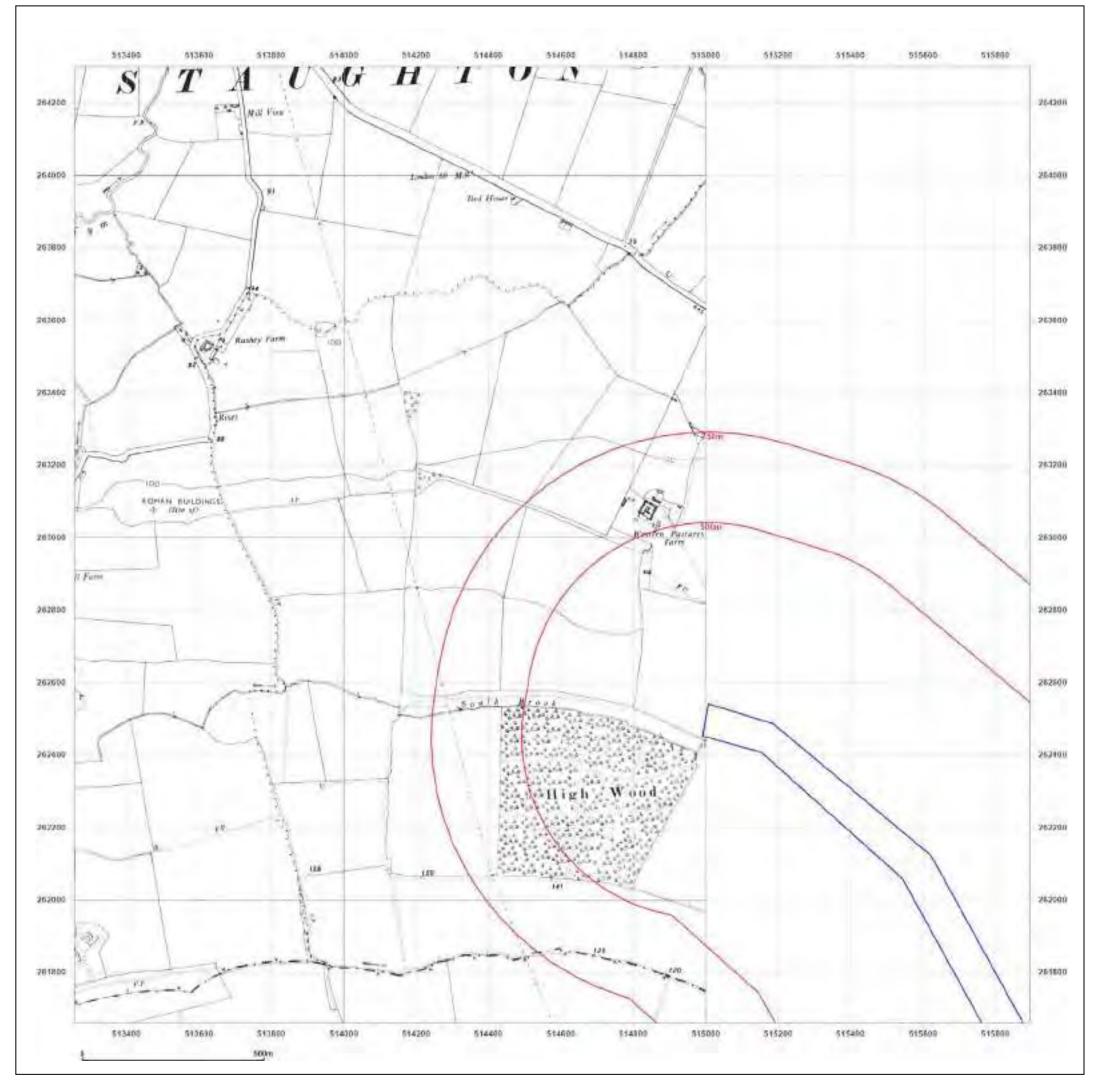




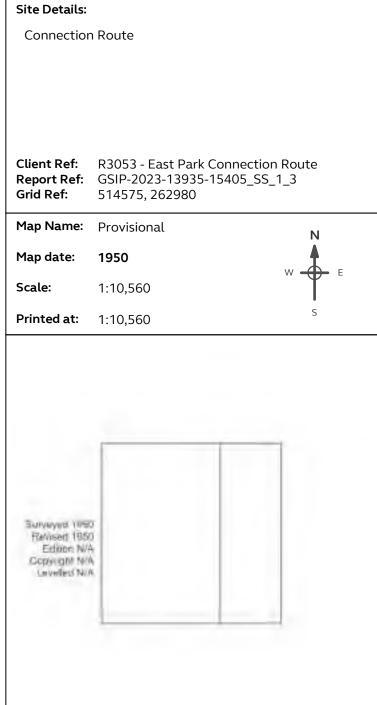
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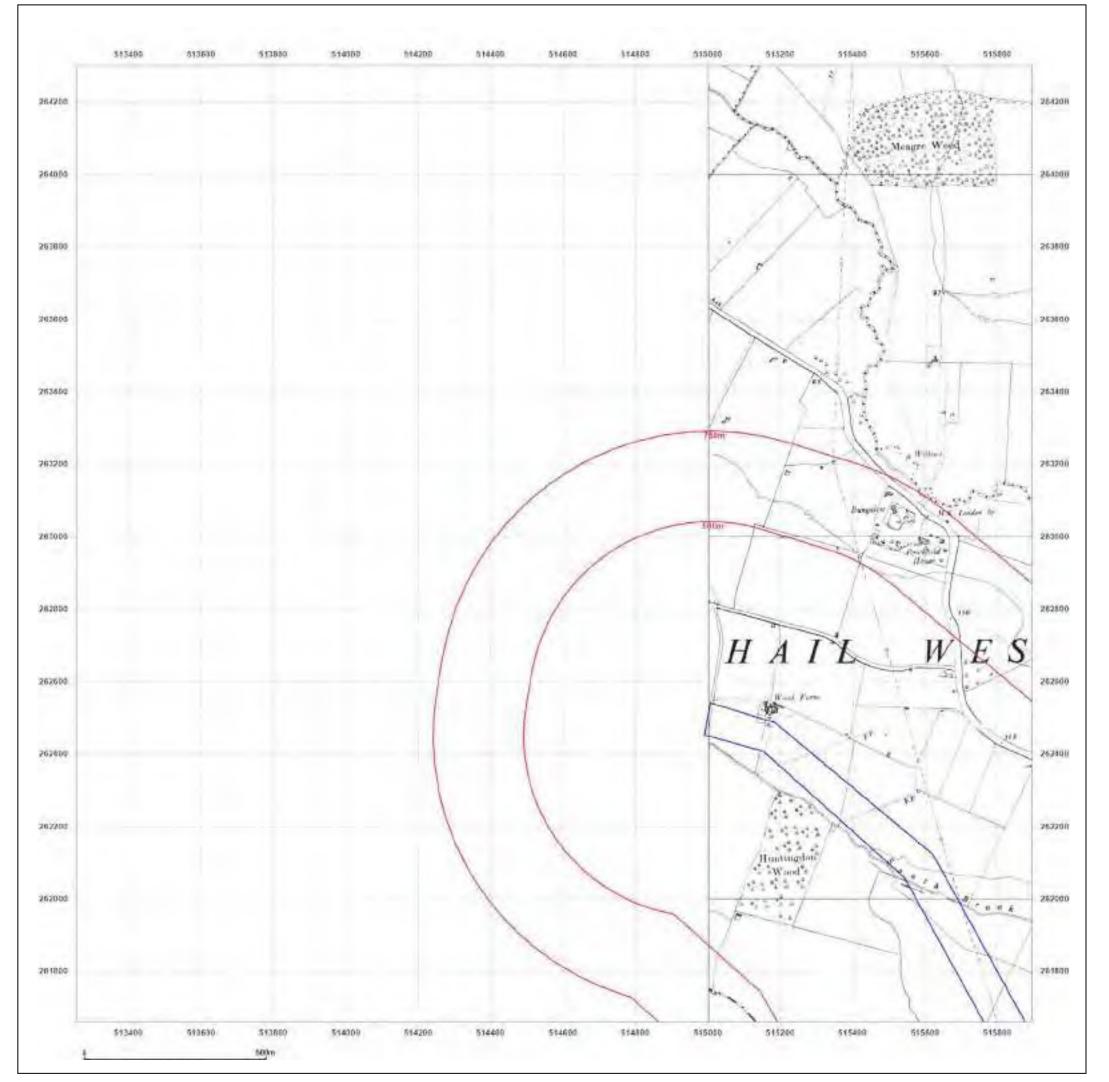




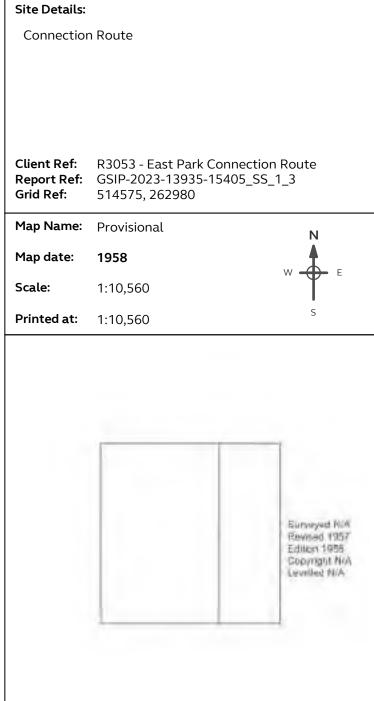
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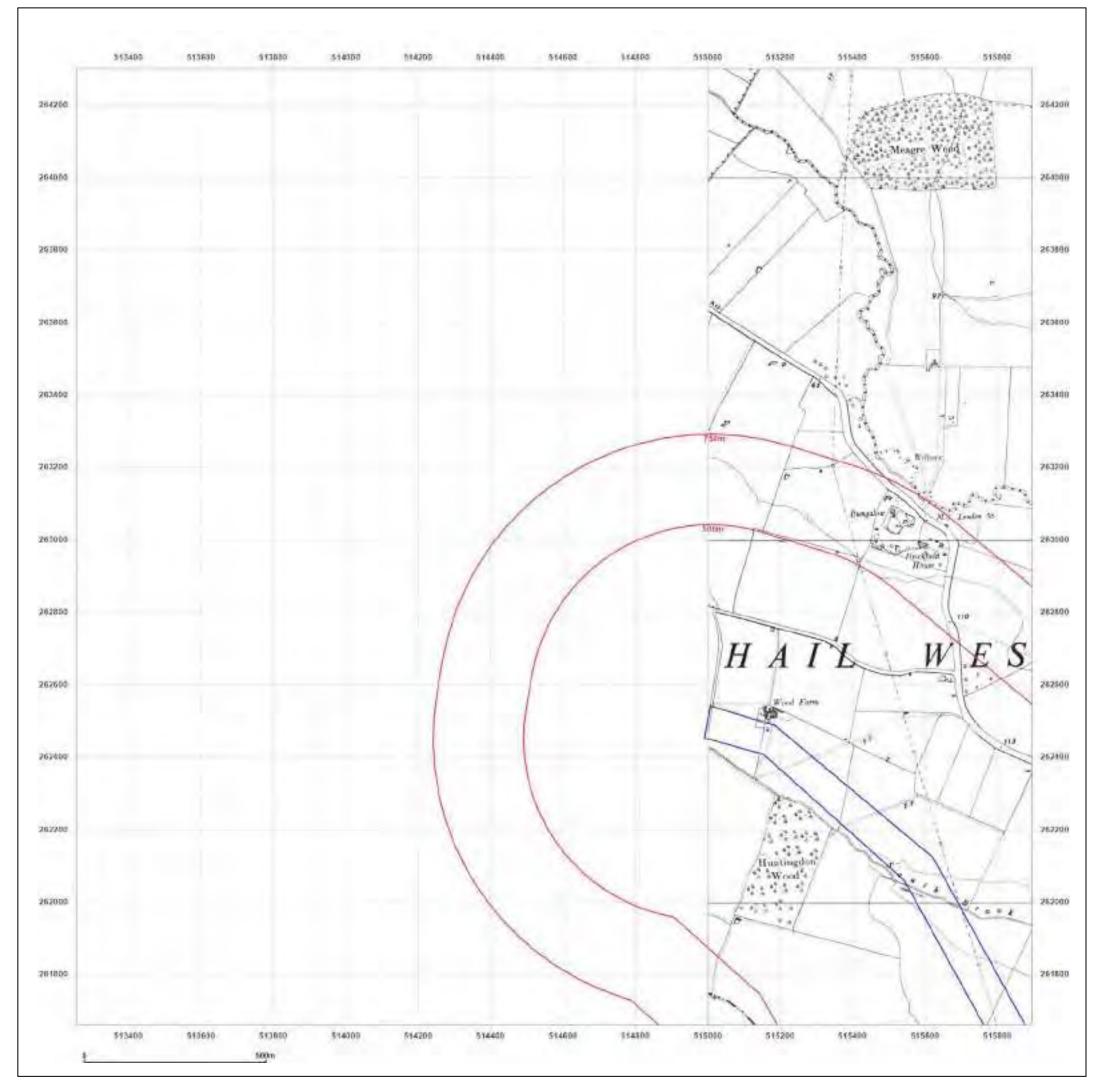




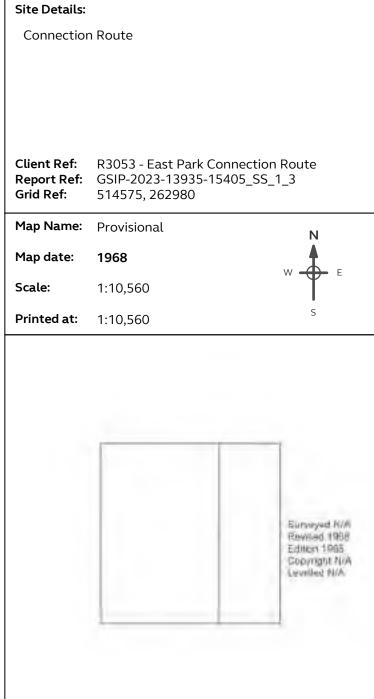
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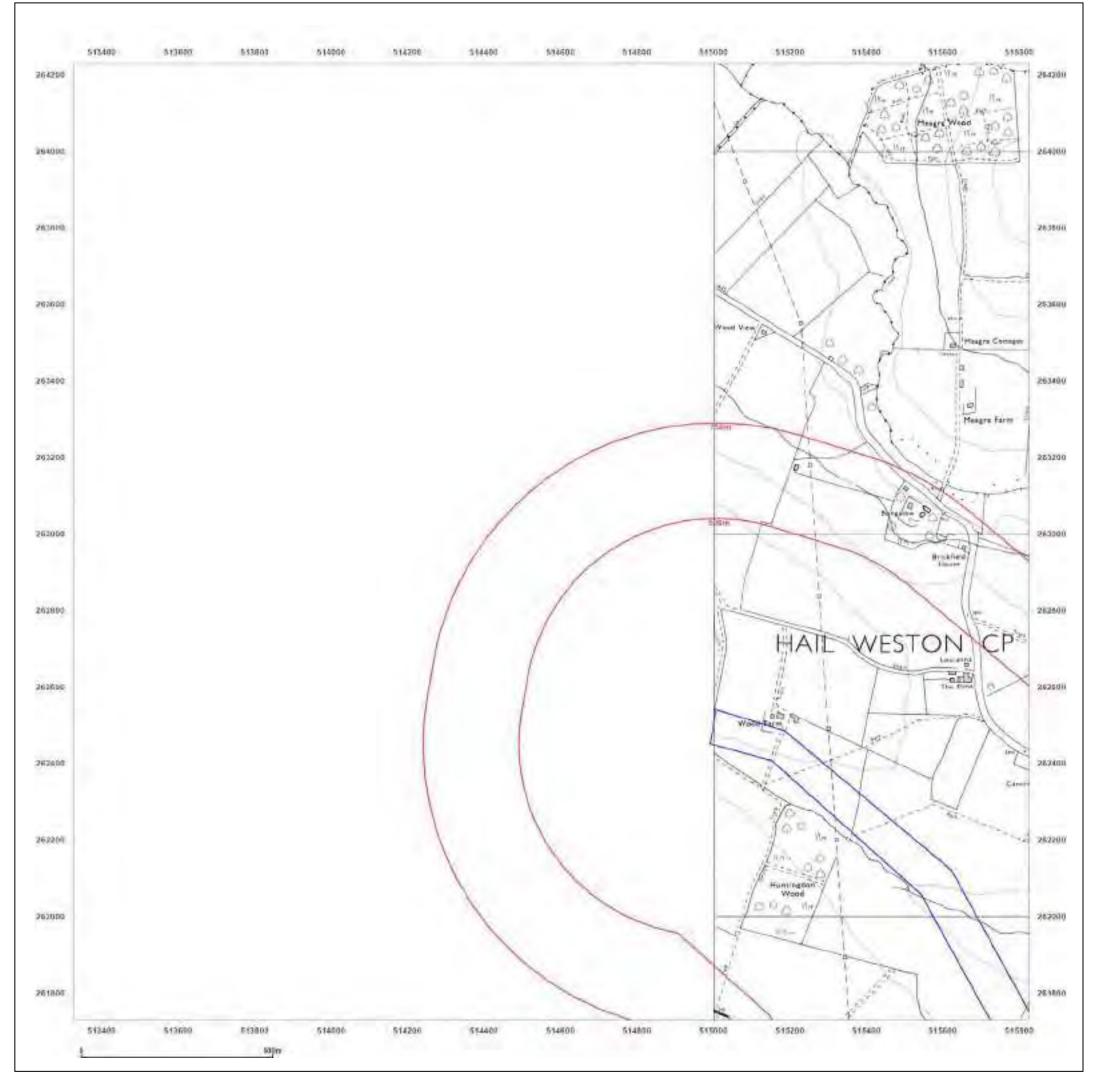




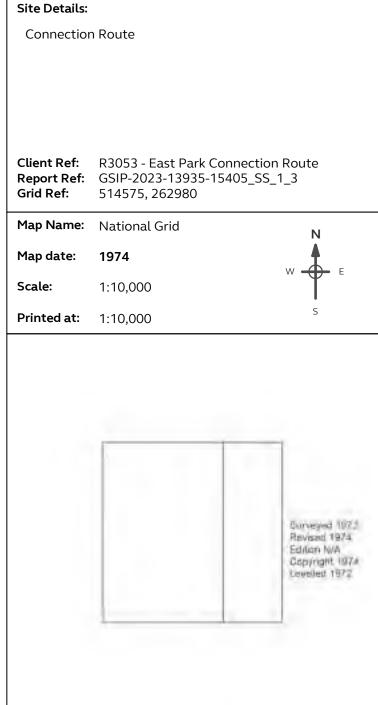
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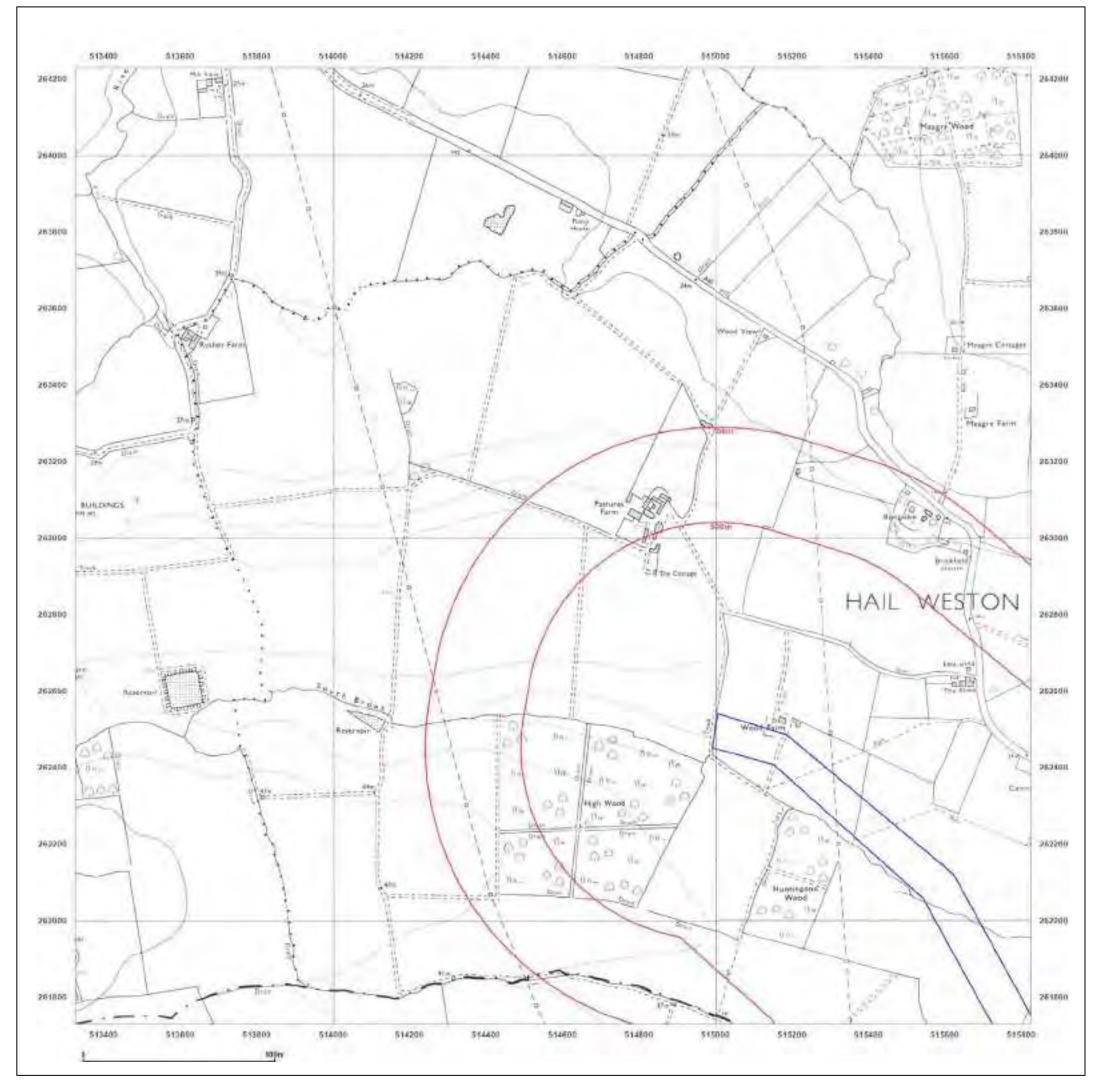




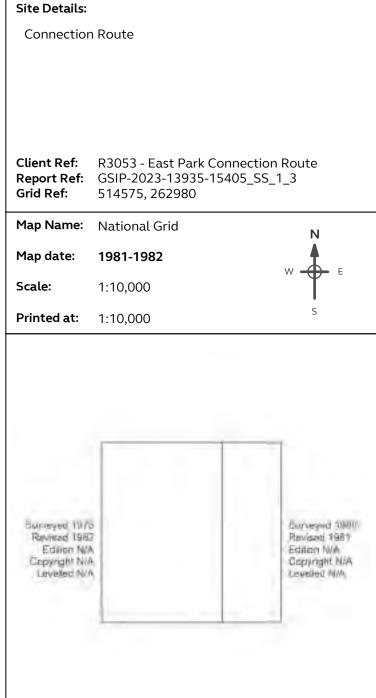
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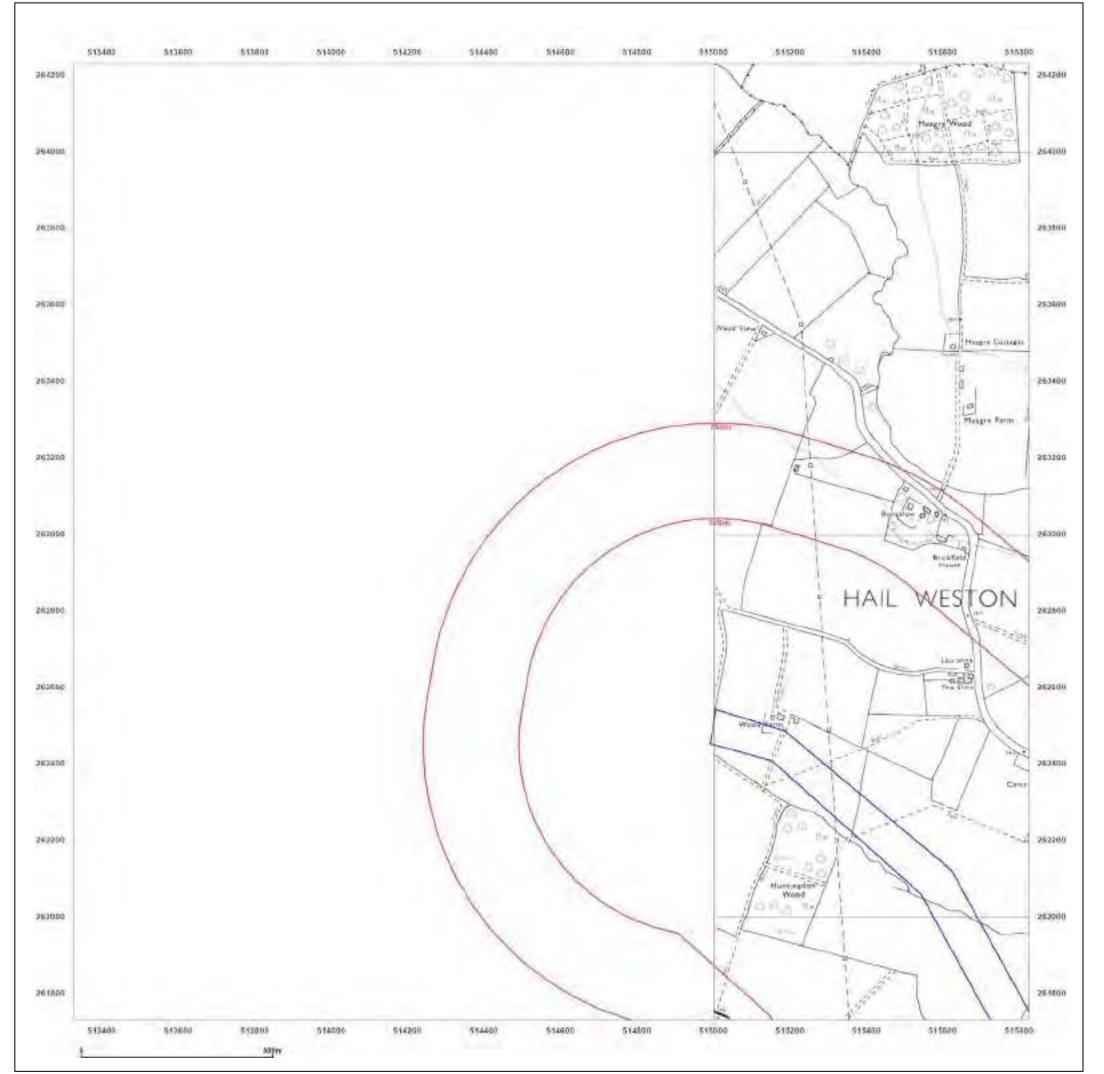




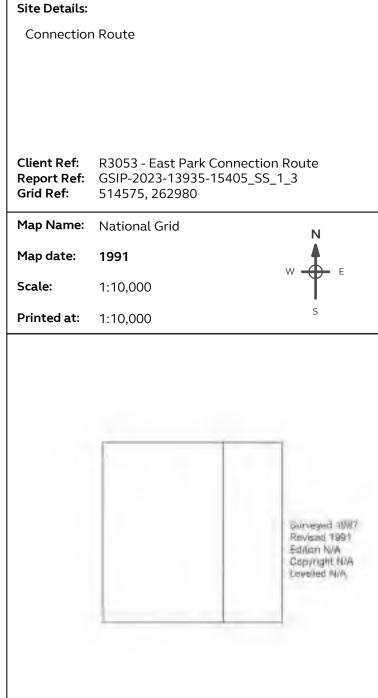
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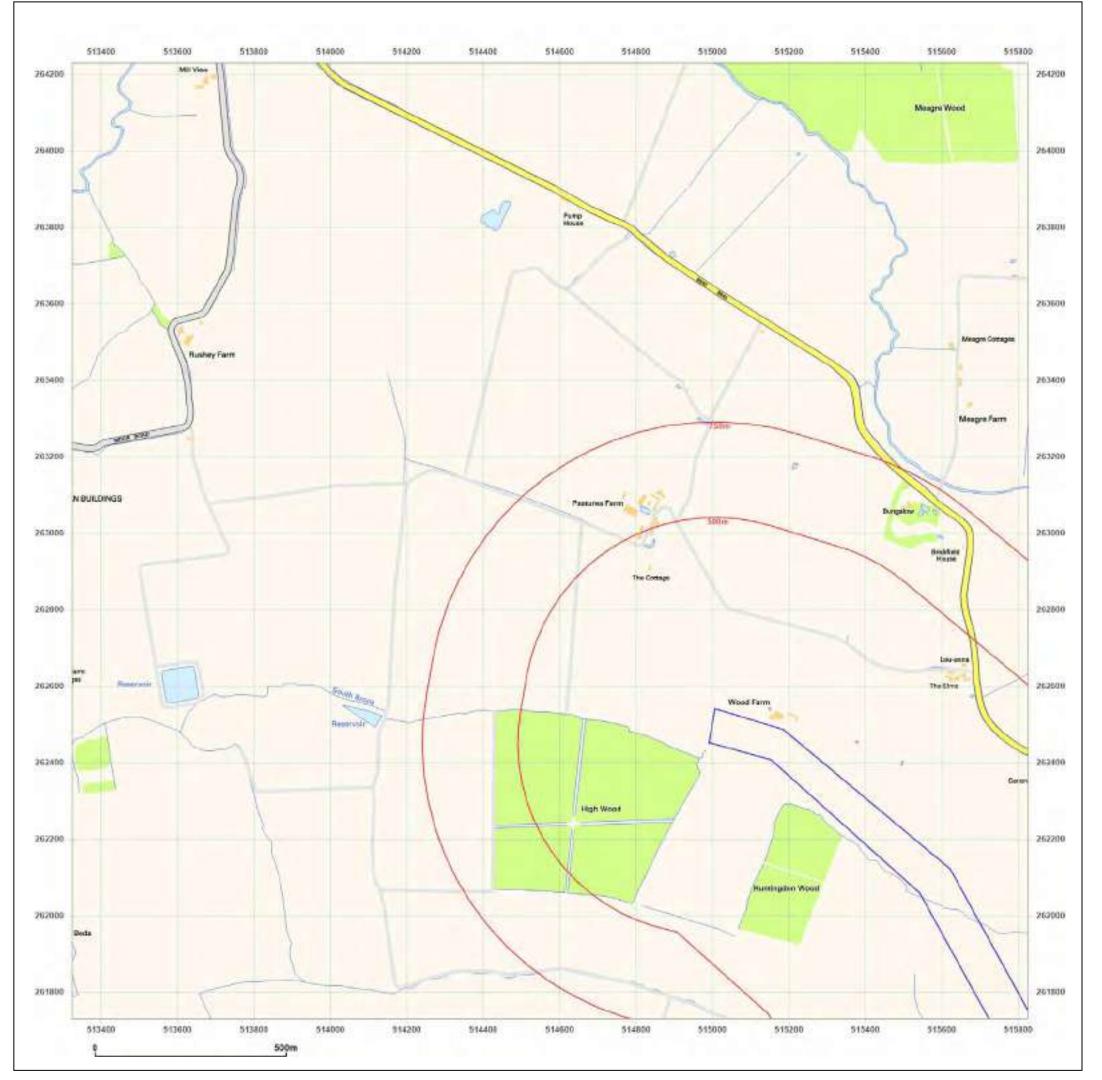




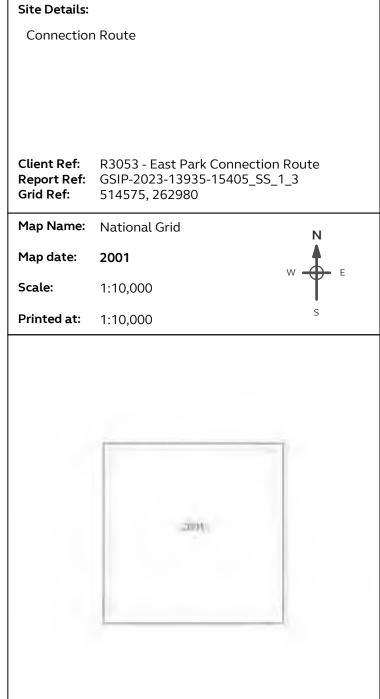
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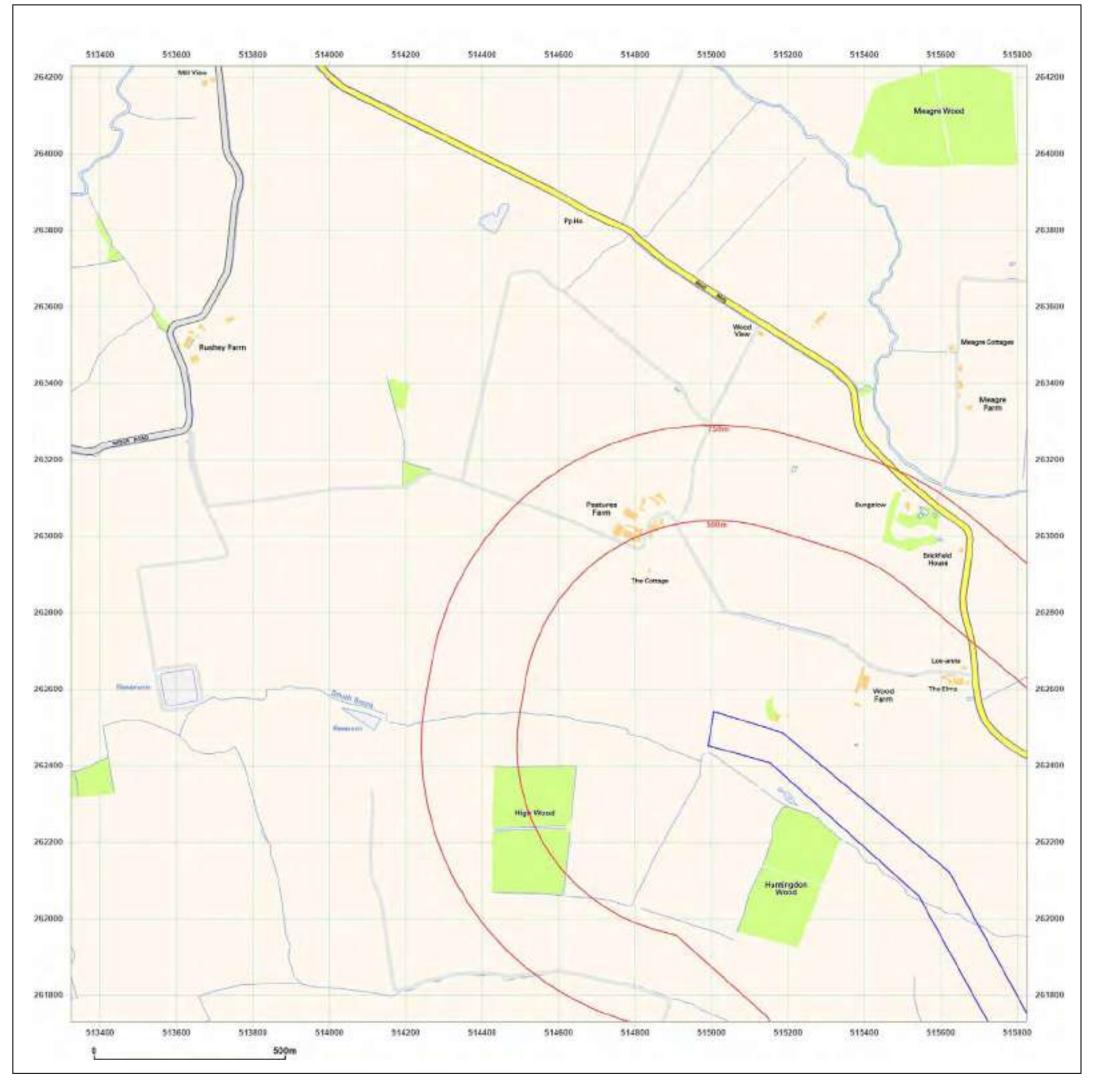




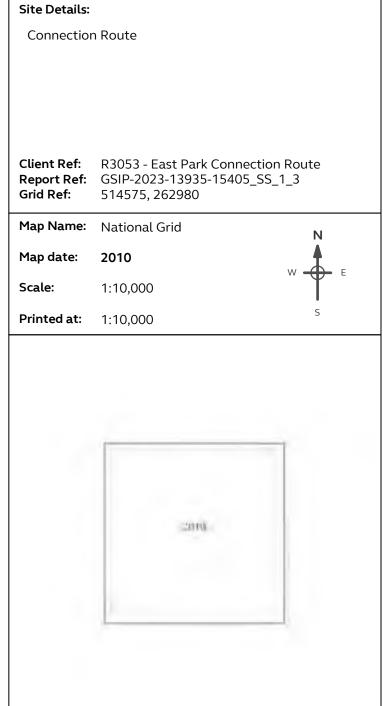
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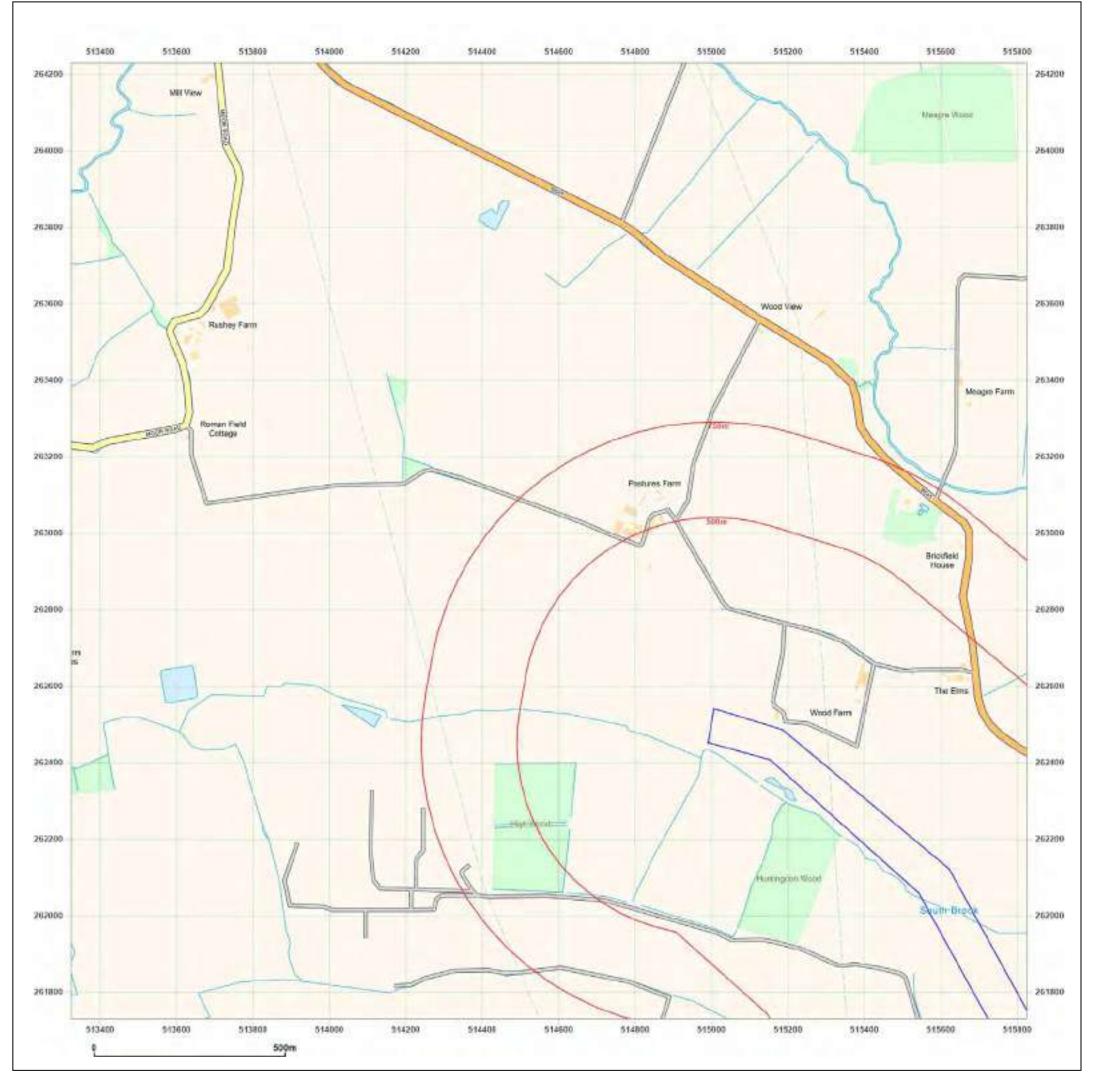




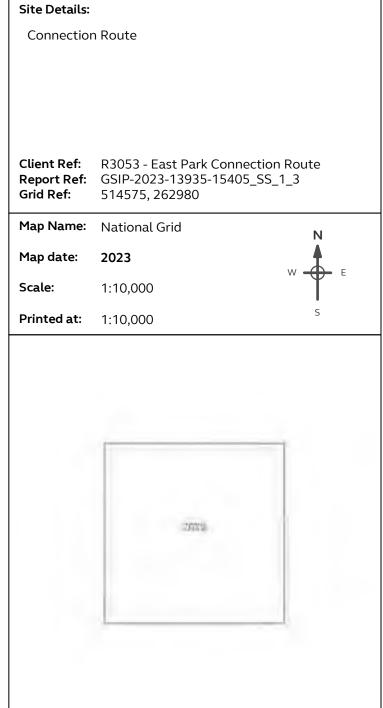
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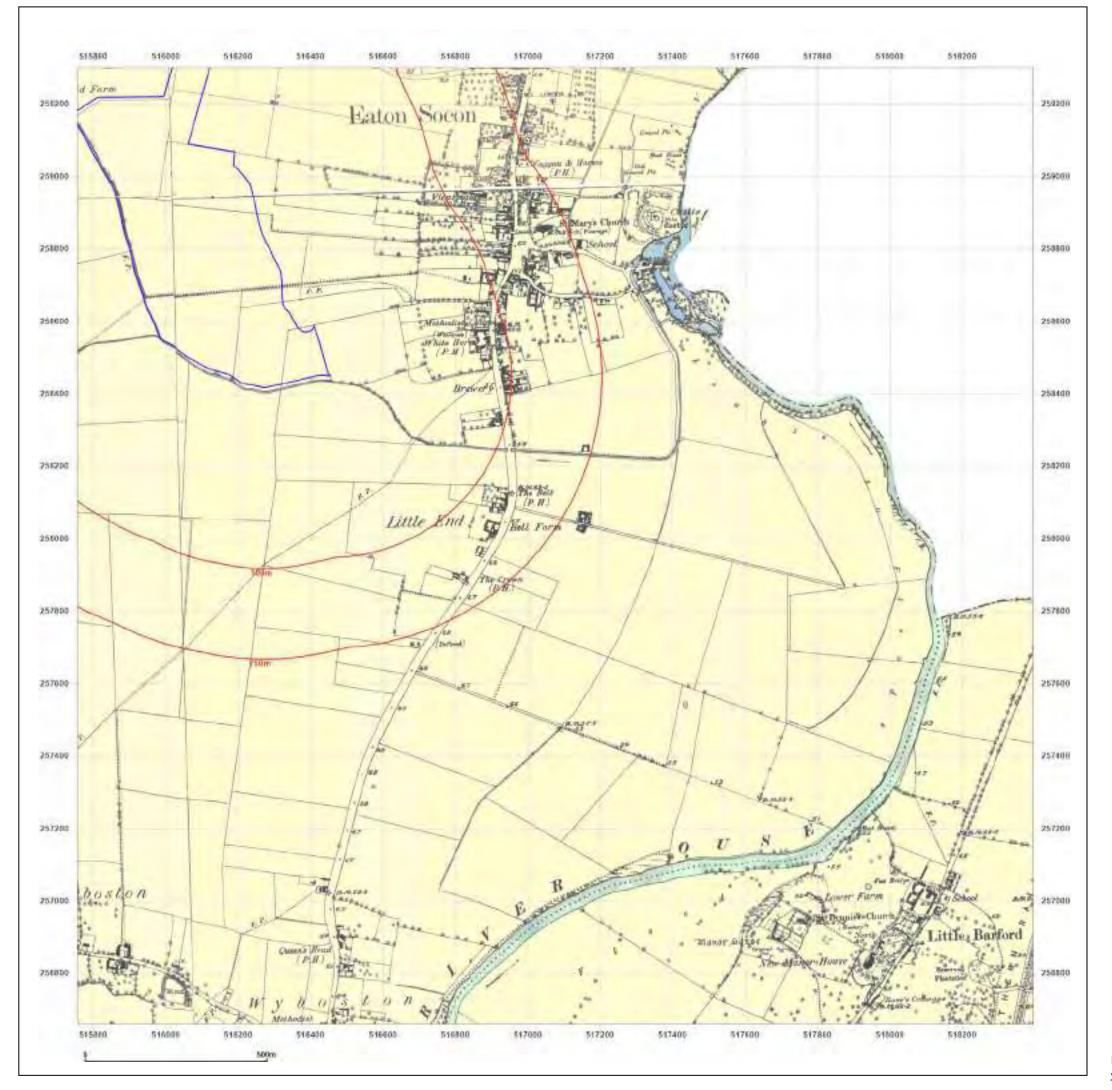




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Map legend available at:





Site Details:

Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_2_1

Grid Ref: 517075, 257980

Map Name: County Series

Map date: 1882

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1883: Surveyed 1882
Ravised 1083: Editor N/A
Copyright N/A
Lavisted N/A
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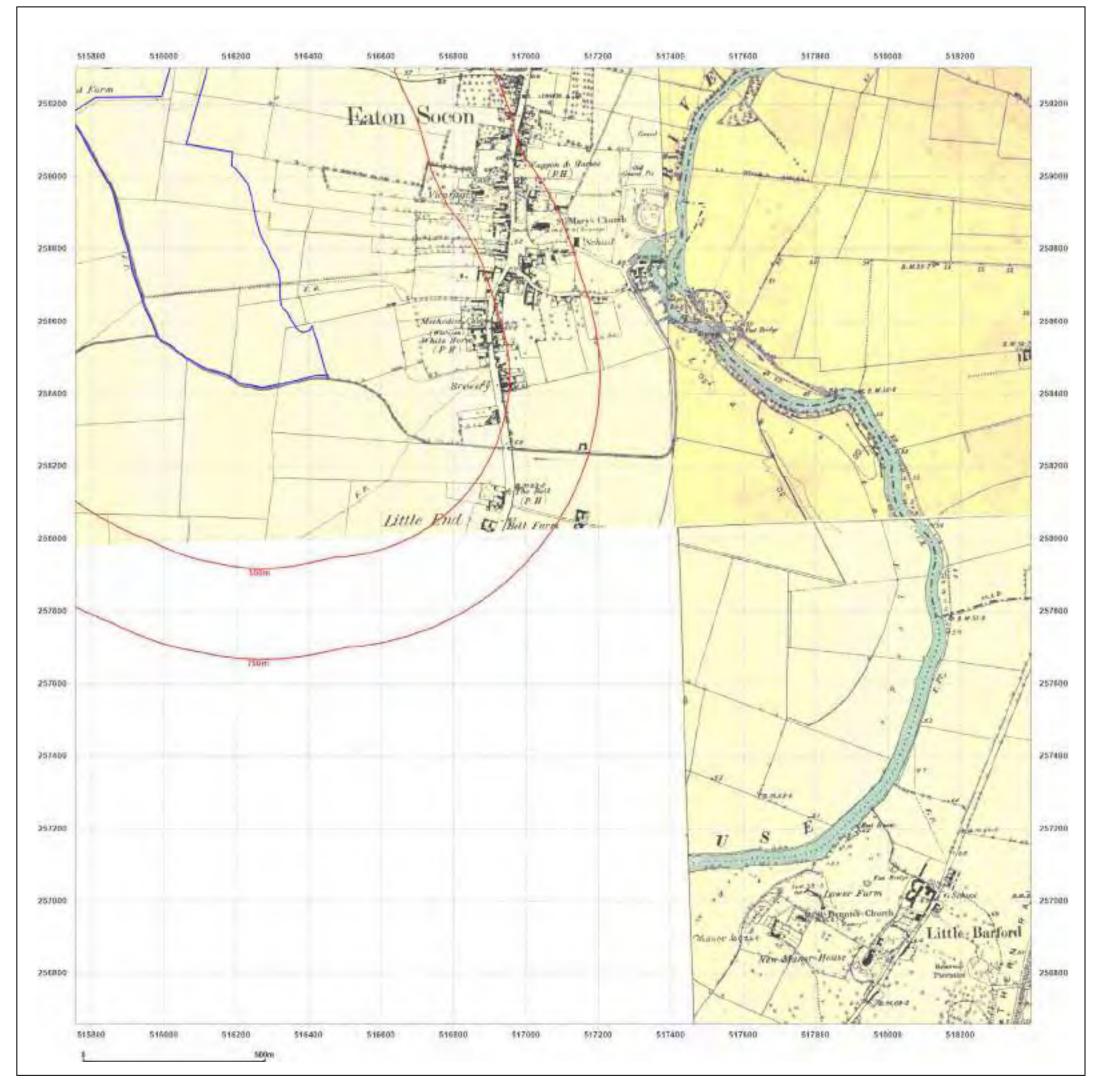


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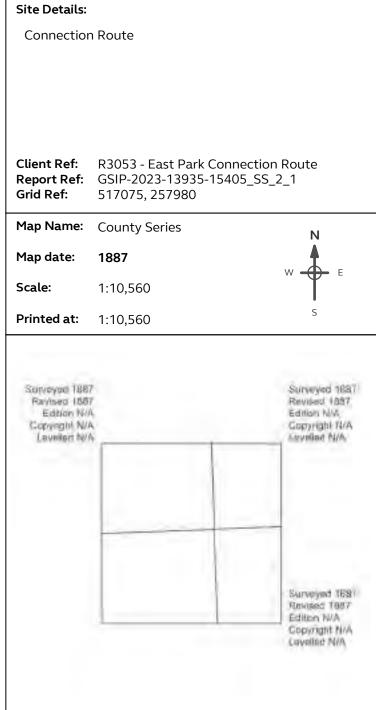
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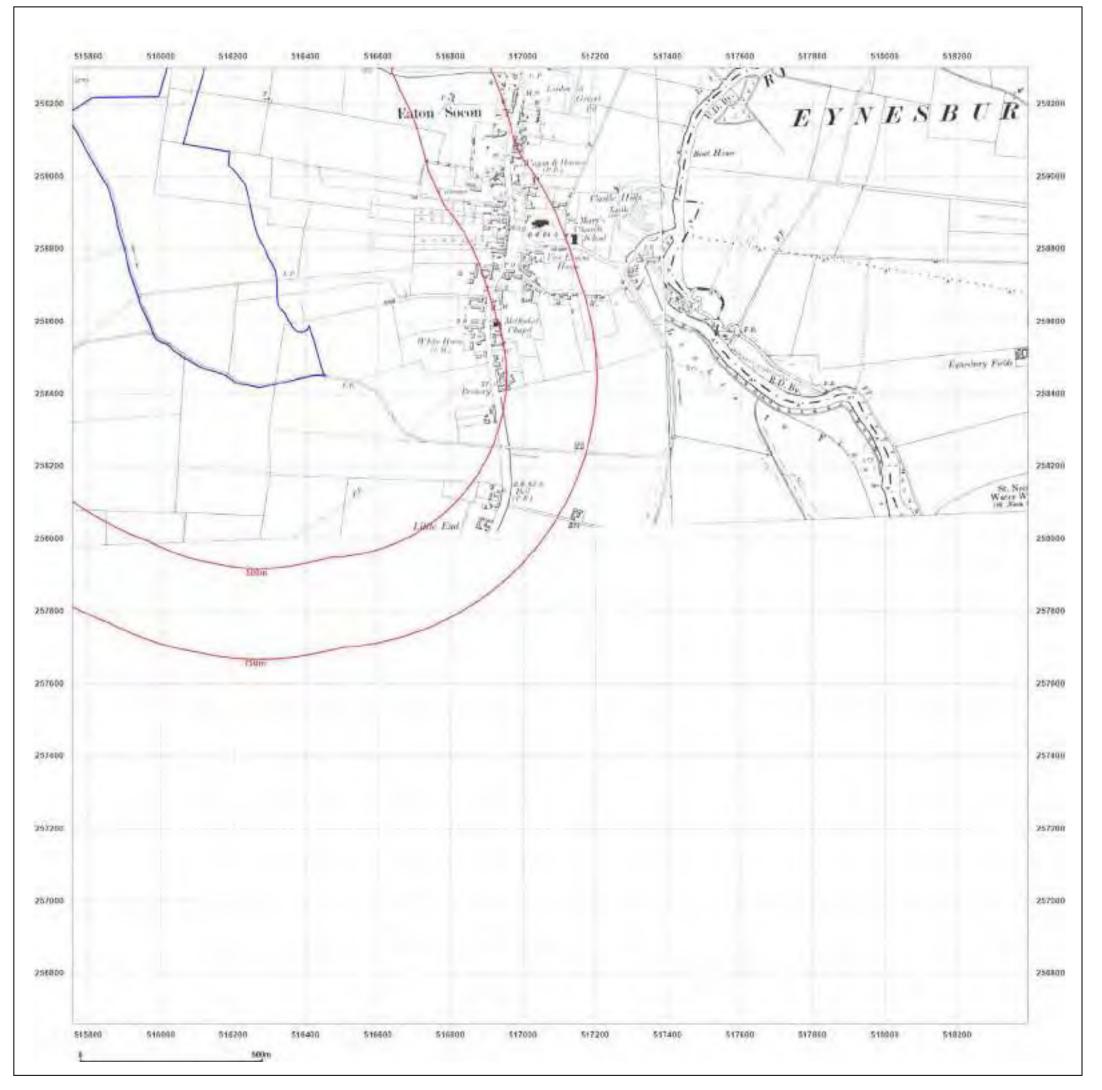




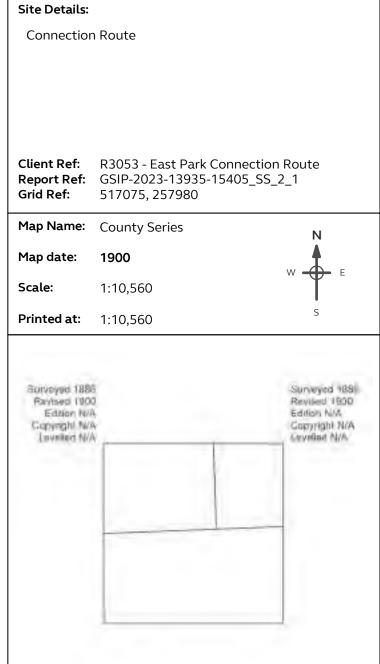
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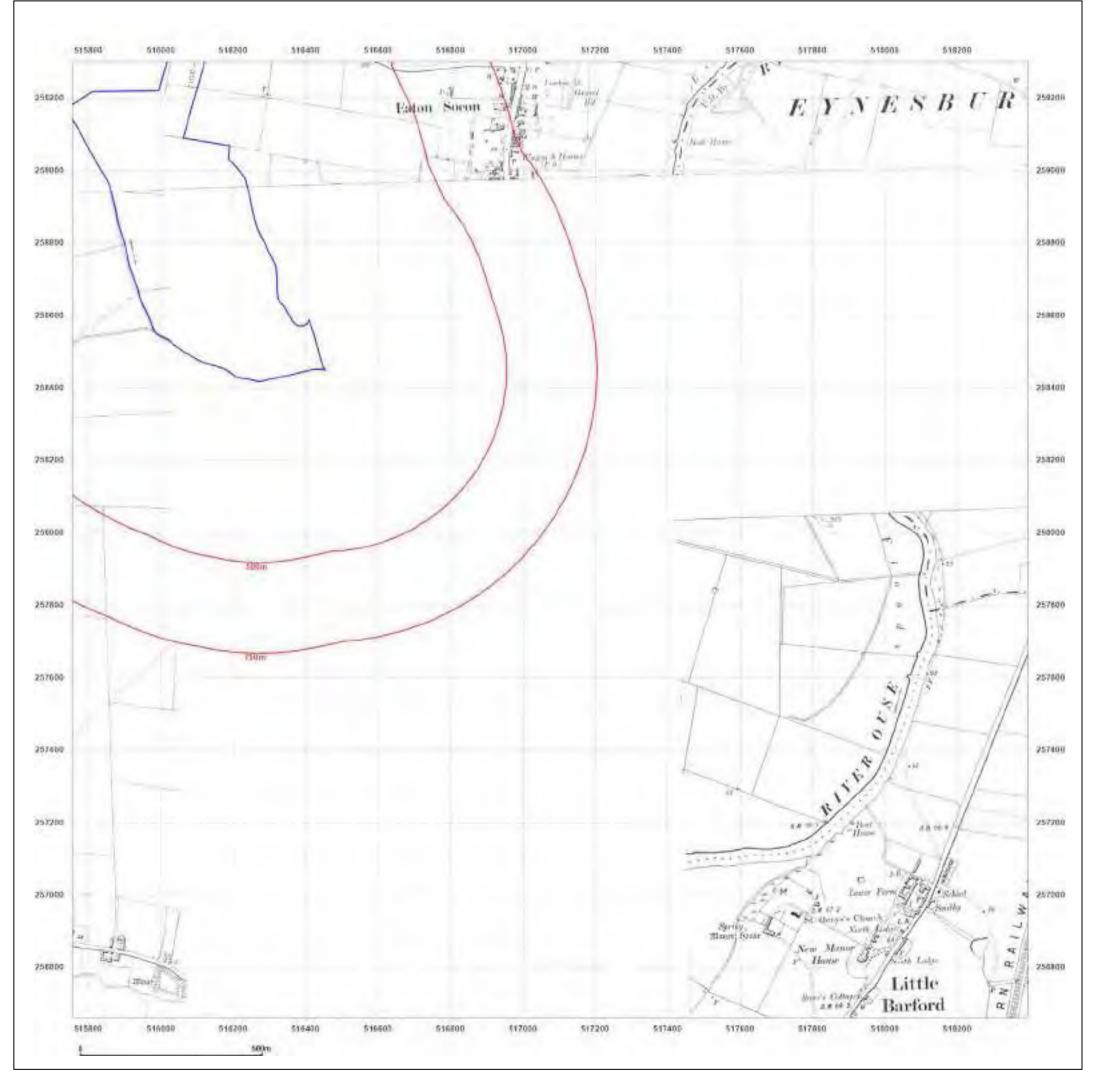




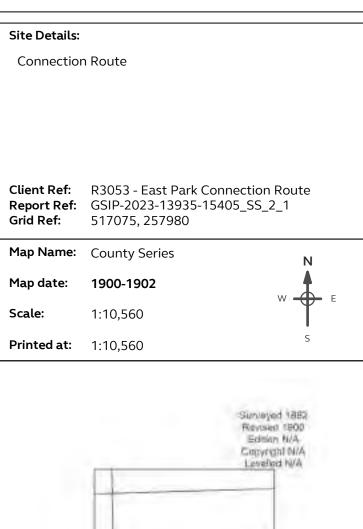
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Surveyed 1882 Revisad 1902

Edition 1900 Gapyright N/A Leveled N/A

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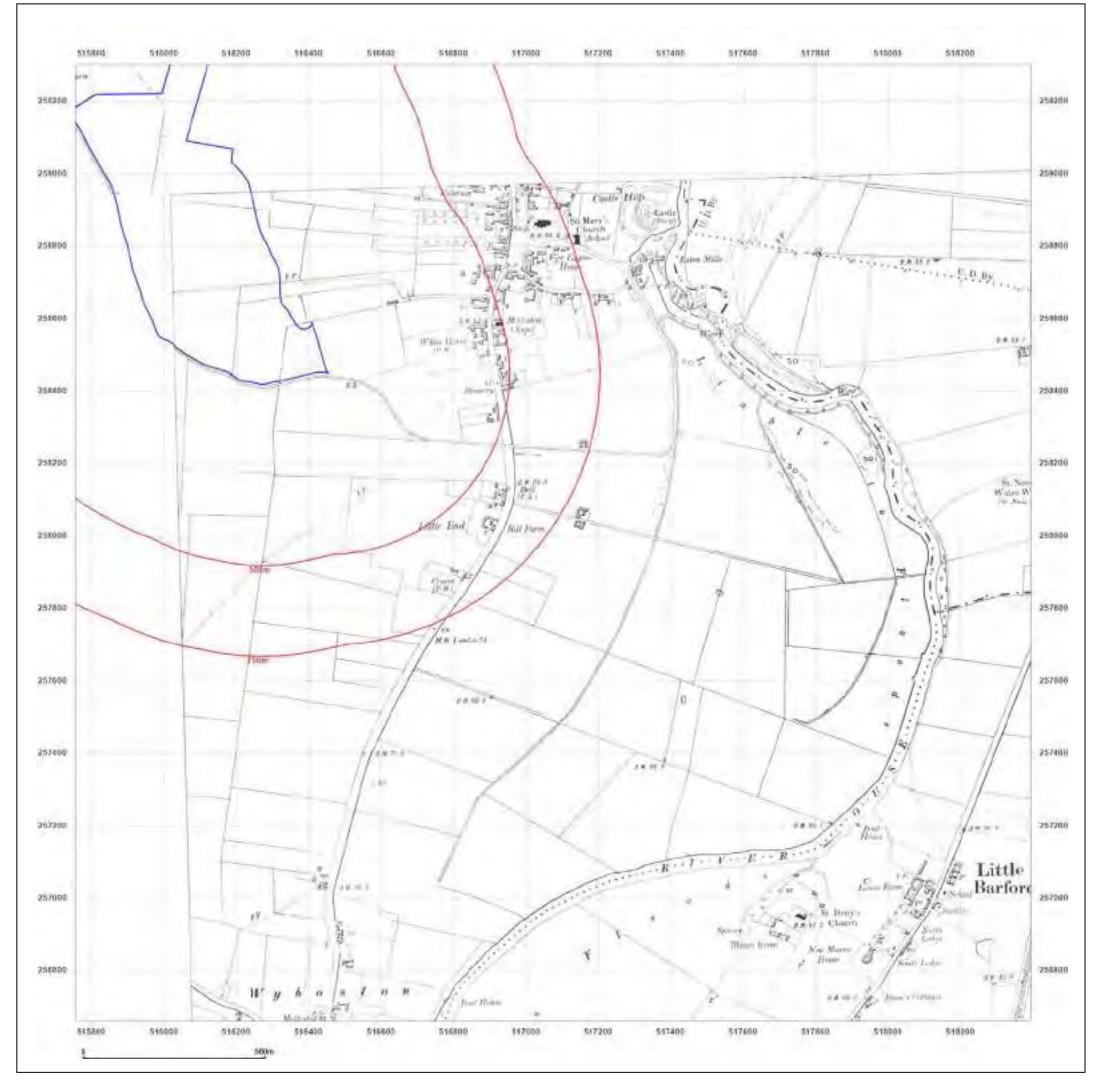
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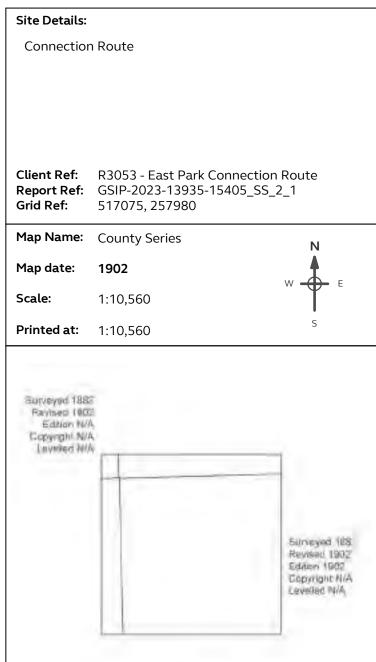
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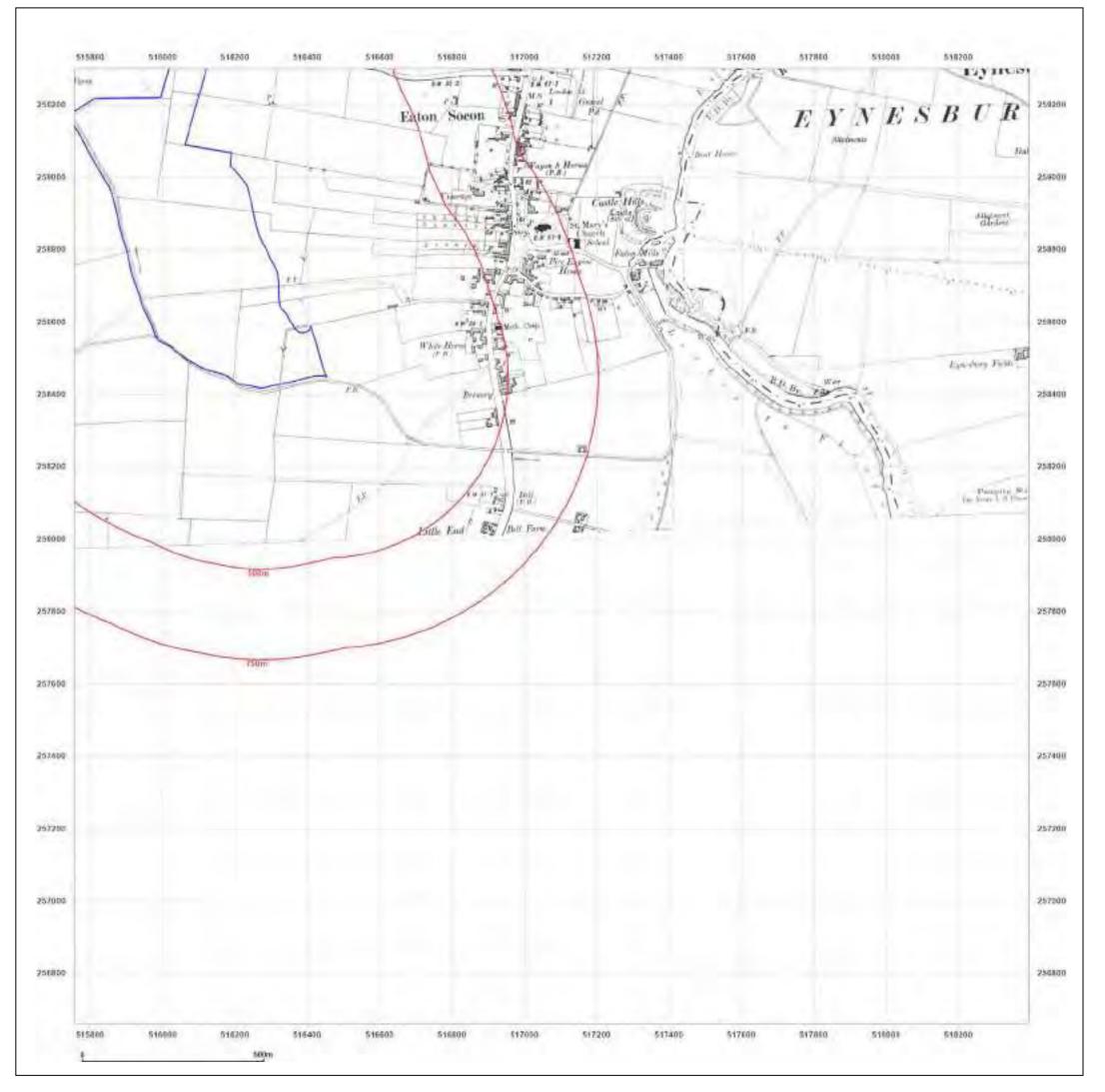




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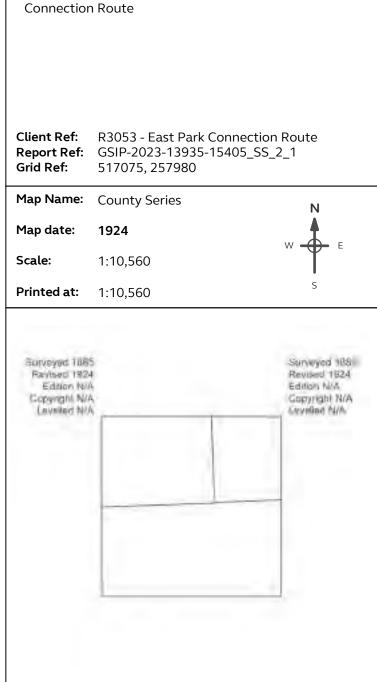
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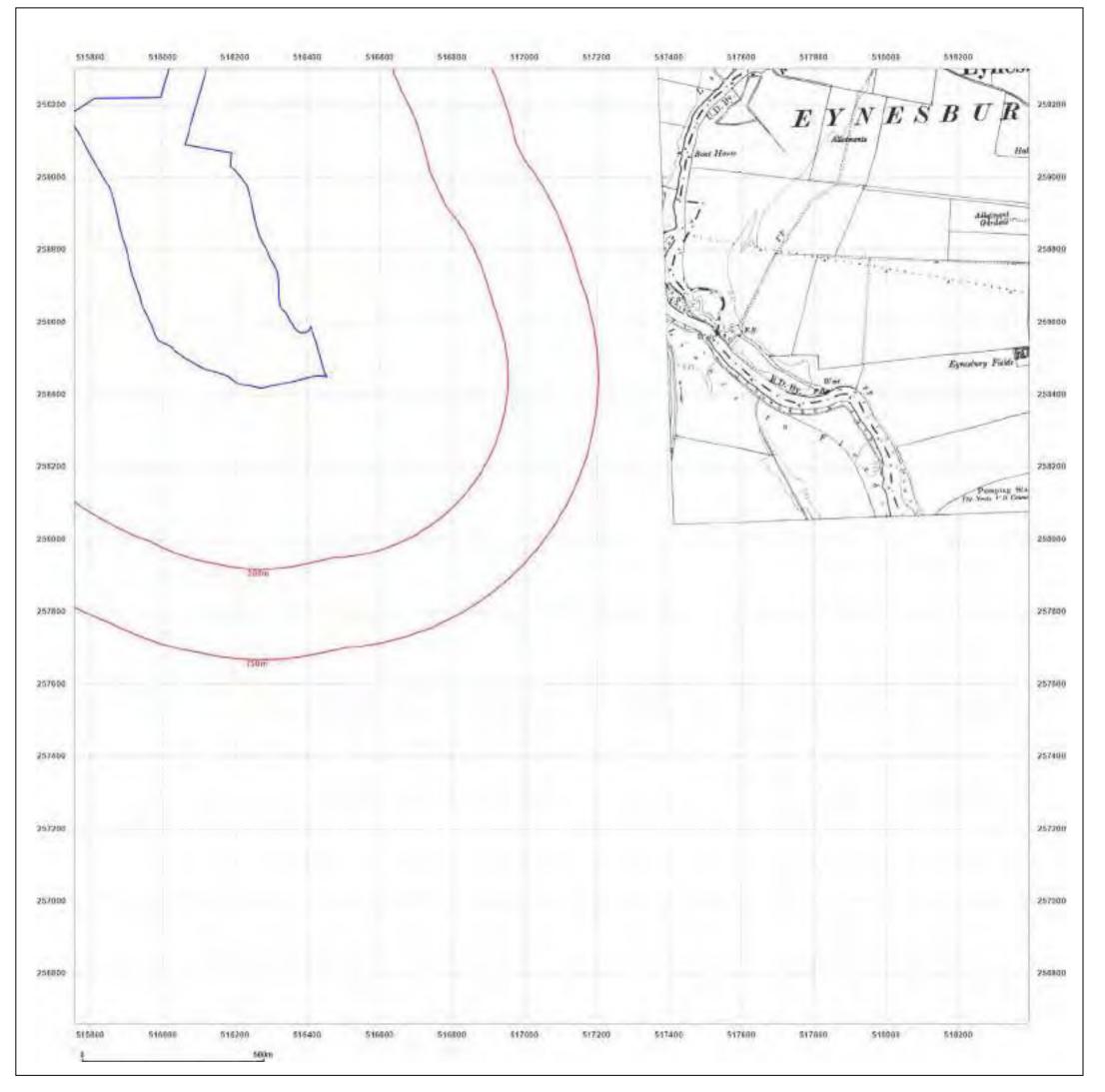


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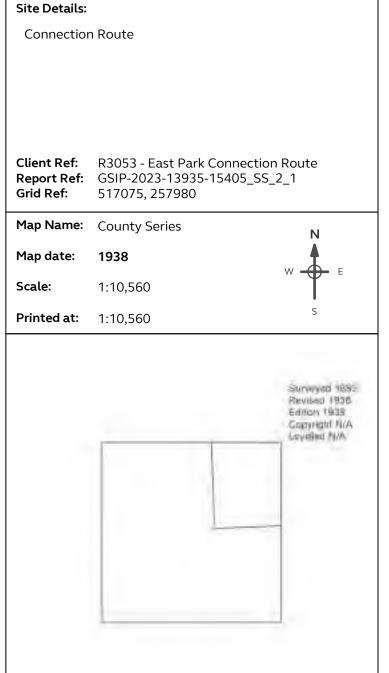
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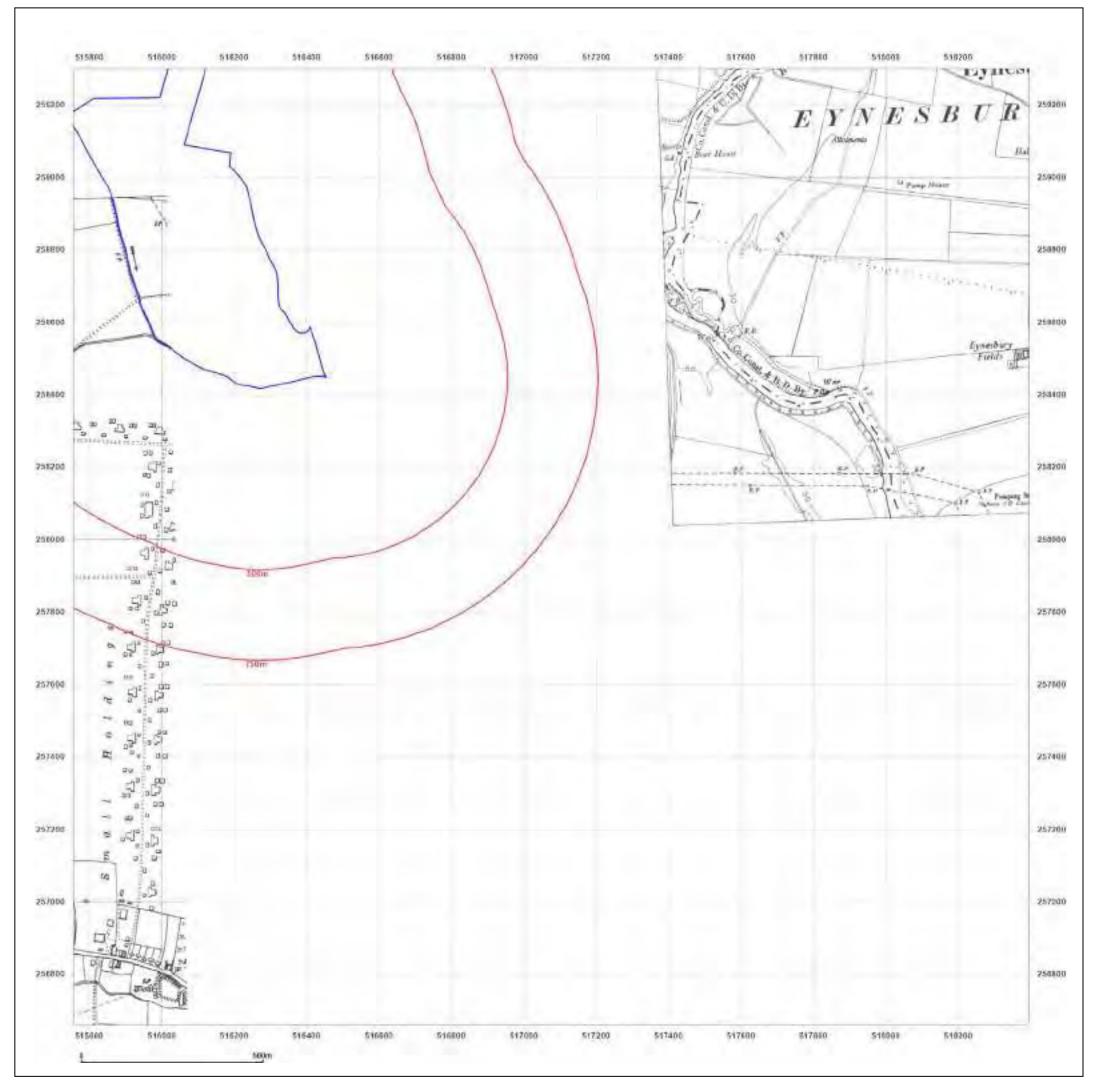




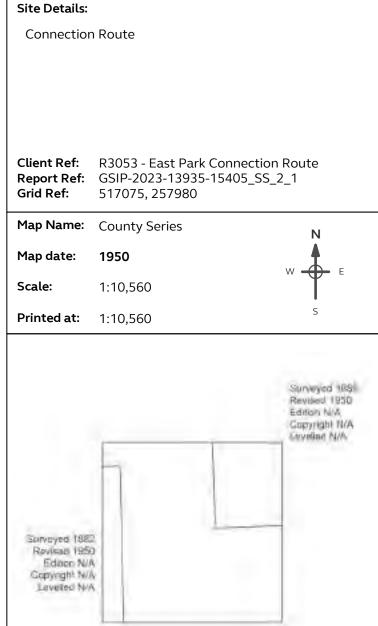
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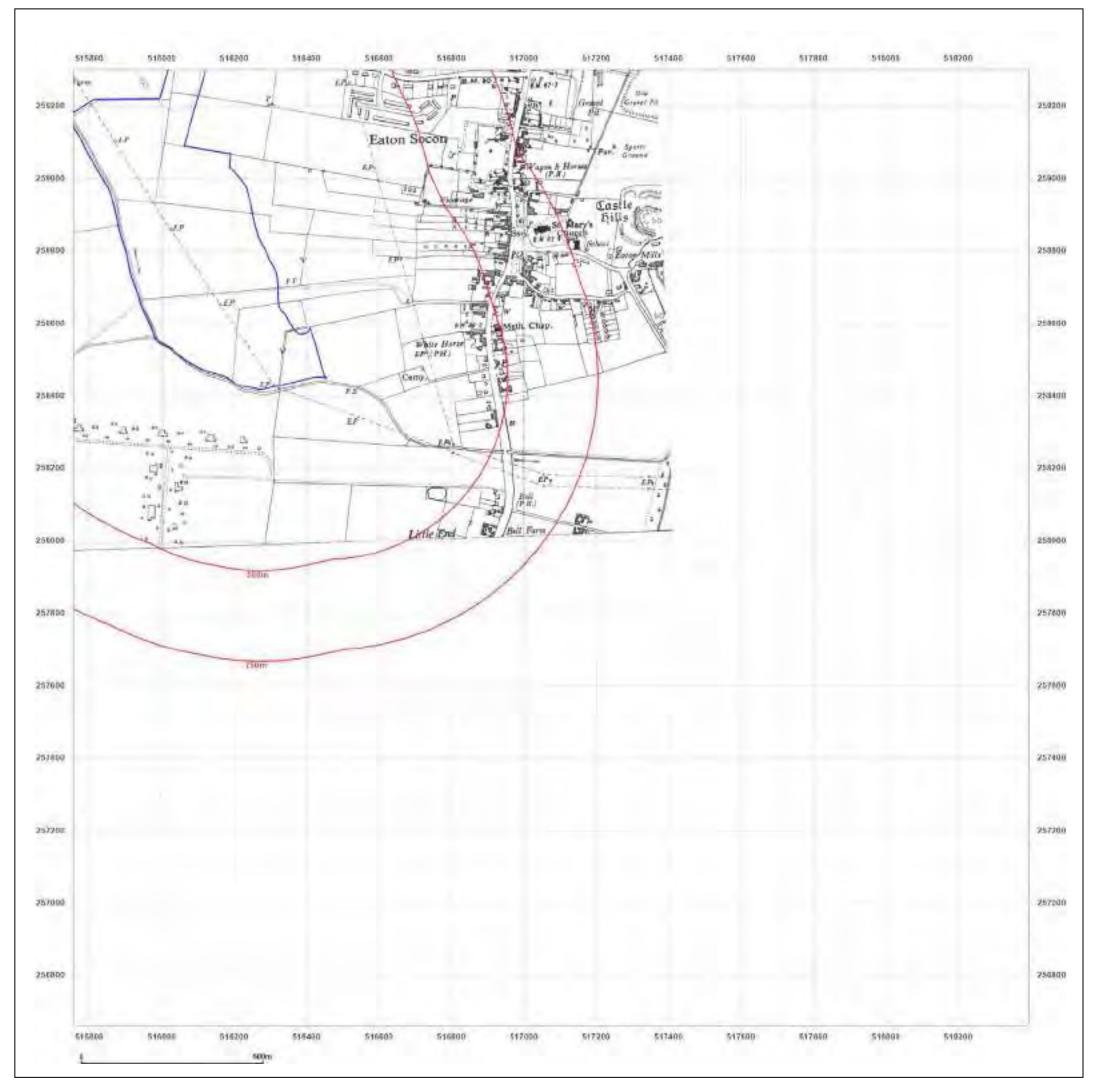




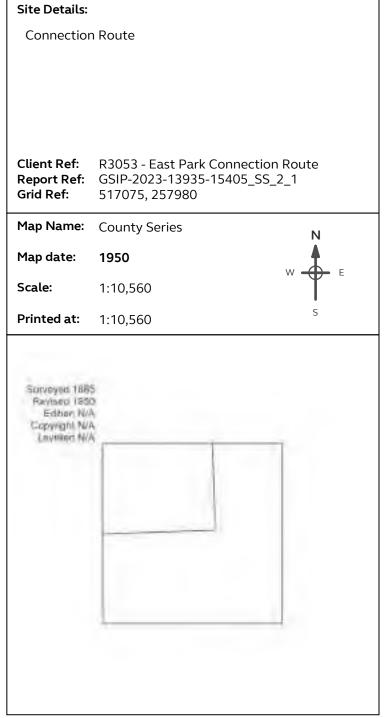
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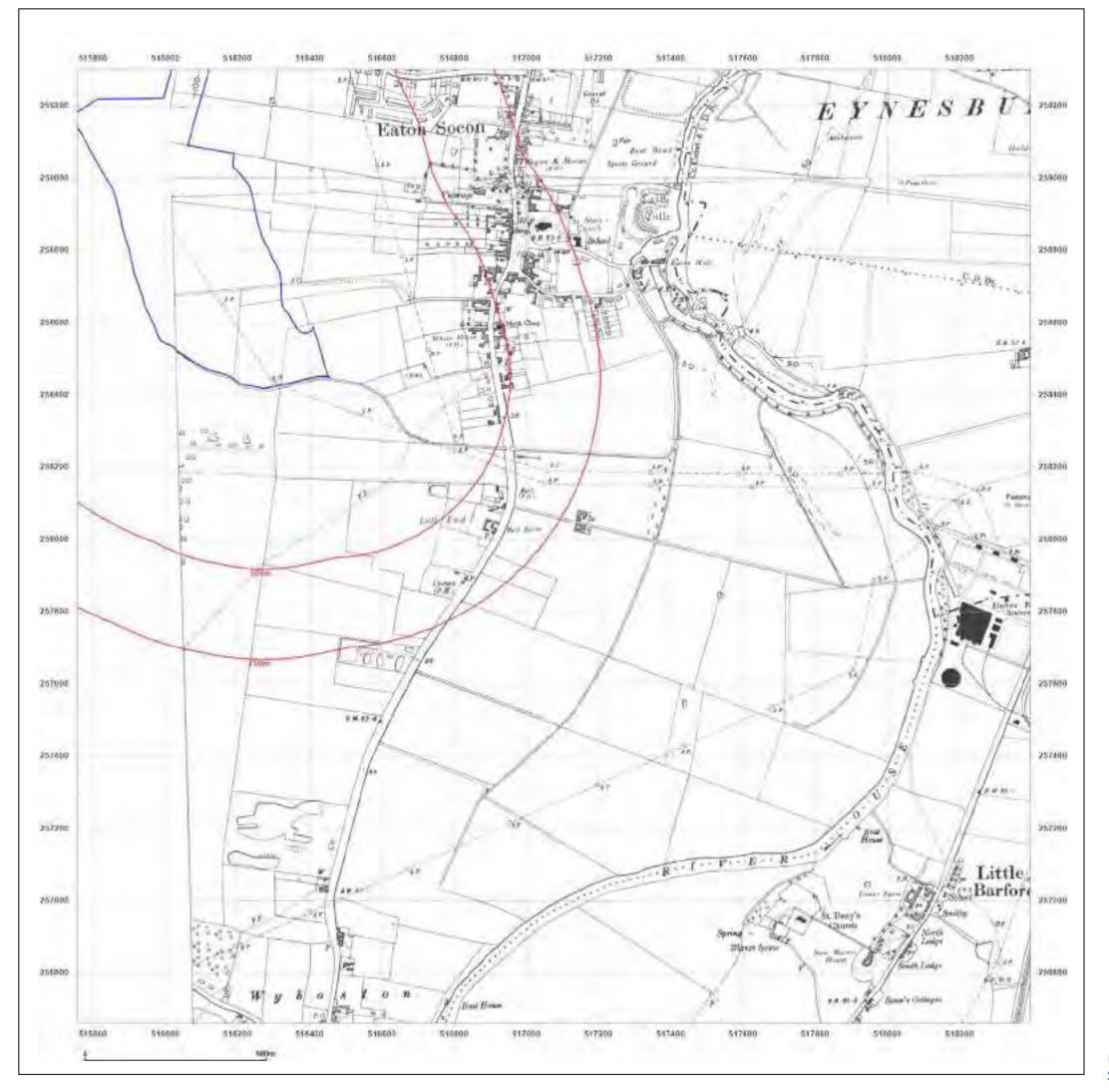




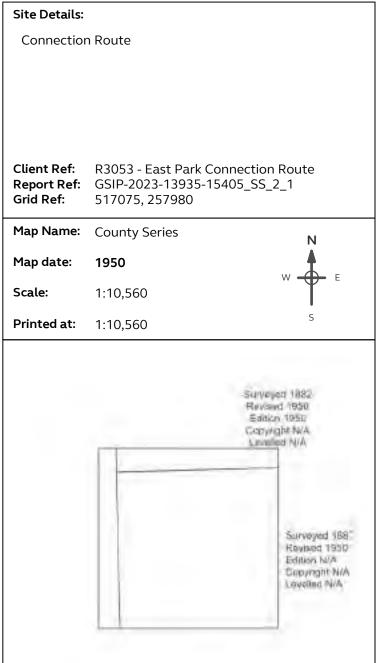
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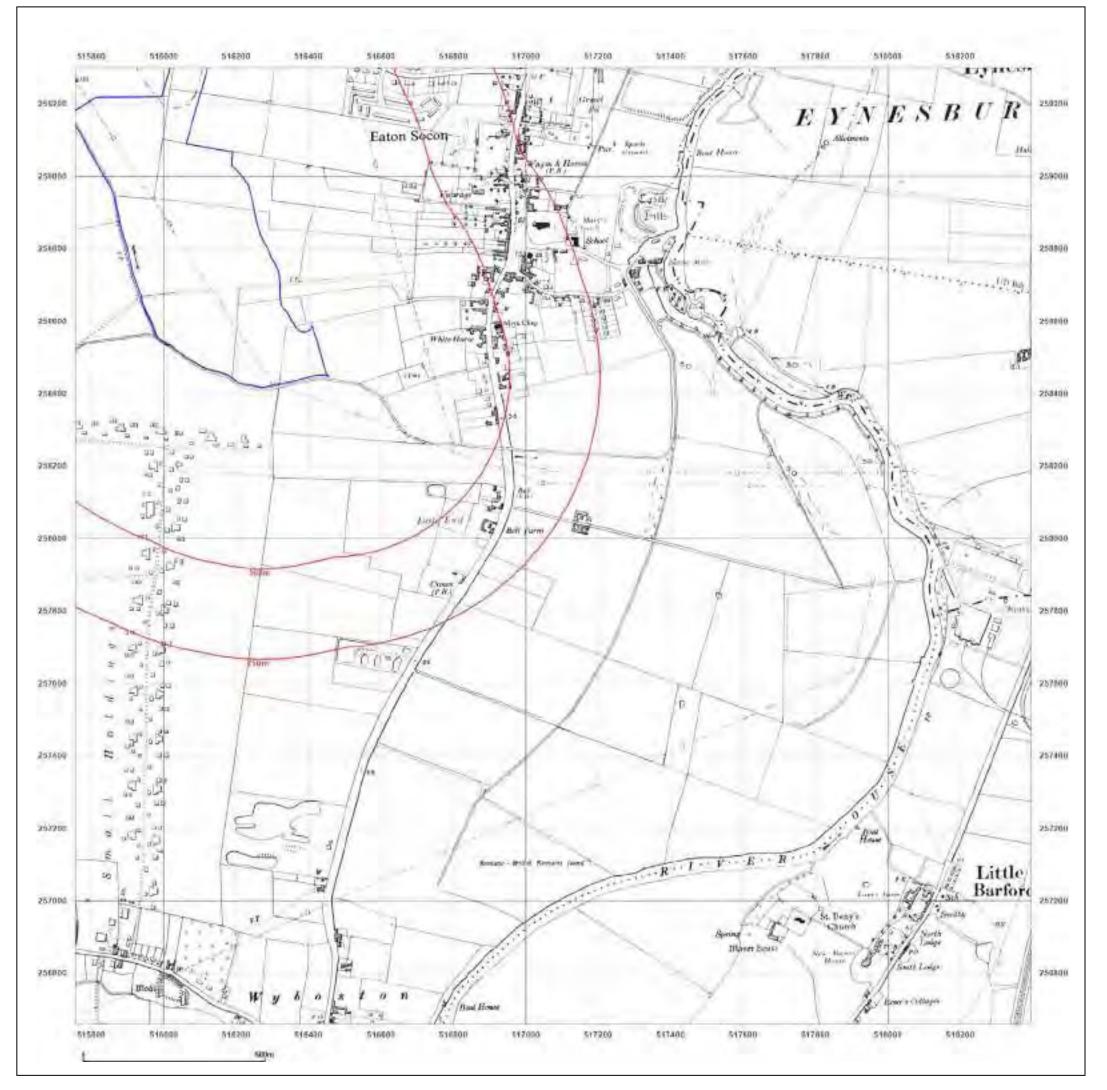




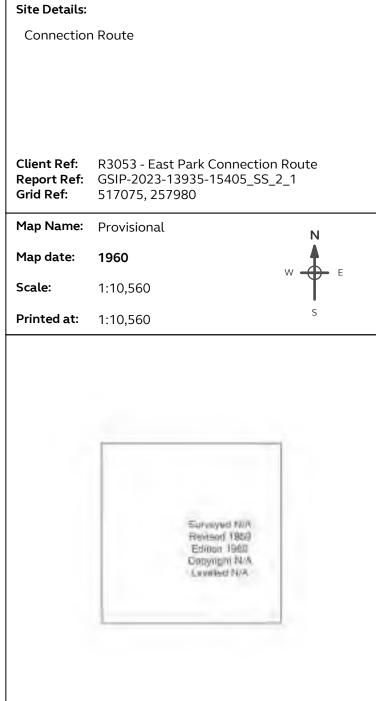
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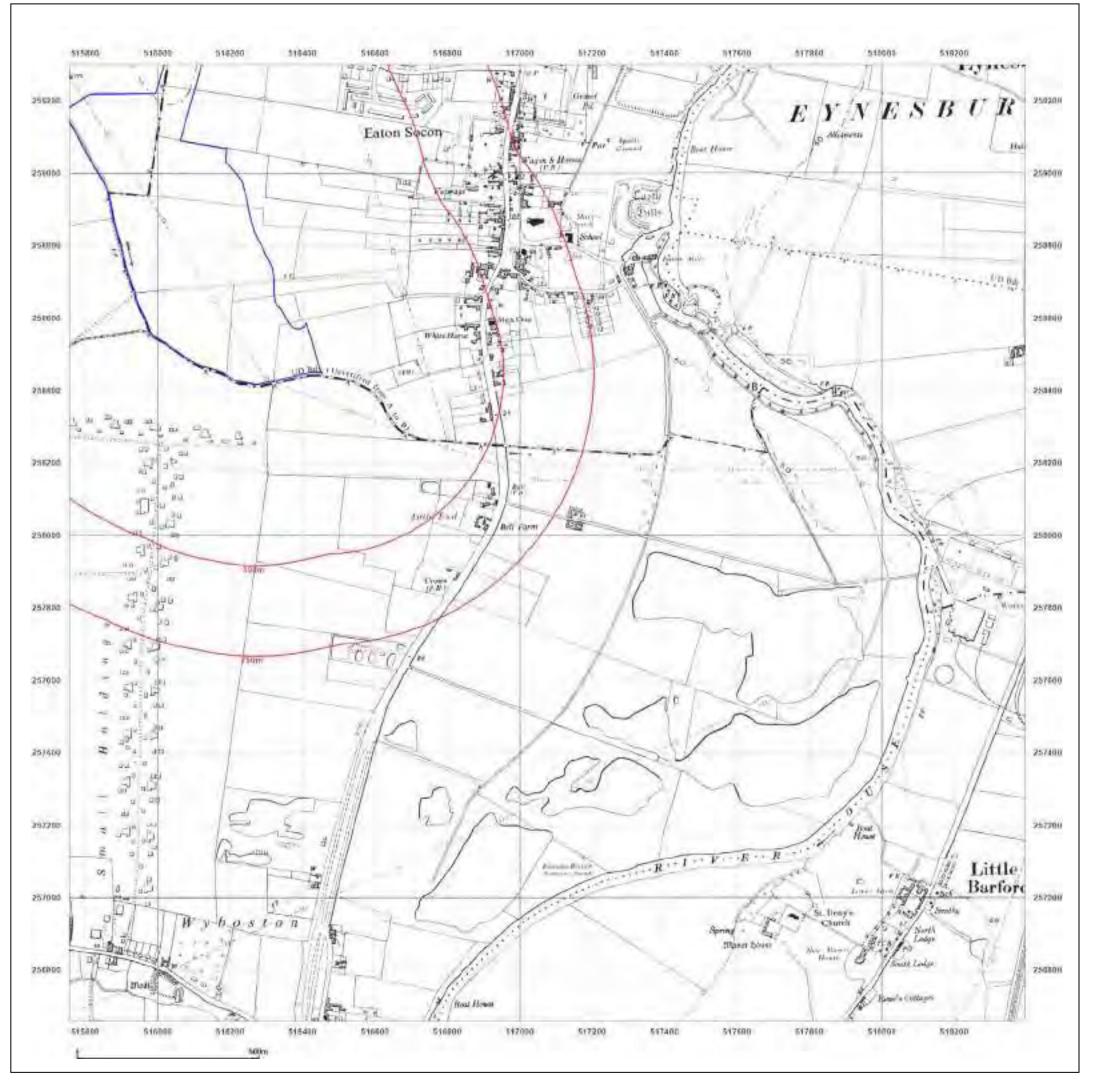




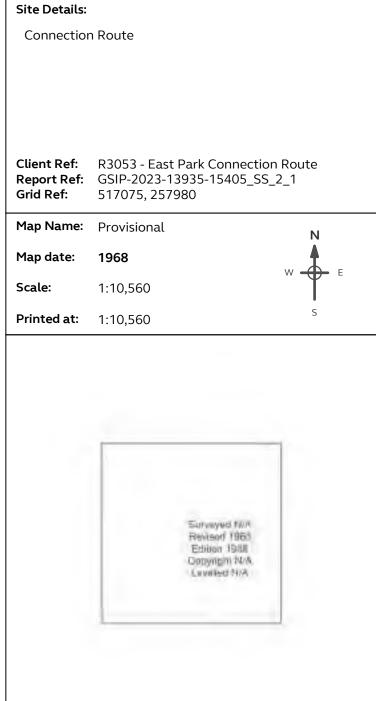
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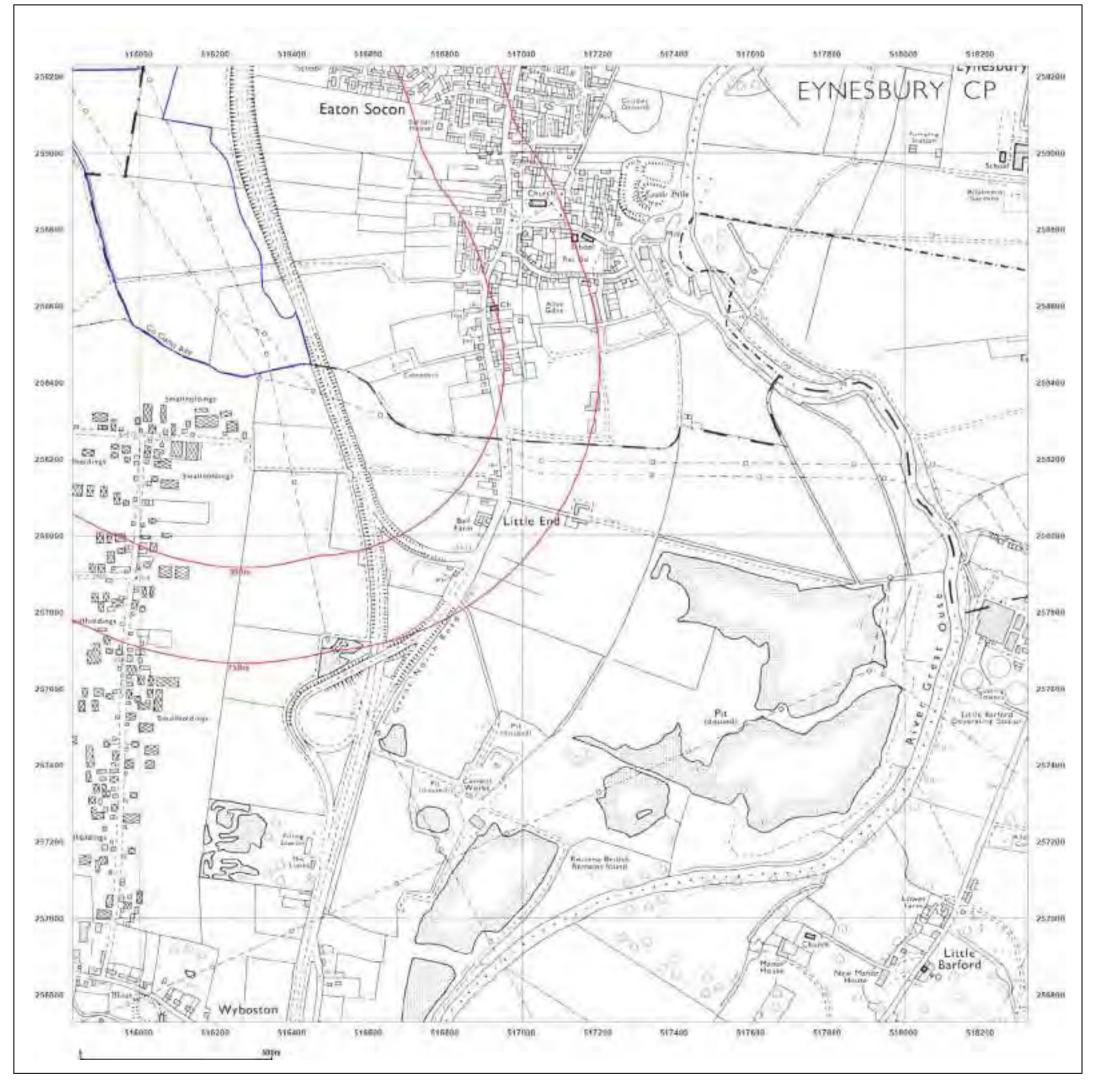




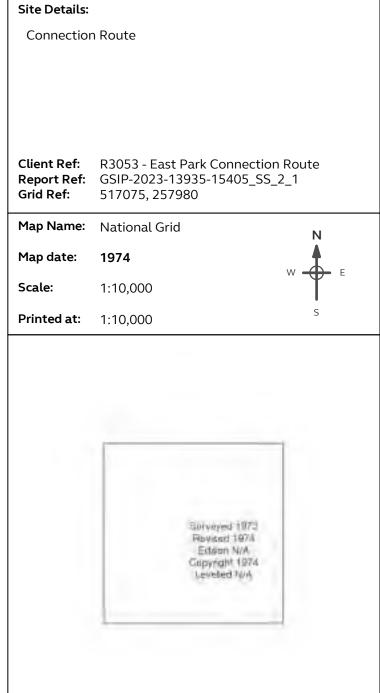
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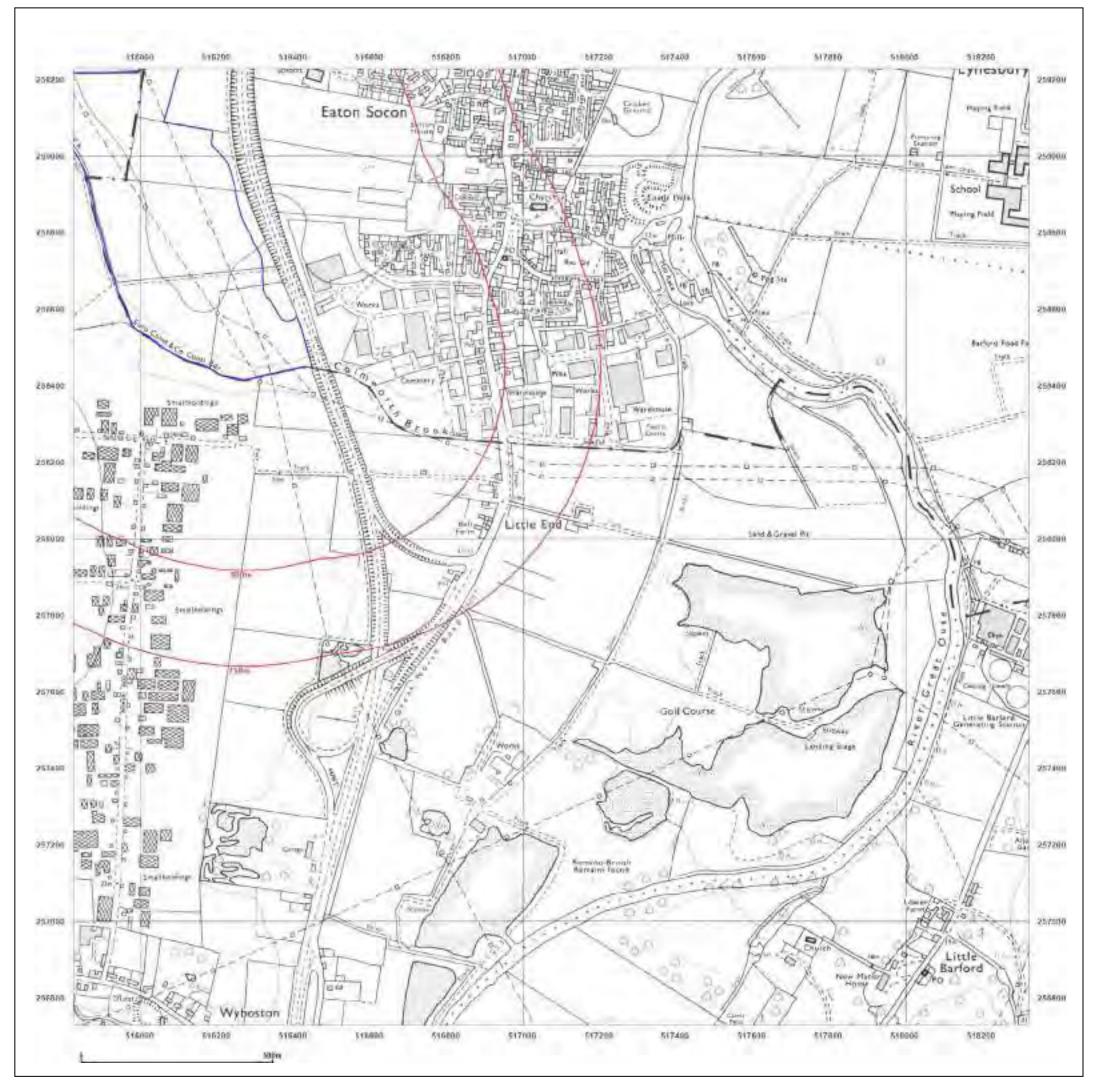




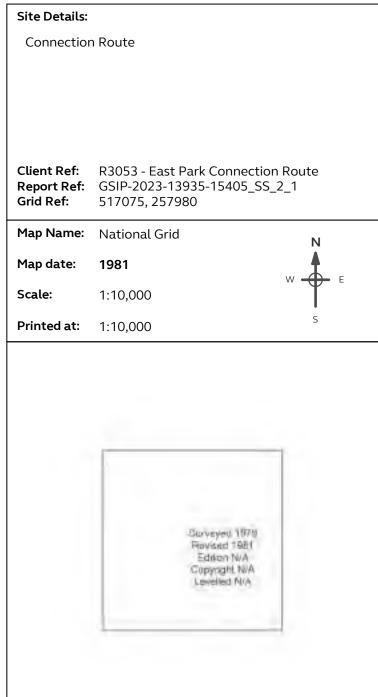
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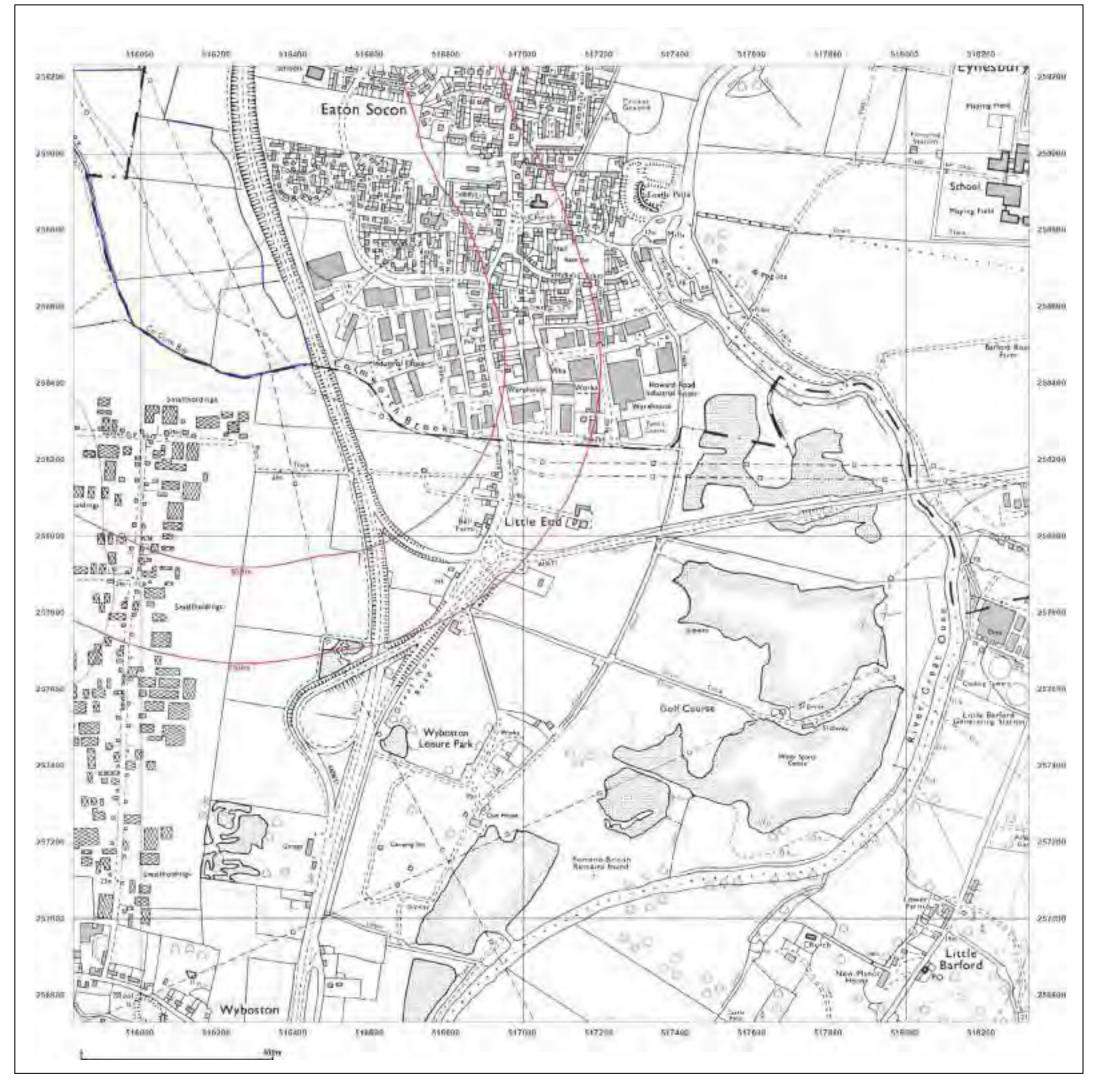




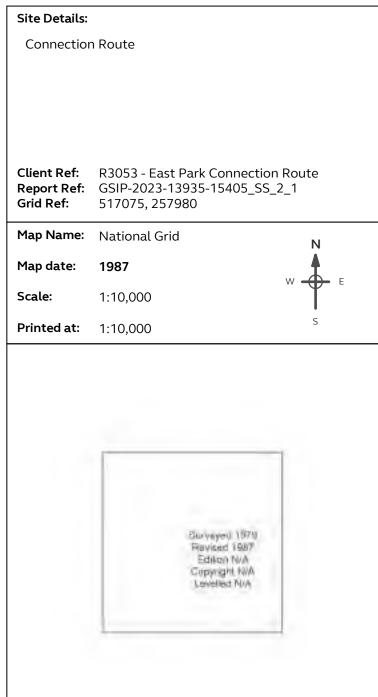
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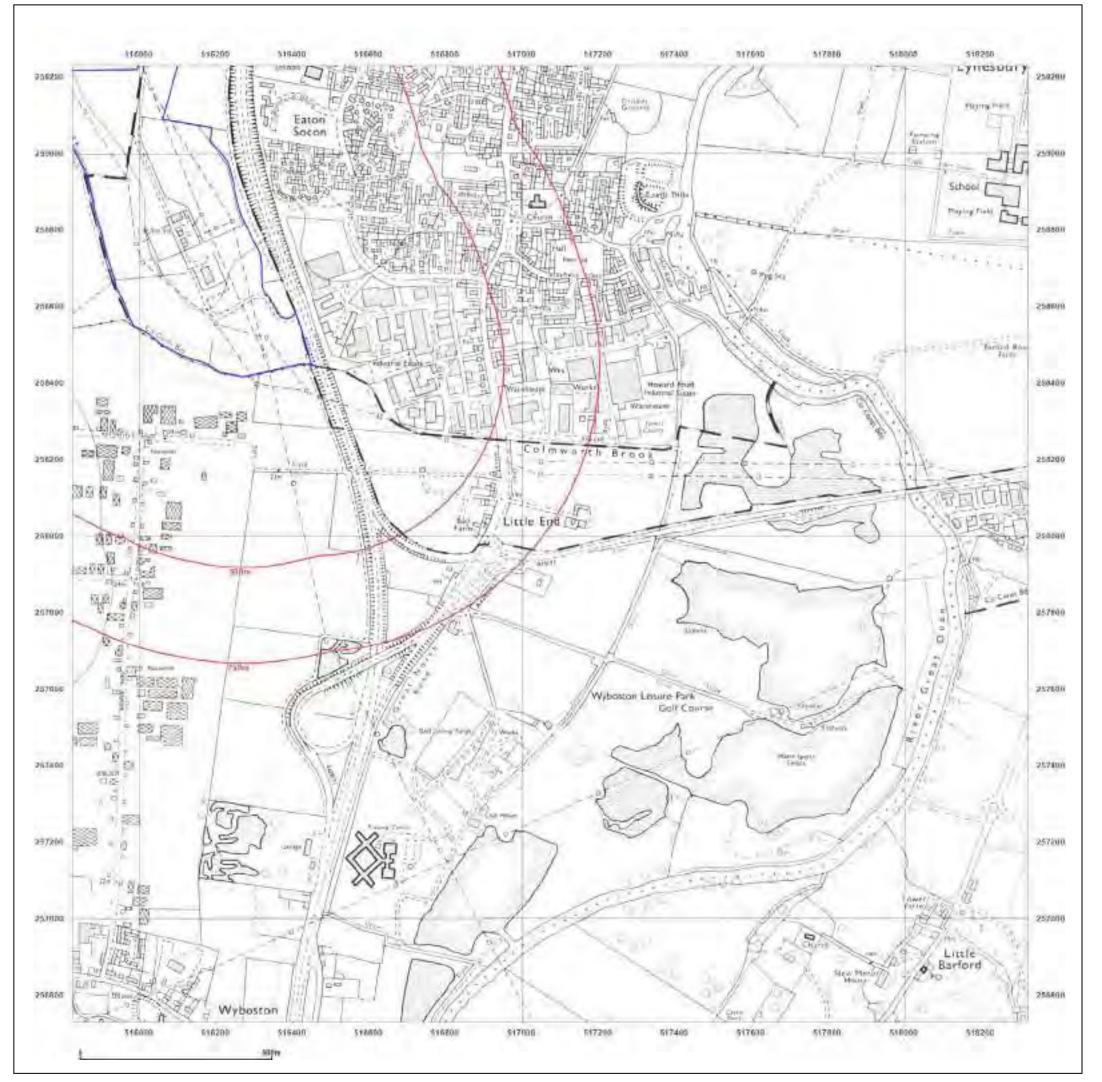




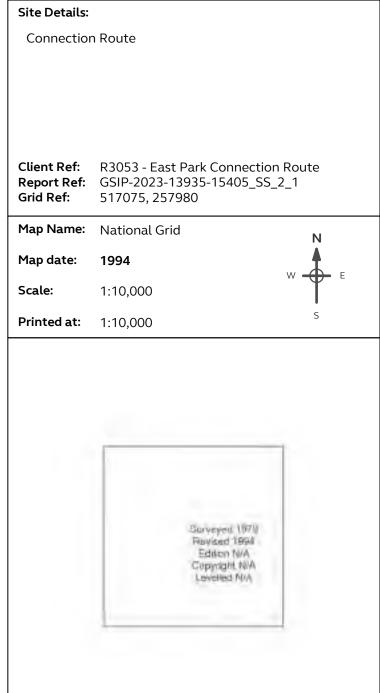
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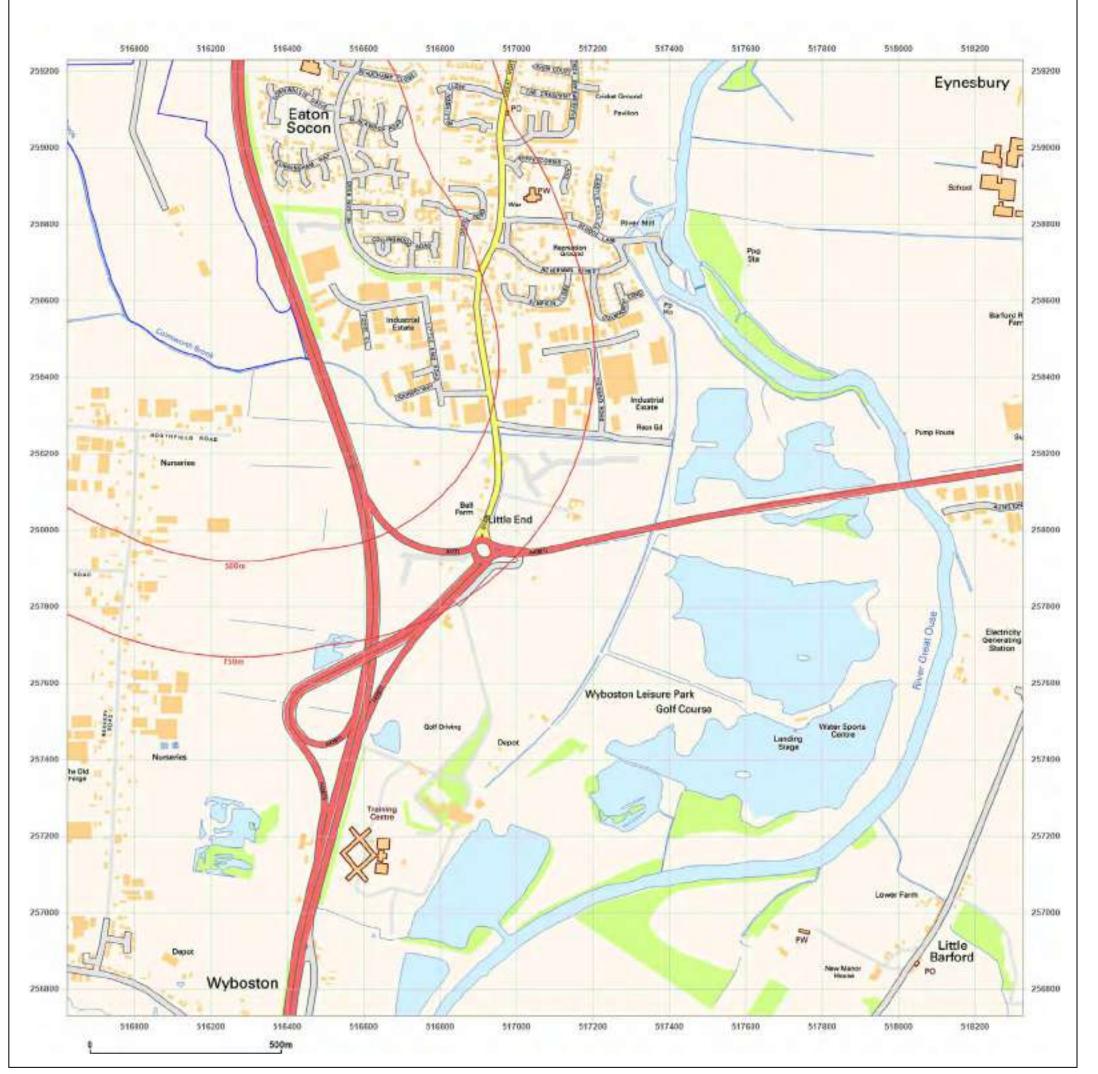




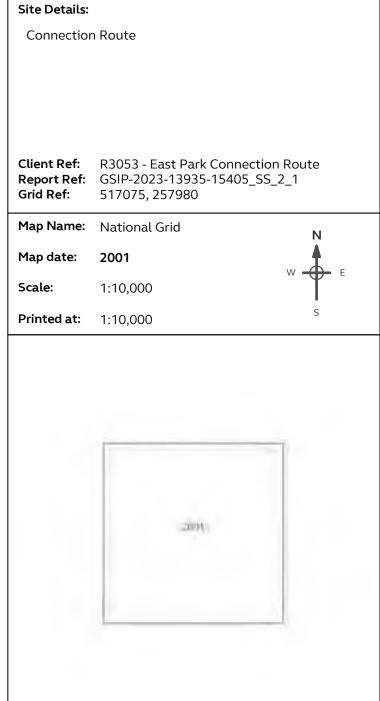
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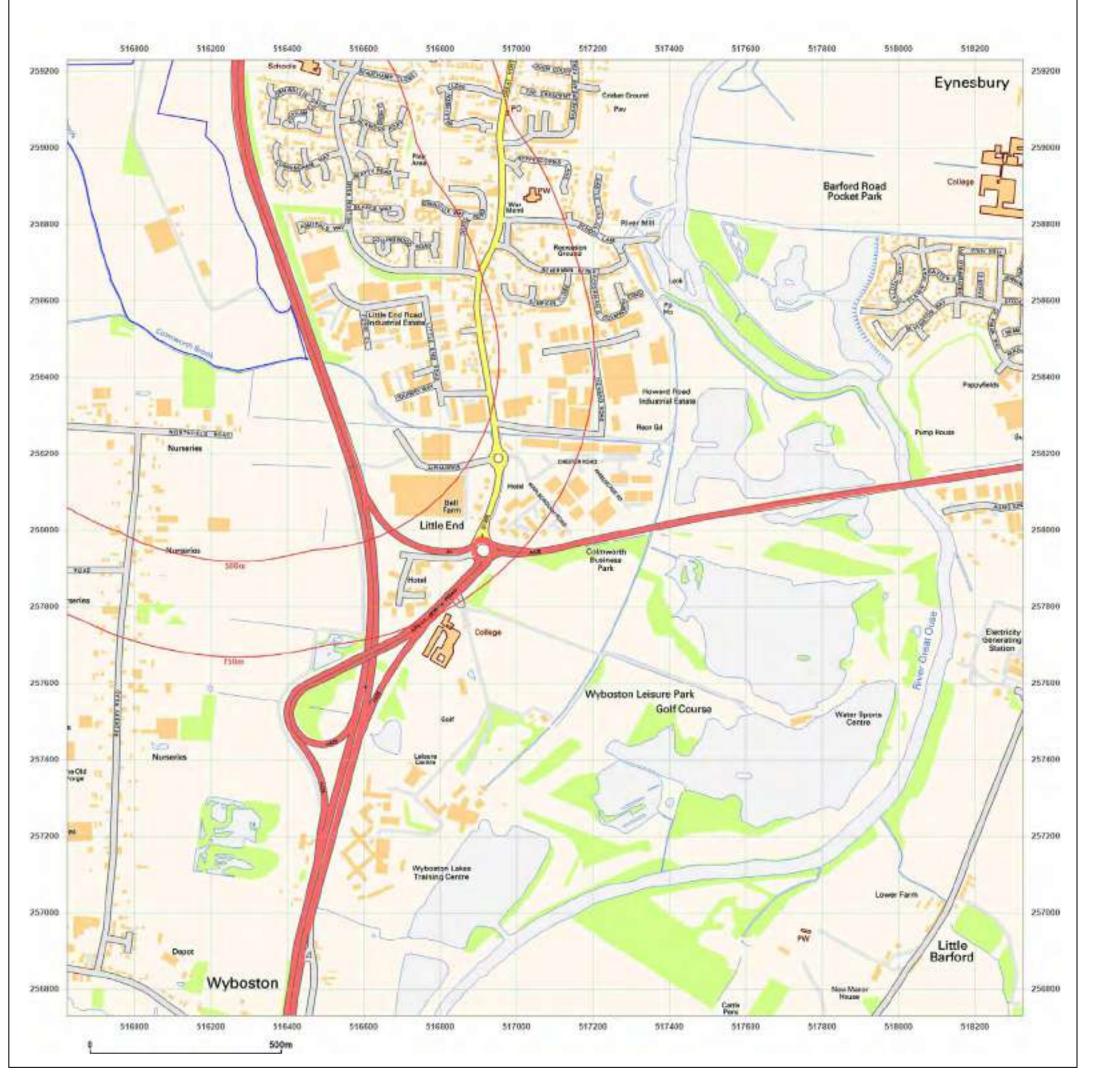




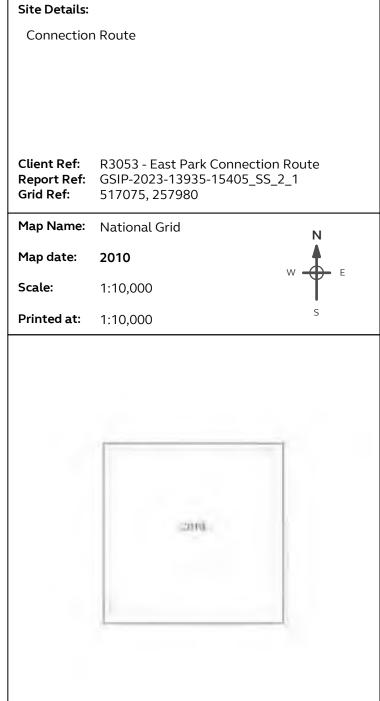
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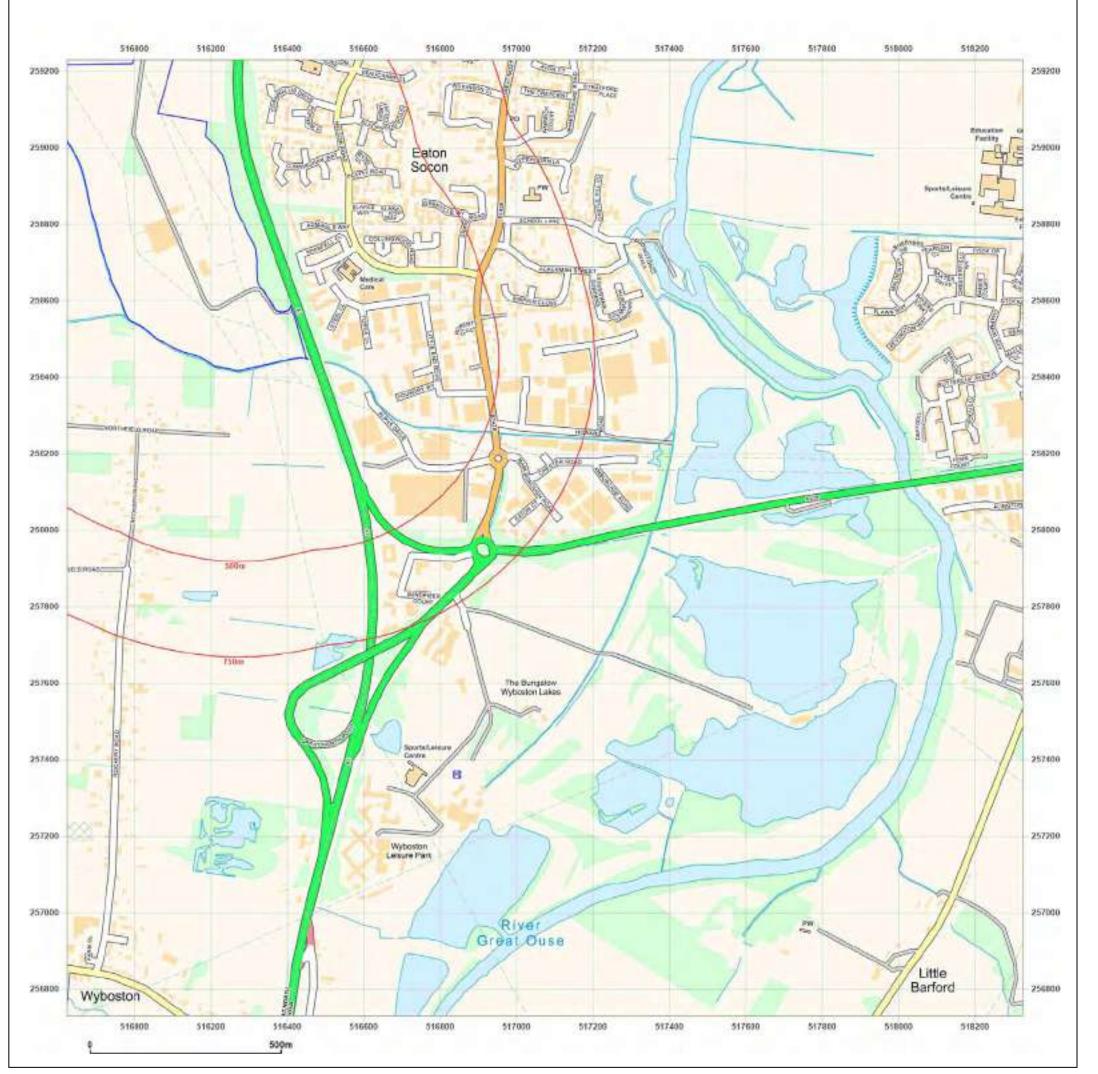




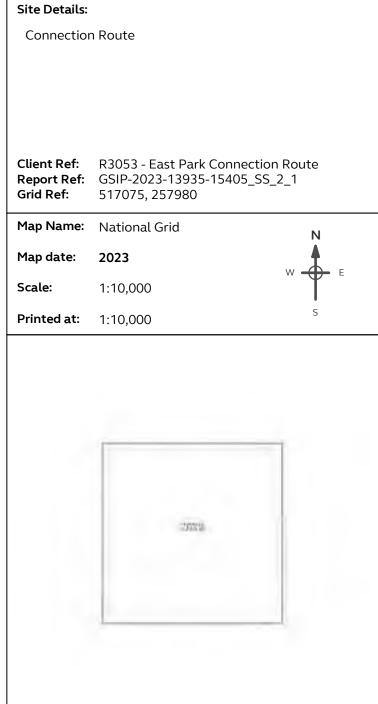
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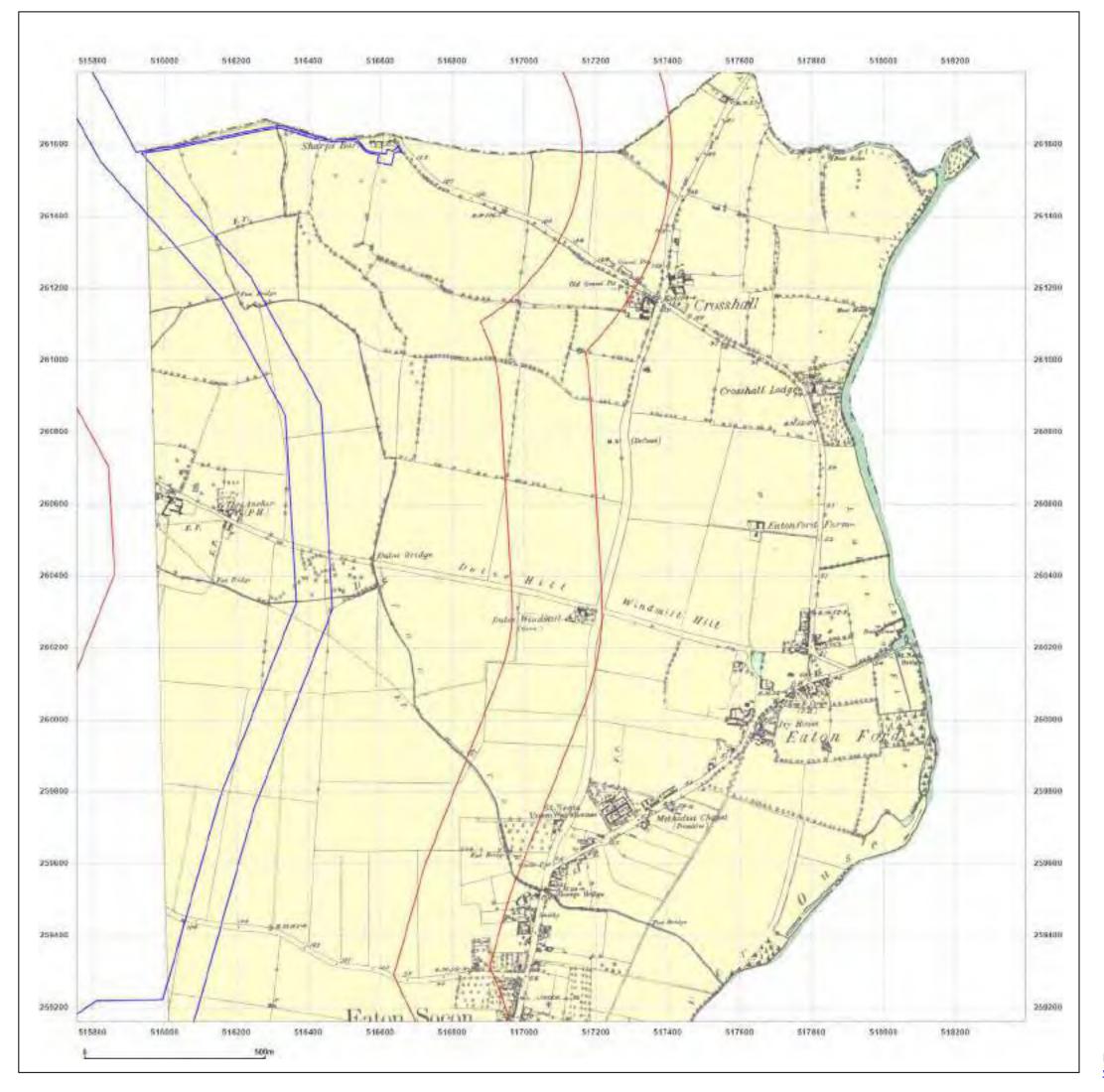




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Map legend available at:





Site Details:

Connection Route

R3053 - East Park Connection Route **Report Ref:** GSIP-2023-13935-15405_SS_2_2

Grid Ref: 517075, 260480

Map Name: County Series

Map date: 1882



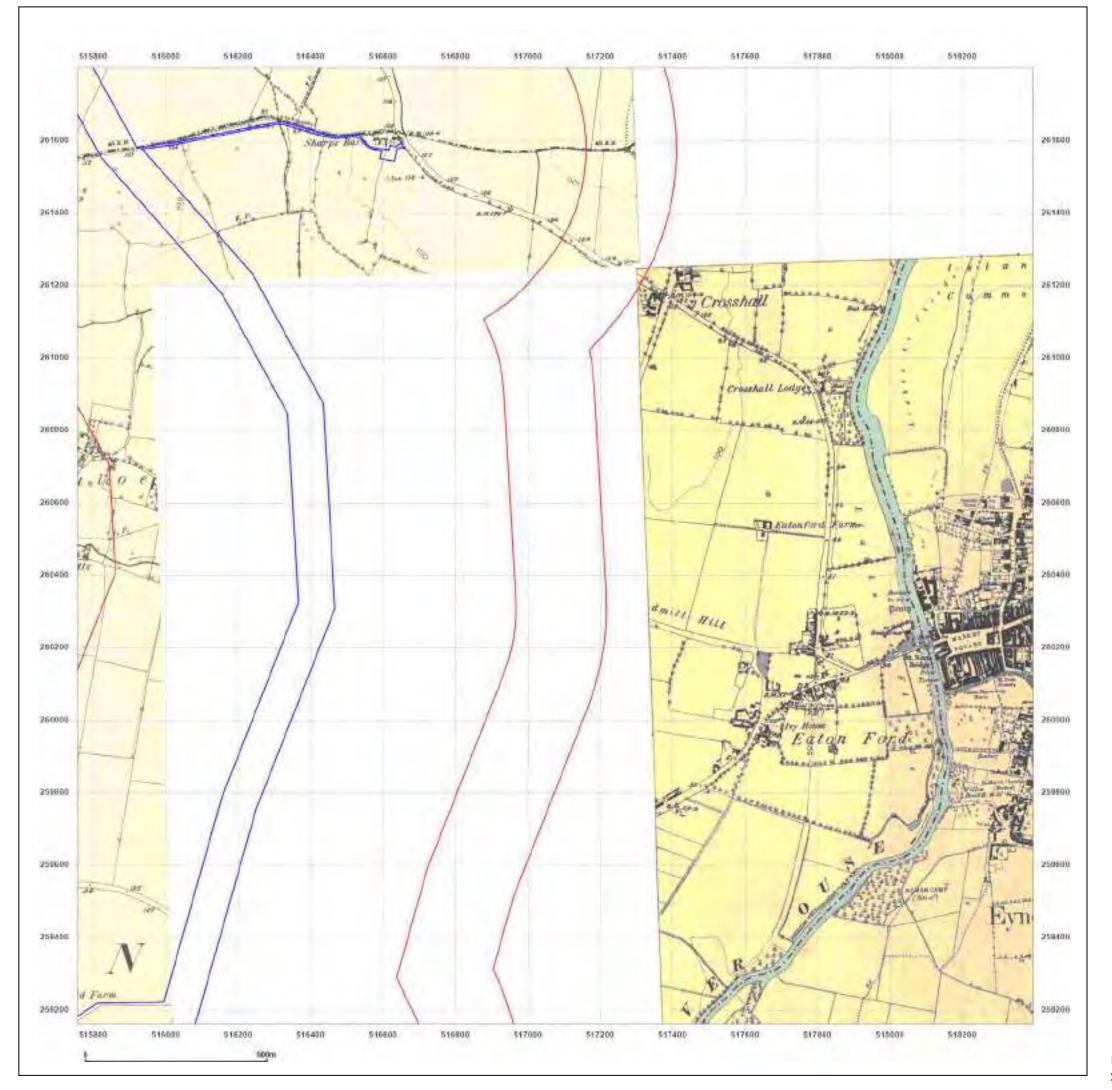


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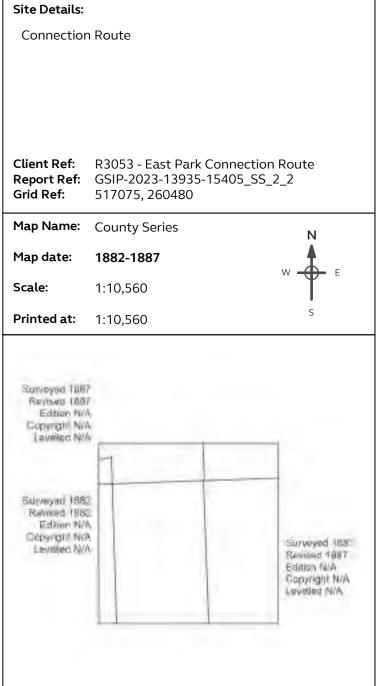
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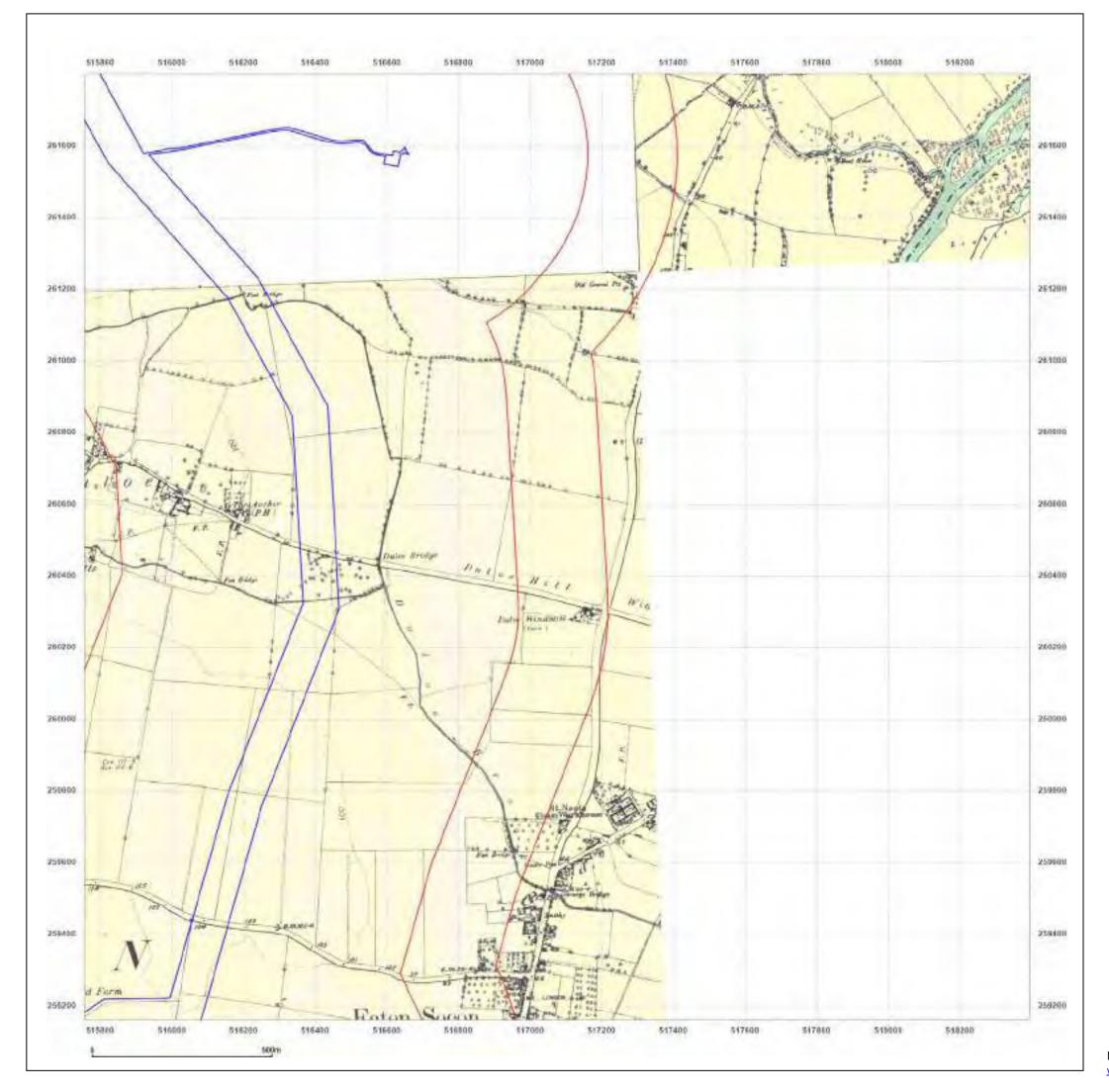




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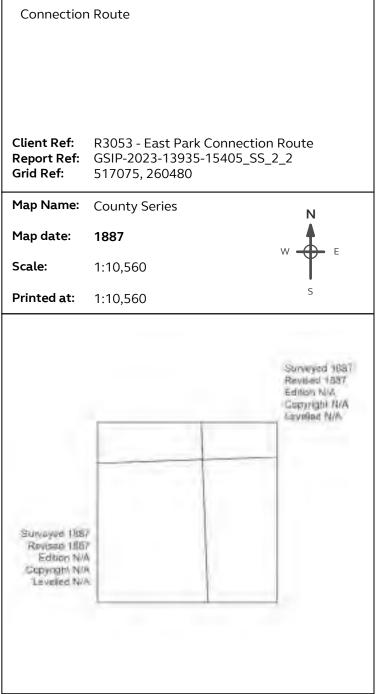
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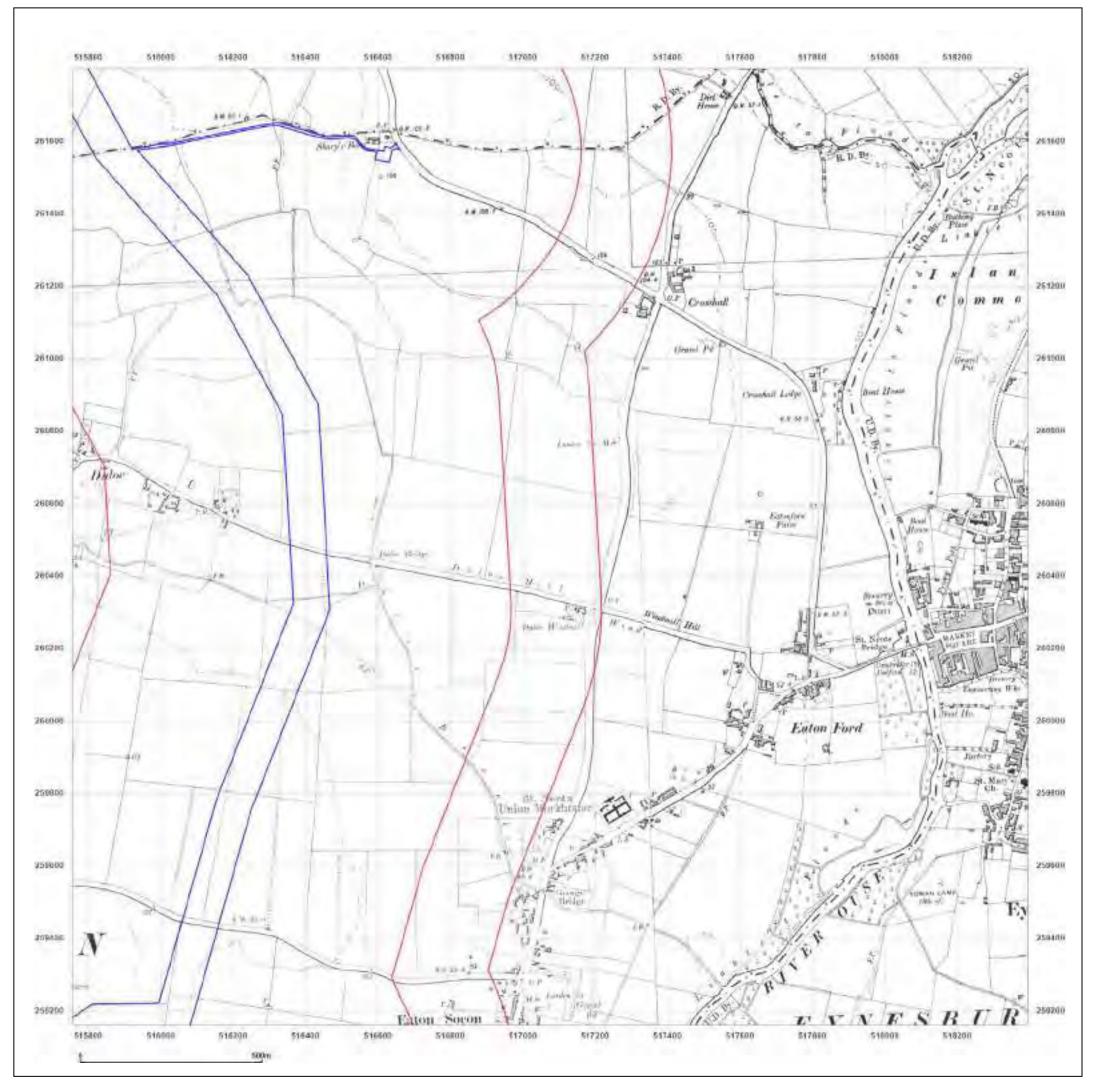


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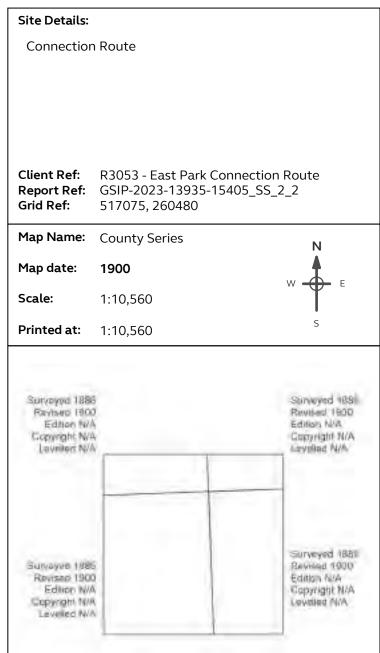
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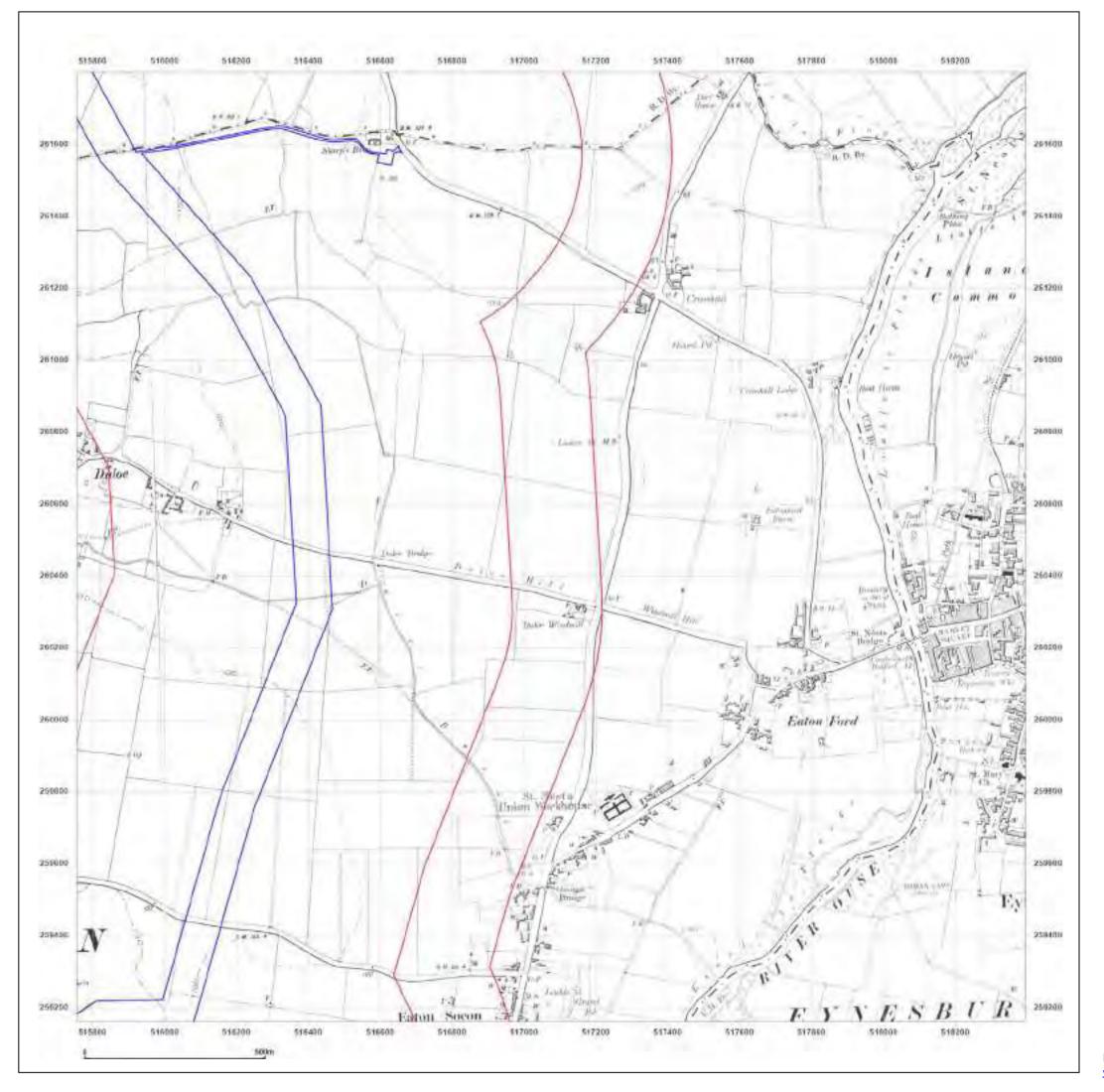




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Site Details:

Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_2_2

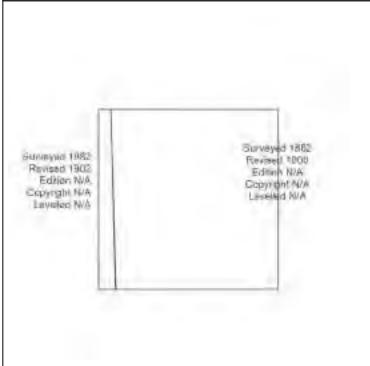
Grid Ref: 517075, 260480

Map Name: County Series

Map date: 1900-1902

Scale: 1:10,560

Printed at: 1:10,560



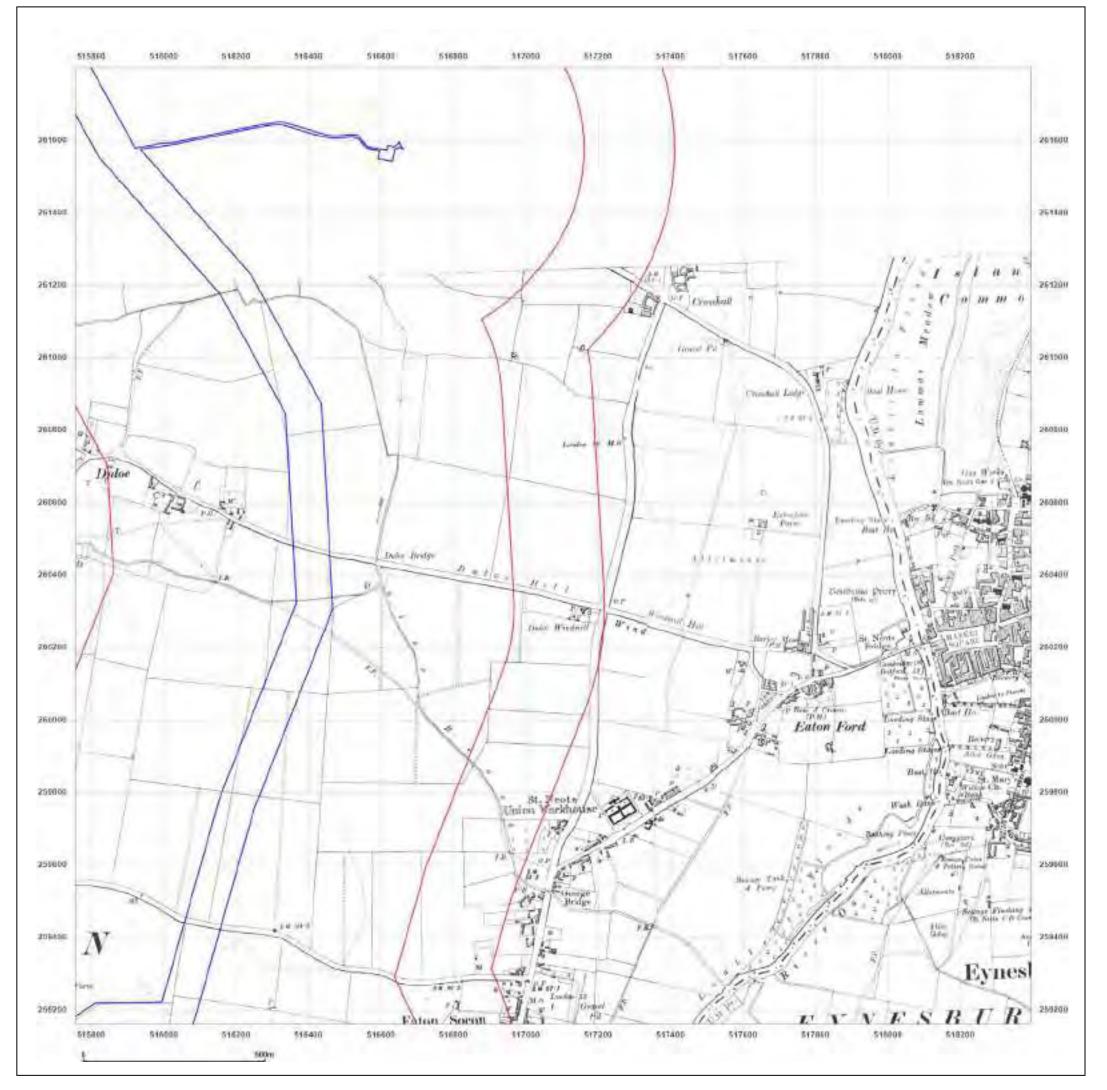


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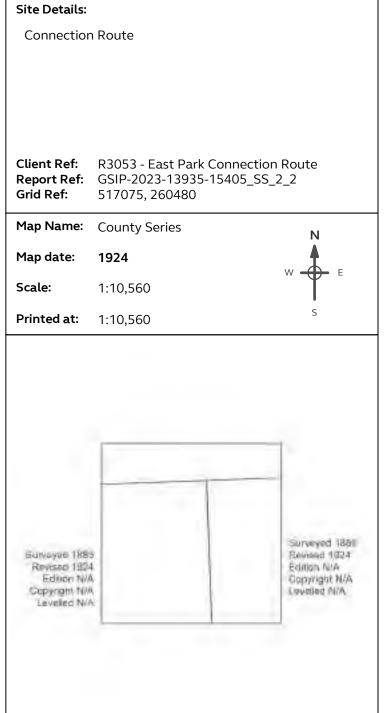
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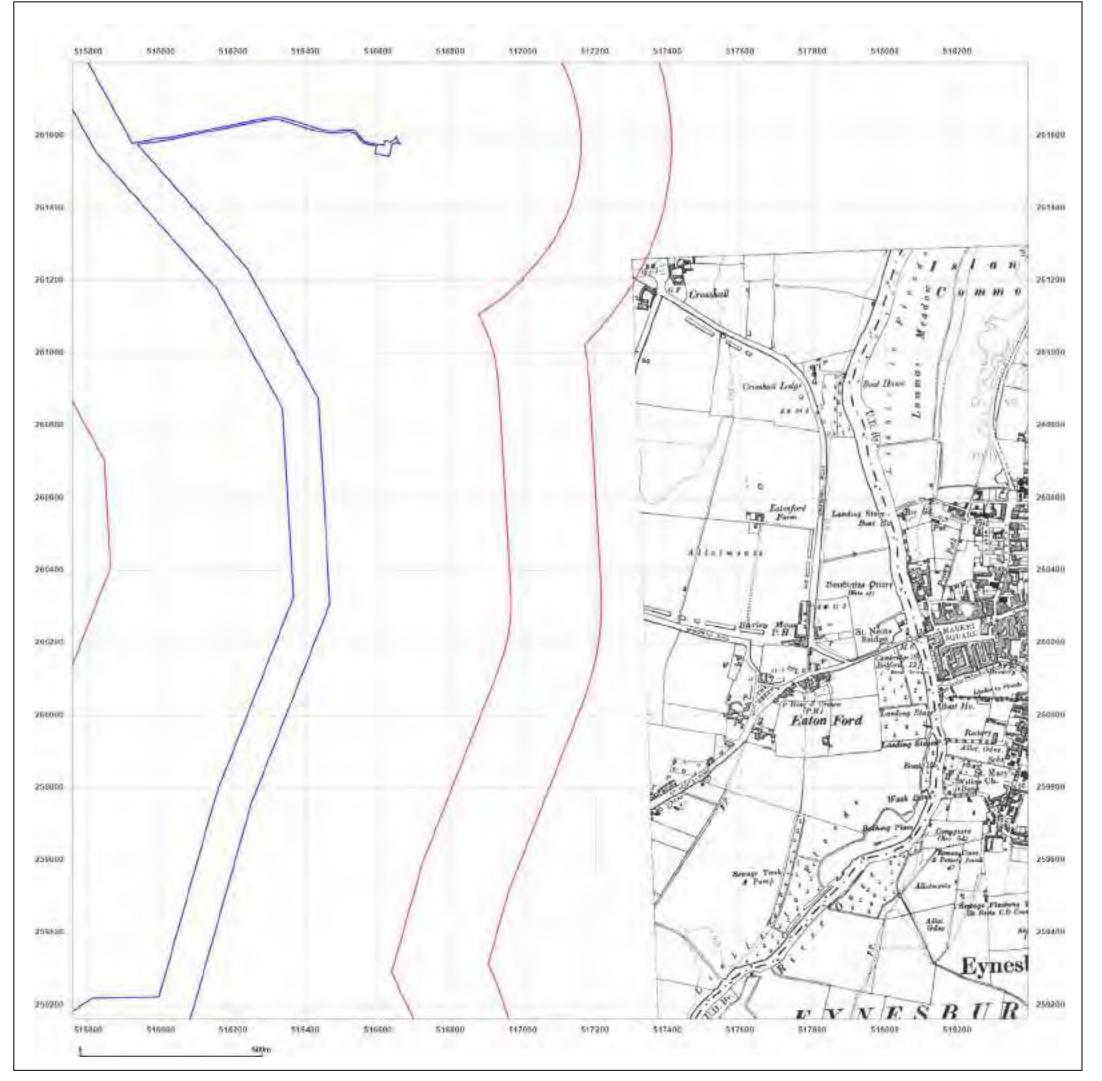




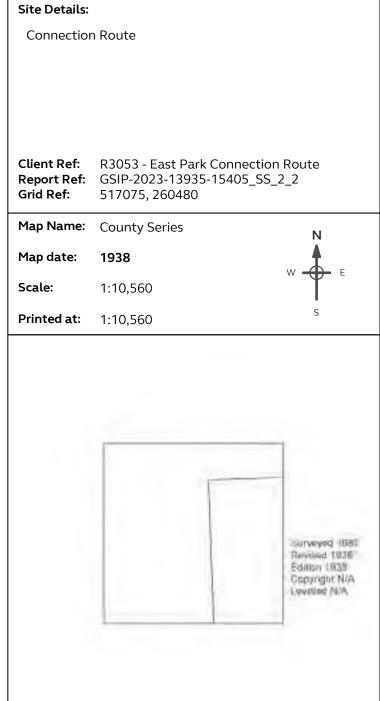
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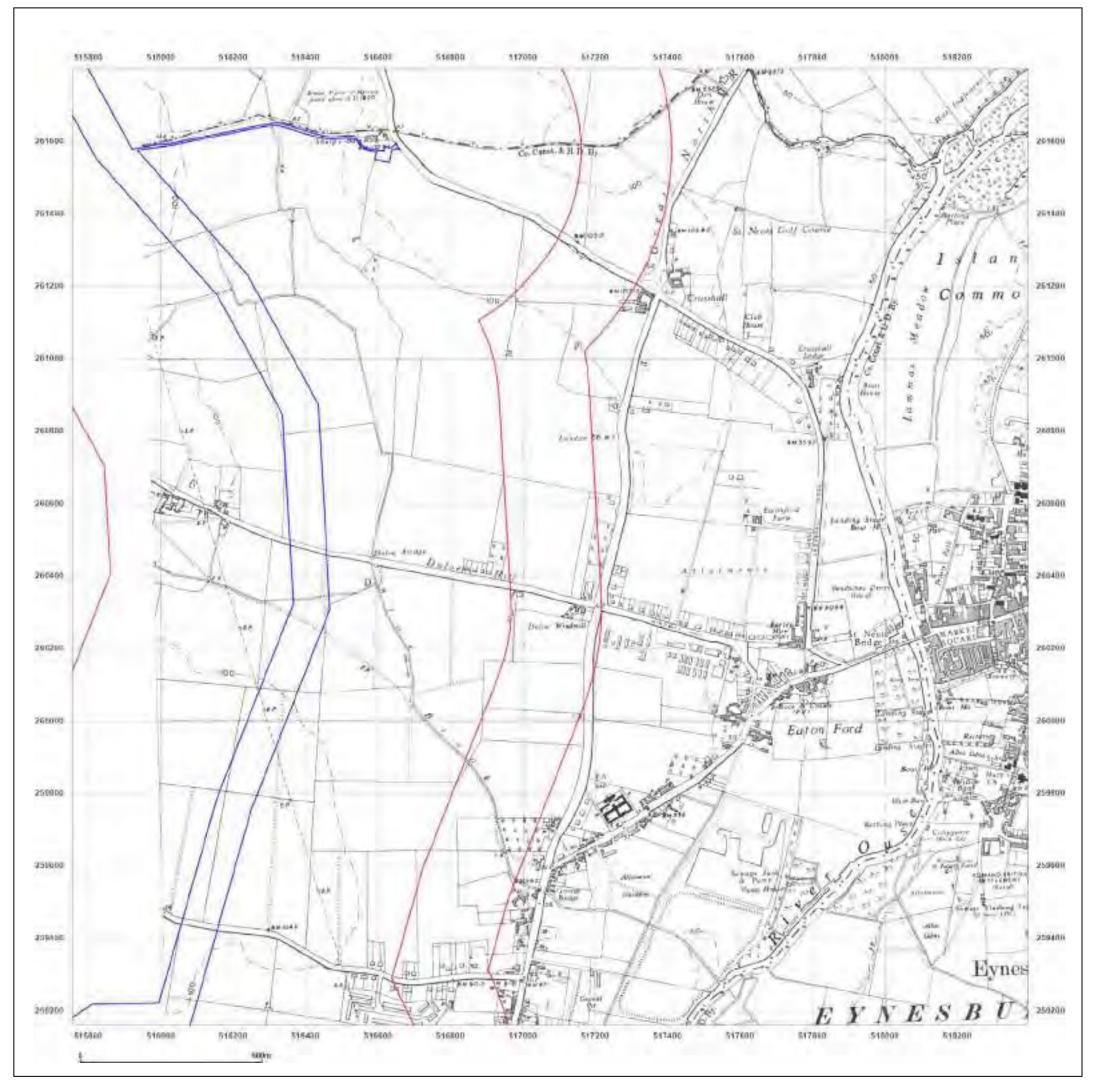




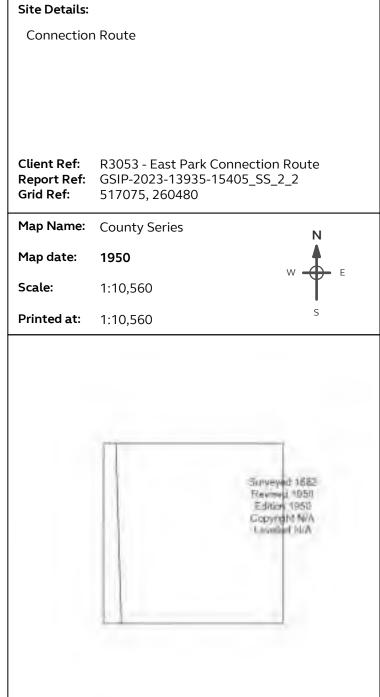
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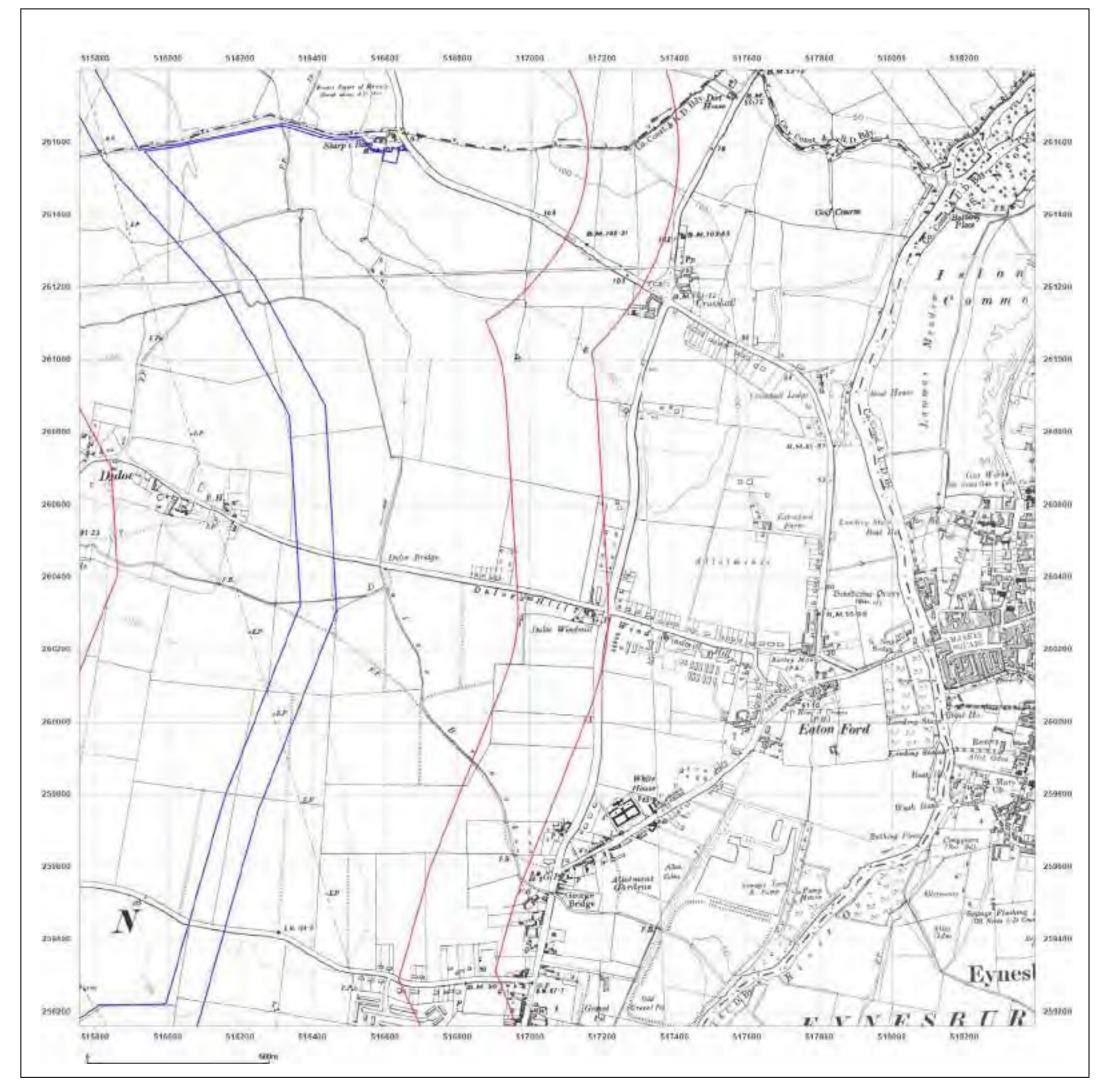




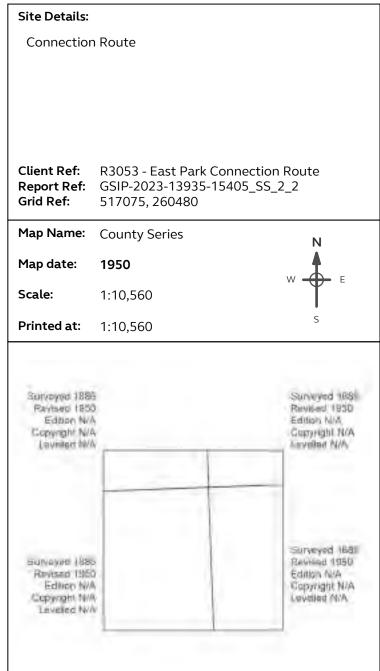
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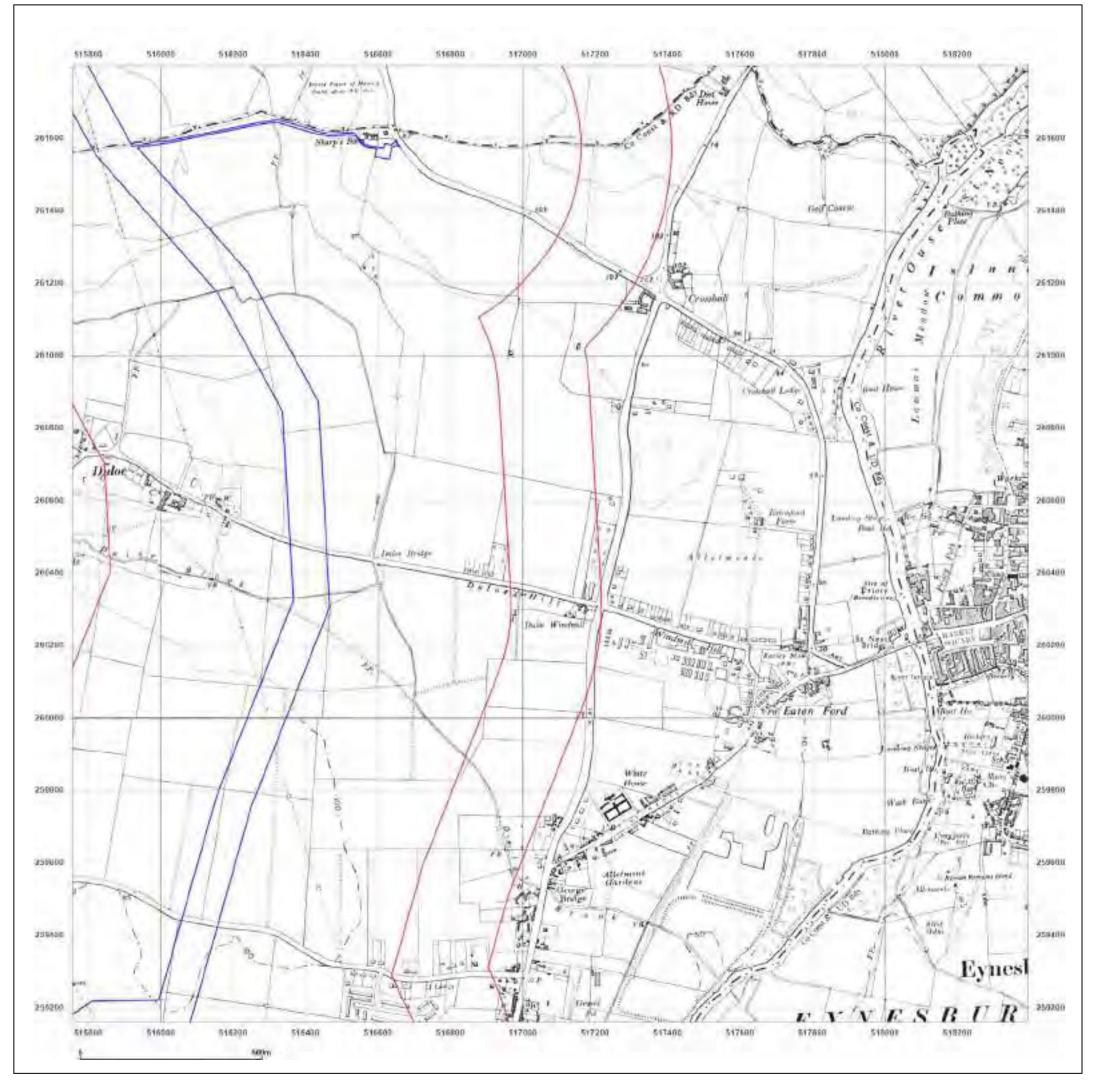




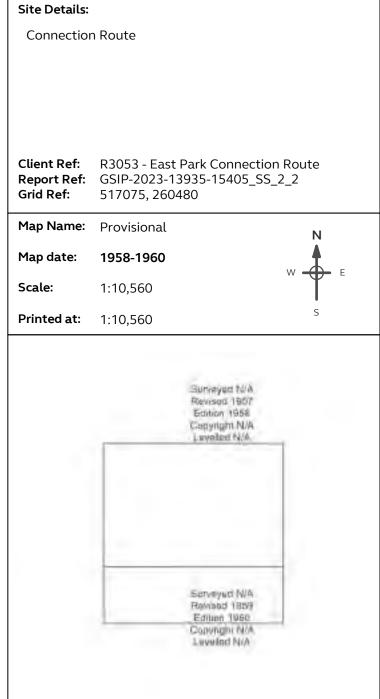
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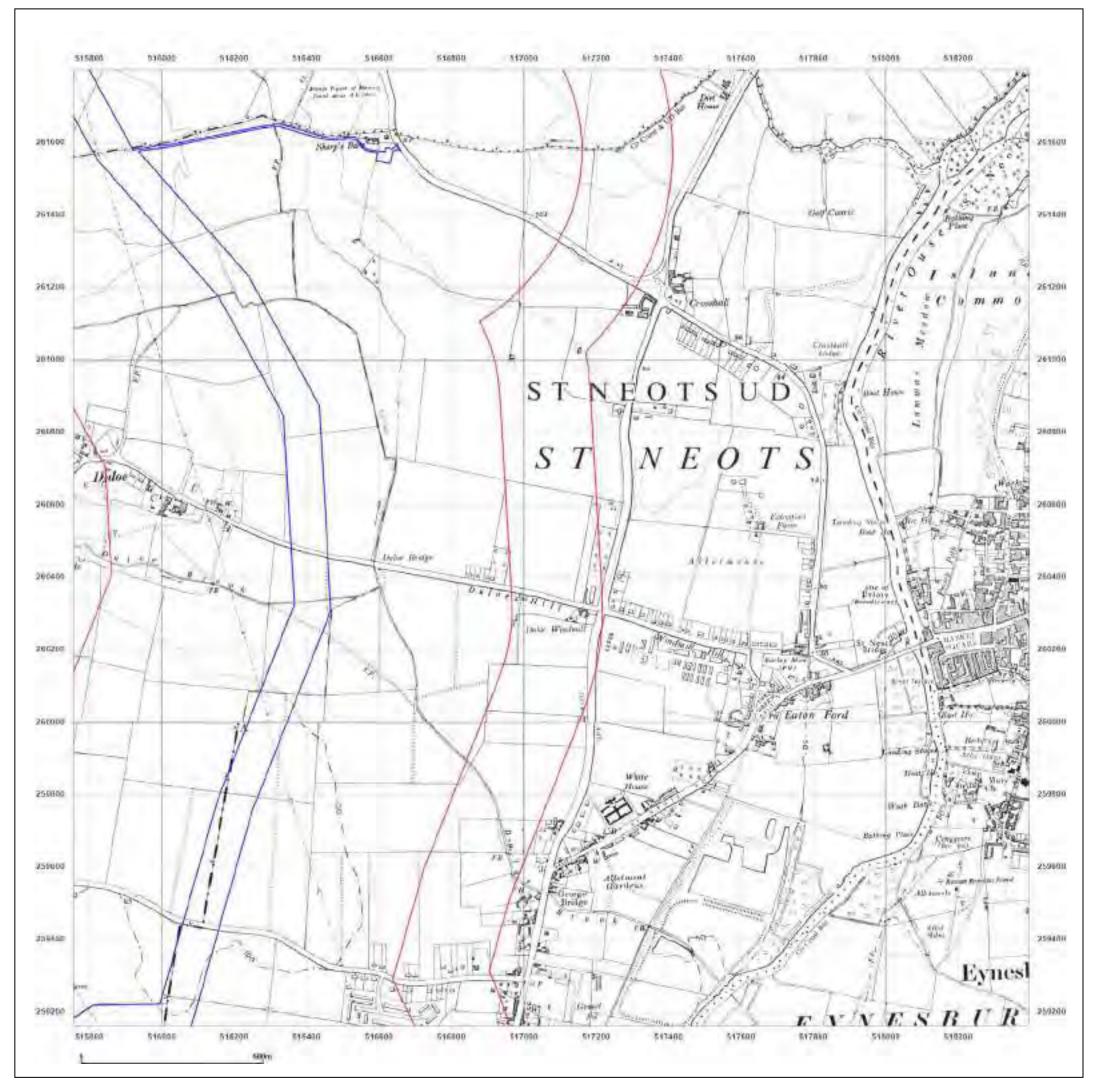




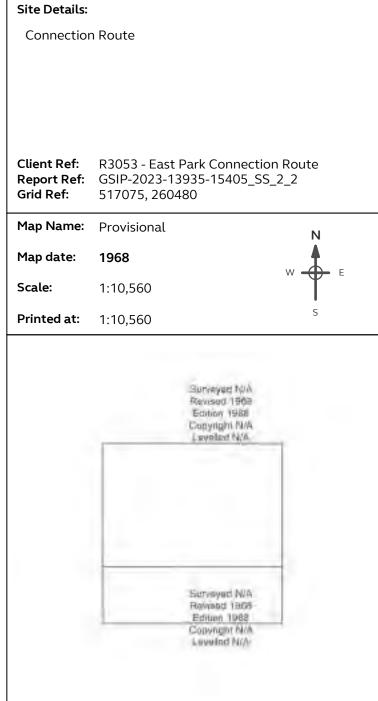
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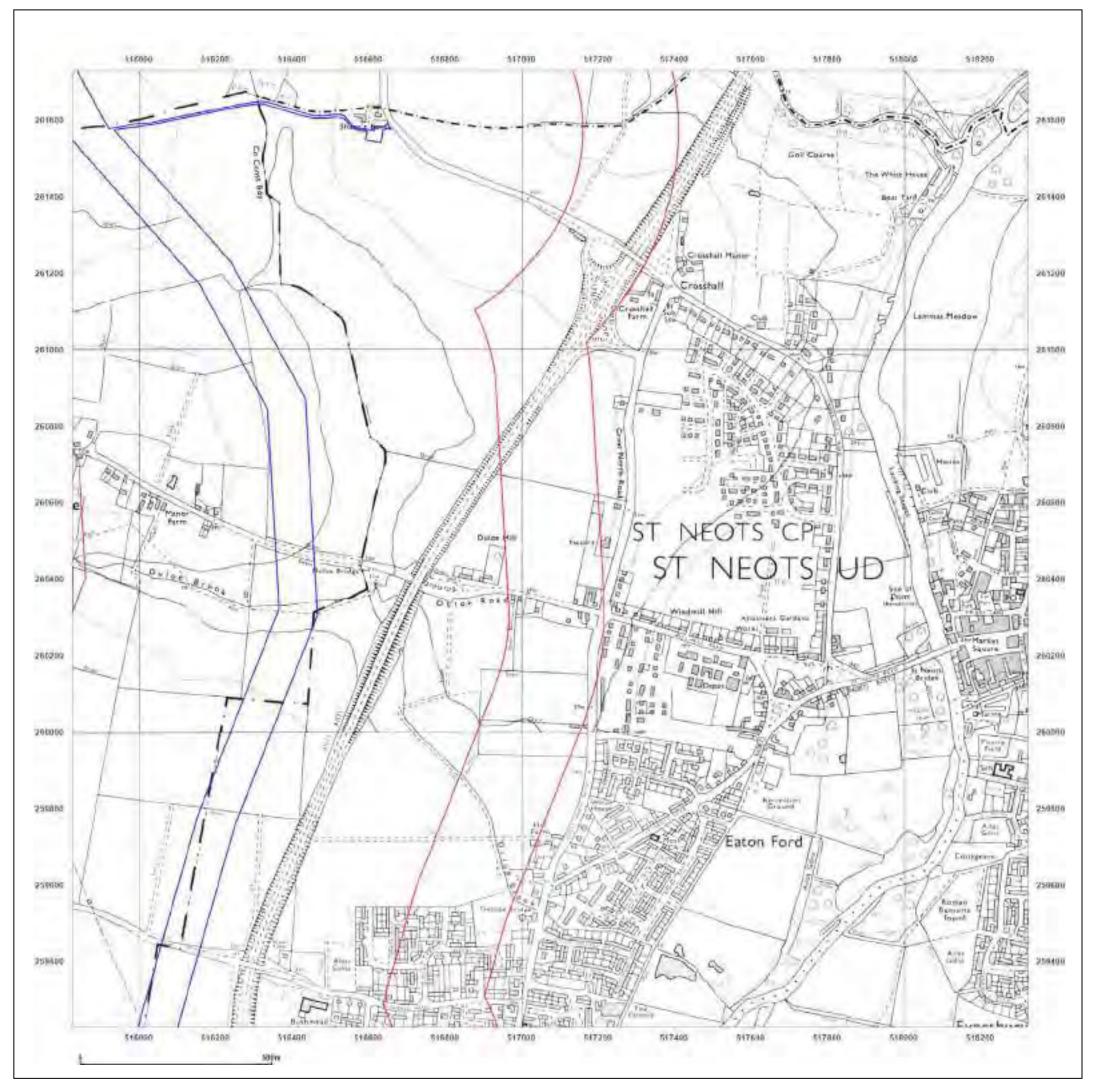




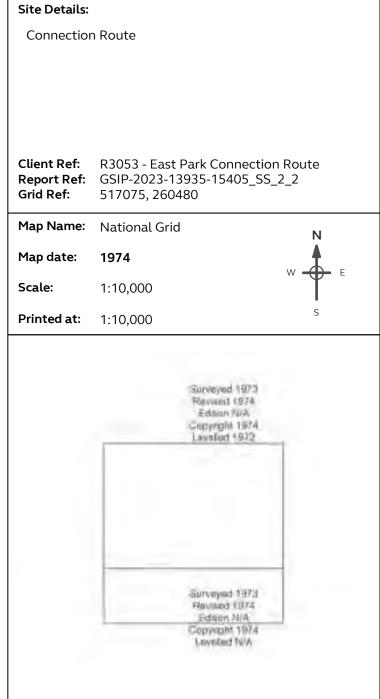
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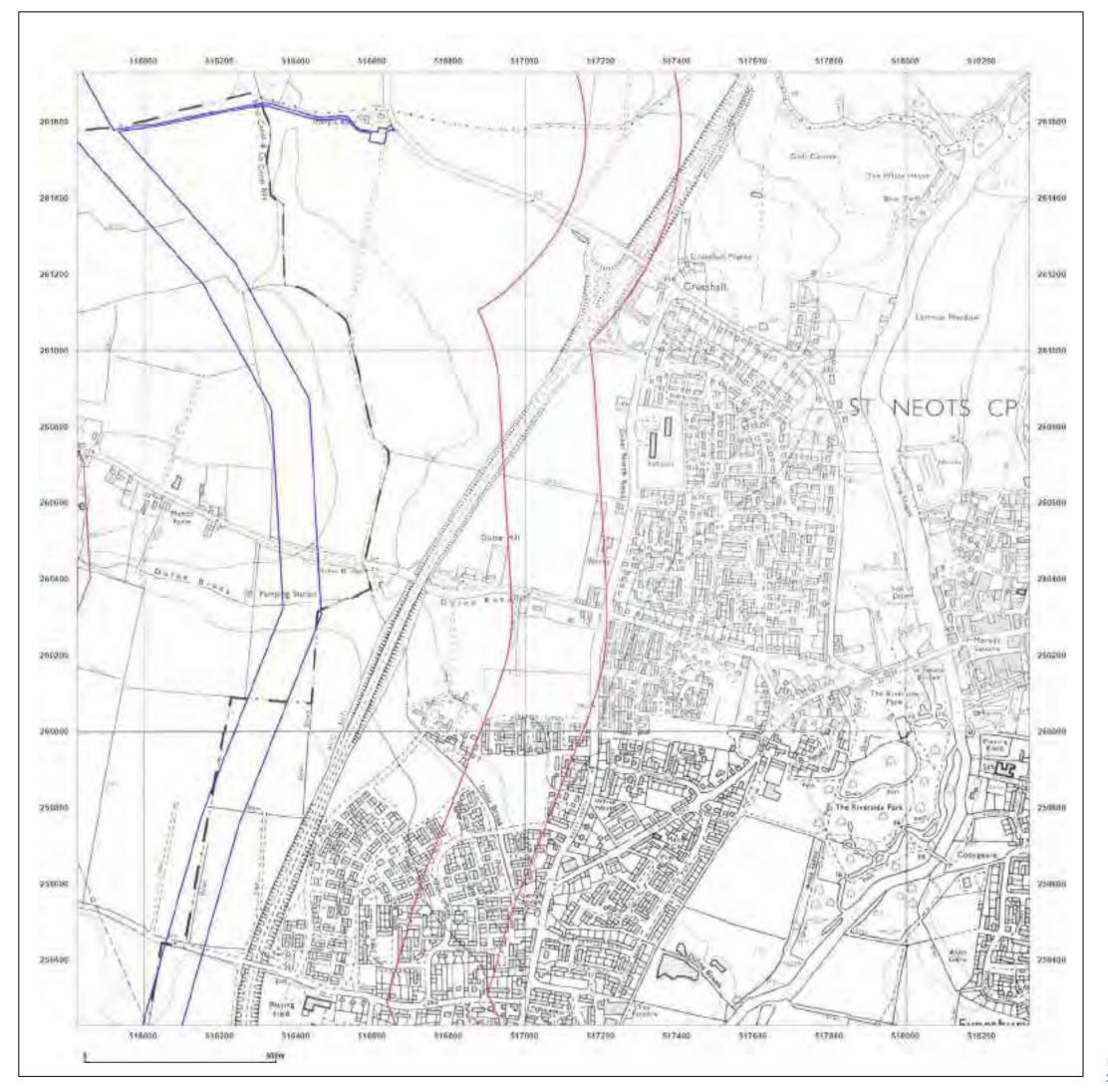




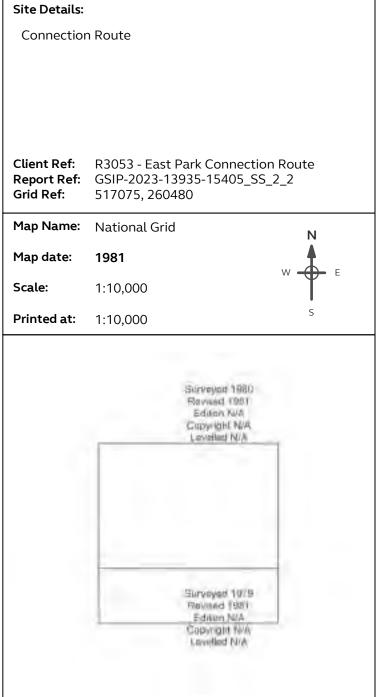
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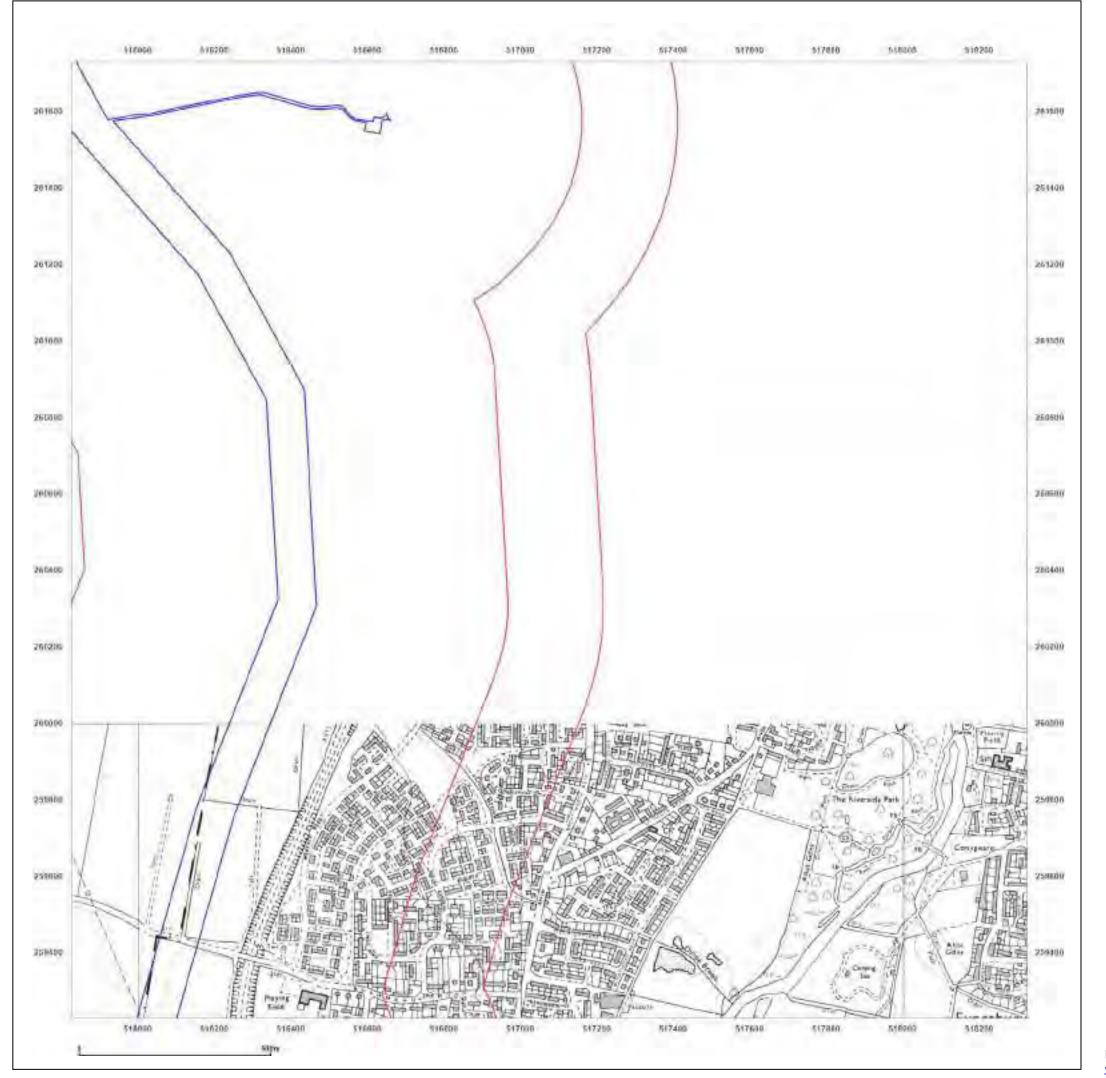




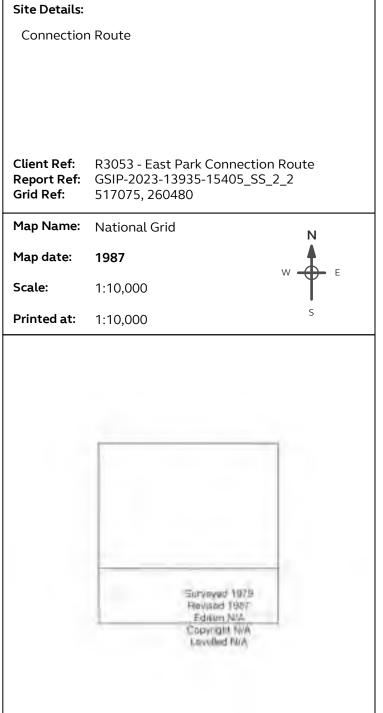
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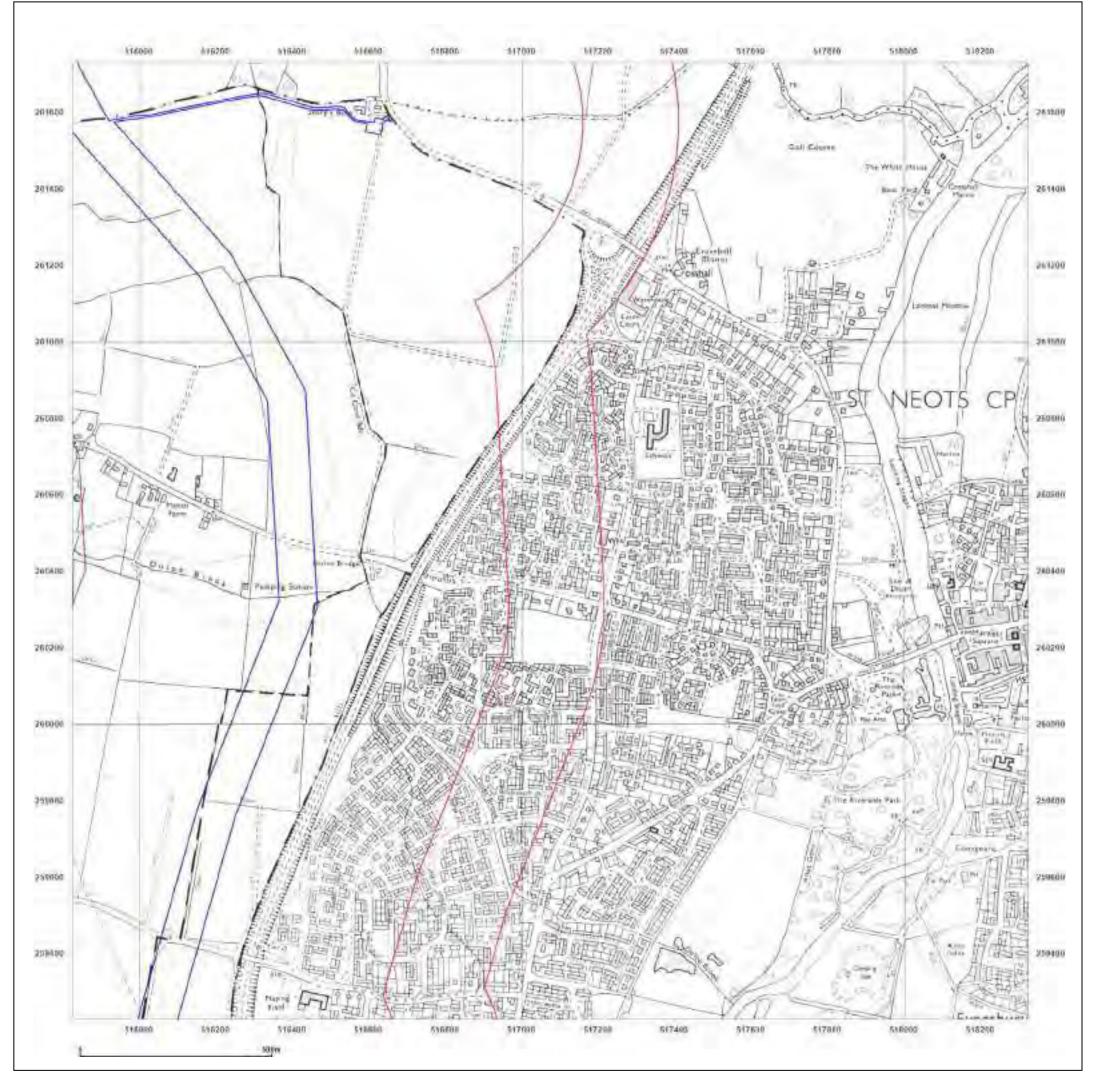




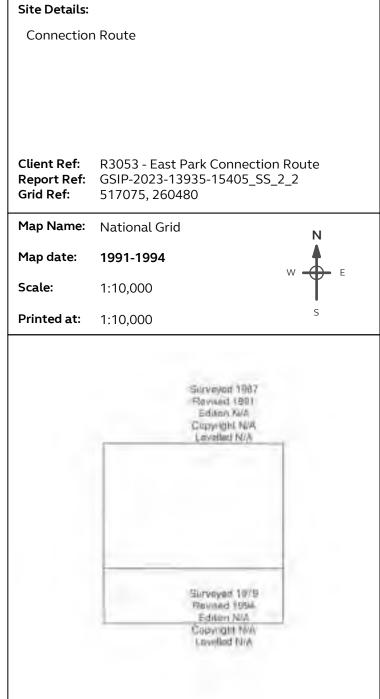
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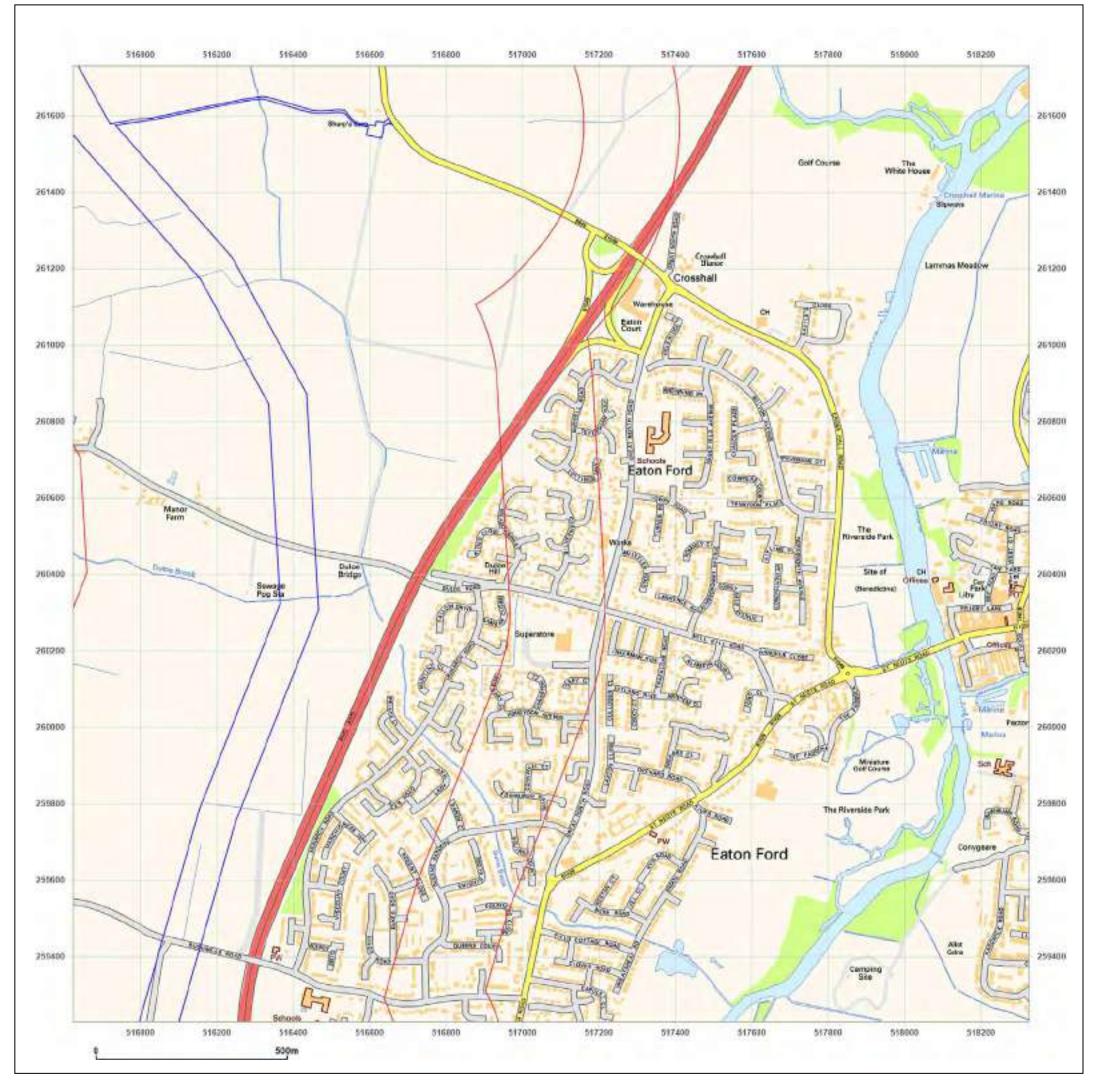




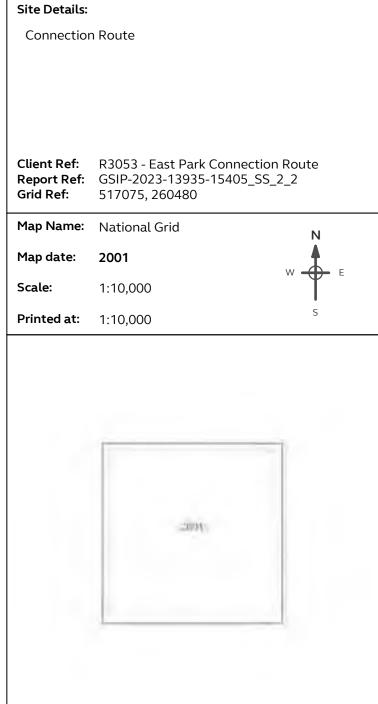
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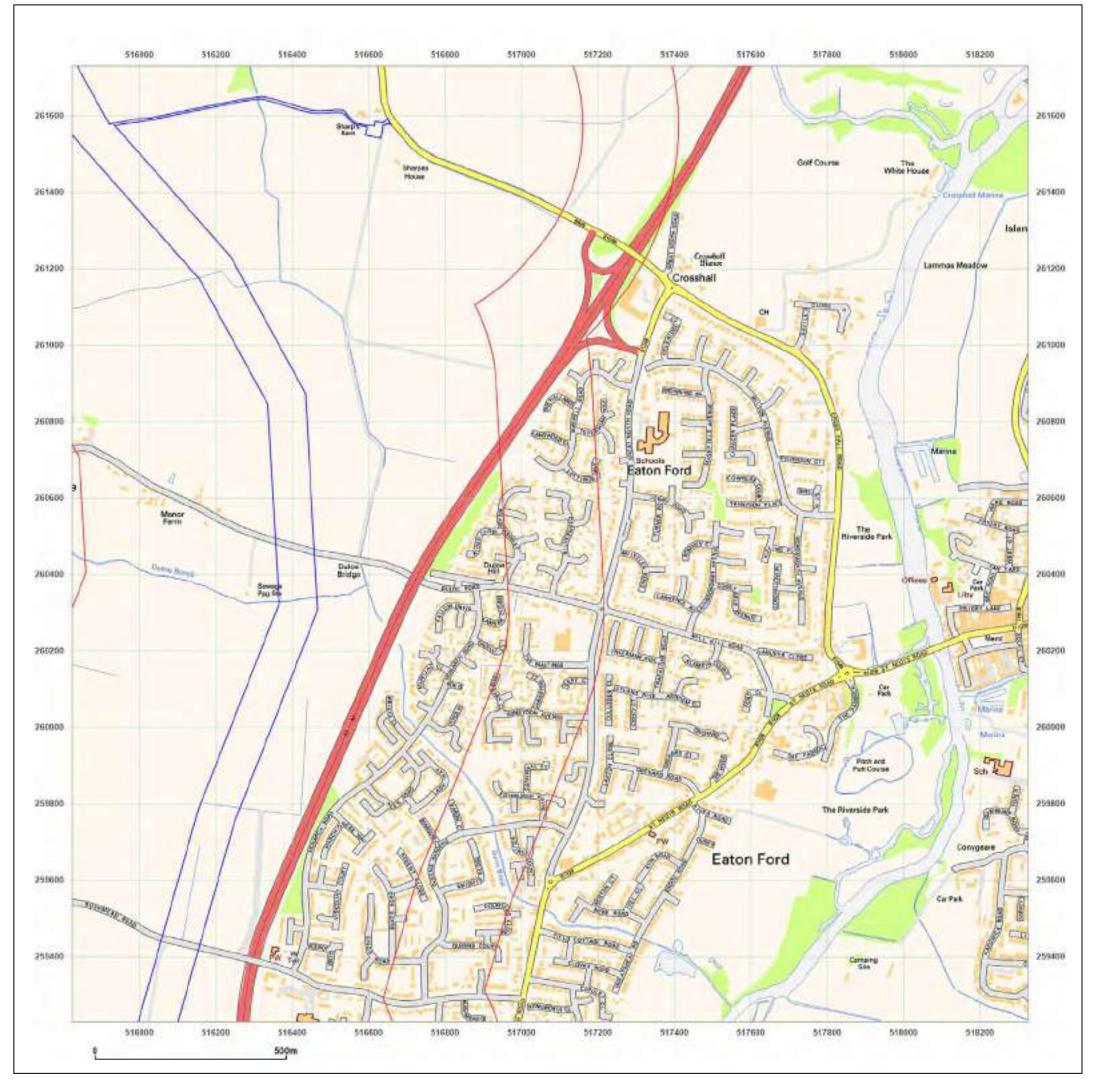




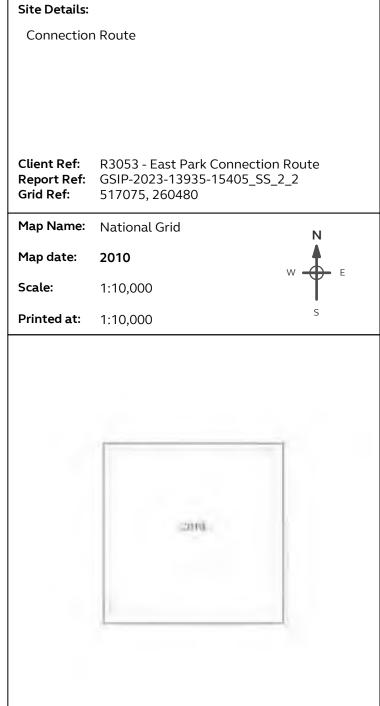
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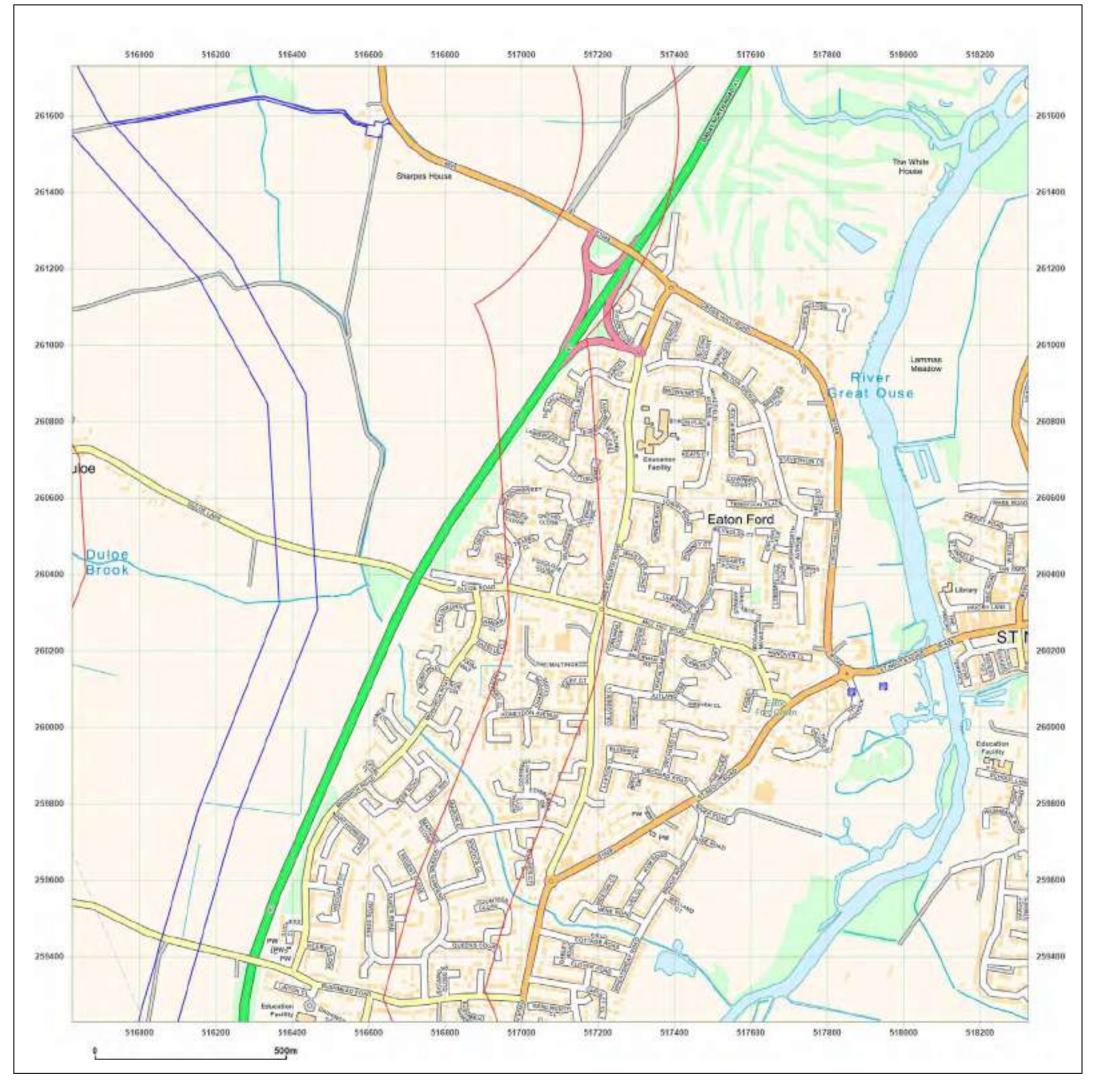




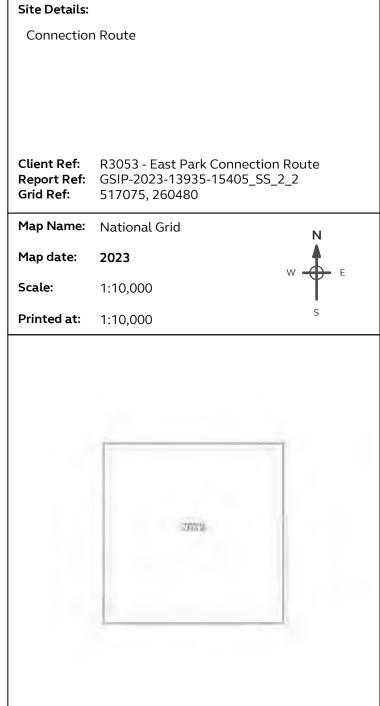
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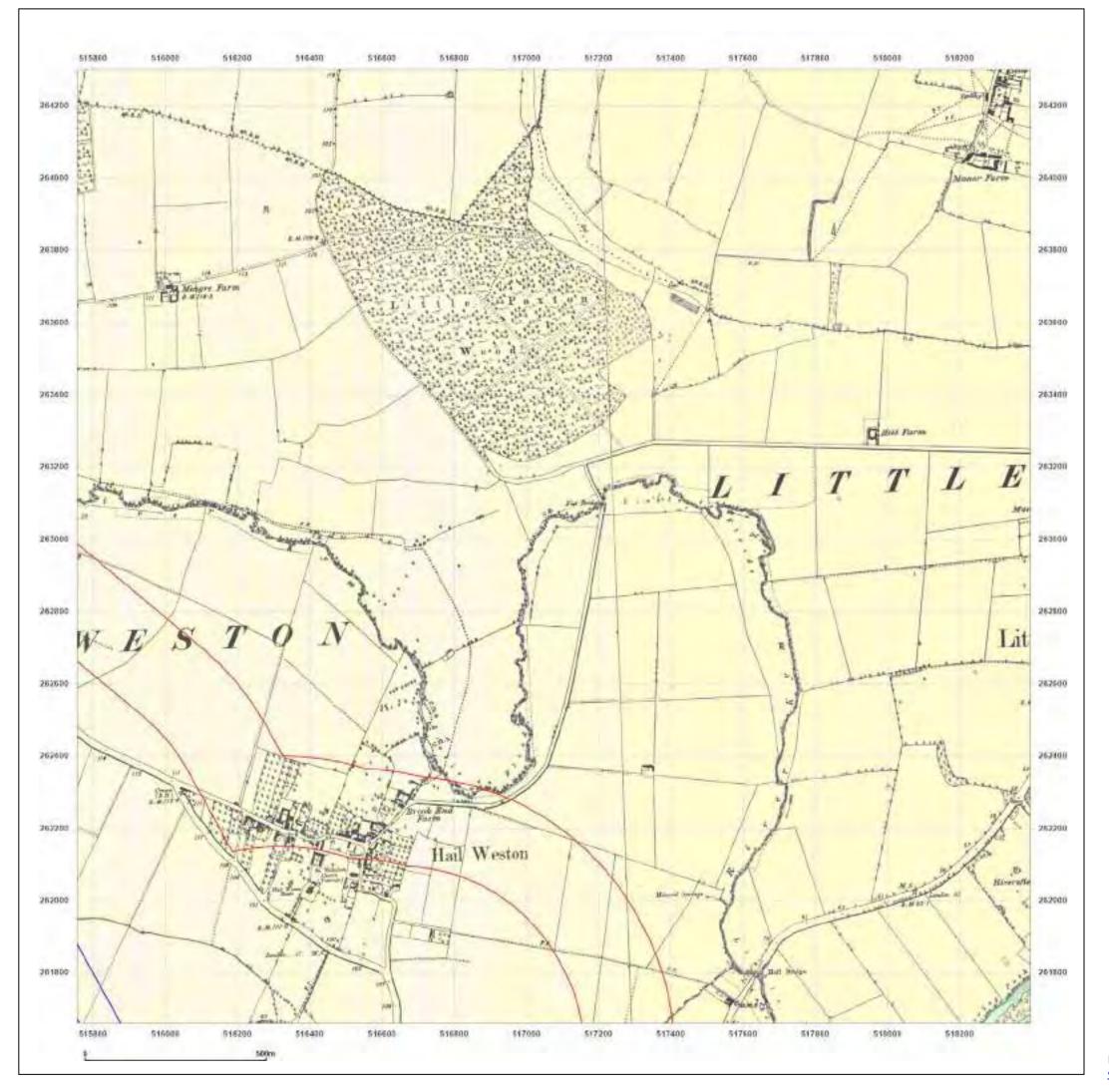




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Grid Ref: 517075, 262980

Map Name: County Series

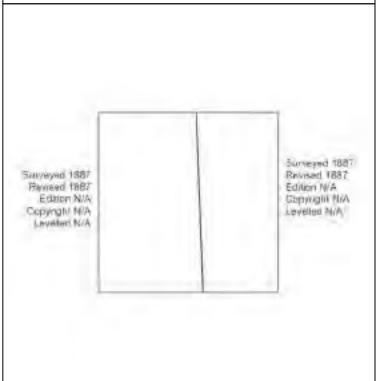
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Site Details:

Connection Route

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Printed at: 1:10,560



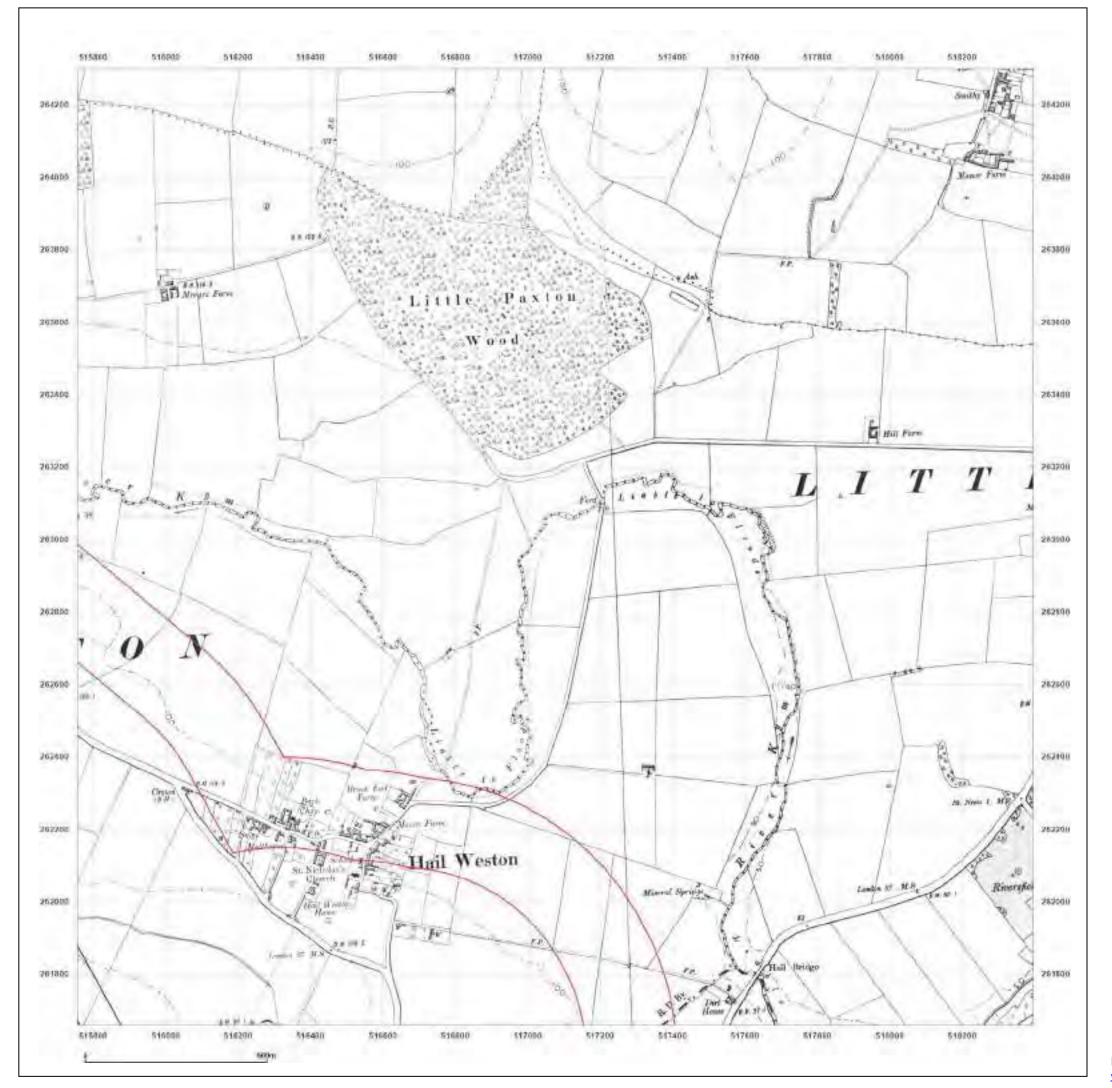


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Site Details:

Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_2_3

Grid Ref: 517075, 262980

Map Name: County Series

Map date: 1900

Scale:

1:10,560

Printed at: 1:10,560

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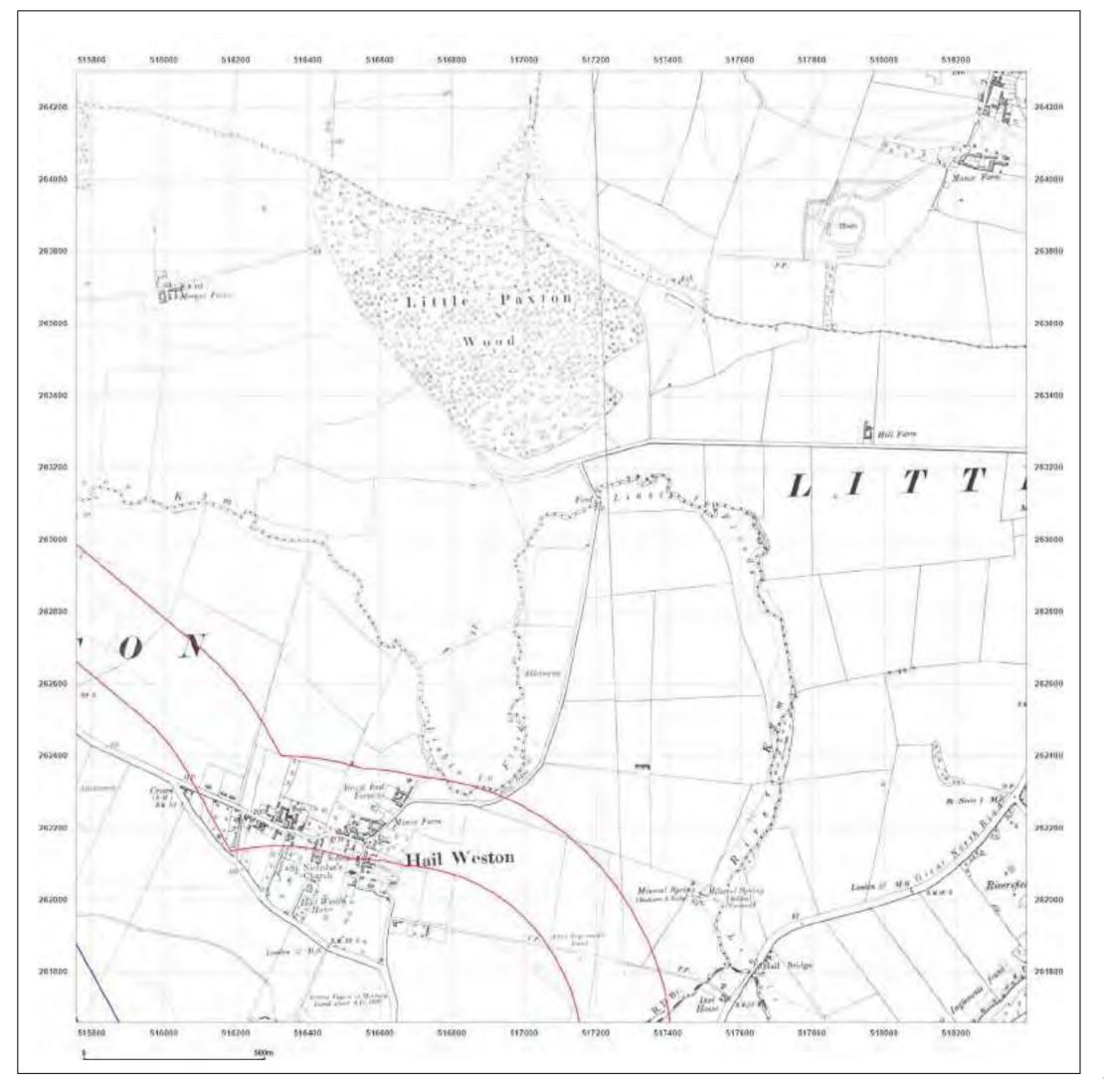


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Site Details:

Connection Route

Client Ref: R3053 - East Park Connection Route Report Ref: GSIP-2023-13935-15405_SS_2_3

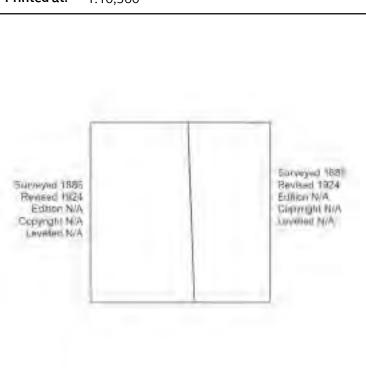
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Map Name: County Series

Map date: 1924

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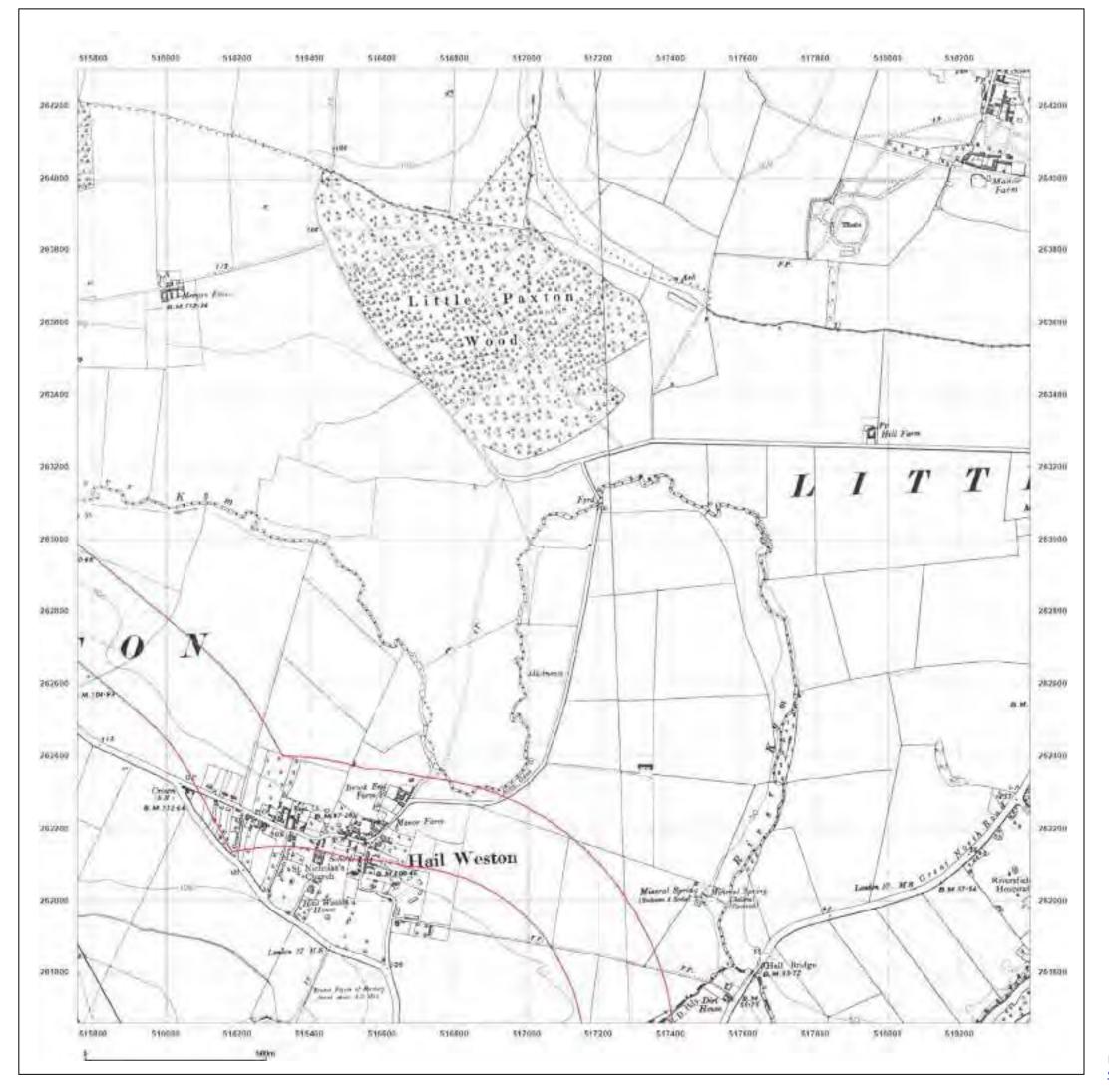


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Connection Route

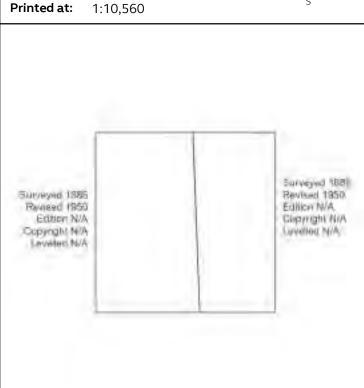
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Grid Ref: 517075, 262980

Map Name: County Series

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Scale: 1:10,560



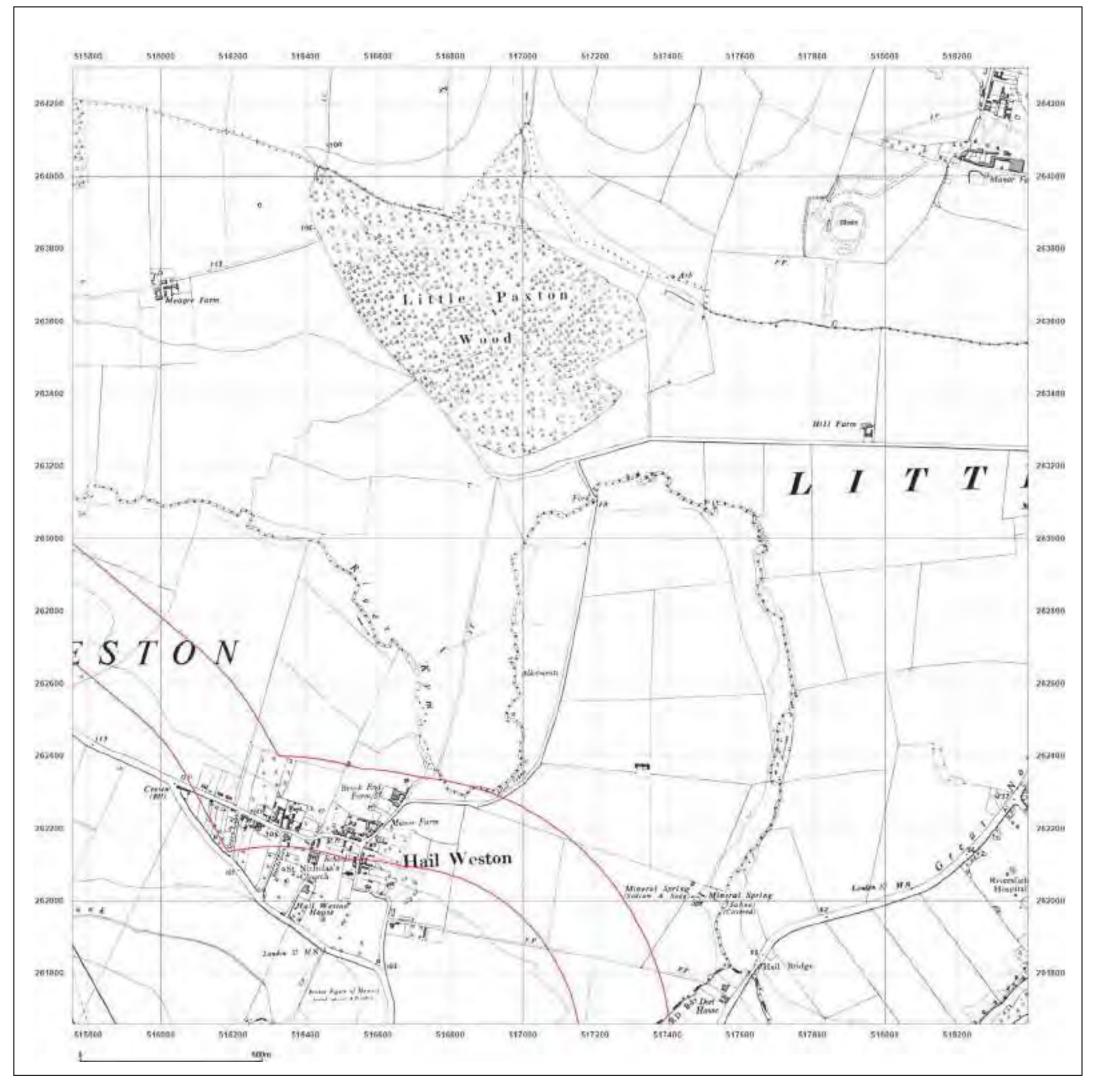


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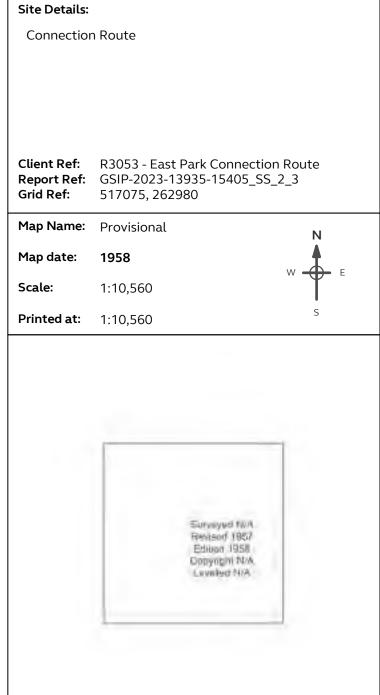
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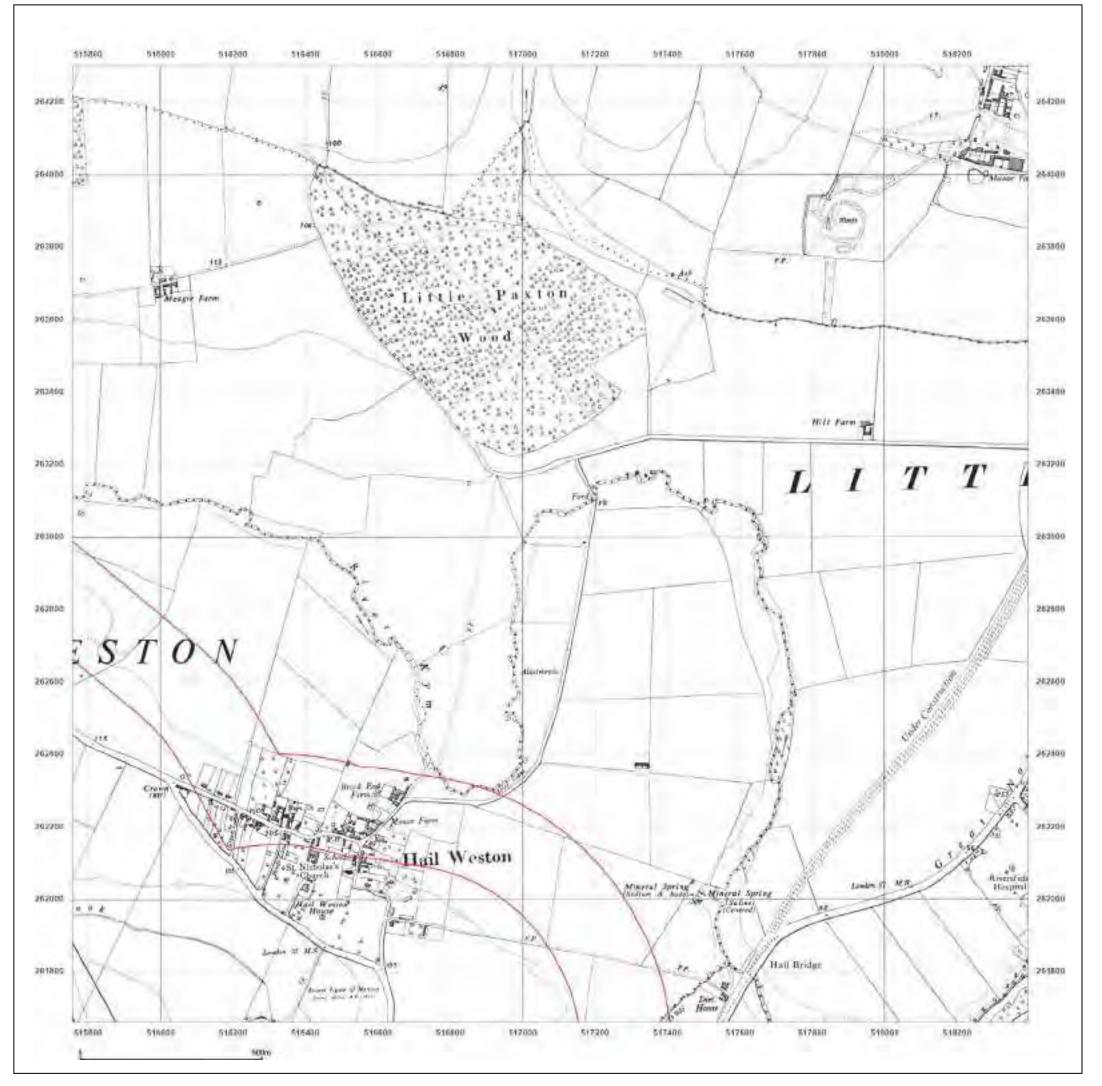




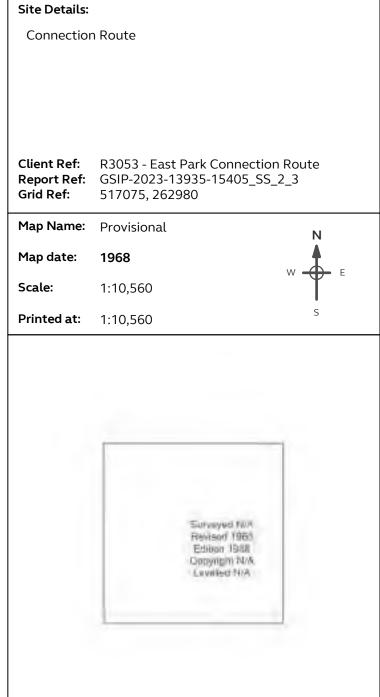
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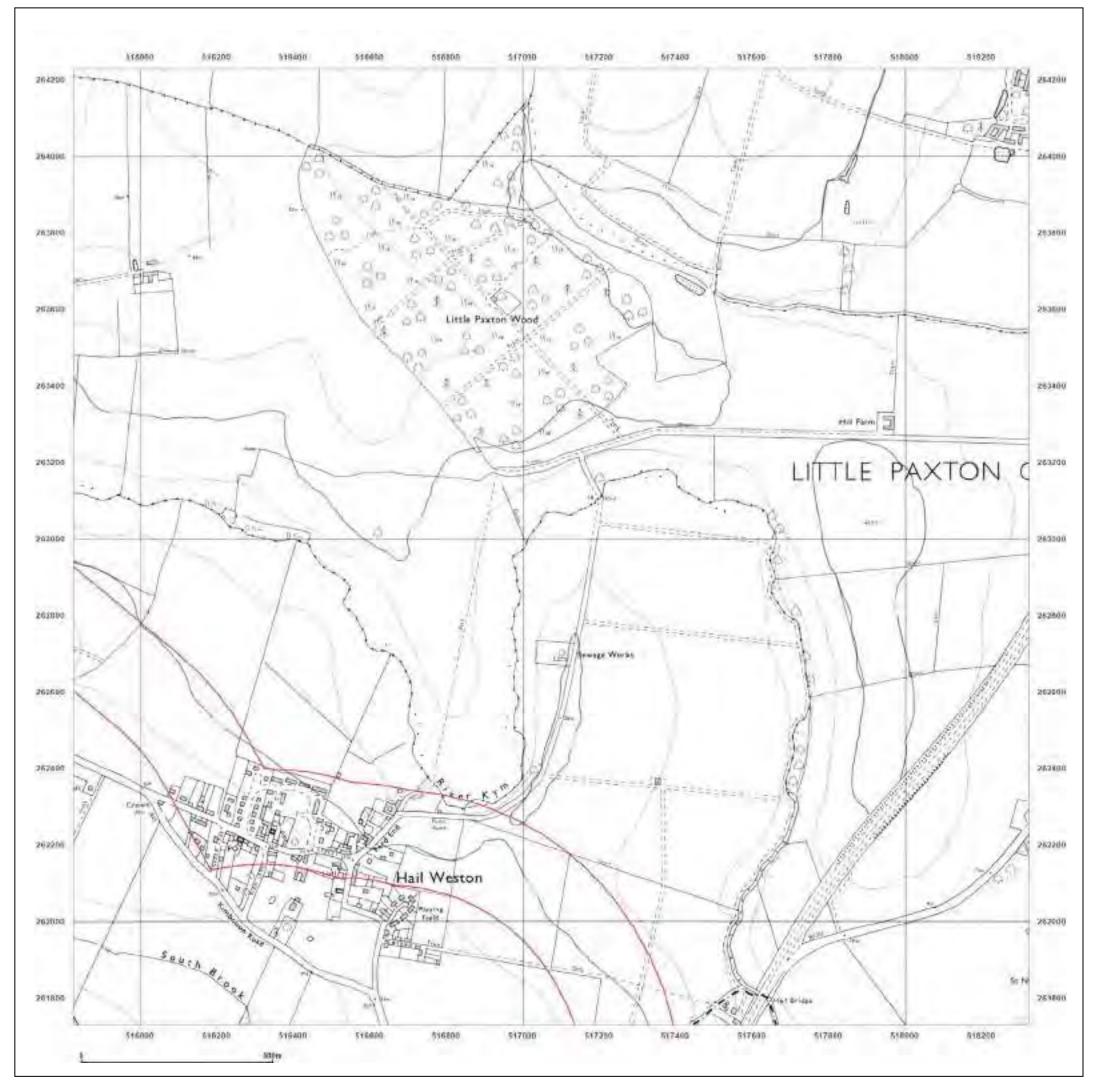




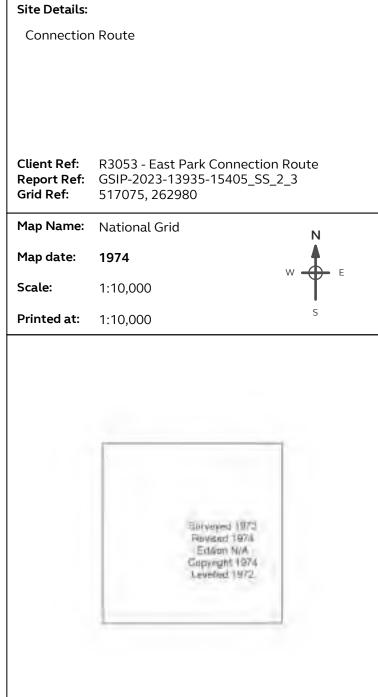
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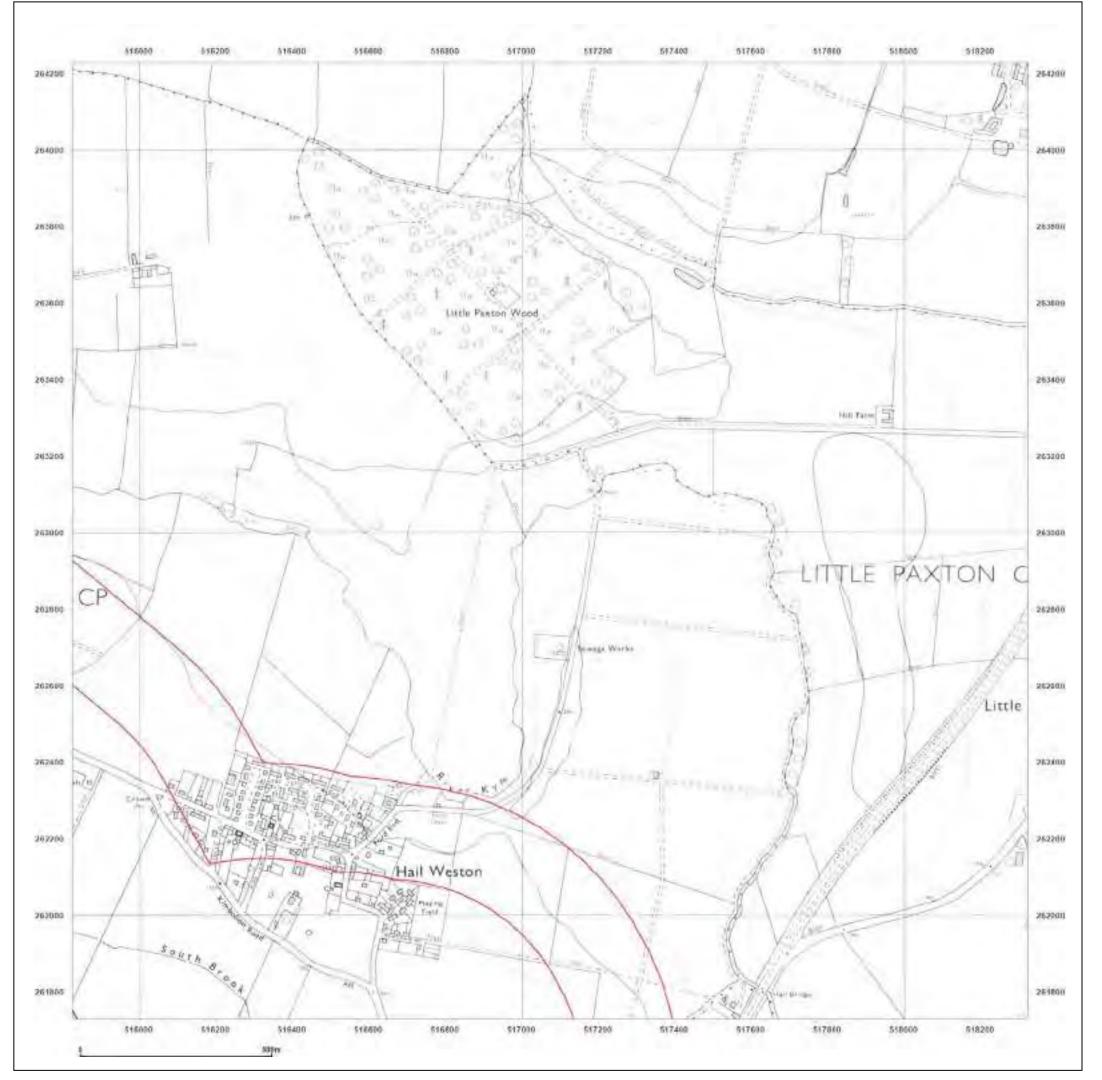




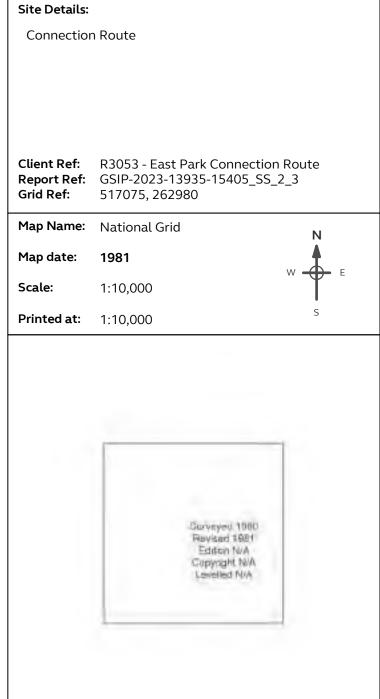
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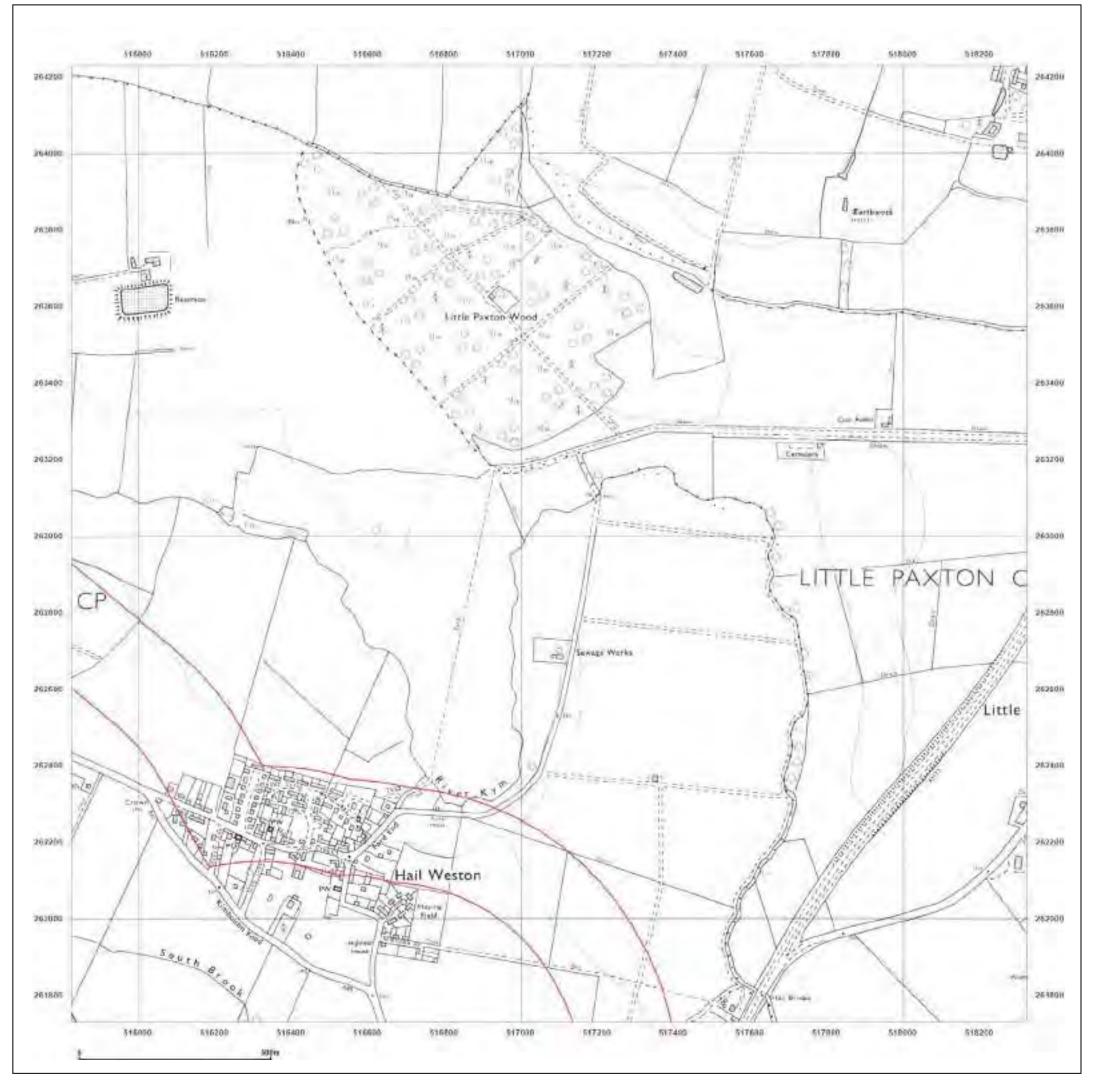




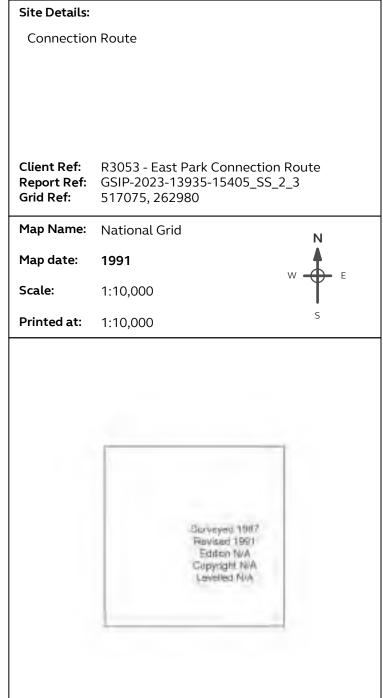
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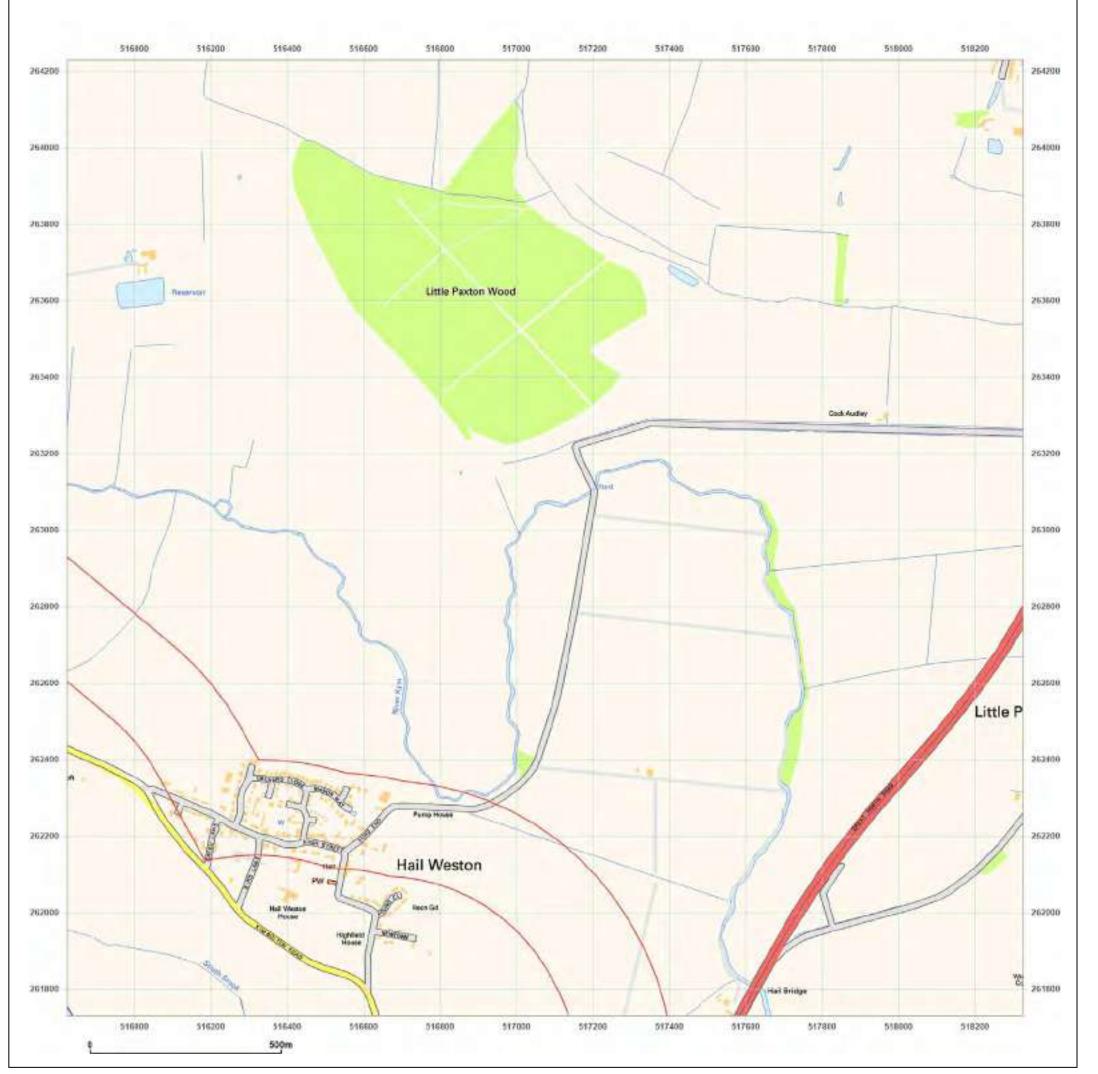




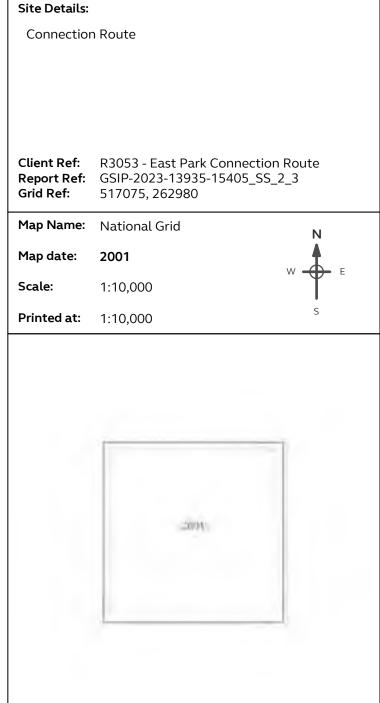
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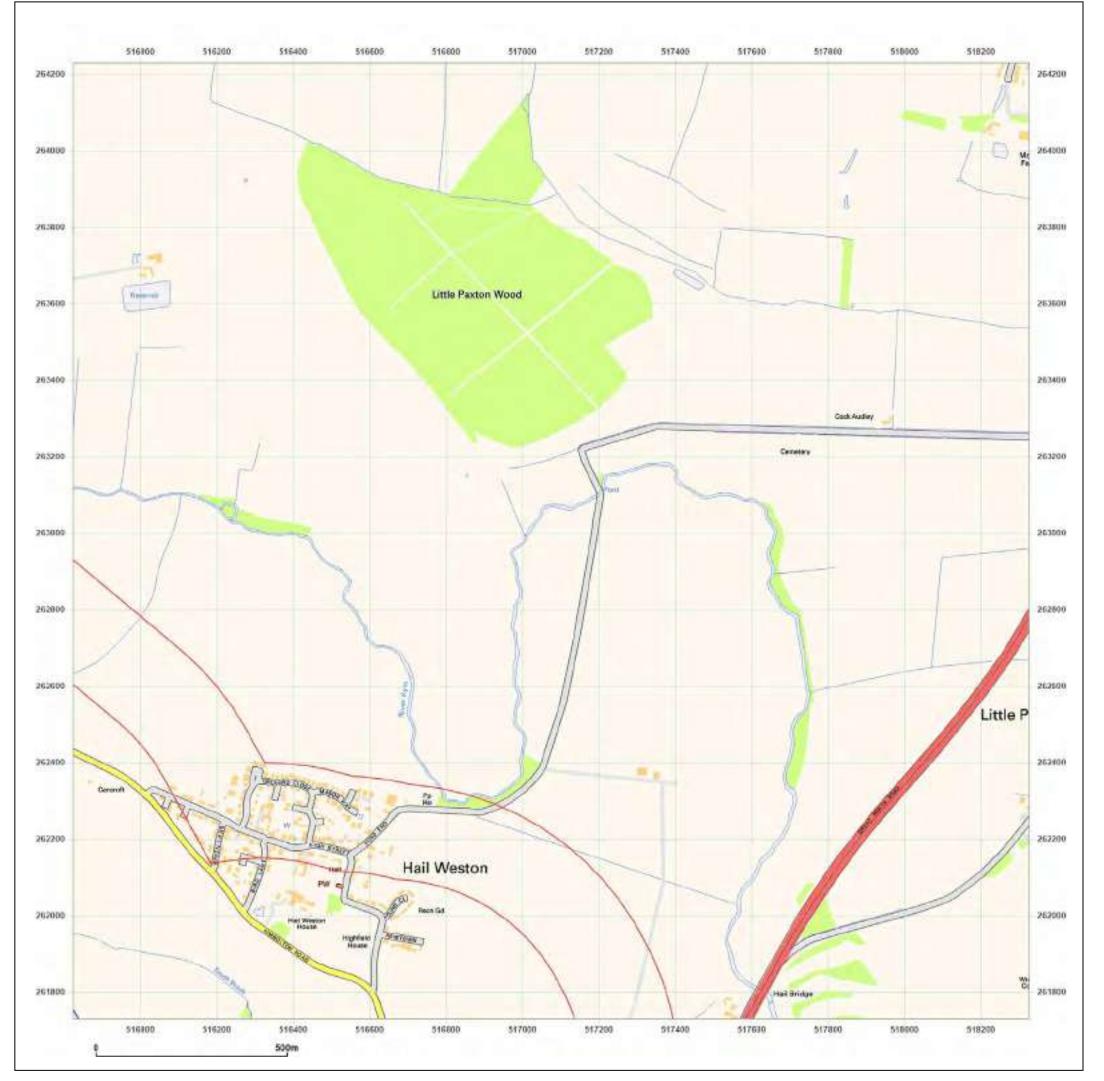




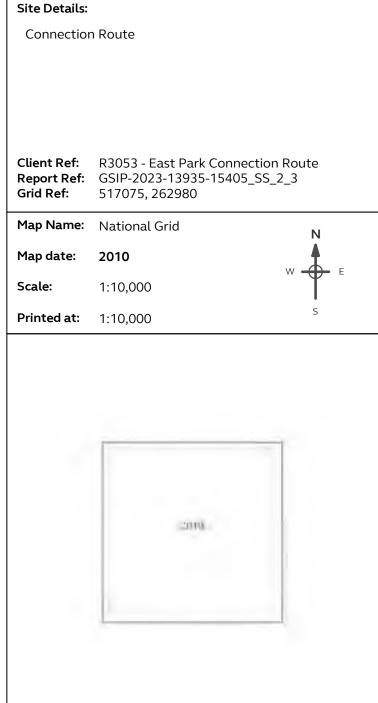
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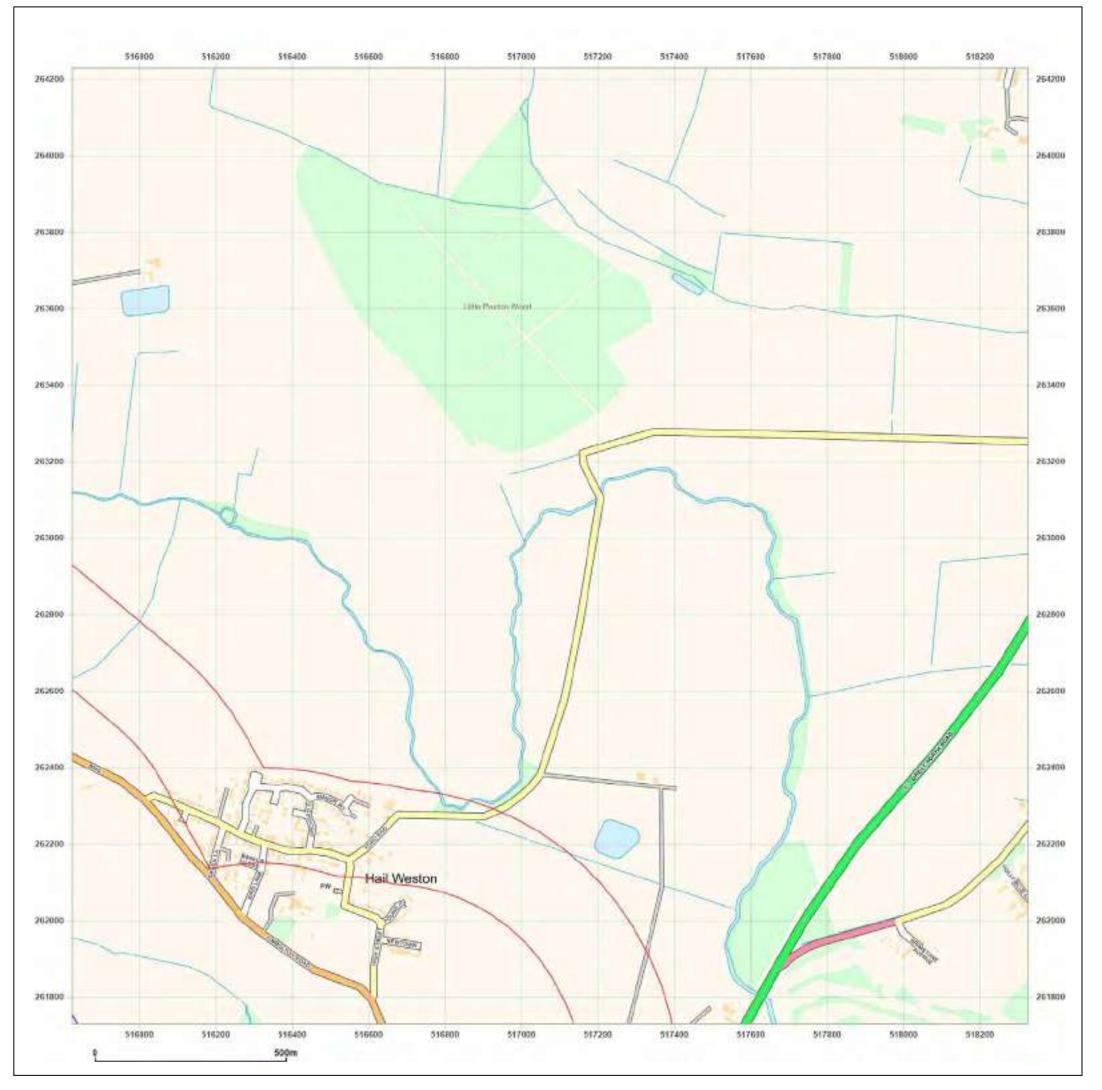




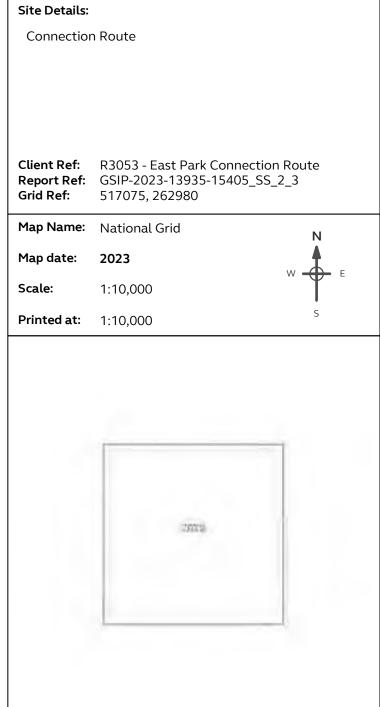
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Connection Route

Order Details

Date: 01/09/2023

Your ref: R3053 - East Park Connection Route

Our Ref: GSIP-2023-13935-15406a

Site Details

Location: 516164 258754

45.99 ha Area:

Authority: <u>Huntingdonshire District Council</u> *↗*,

Bedford Council (Unitary) ↗



Summary of findings

p. 2 > **Aerial image** p. 9 >

OS MasterMap site plan

N/A: >10ha

groundsure.com/insightuserguide ↗



Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Summary of findings

Page	Section	<u>Past land use</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>14</u> >	<u>1.1</u> >	<u>Historical industrial land uses</u> >	2	1	8	5	-
<u>15</u> >	<u>1.2</u> >	<u>Historical tanks</u> >	0	0	7	4	-
<u>16</u> >	<u>1.3</u> >	<u>Historical energy features</u> >	1	0	7	21	-
<u>17</u> >	<u>1.4</u> >	<u>Historical petrol stations</u> >	0	0	0	1	-
<u>18</u> >	<u>1.5</u> >	<u>Historical garages</u> >	0	0	0	3	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
<u>19</u> >	<u>2.1</u> >	<u>Historical industrial land uses</u> >	2	4	14	9	-
<u>21</u> >	<u>2.2</u> >	<u>Historical tanks</u> >	0	0	16	10	-
<u>22</u> >	<u>2.3</u> >	<u>Historical energy features</u> >	1	0	12	41	-
<u>24</u> >	<u>2.4</u> >	<u>Historical petrol stations</u> >	0	0	0	1	-
<u>24</u> >	<u>2.5</u> >	<u>Historical garages</u> >	0	0	0	4	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27							
	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
<u>27</u> >	3.3 <u>3.4</u> >	Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) >	0	0	0	0 1	-
27 > 27 >							-
	<u>3.4</u> >	Historical landfill (EA/NRW records) >	0	0	0	1	-
<u>27</u> >	3.4 > 3.5 >	Historical landfill (EA/NRW records) > Historical waste sites >	0	0	0	1	-
27 > 28	3.4 > 3.5 > 3.6	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites	0 0	0 0	0 0	1 1 0	- - - - 500-2000m
27 > 28 28 >	3.4 > 3.5 > 3.6 3.7 >	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites Waste exemptions >	0 0 0	0 0 0	0 0 0 56	1 1 0	- - - - 500-2000m
27 > 28	3.4 > 3.5 > 3.6 3.7 > Section	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites Waste exemptions > Current industrial land use >	0 0 0 0 On site	0 0 0 0	0 0 0 56 50-250m	1 1 0	- - - - 500-2000m
27 > 28	3.4 > 3.5 > 3.6 3.7 > Section 4.1 >	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites Waste exemptions > Current industrial land use > Recent industrial land uses >	0 0 0 0 On site	0 0 0 0 0-50m	0 0 0 56 50-250m	1 1 0 0	- - - - 500-2000m
27 > 28	3.4 > 3.5 > 3.6 3.7 > Section 4.1 > 4.2 >	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites Waste exemptions > Current industrial land use > Recent industrial land uses > Current or recent petrol stations >	0 0 0 0 On site	0 0 0 0 0-50m 1	0 0 0 56 50-250m	1 1 0 0 250-500m	- - - - 500-2000m
27 > 28	3.4 > 3.5 > 3.6 3.7 > Section 4.1 > 4.2 > 4.3	Historical landfill (EA/NRW records) > Historical waste sites > Licensed waste sites Waste exemptions > Current industrial land use > Recent industrial land uses > Current or recent petrol stations > Electricity cables	0 0 0 0 On site 13 0	0 0 0 0 0-50m 1 0	0 0 0 56 50-250m 33 0	1 1 0 0 250-500m	- - - - 500-2000m



Date: 1 September 2023



Your ref: R3053 - East Park Connection Route

38	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	_		
38	4.7	Regulated explosive sites	0	0	0	0	-		
39	4.8	Hazardous substance storage/usage	0	0	0	0	-		
39	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-		
39	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-		
<u>39</u> >	<u>4.11</u> >	Licensed pollutant release (Part A(2)/B) >	0	0	0	3	-		
40	4.12	Radioactive Substance Authorisations	0	0	0	0	-		
<u>40</u> >	<u>4.13</u> >	<u>Licensed Discharges to controlled waters</u> >	0	0	2	1	-		
41	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-		
41	4.15	Pollutant release to public sewer	0	0	0	0	-		
41	4.16	List 1 Dangerous Substances	0	0	0	0	-		
<u>41</u> >	<u>4.17</u> >	<u>List 2 Dangerous Substances</u> >	0	0	0	2	-		
<u>42</u> >	<u>4.18</u> >	Pollution Incidents (EA/NRW) >	0	0	1	3	-		
42	4.19	Pollution inventory substances	0	0	0	0	-		
43	4.20	Pollution inventory waste transfers	0	0	0	0	-		
43	4.21	Pollution inventory radioactive waste	0	0	0	0	-		
Page	Section	<u>Hydrogeology</u> >	On site	0-50m	50-250m	250-500m	500-2000m		
<u>44</u> >	<u>5.1</u> >	Superficial aquifer >	Identified (within 500m)				
<u>46</u> >	<u>5.2</u> >	Bedrock aquifer >	Identified (within 500m)				
<u>47</u> >	<u>5.3</u> >	Groundwater vulnerability >	Identified (within 50m)					
49	F 4	Construction with a selection of the selection of the	None (within 0m)						
43	5.4	Groundwater vulnerability- soluble rock risk	None (with	in 0m)					
49	5.4	Groundwater vulnerability- soluble rock risk Groundwater vulnerability- local information	None (with	,					
			•	,	0	0	11		
49	5.5	Groundwater vulnerability- local information	None (with	in 0m)	0	0	11 29		
49 <u>50</u> >	5.5 <u>5.6</u> >	Groundwater vulnerability- local information Groundwater abstractions >	None (with	in 0m)					
49 50 > 53 >	5.5 5.6 > 5.7 >	Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions >	None (with 0	in 0m) 0	0	0	29		
49 50 > 53 > 59	5.5 5.6 > 5.7 > 5.8	Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions > Potable abstractions	None (with 0 0	in 0m) 0 0 0	0	0	29		
49 50 > 53 > 59 59	5.5	Groundwater vulnerability- local information Groundwater abstractions > Surface water abstractions > Potable abstractions Source Protection Zones	None (with 0 0 0 0	in 0m) 0 0 0 0	0 0	0 0	29		





Your ref: R3053 - East Park Connection Route

<u>64</u> >	<u>6.2</u> >	<u>Surface water features</u> >	1	3	7	-	-
<u>64</u> >	<u>6.3</u> >	WFD Surface water body catchments >	2	-	-	-	-
<u>64</u> >	<u>6.4</u> >	WFD Surface water bodies >	1	0	1	-	-
65	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
<u>66</u> >	<u>7.1</u> >	Risk of flooding from rivers and the sea >	High (withi	n 50m)		•	
<u>67</u> >	<u>7.2</u> >	<u>Historical Flood Events</u> >	0	1	1	-	-
67	7.3	Flood Defences	0	0	0	-	-
67	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
68	7.5	Flood Storage Areas	0	0	0	-	-
<u>69</u> >	<u>7.6</u> >	Flood Zone 2 >	Identified (within 50m)			
<u>70</u> >	<u>7.7</u> >	Flood Zone 3 >	Identified (within 50m)			
Page	Section	Surface water flooding >					
<u>71</u> >	<u>8.1</u> >	Surface water flooding >	1 in 30 yea	r, Greater tha	an 1.0m (wit	hin 50m)	
Page	Section	Groundwater flooding >					
Page 73 >	Section <u>9.1</u> >	Groundwater flooding > Groundwater flooding >	Moderate (within 50m)			
			Moderate (within 50m) 0-50m	50-250m	250-500m	500-2000m
<u>73</u> >	<u>9.1</u> >	Groundwater flooding >				250-500m	500-2000m
73 > Page	<u>9.1</u> >	Groundwater flooding > Environmental designations >	On site	0-50m	50-250m		
73 > Page 74 >	9.1 > Section 10.1 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) >	On site	0-50m	50-250m 0	0	1
73 > Page 74 >	9.1 > Section 10.1 > 10.2	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites)	On site 0	0-50m 0	50-250m 0 0	0	1
73 > Page 74 > 75	9.1 > Section 10.1 > 10.2 10.3	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC)	On site 0 0 0	0-50m 0 0	50-250m 0 0	0 0	1 0 0
73 > Page 74 > 75 75	9.1 > Section 10.1 > 10.2 10.3 10.4	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA)	On site 0 0 0 0	0-50m 0 0 0	50-250m 0 0 0	0 0 0	1 0 0
73 > Page 74 > 75 75 75 75	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR)	On site 0 0 0 0 0	0-50m 0 0 0	50-250m 0 0 0 0	0 0 0 0	1 0 0 0
73 > Page 74 > 75 75 75 76	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR)	On site 0 0 0 0 0 0 0	0-50m 0 0 0 0	50-250m 0 0 0 0 0 0	0 0 0 0 0	1 0 0 0 0
73 > Page 74 > 75 75 75 76 76	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland >	On site 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0	0 0 0 0 0	1 0 0 0 0 0
73 > Page 74 > 75 75 75 76 76	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves	On site 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0	1 0 0 0 0 0
73 > Page 74 > 75 75 75 76 76 76 76	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves Forest Parks	On site 0 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0	1 0 0 0 0 0 1 0







Your ref: R3053 - East Park Connection Route

77	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
77	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
78	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<u>78</u> >	<u>10.16</u> >	Nitrate Vulnerable Zones >	2	0	0	0	2
<u>79</u> >	<u>10.17</u> >	SSSI Impact Risk Zones >	2	-	-	-	-
<u>80</u> >	<u>10.18</u> >	SSSI Units >	0	0	0	0	1
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
82	11.1	World Heritage Sites	0	0	0	-	-
83	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
83	11.3	National Parks	0	0	0	-	-
<u>83</u> >	<u>11.4</u> >	<u>Listed Buildings</u> >	0	0	1	-	-
84	11.5	Conservation Areas	0	0	0	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
84	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
<u>85</u> >	<u>12.1</u> >	<u>Agricultural Land Classification</u> >	Grade 1 (wi	ithin 250m)			
86	12.2	Open Access Land	0	0	0	-	-
<u>86</u> >	<u>12.3</u> >	<u>Tree Felling Licences</u> >	0	5	14	-	-
87	12.4	Environmental Stewardship Schemes	0	0	0	-	-
<u>88</u> >	<u>12.5</u> >	Countryside Stewardship Schemes >	2	0	2	-	-
Page	Section	<u>Habitat designations</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>89</u> >	<u>13.1</u> >	Priority Habitat Inventory >	1	1	7	-	-
90	13.2	Habitat Networks	0	0	0	-	-
90	13.3	Open Mosaic Habitat	0	0	0	-	-
90	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
				i+h::	1		
<u>91</u> >	<u>14.1</u> >	10k Availability >	Identified (within 500m	')		
<u>91</u> >	<u>14.1</u> >	10k Availability > Artificial and made ground (10k)	Identified (0	0	0	-
						0	-





Your ref: R3053 - East Park Connection Route

93	14.4	Landslip (10k)	0	0	0	0	-		
94	14.5	Bedrock geology (10k)	0	0	0	0	-		
94	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-		
Page	Section	<u>Geology 1:50,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m		
<u>95</u> >	<u>15.1</u> >	50k Availability >	Identified (within 500m)						
96	15.2	Artificial and made ground (50k)	0	0	0	0	-		
96	15.3	Artificial ground permeability (50k)	0	0	-	-	-		
<u>97</u> >	<u>15.4</u> >	Superficial geology (50k) >	3	1	2	2	-		
<u>98</u> >	<u>15.5</u> >	Superficial permeability (50k) >	Identified (within 50m)					
98	15.6	Landslip (50k)	0	0	0	0	-		
99	15.7	Landslip permeability (50k)	None (with	in 50m)					
<u>100</u> >	<u>15.8</u> >	Bedrock geology (50k) >	1	0	0	0	-		
<u>101</u> >	<u>15.9</u> >	Bedrock permeability (50k) >	Identified (within 50m)					
101	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-		
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m		
<u>102</u> >	<u>16.1</u> >	BGS Boreholes >	9	0	10	-	-		
Page	Section	Natural ground subsidence >							
<u>104</u> >	<u>17.1</u> >	<u>Shrink swell clays</u> >	Low (withir	1 50m)					
<u>106</u> >	<u>17.2</u> >	Running sands >	Low (withir	50m)					
<u>108</u> >	<u>17.3</u> >	Compressible deposits >	Moderate (within 50m)					
<u>110</u> >	<u>17.4</u> >	Collapsible deposits >	Very low (w	vithin 50m)					
<u>111</u> >	<u>17.5</u> >	<u>Landslides</u> >	Low (withir	1 50m)					
<u>113</u> >	<u>17.6</u> >	Ground dissolution of soluble rocks >	Negligible (within 50m)					
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m		
<u>115</u> >	<u>18.1</u> >	BritPits >	0	0	0	1	-		
115 > 116 >	18.1 > 18.2 >	BritPits > Surface ground workings >	0	0	0 12	1	-		
						1 - 0	- 0		
<u>116</u> >	<u>18.2</u> >	Surface ground workings >	0	4	12	-	- - 0 -		
116 > 117	<u>18.2</u> > 18.3	<u>Surface ground workings</u> > Underground workings	0	4 0	12 0	- 0	- 0 -		





Your ref: R3053 - East Park Connection Route

117	18.6	Non-coal mining	0	0	0	0	0	
118	18.7	JPB mining areas	None (with	in 0m)				
118	18.8	The Coal Authority non-coal mining	0	0	0	0	-	
118	18.9	Researched mining	0	0	0	0	-	
118	18.10	Mining record office plans	0	0	0	0	-	
119	18.11	BGS mine plans	0	0	0	0	-	
119	18.12	Coal mining	None (within 0m)					
119	18.13	Brine areas	None (with	in 0m)				
119	18.14	Gypsum areas	None (with	in 0m)				
119	18.15	Tin mining	None (with	in 0m)				
120	18.16	Clay mining	None (with	in 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m	
121	19.1	Natural cavities	0	0	0	0	-	
121	19.2	Mining cavities	0	0	0	0	0	
121	19.3	Reported recent incidents	0	0	0	0	-	
121	19.4	Historical incidents	0	0	0	0	-	
122	19.5	National karst database	0	0	0	0	-	
Page	Section	Radon >						
<u>123</u> >	<u>20.1</u> >	Radon >	Less than 1	% (within 0r	n)			
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>125</u> >	<u>21.1</u> >	BGS Estimated Background Soil Chemistry >	11	7	-	-	-	
126	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-	
126	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-	
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m	
127	22.1	Underground railways (London)	0	0	0	-	-	
127	22.2	Underground railways (Non-London)	0	0	0	-	-	
127	22.3	Railway tunnels	0	0	0	-	-	
127	22.4	Historical railway and tunnel features	0	0	0	-	-	
127	22.5	Royal Mail tunnels	0	0	0	-	-	







Your ref: R3053 - East Park Connection Route

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128	22.6	Historical railways	0	0	0	-	-
128	22.7	Railways	0	0	0	-	-
128	22.8	Crossrail 1	0	0	0	0	-
128	22.9	Crossrail 2	0	0	0	0	-
128	22.10	HS2	0	0	0	0	-



Date: 1 September 2023



Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Recent aerial photograph



Capture Date: 07/04/2020

Site Area: 45.99ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Recent site history - 2017 aerial photograph



Capture Date: 19/06/2017

Site Area: 45.99ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Recent site history - 2013 aerial photograph





Site Area: 45.99ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Recent site history - 2000 aerial photograph



Capture Date: 21/09/2000

Site Area: 45.99ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Recent site history - 1999 aerial photograph



Capture Date: 27/05/1999

Site Area: 45.99ha

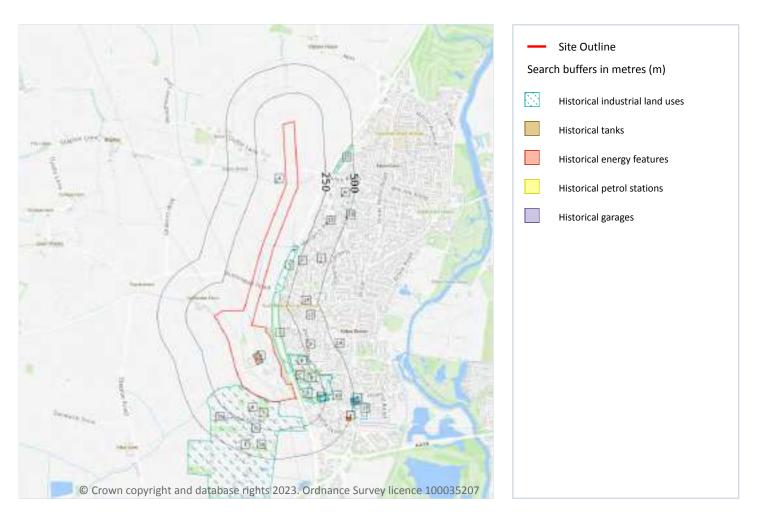




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

1 Past land use



1.1 Historical industrial land uses

Records within 500m 16

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

ID	Location	Land use	Dates present	Group ID
1	On site	Nurseries	1994	2058608





Ref: GSIP-2023-13935-15406a **Your ref**: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land use	Dates present	Group ID
Α	On site	Electric Substation	1994	2053615
2	23m S	Cuttings	1974 - 1994	2079614
В	51m SE	Industrial Estate	1987 - 1994	2110379
В	51m SE	Unspecified Works	1981	2046339
4	73m N	Pumping Station	1981 - 1991	2107118
D	82m SE	Cemetery	1974 - 1981	2095307
5	113m NE	Cuttings	1974 - 1994	2068794
D	190m SE	Cemetery	1959	2121375
D	195m SE	Cemetery	1950	2081784
D	199m SE	Cemetery	1950	2073247
11	316m NE	Unspecified Heap	1991	2053961
K	467m SE	Brewery	1882 - 1900	2112313
K	469m SE	Brewery	1924	2102948
K	471m SE	Brewery	1902	2095878
17	487m SE	Unspecified Warehouse	1981 - 1994	2104983

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m 11

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

ID	Location	Land use	Dates present	Group ID
3	71m SE	Unspecified Tank	1987	343752
Е	118m SE	Unspecified Tank	1987 - 1994	358170
Е	120m SE	Unspecified Tank	1982	357803





Ref: GSIP-2023-13935-15406a **Your ref**: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land use	Dates present	Group ID
Е	122m SE	Unspecified Tank	1983 - 1985	358510
6	139m S	Tanks	1982 - 1994	353295
7	148m S	Unspecified Tank	1982 - 1994	351482
8	157m SE	Unspecified Tank	1987 - 1990	356245
G	298m S	Unspecified Tank	1982 - 1985	353786
G	337m S	Unspecified Tank	1982 - 1985	351299
15	374m S	Unspecified Tank	1994	343756
16	418m S	Unspecified Tank	1982 - 1985	356272

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m 29

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

ID	Location	Land use	Dates present	Group ID
Α	On site	Electricity Substation	1990	225453
С	58m SE	Electricity Substation	1982 - 1990	235481
С	58m SE	Electricity Substation	1987	237553
С	64m SE	Gas Governor	1990	235718
С	66m SE	Electricity Substation	1983 - 1985	230657
С	66m SE	Gas Governor	1987	236770
В	149m SE	Electricity Substation	1982 - 1994	236926
В	151m SE	Electricity Substation	1983 - 1985	235518
F	257m NE	Electricity Substation	1976	228669
F	259m NE	Electricity Substation	1960	229626





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land use	Dates present	Group ID
F	260m NE	Electricity Substation	1987	234756
9	277m SE	Electricity Substation	1983 - 1994	237137
10	315m SE	Electricity Substation	1980 - 1992	230813
12	346m NE	Electricity Substation	1987 - 1990	229595
13	350m E	Electricity Substation	1987 - 1999	230285
14	368m E	Electricity Substation	1960 - 1999	232458
Н	384m NE	Electricity Substation	1988	225452
Н	399m NE	Electricity Substation	1988	225451
I	414m NE	Electricity Substation	1960 - 1976	237958
I	424m NE	Electricity Substation	1987 - 1990	236271
J	467m SE	Electricity Substation	1985	228308
J	467m SE	Electricity Substation	1983	228770
J	468m SE	Electricity Substation	1982	228274
J	476m SE	Electricity Substation	1980	228343
J	476m SE	Electricity Substation	1980	228376
J	478m SE	Electricity Substation	1987	228947
J	478m SE	Electricity Substation	1992	228806
18	491m NE	Electricity Substation	1982 - 1988	230116
19	495m SE	Electricity Substation	1987 - 1994	231358

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m 1

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land use	Dates present	Group ID
K	491m SE	Filling Station	1970	3864

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m 3

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 14 >

ID	Location	Land use	Dates present	Group ID
K	470m SE	Garage	1983 - 1985	71461
K	473m SE	Garage	1987	70508
K	473m SE	Garage	1982	70342

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m 0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

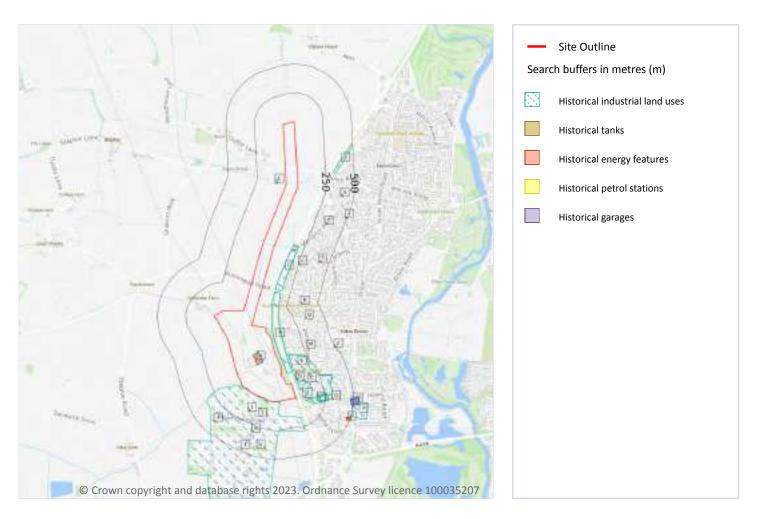




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m 29

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 19 >

ID	Location	Land Use	Date	Group ID
1	On site	Nurseries	1994	2058608
Α	On site	Electric Substation	1994	2053615





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Looption	Land Hea	Data	Croup ID
ID	Location	Land Use	Date	Group ID
В	23m S	Cuttings	1981	2079614
В	23m S	Cuttings	1974	2079614
В	23m S	Cuttings	1987	2079614
С	51m SE	Industrial Estate	1994	2110379
С	51m SE	Unspecified Works	1981	2046339
С	51m SE	Industrial Estate	1987	2110379
Е	73m N	Pumping Station	1991	2107118
Е	73m N	Pumping Station	1981	2107118
F	82m SE	Cemetery	1981	2095307
F	82m SE	Cemetery	1974	2095307
G	113m NE	Cuttings	1994	2068794
G	113m NE	Cuttings	1981	2068794
G	113m NE	Cuttings	1974	2068794
G	113m NE	Cuttings	1987	2068794
F	190m SE	Cemetery	1959	2121375
F	195m SE	Cemetery	1950	2081784
F	199m SE	Cemetery	1950	2073247
3	316m NE	Unspecified Heap	1991	2053961
W	467m SE	Brewery	1900	2112313
W	467m SE	Brewery	1887	2112313
W	469m SE	Brewery	1924	2102948
W	471m SE	Brewery	1882	2112313
W	471m SE	Brewery	1902	2095878
X	487m SE	Unspecified Warehouse	1994	2104983
Χ	487m SE	Unspecified Warehouse	1981	2104983
Χ	487m SE	Unspecified Warehouse	1987	2104983

This data is sourced from Ordnance Survey / Groundsure.





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

2.2 Historical tanks

Records within 500m 26

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 19 >

ID	Location	Land Use	Date	Group ID
2	71m SE	Unspecified Tank	1987	343752
Н	118m SE	Unspecified Tank	1987	358170
Н	119m SE	Unspecified Tank	1994	358170
Н	120m SE	Unspecified Tank	1982	357803
Н	122m SE	Unspecified Tank	1985	358510
Н	122m SE	Unspecified Tank	1983	358510
I	139m S	Tanks	1985	353295
I	139m S	Tanks	1983	353295
I	139m S	Tanks	1994	353295
I	139m S	Tanks	1982	353295
J	148m S	Unspecified Tank	1985	351482
J	148m S	Unspecified Tank	1983	351482
J	148m S	Unspecified Tank	1994	351482
J	148m S	Unspecified Tank	1982	351482
K	157m SE	Unspecified Tank	1990	356245
K	158m SE	Unspecified Tank	1987	356245
Ν	298m S	Unspecified Tank	1982	353786
Ν	299m S	Unspecified Tank	1985	353786
Ν	299m S	Unspecified Tank	1983	353786
Ν	337m S	Unspecified Tank	1982	351299
Ν	337m S	Unspecified Tank	1985	351299
Ν	337m S	Unspecified Tank	1983	351299
4	374m S	Unspecified Tank	1994	343756





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land Use	Date	Group ID
U	418m S	Unspecified Tank	1982	356272
U	418m S	Unspecified Tank	1985	356272
U	418m S	Unspecified Tank	1983	356272

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m 54

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 19 >

ID	Location	Land Use	Date	Group ID
Α	On site	Electricity Substation	1990	225453
D	58m SE	Electricity Substation	1990	235481
D	58m SE	Electricity Substation	1987	237553
D	58m SE	Electricity Substation	1982	235481
D	64m SE	Gas Governor	1990	235718
D	66m SE	Electricity Substation	1985	230657
D	66m SE	Electricity Substation	1983	230657
D	66m SE	Gas Governor	1987	236770
С	149m SE	Electricity Substation	1987	236926
С	149m SE	Electricity Substation	1994	236926
С	150m SE	Electricity Substation	1982	236926
С	151m SE	Electricity Substation	1985	235518
С	151m SE	Electricity Substation	1983	235518
L	257m NE	Electricity Substation	1976	228669
L	259m NE	Electricity Substation	1960	229626
L	260m NE	Electricity Substation	1987	234756
M	277m SE	Electricity Substation	1994	237137





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Land Use	Date	Group ID
M	277m SE	Electricity Substation	1987	237137
M	279m SE	Electricity Substation	1985	237137
M	279m SE	Electricity Substation	1983	237137
0	315m SE	Electricity Substation	1987	230813
0	315m SE	Electricity Substation	1982	230813
0	316m SE	Electricity Substation	1985	230813
0	316m SE	Electricity Substation	1980	230813
0	316m SE	Electricity Substation	1980	230813
0	316m SE	Electricity Substation	1983	230813
0	316m SE	Electricity Substation	1992	230813
Р	346m NE	Electricity Substation	1990	229595
Р	347m NE	Electricity Substation	1987	229595
Q	350m E	Electricity Substation	1987	230285
Q	352m E	Electricity Substation	1999	230285
R	368m E	Electricity Substation	1976	232458
R	371m E	Electricity Substation	1999	232458
R	371m E	Electricity Substation	1987	232458
R	371m E	Electricity Substation	1960	232458
R	371m E	Electricity Substation	1987	232458
S	384m NE	Electricity Substation	1988	225452
S	399m NE	Electricity Substation	1988	225451
Т	414m NE	Electricity Substation	1976	237958
Т	415m NE	Electricity Substation	1960	237958
Т	424m NE	Electricity Substation	1990	236271
Т	425m NE	Electricity Substation	1987	236271
V	467m SE	Electricity Substation	1985	228308
V	467m SE	Electricity Substation	1983	228770
V	468m SE	Electricity Substation	1982	228274





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ID	Location	Land Use	Date	Group ID
V	476m SE	Electricity Substation	1980	228343
V	476m SE	Electricity Substation	1980	228376
V	478m SE	Electricity Substation	1987	228947
V	478m SE	Electricity Substation	1992	228806
Υ	491m NE	Electricity Substation	1982	230116
Υ	493m NE	Electricity Substation	1988	230116
Υ	494m NE	Electricity Substation	1988	230116
Z	495m SE	Electricity Substation	1994	231358
Z	495m SE	Electricity Substation	1987	231358

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m 1

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 19 >

ID	Location	Land Use	Date	Group ID
W	491m SE	Filling Station	1970	3864

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 19 >

ID	Location	Land Use	Date	Group ID
W	470m SE	Garage	1985	71461



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ID	Location	Land Use	Date	Group ID
W	472m SE	Garage	1983	71461
W	473m SE	Garage	1987	70508
W	473m SE	Garage	1982	70342

This data is sourced from Ordnance Survey / Groundsure.

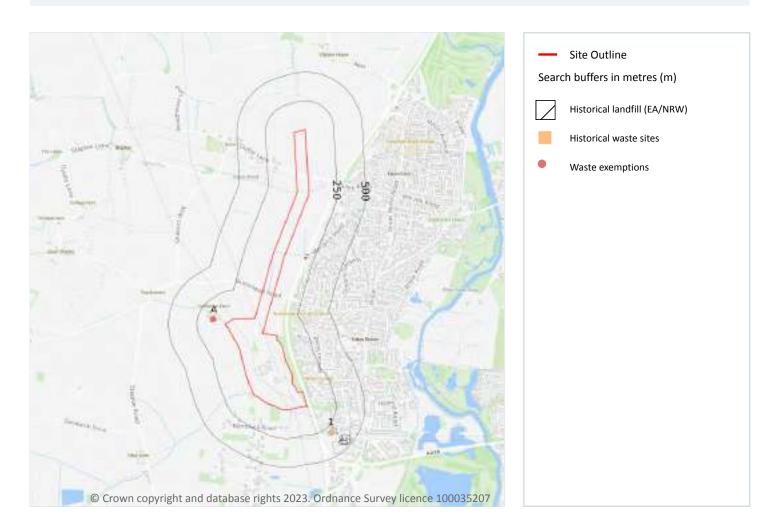




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m 0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.





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Grid ref: 516164 258754

3.3 Historical landfill (LA/mapping records)

Records within 500m 0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on page 26 >

ID	Location	Details		
2	407m SE	Site Address: Little End, Eaton Socon, Bedfordshire Licence Holder Address: -	Waste Licence: - Site Reference: PIT 23 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m 1

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on page 26 >





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ID	Location	Address	Further Details	Date
1	282m SE	Site Address: 3, Alpha Drive, Eaton Socon, ST. NEOTS, Cambridgeshire, PE19 8JJ	Type of Site: Factory/Recycling Building Planning application reference: 0702272FUL Description: Scheme comprises alterations to factory to provide mezzanine floor, construction of recycling building and dust extraction units. Works will include sewer systems, infrastructure, enabling, access and landscaping. Construction - industrial doors (unspe fied) doors; black top surfacing, planting site works. An application (ref: 0702272FUL) for detailed planning permission was granted by Huntingdon D.C. Scheme completed. Data source: Historic Planning Application Data Type: Point	

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m 0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m 56

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on page 26 >

ID	Location	Site	Reference	Category	Sub- Category	Description
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Treating waste exemption	On a Farm	Crushing and emptying waste vehicle oil filters
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Treating waste exemption	On a Farm	Preparatory treatments (baling, sorting, shredding etc)
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Use of waste in construction



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ID	Location	Site	Reference	Category	Sub- Category	Description
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Burning of waste as a fuel in a small appliance
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Use of waste for a specified purpose
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Use of mulch
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Spreading of plant matter to confer benefit
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Using waste exemption	On a Farm	Incorporation of ash into soil
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Treating waste exemption	On a Farm	Screening and blending of waste
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Treating waste exemption	On a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Treating waste exemption	On a Farm	Aerobic composting and associated prior treatment
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX209747	Disposing of waste exemption	On a Farm	Burning waste in the open
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Use of waste in construction



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ID	Location	Site	Reference	Category	Sub- Category	Description
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Use of waste for a specified purpose
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Use of mulch
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Using waste exemption	On a farm	Incorporation of ash into soil
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Treating waste exemption	On a farm	Screening and blending of waste
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Treating waste exemption	On a farm	Crushing and emptying waste vehicle oil filters
А	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice



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ID	Location	Site	Reference	Category	Sub- Category	Description
Α	109m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX341022	Disposing of waste exemption	On a farm	Burning waste in the open
Α	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Use of mulch
Α	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Disposing of waste exemption	On a farm	Burning waste in the open
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Treating waste exemption	On a farm	Screening and blending of waste
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
Α	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Use of waste in construction
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Incorporation of ash into soil
А	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance





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ID	Location	Site	Reference	Category	Sub- Category	Description
Α	113m W	cobholden farm, Bushmead road, Eaton Socon, St.Neots, PE198JD	WEX064663	Using waste exemption	On a farm	Use of waste for a specified purpose
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Disposing of waste exemption	Agricultur al Waste Only	Deposit of waste from dredging of inland waters
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Disposing of waste exemption	Agricultur al Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Disposing of waste exemption	Agricultur al Waste Only	Burning waste in the open
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Treating waste exemption	Agricultur al Waste Only	Aerobic composting and associated prior treatment
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Treating waste exemption	Agricultur al Waste Only	Screening and blending of waste
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Treating waste exemption	Agricultur al Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Use of waste in construction
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Spreading waste on agricultural land to confer benefit
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Use of mulch
Α	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Spreading of plant matter to confer benefit
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Incorporation of ash into soil
Α	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Burning of waste as a fuel in a small appliance







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ID	Location	Site	Reference	Category	Sub- Category	Description
А	118m W	Cobholden Farm Bushmead Road ST. NEOTS Cambridgeshire PE19 8JD	EPR/CE5782TK /A001	Using waste exemption	Agricultur al Waste Only	Use of waste for a specified purpose

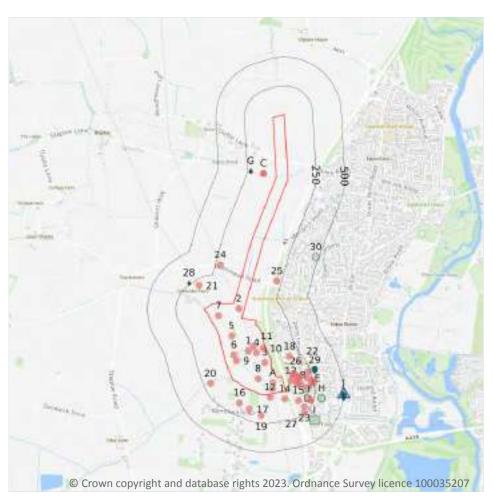
This data is sourced from the Environment Agency and Natural Resources Wales.

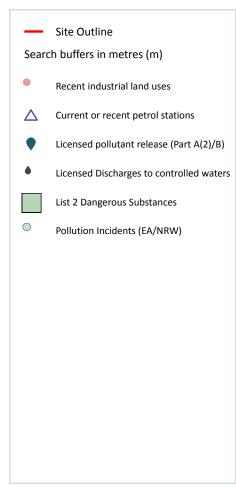


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4 Current industrial land use





4.1 Recent industrial land uses

Records within 250m 47

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 34 >

ID	Location	Company	Address	Activity	Category
1	On site	Electricity Sub Station	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
2	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
3	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities





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ID	Location	Location Company Address		Activity	Category
4	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
5	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
6	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
7	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
8	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
9	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
10	On site	n site Pylon Bedfordshire, PE19		Electrical Features	Infrastructure and Facilities
11	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
Α	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
Α	On site	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
12	25m S	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
13	64m SE	Dynex Rivett I N C	9, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Industrial Repairs and Servicing	Repair and Servicing
14	67m S	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
В	96m SE	Mobility Centre	13a, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Disability and Mobility Equipment	Consumer Products
В	96m SE	A D P Fire & Security Ltd	13a, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Electronic Equipment	Industrial Products
В	110m SE	Glomac Engineering Ltd	14, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Industrial Engineers	Engineering Services
С	111m N	Sewage Pumping Station	Bedfordshire, PE19	Waste Storage, Processing and Disposal	Infrastructure and Facilities





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С			Address	Activity	Category
	111m N	Pumping Station	Bedfordshire, PE19	Water Pumping Stations	Industrial Features
В	114m SE	D C Engineering	Units 4 5 and 6, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Industrial Engineers	Engineering Services
В	120m SE	Tank	Cambridgeshire, PE19	Tanks (Generic)	Industrial Features
15	129m SE	SCCS	7, Alpha Drive, Eaton Socon, Cambridgeshire, PE19 8JJ	Measurement and Inspection Equipment	Industrial Products
В	135m SE	Elm Auto Services	2, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Vehicle Repair, Testing and Servicing	Repair and Servicing
В	140m SE	Elite G S S Ltd	1, Steel Close, Eaton Socon, Cambridgeshire, PE19 8TT	Construction Plant	Construction Services
16	142m S	Tank	Bedfordshire, MK44	Tanks (Generic)	Industrial Features
В	143m SE	Massmould Little End Road, Eaton Socon, St. Neots, Cambridgeshire, PE19 8JH		Rubber, Silicones and Plastics	Industrial Products
В	152m SE	Electricity Sub Station	Cambridgeshire, PE19	Electrical Features	Infrastructure and Facilities
17	156m S	6m S Tank Bedfordshire, MK44		Tanks (Generic)	Industrial Features
18	165m SE	Tank	Cambridgeshire, PE19	Tanks (Generic)	Industrial Features
19	183m S	Pumping Station	Bedfordshire, MK44	Water Pumping Stations	Industrial Features
D	187m SE	T D Auto Services	8, Forge Close, Eaton Socon, Cambridgeshire, PE19 8TP	Vehicle Repair, Testing and Servicing	Repair and Servicing
20	196m SW	Solar Panels	Bedfordshire, MK44	Energy Production	Industrial Features
21	199m W	Pylon	Bedfordshire, PE19	Electrical Features	Infrastructure and Facilities
22	201m SE	Electricity Cambridgeshire, PE19 Sub Station		Electrical Features	Infrastructure and Facilities
23	205m SE	E Pylon Cambridgeshire, PE19		Electrical Features	Infrastructure and Facilities
24	207m NW	W Pylon Bedfordshire, PE19		Electrical Features	Infrastructure and Facilities
25	209m NE	209m NE Water Cambridgeshire, PE19 Tower		Water Pumping Stations	Industrial Features





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ID	Location	Company	Address	Activity	Category
Е	212m SE	The Business Printing Company	16, Little End Road, Eaton Socon, Cambridgeshire, PE19 8JH	Published Goods	Industrial Products
F	216m SE	Kite Utility Services Ltd	6-7, Foundry Way, Eaton Socon, Cambridgeshire, PE19 8TR	Industrial Repairs and Servicing	Repair and Servicing
F	227m SE	Total Auto	5, Foundry Way, Eaton Socon, Cambridgeshire, PE19 8TR	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	229m SE	Lightmaster s UK Ltd	15, Little End Road, Eaton Socon, Cambridgeshire, PE19 8JH	Construction Completion Services	Construction Services
26	238m SE	Salesmark	22, Little End Road, Eaton Socon, Cambridgeshire, PE19 8JH	Distribution and Haulage	Transport, Storage and Delivery
27	246m SE	Gates Hydraulics Ltd	5, Alpha Drive, Eaton Socon, Cambridgeshire, PE19 8JJ	Pumps and Compressors	Industrial Products
Е	246m SE	Woodworki ng Services	13, Little End Road, Eaton Socon, Cambridgeshire, PE19 8JH	Furniture	Consumer Products
Е	250m SE	Smart Control Solutions	12, Little End Road, Eaton Socon, Cambridgeshire, PE19 8JH	Electrical Components	Industrial Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m 1	
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on page 34 >

ID	Location	Company	Address	LPG	Status
J	498m SE	ВР	Great North Road, Eaton Socon, St Neots, Cambridgeshire, PE19 8EJ	No	Open

This data is sourced from Experian.





Your ref: R3053 - East Park Connection Route

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4.3 Electricity cables

Records within 500m 0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m 0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m 0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m 0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m 0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.





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0

Grid ref: 516164 258754

4.8 Hazardous substance storage/usage

Records within 500m

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m 0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m 3

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on page 34 >

01273 257 755

ID	Location	Address	Details	
29	291m SE	Anglo EIR Limited, 20 Little End Road, Eaton Socon, St Neots, PE19 8JH	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
J	493m SE	Motor Fuel Ltd, Eaton Socon Service Station, Great North Road, Eaton Socon, St Neots, PE19 8EJ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified



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ID	Location	Address	Details	
J	497m SE	Star Service Station, Great North Road, Eaton Socon, St Neots, PE19 8EJ	Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m 0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m 3

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on page 34 >

ID Location		Address	Details	
G	221m N	DULOE STW, DULOE, ST. NEOTS, PE19 5HP	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: AWCNF6 Permit Version: 1 Receiving Water: Duloe Brook River Great Ouse N	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 21/06/1989 Effective Date: 21/06/1989 Revocation Date: 16/08/1989
G	221m N	DULOE STW, DULOE, ST. NEOTS, PE19 5HP	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: AWCNF6 Permit Version: 2 Receiving Water: Duloe Brook River Great Ouse N	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 17/08/1989 Effective Date: 17/08/1989 Revocation Date: -
28	267m W	COBHOLDEN FARM, STAPLOE, BEDS	Effluent Type: UNSPECIFIED Permit Number: PR1LFU250 Permit Version: 1 Receiving Water: Land	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 13/02/1984 Effective Date: 13/02/1984 Revocation Date: 13/06/1997

This data is sourced from the Environment Agency and Natural Resources Wales.





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4.14 Pollutant release to surface waters (Red List)

Records within 500m 0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m 0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m 2

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on page 34 >

ID	Location	Name	Status	Receiving Water	Authorised Substances
I	350m SE	Anglo Cil Limited	Not Active	Na	рН
I	350m SE	Tackwood Transport	Not Active	Na	рН

This data is sourced from the Environment Agency and Natural Resources Wales.



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4.18 Pollution Incidents (EA/NRW)

Records within 500m

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on page 34 >

ID	Location	Details	
D	177m SE	Incident Date: 24/05/2002 Incident Identification: 81050 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
Н	312m SE	Incident Date: 01/03/2002 Incident Identification: 61390 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
Н	312m SE	Incident Date: 01/03/2002 Incident Identification: 61390 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
30	476m NE	Incident Date: 19/11/2002 Incident Identification: 121885 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.





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4.20 Pollution inventory waste transfers

Records within 500m 0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m 0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

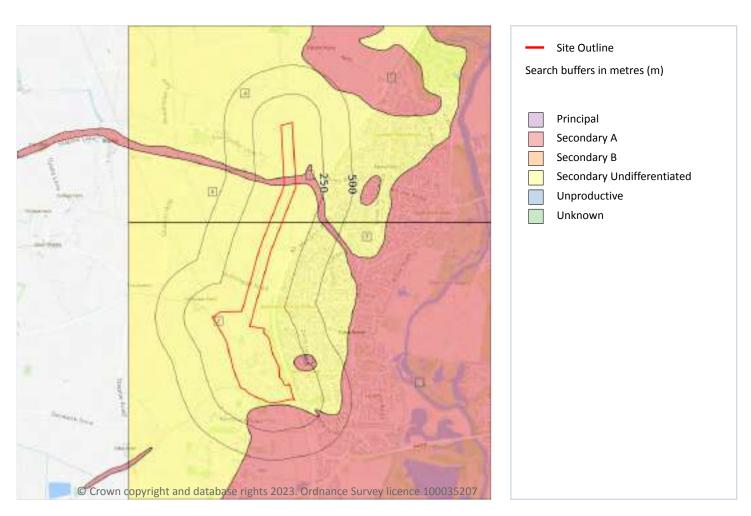




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m 8

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on page 44 >

1	D	Location	Designation	Description
1		On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	2	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type



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ID	Location	Designation	Description
3	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	18m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
6	134m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	377m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	468m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

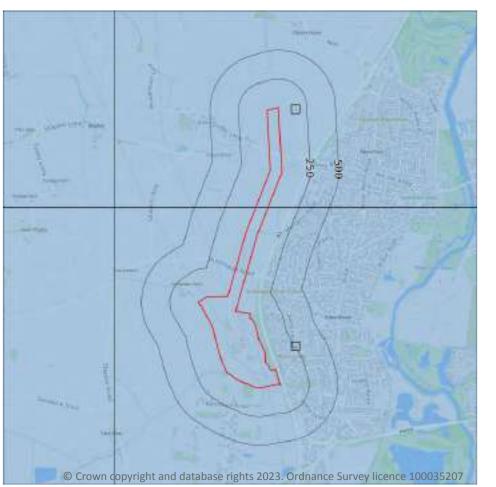


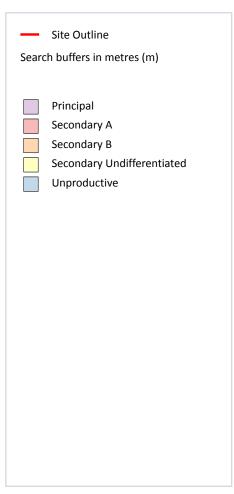


Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Bedrock aquifer





5.2 Bedrock aquifer

Records within 500m 2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 46 >

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

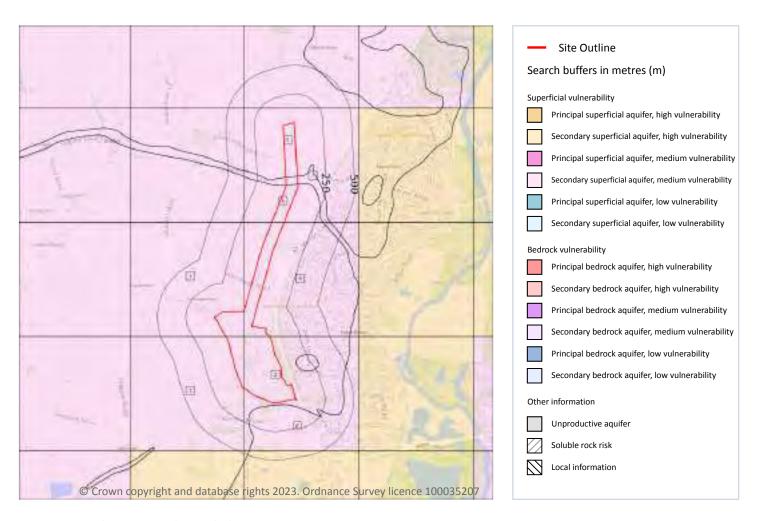




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m 8

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium Intermediate between high and low vulnerability.
- Low Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on page 47 >



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ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures





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ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
6	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
7	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
8	17m S	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site 0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site 0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk n.enquiries@environment-agency.gov.uk n.enquiries@environment-agency.gov.uk n.enquiries@environment-agency.gov.uk n.enquiries@environment-agency.gov.uk n.enquiries@environment-agency.gov.uk n.enquiries <a href="mailto:n.e

This data is sourced from the British Geological Survey and the Environment Agency.

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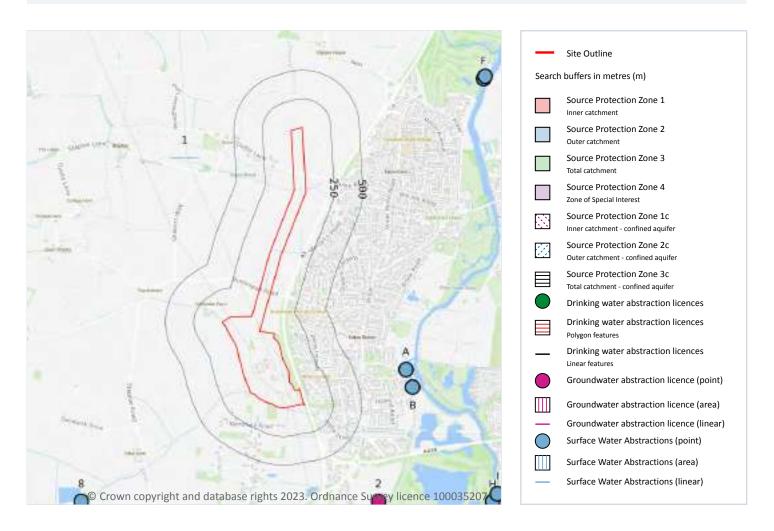
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Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m 11

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 50 >





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
2	1066m SE	Status: Historical Licence No: 6/33/20/*G/0074 Details: Process Water Direct Source: GROUND WATER SOURCE OF SUPPLY Point: SEEPAGE PIT AT WYBOSTON Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 517100 Northing: 257600	Annual Volume (m³): 12637.8 Max Daily Volume (m³): 45.46 Original Application No: - Original Start Date: 27/07/1966 Expiry Date: - Issue No: 103 Version Start Date: 14/04/2010 Version End Date: -
-	1277m SE	Status: Historical Licence No: 6/33/20/*G/0126 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: RIVER TERRACE GRAVELS,WYBOSTON Data Type: Point Name: POTTON DEVELOPMENTS LTD Easting: 517250 Northing: 257450	Annual Volume (m³): 15712 Max Daily Volume (m³): 187 Original Application No: - Original Start Date: 04/01/1999 Expiry Date: 30/11/2008 Issue No: 101 Version Start Date: 11/01/2002 Version End Date: -
-	1277m SE	Status: Historical Licence No: 6/33/20/*G/0133 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: RIVER TERRACE GRAVELS,WYBOSTON Data Type: Point Name: WYBOSTON LAKES LTD Easting: 517250 Northing: 257450	Annual Volume (m³): 15712 Max Daily Volume (m³): 90 Original Application No: - Original Start Date: 08/10/2008 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 08/10/2008 Version End Date: -
-	1284m SE	Status: Active Licence No: AN/033/0020/009 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: RIVER TERRACE GRAVELS AT WYBOSTON LAKES Data Type: Point Name: WYBOSTON LAKES LTD Easting: 517235 Northing: 257429	Annual Volume (m³): 15712 Max Daily Volume (m³): 90 Original Application No: NPS/WR/031706 Original Start Date: 08/04/2020 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 08/04/2020 Version End Date: -
-	1634m S	Status: Active Licence No: 6/33/20/*G/0039 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL 1 AT WYBOSTON Data Type: Point Name: S A MERTON-JONES & R MERTON-BARRETT Easting: 516500 Northing: 256800	Annual Volume (m³): 454.92 Max Daily Volume (m³): 38.63 Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
-	1634m S	Status: Active Licence No: 6/33/20/*G/0039 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL 1 AT WYBOSTON Data Type: Point Name: S A MERTON-JONES & R MERTON-BARRETT Easting: 516500 Northing: 256800	Annual Volume (m³): 454.92 Max Daily Volume (m³): 38.63 Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1702m S	Status: Historical Licence No: 6/33/20/*G/0051 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL N OF CHAWSTON Data Type: Point Name: E F WOOTTON & SON Easting: 515350 Northing: 256950	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/06/1992 Version End Date: -
-	1822m S	Status: Active Licence No: 6/33/20/*G/0039 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL 2 AT WYBOSTON Data Type: Point Name: S A MERTON-JONES & R MERTON-BARRETT Easting: 516400 Northing: 256600	Annual Volume (m³): 454.92 Max Daily Volume (m³): 38.63 Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1822m S	Status: Active Licence No: 6/33/20/*G/0039 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL 3 AT WYBOSTON Data Type: Point Name: S A MERTON-JONES & R MERTON-BARRETT Easting: 516400 Northing: 256600	Annual Volume (m³): 454.92 Max Daily Volume (m³): 38.63 Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1888m E	Status: Historical Licence No: 6/33/20/*G/0113 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: SEEPAGE PIT AT ST NEOTS Data Type: Point Name: M USHER & SONS Easting: 518190 Northing: 259530	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/11/1992 Expiry Date: 31/10/2002 Issue No: 100 Version Start Date: 01/11/1992 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
-	1888m E	Status: Historical Licence No: 6/33/20/*G/0128 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: SEEPAGE PIT AT ST NEOTS Data Type: Point Name: M USHER & SONS Easting: 518190 Northing: 259530	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 23/10/2002 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 23/10/2002 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m 29

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 50 >

ID	Location	Details	
1	817m NW	Status: Active Licence No: 6/33/20/*S/0030 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: DULOE BROOK Data Type: Line Name: SQUIRE Easting: 515280 Northing: 260610	Annual Volume (m³): 636 Max Daily Volume (m³): 109.09 Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1990 Version End Date: -
A	937m SE	Status: Historical Licence No: AN/033/0020/001 Details: Hydroelectric Power Generation Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: EATON SOCON MILL LEAT Data Type: Point Name: Eaton Socon Hydro Limited Easting: 517340 Northing: 258755	Annual Volume (m³): 76032000 Max Daily Volume (m³): 380160 Original Application No: - Original Start Date: 09/05/2013 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 22/03/2016 Version End Date: -







Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
A	938m SE	Status: Active Licence No: AN/033/0020/001 Details: Hydroelectric Power Generation Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: EATON SOCON MILL LEAT Data Type: Point Name: Eaton Socon Hydro Limited Easting: 517341 Northing: 258755	Annual Volume (m³): 76032000 Max Daily Volume (m³): 345600 Original Application No: NPS/WR/028706 Original Start Date: 09/05/2013 Expiry Date: 31/03/2028 Issue No: 4 Version Start Date: 21/05/2018 Version End Date: -
В	957m SE	Status: Active Licence No: 6/33/20/*S/0013 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER OUSE AT EATON SOCON Data Type: Point Name: BATES BROS (FARMS) LTD Easting: 517400 Northing: 258600	Annual Volume (m³): 53416 Max Daily Volume (m³): 2273 Original Application No: NPS/WR/030531 Original Start Date: 28/03/2008 Expiry Date: - Issue No: 3 Version Start Date: 26/11/2018 Version End Date: -
В	957m SE	Status: Historical Licence No: 6/33/20/*S/0012 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER OUSE Data Type: Point Name: R SPENCER THOMAS LTD Easting: 517400 Northing: 258600	Annual Volume (m³): 45460 Max Daily Volume (m³): 2455 Original Application No: - Original Start Date: 01/01/1968 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1994 Version End Date: -
-	1332m S	Status: Historical Licence No: 6/33/20/*S/0125 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: LAGOON CONNECTED TO R. GT.OUSE Data Type: Point Name: POTTON DEVELOPMENTS LTD Easting: 516860 Northing: 257180	Annual Volume (m³): 13817 Max Daily Volume (m³): 165 Original Application No: - Original Start Date: 04/01/1999 Expiry Date: 30/11/2008 Issue No: 101 Version Start Date: 11/01/2002 Version End Date: -
-	1486m NE	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517590 Northing: 261810	Annual Volume (m³): 30280 Max Daily Volume (m³): 1654.7 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 101 Version Start Date: 16/04/2018 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
-	1494m NE	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -
-	1494m NE	Status: Historical Licence No: 6/33/21/*S/0025 Details: Trickle Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -
-	1494m NE	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -
-	1532m N	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 516770 Northing: 262370	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -
F	1641m NE	Status: Historical Licence No: 6/33/20/*S/0119 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1994 Expiry Date: 01-Sep-03 Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
F	1641m NE	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER GREAT OUSE AT ST NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 01-Mar-23 Issue No: 100 Version Start Date: 01/06/1998 Version End Date: -
F	1641m NE	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): 13000 Max Daily Volume (m³): 210 Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 31/03/2023 Issue No: 100 Version Start Date: 02/05/2008 Version End Date: -
F	1641m NE	Status: Historical Licence No: 6/33/20/*S/0130A Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: - Original Start Date: 30/03/2004 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 02/05/2008 Version End Date: -
F	1662m NE	Status: Active Licence No: 6/33/20/*S/0130A/R01 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: NPS/WR/019413 Original Start Date: 01/04/2016 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 01/04/2021 Version End Date: -
F	1662m NE	Status: Historical Licence No: 6/33/20/*S/0130A Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: - Original Start Date: 30/03/2004 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 02/05/2008 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
F	1662m NE	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 13000 Max Daily Volume (m³): 210 Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 31/03/2023 Issue No: 100 Version Start Date: 02/05/2008 Version End Date: -
-	1716m S	Status: Active Licence No: 6/33/20/*S/0069 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: STREAM AT WYBOSTON Data Type: Point Name: S A MERTON-JONES & R MERTON-BARRETT Easting: 516700 Northing: 256750	Annual Volume (m³): 455 Max Daily Volume (m³): 22.73 Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
8	1764m SW	Status: Active Licence No: 6/33/20/*S/0091 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: COLMWORTH BROOK NW OF WYBOSTON Data Type: Point Name: JOHN SHEARD (FARMS) LTD Easting: 514500 Northing: 257600	Annual Volume (m³): 91000 Max Daily Volume (m³): 18329 Original Application No: - Original Start Date: 01/12/1978 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1991 Version End Date: -
-	1838m N	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 516650 Northing: 262700	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -
Н	1851m SE	Status: Historical Licence No: 6/33/20/*S/0116 Details: Evaporative Cooling Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518100 Northing: 257600	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: 02/02/2020 Issue No: 104 Version Start Date: 16/10/2015 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Details	
Н	1851m SE	Status: Historical Licence No: 6/33/20/*S/0116 Details: Process Water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518100 Northing: 257600	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: 02/02/2020 Issue No: 104 Version Start Date: 16/10/2015 Version End Date: -
l	1860m SE	Status: Active Licence No: 6/33/20/*S/0116/R01 Details: Process Water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518142 Northing: 257667	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: NPS/WR/034712 Original Start Date: 03/02/2020 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 09/03/2021 Version End Date: -
I	1860m SE	Status: Active Licence No: 6/33/20/*S/0116/R01 Details: Evaporative Cooling Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518142 Northing: 257667	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: NPS/WR/034712 Original Start Date: 03/02/2020 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 09/03/2021 Version End Date: -
	1860m SE	Status: Active Licence No: 6/33/20/*S/0116/R01 Details: Non-Evaporative Cooling Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518142 Northing: 257667	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: NPS/WR/034712 Original Start Date: 03/02/2020 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 09/03/2021 Version End Date: -
ı	1860m SE	Status: Historical Licence No: 6/33/20/*S/0116 Details: Process Water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518142 Northing: 257667	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: 02/02/2020 Issue No: 104 Version Start Date: 16/10/2015 Version End Date: -





Your ref: R3053 - East Park Connection Route

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ID	Location	Details	
I	1860m SE	Status: Historical Licence No: 6/33/20/*S/0116 Details: Evaporative Cooling Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIV LITTLE BARFORD Data Type: Point Name: RWE Generation UK PLC Easting: 518142 Northing: 257667	Annual Volume (m³): 6250000 Max Daily Volume (m³): 20000 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: 02/02/2020 Issue No: 104 Version Start Date: 16/10/2015 Version End Date: -
-	1910m S	Status: Active Licence No: 6/33/20/*S/0052 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: BEGWARY BROOK N OF CHAWSTON Data Type: Point Name: E F WOOTTON & SON Easting: 515400 Northing: 256700	Annual Volume (m³): 909 Max Daily Volume (m³): 45.45 Original Application No: - Original Start Date: 01/06/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/06/1992 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m 0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m 0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.





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5.10 Source Protection Zones (confined aquifer)

Records within 500m 0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

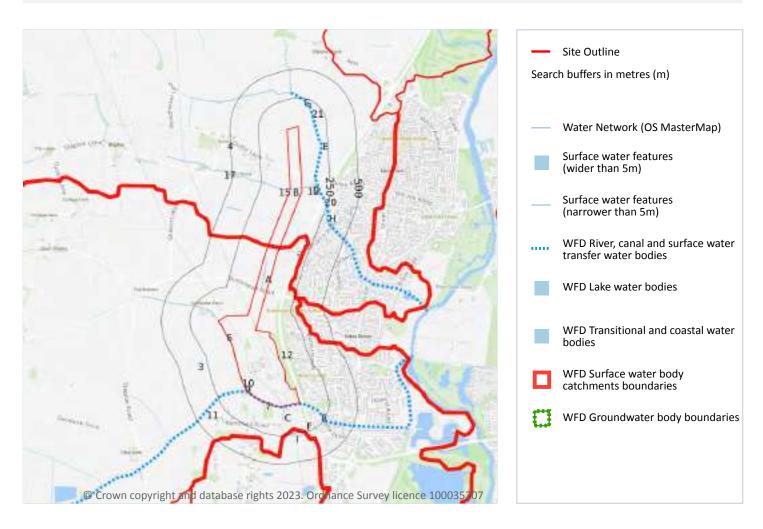




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6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m 27

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on page 61 >

ID	Location	Type of water feature	Ground level	Permanence	Name
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Type of water feature	Ground level	Permanence	Name
В	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
6	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Honeydon Brook
7	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Colmworth Brook
8	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Colmworth Brook
9	1m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Honeydon Brook
10	1m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Honeydon Brook
11	2m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Colmworth Brook
С	2m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
12	25m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
13	37m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Duloe Brook
D	44m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
15	105m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Duloe Brook
17	108m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook





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ID	Location	Type of water feature	Ground level	Permanence	Name
D	118m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
D	118m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
Е	119m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
D	133m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
D	135m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Duloe Brook
D	135m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
F	169m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
20	170m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
F	172m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
21	177m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
G	183m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
Н	231m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Duloe Brook
I	248m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.



Contact us with any questions at: Date: 1 September 2023 info@groundsure.com

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6.2 Surface water features

Records within 250m 11

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on page 61 >

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site 2

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on page 61 >

ID	Location	Туре	Water body catchment	Water body ID	Operational catchment	Management catchment
3	On site	River	Colmworth Brook	GB105033043220	Great Ouse Lower	Ouse Upper and Bedford
4	On site	River	Duloe Brook	GB105033043260	Great Ouse Lower	Ouse Upper and Bedford

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified 2

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on page 61 >





Your ref: R3053 - East Park Connection Route

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ID	Location	Туре	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
5	On site	River	Colmworth Brook	GB105033043220 7	Poor	Fail	Poor	2019
18	122m N	River	Duloe Brook	GB105033043260 7	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site 0

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

This data is sourced from the Environment Agency and Natural Resources Wales.

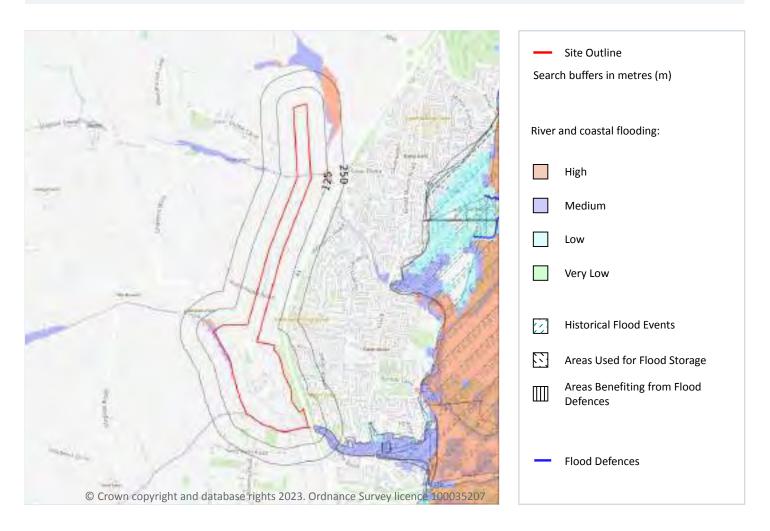




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7 River and coastal flooding



7.1 Risk of flooding from rivers and the sea

Records within 50m 62

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on page 66 >





Your ref: R3053 - East Park Connection Route

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Distance	Flood risk category
On site	High
0 - 50m	High

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m 2

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on page 66 >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
K	36m S	October 1987	1987-01-01 1987-12-31	Unknown	Unknown	Fluvial
K	77m SE	May 1988	1988-01-01 1988-12-31	Unknown	Unknown	Fluvial

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m 0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m 0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.





Your ref: R3053 - East Park Connection Route

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7.5 Flood Storage Areas

Records within 250m 0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

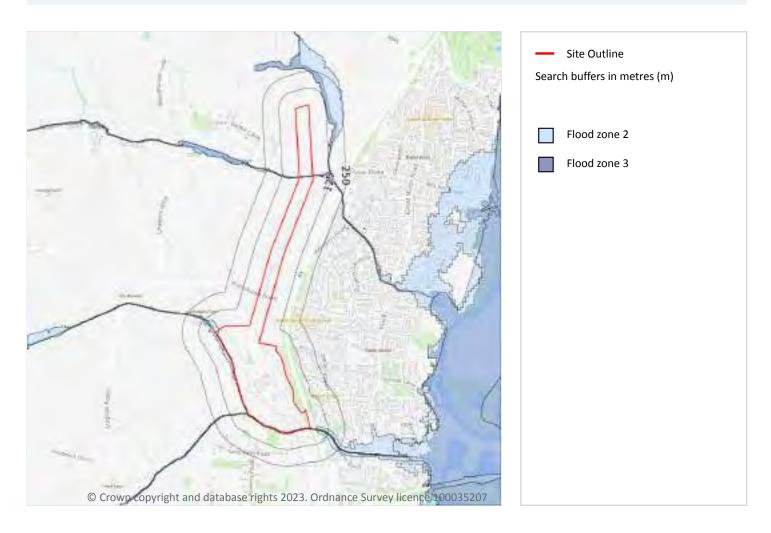




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River and coastal flooding - Flood Zones



7.6 Flood Zone 2

Records within 50m 1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on page 66 >

Location Type
On site Zone 2 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.





Your ref: R3053 - East Park Connection Route

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7.7 Flood Zone 3

Records within 50m

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on page 66 >

Location	Туре
On site	Zone 3 - (Fluvial /Tidal Models)

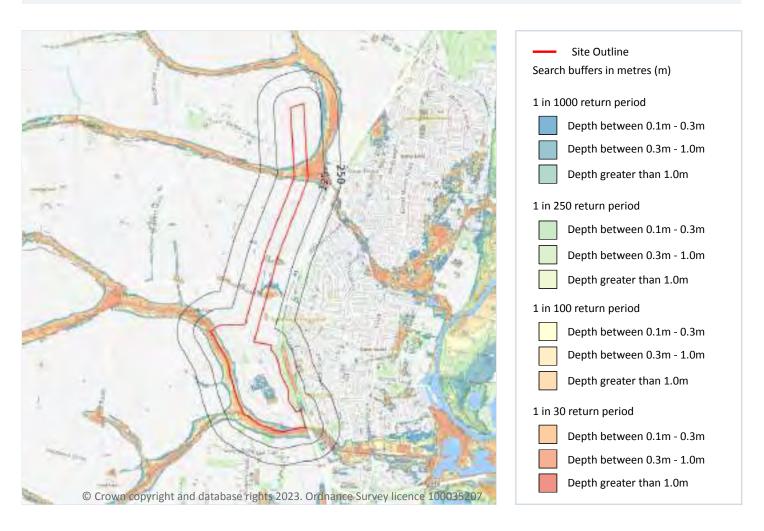
This data is sourced from the Environment Agency and Natural Resources Wales.



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8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

Date: 1 September 2023

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on page 71 >

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on





Your ref: R3053 - East Park Connection Route

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a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

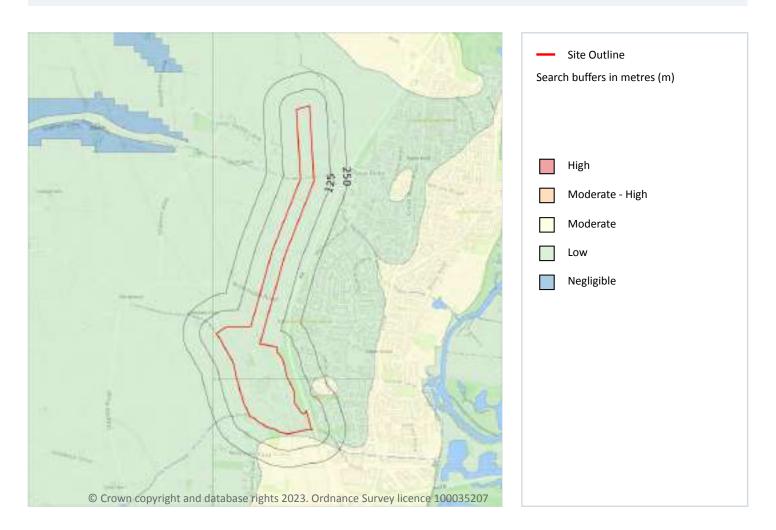




Your ref: R3053 - East Park Connection Route

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9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site Low

Highest risk within 50m Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on page 73 >

This data is sourced from Ambiental Risk Analytics.





Your ref: R3053 - East Park Connection Route

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10 Environmental designations



Site Outline
 Search buffers in metres (m)
 Sites of Special Scientific Interest (SSSI)
 ★ Local Nature Reserves (LNR)
 Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m 1

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on page 74 >

ID	Location	Name	Data source
1	1497m NE	St. Neot's Common	Natural England





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This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m 0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m 0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m 0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m 0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.





Your ref: R3053 - East Park Connection Route

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10.6 Local Nature Reserves (LNR)

Records within 2000m 0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m 1

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on page 74 >

ID	Location	Name	Woodland Type
2	1546m N	Huntingdon Wood	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m 0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m 0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.



Contact us with any questions at: Date: 1 September 2023

info@groundsure.com

01273 257 755



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0

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10.10 Marine Conservation Zones

Records within 2000m 0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m 0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m 0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m 0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.





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10.15 Nitrate Sensitive Areas

Records within 2000m 0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m 4

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Туре	NVZ ID	Status
On site	Great Ouse NVZ	Surface Water	391	Existing
On site	Huntingdon River Gravels	Groundwater	144	Existing
1645m W	Great Ouse NVZ	Surface Water	391	Existing
1645m W	Huntingdon River Gravels	Groundwater	144	Existing

This data is sourced from Natural England and Natural Resources Wales.

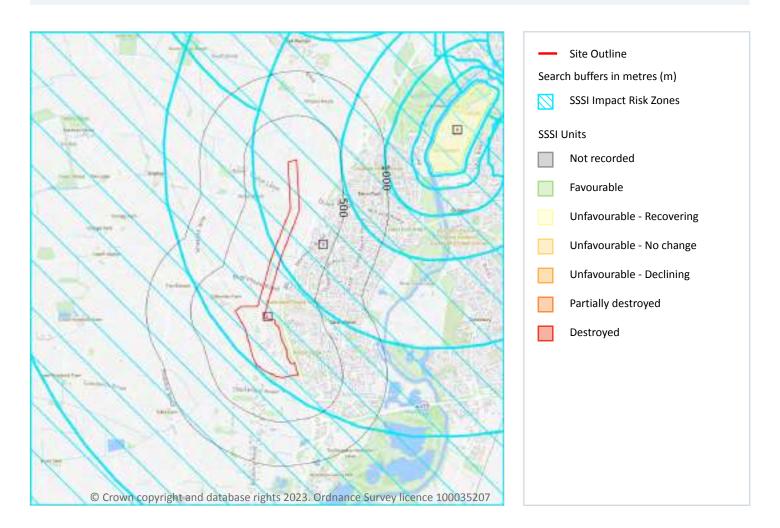




Your ref: R3053 - East Park Connection Route

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SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site 2

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on page 79 >





Your ref: R3053 - East Park Connection Route

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ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
2	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m 1

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on page 79 >







Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID: A

Location: 1497m NE

SSSI name: St. Neot's Common

Unit name: Whole Site

Broad habitat: Neutral Grassland - Lowland Condition: Unfavourable - Recovering

Reportable features:

Feature name	Feature condition	Date of assessment
Lowland neutral grassland (MG8)	Unfavourable - Recovering	04/07/2012
Lowland wet neutral grassland (MG11, MG13)	Unfavourable - Recovering	04/07/2012

This data is sourced from Natural England and Natural Resources Wales.

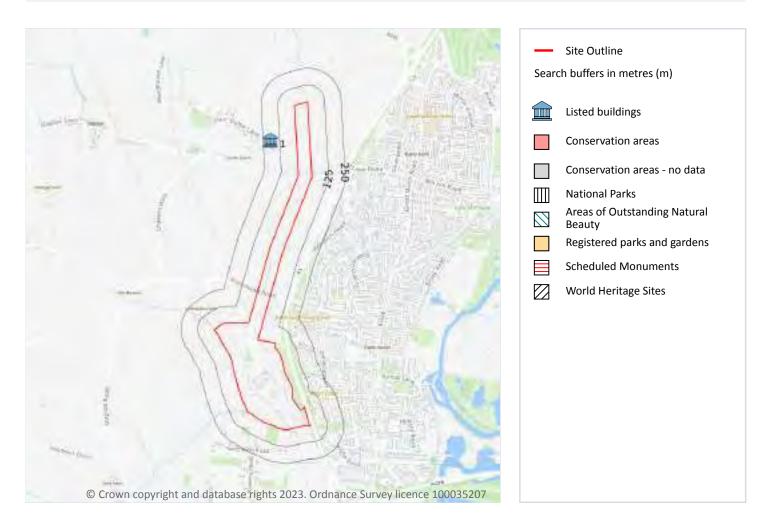




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m 0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.





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11.2 Area of Outstanding Natural Beauty

Records within 250m 0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m 0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m 1

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on page 82 >

ID	Location	Name	Grade	Reference Number	Listed date
1	196m N	The Ankor	П	1114111	18/08/1983

This data is sourced from Historic England, Cadw and Historic Environment Scotland.





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11.5 Conservation Areas

Records within 250m 0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m 0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m 0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

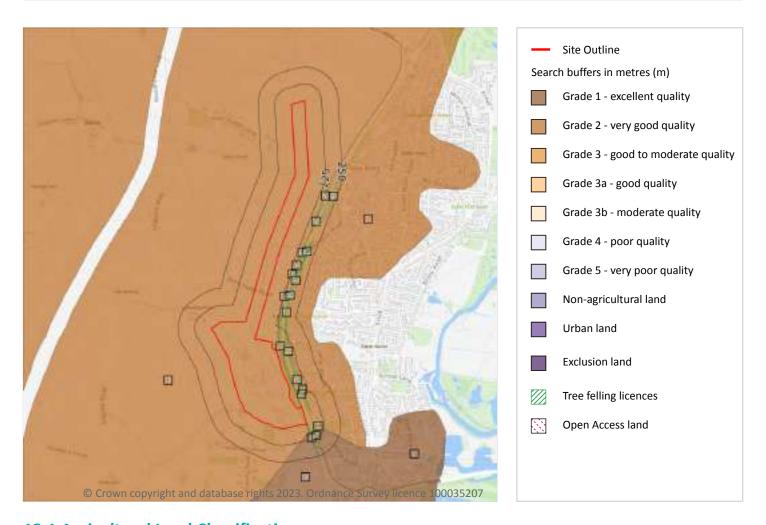
This data is sourced from Historic England, Cadw and Historic Environment Scotland.



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12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m 4

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on page 85 >





Your ref: R3053 - East Park Connection Route

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ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
9	61m S	Grade 1	Excellent quality agricultural land. Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.
10	62m S	Grade 1	Excellent quality agricultural land. Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m 0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m 19

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

Features are displayed on the Agricultural designations map on page 85 >





Your ref: R3053 - East Park Connection Route

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ID	Location	Description	Reference	Application date
3	0m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
4	10m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
5	44m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
6	47m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
7	47m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
8	51m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
11	67m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
12	73m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
13	120m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
14	128m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
15	140m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
16	149m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
17	155m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
18	156m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
19	158m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
20	158m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
21	160m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
22	161m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
23	198m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m 0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.





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12.5 Countryside Stewardship Schemes

Records within 250m 4

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
On site	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
120m N	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022

This data is sourced from Natural England.

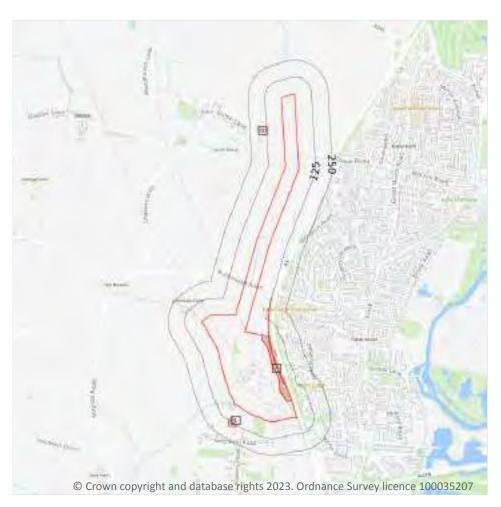


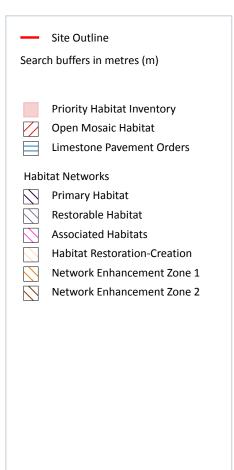


Your ref: R3053 - East Park Connection Route

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13 Habitat designations





13.1 Priority Habitat Inventory

Records within 250m 9

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on page 89 >

ID	Location	Main Habitat	Other habitats
Α	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
Α	24m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
1	86m S	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
В	86m S	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset





Your ref: R3053 - East Park Connection Route

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ID	Location	Main Habitat	Other habitats
В	129m S	Traditional orchard	Main habitat: TORCH (INV > 50%)
2	130m S	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
3	131m N	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
В	133m S	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
В	134m S	Traditional orchard	Main habitat: TORCH (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m 0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m 0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m 0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

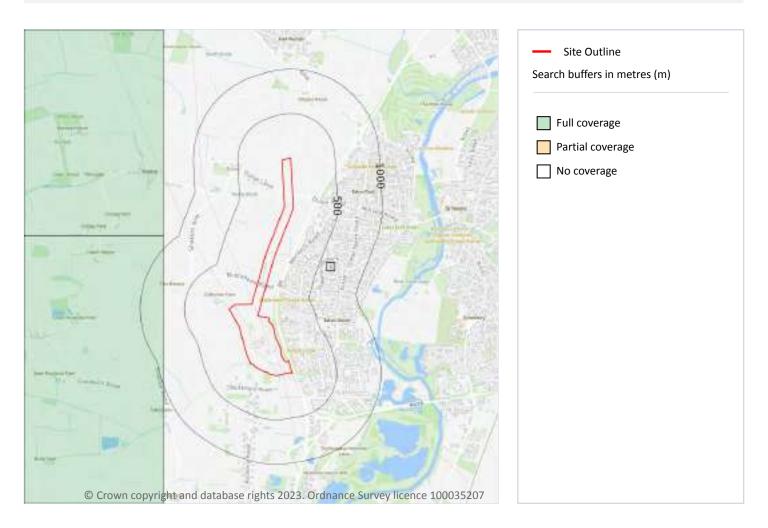




Your ref: R3053 - East Park Connection Route

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14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on page 91 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m 0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m 0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m 0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

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Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m 0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m 0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

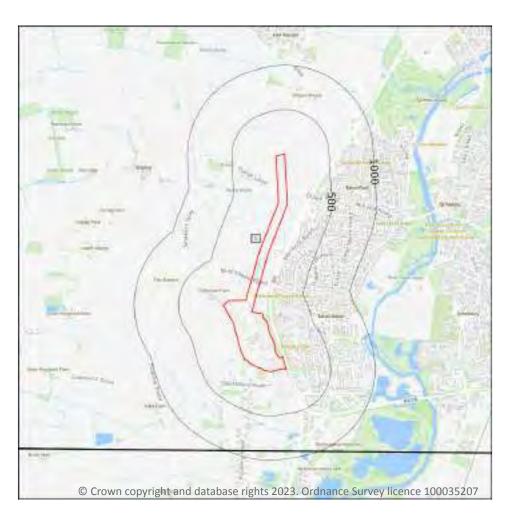




Your ref: R3053 - East Park Connection Route

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15 Geology 1:50,000 scale - Availability



Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on page 95 >

1	On site	No coverage	Full	Full	No coverage	EW187_huntingdon_v4
ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.

This data is sourced from the British Geological Survey.



Contact us with any questions at: Date: 1 September 2023



Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m 0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

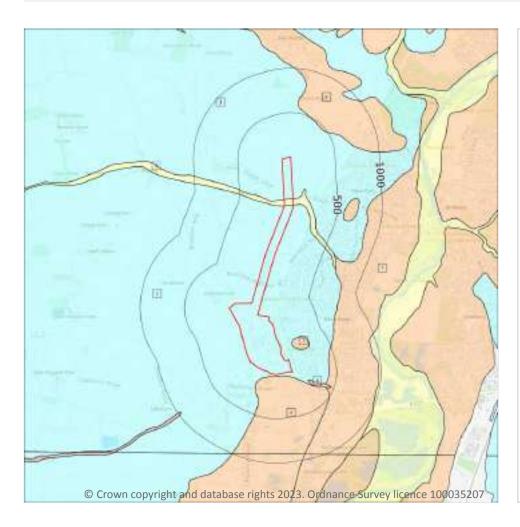




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Geology 1:50,000 scale - Superficial



Site Outline Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k) Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m 8

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 97 >

ID	Location	LEX Code	Description	Rock description
1	On site	ODT-DMTN	OADBY MEMBER	DIAMICTON
2	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	On site	ODT-DMTN	OADBY MEMBER	DIAMICTON
	18m S	RTD3-XSV	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL

01273 257 755



Contact us with any questions at: Date: 1 September 2023



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ID	Location	LEX Code	Description	Rock description
5	134m SE	RTD3-XSV	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL
6	203m SE	RTD3-XSV	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL
7	389m SE	RTD2-XSV	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL
8	468m N	RTD3-XSV	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m 5

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	Very Low
On site	Mixed	Moderate	Low
On site	Mixed	Moderate	Low
011 3110	IVIIAEU	Wiodelate	LOW
On site	Mixed	Moderate	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

15.7 Landslip permeability (50k)

Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

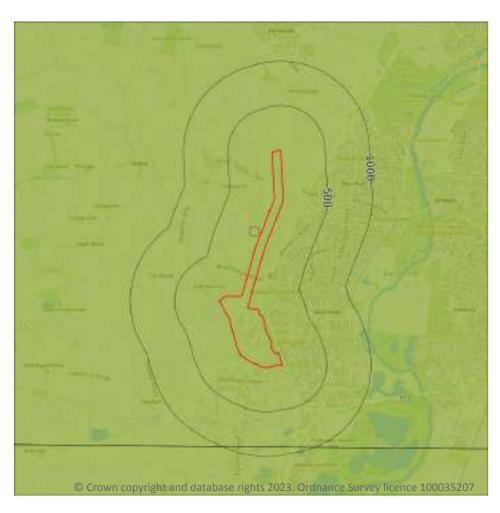




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)

Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 100 >

ID	Location	LEX Code	Description	Rock age
1	On site	OXC-MDST	OXFORD CLAY FORMATION - MUDSTONE	CALLOVIAN

This data is sourced from the British Geological Survey.



100



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15.9 Bedrock permeability (50k)

Records within 50m 2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Very Low
On site	Fracture	Low	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m 0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

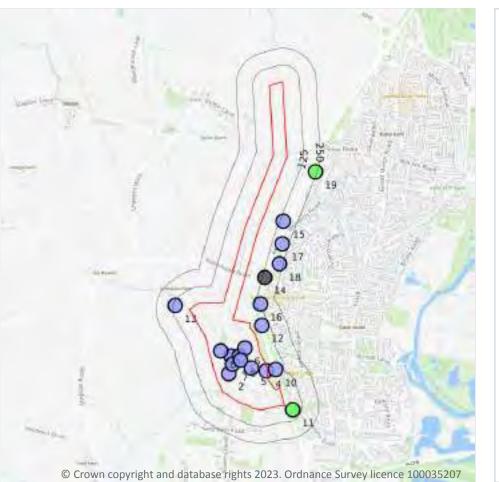


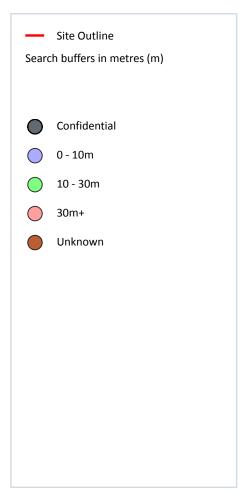


Your ref: R3053 - East Park Connection Route

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16 Boreholes





16.1 BGS Boreholes

Records within 250m 19

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on page 102 >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	516050 258820	EATON SOCON 400/132KW SUBSTATION 7	6.4	N	<u>529380</u> ⊅
2	On site	516030 258690	EATON SOCON 400/132KW SUBSTATION 3	9.4	N	<u>529376</u> ⊅





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

ID	Location	Grid reference	Name	Length	Confidential	Web link
3	On site	516110 258820	EATON SOCON 400/132KW SUBSTATION 6	6.4	N	<u>529379</u> ⊅
4	On site	516310 258710	EATON SOCON 400/132KW SUBSTATION 9	7.9	N	<u>529382</u> 7
5	On site	516200 258730	EATON SOCON 400/132KW SUBSTATION 2	9.6	N	<u>529375</u> 7
6	On site	516150 258880	EATON SOCON 400/132KW SUBSTATION 1	7.5	N	<u>529374</u> 7
7	On site	516060 258760	EATON SOCON 400/132KW SUBSTATION 5	6.0	N	<u>529378</u> 🗷
8	On site	515970 258860	EATON SOCON 400/132KW SUBSTATION 4	9.4	N	<u>529377</u> ⊅
9	On site	516120 258790	EATON SOCON 400/132KW SUBSTATION 8	6.3	N	<u>529381</u> ↗
10	61m S	516380 258720	EATON SOCON (WESTERN) BY-PASS 12	7.77	N	<u>529315</u> ⊅
11	63m SE	516510 258420	EATON SOCON (WESTERN) BY-PASS 11	15.54	N	<u>529314</u> ⊅
12	81m SE	516280 259050	EATON SOCON (WESTERN) BY-PASS 13	7.77	N	<u>529316</u> ⊅
13	111m W	515630 259200	COBHOLDEN FARM EATON SOCON	6.09	N	<u>529361</u> ⊅
14	143m NE	516300 259410	EATON SOCON (WESTERN) BY-PASS 14 - 22	-	Υ	N/A
15	150m NE	516440 259830	EATON SOCON (WESTERN) BY-PASS 24	4.87	N	<u>529321</u> ⊅
16	162m SE	516270 259210	EATON SOCON (WESTERN) BY-PASS 13A	3.04	N	<u>529317</u> ⊅
17	200m NE	516430 259660	EATON SOCON (WESTERN) BY-PASS 23	6.55	N	<u>529320</u> ⊅
18	222m NE	516410 259510	EATON SOCON (WESTERN) BY-PASS 23A	6.09	N	<u>529319</u> ⊅
19	238m NE	516680 260200	EATON SOCON BY-PASS 25	15.24	N	<u>529699</u> ⊅





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m 3

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 104 >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
On site	Low	Ground conditions predominantly medium plasticity.









Your ref: R3053 - East Park Connection Route

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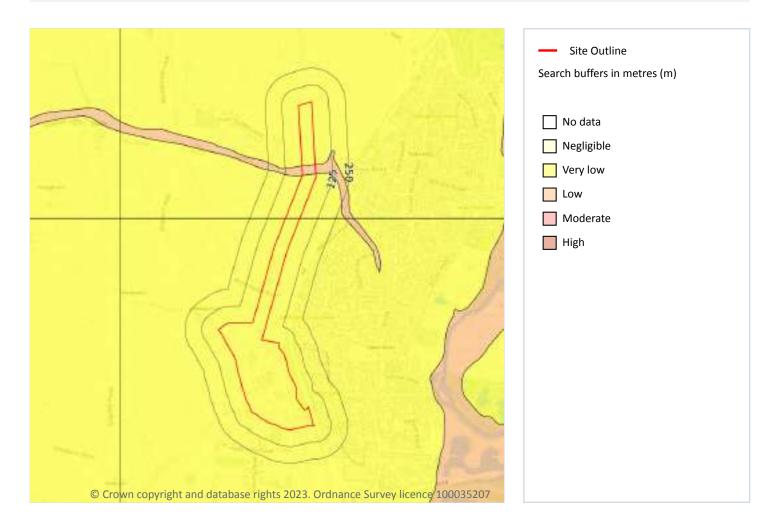




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m 2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on page 106 >

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.









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Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

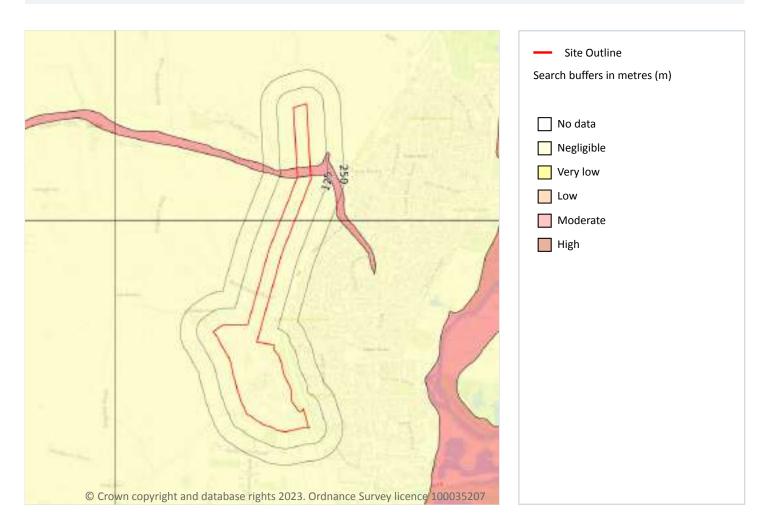




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m 2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on page 108 >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.









Your ref: R3053 - East Park Connection Route

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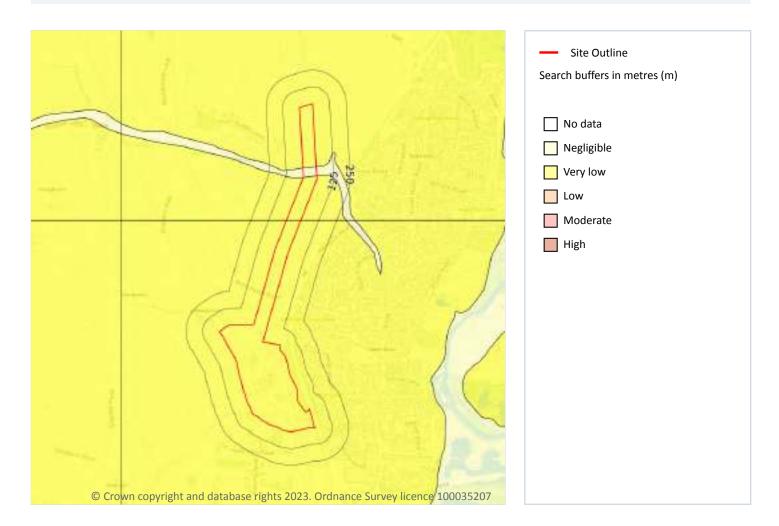




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m 2

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 110 >

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

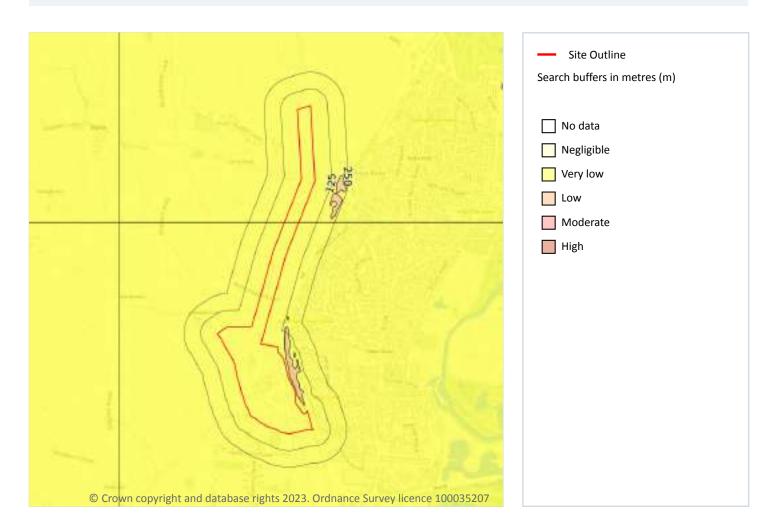




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m 2

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on page 111 >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.







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Location	Hazard rating	Details
8m S	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

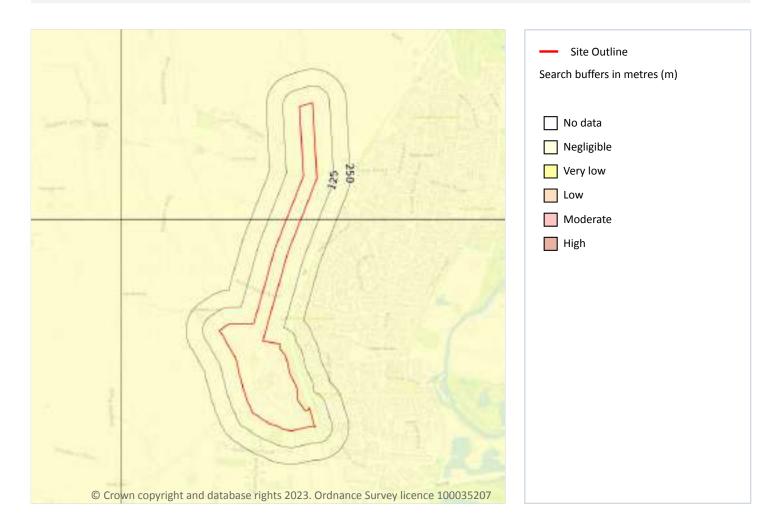




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m 1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on page >

Locatio	n Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.







Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

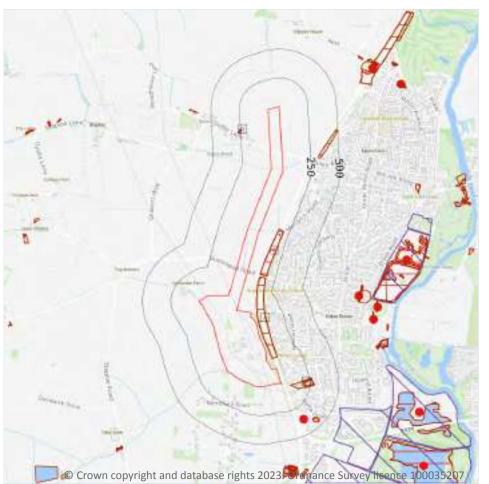




Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

18 Mining and ground workings





18.1 BritPits

Records within 500m 1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on page 115 >





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ID	Location	Details	Description
2	369m SE	Name: Bell Farm Pit Address: Little End, Wyboston, BEDFORD, Bedfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m 16

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on page 115 >

ID	Location	Land Use	Year of mapping	Mapping scale
А	23m S	Cuttings	1994	1:10000
А	23m S	Cuttings	1981	1:10000
А	23m S	Cuttings	1974	1:10000
Α	23m S	Cuttings	1987	1:10000
В	82m SE	Cemetery	1981	1:10000
В	82m SE	Cemetery	1974	1:10000
С	113m NE	Cuttings	1994	1:10000
С	113m NE	Cuttings	1981	1:10000
С	113m NE	Cuttings	1974	1:10000
С	113m NE	Cuttings	1987	1:10000
В	190m SE	Cemetery	1959	1:10560
В	195m SE	Cemetery	1950	1:10560
В	199m SE	Cemetery	1950	1:10560
D	248m N	Pond	1991	1:10000
D	248m N	Pond	1981	1:10000
D	248m N	Pond	1974	1:10000





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This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m 0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m 0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m 0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m 0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.





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18.7 JPB mining areas

Records on site 0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m 0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m 0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m 0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.





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18.11 BGS mine plans

Records within 500m 0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site 0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site 0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site 0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site 0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.





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18.16 Clay mining

Records on site 0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).





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19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m 0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m 0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.





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This data is sourced from Groundsure.

19.5 National karst database

Records within 500m 0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

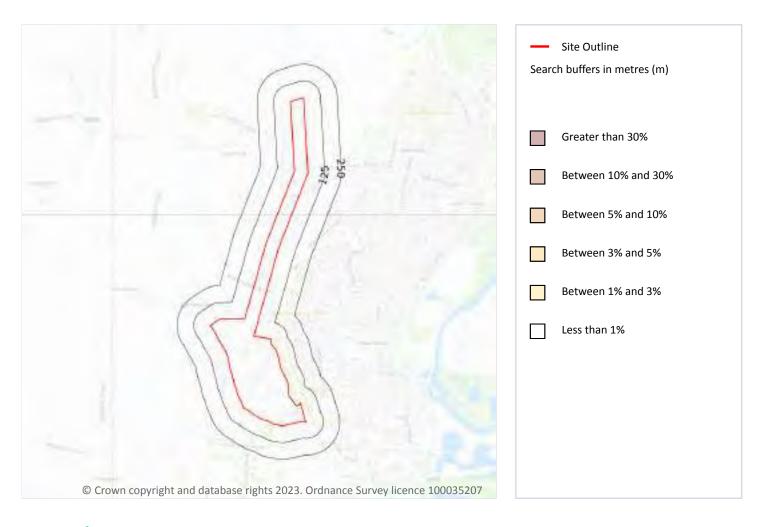




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20 Radon



20.1 Radon

Records on site 1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on page 123 >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None







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This data is sourced from the British Geological Survey and UK Health Security Agency.



Contact us with any questions at: info@groundsure.com ↗

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21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m 18

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
18m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg





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Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
34m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
35m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
39m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
39m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
44m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
46m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m 0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m 0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.





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22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m 0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m 0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m 0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m 0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.





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This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m 0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m 0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m 0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m 0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m 0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.







Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

This data is sourced from HS2 ltd.





Your ref: R3053 - East Park Connection Route

Grid ref: 516164 258754

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

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Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-april-2023/ ↗.







Connection Route

Order Details

Date: 01/09/2023

Your ref: R3053 - East Park Connection Route

Our Ref: GSIP-2023-13935-15406b

Site Details

Location: 516326 261630

21.81 ha Area:

Authority: Huntingdonshire District Council *↗*,

Bedford Council (Unitary) ↗



Summary of findings

Aerial image p. 2 >

p. 9 >

OS MasterMap site plan

N/A: >10ha

groundsure.com/insightuserguide ↗



Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
<u>14</u> >	<u>1.1</u> >	<u>Historical industrial land uses</u> >	0	0	0	1	-
15	1.2	Historical tanks	0	0	0	0	-
15	1.3	Historical energy features	0	0	0	0	-
15	1.4	Historical petrol stations	0	0	0	0	-
15	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
<u>17</u> >	<u>2.1</u> >	<u>Historical industrial land uses</u> >	0	0	0	2	-
18	2.2	Historical tanks	0	0	0	0	-
18	2.3	Historical energy features	0	0	0	0	-
18	2.4	Historical petrol stations	0	0	0	0	-
18	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
19	3.1	Active or recent landfill	0	0	0	0	-
19 19	3.1 3.2	Active or recent landfill Historical landfill (BGS records)	0	0	0	0	-
							-
19	3.2	Historical landfill (BGS records)	0	0	0	0	-
19 20	3.2 3.3	Historical landfill (BGS records) Historical landfill (LA/mapping records)	0	0	0	0	-
19 20 20	3.2 3.3 3.4	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records)	0 0	0 0	0 0	0 0	-
19 20 20 20	3.2 3.3 3.4 3.5	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites	0 0 0	0 0 0	0 0 0	0 0 0	
19 20 20 20 20	3.2 3.3 3.4 3.5 3.6	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	- - - - - - 500-2000m
19 20 20 20 20 20 20 20	3.2 3.3 3.4 3.5 3.6 3.7 >	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites Waste exemptions >	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	- - - - - - 500-2000m
19 20 20 20 20 20 20 Page	3.2 3.3 3.4 3.5 3.6 3.7 > Section	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites Waste exemptions > Current industrial land use >	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 48	0 0 0 0 0	- - - - - 500-2000m
19 20 20 20 20 20 20 20 > Page 25 >	3.2 3.3 3.4 3.5 3.6 3.7 > Section 4.1 >	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites Waste exemptions > Current industrial land use > Recent industrial land uses >	0 0 0 0 0 0 On site	0 0 0 0 0 0 0-50m	0 0 0 0 0 48 50-250m	0 0 0 0 0 0 250-500m	- - - - - - 500-2000m
19 20 20 20 20 20 20 > Page 25 > 26	3.2 3.3 3.4 3.5 3.6 3.7 > Section 4.1 > 4.2	Historical landfill (BGS records) Historical landfill (LA/mapping records) Historical landfill (EA/NRW records) Historical waste sites Licensed waste sites Waste exemptions > Current industrial land use > Recent industrial land uses > Current or recent petrol stations	0 0 0 0 0 0 On site	0 0 0 0 0 0-50m	0 0 0 0 48 50-250m	0 0 0 0 0 0 250-500m	- - - - - - 500-2000m



ny questions at: Date: 1 September 2023



Your ref: R3053 - East Park Connection Route

26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	_
27	4.7	Regulated explosive sites	0	0	0	0	
27	4.8	Hazardous substance storage/usage	0	0	0	0	
27	4.9	Historical licensed industrial activities (IPC)		0	0	0	-
			0				-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
28	4.15	Pollutant release to public sewer	0	0	0	0	-
28	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
29	4.19	Pollution inventory substances	0	0	0	0	-
29	4.20	Pollution inventory waste transfers	0	0	0	0	-
29	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>30</u> >	<u>5.1</u> >	<u>Superficial aquifer</u> >	Identified (within 500m	1)		
<u>32</u> >	<u>5.2</u> >	Bedrock aquifer >	Identified (within 500m	1)		
<u>33</u> >	<u>5.3</u> >	Groundwater vulnerability >	Identified (within 50m)			
35	5.4	Groundwater vulnerability- soluble rock risk	None (with	in 0m)			
36	5.5	Groundwater vulnerability- local information	None (with	in 0m)			
<u>37</u> >	<u>5.6</u> >	Groundwater abstractions >	0	0	0	0	2
<u>38</u> >	<u>5.7</u> >	<u>Surface water abstractions</u> >	0	0	0	0	22
<u>43</u> >	<u>5.8</u> >	Potable abstractions >	0	0	0	0	1
43	5.9	Source Protection Zones	0	0	0	0	-
44	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Dogo	Coation	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
Page	Section	TIYUTOTOGY >	0.1.5.1.0				





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<u>48</u> >	<u>6.2</u> >	<u>Surface water features</u> >	1	7	9	-	-
<u>48</u> >	<u>6.3</u> >	WFD Surface water body catchments >	1	-	-	-	-
<u>48</u> >	<u>6.4</u> >	WFD Surface water bodies >	0	0	1	-	-
49	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
<u>50</u> >	<u>7.1</u> >	Risk of flooding from rivers and the sea >	High (withi	n 50m)		•	
51	7.2	Historical Flood Events	0	0	0	-	-
51	7.3	Flood Defences	0	0	0	-	-
51	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
51	7.5	Flood Storage Areas	0	0	0	-	-
<u>52</u> >	<u>7.6</u> >	Flood Zone 2 >	Identified (within 50m)			
<u>53</u> >	<u>7.7</u> >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
<u>54</u> >	<u>8.1</u> >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
Page 56 >	Section 9.1 >	Groundwater flooding > Groundwater flooding >	Moderate (within 50m)			
			Moderate (within 50m) 0-50m	50-250m	250-500m	500-2000m
<u>56</u> >	<u>9.1</u> >	Groundwater flooding >				250-500m	500-2000m 2
<u>56</u> >	<u>9.1</u> >	Groundwater flooding > Environmental designations >	On site	0-50m	50-250m		
<u>56</u> > Page <u>57</u> >	9.1 > Section 10.1 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) >	On site	0-50m	50-250m 0	0	2
<u>56</u> > Page <u>57</u> > 58	9.1 > Section 10.1 > 10.2	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites)	On site 0	0-50m 0	50-250m 0 0	0	2
<u>56</u> > Page <u>57</u> > 58	9.1 > Section 10.1 > 10.2 10.3	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC)	On site 0 0 0	0-50m 0 0	50-250m 0 0	0 0	2 0 0
56 > Page 57 > 58 58	9.1 > Section 10.1 > 10.2 10.3 10.4	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA)	On site 0 0 0 0	0-50m 0 0 0	50-250m 0 0 0	0 0 0	2 0 0
56 > Page 57 > 58 58 58	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR)	On site 0 0 0 0 0	0-50m 0 0 0	50-250m 0 0 0 0	0 0 0 0	2 0 0 0
56 > Page 57 > 58 58 58 58 59	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR)	On site 0 0 0 0 0 0 0	0-50m 0 0 0 0	50-250m 0 0 0 0 0 0	0 0 0 0 0	2 0 0 0 0
56 > Page 57 > 58 58 58 58 59	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland >	On site 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 1	50-250m 0 0 0 0 0 0 0 0	0 0 0 0 0	2 0 0 0 0 0
56 > Page 57 > 58 58 58 58 59 59	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves	On site 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 1	50-250m 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1	2 0 0 0 0 0 4
56 > Page 57 > 58 58 58 58 59 59 60	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC) Special Protection Areas (SPA) National Nature Reserves (NNR) Local Nature Reserves (LNR) Designated Ancient Woodland > Biosphere Reserves Forest Parks	On site 0 0 0 0 0 0 0 0 0 0 0	0-50m 0 0 0 0 0 1 0 0	50-250m 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1	2 0 0 0 0 0 4 0







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60	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
61	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<u>61</u> >	<u>10.16</u> >	Nitrate Vulnerable Zones >	2	0	0	0	2
<u>62</u> >	<u>10.17</u> >	SSSI Impact Risk Zones >	4	-	-	-	-
<u>64</u> >	<u>10.18</u> >	SSSI Units >	0	0	0	0	2
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
66	11.1	World Heritage Sites	0	0	0	-	-
67	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
67	11.3	National Parks	0	0	0	-	-
<u>67</u> >	<u>11.4</u> >	<u>Listed Buildings</u> >	0	0	1	-	-
68	11.5	Conservation Areas	0	0	0	-	-
68	11.6	Scheduled Ancient Monuments	0	0	0	-	-
68	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
<u>69</u> >	<u>12.1</u> >	Agricultural Land Classification >	Grade 3b (within 250m)				
70	12.2	Open Access Land	0	0	0	-	-
70	12.3	Tree Felling Licences	0	0	0	-	-
71	12.4	Environmental Stewardship Schemes	0	0	0	-	-
<u>71</u> >	<u>12.5</u> >	<u>Countryside Stewardship Schemes</u> >	4	3	1	-	_
Page	Section	<u>Habitat designations</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>72</u> >	<u>13.1</u> >	Priority Habitat Inventory >	0	5	1	-	-
73	13.2	Habitat Networks	0	0	0	-	-
73	13.3	Open Mosaic Habitat	0	0	0	-	-
73	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>74</u> >	<u>14.1</u> >	10k Availability >	Identified (within 500m)		
75	14.2	Artificial and made ground (10k)	0	0	0	0	-
<u>76</u> >	<u>14.3</u> >	Superficial geology (10k) >	1	2	0	0	-





Your ref: R3053 - East Park Connection Route

77	14.4	Landslip (10k)	0	0	0	0	-	
<u>78</u> >	<u>14.5</u> >	Bedrock geology (10k) >	1	0	0	0	-	
79	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-	
Page	Section	<u>Geology 1:50,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>80</u> >	<u>15.1</u> >	50k Availability >	Identified (within 500m)			
81	15.2	Artificial and made ground (50k)	0	0	0	0	-	
81	15.3	Artificial ground permeability (50k)	0	0	-	-	-	
<u>82</u> >	<u>15.4</u> >	Superficial geology (50k) >	3	0	0	1	-	
<u>83</u> >	<u>15.5</u> >	Superficial permeability (50k) >	Identified (within 50m)				
83	15.6	Landslip (50k)	0	0	0	0	-	
83	15.7	Landslip permeability (50k)	None (with	in 50m)				
<u>84</u> >	<u>15.8</u> >	Bedrock geology (50k) >	1	0	0	0	-	
<u>85</u> >	<u>15.9</u> >	Bedrock permeability (50k) >	Identified (within 50m)					
85	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-	
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m	
86	16.1	BGS Boreholes	0	0	0	-	-	
Page	Section	Natural ground subsidence >						
<u>87</u> >	<u>17.1</u> >	Shrink swell clays >	Moderate (within 50m)				
<u>89</u> >	<u>17.2</u> >	Running sands >	Low (withir	n 50m)				
<u>91</u> >	<u>17.3</u> >	Compressible deposits >	Moderate (within 50m)				
<u>93</u> >	<u>17.4</u> >	Collapsible deposits >	Very low (w	vithin 50m)				
<u>94</u> >	<u>17.5</u> >	<u>Landslides</u> >	Very low (v	vithin 50m)				
<u>95</u> >	<u>17.6</u> >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings	On site	0-50m	50-250m	250-500m	500-2000m	
97	18.1	BritPits	0	0	0	0	-	
97	18.2	Surface ground workings	0	0	0	-	-	
97	18.3	Underground workings	0	0	0	0	0	
97	18.4	Underground mining extents	0	0	0	0	-	
98	18.5	Historical Mineral Planning Areas	0	0	0	0	-	





Your ref: R3053 - East Park Connection Route

98	18.6	Non-coal mining	0	0	0	0	0
98	18.7	JPB mining areas	None (with	in 0m)			
98	18.8	The Coal Authority non-coal mining	0	0	0	0	-
99	18.9	Researched mining	0	0	0	0	-
99	18.10	Mining record office plans	0	0	0	0	-
99	18.11	BGS mine plans	0	0	0	0	-
99	18.12	Coal mining	None (with	in 0m)			
99	18.13	Brine areas	None (with	in 0m)			
100	18.14	Gypsum areas	None (with	in 0m)			
100	18.15	Tin mining	None (with	in 0m)			
100	18.16	Clay mining	None (with	in 0m)			
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
101	19.1	Natural cavities	0	0	0	0	-
101	19.2	Mining cavities	0	0	0	0	0
101	19.3	Reported recent incidents	0	0	0	0	-
101	19.4	Historical incidents	0	0	0	0	-
102	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
<u>103</u> >	<u>20.1</u> >	Radon >	Less than 1	% (within 0r	n)		
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
<u>105</u> >	<u>21.1</u> >	BGS Estimated Background Soil Chemistry >	15	2	-	-	-
106	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
106	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
107	22.1	Underground railways (London)	0	0	0	-	-
107	22.2	Underground railways (Non-London)	0	0	0	-	-
107	22.3	Railway tunnels	0	0	0	-	-
107	22.4	Historical railway and tunnel features	0	0	0	-	-
107	22.5	Royal Mail tunnels	0	0	0	-	-







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108	22.6	Historical railways	0	0	0	-	-
108	22.7	Railways	0	0	0	-	-
108	22.8	Crossrail 1	0	0	0	0	-
108	22.9	Crossrail 2	0	0	0	0	-
108	22.10	HS2	0	0	0	0	-





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Recent aerial photograph



Capture Date: 07/04/2020

Site Area: 21.81ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Recent site history - 2017 aerial photograph



Capture Date: 10/05/2017

Site Area: 21.81ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Recent site history - 2014 aerial photograph



Capture Date: 03/08/2014

Site Area: 21.81ha





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Recent site history - 2006 aerial photograph



Capture Date: 01/07/2006

Site Area: 21.81ha

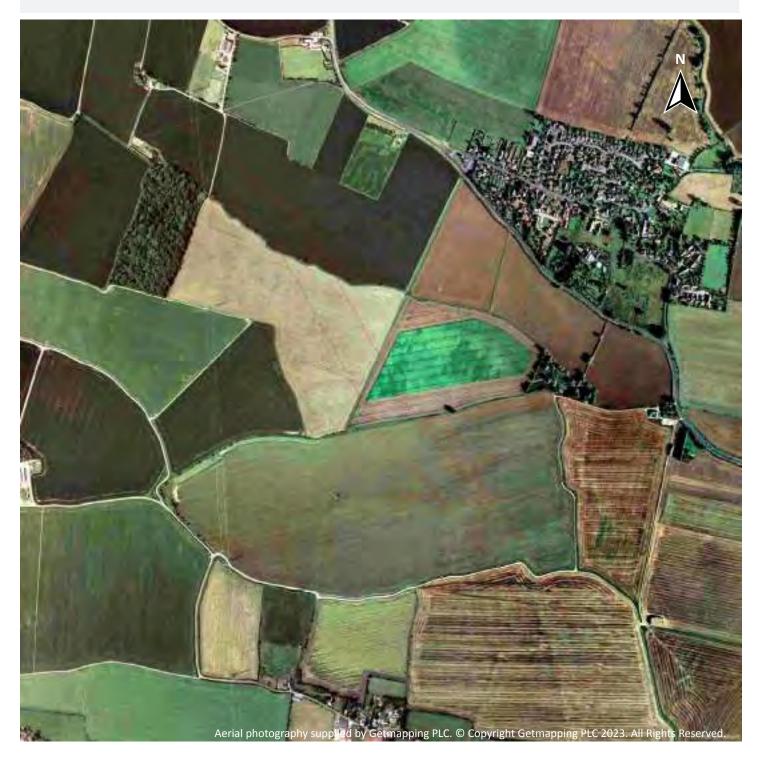




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Recent site history - 1999 aerial photograph



info@groundsure.com ↗

01273 257 755

Capture Date: 27/05/1999

Site Area: 21.81ha

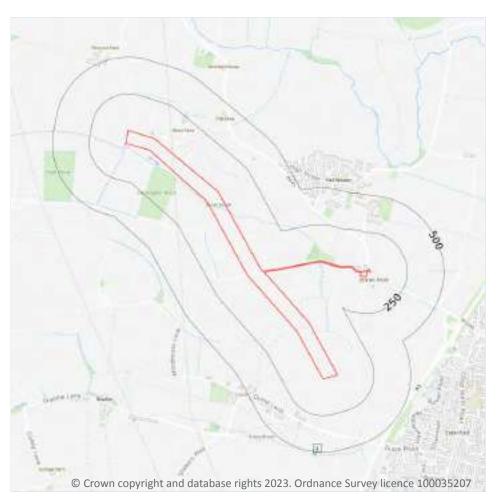




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

1 Past land use





1.1 Historical industrial land uses

Records within 500m

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 14 >

ID	Location	Land use	Dates present	Group ID
1	482m S	Pumping Station	1981 - 1991	2107118





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m 0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m 0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m 0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.





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This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m 0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

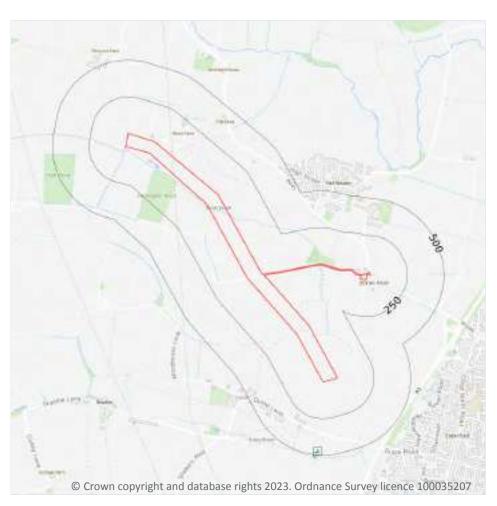


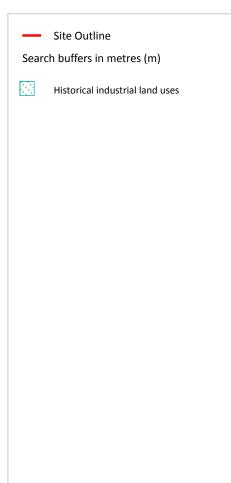


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2 Past land use - un-grouped





2.1 Historical industrial land uses

Records within 500m 2

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 17 >

ID	Location	Land Use	Date	Group ID
Α	482m S	Pumping Station	1991	2107118
А	482m S	Pumping Station	1981	2107118

This data is sourced from Ordnance Survey / Groundsure.



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2.2 Historical tanks

Records within 500m 0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m 0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m 0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

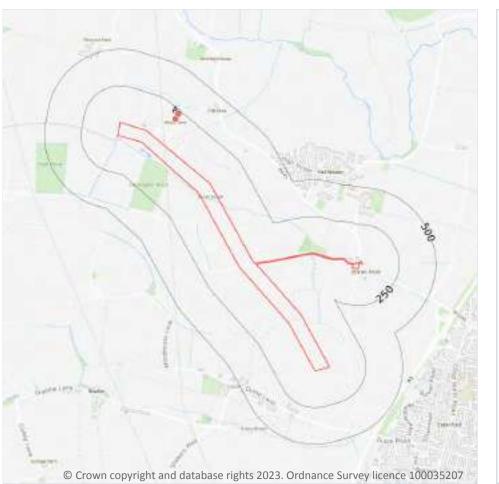


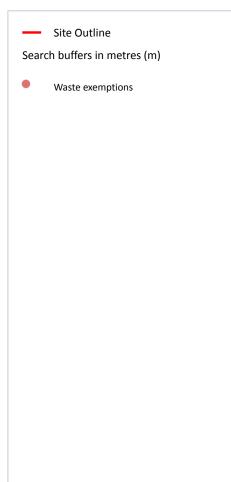


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3 Waste and landfill





3.1 Active or recent landfill

Records within 500m 0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.





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3.3 Historical landfill (LA/mapping records)

Records within 500m

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m 0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m 0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m 0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m 48

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on page 19 >

ID	Location	Site	Reference	Category	Sub-Category	Description
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters



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ID	Location	Site	Reference	Category	Sub-Category	Description
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Disposing of waste exemption	On a farm	Disposal by incineration
Α	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Disposing of waste exemption	On a farm	Burning waste in the open
Α	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Use of waste in construction
Α	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Use of mulch
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Incorporation of ash into soil
А	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
Α	181m NW	WOOD FARM, KIMBOLTON ROAD, HAIL WESTON, ST. NEOTS, PE19 5LA	WEX031664	Using waste exemption	On a farm	Use of waste for a specified purpose
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice





Your ref: R3053 - East Park Connection Route

ID	Location	Site	Reference	Category	Sub-Category	Description
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Disposing of waste exemption	Agricultural Waste Only	Disposal by incineration
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Agricultural Waste Only	Incorporation of ash into soil
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Treating waste exemption	Both agricultural and non- agricultural waste	Aerobic composting and associated prior treatment
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Treating waste exemption	Both agricultural and non- agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of waste in construction
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Both agricultural and non- agricultural waste	Spreading waste on agricultural land to confer benefit
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of mulch
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Both agricultural and non- agricultural waste	Burning of waste as a fuel in a small appliance
А	187m NW	Wood Farm Kimbolton Road ST. NEOTS Cambridgeshire PE19 5LA	EPR/ZE5088BF /A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of waste for a specified purpose





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ID	Location	Site	Reference	Category	Sub-Category	Description
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Incorporation of ash into soil
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Use of mulch
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Use of waste for a specified purpose
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Use of waste in construction
А	224m NW	-	WEX192334	Using waste exemption	On a Farm	Burning of waste as a fuel in a small appliance
A	224m NW	-	WEX192334	Treating waste exemption	On a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
А	224m NW	-	WEX192334	Treating waste exemption	On a Farm	Aerobic composting and associated prior treatment
Α	224m NW	-	WEX192334	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
А	224m NW	-	WEX192334	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	224m NW	-	WEX192334	Disposing of waste exemption	On a Farm	Disposal by incineration
А	224m NW	-	WEX192334	Disposing of waste exemption	On a Farm	Burning waste in the open
А	224m NW	-	WEX324635	Using waste exemption	On a farm	Use of waste in construction
Α	224m NW	-	WEX324635	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
А	224m NW	-	WEX324635	Using waste exemption	On a farm	Use of waste for a specified purpose





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ID	Location	Site	Reference	Category	Sub-Category	Description
А	224m NW	-	WEX324635	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
Α	224m NW	-	WEX324635	Using waste exemption	On a farm	Use of mulch
Α	224m NW	-	WEX324635	Using waste exemption	On a farm	Incorporation of ash into soil
Α	224m NW	-	WEX324635	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
Α	224m NW	-	WEX324635	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
А	224m NW	-	WEX324635	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
А	224m NW	-	WEX324635	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
А	224m NW	-	WEX324635	Disposing of waste exemption	On a farm	Disposal by incineration
А	224m NW	-	WEX324635	Disposing of waste exemption	On a farm	Burning waste in the open

This data is sourced from the Environment Agency and Natural Resources Wales.

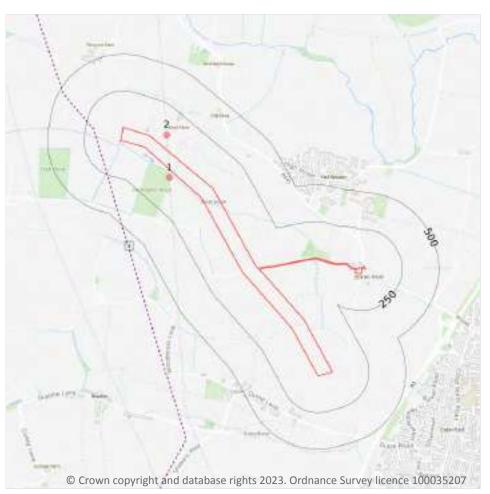




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4 Current industrial land use





4.1 Recent industrial land uses

Records within 250m 2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 25 >

ID	Location	Company	Address	Activity	Category
1	43m NW	Pylon	Cambridgeshire, PE19	Electrical Features	Infrastructure and Facilities
2	78m NW	Pylon	Cambridgeshire, PE19	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.



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4.2 Current or recent petrol stations

Records within 500m 0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m 0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m 1

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on page 25 >

ID	Location	Pipe Name	Details	
3	154m NW	HUNTINGDO N TO CAMBRIDGE	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m 0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m 0

01273 257 755

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.



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4.7 Regulated explosive sites

Records within 500m 0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m 0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m 0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m 0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.



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4.12 Radioactive Substance Authorisations

Records within 500m 0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m 0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m 0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m 0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.





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4.17 List 2 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m 0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



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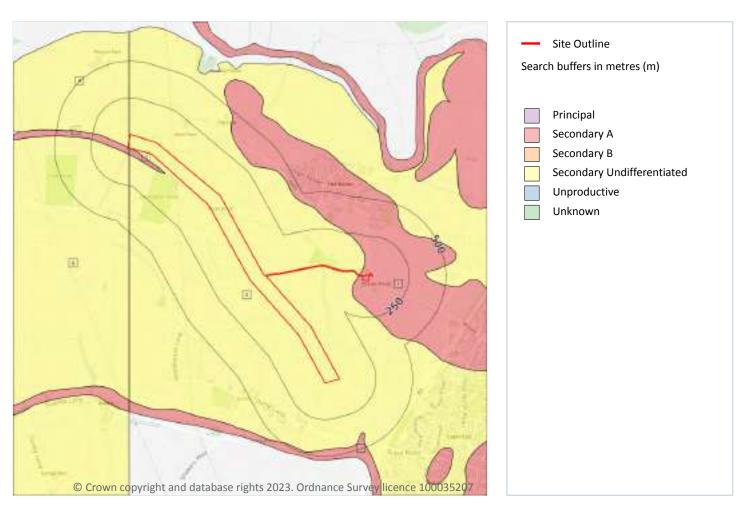
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5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m 7

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on page 30 >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers





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ID	Location	Designation	Description
3	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	38m NW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	399m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

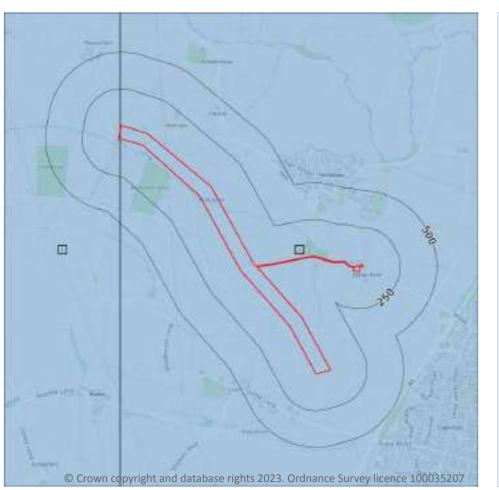


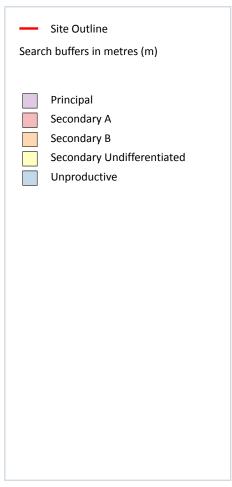


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Bedrock aquifer





5.2 Bedrock aquifer

Records within 500m 2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 32 >

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

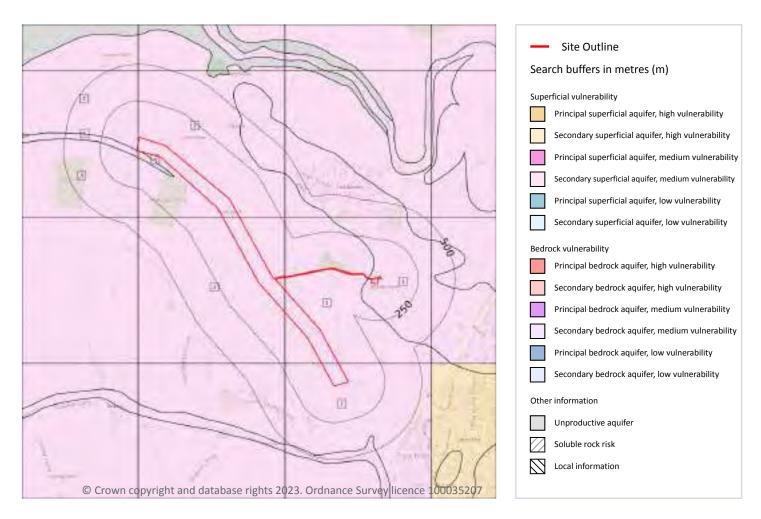




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Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m 9

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium Intermediate between high and low vulnerability.
- Low Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on page 33 >





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ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures





Your ref: R3053 - East Park Connection Route

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ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
6	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
7	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
8	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
9	38m NW	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site 0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

5.5 Groundwater vulnerability- local information

Records on site 0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

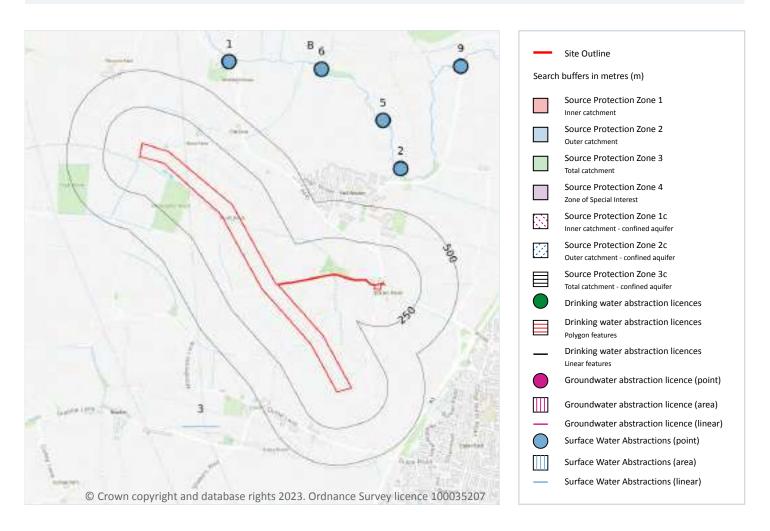




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m 2

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 37 >





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
-	1571m NW	Status: Historical Licence No: 6/33/21/*G/0034 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL SE OF GT STAUGHTON Data Type: Point Name: W HERDMAN & SONS Easting: 514800 Northing: 264100	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/09/1990 Version End Date: -
-	1977m E	Status: Historical Licence No: 6/33/22/*G/0020 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL AT LITTLE PAXTON Data Type: Point Name: SCANDSTICK (UK) LTD Easting: 518600 Northing: 261960	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 06/06/2003 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m 22

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 37 >

ID	Location	Details	
1	740m N	Status: Active Licence No: 6/33/21/*S/0047 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM S OF MEAGRE WOOD Data Type: Point Name: T J R & J L PIGG Easting: 515600 Northing: 263100	Annual Volume (m³): 25000 Max Daily Volume (m³): 1309.09 Original Application No: CS 2272 Original Start Date: 01/05/1985 Expiry Date: - Issue No: 101 Version Start Date: 11/03/2004 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
2	783m NE	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 516770 Northing: 262370	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -
3	820m S	Status: Active Licence No: 6/33/20/*S/0030 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: DULOE BROOK Data Type: Line Name: SQUIRE Easting: 515280 Northing: 260610	Annual Volume (m³): 636 Max Daily Volume (m³): 109.09 Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1990 Version End Date: -
-	938m E	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -
-	938m E	Status: Historical Licence No: 6/33/21/*S/0025 Details: Trickle Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -
-	938m E	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517554 Northing: 261864	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 18/12/2018 Version End Date: -







Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
-	958m E	Status: Historical Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM SW OF LITTLE PAXTON Data Type: Point Name: HAIL WESTON FARMS LTD Easting: 517590 Northing: 261810	Annual Volume (m³): 30280 Max Daily Volume (m³): 1654.7 Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 101 Version Start Date: 16/04/2018 Version End Date: -
В	1081m N	Status: Active Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Line Name: HAIL WESTON FARMS LTD Easting: 516157 Northing: 263085	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: NPS/WR/034123 Original Start Date: 01/05/1966 Expiry Date: - Issue No: 103 Version Start Date: 22/02/2021 Version End Date: -
В	1081m N	Status: Active Licence No: 6/33/21/*S/0025 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Line Name: HAIL WESTON FARMS LTD Easting: 516157 Northing: 263085	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: NPS/WR/034123 Original Start Date: 01/05/1966 Expiry Date: - Issue No: 103 Version Start Date: 22/02/2021 Version End Date: -
В	1081m N	Status: Active Licence No: 6/33/21/*S/0025 Details: Trickle Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Line Name: HAIL WESTON FARMS LTD Easting: 516157 Northing: 263085	Annual Volume (m³): 140280 Max Daily Volume (m³): 4055 Original Application No: NPS/WR/034123 Original Start Date: 01/05/1966 Expiry Date: - Issue No: 103 Version Start Date: 22/02/2021 Version End Date: -
5	1090m NE	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 516650 Northing: 262700	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
6	1101m N	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 516230 Northing: 263050	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -
-	1387m E	Status: Historical Licence No: 6/33/20/*S/0119 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1994 Expiry Date: 01-Sep-03 Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	1387m E	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER GREAT OUSE AT ST NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 01-Mar-23 Issue No: 100 Version Start Date: 01/06/1998 Version End Date: -
-	1387m E	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): 13000 Max Daily Volume (m³): 210 Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 31/03/2023 Issue No: 100 Version Start Date: 02/05/2008 Version End Date: -
-	1387m E	Status: Historical Licence No: 6/33/20/*S/0130A Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518020 Northing: 261300	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: - Original Start Date: 30/03/2004 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 02/05/2008 Version End Date: -



01273 257 755



Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
-	1397m E	Status: Active Licence No: 6/33/20/*S/0130A/R01 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: NPS/WR/019413 Original Start Date: 01/04/2016 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 01/04/2021 Version End Date: -
-	1397m E	Status: Historical Licence No: 6/33/20/*S/0130A Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 7550 Max Daily Volume (m³): 90 Original Application No: - Original Start Date: 30/03/2004 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 02/05/2008 Version End Date: -
-	1397m E	Status: Historical Licence No: 6/33/20/*S/0124 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GREAT OUSE RIVER AT ST.NEOTS Data Type: Point Name: ST NEOTS GOLF CLUB Easting: 518035 Northing: 261322	Annual Volume (m³): 13000 Max Daily Volume (m³): 210 Original Application No: - Original Start Date: 01/06/1998 Expiry Date: 31/03/2023 Issue No: 100 Version Start Date: 02/05/2008 Version End Date: -
-	1455m NE	Status: Active Licence No: 6/33/21/*S/0009 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM W OF LITTLE PAXTON Data Type: Line Name: G T RAMPLY & SON Easting: 517740 Northing: 262560	Annual Volume (m³): 10171.22 Max Daily Volume (m³): 1227.42 Original Application No: CS 2602 Original Start Date: 18/05/1966 Expiry Date: - Issue No: 101 Version Start Date: 11/09/2007 Version End Date: -
-	1490m W	Status: Active Licence No: 6/33/21/*S/0056 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: SOUTH BROOK - GREAT STAUGHTON Data Type: Point Name: C H BROWN & SONS Easting: 513500 Northing: 262500	Annual Volume (m³): 500 Max Daily Volume (m³): 24 Original Application No: NPS/WR/016646 Original Start Date: 01/09/1993 Expiry Date: - Issue No: 101 Version Start Date: 11/08/2014 Version End Date: -





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Details	
9	1566m NE	Status: Historical Licence No: 6/33/21/*S/0057 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: RIVER KYM AT HAIL WESTON Data Type: Point Name: J A CLEMENTS FARMS Easting: 517180 Northing: 263070	Annual Volume (m³): 6600 Max Daily Volume (m³): 330 Original Application No: - Original Start Date: 01/04/1998 Expiry Date: 30/09/2007 Issue No: 100 Version Start Date: 01/04/1998 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m 1

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 37 >

ID	Location	Details	
-	1977m E	Status: Historical Licence No: 6/33/22/*G/0020 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL AT LITTLE PAXTON Data Type: Point Name: SCANDSTICK (UK) LTD Easting: 518600 Northing: 261960	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 06/06/2003 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m 0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

5.10 Source Protection Zones (confined aquifer)

Records within 500m 0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

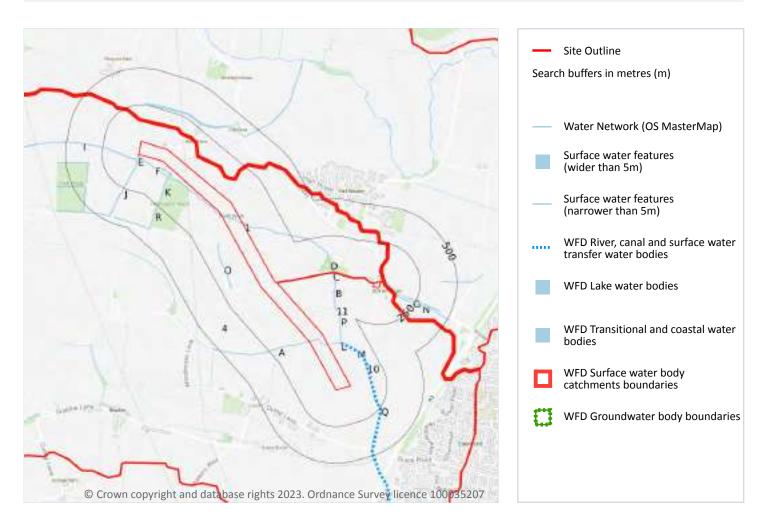




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m 25

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on page 45 >

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Type of water feature	Ground level	Permanence	Name
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
В	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
С	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
С	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
С	2m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
D	9m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
Е	18m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
Е	18m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
F	18m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
G	19m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	43m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
J	43m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	55m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



Contact us with any questions at: Date: 1 September 2023

info@groundsure.com

□1273 257 755



Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

ID	Location	Type of water feature	Ground level	Permanence	Name
L	75m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
L	83m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
M	83m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
N	102m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
0	112m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	116m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
Р	118m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
Q	139m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	South Brook
10	163m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
11	185m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	South Brook
R	215m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

6.2 Surface water features

Records within 250m 17

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on page 45 >

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site 1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on page 45 >

ID	Location	Туре	Water body catchment	Water body ID	Operational catchment	Management catchment
4	On site	River	Duloe Brook	GB105033043260	Great Ouse Lower	Ouse Upper and Bedford

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified 1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on page 45 >

ID	Location	Туре	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
7	85m SE	River	Duloe Brook	GB105033043260 ↗	Moderate	Fail	Moderate	2019





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site 0

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

This data is sourced from the Environment Agency and Natural Resources Wales.

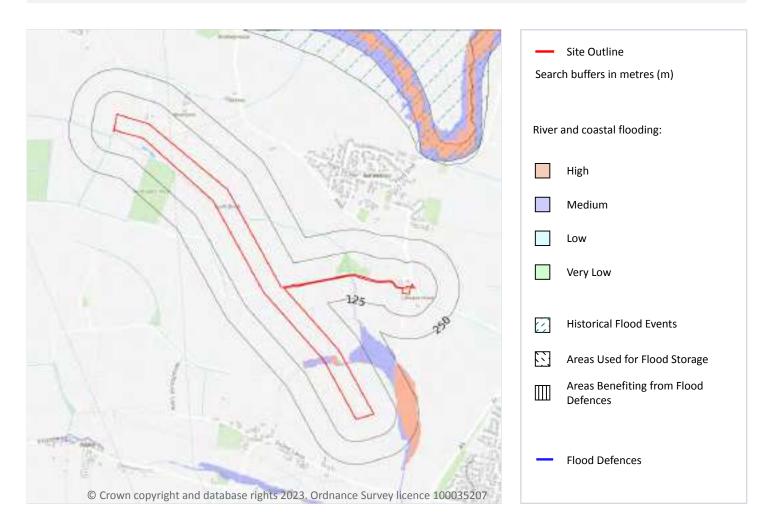




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

7 River and coastal flooding



7.1 Risk of flooding from rivers and the sea

Records within 50m 12

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on page 50 >





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Distance	Flood risk category
On site	High
0 - 50m	High

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m 0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m 0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m 0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m 0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

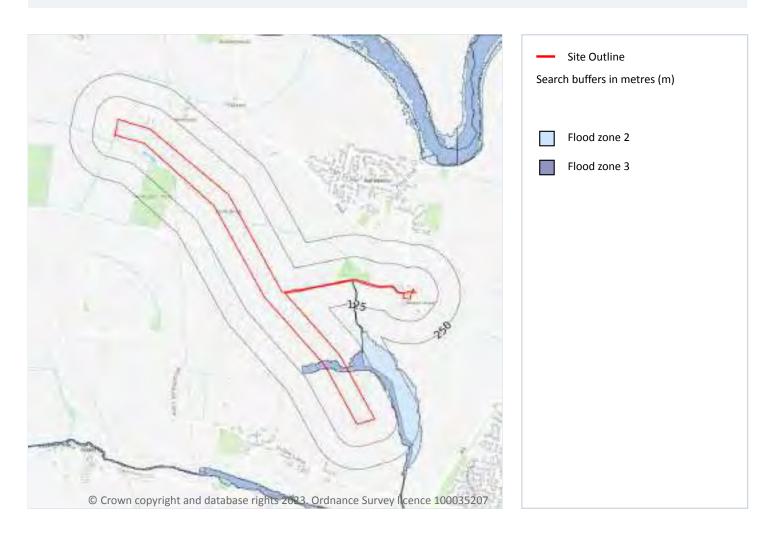




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

River and coastal flooding - Flood Zones



7.6 Flood Zone 2

Records within 50m 1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on page 50 >

Location Type
On site Zone 2 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.



Contact us with any questions at: Date: 1 September 2023



Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

7.7 Flood Zone 3

Records within 50m

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on page 50 >

Location	Туре
On site	Zone 3 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.

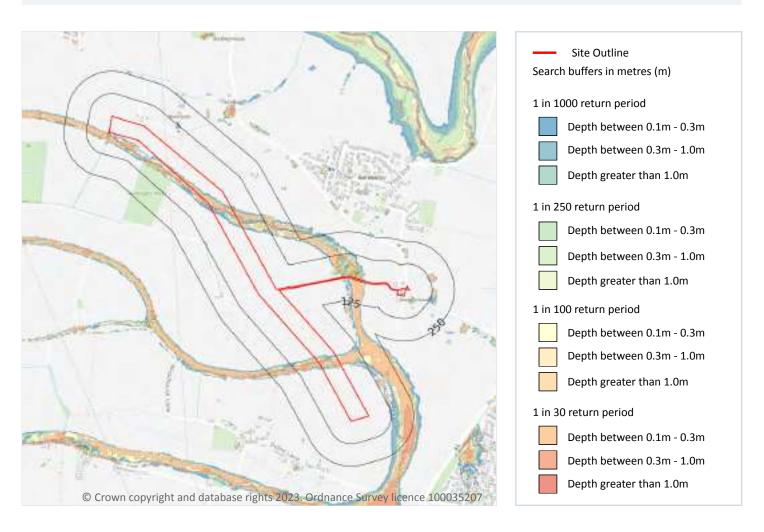




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8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on page 54 >

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on





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a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

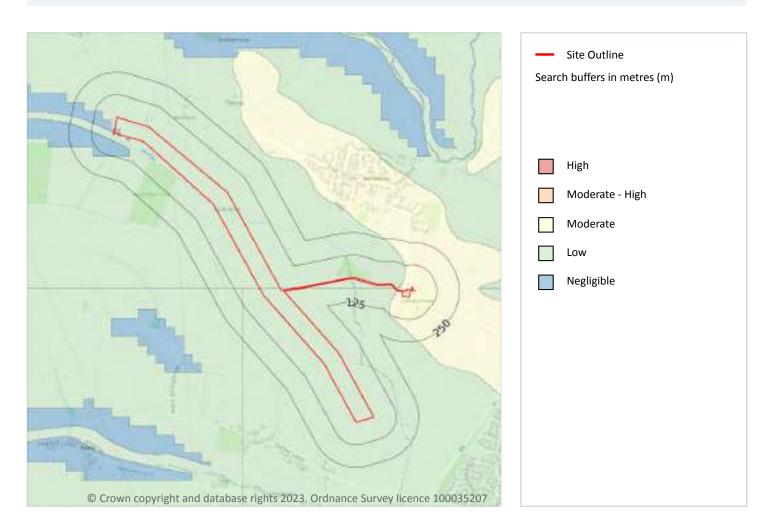




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9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site Moderate

Highest risk within 50m Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on page 56 >

This data is sourced from Ambiental Risk Analytics.

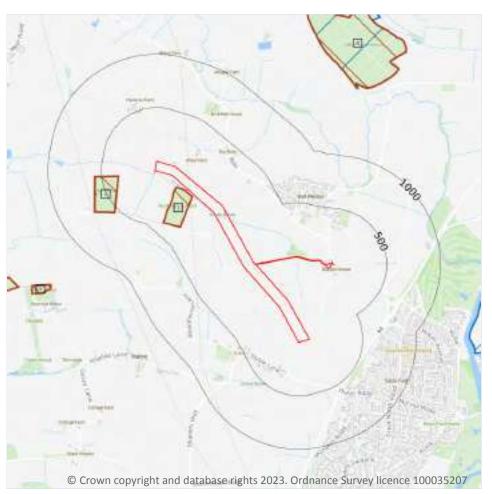




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10 Environmental designations



Site Outline
 Search buffers in metres (m)
 Sites of Special Scientific Interest (SSSI)
 ★ Local Nature Reserves (LNR)
 Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m 2

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on page 57 >

ID	Location	Name	Data source
3	1425m E	St. Neot's Common	Natural England





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ID	Location	Name	Data source
А	1643m NE	Little Paxton Wood	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m 0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m 0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m 0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



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10.6 Local Nature Reserves (LNR)

Records within 2000m 0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m 6

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on page 57 >

ID	Location	Name	Woodland Type
1	22m NW	Huntingdon Wood	Ancient & Semi-Natural Woodland
2	347m NW	Unknown	Ancient & Semi-Natural Woodland
4	1448m W	Unknown	Ancient & Semi-Natural Woodland
-	1496m N	Meagre Wood	Ancient & Semi-Natural Woodland
А	1653m NE	Little Paxton Wood	Ancient & Semi-Natural Woodland
6	1676m W	Unknown	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m 0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.





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10.9 Forest Parks

Records within 2000m

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m 0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m 0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m 0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m 0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.





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10.14 Potential Special Protection Areas (pSPA)

Records within 2000m 0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m 0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m 4

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Туре	NVZ ID	Status	
On site	Great Ouse NVZ	Surface Water	391	Existing	
On site Huntingdon River Gravels		Groundwater	144	Existing	
898m NW	Great Ouse NVZ	Surface Water	391	Existing	
898m NW	Huntingdon River Gravels	Groundwater	144	Existing	

This data is sourced from Natural England and Natural Resources Wales.



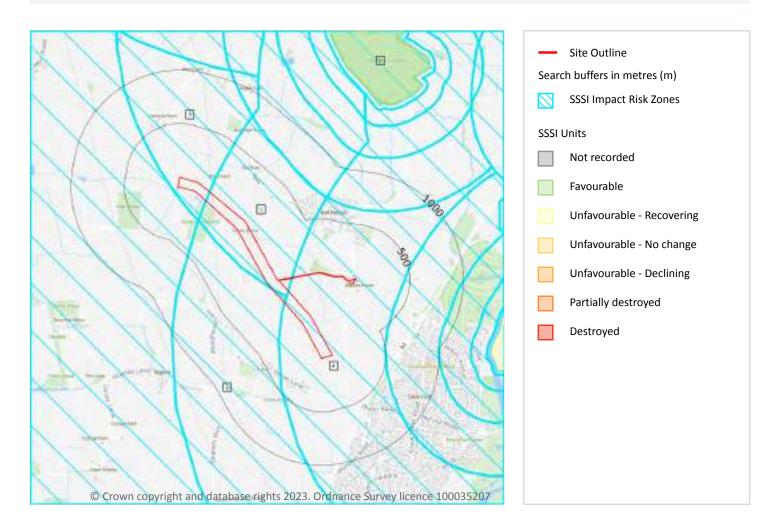
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SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site 4

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

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Features are displayed on the SSSI Impact Zones and Units map on page 62 >



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ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes > 20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
2	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
3	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.





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ID	Location	Type of developments requiring consultation
4	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m 2

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on page 62 >

ID: 16

Location: 1425m E

SSSI name: St. Neot's Common

Unit name: Whole Site

Broad habitat: Neutral Grassland - Lowland Condition: Unfavourable - Recovering

Reportable features:

Feature name	Feature condition	Date of assessment
Lowland neutral grassland (MG8)	Unfavourable - Recovering	04/07/2012







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Feature name

Feature condition

Date of assessment

Unfavourable - Recovering

04/07/2012

ID: B

Location: 1643m NE

SSSI name: Little Paxton Wood Unit name: Little Paxton Wood

Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland

Condition: Favourable

Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	24/04/2012

This data is sourced from Natural England and Natural Resources Wales.





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11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m 0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.





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11.2 Area of Outstanding Natural Beauty

Records within 250m 0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m 0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m 1

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on page 66 >

ID	Location	Name	Grade	Reference Number	Listed date
1	244m E	Milestone 57 On Highway B645		1454154	21/08/2018

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



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11.5 Conservation Areas

Records within 250m 0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m 0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m 0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

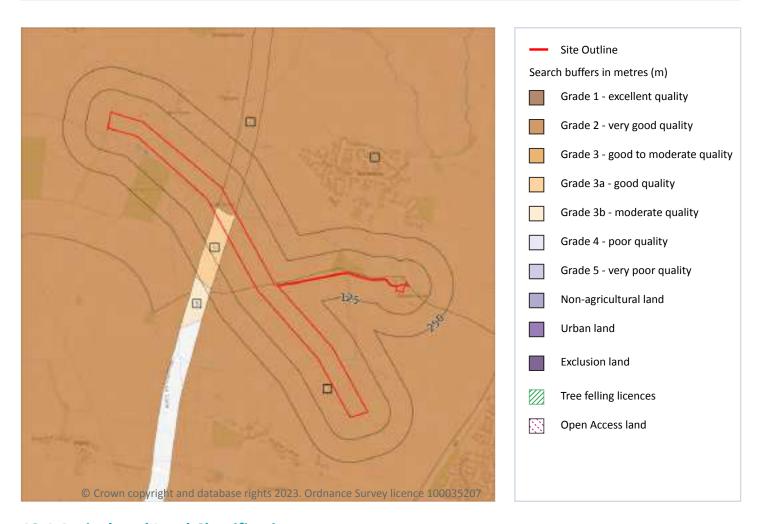




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12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m 5

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on page 69 >

ID	Location	Classification	Description
1	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.





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ID	Location	Classification	Description
טו	Location	Ciassification	Description
2	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
3	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
4	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
5	225m SW	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m 0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m 0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.



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12.4 Environmental Stewardship Schemes

Records within 250m 0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m 8

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	367739	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021
On site	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
On site	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
On site	827965	Countryside Stewardship (Middle Tier)	01/01/2020	31/12/2024
15m E	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
24m E	367739	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021
43m NW	495180	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022

This data is sourced from Natural England.



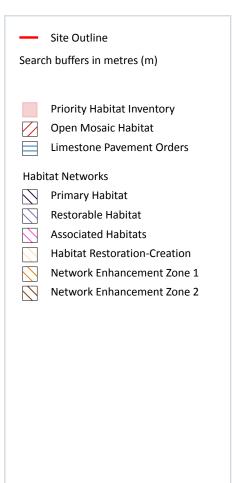


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13 Habitat designations





13.1 Priority Habitat Inventory

Records within 250m 6

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on page 72 >

ID	Location	Main Habitat	Other habitats
1	4m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	4m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	13m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	16m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)





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ID	Location	Main Habitat	Other habitats
5	23m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	151m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m 0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m 0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m 0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

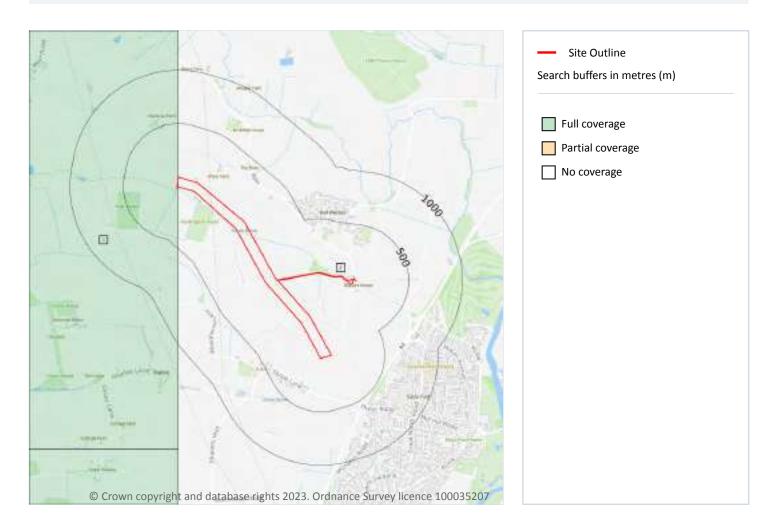




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14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m 2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on page 74 >

2	On site	No coverage	No coverage	No coverage	No coverage	NoCov	
1	On site	Full	Full	Full	No coverage	TL16SW	
ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.	

This data is sourced from the British Geological Survey.





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Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m 0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

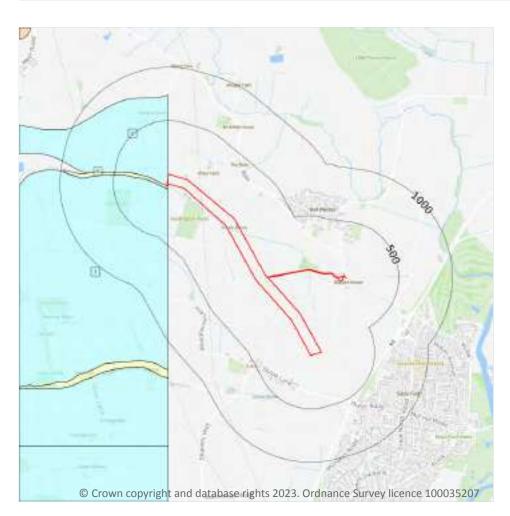




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Geology 1:10,000 scale - Superficial



Site Outline
Search buffers in metres (m)

Landslip (10k)
Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m 3

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 76 >

ID	Location	LEX Code	Description	Rock description
1	On site	ODT-DMTN	Oadby Member - Diamicton	Diamicton
2	19m NW	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
3	43m NW	ODT-DMTN	Oadby Member - Diamicton	Diamicton

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

0

Grid ref: 516326 261630

14.4 Landslip (10k)

Records within 500m

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)

Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 78 >

ID	Location	LEX Code	Description	Rock age
1	On site	OXC-MDST	Oxford Clay Formation - Mudstone	Oxfordian Age - Callovian Age

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

14.6 Bedrock faults and other linear features (10k)

Records within 500m 0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

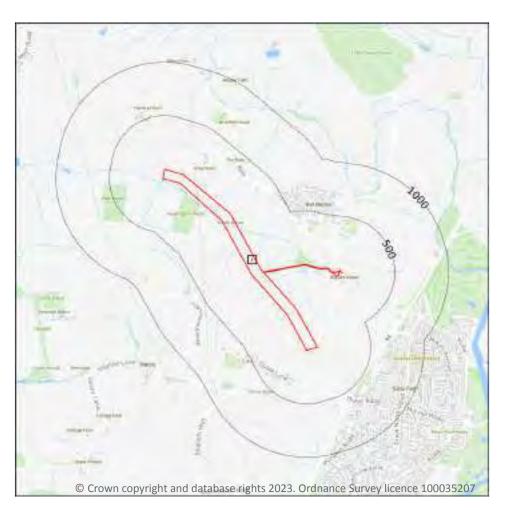




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

15 Geology 1:50,000 scale - Availability



Site Outline Search buffers in metres (m) Geological map tile

15.1 50k Availability

Records within 500m 1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

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Features are displayed on the Geology 1:50,000 scale - Availability map on page 80 >

1	On site	No coverage	Full	Full	No coverage	EW187_huntingdon_v4
ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.

This data is sourced from the British Geological Survey.



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Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m 0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

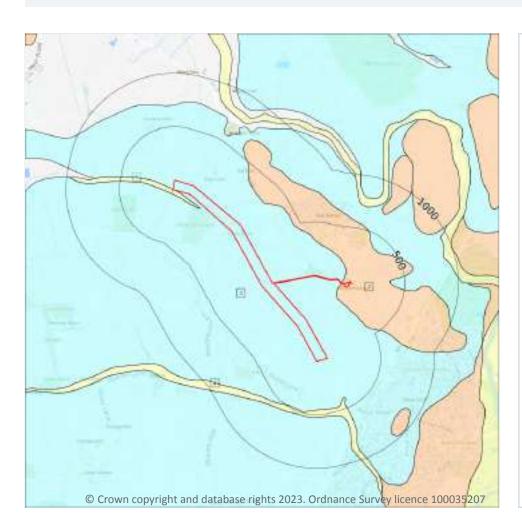




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Geology 1:50,000 scale - Superficial



Site Outline
Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k) Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m 4

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 82 >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	On site	RTD3-XSV	RIVER TERRACE DEPOSITS, 3	SAND AND GRAVEL
3	On site	ODT-DMTN	OADBY MEMBER	DIAMICTON
4	399m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	Very Low
On site	Intergranular	High	Very Low
On site	Intergranular	Very High	High
On site	Mixed	Moderate	Low
On site	Mixed	Moderate	Low
38m NW	Mixed	Moderate	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m 0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m 0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Geology 1:50,000 scale - Bedrock



Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)

Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 84 >

ID	Location	LEX Code	Description	Rock age
1	On site	OXC-MDST	OXFORD CLAY FORMATION - MUDSTONE	CALLOVIAN

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

15.9 Bedrock permeability (50k)

Records within 50m 2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Very Low
On site	Fracture	Low	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m 0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

16 Boreholes

16.1 BGS Boreholes

Records within 250m 0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.

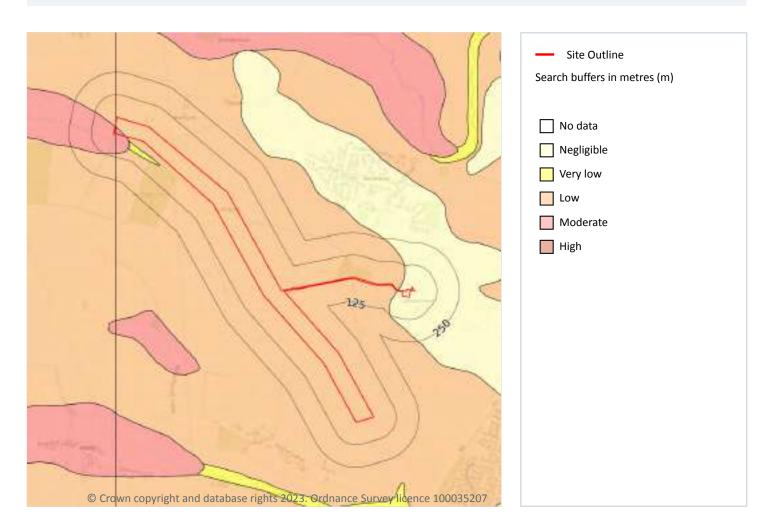




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m 4

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 87 >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Low	Ground conditions predominantly medium plasticity.
On site	Moderate	Ground conditions predominantly high plasticity.







Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Location	Hazard rating	Details
20m NW	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

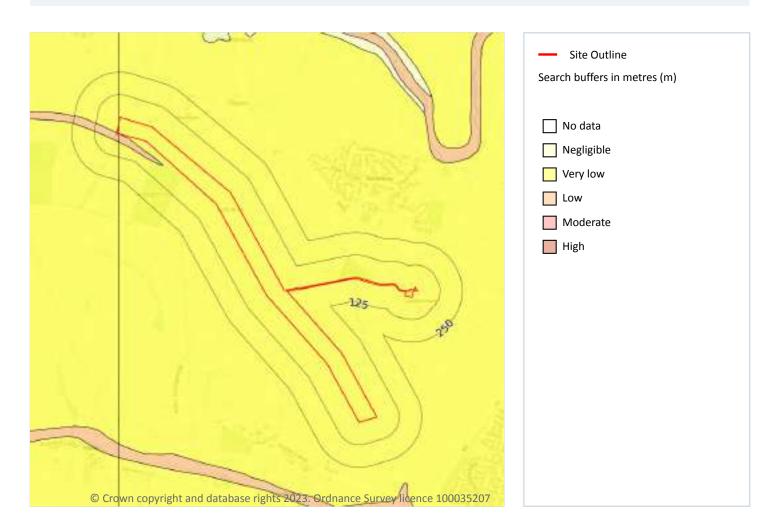




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m 3

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on page 89 >

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.







Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
38m NW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

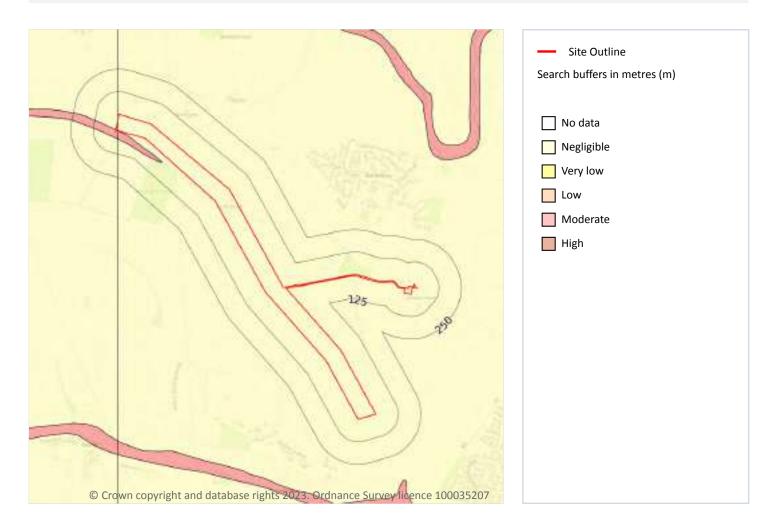


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Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m 2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on page 91 >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.







Your ref: R3053 - East Park Connection Route

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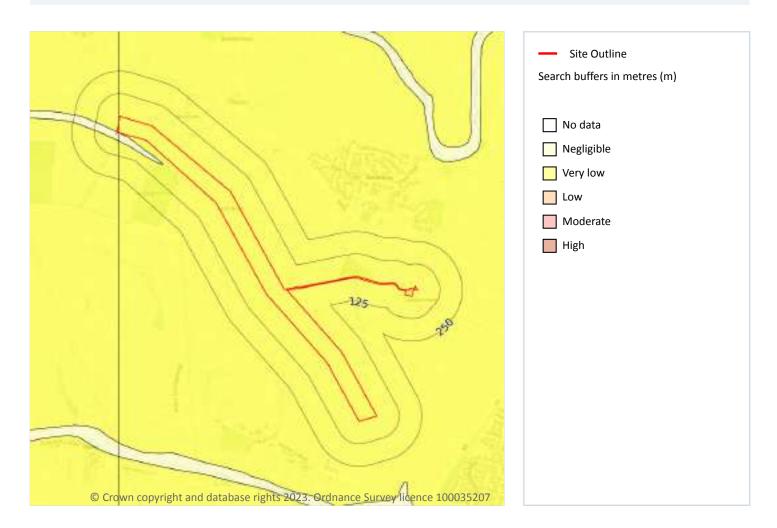
This data is sourced from the British Geological Survey.



Your ref: R3053 - East Park Connection Route

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Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m 2

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 93 >

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

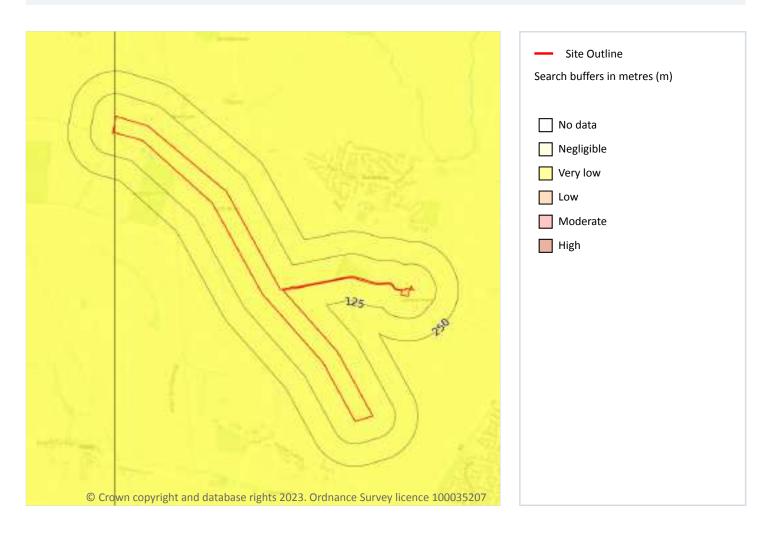




Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m 1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on page 94 >

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Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



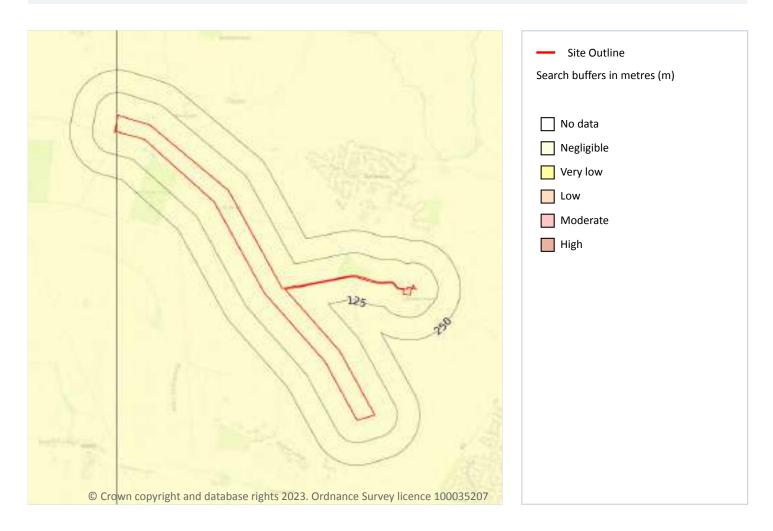
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Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on page >

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.







Your ref: R3053 - East Park Connection Route

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This data is sourced from the British Geological Survey.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

18 Mining and ground workings

18.1 BritPits

Records within 500m 0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m 0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m 0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.





Your ref: R3053 - East Park Connection Route

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18.5 Historical Mineral Planning Areas

Records within 500m 0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m 0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site 0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m 0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.





Your ref: R3053 - East Park Connection Route

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18.9 Researched mining

Records within 500m 0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m 0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m 0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site 0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site 0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.





Your ref: R3053 - East Park Connection Route

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This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site 0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site 0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site 0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m 0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m 0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from Groundsure.

19.5 National karst database

Records within 500m 0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

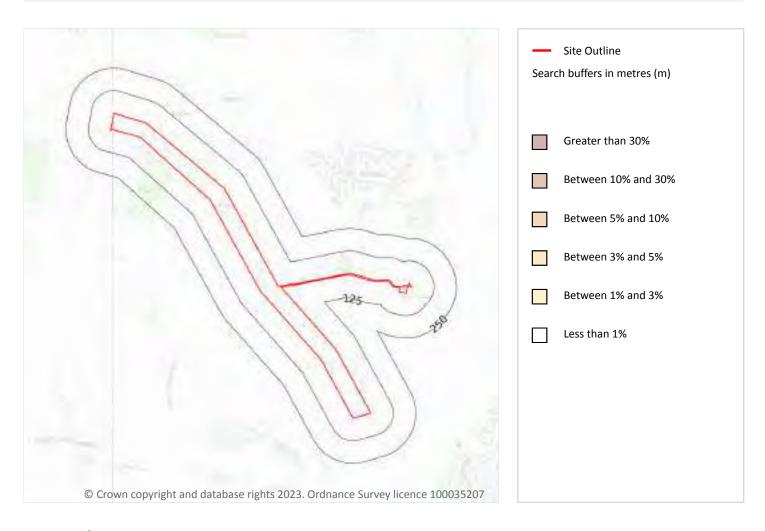




Your ref: R3053 - East Park Connection Route

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20 Radon



20.1 Radon

Records on site 1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on page 103 >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None







Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from the British Geological Survey and UK Health Security Agency.





Your ref: R3053 - East Park Connection Route

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21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m 17

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg







Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
38m NW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
42m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m 0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.







Your ref: R3053 - East Park Connection Route

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22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m 0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m 0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m 0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m 0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



(107)



Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m 0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m 0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m 0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m 0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m 0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.



(108)





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

This data is sourced from HS2 ltd.





Your ref: R3053 - East Park Connection Route

Grid ref: 516326 261630

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

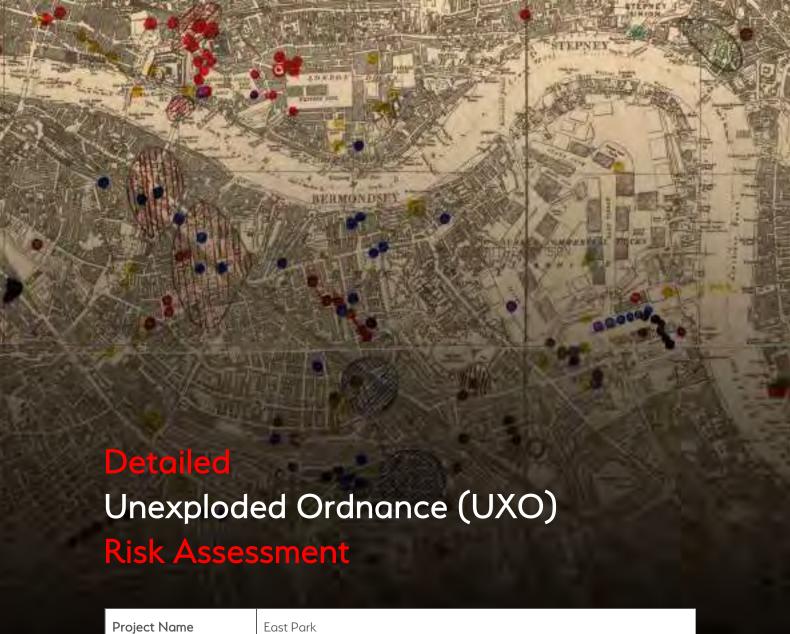
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APPENDIX E Detailed UXO Risk Assessment Report



Project Name	East Park
Client	Smith Grant LLP
Site Address	Eaton Socon, St. Neots, Huntingdonshire PE19 8TZ Swineshead, Bedfordshire MK44 2AT
Report Reference	DA19362-00
Date	18/06/2024
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Executive Summary

Route Location and Description

The East Park route is located across two ceremonial counties, the north of Bedfordshire and the east of Cambridgeshire.

Recent aerial imagery shows the route to largely comprise open agricultural fields. Several roadways and access tracks can be seen within the boundary. Eaton Socon Substation is located within the far south-eastern section of the route.

It is bound to the north by open fields, largely agricultural in nature. Several farms and the village of Great Staughton can also be found north of the route, while further open field, a farm, and a roadway (A1) are situated to the east. The villages of Wyboston, and the hamlets of Brook End and Green End lie to the south alongside wider areas of open field, and a solar farm. Open field and a watercourse, Pertenhall Brook, are located to the west of the route.

The western end of the route is approximately centred on the OS grid reference: **TL 05866 63997**.

The eastern end of the route is approximately centred on the OS grid reference: **TL 16446 58463**.

Proposed Works

A scheme relating to the construction of a solar farm around Little Staughton, Great Staughton, and Eaton Socon to the west of St Neots in north Bedfordshire and Huntingdonshire is proposed.

Geology and Bomb Penetration Depth

The British Geological Survey (BGS) map shows the bedrock geology of the route to be underlain by Oxford Clay Formation - Mudstone. This sedimentary bedrock formed between 166.1 and 157.3 million years ago during the Jurassic period.

Several superficial deposits are recorded along the line of the route, including:

- Alluvium Clay, silt, sand and gravel.
- Glaciofluvial Deposits, Mid Pleistocene Sand and gravel.
- Oadby Member Diamicton.
- River Terrace Deposits, 1 to 2 Sand and gravel.

It has not been possible to determine maximum bomb penetration capabilities at this stage due to route-specific geotechnical information being unavailable for this report. An assessment can be made once further information becomes available or by an UXO Specialist on-site.





UXO Risk Assessment

1st Line Defence has assessed that there is an overall <u>Low Risk</u> from German and anti-aircraft unexploded ordnance along much of the line of the route. Indeed there is a <u>Low Risk</u> from Allied Ordnance along the whole route. However, the sections between Keysoe and Little Staughton, surrounding Lodge Farm and the former Kangaroo Inn, have been elevated to <u>Medium Risk</u> for both German and anti-aircraft unexploded ordnance. See risk mapping in **Annex R**.

The Risk from German Air-Delivered UXO

- During WWII the site was situated within both the Bedford Rural District and the St Neots Rural District. According to official
 Home Office bombing statistics both of these districts sustained very low densities of bombing. 296 items of ordnance fell
 across the Bedford Rural District, or an average of 2.6 items per 1,000 acres. 158 items of ordnance fell across the St Neots
 Rural District, or an average of 3 items per 1,000 acres.
- Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear.¹ No positive evidence has been found to indicate that the decoy was bombed during the course of WWII however.
- Bedfordshire Air Raid Incident Records detail one unexploded bomb in a field east of the former site of the Kangaroo Inn and another in a field at Lodge Farm, Little Staughton, the latter involving a 50kg HE bomb. Given that the route is occupied by fields immediately surrounding and associated with these locations, it cannot be discounted that these may have fallen within the route itself. In addition, two more UXBs were recorded in fields between Keysoe and Little Staughton; many of the fields within the route were located between these two points and it is therefore plausible that this bombing may have occurred on route. No positive evidence has been found to suggest that the remaining majority of the route was subject to any further incidents of bombing however.
- Due to the size and nature of the route, it has not been possible to precisely assess signs of damage across the entire route
 in detail. However, WWII-era aerial imagery dated 1945 shows no obvious damage along much of the length of the route.
 There are some areas of discolouration that are not thought to be evidence of bomb damage, but rather agricultural activity.
- Given that much of the route was occupied by open rural land, it is considered possible that UXBs could have gone
 undetected, as bomb entry holes may have been obscured or overlooked. For example, the entry hole for a 50kg UXB can
 be as small as 20cm in diameter. As such, the possibility that an item of UXO fell along the route unnoticed and unrecorded
 cannot be confidently discounted. Areas that were occupied by roadways are considered to have been more conducive
 toward the observation of evidence of UXO.
- Due to the length of the route, it is difficult to assess exact access levels throughout its entirety. Generally, open fields are
 not anticipated to have received regular access and inspections. Any access would have likely been seasonal. Evidence of
 UXO is more likely to have been noticed and recorded within frequently accessed areas such as those adjacent to roadways
 or farmsteads.
- In summary, the risk from German air delivered ordnance is not thought to be homogenous across the route. The risk in sections of the route in which UXBs were recorded in fields at the Kangaroo Inn, Lodge Farm, Keysoe and Little Staughton have been elevated to Medium Risk; proactive risk mitigation measures are recommended within these areas.
- Otherwise, given that no positive evidence was found to suggest that the remaining majority of the route was subject to any bombing, the risk of contamination from items of unexploded ordnance in these remaining areas is not considered to be higher than the overall low 'background' for this area of Bedfordshire and Huntingdonshire. As such, the remaining majority of the route has been assessed as Low Risk. Whilst proactive risk mitigation measures are not deemed necessary, UXO safety awareness briefings are recommended as a sensible minimum precaution, particularly given the presence of a bomb decoy site adjacent to the west of the route.
- $\bullet \hspace{0.5cm}$ See German air delivered ordnance risk mapping in $\textbf{Annex} \hspace{0.1cm} \textbf{R}.$

¹ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014



The Risk from Allied UXO

- Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear.² It was likely guarded by military personnel armed with items of SAA and LSA.³
- A Royal Observer Corps (ROC) Post was situated approximately 180m east of the route at Eaton Socon. It is unclear when
 this post opened, however, it is known to have closed in October 1968.⁴ The ROC's network of monitoring posts were
 designed to confirm and report hostile aircraft and nuclear attacks on the United Kingdom. Given its nature, it is not thought
 to present a UXO risk to the route.
- Imagery is presented in Annex Q showing No. 8 Battle Platoon, 5th Bedfordshire Battalion of the Home Guard at Staploe, approximately 1km to the south-west of the eastern portion of the route. As such, ad-hoc Home Guard activity on/in close proximity to the route cannot be completely ruled out.
- There is not thought to be a significant risk from Allied UXO across the length of the route, and as such it has been assessed to be at <u>Low Risk</u>.

Post-WWII Redevelopment

- The majority of the route has not seen significant development since WWII. An electricity substation was subsequently constructed in the far south-east of the route.
- The risk of UXO remaining is considered to be mitigated at the location of and down to the depth of any post-war redevelopment along the route. For example, the risk from deep buried UXO will only have been mitigated within the volumes of any post-war pile foundations or deep excavations for basement levels. The risk will however remain within virgin geology below and amongst these post-war works, down to the maximum bomb penetration depth.

Recommended Risk Mitigation Measures

The following risk mitigation measures are recommended to support the proposed works along the East Park route:

Activity	Recommended Risk Mitigation Measure
All Works	 UXO Risk Management Plan Site Specific UXO Awareness Briefings to all personnel conducting intrusive works.
Open Excavations (trial pits, service pits, bulk excavations, strip foundations etc.) – Medium Risk Areas Only	UXO Specialist On-site Support
Boreholes and Piled Foundations – Medium Risk Areas Only	Intrusive Magnetometer Survey of all borehole and pile locations/clusters down to maximum bomb penetration depth.

Note – proactive on-site UXO support/survey should not be necessary for any works taking place at the location of and down to the depths of significantly worked post-war made ground/post-war fill.

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² https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourcelD=1014

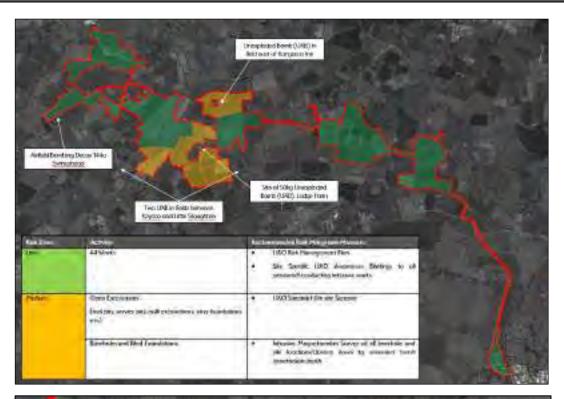
 $^{^3}$ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1464647&resourceID=19191

⁴ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MCB16437&resourceID=1000





UXO Risk Map and Recommended Risk Mitigation Measures









Glossary

Abbreviation	Definition
AA	Anti-Aircraft
AFS	Auxiliary Fire Service
AP	Anti-Personnel
ARP	Air Raid Precautions
DA	Delay-action
EOC	Explosive Ordnance Clearance
EOD	Explosive Ordnance Disposal
FP	Fire Pot
GM	G Mine (Parachute mine)
HAA	Heavy Anti-Aircraft
HE	High Explosive
IB	Incendiary Bomb
JSEODOC	Joint Services Explosive Ordnance Disposal Operation Centre
LAA	Light Anti-Aircraft
LCC	London County Council
LRRB	Long Range Rocket Bomb (V-2)
LSA	Land Service Ammunition
NFF	National Filling Factory
ОВ	Oil Bomb
PAC	Pilotless Aircraft (V-1)
РВ	Phosphorous Bomb
PM	Parachute Mine
POW	Prisoner Of War
RAF	Royal Air Force
RCAF	Royal Canadian Air Force
RFC	Royal Flying Corps
RNAS	Royal Naval Air Service
ROF	Royal Ordnance Factory
SA	Small Arms
SAA	Small Arms Ammunition
SD2	Anti-personnel "Butterfly Bomb"
SIP	Self-Igniting Phosphorous
U/C	Unclassified bomb
UP	Unrotated Projectile (rocket)
USAAF	United States Army Air Force
UX	Unexploded
UXAA	Unexploded Anti-Aircraft
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
V-1	Flying Bomb (Doodlebug)
V-2	Long Range Rocket
WAAF	Women's Auxiliary Air Force
Х	Exploded





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Smith Grant LLP



1st Line Defence Limited[®] Detailed Unexploded Ordnance (UXO) Risk Assessment

Route: East Park

Client: Smith Grant LLP

1. Introduction

1.1. Background

1st Line Defence has been commissioned by Smith Grant LLP to conduct a Detailed Unexploded Ordnance (UXO) Risk Assessment for the works proposed along the East Park route.

Buried UXO can present a significant risk to construction works and development projects. The discovery of a suspect device during works can cause considerable disruption to operations as well as cause unwanted delays and expense.

UXO in the UK can originate from three principal sources:

- 1. Munitions resulting from wartime activities including German bombing in WWI and WWII, long range shelling, and defensive activities.
- 2. Munitions deposited as a result of military training and exercises.
- 3. Munitions lost, burnt, buried or otherwise discarded either deliberately, accidentally, or ineffectively.

This report will assess the potential factors that may contribute to the risk of UXO contamination. If an elevated risk is identified along the route, this report will recommend appropriate mitigation measures, in order to reduce the risk to as low as is reasonably practicable. Detailed analysis and evidence will be provided to ensure an understanding of the basis for the assessed risk level and any recommendations.

This report complies with the guidelines outlined in CIRIA C681, 'Unexploded Ordnance (UXO) A Guide for the Construction Industry.'

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Method Statement

21 Report Objectives

The aim of this report is to conduct a comprehensive assessment of the potential risk from UXO along the East Park Route. The report will also recommend appropriate site and work-specific risk mitigation measures to reduce the risk from explosive ordnance during the envisaged works to a level that is as low as reasonably practicable.

22 Risk Assessment Process

1st Line Defence has undertaken a five-step process for assessing the risk of UXO contamination:

- 1. The likelihood that the route was contaminated with UXO.
- 2. The likelihood that UXO remains along the route.
- 3. The likelihood that UXO may be encountered during the proposed works.
- 4. The likelihood that UXO may be initiated.
- 5. The consequences of initiating or encountering UXO.

In order to address the above, 1st Line Defence has taken into consideration the following factors:

- Evidence of WWI and WWII German air delivered bombing as well as the legacy of Allied occupation.
- The nature and conditions of the route during WWII.
- The extent of post-war development and UXO clearance operations on site.
- The scope and nature of the proposed works and the maximum assessed bomb penetration depth.
- The nature of ordnance that may have contaminated the proposed site area.

25 Sources of Information

Every reasonable effort has been made to ensure that relevant evidence has been consulted and presented in order to produce a thorough and comprehensible report for the client. To achieve this the following, which includes military records and archive material held in the public domain, have been accessed:

- The National Archives, Bedfordshire Archives, and Huntingdonshire Archives.
- Historical mapping datasets.
- Historic England National Monuments Record.
- Relevant information supplied by Smith Grant LLP.
- Available material from 33 Engineer Regiment (EOD) Archive (part of 29 Explosive Ordnance and Disposal and Search Group).
- 1st Line Defence's extensive historical archives, library and UXO geo-datasets.
- Open sources such as published books and internet resources.





Background to Bombing Records

3.1 General Considerations of Historical Research

This desktop assessment is based largely upon analysis of historical evidence. Every reasonable effort has been made to locate and present significant and pertinent information. 1st Line Defence cannot be held accountable for any changes to the assessed risk level or risk mitigation measures, based on documentation or other data that may come to light at a later date, or which was not available to 1st Line Defence during the production of this report.

It is often problematic and sometimes impossible to verify the completeness and accuracy of WWII-era records. As a consequence, conclusions as to the exact location and nature of a UXO risk can rarely be quantified and are, to a degree, subjective. To counter this, a range of sources have been consulted, presented and analysed. The same methodology is applied to each report during the risk assessment process. 1st Line Defence cannot be held responsible for any inaccuracies or the incompleteness in available historical information.

3.2 German Bombing Records

During WWII, bombing records were generally gathered locally by the police, Air Raid Precaution (ARP) wardens and military personnel. These records typically contained information such as the date, the location, the amount of damage caused and the types of bombs that had fallen during an air raid. This information was made either through direct observation or post-raid surveys. The Ministry of Home Security Bomb Census Organisation would then receive this information, which was plotted onto maps, charts, and tracing sheets by regional technical officers. The collective record set (regional bomb census mapping and locally gathered incidents records) would then be processed and summarised into reports by the Ministry of Home Security Research and Experiments Branch. The latter were tasked with providing the government 'a complete picture of air raid patterns, types of weapons used and damage caused- in particular to strategic services and installations such as railways, shipyards, factories and public utilities.'

The quality, detail and nature of record keeping could vary considerably between provincial towns, boroughs and cities. No two areas identically collated or recorded data. While some local authorities maintained records with a methodical approach, sources in certain areas can be considerably more vague, dispersed, and narrower in scope. In addition, the immediate priority was mostly focused on assisting casualties and minimising damage at the time. As a result, some records can be incomplete and contradictory. Furthermore, many records were even damaged or destroyed in subsequent air raids. Records of raids that took place on sparsely or uninhabited areas were often based upon third party or hearsay information and are therefore not always reliable. Whereas records of attacks on military or strategic targets were often maintained separately and have not always survived.

33 Allied Records

During WWII, considerable areas of land were requisitioned by the War Office for the purpose of defence, training, munitions production and the construction of airfields. Records relating to military features vary and some may remain censored. Within urban environments datasets will be consulted detailing the location of munition production as well as wartime air and land defences. In rural locations it may be possible to obtain plans of military establishments, such as airfields, as well as training logs, record books, plans and personal memoirs. As with bombing records, every reasonable effort will be made to access records of, and ascertain any evidence of, military land use. However, there are occasions where such evidence is not available, as records may not be accessible, have been lost/destroyed, or simply were not kept in the first place.



4. UK Regulatory Environment and Guidelines

4.1. General

There is no formal obligation requiring a UXO risk assessment to be undertaken for construction projects in the UK, nor is there any specific legislation stipulating the management or mitigation of UXO risk. However, it is implicit in the legislation outlined below that those responsible for intrusive works (archaeology, site investigation, drilling, piling, excavation etc.) should undertake a comprehensive and robust assessment of the potential risks to employees and that mitigation measures are implemented to address any identified hazards.

42. CDM Regulations 2015

The Construction (Design and Management) Regulations 2015 (CDM 2015) define the responsibilities of parties involved in the construction of temporary or permanent structures.

The CDM 2015 establishes a duty of care extending from clients, principle designers, and contractors to those working on, or affected by, a project. Those responsible for construction projects may therefore be accountable for the personal or proprietary loss of third parties, if correct health and safety procedure has not been applied.

Although the CDM does not specifically reference UXO, the risk presented by such items is both within the scope and purpose of the legislation. It is therefore implied that there is an obligation for parties to:

- Provide an appropriate assessment of potential UXO risks along the route (or ensure such an assessment is completed by others).
- Put in place appropriate risk mitigation measures if necessary.
- Supply all parties with information relevant to the risks presented by the project.
- Ensure the preparation of a suitably robust emergency response plan.

The 1974 Health and Safety at Work etc. Act

All employers have a responsibility under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999, to ensure the health and safety of their employees and third parties, so far as is reasonably practicable and conduct suitable and sufficient risk assessments.

4.4. CIRIA C681

In 2009, the Construction Industry Research and Information Association (CIRIA) produced a guide to the risk posed by UXO to the UK construction industry (CIRIA C681). CIRIA is a neutral, independent and not-for-profit body, linking organisations with common interests and facilitating a range of collaborative activities that help improve the industry.

The publication provides the UK construction industry with a defined process for the management of risks associated with UXO from WWI and WWII air bombardment. It is also broadly applicable to the risks from other forms of UXO that might be encountered. It focuses on construction professionals' needs, particularly if there is a suspected item of UXO on site, and covers issues such as what to expect from a UXO specialist. The guidance also helps clients to fulfil their legal duty under CDM 2015 to provide designers and contractors with project specific health and safety information needed to identify hazards and risks associated with the design and construction work. This report conforms to this CIRIA guidance and to the various recommendations for good practice referenced therein. It is recommended that this document is acquired and studied where possible to allow a better understanding of the background to both the risk assessment process and the UXO issue in the UK in general.

45. Additional Legislation

In the event of a casualty resulting from the failure of an employer/client to address the risks relating to UXO, the organisation may be criminally liable under the Corporate Manslaughter and Corporate Homicide Act 2007.





5 The Role of Commercial UXO Contractors and The Authorities

511 Commercial UXO Specialists

The role of a UXO Specialist (often referred to as UXO Consultant or UXO Contractor) such as 1st Line Defence, is defined in CIRIA C681 as the provision of expert knowledge and guidance to the client on the most appropriate and cost-effective approach to UXO risk management at a site.

The principal role of UXO Specialists is to provide the client with an appropriate assessment of the risk posed by UXO for a specific project, and identify and carry out suitable methodology for the mitigation of any identified risks to reduce them to an acceptable level.

The requirement for a UXO Specialist should ideally be identified in the initial stages of a project, and it is recommended that this occur prior to the start of any detailed design. This will enable the client to budget for expenditure that may be required to address the risks from UXO, and may enable the project team to identify appropriate techniques to eliminate or reduce potential risks through considered design, without the need for UXO specific mitigation measures. The UXO Specialist should have suitable qualifications, levels of competency and insurances

Please note 1st Line Defence has the capability to provide a complete range of required UXO risk mitigation services, in order to reduce a risk to as low as reasonably practicable. This can involve the provision of both ground investigation, and where appropriate, UXO clearance services.

5.2 The Authorities

The police have a responsibility to co-ordinate the emergency services in the event of an ordnance-related incident at a construction site. Upon inspection they may impose a safety cordon, order an evacuation, and call the military authorities Joint Services Explosive Ordnance Disposal Operation Centre (JSEODOC) to arrange for investigation and/or disposal. Within the Metropolitan Police Operational Area, SO15 EOD will be tasked to any discovery of suspected UXO. The request for Explosive Officer (Expo) support is well understood and practiced by all Metropolitan Boroughs. The requirement for any additional assets will then be coordinated by the Expo if required.

In the absence of a UXO specialist, police officers will usually employ such precautionary safety measures, thereby causing works to cease, and possibly requiring the evacuation of neighbouring businesses and properties.

The priority given to the police request will depend on the EOD teams' judgement of the nature of the UXO risk, the location, people and assets at risk, as well as the availability of resources. The speed of response varies; authorities may respond immediately or in some cases it may take several days for the item of ordnance to be dealt with. Depending on the on-site risk assessment the item of ordnance may be removed from the site and/or destroyed by a controlled explosion.

Following the removal of an item of UXO, the military authorities will only undertake further investigations or clearances in high-risk situations. If there are regular UXO finds on a site the JSEODOC may not treat each occurrence as an emergency and will recommend the construction company puts in place alternative procedures, such as the appointment of a commercial contractor to manage the situation.

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The Route

61 Route Location

The East Park route is located across two ceremonial counties, the north of Bedfordshire and the east of Cambridgeshire.

It is bound to the north by open fields, largely agricultural in nature. Several farms and the village of Great Staughton can also be found north of the route, while further open field, a farm, and a roadway (A1) are situated to the east. The villages of Wyboston, and the hamlets of Brook End and Green End lie to the south alongside wider areas of open field, and a solar farm. Open field and a watercourse, Pertenhall Brook, are located to the west of the route.

The western end of the route is approximately centred on the OS grid reference: TL 05866 63997.

The eastern end of the route is approximately centred on the OS grid reference: TL 16446 58463.

Route location maps are presented in **Annex A**.

62 Route Description

Recent aerial imagery shows the route to largely comprise open agricultural fields. Several roadways and access tracks can be seen within the boundary. Eaton Socon Substation is located within the far south-eastern section of the route.

A recent aerial photograph and route plan are presented in Annex B and Annex C respectively.

7. Scope of the Proposed Works

7.1 General

A scheme relating to the construction of a solar farm around Little Staughton, Great Staughton, and Eaton Socon to the west of St Neots in north Bedfordshire and Huntingdonshire is proposed.

8 Ground Conditions

81 General Geology

The British Geological Survey (BGS) map shows the bedrock geology of the route to be underlain by Oxford Clay Formation - Mudstone. This sedimentary bedrock formed between 166.1 and 157.3 million years ago during the Jurassic period.

Several superficial deposits are recorded along the line of the route, including:

- Alluvium Clay, silt, sand and gravel.
- Glaciofluvial Deposits, Mid Pleistocene Sand and gravel.
- Oadby Member Diamicton.
- River Terrace Deposits, 1 to 2 Sand and gravel.

8.2 Route-Specific Geology

Route-specific geotechnical data was not provided by the client during the production of this report.





Route History

9.1 Introduction

The purpose of this section is to identify the composition of the route's pre and post-WWII. It is important to establish the historical use of the route, as this may indicate the route's relation to potential sources of UXO as well as help with determining factors such as the land use, groundcover, likely frequency of access and signs of bomb damage.

92 Ordnance Survey Historical Maps

Relevant historical maps were obtained for this report and are presented in $\mathbf{Annex}\ \mathbf{D}$. See below for a summary of the route history shown on acquired mapping.

WWII-Era Histor	WWII-Era Historical Mapping				
Date	Scale	Description			
1946	1:25,000	The route runs west to east predominantly through undeveloped agricultural land. Several roadways, footpaths, and areas of woodland – including Fox Covert – can also be seen within the boundary in addition to electricity transmission lines. Roadways, further open field and the villages of Pertenhall and Great Staughton lie to the north of the route, while further such fields, roadways and electricity transmission lines run to the east. Alongside open field, the villages/hamlets of Duloe, Brook End, and Green End can be found to the south. Agricultural fields lie to the west.			



Introduction to German Air Delivered Ordnance

10.1. General

During WWI and WWII, the UK was subjected to bombing which often resulted in extensive damage to city centres, docks, rail infrastructure and industrial areas. The poor accuracy of WWII targeting technology and the nature of bombing techniques often resulted in neighbouring areas to targets sustaining collateral damage.

In addition to raids which concentrated on specific targets, indiscriminate bombing of large areas also took place. This occurred most prominently in the London 'Blitz', though affected many other towns and cities. As discussed in the following sections, a proportion of the bombs dropped on the UK did not detonate as designed. Although extensive efforts were made to locate and deal with these UXBs at the time, many still remain buried and can present a potential risk to construction projects.

The main focus of research for this section of the report will concern German air delivered ordnance dropped during WWII, although WWI bombing will also be considered.

M2 Generic Types of WWII German Air Delivered Ordnance

To provide an informed assessment of the hazards posed by any items of unexploded ordnance that may remain in situ on site, the table below provides information on the types of German air delivered ordnance most commonly used by the Luftwaffe during WWII. Images and brief summaries of the characteristics of these items of ordnance are listed in **Appendices i-iii**.

Generic Types of WWII German Air Delivered Ordnance		
Туре	Frequency	Likelihood of Detection
High Explosive (HE) bombs	In terms of weight of ordnance dropped, HE bombs were the most frequently deployed by the Luftwaffe during WWII.	Although efforts were made to identify the presence of unexploded ordnance following an air raid, often the damage and destruction caused by detonated bombs made observation of UXB entry holes impossible. The entry hole of an unexploded bomb can be as little as 20cm in diameter and was easily overlooked in certain ground conditions (see Annex E). Furthermore, ARP documents describe the danger of assuming that damage, actually caused by a large UXB, was due to an exploded smaller bomb. UXBs therefore present the greatest risk to present—day intrusive works.
1kg Incendiary bombs (IB)	In terms of the number of weapons dropped, small IBs were the most numerous. Millions of these were dropped throughout WWII.	IBs had very limited penetration capability and in urban areas would often have been located in post-raid surveys. If they failed to initiate and fell in water, on soft vegetated ground, or bombed rubble, they could easily go unnoticed.
Large Incendiary bombs (IB)	These were not as common as the 1kg IBs, although they were more frequently deployed than PMs and AP bomblets.	If large IBs did penetrate the ground, complete combustion did not always occur and in such cases they could remain a risk to intrusive works.
Aerial or Parachute mines (PM)	These were deployed less frequently than HE and IBs due to size, cost and the difficulty of deployment.	If functioning correctly, PMs would generally have had a slow rate of descent and were very unlikely to have penetrated the ground. Where the parachute failed, mines would have simply shattered on impact if the main charge failed to explode. There have been extreme cases when these items have been found unexploded. However, in these scenarios, the ground was either extremely soft or the munition fell into water.
Anti-personnel (AP) bomblets	These were not commonly used and are generally considered to pose a low risk to most works in the UK.	SD2 bomblets were packed into containers holding between 6 and 108 submunitions. They had little ground penetration ability and should have been located by the post-raid survey unless they fell into water, dense vegetation or bomb rubble.





10.3 Failure Rate of German Air Delivered Ordnance

It has been estimated that 10% of WWII German air delivered HE bombs failed to explode as designed. Reasons for why such weapons might have failed to function as designed include:

- Malfunction of the fuze or gain mechanism (manufacturing fault, sabotage by forced labour or faulty installation).
- Many were fitted with a clockwork mechanism that could become immobilised on impact.
- Failure of the bomber aircraft to arm the bombs due to human error or an equipment defect.
- Jettisoning the bomb before it was armed or from a very low altitude. This most likely occurred if the bomber aircraft was under attack or crashing.

From 1940 to 1945, bomb disposal teams reportedly dealt with a total of 50,000 explosive items of 50kg, over 7,000 anti-aircraft projectiles and 300,000 beach mines. Unexploded ordnance is still regularly encountered across the UK, see press articles in $\bf Annex \, F$.

UXB Ground Penetration

An important consideration when assessing the risk from a UXB is the likely maximum depth of burial. There are several factors which determine the depth that an unexploded bomb will penetrate:

- Mass and shape of bomb.
- Height of release.
- Velocity and angle of bomb.
- Nature of the ground cover.
- Underlying geology.

Geology is perhaps the most important variable. If the ground is soft, there is a greater potential of deeper penetration. For example, peat and alluvium are easier to penetrate than gravel and sand, whereas layers of hard strata will significantly retard and may stop the trajectory of a UXB.

10.4.1. The J-Curve Principle

J-curve is the term used to describe the characteristic curve commonly followed by an air delivered bomb dropped from height after it penetrates the ground. Typically, as the bomb is slowed by its passage through underlying soils, its trajectory curves towards the surface. Many UXBs are found with their nose cone pointing upwards as a result of this effect. More importantly, however, is the resulting horizontal offset from the point of entry. This is typically a distance of about one third of the bomb's penetration depth, but can be higher in certain conditions (see **Annex E**).

WWII UXB Ground Penetration Studies

During WWII the Ministry of Home Security undertook a major study on actual bomb penetration depths, carrying out statistical analysis on the measured depths of 1,328 bombs as reported by bomb disposal (BD) teams. Conclusions were drawn predicting the likely average and maximum depths of penetration of different sized bombs in different geological strata.

For example, the largest common German bomb (500kg) had a likely concluded penetration depth of 6m in sand or gravel but 11m in clay. The maximum observed depth for a 500kg bomb was 11.4m and for a 1,000kg bomb 12.8m. Theoretical calculations suggested that significantly greater penetration depths were probable.





10.4.3 Route Specific Bomb Penetration Considerations

When considering an assessment of the bomb penetration along the route of proposed works the following parameters should be used:

- WWII geology Oxford Clay Formation Mudstone.
- Impact angle and velocity 10-15° from vertical and 270 metres per second.
- Bomb mass and configuration The 500kg SC HE bomb, without retarder units or armour piercing nose (this was the largest of the common bombs used against Britain).

It has not been possible to determine maximum bomb penetration capabilities at this stage due to route-specific geotechnical information being unavailable for this report. An assessment can be made once further information becomes available or by an UXO Specialist on-site.

10.5. V-Weapons

Hitler's 'V-weapon' campaign began from mid-1944. It used newly developed unmanned cruise missiles and rockets. The V-1, known as the flying bomb or pilotless aircraft, and the V-2, a long range rocket, were launched from bases in Germany and occupied Europe. A total of 9,251 V-1s and 1,115 V-2s were recorded in the United Kingdom.

Although these weapons caused considerable damage, their relatively low numbers allowed accurate records of strikes to be maintained. These records have mostly survived. There is a negligible risk from unexploded V-weapons on land today. Even if the 1,000kg warhead failed to explode, the weapons are so large that they would have been observed and dealt with at the time. Therefore, any V-weapons referenced in this report are referenced not as a viable risk factor, but primarily in order to help account for evidence of damage and clearance reported.

10.6. Introduction to WWII-era Bombing Decoy Sites

The decoy principal – drawing German bombers away from their designated targets onto dummy sites five or six miles away – began in WWI to protect RAF stations. In 1939, a new department was set up to investigate and coordinate the concept of defence by deception. A whole range of decoy sites were developed – some of them became very elaborate and covered large areas.

Common WWII Decoy Site Variants		
Decoy Type	Description	
K-site	Daytime dummy airfield. Dummy aircraft and infrastructure.	
Q-site	Night time dummy airfield. Intended to represent the working lights of an airfield after dark.	
QL	Night time dummy infrastructure. Replicating the lights and workings of marshalling yards, naval installations, armament factories etc.	
QF	Fire based decoy. Initially for aircraft factories, RAF maintenance units and ordnance works to simulate them on fire following bombing.	
Oil QF	Simulation of burning oil tanks.	
Starfish	Replicating a city under incendiary attack.	

By June 1944, decoy sites had been attacked on 730 occasions. Attacks ranged from a single night-time bomber dropping its load onto a "Q" site, to the mass attacks on Starfish sites. In misleading air attacks away from intended targets, they were responsible for protecting cities, key Allied installations and saved the lives of thousands of people.

As WWII decoys were specifically designed to be bombed, proposed works planned in the vicinity of such installations can be at an elevated risk from German air delivered UXBs. It was not uncommon for evidence of UXBs at a decoy site to be overlooked following an air raid. Given that such installations were on open ground, sometimes agricultural fields, UXB entry holes were not always evident.



11. The Likelihood of Contamination from German Air Delivered UXBs

11.1. World War I

During WWI Britain was targeted and bombed by Zeppelin Airships as well as Gotha and Giant fixed-wing aircraft. The objective of these raids was to unnerve the British public, to destroy strategic targets and to ultimately attempt to coerce Britain's capitulation from the war. A WWI map of air raids and naval bombardments across the UK was consulted, see **Annex G**. This source shows that the areas in which the route runs through north Bedfordshire and Huntingdonshire was not targeted during WWI.

WWI bombs were generally smaller and dropped from a lower altitude than those used in WWII. This resulted in limited UXB penetration depths. Aerial bombing was often such a novelty at the time that it attracted public interest and even spectators to watch the raids in progress. For these reasons there is a limited risk that UXBs passed undiscovered in the urban environment. When combined with the relative infrequency of attacks and an overall low bombing density, the risk from WWI UXBs is considered low and will not be further addressed in this report.

World War II Bombing of the Bedford Rural District and St Neots Rural District

The Luftwaffe's main objective for the attacks on Britain was to inhibit the country's economic and military capability. To achieve this they targeted airfields, depots, docks, warehouses, wharves, railway lines, factories, and power stations. As the war progressed the Luftwaffe bombing campaign expanded to include the indiscriminate bombing of civilian areas in an attempt to subvert public morale.

During WWII the route was located across the Bedford Rural District and St Neots Rural District. Both of these districts sustained very low densities of bombing as represented by bomb density data figures and maps, see **Annex H**. This was mainly due to the route's largely rural nature. However, Airfield Bombing Decoy Q144a – situated immediately south-west of the route – may have potentially attracted a degree of bombing. Furthermore, sporadic bombing incidents may have been part of an effort to target airfields in the districts, such as RAF Graveley (see Luftwaffe target mapping in **Annex I**) RAF Little Staughton, and RAF Thurleigh.

Records of bombing incidents in the civilian areas of the district were typically collected by Air Raid Precautions wardens and collated by Civil Defence personnel. Some other organisations, such as port and railway authorities, maintained separate records. Records would be in the form of typed or hand written incident notes, maps and statistics. Bombing data was carefully analysed, not only due to the requirement to identify those parts of the country most needing assistance, but also in an attempt to find patterns in the Germans' bombing strategy in order to predict where future raids might take place.

Records of bombing incidents are presented in the following sections.

⁵ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014





WWII Home Office Bombing Statistics

The following table summarises the quantity of German air delivered bombs (excluding 1kg incendiaries and anti-personnel bombs) dropped along the route area between 1940 and 1945.

	Record of German Ordnance Dropped on the Route Area									
		Weapons								
District	Area Acreage	High Explosive (HE) Bombs	Parachute Mines	Oil Bombs	Phosphorus Bombs	Fire Pots	V- 1s	V- 2s	Total	Number of Items per 1,000 acres
Bedford RD	112,580	283	1	10	0	0	2	0	296	2.6
St Neots RD	52,559	156	0	2	0	0	0	0	158	3

Source: Home Office Statistics

This table does not include UXO found during or after WWII.

Detailed records of the quantity and locations of the 1kg incendiary and anti-personnel bombs were not routinely maintained by the authorities as they were frequently too numerous to record. Although the risk relating to IBs is lesser than that relating to larger HE bombs, they were similarly designed to inflict damage and injury. Anti-personnel bombs were used in much smaller quantities and are rarely found today but are potentially more dangerous. Although Home Office statistics did not record these types of ordnance, both should not be overlooked when assessing the general risk to personnel and equipment.

11.4. Bedfordshire County Bomb Map

A bomb map plotting all the high explosive, parachute mine, oil bomb, incendiary bomb, and flying bomb strikes across the County of Bedfordshire was obtained from Huntingdon Library and Archive and consulted for the purpose of this report.

Given the small scale of this mapping, covering the entirety of Bedfordshire, it is anticipated to be of limited accuracy and is not thought to have been comprehensive in nature. However, it does give a good indication of the areas which sustained a higher local bomb density. The relevant section of the mapping has been presented in **Annex J** and is discussed below.

Bedfordshire County Bomb Map – Annex J			
Date Range	Comments		
1940-1945	No bombing incidents appear to have fallen along the exact line of the route within Bedfordshire. However, three high explosive (HE) bombs dropped to the east of the route within the civil parish of Eaton Socon.		
	Numerous HE and incendiary bombs (IB) fell to the south-west of the route in the vicinity of Keysoe and former RAF Thurleigh. Four IBs and a single HE bomb fell to the north of the route in proximity to the village of Pertenhall.		



Huntingdonshire High Explosive (HE) and Incendiary Bomb (IB) Map

A map illustrating the locations of bomb strikes across the district of Huntingdonshire was obtained from the Huntingdon Library and Archives. This map was compiled by local ARP personnel and records both the general locations of bomb strikes as well as the number of bombs to have fallen in each location. Due to the scale of this map, it is not possible to pinpoint the number of strikes to have fallen on the route area, however the map provides an indication of the incidents in the immediate vicinity. The table below features an overview of this map, which is also presented in **Annex K**.

Huntingdonshire High Explosive (HE) and Incendiary Bomb (IB) Map – Annex K			
Date Range	Comments		
1940-1943	This map does not indicate that any HE bombs or IBs fell along the route. 20 IBs dropped immediately to the north of the route in the vicinity of Great Staughton. Numerous bombing incidents occurred within the parish of Eaton Socon. Three IBs appear to have fallen within the immediate vicinity of the south-east of the route near Little Barford.		

11.6. Bedfordshire Record of Unexploded Bombs and Parachute Mines

A UXB register for the county of Bedfordshire was obtained from Bedfordshire Archives. This document consists of: serial number; date and time of incident and report to Region; type of bomb; location; category; name and telephone number of contact; remarks; date of disposal. Relevant incidents are transcribed below and presented in **Annex L**.

Bedfordshire Red	Bedfordshire Record of Unexploded Bombs and Parachute Mines – Annex L				
Date	Comments				
11 th April 1941	Date and Time of Incident: 11th April 1941 at 20:00				
	Date and Time of Report to Region: 11th April 1941, 10:30hrs				
	Type of Bomb: Unexploded High Explosive Bomb (UXHE)				
	Location: Mill Farm, Swineshead, RISELEY				
	Category: C				
	Name and Telephone Number of Contact: Police Constable. Riseley 65				
	Remarks: Three houses evacuated. Road closed				
	Date of Disposal: 18 th April 1941				
	Bomb Disposal Squadron (BDS) Reference: Received from Police Control				
	This incident occurred approximately 600m west of the route.				
24 th June 1942	Date and Time of Incident: notified 14.55 hours, 24/6/42				
	Date and Time of Report to Region: 17.15hrs, 24/6/42				
	Type of Bomb: UXB				
	Location: Lodge Farm, Little Staughton Beds				
	Category: C				
	Name and Telephone Number of Contact: Police Constable. Riseley 65				
	Remarks: agri. ground				
	Date of Disposal: 7 th July 1942				
	Lodge Farm immediately adjoins the route to the north, south, and west; the surrounding agricultural fields of the route were likely associated with it. This may have occurred within the route.				





11.7. Bedfordshire Air Raid Incident Records

During WWII, Air Raid Precaution (ARP) incident records were compiled across Bedfordshire. This record provides information regarding the date, location, number and bomb types of all known incidents, as well as aircraft accidents across the county between 1940 and 1945. Please note that additional records affecting the wider area were omitted due to their lack of specificity or anticipated distance from the site. Relevant records are transcribed below and are presented in **Annex M**.

Date Range	Comments
3 rd September 1940	"IN" MESSAGES
– Annex M1	Date: 3 rd September 1940
	Time of Origin: 07:45
	Details: Unexploded bomb by Kangaroo Inn, Little Staughton
	Date: 3 rd September 1940
	Time of Origin: 10:20
	Details: Unexploded bombs not yet located (3)
	Date: 3 rd September 1940
	Time of Origin: 10:35
	Details: Ref 07:45 unexploded bomb located in field adjacent to Kangaroo Inn 200 yards due east Keysoe St Neots Rd. Little Staughton
	The site of the now closed Kangaroo Inn is surrounded by the route. The fields adjacent to the Inn are within the route. It is therefore considered likely that this unexploded bomb (UXB) was located within the route.
	Date: 3 rd September 1940
	Time of Origin: 20:45
	Details: Ref 07:45 2 more unexploded bombs have been located at Little Staughton, one in M . Whitlocks field Δ one in M Hoppertons field between Keysoe Δ Little Staughton
	An online index refers to Whitlock of Mill Hill, Keysoe ⁶ – Mill Hill being situated just west of the route area. This index also refers to Hopperton of Manor Farm, Little Staughton ⁷ – Manor Farm being situated just east of the route area. Many of the fields within the route were situated between these two points [between Keysoe and Little Staughton] and it is therefore plausible that these two UXBs / fields were located within the route.

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 $^{^6~}https://www.haine.org.uk/toms_wills/wills_data.php?parish=Bedfordshire\delta page=8$

⁷ https://www.haine.org.uk/toms_wills/wills_data.php?parish=Bedfordshire&page=6



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16th November

1940

"IN" MESSAGES

Date: 16th November 1940 Time of Origin: 00.45

Details: IBs dropped at Pertenhall near Manor House. Rest of stables burnt. Fire put out.

Time of Origin: 10.08

Details: Ref 00.45. Several UXIBs in village Senior warden investigating.

Time of Origin: 00.45

Details: Ref 10.08 Two UXIB found & handed over to police. 73 IB found exploded in this area.

Manor House, Pertenhall, was situated approximately 285m north-east of the route.

24th June 1942 –

"IN" MESSAGES

Date: 24th June 1942 Time of Origin: 17:15

Details: Unexploded bomb (UXB) found at Lodge Farm, Little Staughton, Bedfordshire. Map reference: 544825. Diameter of hole 12". Estimated size 50kg. Soil: Clay, depth 15ft. Place affected: agricultural fields needed for deep ploughing. No part of bomb exposed. Believed to have been dropped in October 1940.

"OUT" MESSAGES

Date: 24th June 1942

Time of Origin: 08:40

Details: Unexploded bomb (UXB) found at Lodge Farm, Little Staughton, Bedfordshire. Map reference: 544825. Diameter of hole 12". Estimated size 50kg. Soil: Clay, depth 15ft. Place affected: agricultural fields needed for deep ploughing. No part of bomb exposed. Category C. Serial No. B/28. 19. Bomb Disposal (BD) Company Royal Engineers (RE) on site dealing with bomb.

Lodge Farm immediately adjoins the route to the north, south, and west; the surrounding agricultural fields of the route were likely associated with it. The given grid reference places the incident within fields directly bordering the route.

11.8. Huntingdonshire Record of Unexploded Bombs and Parachute Mines

A UXB register for the county of Huntingdonshire was obtained from Huntingdon Library and Archives. This document consists of: serial number; date and time of incident and report to Region; type of bomb; location; category; name and telephone number of contact; remarks; date of disposal. This record was checked, and no reference could be found to any locations on route.

11.9. Huntingdonshire ARP Incident Journal June 1940 – April 1945

A Huntingdonshire ARP Incident Journal covering June 1940 – April 1945 was obtained from Huntingdon Library and Archives. This journal included information such as the type, date and location of bombing incidents across the county. This record set was checked and no reference was found to any incidents on route.







11.10. WWII-Era Aerial Photography

WWII-era aerial photography for the route area was obtained from the National Monuments Record Office (Historic England). This photography provides a record of the potential composition of the route during the war, as well as its condition immediately following the war (see $\bf Annex\,N$).

WWII-Era Aerial P	Photography – Annex N1-N7
Date	Description
1945 – Annex N1	This image (left of Annex N1) shows the far south-east of the route in the vicinity of Eaton Socon. It comprises several open fields that are likely agricultural in nature. A roadway intersects the route in the north of this section. There are no obvious signs of damage to the route or its environs. Signs of damage along the route would likely have taken the form of cratering, scattered earth, indentations in the ground, and rubble and debris near residential properties. However, it should be noted that these damage indicators may not be obvious in the available photography, given its low resolution. The white marks within the north of this image are to be damage to the photography.
1945 – Annex N1	Showing a narrow section of the route (right of Annex N1), it comprises open fields, hedgerows, and a roadway. Once more, no clear damage indicators can be seen across this section of the route. These would likely include cratering, scattered earth, indentations in the ground across undeveloped areas.
1945 – Annex N2	Again, this section of the route to the north of Duloe comprises a series of open fields, split by hedgerows and other field boundaries. No clear damage indicators can be seen across this section of the route. These would likely include cratering, scattered earth, indentations in the ground across undeveloped areas. The areas of discolouration in the north of the image are thought to be damage to the photography.
1945 – Annex N3	Comprising numerous open fields and smaller areas of woodland, this section of the route bounds Western Pastures Farm and a roadway. There are no obvious signs of damage to the route or its environs. Signs of damage on site would likely have taken the form of cratering, scattered earth, indentations in the ground, and rubble and debris near farmsteads.
1945 – Annex N4	This image shows the route to the south of Great Staughton. It consists of open fields, areas of woodland, agricultural structures, and access tracks. Although no obvious signs of damage can be seen across this section of the route, there is an area of discolouration at the centre of this image. These are likely related to agriculture. In addition, the small circular marks may be areas for cattle feeding.
1945 – Annex N5	Showing a largely undeveloped area of the route running through open agricultural land. Several roadways cross the route in this section to the north of Little Staughton. Numerous farms also adjoin the route. Several small areas of discolouration can be observed across the site, some – including in the south and north-west of the route – are circular in nature. This may not necessarily be evidence of bomb cratering, but could be an area where livestock were fed.



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1945 – Annex Nó	The far west of the route is shown within this image in proximity to Pertenhall and Swineshead. It predominantly comprises open field.
	There are no obvious signs of damage to the route or its environs. Signs of damage on site would likely have taken the form of cratering, scattered earth, indentations in the ground, and rubble and debris near residential properties. However, it should be noted that these damage indicators may not be obvious in the available photography, given its low resolution.
10 th August 1945 – Annex N7	This image shows the extreme south-west of the route. Within this section, the route consists of numerous open fields – likely agricultural in nature – and the structures of Middle Lodge.
	There are no obvious signs of damage to the route or its environs. Signs of damage within this image would likely have taken the form of cratering, scattered earth, indentations in the ground, and rubble and debris near farm buildings.

11.11. Airfield Bombing Decoy 144a Swineshead

Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the south-western end of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. A control building was originally located on the site at TL 063 639 [approximately 160m distant from the route], although by the 1970s the site had been given over to agricultural use and no features of the decoy remain.

A map of UK decoy sites showing the site is presented in **Annex O** and examples of decoy sites are presented in **Annex P**.

11.12 Abandoned Bombs

A post air-raid survey of buildings, facilities, and installations would have included a search for evidence of bomb entry holes. If evidence of an entry hole was encountered, Bomb Disposal Officer Teams would normally have been requested to attempt to locate, render safe, and dispose of the bomb. Occasionally, evidence of UXBs was discovered but due to a relatively benign position, access problems, or a shortage of resources the UXB could not be exposed and rendered safe. Such an incident may have been recorded and noted as an 'abandoned bomb'.

Given the inaccuracy of WWII records, and the fact that these bombs were 'abandoned', their locations cannot be considered definitive or the lists exhaustive. The MoD states that 'action to make the devices safe would be taken only if it was thought they were unstable'. It should be noted that other than the 'officially' abandoned bombs, there will inevitably be UXBs that were never recorded.

1st Line Defence holds no records of officially registered abandoned bombs at or near the route of the proposed works.

11.13. Bomb Disposal Tasks

The information service from the Explosive Ordnance Disposal (EOD) Archive Information Office at 33 Engineer Regiment (now part of 29 EOD & Search Group) no longer processes commercial requests for information. It has therefore not been possible to include any updated official information regarding bomb disposal/clearance tasks with regards to this route. A database of known disposal/clearance tasks has been referred to which does not make reference to such instances occurring along the route of proposed works. If any relevant information is received at a later date, Smith Grant LLP will be advised.

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⁸ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014



11.14. Evaluation of German Air Delivered UXO Records

German Air Delivered UXO Record	ds Summary
Factors	Conclusion
Density of Bombing It is important to consider the bombing density when assessing the possibility that UXBs remain in an area. High bombing density could allow for error in record keeping due to extreme damage caused to the area.	During WWII the site was situated within both the Bedford Rural District and the St Neots Rural District. According to official Home Office bombing statistics both of these districts sustained very low densities of bombing. 296 items of ordnance fell across the Bedford Rural District, or an average of 2.6 items per 1,000 acres. 158 items of ordnance fell across the St Neots Rural District, or an average of 3 items per 1,000 acres. This was likely due to the rural nature of both districts. The few bombs that fell across north Bedfordshire and Huntingdonshire targeted transport infrastructure and RAF airfields such as RAF Graveley, RAF Little Staughton, and RAF Thurleigh. Bedfordshire Air Raid Incident Records detail one unexploded bomb in a field east of the former site of the Kangaroo Inn and another in a field at Lodge Farm, Little Staughton. Given that the route is occupied by fields surrounding these locations, it cannot be discounted that these may have fallen within the route itself. In addition, two more UXBs were recorded in fields between Keysoe and Little Staughton; many of the fields within the route were located between these two points and it is therefore plausible that this bombing may have occurred on route. No positive evidence has been found to suggest that the remaining majority of the route was subject to any further incidents of bombing.
Damage A high explosive bomb strike in an area of open agricultural land will have caused soil disturbance, increasing the risk that a UXB entry hole would be overlooked.	Due to the size and nature of the route, it has not been possible to precisely assess signs of damage across the entire route in detail. However, WWII-era aerial imagery – dated 1945 – shows no obvious damage along much of the length of the route. There are some areas of discolouration that are not thought to be evidence of bomb damage, but rather agricultural activity. Given the route's largely rural, undeveloped nature, it is difficult to identify obvious signs of bomb damage, such as missing or ruined structures. No further references were found to bomb damage along any of the roadways that crossed the route.
Ground Cover The nature of the ground cover present during WWII would have a substantial influence on any visual indication that may indicate UXO being present.	Given that much of the route was occupied by open rural land, it is considered possible that UXBs could have gone undetected, as bomb entry holes may have been easily obscured or overlooked. For example, the entry hole for a 50kg UXB can be as small as 20cm in diameter. As such, the possibility that an item of UXO fell along the route unnoticed and unrecorded cannot be confidently discounted. Areas that were occupied by roadways are considered to have been more conducive toward the observation of evidence of UXO.
Access Frequency UXO in locations where access was irregular would have a greater chance of passing unnoticed than at those that were regularly occupied.	Given the length of the route, it is difficult to assess exact access levels throughout its entirety. Generally, open fields are not anticipated to have received regular access and inspections. Any access would have likely been seasonal. Evidence of UXO is more likely to have been noticed and recorded within frequently accessed areas such as those adjacent to roadways or farmsteads.
Bomb Failure Rate	There is no evidence to suggest that the bomb failure rate in the locality of the site would have been dissimilar to the 10% normally used.



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Abandoned Bombs	1 st Line Defence holds no records of abandoned bombs at or within the site vicinity.
Bombing Decoy sites	Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. A control building was originally located on the site at TL 063 639 [approximately 160m distant from the route], although by the 1970s the site had been given over to agricultural use and no features of the decoy remain. No evidence has been found to suggest that this decoy sustained any bombing.
Bomb Disposal Tasks	1 st Line Defence could find no evidence of bomb disposal tasks within the site boundary and immediate area.

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 $^{^9~}https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833\&resourceID=1014$





12 Introduction to Allied Ordnance

12.1. General

Many areas across the UK may be at risk from Allied UXO because of both wartime and peacetime military use. Typical military activities and uses that may have led to a legacy of military UXO at a site include former minefields, home guard positions, anti-aircraft emplacements, training and firing ranges, military camps, as well as weapons manufacture and storage areas.

Although land formerly used by the military was usually subject to clearance before returned to civilian use, items of UXO are sometimes discovered and can present a potential risk to construction projects.

This section of the report discusses the generic types of Allied ordnance typically encountered on areas associated with former military activity.

Defending the UK From Aerial Attack

During WWII the War Office employed a number of defence tactics against the Luftwaffe from bombing major towns, cities, manufacturing areas, ports and airfields. These can be divided into passive and active defences (examples are provided in the table below).

Active Defences	Passive Defences		
Anti-aircraft gun emplacements to engage enemy aircraft.	 Blackouts and camouflaging to hinder the identification of Luftwaffe targets. 		
 Fighter aircraft to act as interceptors. Rockets and missiles were used later during WWII. 	 Decoy sites were located away from targets and used dummy buildings and lighting to replicate urban, military, or industrial areas. 		
	 Barrage balloons forced enemy aircraft to greater altitudes. 		
	 Searchlights were often used to track and divert adversary bomber crews during night raids. 		

Active defences such as anti-aircraft artillery present a greater risk of UXO contamination than passive defences. Unexploded ordnance resulting from dogfights and fighter interceptors is rarely encountered and difficult to accurately qualify.



12.3 Anti-Aircraft Artillery (AAA)

During WWII three main types of gun sites existed: heavy anti-aircraft (HAA), light anti-aircraft (LAA) and 'Z' batteries (ZAA). If the projectiles and rockets fired from these guns failed to explode or strike an aircraft they would descend back to land. The table below provides further information on the operation and ordnance associated with these type of weapons.

Anti-Aircraft Artillery					
Item	Description				
НАА	These large calibre guns such as the 3.7" QF (Quick Firing) were used to engage high flying enemy bombers. They often fired large HE projectiles, which were usually initiated by integral fuzes, triggered by impact, area, time delay or a combination of aforementioned mechanisms.				
LAA	These mobile guns were intended to engage fast, low flying aircraft. They were typically rotated between locations on the perimeters of towns and strategically important industrial works. As they could be moved to new positions with relative ease when required, records of their locations are limited. The most numerous of these were the 40mm Bofors gun which could fire up to 120 x 40mm HE projectiles per minute to over 1,800m.				
Variations in HAA and LAA	Gun type	Calibre	Shell Weight	Shell Dimensions	
Ammunition	3.0 Inch	76mm	7.3kg	76mm x 356mm	
	3.7 Inch	94mm	12.7kg	94mm x 438mm	
	4.5 Inch	114mm	24.7kg	114mm x 578mm	
	40mm	40mm	0.9kg	40mm x 311mm	
Z-AA	Rockets were commonly designed to destroy heavily armoured military vehicles (antitank weapon). The device contains an explosive head (warhead) that can be accelerated using internal propellants to an intended target. Anti-aircraft rocket batteries were also utilised as part of air defence measures.				

The conditions in which anti-aircraft projectiles may have fallen unnoticed within a site area are analogous to those regarding air delivered ordnance. Unexploded anti-aircraft projectiles could essentially have fallen indiscriminately anywhere within range of the guns. The chance of such items being observed, reported and removed during the war depends on factors such as land use, ground cover, damage and frequency of access – the same factors that govern whether evidence of a UXB is likely to have been noted. More information about these factors with regards to this particular route can be found in the German Air Delivered Ordnance section of this report.

Illustrations of Anti-Aircraft artillery, projectiles and rockets are presented at **Appendix iv**.



12.4 Land Service Ammunition

The term LSA covers items of ordnance that are propelled, placed, or thrown during land warfare. These items may be filled or charged with explosives, smoke, incendiary, or pyrotechnics and can be divided into five main groups:

Land Service Ammunition (LSA)				
Item	Description			
Mortar Rounds	A mortar round is normally nosed-fused and fitted with its own propelling charge. Its flight is stabilised by the use of a fin. They are usually tear-drop shaped (though older variants are parallel sided), with a finned 'spigot tube' screwed or welded to the rear end of the body which houses the propellant charge. Mortars are either High Explosive or Carrier (i.e. smoke, incendiary, or pyrotechnic).			
Grenades	A grenade is a short range weapon designed to kill or injure people. It can be hand thrown or fired from a rifle or a grenade launcher. Grenades either contain high explosive or smoke producing pyrotechnic compounds. The common variants have a classic 'pineapple' shape.			
Projectiles	A projectile (or shell) is propelled by force, normally from a gun, and continues in motion using its kinetic energy. The gun a projectile is fired from usually determines its size. A projectile contains a fuzing mechanism and a filling. Projectiles can be high explosive, carrier or Shot (a solid projectile).			
Rockets	Rockets were commonly designed to destroy heavily armoured military vehicles (anti-tank weapon). The device contains an explosive head (warhead) that can be accelerated using internal propellants to an intended target. Anti-aircraft rocket batteries were also utilised as part of air defence measures.			
Landmines	A landmine is designed to be laid on or just below the ground to be exploded by the proximity or contact of a person or vehicle. Landmines were often placed in defensive areas of the UK to obstruct potential invading adversaries.			

In the UK unexploded or partially exploded mortars and grenades are the most common items of LSA encountered, as they could be transported and utilised anywhere. They are mostly encountered in areas used for military training and are often found discarded on or near historical military bases.

Images of the most commonly found items of LSA are presented in **Appendices v - vii**.

12.5 Small Arms Ammunition

The most common type of ordnance encountered on land used by the military are items of Small Arms Ammunition (SAA). SAA refers to the complete round or cartridge designed to be discharged from varying sized hand-held weapons such as rifles, machine guns and pistols. SAA can include bullets, cartridge cases and primers/caps. Example images of the most SAA are presented in **Appendix viii.**



15 The Likelihood of Contamination from Allied Ordnance

III. Introduction

When undertaking construction work within or immediately adjacent to a route with previous and/or current military use, it is often considered likely to contain an elevated risk of contamination from Allied UXO. This assumption of risk is based on the following reasoning:

- The clearance of ordnance from military camps, depots, storage facilities, ranges and training areas were not always effectively managed, or undertaken to equivalent degrees of certainty. In addition, search and detection equipment used over seventy years ago following WWII has proved ineffective both for certain types of UXO and at depths beyond capability.
- In the vast majority of cases, explosive ordnance would have been stored and available for use at
 military installations. Ordnance ranged from small arms and land service ammunition to weapons
 components and larger, air delivered items. During periods of heightened activity, ordnance was also
 frequently lost in transit, particularly between stores and assigned training locations.
- The military generally did not anticipate that their land would be later sold for civilian development, and consequently appropriate ordnance disposal procedure was not always adhered to. It was not uncommon for excess or unwanted ordnance to be buried or burnt within the perimeters of a military establishment as a means of disposal. Records of such practice were rarely kept.

There are several factors that may serve to either affirm, increase, or decrease the level of risk along a route with a history of military usage. Such factors are typically dependent upon the proximity of the proposed area of works to training activities, munition productions and storage, as well as its function across the years.

This section will examine the history of the proposed route and assess to what degree, if any, the route could have become contaminated as a result of the military use of the surrounding area.

15.2 Airfield Bombing Decoy 144a Swineshead

Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. A control building was originally located on the site, although by the 1970s the site had been given over to agricultural use and no features of the decoy remain.

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¹⁰ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014



15.3 Evaluation of Contamination Risk from Allied UXO

1st Line Defence has considered the following potential sources of Allied ordnance contamination:

Allied UXO Records Summary		
Sources of Allied UXO Contamination	Conclusion	
Military Camps Military camps present an elevated risk from ordnance simply due to the large military presence and likelihood of associated live ordnance training.	Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. ¹¹	
	It was likely guarded by military personnel armed with items of SAA and LSA. ¹²	
	A Royal Observer Corps (ROC) Post was situated approximately 180m east of the route at Eaton Socon. It is unclear when this post opened, however, it is known to have closed in October 1968. ¹³ The ROC's network of monitoring posts were designed to confirm and report hostile aircraft and nuclear attacks on the United Kingdom. Given its nature, it is not thought to present a UXO risk to the route.	
	An overlay of these Allied features is presented in Annex Q .	
Anti-Aircraft Defences Anti-Aircraft defences were employed across the country. Proximity to anti-aircraft defences increases the chance of encountering AA projectiles.	1st Line Defence could find no evidence of Anti-Aircraft defences such as a HAA or LAA gun emplacement occupying or bordering the site. The closest HAA was located approximately 900m south-west of the south-eastern extremity of the route, in the vicinity of Eaton Socon. Despite this distance the maximum effective range of an AA projectile can be up to 15km. The conditions in which HAA or LAA projectiles may have fallen unnoticed within a site footprint are generally analogous to those regarding German air delivered ordnance.	
Home Guard Activity The Home Guard regularly undertook training and ordnance practice in open areas, as well as burying ordnance as part of anti-invasion defences.	Evidence of Home Guard activity is often difficult to locate, owing to the ad-hoc nature of Home Guard activity within each local area. Such training was often conducted on a small scale at the discretion of individual commanders and as such was seldom recorded officially. Imagery is presented in Annex Q showing No. 8 Battle Platoon, 5th Bedfordshire Battalion of the Home Guard at Staploe, approximately 1km to the south-west of the eastern portion of the route.	
Defensive Positions Defensive positions suggest the presence of military activity, which is often indicative of ordnance storage, usage or disposal.	There is no evidence of any pillbox, emplacement or other defensive features formerly located on or bordering the site footprint.	

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 $^{^{11}\} https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833\&resourceID=1014$

 $^{^{12} \ \}text{https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1464647\&resourceID=19191}$

¹⁵ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MCB16437&resourceID=1000



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Training or firing ranges Areas of ordnance training saw historical ordnance usage in large numbers, often with inadequate disposal of expended and live items. The presence of these ranges significantly impact on the risk of encountering items of ordnance in their vicinity.	No evidence of training or firing ranges could be found along the line of the route or its surrounding area.
Defensive Minefields Minefields were placed in strategic areas to defend the country in the event of a German invasion. Minefields were not always cleared with an appropriate level of vigilance.	There is no evidence of defensive minefields affecting the line of the route.
Ordnance Manufacture Ordnance manufacture indicates an increased chance that items of ordnance were stored, or disposed of, within a location.	No information of ordnance being stored, produced, or disposed of along the proposed route could be found.
Military Related Airfields Military airfields present an elevated risk from ordnance simply due to the large military presence and likelihood of associated live ordnance training or bombing practice.	There are several airfields in the general vicinity of the route, including both RAF Little Staughton (800m to the south) and RAF Thurleigh (2km to the south-west). Given these distances they are not thought to present a significant risk from Allied UXO contamination.





14. The Likelihood of UXO Contamination Summary

The following table assesses the likelihood that the route was contaminated by items of German air delivered and Allied ordnance. Factors such as the risk of UXO initiation, remaining, and encountering will be discussed later in the report.

UXO Contamina	ation Summary
Quality of the Historical Record	The research has evaluated WWII-era Ordnance Survey maps, WWI Map of Air Raids and Naval Bombardments, Luftwaffe target mapping, Bedfordshire County Bomb Map, Huntingdonshire High Explosive (HE) and Incendiary Bomb (IB) Map, Bedfordshire Air Raid Incident Records, Bedfordshire Record of Unexploded Bombs and Parachute Mines, WWII-era aerial photography, Decoy Site Mapping, and anecdotal sources available online and in-print. The record set is of generally adequate. Records concerning German bombing are significantly more comprehensive across the county of Bedfordshire in contrast to Huntingdonshire. However, despite its secrecy, limited material has been found detailing the success of Airfield Bombing Decoy 144a.
German Air-Delivered Ordnance	 During WWII the site was situated within both the Bedford Rural District and the St Neots Rural District. According to official Home Office bombing statistics both of these districts sustained very low densities of bombing. 296 items of ordnance fell across the Bedford Rural District, or an average of 26 items per 1,000 acres. Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. "I No positive evidence has been found to indicate that the decoy was bombed during the course of WWII however. Bedfordshire Air Raid Incident Records detail one unexploded bomb in a field east of the former site of the Kangaroo Inn and another in a field at Lodge Farm, Little Staughton, the latter involving a 50kg HE bomb. Given that the route is occupied by fields immediately surrounding and associated with these locations, it cannot be discounted that these may have fallen within the route itself. In addition, two more UXBs were recorded in fields between Keysoe and Little Staughton; many of the fields within the route were located between these two points and it is therefore plausible that this bombing may have occurred on route. No positive evidence has been found to suggest that the remaining majority of the route was subject to any further incidents of bombing however. Due to the size and nature of the route, it has not been possible to precisely assess signs of damage across the entire route in detail. However, WWII-era cerial imagery – dated 1945 – shows no obvious damage along much of the length of the route. There are some areas of discolouration that are not thought to

¹⁴ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014

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	 In summary, the risk from German air delivered ordnance is not thought to be homogenous across the route. The risk in sections of the route in which UXBs were recorded in fields at the Kangaroo Inn, Lodge Farm, Keysoe and Little Staughton have been elevated to <u>Medium</u> <u>Risk;</u> proactive risk mitigation measures are recommended within these areas.
	Otherwise, given that no positive evidence was found to suggest that the remaining majority of the route was subject to any bombing, the risk of contamination from items of unexploded ordnance in these remaining areas is not considered to be higher than the overall low 'background' for this area of Bedfordshire and Huntingdonshire. As such, the remaining majority of the route has been assessed as Low Risk . Whilst proactive risk mitigation measures are not deemed necessary, UXO safety awareness briefings are recommended as a sensible minimum precaution, particularly given the presence of a bomb decoy site adjacent to the west of the route.
	See German air delivered ordnance risk mapping in Annex R .
Allied Ordnance	Positive evidence has been found to indicate that a bombing decoy site was located within close proximity of the route at Willow Spinney, potentially within 400m of the route. Airfield Bombing Decoy 144a Swineshead was built to deflect enemy bombing from RAF Chelveston. This was a 'Q-type' night decoy, which displayed a sequence of lights to simulate an active airfield. It is known to have been in use throughout August 1942, however, its broader length of operation is unclear. ¹⁵ It was likely guarded by military personnel armed with items of SAA and LSA. ¹⁶
	 A Royal Observer Corps (ROC) Post was situated approximately 180m east of the route at Eaton Socon. It is unclear when this post opened, however, it is known to have closed in October 1968.¹⁷ The ROC's network of monitoring posts were designed to confirm and report hostile aircraft and nuclear attacks on the United Kingdom. Given its nature, it is not thought to present a UXO risk to the route.
	• Imagery is presented in Annex Q showing No. 8 Battle Platoon, 5th Bedfordshire Battalion of the Home Guard at Staploe, approximately 1km to the south-west of the eastern portion of the route. As such, ad-hoc Home Guard activity on/in close proximity to the route cannot be completely ruled out.
	There is not thought to be a significant risk from Allied UXO across the length of the route, and as such it has been assessed to be at Low Risk .

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¹⁵ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MBD17833&resourceID=1014
¹⁶ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1464647&resourceID=19191

¹⁷ https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MCB16437&resourceID=1000

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15 The Likelihood that UXO Remains

15.1. Introduction

It is important to consider the extent to which any explosive ordnance clearance (EOC) activities or extensive ground works have occurred along the route. This may indicate previous ordnance contamination or reduce the risk that ordnance remains undiscovered.

15.2 UXO Clearance

1st Line Defence has found no evidence in the public domain or within internal records that any official ordnance clearance operations have taken place along the route. Note however that we have not received confirmation of this fact from the 33 EOD Regiment Archive (now part of 29 EOD & Search Group). It should also be noted that in addition to 29 EOD & Search Group archival information, 1st Line Defence also do not currently have access to data that may be relevant including 5131(BD)SQN Archive, SD Training Technical Advisory Section (TAS) and MACA Records (bomb disposal callouts).

If such information is available at a later date, it is recommended that it be reviewed as it will assist with understanding both levels and types of contamination likely to be present, and may indicate risk reduction in certain areas.

153 Post-War Redevelopment

The majority of the route has not seen significant development since WWII. An electricity substation was subsequently constructed in the far south-east of the route.

The risk of UXO remaining is considered to be mitigated at the location of and down to the depth of any post-war redevelopment along the route. For example, the risk from deep buried UXO will only have been mitigated within the volumes of any post-war pile foundations or deep excavations for basement levels. The risk will however remain within virgin geology below and amongst these post-war works, down to the maximum bomb penetration depth.





The Likelihood of UXO Encounter

16.1. Introduction

For UXO to pose a risk at a site, there should be a means by which any potential UXO might be encountered on that site.

The likelihood of encountering UXO along the route of proposed works would depend on various factors, such as the type of UXO that might be present and the intrusive works planned on site. In most cases, UXO is more likely to be present below surface (buried) than on surface.

In general, the greater the extent and depth of intrusive works, the greater the risk of encountering. The most likely scenarios under which items of UXO could be encountered during construction works is during piling, drilling operations or bulk excavations for basement levels. The overall risk will depend on the extent of the works, such as the numbers of boreholes/piles (if required) and the volume of the excavations.

Generally speaking, the risk of encountering any type of UXO will be minimal for any works planned within the footprint and down to the depth of post-war foundations and excavations.

Encountering Air Delivered Ordnance

Since an air delivered bomb may come to rest at any depth between just below ground level and its maximum penetration depth, there is a chance that such an item (if present) could be encountered during shallow excavations (for services or site investigations) into the original WWII ground level as well as at depth.

Land Service/Small Arms Ammunition Encounter

Items of LSA and SAA are mostly encountered in areas previously used for military training. Such items could have been lost, burnt, buried or discarded during being in use by the military. Due to this, LSA are most likely to be encountered at relatively shallow depths – generally in the top 1m below ground level. Therefore, such items are most likely to be encountered during open excavation works. In some cases, there is the potential that LSA or SAA may be present on the surface of the ground – especially in areas with active military use or were recently in use by the MoD.



17 The Likelihood of UXO Initiation

17.1. Introduction

UXO does not spontaneously explode. Older UXO devices will require an external event/energy to create the conditions for detonation to occur. The likelihood that a device will function can depend on a number of factors including the type of weaponry, its age and the amount of energy it is struck with.

17.2 Initiating Air Delivered Ordnance

Unexploded bombs do not spontaneously explode. All high explosive filling requires significant energy to create the conditions for detonation to occur.

In recent decades, there have been a number of incidents in Europe where Allied UXBs have detonated, and incidents where fatalities have resulted. There have been several hypotheses as to the reason why the issue is more prevalent in mainland Europe – reasons could include the significantly greater number of bombs dropped by the Allied forces on occupied Europe, the preferred use by the Allies of mechanical rather than electrical fuzes, and perhaps just good fortune. The risk from UXO in the UK is also being treated very seriously in many sectors of the construction industry, and proactive risk mitigation efforts will also have affected the lack of detonations in the UK.

There are certain construction activities which make initiation more likely, and several potential initiation mechanisms must be considered:

UXB Initiation	
Direct Impact	Unless the fuze or fuze pocket is struck, there needs to be a significant impact e.g. from piling or large and violent mechanical excavation, onto the main body of the weapon to initiate a buried iron bomb. Such violent action can cause the bomb to detonate.
Re- starting the Clock	A small proportion of German WWII bombs employed clockwork fuzes. It is probable that significant corrosion would have taken place within the fuze mechanism over the last 70+ years that would prevent clockwork mechanisms from functioning. Nevertheless, it was reported that the clockwork fuze in a UXB dealt with by 33 EOD Regiment in Surrey in 2002 did re-start.
Friction Impact	The most likely scenario resulting in the detonation of a UXB is friction impact initiating the shock-sensitive fuze explosive. The combined effects of seasonal changes in temperature and general degradation over time can cause explosive compounds to crystallise and extrude out from the main body of the bomb. It may only require a limited amount of energy to initiate the extruded explosive which could detonate the main charge.

Land Service /Small Arms Ammunition Initiation

Items of LSA generally do not become inert or lose their effectiveness with age. Time can cause items to become more sensitive and less stable. This applies equally to items submerged in water or embedded in silts, clays, or similar materials. The greatest risk occurs when an item of ordnance is struck or interfered with. This is likely to occur when mechanical equipment is used or when unqualified personnel pick up munitions.

If left alone, an item of LSA will pose little/no risk of initiation. Therefore, if it is not planned to undertake construction/intrusive works at the site, the risk of initiation of any LSA that may be present would be negligible. Similarly, those accessing a contaminated area would be at minimal risk if they do not interfere with any UXO present on the ground. Clearly for many end uses, however, the presence of UXO anywhere on a site would not be acceptable as it could not be guaranteed that the items will not be handled, struck or otherwise affected, increasing the likelihood of initiation.

Items of SAA are much less likely to detonate than LSA or UXBs, but can be accidentally initiated by striking the casing, coming into contact with fire, or being tampered with/dismantled. It is likely that the detonation of an item of SAA would result in a small explosion, as the pressure would not be contained within a barrel. Detonation would only result in local overpressure and very minor fragmentation from the cartridge case.





18. Consequences of Initiation/Encounter

18.1 Introduction

The repercussions of the inadvertent detonation of UXO during intrusive ground works, or if an item or ordnance is interfered with or disturbed, are potentially profound, both in terms of human and financial cost. A serious risk to life and limb, damage to plant and total site shutdown during follow-up investigations are potential outcomes. However, if appropriate risk mitigation measures are put in place, the chances of initiating an item of UXO during ground works is comparatively low.

The consequences of encountering UXO can be particularly notable in the case of high-profile sites (such as airports and train stations) where it is necessary to evacuate the public from the surrounding area. A site may be closed for anything from a few hours to a week with potentially significant cost in lost time. It should be noted that even the discovery of suspected or possible item of UXO during intrusive works (if handled solely through the authorities), may also involve significant loss of production.

18.2 Consequences of Detonation

When considering the potential consequences of a detonation, it is necessary to identify the significant receptors that may be affected. The receptors that may potentially be at risk from a UXO detonation on a construction site will vary depending on the site specific conditions but can be summarised as follows:

- People site workers, local residents and general public.
- Plant and equipment construction plant on site.
- Services subsurface gas, electricity, telecommunications.
- Structures not only visible damage to above ground buildings, but potentially damage to foundations and the weakening of support structures.
- Environment introduction of potentially contaminating materials.



19. 1st Line Defence Risk Assessment

Risk Assessment Stages

Taking into account the quality of the historical evidence, the assessment of the overall risk from unexploded ordnance is based on the following five considerations:

- 1. That the site was contaminated with unexploded ordnance.
- 2. That unexploded ordnance remains on site.
- 3. That such items will be encountered during the proposed works.
- 4. That ordnance may be initiated by the works operations.
- 5. The consequences of encountering or initiating ordnance.

19.2 Assessed Risk Level

1st Line Defence has assessed that there is an overall <u>Low Risk</u> from German and anti-aircraft unexploded ordnance along much of the line of the route. Indeed there is a <u>Low Risk</u> from Allied Ordnance along the whole route. However, the sections between Keysoe and Little Staughton, surrounding Lodge Farm and the former Kangaroo Inn, have been elevated to <u>Medium Risk</u> for both German and anti-aircraft unexploded ordnance. See risk mapping in **Annex R**.

Majority of the Route:

C. I T	Risk Level			
Ordnance Type	Negligible	Low	Medium	High
German Unexploded HE Bombs		✓		
German 1kg Incendiary Bombs		✓		
Anti-Aircraft Artillery Projectiles		✓		
Allied Land Service and Small Arms Ammunition		✓		

Areas surrounding Lodge Farm and the former Kangaroo Inn:

Onder an an Torra	Risk Level			
Ordnance Type	Negligible	Low	Medium	High
German Unexploded HE Bombs			✓	
German 1kg Incendiary Bombs			✓	
Anti-Aircraft Artillery Projectiles			✓	
Allied Land Service and Small Arms Ammunition		✓		

Detailed Unexploded Ordnance Risk Assessment



East Park Smith Grant LLP

Please note – although the risk from unexploded ordnance along the majority of the route has been assessed as 'Low', this does not mean there is 'no' risk of encountering UXO. This report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified throughout this report. Our reports take a commonsense and practical approach to the assessment of risk, and we strive to be reasonable and pragmatic in our conclusions

It should however be stressed that if any suspect items are encountered during the proposed works, 1st Line Defence should be contacted for advice/assistance, and to re-assess the risk where necessary. The mitigation measures outlined in the next section are recommended as a minimum precaution to alert ground personnel to the history of the site, what to look out for, and what measures to take in the event that a suspect item is encountered. It should also be noted that the conclusions of this report are based on the scope of works outlined in the 'Proposed Works' section of this report. Should the scope of works change or additional works be proposed, 1st Line Defence should be contacted to re-evaluate the risk.



20: Proposed Risk Mitigation Methodology

20.1. General

The following risk mitigation measures are recommended to support the proposed works along the East Park route:

Recommended Risk Mitigation Measures		
Activity	Recommended Risk Mitigation Measure	
All Works	 UXO Risk Management Plan It is recommended that a site-specific plan for the management of UXO risk be written for this site. This plan should be kept on site and be referred to in the event that a suspect item of UXO is encountered at any stage of the project. It should detail the steps to be taken in the event of such a discovery, considering elements such as communication, raising the alarm, nominated responsible persons etc. Contact 1st Line Defence for help/more information. Site Specific UXO Awareness Briefings to all personnel conducting intrusive works. As a minimum precaution, all personnel working on the site should be briefed on the basic identification of UXO and what to do in the event of encountering a suspect 	
	item. This should in the first instance be undertaken by a UXO Specialist. Posters and information on the risk of UXO can be held in the site office for reference.	
Open Excavations (trial pits, service pits, bulk excavations, strip foundations etc.)	 Unexploded Ordnance (UXO) Specialist Presence on Site to support open excavations When on site the role of the UXO Specialist would include: Monitoring works using visual recognition and instrumentation, including 	
Medium Risk Areas	immediate response to reports of suspicious objects or suspected items of ordnance that have been recovered by the ground workers on site. Providing UXO awareness briefings to any uninformed staff and advise	
	staff of the need to modify working practices to take account of the ordnance risk.	
	To aid incident management which would involve liaison with the local authorities and police should ordnance be identified and present an explosive hazard.	
Boreholes and Piled Foundations	 Intrusive Magnetometer Survey of all borehole and pile locations down to a maximum bomb penetration depth: 	
Medium Risk Areas	1st Line Defence can deploy a range of intrusive magnetometer techniques to clear pile locations. The appropriate technique is influenced by a number of factors, but most importantly the site's ground conditions. The appropriate survey methodology would be confirmed once the enabling works have been completed.	

In making this assessment and recommending these risk mitigation measures, if known, the works outlined in the 'Scope of the Proposed Works' section were considered. Should the planned works be modified or additional intrusive engineering works be considered, 1st Line Defence should be consulted to see if a reassessment of the risk or mitigation recommendations is necessary.

1st Line Defence Limited 18/06/2024

This Report has been produced in compliance with the Construction Industry Research and Information Association (CIRIA) C681 guidelines for the writing of Detailed UXO Risk Assessments.





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Detailed Unexploded Ordnance Risk Assessment



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This report has been prepared by 1st Line Defence Limited with all reasonable care and skill. The report contains historical data and information from third party sources. 1st Line Defence Limited has sought to verify the accuracy and comprehensiveness of this information where possible but cannot be held accountable for any inherent errors. Furthermore, whilst every reasonable effort has been made to locate and access all relevant historical information, 1st Line Defence cannot be held responsible for any changes to risk level or mitigation recommendations resulting from documentation or other information which may come to light at a later date.

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Route Location Maps







Approximate Route Boundary Client: Smith Grant LLP

Source: Google Maps

Project: East Park

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Recent Aerial Photography





Client: Smith Grant LLP

— Approximate Route Boundary

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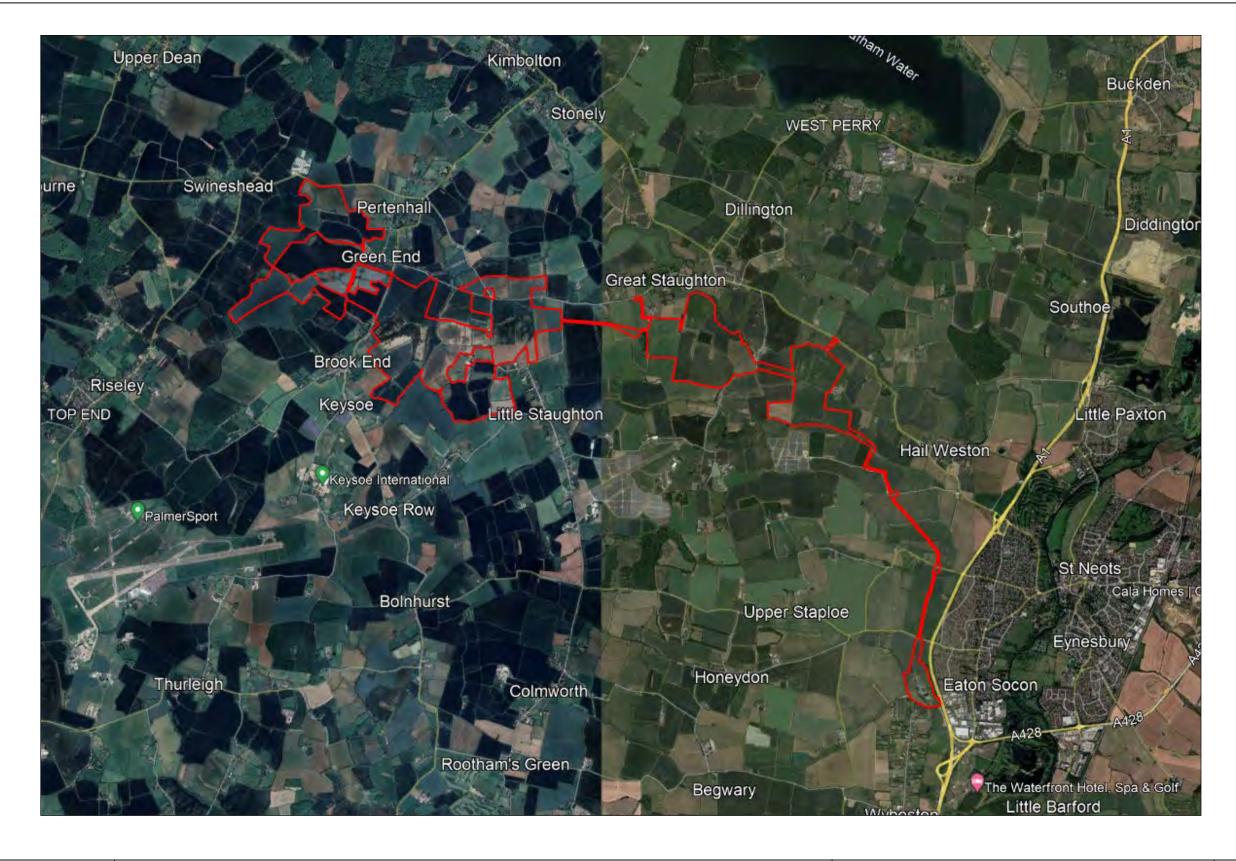
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Source: Google Earth





Client Provided Site Plan





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Approximate Route Boundary

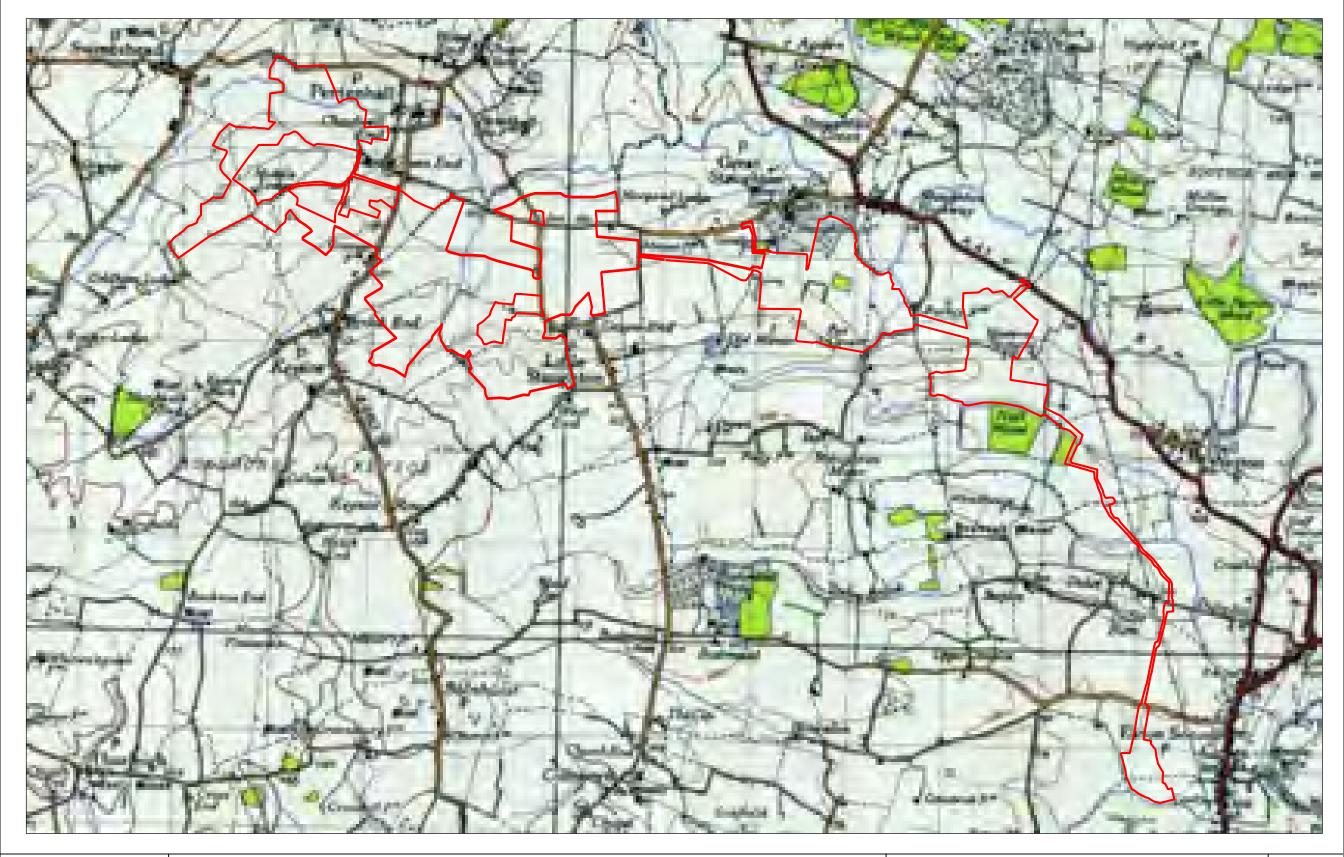
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Source: Smith Grant LLP



D1





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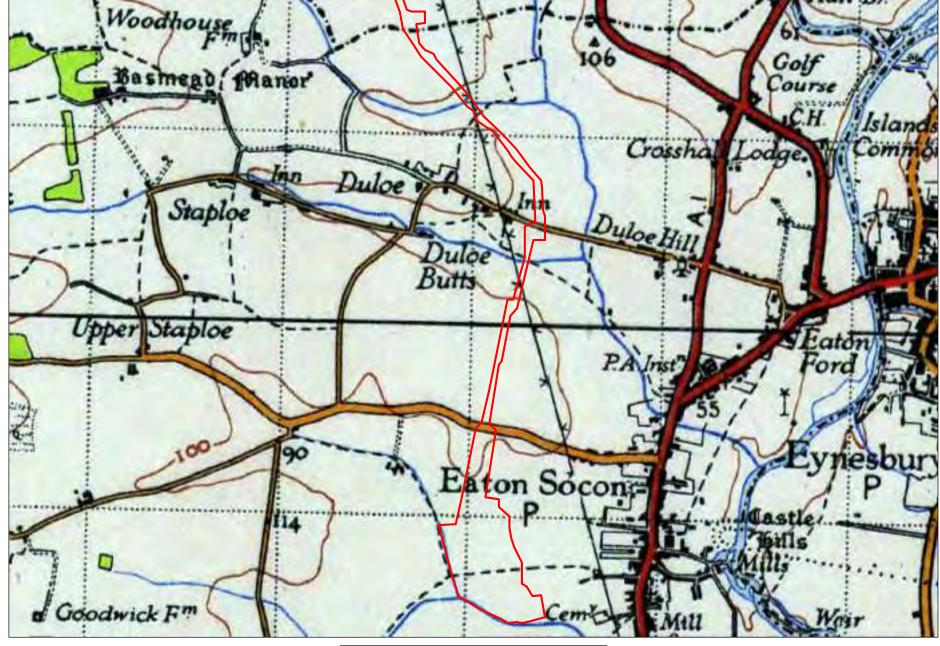
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Approximate Route Boundary



Source: Landmark Maps

WWII-Era Historical Mapping, 1946







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Project: East Park

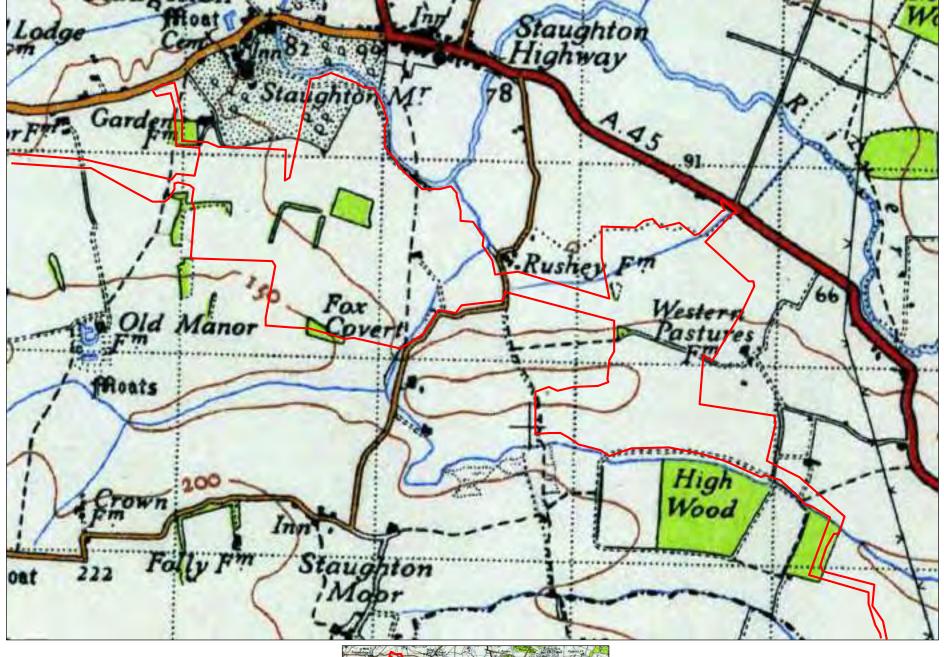
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Source: Landmark Maps

— Approximate Route Boundary

WWII-Era Historical Mapping, 1946

D3







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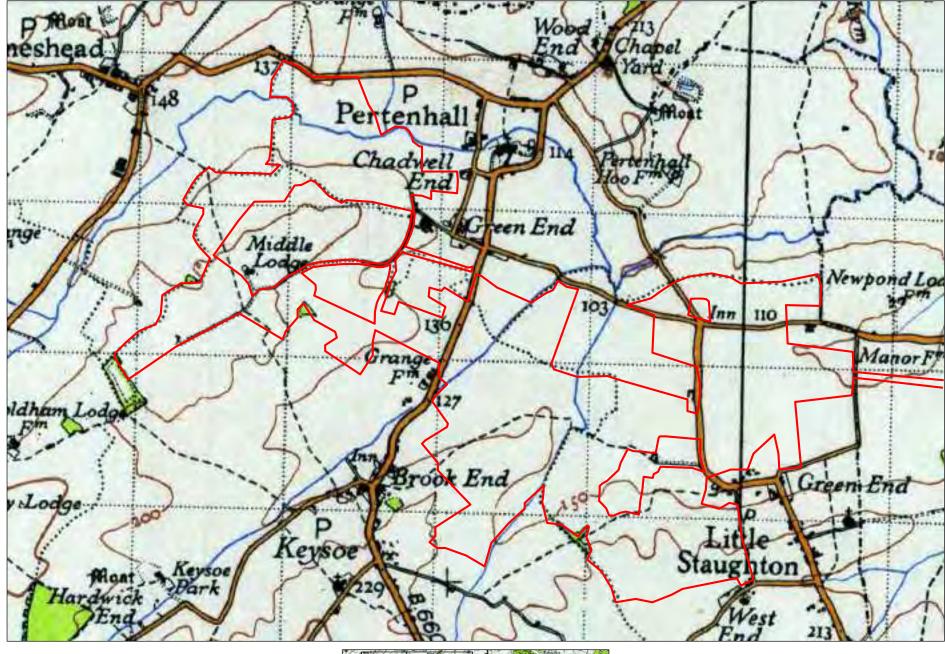
— Approximate Route Boundary

Source: Landmark Maps



WWII-Era Historical Mapping, 1946

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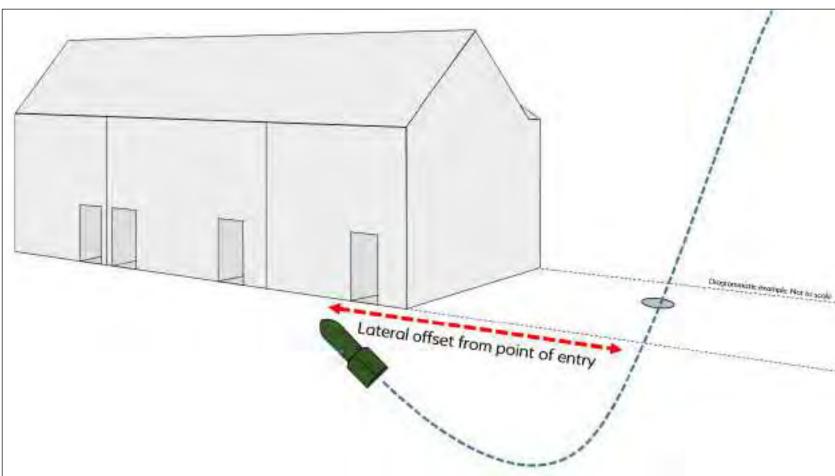
Source: Landmark Maps











Left: J-curve Effect - Due to angle of entry, unexploded bombs would often end their trajectory at a lateral offset from point of entry, often ending up beneath adjacent extant structures/sites.

The photograph **above** shows a 250kg unexploded bomb found in Bermondsey in 2015, pointing upwards, demonstrating 'J-curve'.

One of the most common scenarios for UXO going unnoticed was when a UXB fell into a 'bomb site' (such as the area shown **Above Centre**), the entry hole of the bomb obscured by any debris and rubble present. Note that the entry hole of a 50kg UXB could be as little as 20cm in diameter (Above Left).

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B B C NEWS

Bermondsey bomb: World War Two device safely removed



An unexpicted world war two comb round in south Landon has been criven away safety under police and Army escort.

The 500tb (250kg) device was found on a building site in Grange Walk, Bermondery on Monday.

Two primary ochonis were closed and hundreds of homes were evacuated as a precaution.

A cordon and 656°T (200°N) exclusion zone was litted at about 18:15 GMT as the bonds was removed to a quarry in Kent to be detorated, police said.

The Metropoliter Police force said the device max a "SA" 250kg WAII Dermen air-dropped bornh, known to the Army's Royal Logistic Corpe bornh disposal expects.

250kg German HE Bomb, March 2015

B B C NEWS

WW2 bomb found near London City Airport blown up



Amunicopleded World War Two bomb found near London City Amport has been detonated.

The SONs storics was also owned at the King Soongry, Duck on Sensing that repplanted word at the sirpore.

Them placed and all flights were untilled an Monday after no exclusive assomental place.

The definiction, which book take place off Shoeburyness Essex, was perdposed on Trindley because of high wests and dangerous conditions for nature.

The Librarium Commandation which was found in a bed of us, 15m underwater a way or etailly removed from the Thirties and placed, in a secure receiver a mile away from the count of Europe.

500kg German HE Bomb, February 2018

B B C NEWS



Exeter WW2 bomb is detonated after homes evacuated

More than 2,600 households and 12 university halfs of residence were cleared before the 2,200 b (1,000 kg) device was destroyed on Saturday.

Police said the blast left a crater about the size of a double-decker bus.

Police have reported large pieces of metal debris hitting buildings and said some properties in the 100m (330ff) exclusion zone had sustained "itructural damage".



1000kg German HE bomb, February 2021

B B C NEWS



Great Yarmouth: Huge blast after unplanned WW2 bomb detonation

A World War Two bomb found in Great Yarmouth has detonated while work was being done to defuse it, causing a luge blant that was heard for miles

Anny plecialists were experipting to discrept who it was a hardware operation at about 17.00 GPT.

People of variety media said they have dialized being and felt buildings diale. Without (1.00m) away.

There from hope; on a parts of leganes unlarge the Army, who oping a more in the public black the bare such

Conflors were until to place when the body, wer that discovered base to have said place on Tuesday, and work began to make it safe.

250kg German HE Bomb, February 2023

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Source: BBC News

BASE has confirmed that an explosion device, most flowly a World War III-are howe, caused the litesa. that his programme intered Traceday at a plant conception size in Contrary.

The psploskin was reported at BASE's Ludergotralen tolures disocyanate (TDI) plant, which wecenty troke ground for a 300 030 matrix tons par year TDI production plant and other construction to separe its facilities.



EASF Provides Some Details

Responding to a request from Pain/Square News for more information on Wesnesday (Pen. 17). BNSF's manager of media retailors and corporate communications Europe. Unsula von Statten wrote in an ermit. "So trees Jaref the facts. The determinant took place of 11.00 a.m. One person was insured, the injury is not surious. He will be kept in the haspital for some days.

"Cause of the defonation was an explosive device, procurably a bonth deriving from the Second World War. The device detorated when grounding work was done. No details on [ii] felley [sire] mailable. At the receiver, the exp. I incurations of the incident sof [being] evaluated."

1st March 2013

WWII bomb injures 17 at Hattingen construction site



Seventeen people were injured on Friday when a construction crew unwittingly detonated a buried World War II-era bomb in Hattingen.

An excavator apparently drove over a 250-kilogramme (550 pount) American bomb, damaging surrounding buildings. Most of the injuried suffered auditory trauma from the blast, and the excavator operator suffered injuries to his hands, police in the German state of the form.

"The hole was estoondingly small for such a large bornt full of so many explosives." Armin Gebhard, head of the Amsbarg department for military ordnance removal, told The Local. "But of course it damaged all the surrounding buildings too. We are really happy it wasn't worse."

19th September 2013



World War II bomb kills three in Germany



A special commission is investigating the causes of the explosion, while prosecutors are considering whether the team leader should face charges of manslaughter through culpable negligence, the BBC's Oana Lungescu reports from Berlin.

The blast happened an hour before the defusing operation was due to start.

Officials said the three men who died were experienced sappers, or combat engineers, who over 20 years had defused up to 700 bombs.

More than 7,000 people were immediately evacuated when the 500kg bomb was found. Several schools, a kindergarten and local companies remain closed.

2nd June 2010

SPIEGEL ONLINE

Kind Kith Day

World War II Bomb Explodes on German Motorway

A highway construct on motion in previous accidentally struct on inequirelest World West Stock, sunsing, on explosion which follow him and synchool several passing year.



A World War II bomb has exploded during construction work on a German highway, killing one worker and injuring several motorists who were driving past, police said.

The worker had been cutting through the road surface near the southwestern town of Aschaffenburg when his machine struck the bomb and triggered it. Police said they weren't sure yet what type of bomb it was. "The explosion seems to have been too small for it to have been an aircraft bomb," a police spokesman said.

23rd October 2006



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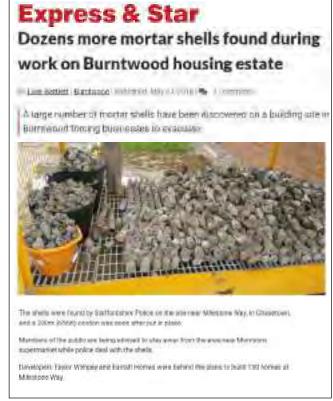
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5/1/202 00

Source: Various Sources

Bomb disposal team explode WWII hand grenade in St Neots

The WWII grenade has now been detonated by the bomb disposal team

15:20, 1 MAY 2019

This picture captures the aftermath of bomb disposal teams detonating a World War Two hand grenade in St Neots this afternoon.

The grenade was discovered this morning on a building site in Huntingdon Road, St Neots.

An Explosive Ordnance Disposal (EOD) team were called to remove and destroy the device this afternoon, May 1.

Cambridge police and fire crews are currently on scene dealing with the incident.

The bomb squad safely detonated the device and said the situation does not pose a threat to the public. Emergency services will be lifting cordons when it's safe to do so.

A spokeswoman for Cambridgeshire Fire and Rescue said: "Crews were called to an incident near Huntingdon Road, St Neots at 9.16am this morning following a report that a hand grenade had been discovered during construction work at the site.

"The immediate area has been cornered off while the Explosive Ordnance Disposal (EOD) team work to remove and destroy the device."



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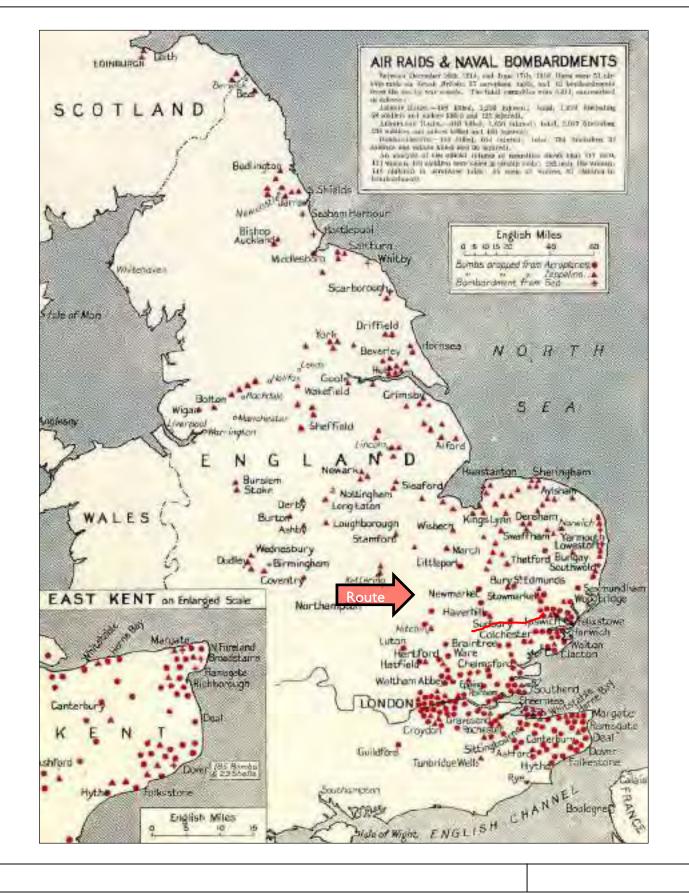
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Source: Cambridgeshire Live





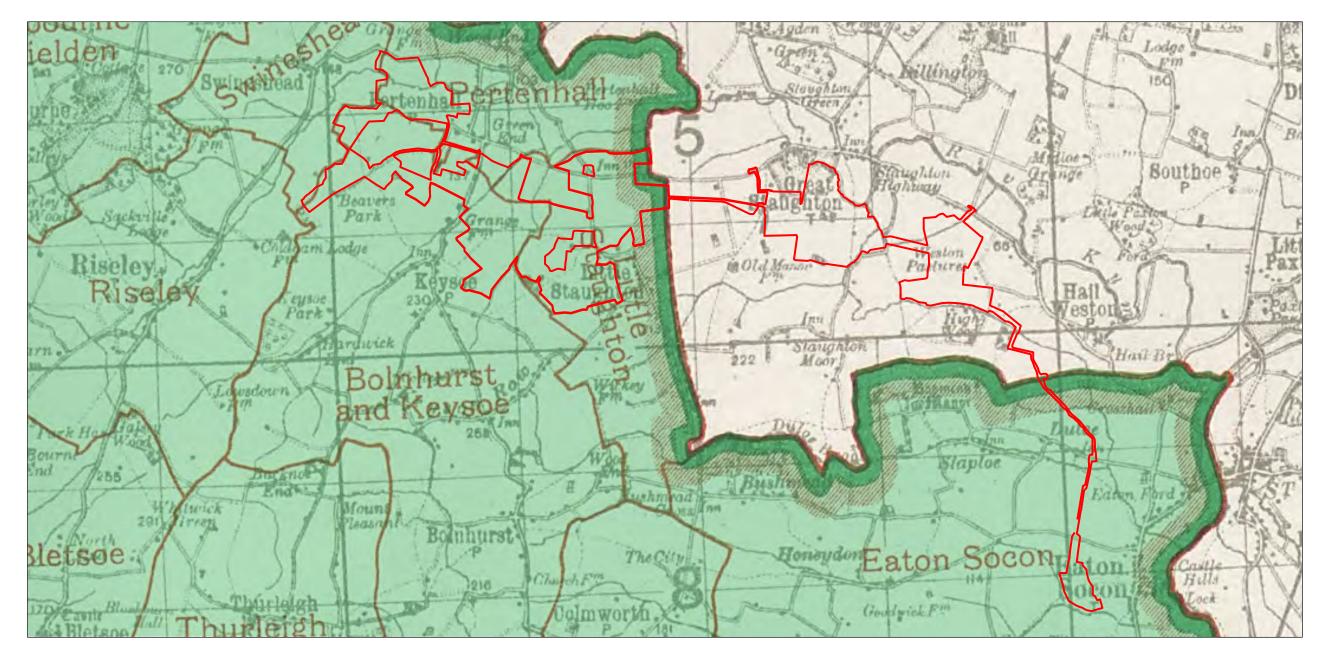
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Project: East Park

DA19362-00

Source: J. Morris, German Air Raids on Britain





Record of German Ordnance Dropped on the Route Area										
		Weapons								
District	Area Acreage	High Explosive (HE) Bombs	Parachute Mines	Oil Bombs	Phosphorus Bombs	Fire Pots	V-1s	V-2s	Total	Number of Items per 1,000 acres
Bedford RD	112,580	283	1	10	0	0	2	0	296	2.6





Client: Smith Grant LLP

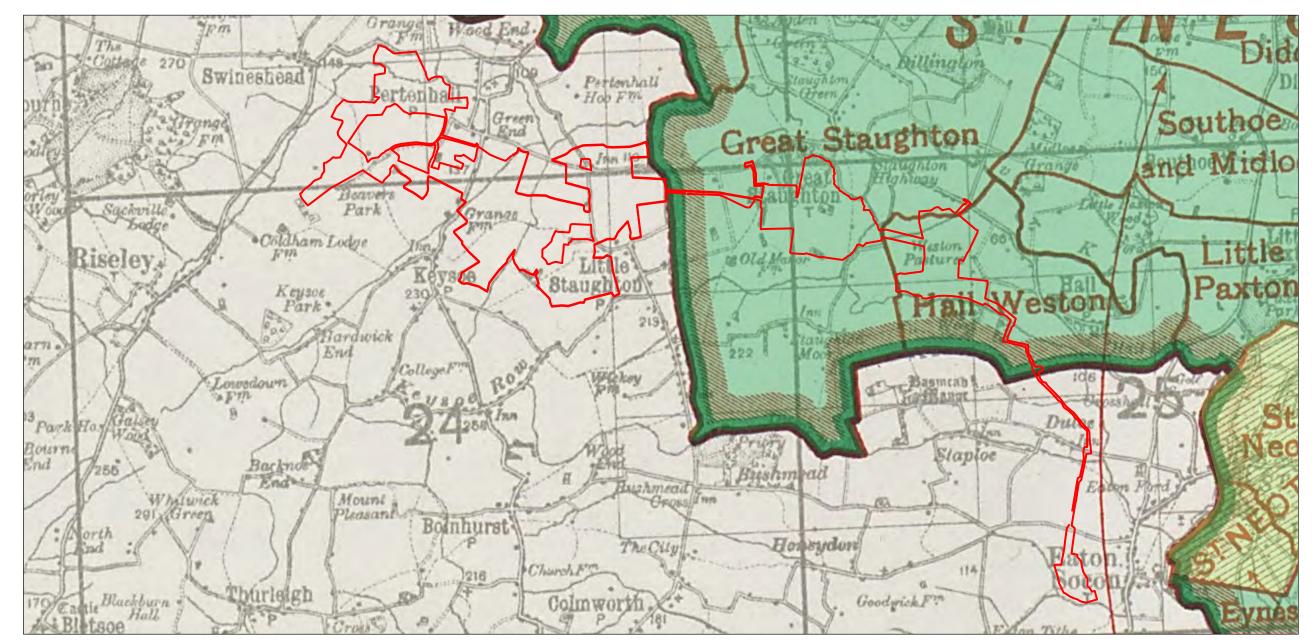
— Approximate Route Boundary

Project: East Park

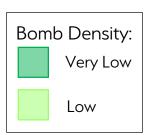
DA19362-00 Source: 1st Line Defence Ltd.



H2



Record of German Ordnance Dropped on the Route Area										
		Weapons								
District	Area Acreage	High Explosive (HE) Bombs	Parachute Mines	Oil Bombs	Phosphorus Bombs	Fire Pots	V-1s	V-2s	Total	Number of Items per 1,000 acres
St Neots RD	52,559	156	0	2	0	0	0	0	158	3





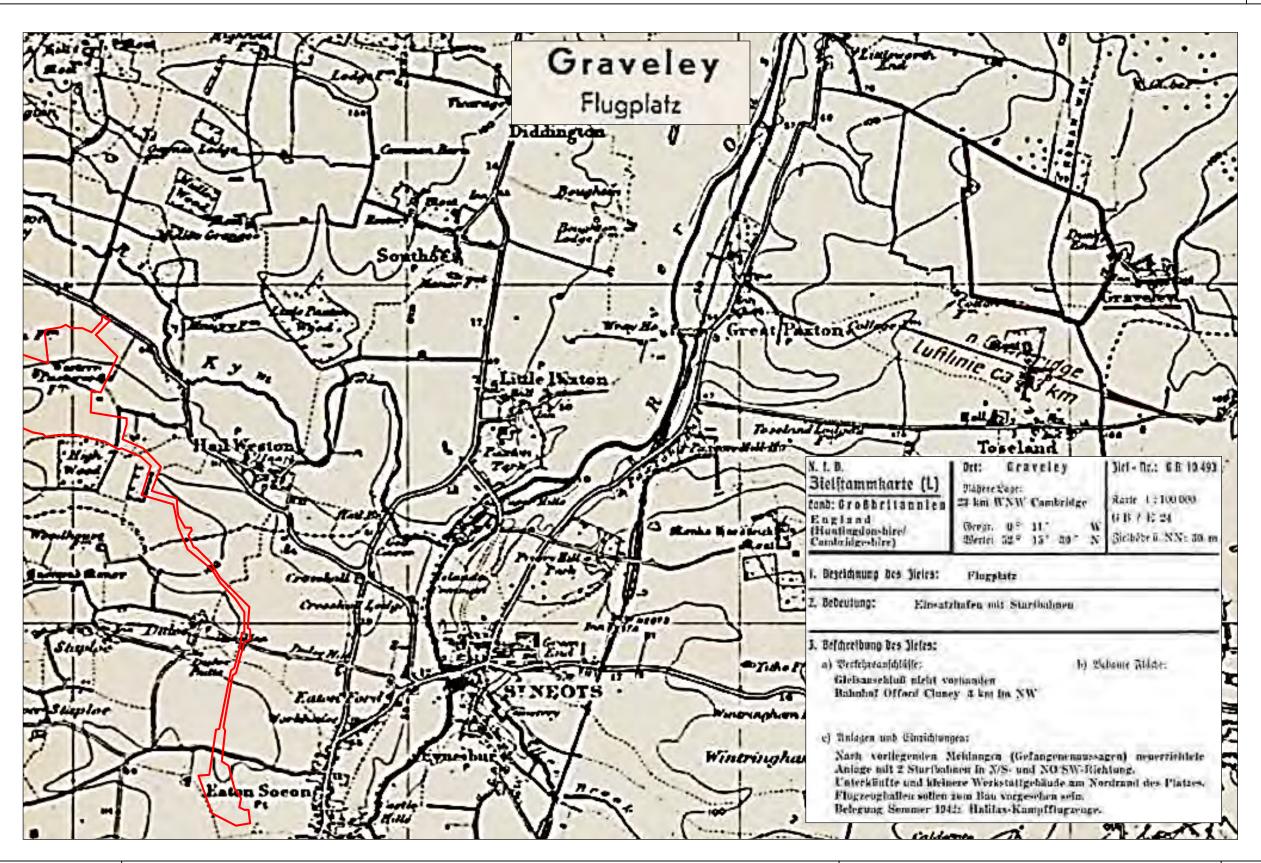
Smith Grant LLP Approximate Route Boundary

Project: East Park

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Source: 1st Line Defence Ltd.







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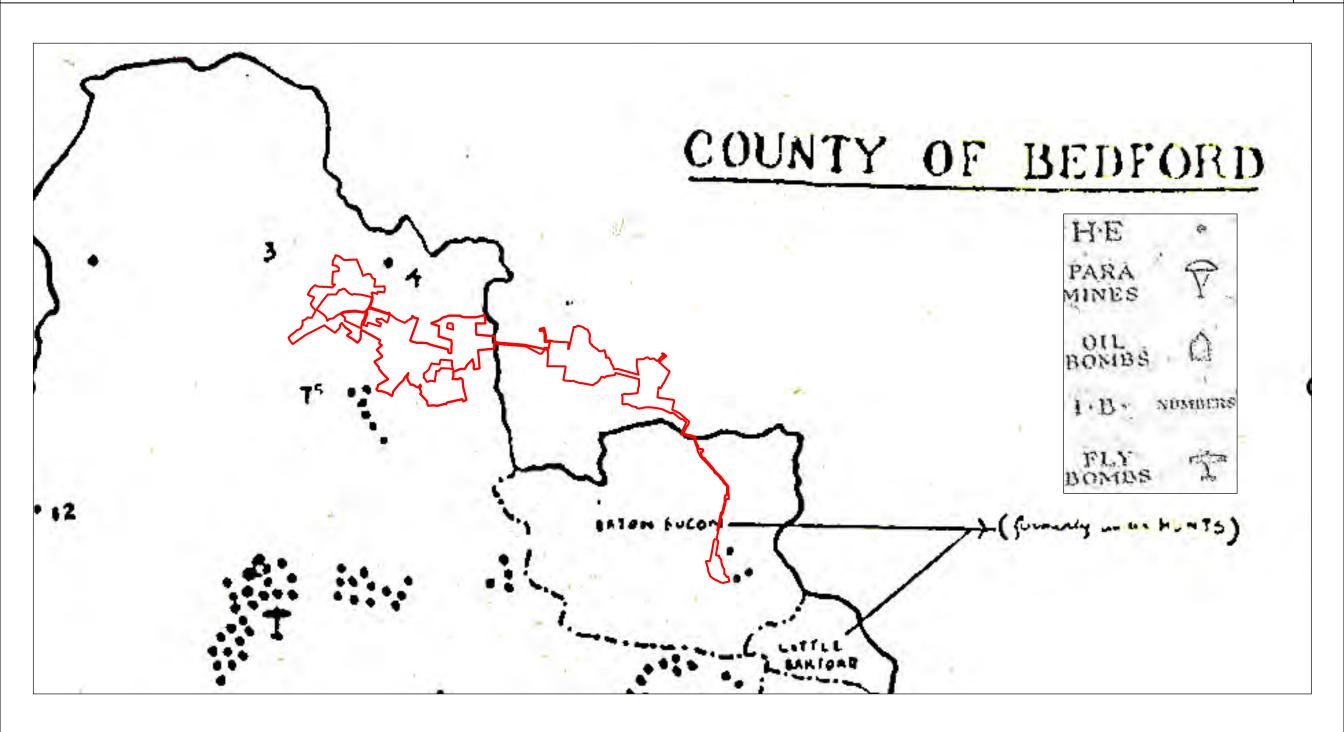
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Source: Imperial War Museum (IWM)

— Approximate Route Boundary





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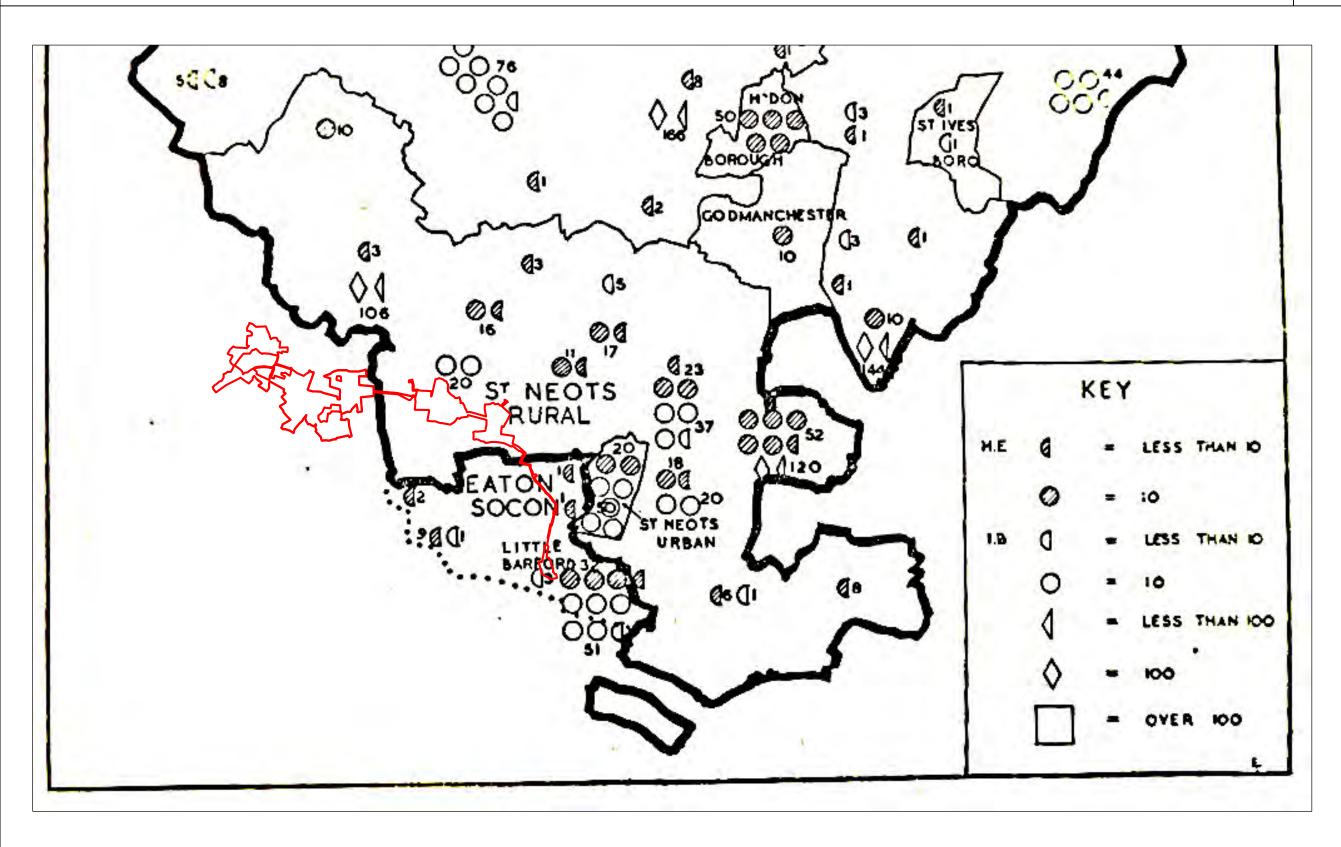
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Project: East Park

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Approximate Route Boundary





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Approximate Route Boundary



Source: Huntingdonshire Library and Archives

Serial No.: B/16

Date and Time of Incident: 11^{th} April 1941 at 20:00

Date and Time of Report to Region: 11th April 1941, 10:30hrs Type of Bomb: Unexploded High Explosive Bomb (UXHE)

Location: Mill Farm, Swineshead, RISELEY

Category: C

Name and Telephone Number of Contact: Police Constable. Riseley 65

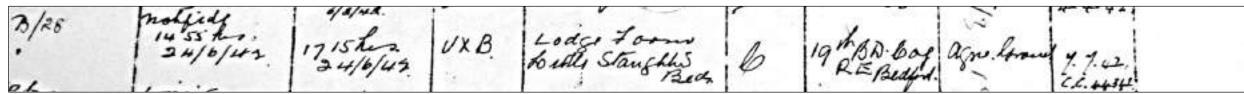
Remarks: Three houses evacuated. Road closed

Date of Disposal: 18th April 1941

Bomb Disposal Squadron (BDS) Reference: Received from Police Control



This incident occurred approximately 600m west of the site



Serial No.: B/28

Date and Time of Incident: Notified 14:55hrs 24th June 1942 Date and Time of Report to Region: 17:15hrs 24th June 1942

Type of Bomb: Unexploded Bomb (UXB)

Location: Lodge Farm, Little Staughton, Bedfordshire

Category: C

Name and Telephone Number of Contact: 19th Bomb Disposal (BD) Company, Royal Engineers (RE), Bedford

Remarks: Agricultural Ground **Date of Disposal:** 7th July 1942



Approximate Route Boundary



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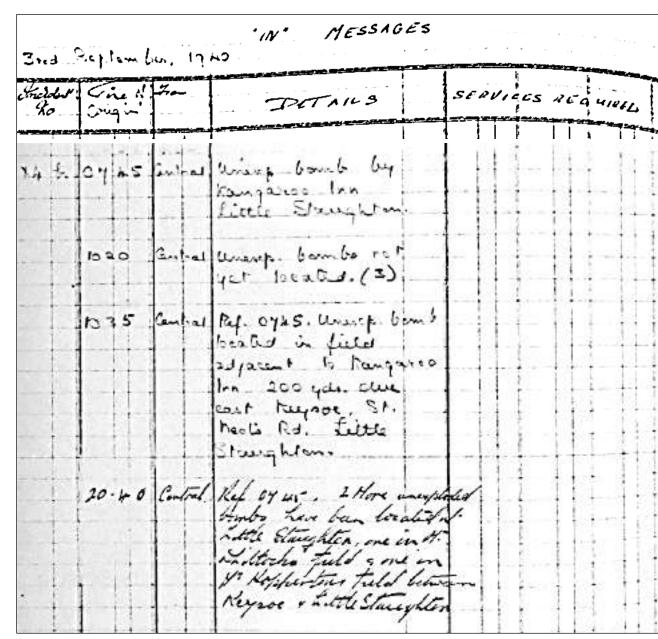
Project: East Park

Ref: DA19362-00

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Source: Bedfordshire Archives





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"OUT" MESSAGES

Inn, Little Staughton.

Date: 3rd September 1940 Time of Origin: 08:40 To: Bomb Disposal Squad Details: Unexploded bomb by Kangaroo



"IN" MESSAGES

Date: 3rd September 1940 Time of Origin: 07:45

Details: Unexploded bomb by Kanagroo Inn, Little Staughton

Date: 3rd September 1940 Time of Origin: 10:35

Details: Ref 07:45 unexploded bomb located in field adjacent to Kangaroo Inn 200 yards due east Keysoe St Neots Rd. Little Staughton

Date: 3rd September 1940

Time of Origin: 20:45

Details: Ref 07:45 2 more unexploded bombs have been located at Little Staughton, one in M. Whitlocks field δ one in M Hoppertons field between Keysoe δ Little Staughton



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Client: Smith Grant LLP

Project: East Park

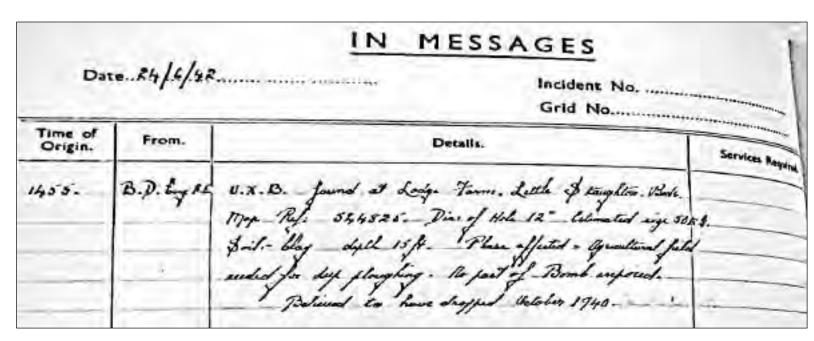
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Approximate Route Boundary

Source: Bedfordshire Archives

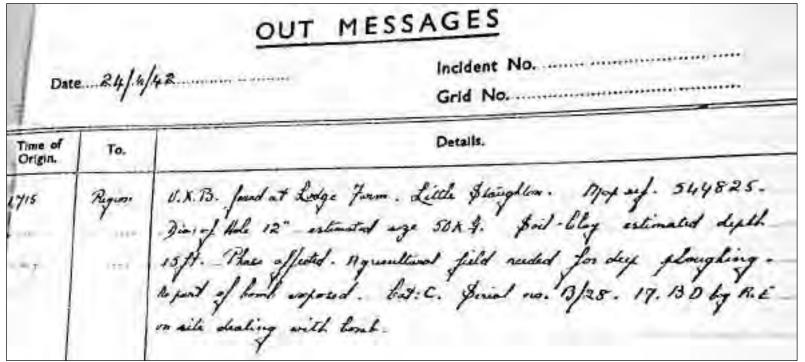




"IN" MESAAGES

Date: 24th June 1942 Time of Origin: 14:55

Details: Unexploded bomb (UXB) found at Lodge Farm, Little Staughton, Bedfordshire. Map reference: 544825. Diameter of hole 12". Estimated size 50kg. Soil: Clay, depth 15ft. Place affected: agricultural fields needed for deep ploughing. No part of bomb exposed. Believed to have been dropped in October 1940.



"OUT" MESSAGES

Date: 24th June 1942 Time of Origin: 17:15

Details: Unexploded bomb (UXB) found at Lodge Farm, Little Staughton, Bedfordshire. Map reference: 544825. Diameter of hole 12". Estimated size 50kg. Soil: Clay, depth 15ft. Place affected: agricultural fields needed for deep ploughing. No part of bomb exposed. Category C. Serial No. B/28. 19. Bomb Disposal (BD) Company Royal Engineers (RE) on site dealing with bomb.



Approximate Route Boundary



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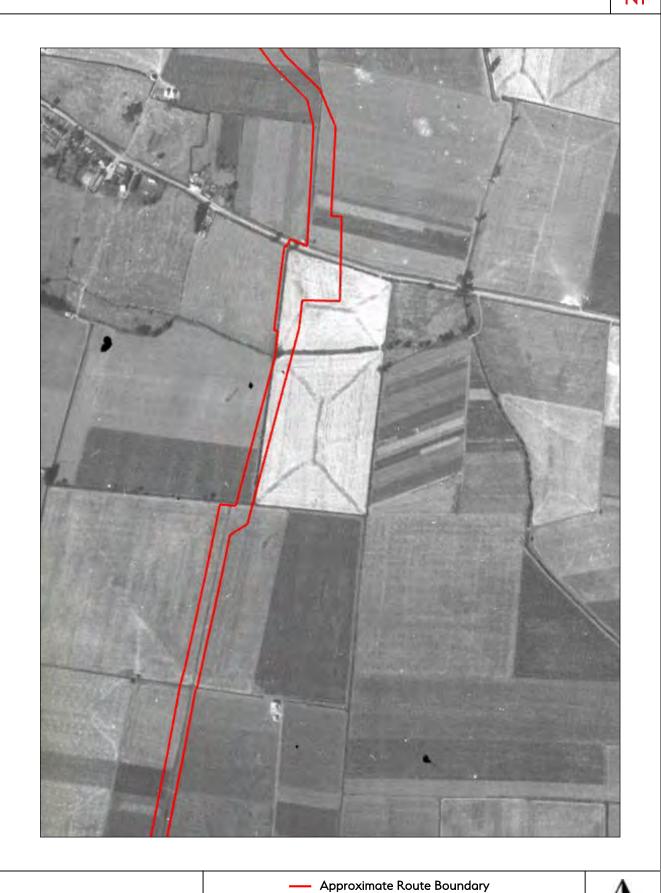
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Source: Bedfordshire Archives









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WWII-Era Aerial Photography, 1945

N2



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— Approximate Route Boundary



WWII-Era Aerial Photography, 1945





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Source: National Monuments Record Office (Historic England)

— Approximate Route Boundary





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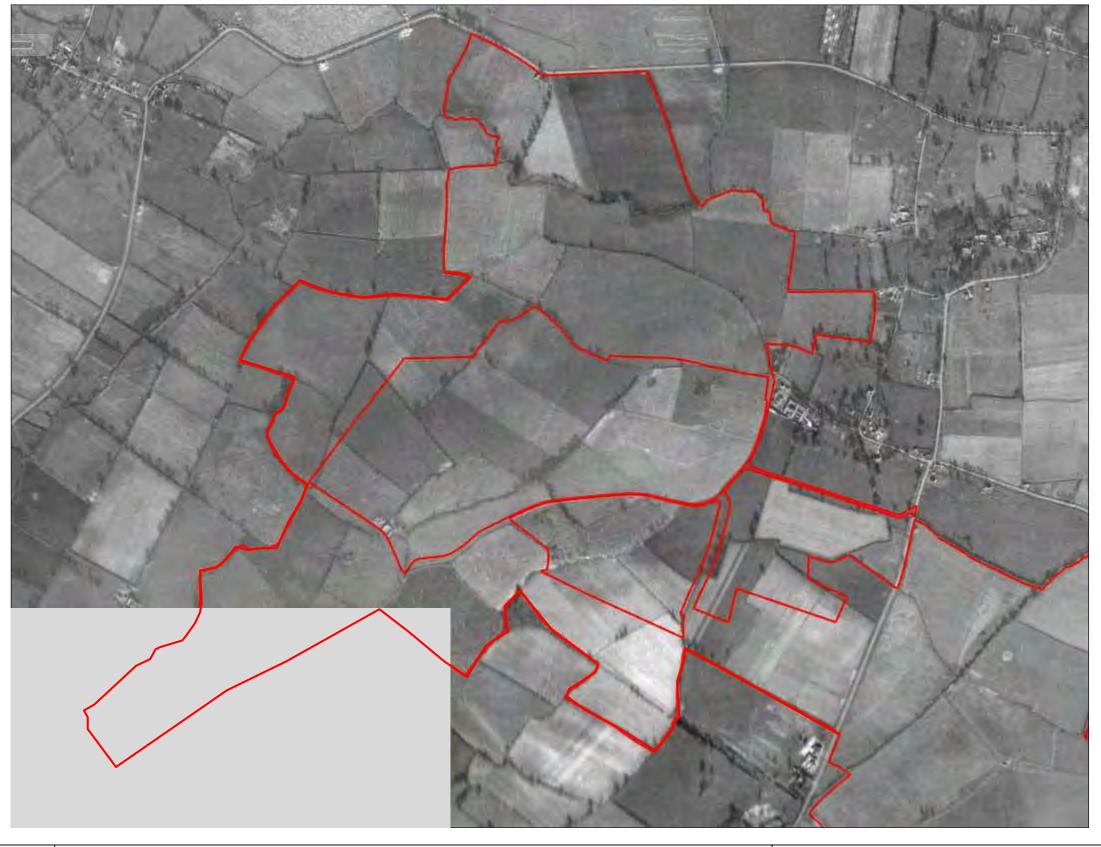
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— Approximate Route Boundary

Source: National Monuments Record Office (Historic England)

WWII-Era Aerial Photography, 1945

N6





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Approximate Route Boundary





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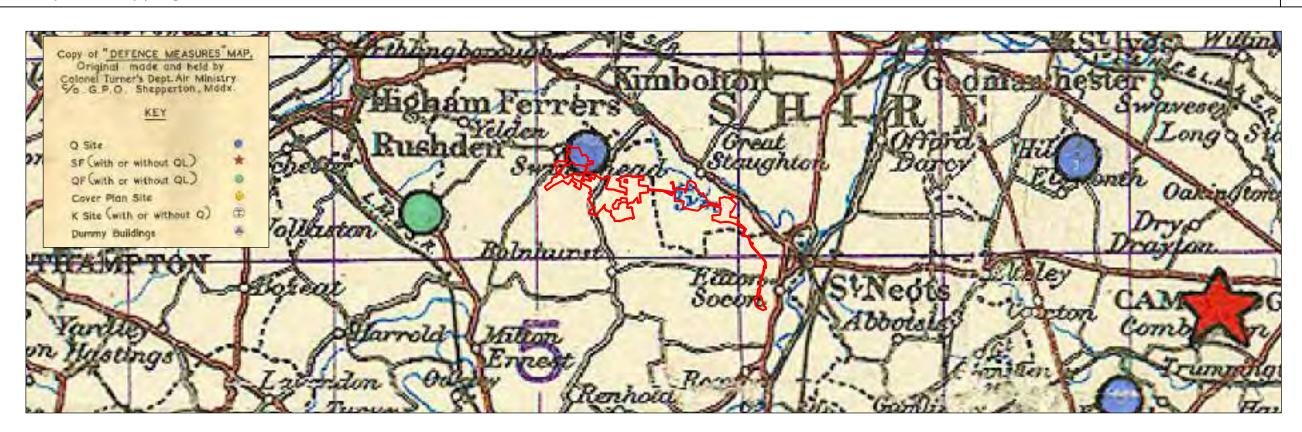
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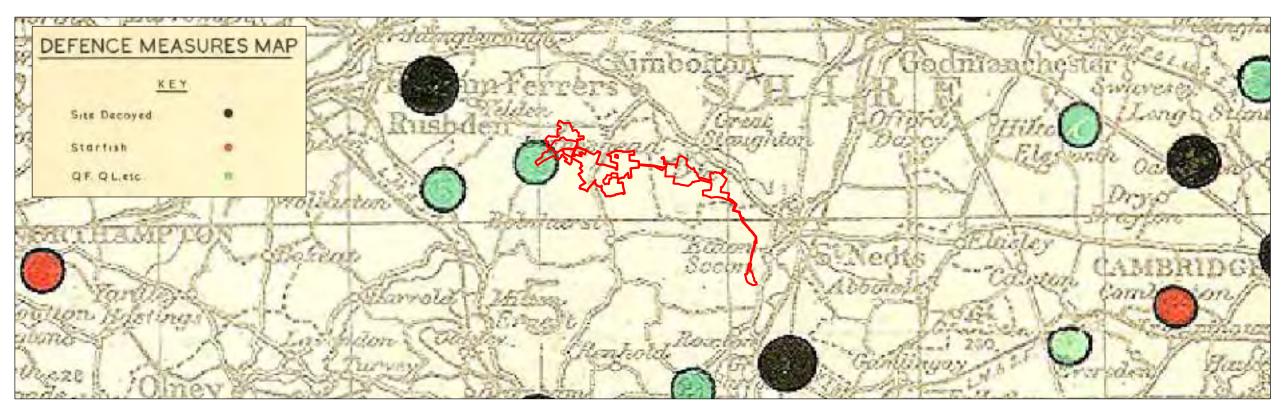
Source: National Monuments Record Office (Historic England)

— Approximate Route Boundary



Decoy Site Mapping







Client: Smith Grant LLP — Approximate Route Boundary

Project: East Park

Ref: DA19362-00

Source: The National Archives, Kew

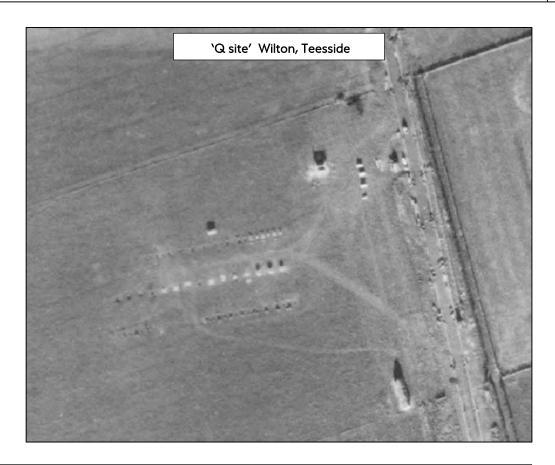


Bombing Decoy Examples

Appendix:











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Source: Various Sources

Allied Features Overlay





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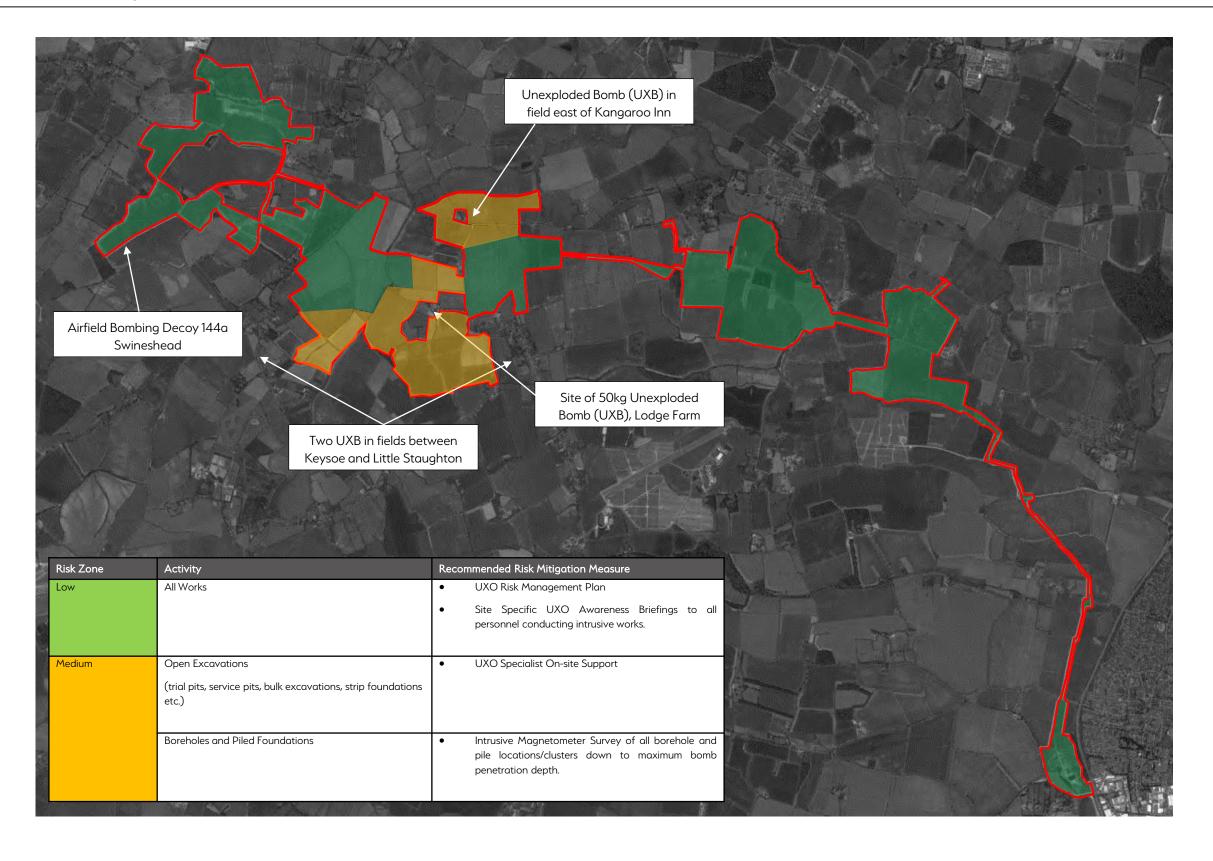
DA19362-00 Source: 1st Line Defence Ltd.

— Approximate Route Boundary

German UXO Risk Map

Appendix:





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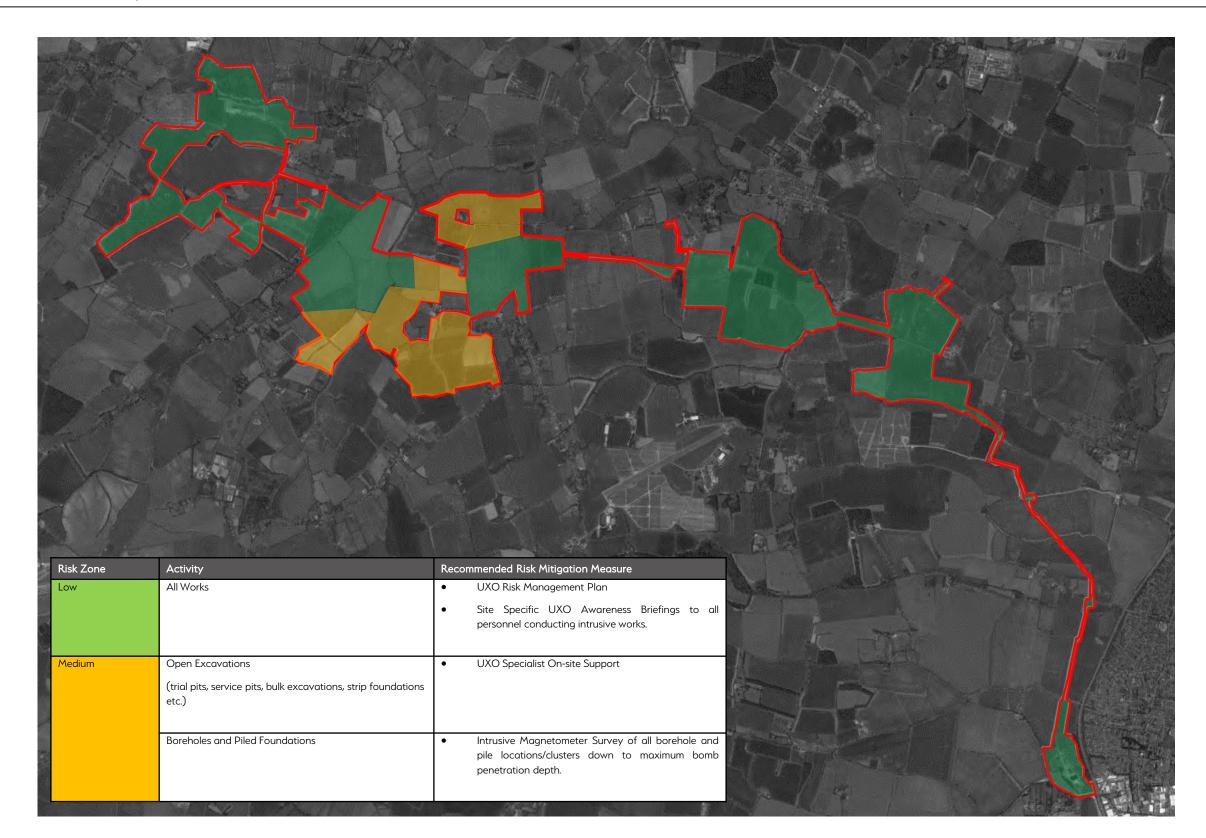




— Approximate Route Boundary

German UXO Risk Map

Appendix:



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Project: East Park

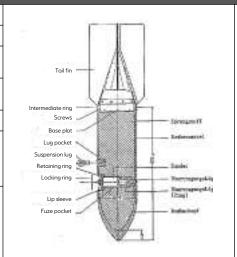
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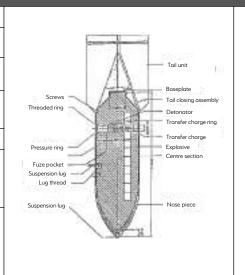
SC 50kg High I	SC 50kg High Explosive Bomb					
Bomb Weight	40-54kg (88-119lb)					
Explosive Weight	25kg (55lb)					
Fuze Type	Impact fuze/electro-mechanical time delay fuze					
Bomb Dimensions	1,090 x 280mm (42.9 x 11.0in)					
Body Diameter	200mm (7.87in)					
Use	Against lightly damageable materials, hangars, railway rolling stock, ammunition depots, light bridges and buildings up to three stories.					
Remarks	The smallest and most common conventional German bomb. Nearly 70% of bombs dropped on the UK were 50kg.					







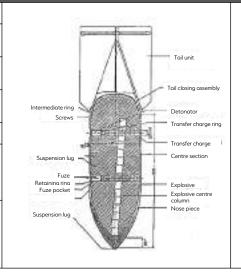
SC 250kg High	Explosive Bomb		
Bomb Weight	245-256kg (540-564lb)		
Explosive Weight	125-130kg (276-287lb)		
Fuze Type	Electrical impact/mechanical time delay fuze		
Bomb Dimensions	1640 x 512mm (64.57 x 20.16in)		
Body Diameter	368mm (14.5in)		
Use	Against railway installations, embankments, flyovers, underpasses, large buildings and below-ground installations.		
Remarks	It could be carried by almost all German bomber aircraft and was used to notable effect by the Junkers Ju-87 Stuka (<i>Sturzkampfflugzeug</i> , or dive-bomber).		



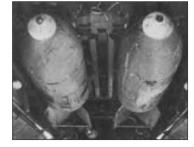




SC 500kg High	Explosive Bomb
Bomb Weight	480-520kg (1,058-1,146lb)
Explosive Weight	250-260kg (551-573lb)
Fuze Type	Electrical impact/mechanical time delay fuze
Bomb Dimensions	1957 x 640mm (77 x 25.2in)
Body Diameter	470mm (18.5in)
Use	Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, highrise buildings and below-ground installations.
Remarks	40/60 or 50/50 Amatol TNT, Trialene. Bombs recovered with Trialen filling have cylindrical paper-wrapped pellets, 1-15/16in. in length and diameter.









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ii

Bomb Weight	Approx. 2kg (4.41lb)
Explosive Weight	Approx. 7.5oz (225 grams) of Amatol surrounded by a layer of bituminous composition.
Fuze Type	41 fuze (time) , 67 fuze (clockwork time delay) or 70 fuze (anti-handling device)
Body Diameter	3in (7.62 cm) diameter, 3.1in (7.874) long
Use	Designed as an anti-personnel/fragmentation weapon. They were delivered by air, being dropped in containers of 23-144 submunitions that opened at a predetermined height, thus scattering the bombs.
Remarks	Quite rare. First used against Ipswich in 1940, but were also dropped on Kingston upon Hull, Grimsby and Cleethorpes in June 1943, amongst various other targets in UK. As the bombs fell the outer case flicked open via springs which caused four light metal drogues with a protruding 5 inch steel cable to deploy in the form of a parachute δ wind vane, which armed the device as it span.

	which diffied the device as it span.		
Parachute Mi	ne (Luftmine B / LMB)		
Bomb Weight	Approx. 990kg (2176lb)		
Explosive Weight	Approx. 705kg (1,554lb)	PARACHUTE RELEASE PARACHUTE CAP	
Fuze Type	Impact/time delay/hydrostatic pressure fuze	TAIL DOOR S S PARACHUTE LUC	
Dimensions	2.64m x 0.64m (3.04m with parachute housing)	INSPECTION HOLE OOVER	
Use	Against civilian, military and industrial targets. Used as blast bombs and designed to detonate above ground level to maximise damage to a wider area.	LATON RELEASE LAVIAND SAFETY PLUG MK. II PSE UNIT COMPARTMENT ENRICHED MIXTURE— TO THE MYDROSTATIG CLOCK	
Remarks	Deployed a parachute when dropped in order to control its descent. Had the potential to cause extensive damage within a 100m radius.	SUSPENSION LUG	

				The second second
SC 1000kg Hig	gh Explosive Bomb			
Bomb Weight	Approx. 993-1027kg (2,189-2,264lb)			
Explosive Weight	Approx. 530-620kg (1168-1367lb)	Base plate	Tail cone brace	
Fuze Type	Electrical impact/mechanical time delay fuze.			
Filling	Mixture of 40% amatol and 60% TNT, but when used as an anti-shipping bomb it was filled with Trialen 105, a mixture of 15% RDX, 70% TNT and 15% aluminium powder.	After Section	Fuze pocket	
Bomb Dimensions	2800 x 654mm (110 x 25.8in)	Explosive Cavity	Suspension band	
Body Diameter	654mm (18.5in)			
Use	SC-type bombs were General Purpose Bombs used primarily for general demolition work. Constructed of parallel walls with comparatively heavy noses, they are usually of three-piece welded construction.	Forward Section —		

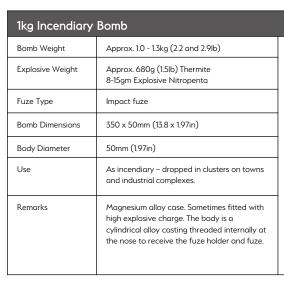


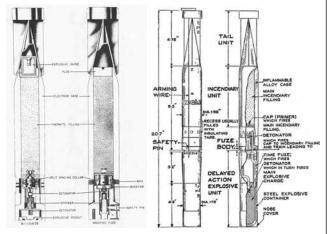
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Source: Various sources DA19362-00

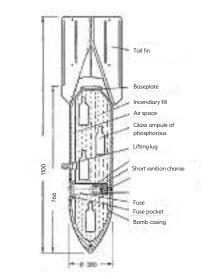
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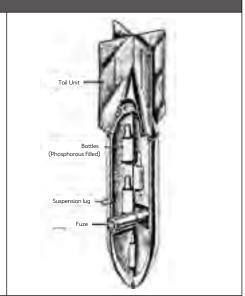




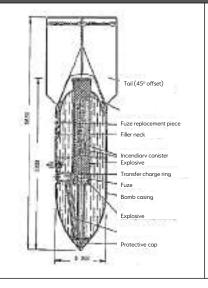


C50 A Incendiary Bomb Approx. 41kg (90.4lb) Bomb Weight Explosive Weight Approx. 0.03kg (0.066lb) Incendiary Filling 12kg (25.5lb) liquid filling with phosphor igniters in glass phials. Benzine 85%; Phosphorus 4%; Pure Rubber 10% Fuze Type Electrical impact fuze Bomb Dimensions 1,100 x 280mm (43.2 x 8in) Use Against any targets where an incendiary effect is required. Remarks Early fill was a phosphorous/carbon disulphide incendiary mixture.





Flam C-250 Oil Bomb	
Bomb Weight	480-520kg (1,058-1,146lb)
Explosive Weight	250-260kg (551-573lb)
Fuze Type	Electrical impact/mechanical time delay fuze
Bomb Dimensions	1957 x 640mm (77 x 25.2in)
Body Diameter	470mm (18.5in)
Use	Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, highrise buildings and below-ground installations.
Remarks	40/60 or 50/50 Amatol TNT, Trialene. Bombs recovered with Trialen filling have cylindrical paper-wrapped pellets, 1-15/16in. in length and diameter.







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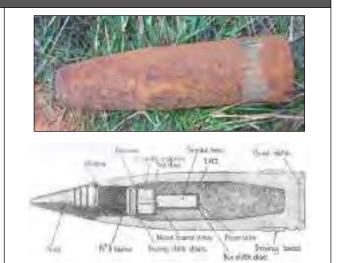
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3.7 Inch QF Anti-Aircraft Projectile	
Projectile Weight	28lb (12.6 kg)
Explosive Weight	2.52lbs
Fuze Type	Mechanical Time Fuze
Dimensions	3.7in x 14.7in (94mm x 360mm)
Rate of Fire	10 to 20 rounds per minute
Use	The 3.7in AA Mks 1-3 were the standard Heavy Anti-Aircraft guns of the British Army and were commonly used on the Home Front.
Ceiling	30,000ft to 59,000ft

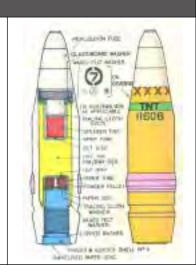




40mm Bofors Projectile	
Projectile Weight	1.96lb (0.86kg)
Explosive Weight	300g (0.6lb)
Fuze Type	Impact Fuze
Rate of Fire	120 rounds per minute
Projectile Dimensions	40 x 180mm
Ceiling	23,000ft (7000m)
Remarks	Light quick fire high explosive anti-aircraft projectile. Each projectile fitted with small tracer element. If no target hit, shell would explode when tracer burnt out. Designed to engage aircraft flying below 2,000ft.

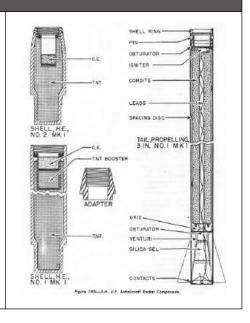






3in Unrotated Projectile (UP) Anti-Aircraft Rocket ("Z" Battery)		
HE Projectile Weight	3.4kg (7.6lb)	
Explosive Weight	0.96kg (2.13lb)	**
Filling	High Explosive – TNT. Fitted with aerial burst fuzing	
Dimensions of projectile	236 x 83mm (9.29 x 3.25in)	
Remarks	As a short range rocket-firing anti-aircraft weapon developed for the Royal Navy. It was used extensively by British ships during the early days of World War II. The UP was also used in ground-based single and 128-round launchers known as Z Batteries. Shell consists of a steel cylinder reduced in diameter at the base and threaded externally to screw into the shell ring of the rocket motor.	







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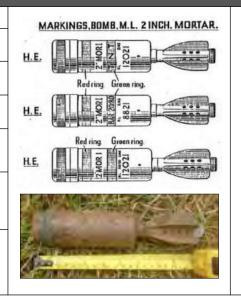
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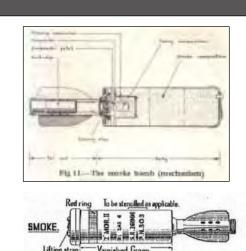
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2 inch Mortar High Explosive		
Weight	Approx. 1.02kg (2.25lb)	
Maximum Range	460m (500yards)	
Filling	200g RDX/TNT	
Dimensions	51 x 290mm (2in x 11.4 in)	
Fuze Type	An impact fuze which detonates the fuze booster charge and in turn the high explosive charge.	
Use	It had greater range and firepower over hand and rifle grenades, and was used to attack targets behind cover with high explosive rounds.	
Identification	HE has a rounded edge to a flat back. Can either be a black body colour with red and yellow band or dark green with yellow band. Brass cap on top. Practice will have hole all the way through the top.	



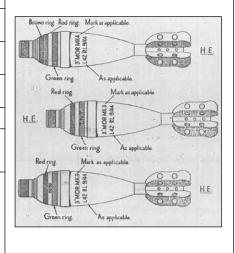


2 inch Mortar Smoke		
Weight	Approx. 910g (2lb)	
Maximum Range	460m (500yards)	
Filling	White phosphorus and smoke fill	
Dimensions	51 x 290mm (2in x 11.4 in)	
Fuze Type	An impact fuze which initiates a bursting charge. This ruptures the mortar bomb's body and disperses the phosphorus filler.	
Identification	Smoke mortars have a recess and emission holes. May still see light green body paint. Look for stained ground around munition.	
Use	As a screening device for unit movement or to impair enemy field of vision.	





3 inch Mortar High Explosive	
Weight	Approx. 4.5kg (10lb)
Maximum Range	1,460 (Mk1) – 2,560m (Mk2) (1,600 – 2,800yds)
Dimensions	81mm (3in)
Filling	Amatol
Firing Mechanism	Drop, fixed striker
Remarks	Fin-stabilised bomb fired by means of a charge consisting of a primary cartridge in the tail and four secondary cartridges.
Identification	An old style mortar. Often no way of telling if HE or practice, so treat as HE.







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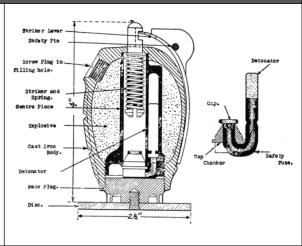
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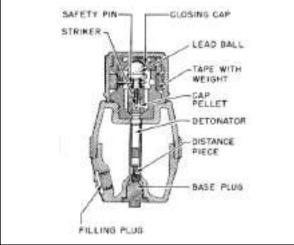
No. 36 'Mills' Grenade	
Weight	Approx. 765g filled (1lb 11.25oz)
Explosive Weight	71g (2oz) filling.
Fuze Type	4-7 second delay hand-throwing fuze. No. 6 Detonator
Dimensions	95 x 61mm (4 x 2.4in)
Use	Fragmentation explosive at approx. 30m range 100m range of damage.
Remarks	First introduced in 1915, its classic grooved, cast-iron 'pineapple' design was designed to provide uniform fragmentation. The detonator is inserted before use after removing the base plug.





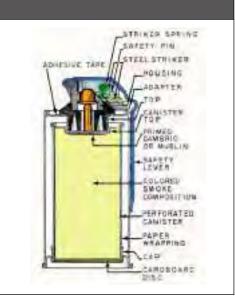
No. 69 Grenade		
Weight	Approx. 383g (13.5oz)	
Fill Weight	93g (3.25 oz) of either Amatol, Baratol or Lyddite	
Fuze Type	'All-ways' fuze. Comprised of a safety cap, a weighted streamer attached to a steel ball bearing and a safety bolt designed to detonate from any point of impact.	
Dimensions	115 x 60mm (4.5 x 2 .4 in)	
Use	A blast grenade for use as an offensive weapon. Detonator was inserted before use.	
Remarks	Introduced December 1940 and made from the plastic Bakelite as opposed to conventional metals. Detection is difficult due to this low metal content.	





No. 83 Smoke Grenade	
Weight	Approx. 680g (1.5lb)
Explosive Weight	Approx. 170-200g. (6-7 oz)
Fuze Type	Originally used a friction system using a match head composition. Later developed to a striker lever ignition system.
Dimensions	Approx. 62 x 140mm (2.44 x 5.5 in)
Use	Use as a target or landing zone marking device and as a screening method for troop / unit movement.
Remarks	This basic design stayed relatively unchanged up to the 1980's. The letters CCC were often etched into the body of the grenade in the colour of the smoke.







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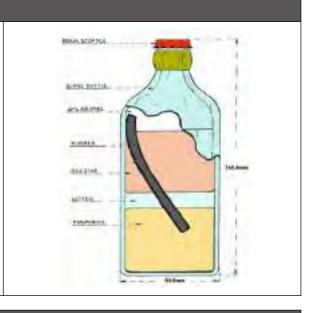
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Source: Various sources

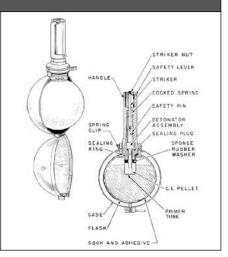
No. 76 Self Igniting Phosphorous (SIP) Grenade		
Weight	Approx. 1lb 3oz	
Filling	White Phosphorous and Benzene	
Design	The filling was contained in a ½ pint sized glass bottle with water and a strip of rubber. Over time the rubber dissolved to create a sticky which would self ignite when the bottle broke.	
Use	Originally intended as an anti-tank incendiary weapon deployed by hand. Designed to be produced cheaply without consuming materials needed to produce armaments on the front line.	
Remarks	The Home Guard hid caches of these grenades during the war. Not all locations were officially recorded and some caches were lost and encountered post-war. In all cases, the grenades are still found to be dangerous.	





No. 74 Grenade ("Sticky Bomb") Mk1		
Weight	Approx. 1.1kg (2.25lb)	
Filling	Approx. 600g Nobel's No.283 (Nitro- glycerine) (1.33lb)	
Design	A glass ball on the end of a Bakelite (plastic) handle. The inside of the ball would contain the explosive filling and the outside a very sticky adhesive coating.	
Use	An anti-tank grenade primarily issued to the home guard. It required the user to come in very close proximity of the target and smash the glass explosive container against it.	
Remarks	Timer fuze was located in the handle. This would explode after 3-6 secs.	

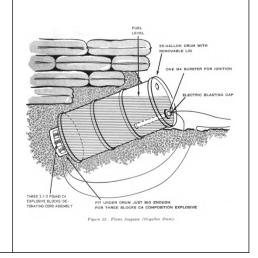




ridille rougusse boillo				
Weight	Various			
Filling	Initially a mixture of 40% petrol and 60% gas. Ammonal provided the propellant charge.			
Design	Usually constructed from a 40-gallon drum dug into a roadside and camouflaged.			
Use	As an improvised anti-tank bomb. When triggered the Fougasse could project a beam of burning sticky fuel in a fixed direction from up to 3m (10ft) wide and 27m (30yards) long.			
Remarks	A highly unorthodox weapon designed by the Petroleum Warfare Department to address a critical lack of weapons in 1940. 50,000 are estimated to have been distributed around the UK.			









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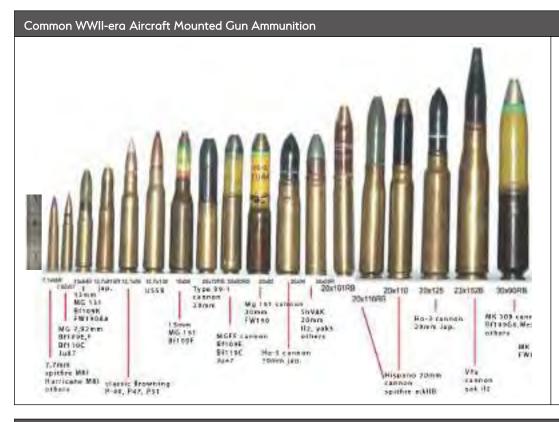
Client: Smith Grant LLP

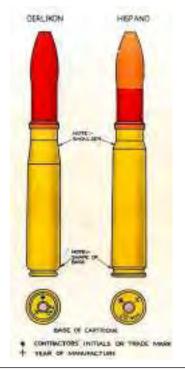
Project: East Park

Ref: DA19362-00 Source:

Source: Various sources

Hertfordshire. EN11 0EX
Email: info@1stlinedefence.co.uk
Tel: +44 (0)1992 245 020 Produced



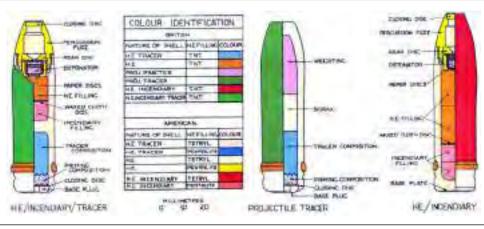


.303 British Rifle Ammunition				
Bullet Diameter	7.92mm			
Case length	56.44mm			
Overall length	78.11mm			
Туре	Rifle Ammunition			
Propellant	Originally black powder. Later Cordite followed by Nitrocellulose			
Remarks	First produced in 1889 and still in use today, the .303inch cartridge has progressed through ten 'marks' which eventually extended to a total of around 26 variations.			





20mm Oerlikon Cannon Rounds







Unit 3, Maple Park, Essex Road, Hoddesdon,

Hertfordshire. EN11 0EX **Email:** info@1stlinedefence.co.uk **Tel:** +44 (0)1992 245 020 **Client:** Smith Grant LLP

Project: East Park

Ref: DA19362-00

Source: Various sources

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Call +44 (0) 1992 245 020
Email info@1stlinedefence.co.uk
Web www.1stlinedefence.co.uk



APPENDIX F Correspondence with Regulatory Authorities

From: Request For Information < RequestForInformation@bedford.gov.uk>

nformation

Sent: 19 April 2024 10:14

To: Cc:

Subject: Request pursuant to Environmental Information Regulations Act 2004 – Request

No. 21610

Attachments: East Park Sketch to show site boundary.png

Bedford BC - OFFICIAL-Unsecure

Dear

Request pursuant to Environmental Information Regulations Act 2004 - Request No. 21610

Thank you for your request for information which we received on 20th March. Your request has been considered under the Environmental Information Regulations 2004.

Please see your request and our response below.

You requested:

Having yet to complete a request for available contamination-related information from the council, we are interested to learn the following general information requests to assist with the ground conditions baseline for the East Park site (see attached plan). Please can you confirm and provide the associated information as to whether:

your records show the presence of any historic or current Landfills/ infilling of gravel
pits/artificial deposits of land/illegal tipping or burning on or within the immediate vicinity of
the Site;

Response: There are records showing the presence of historic gravel pits/sand pits/brick pastures/brickworks potentially located within the vicinity of the site, however, the exact location of these and whether they have been infilled is not known.

 you have any information with respect to any previous ground investigations undertaken on site;

Response: There are no records of intrusive investigations carried out at the site.

• any part of the site is listed on the contaminated land register you hold or whether it has been earmarked for investigation under Part II a of the 1990 Environmental Protection Act;

Response: The site is not considered to be contaminated land as defined by part 2A of the Environmental protection act 1990. At the current time there are no plans to undertake any further investigations or actions in relation to the site for at least the next 5 years.

You have any records in association with unexploded ordnance (UXO) within the Site; and,

Response: The Council does not have any records in association with unexploded ordnance (UXO) within the Site.

You have any records of any private water abstractions.

Response: Below is a list of private water supplies within Bedford Borough:

No.	Location	Туре	Eastings	Northings
1	Bedford	Reg 9	504584	250964
2	Bedford	Reg 9	503602	250963
3	Kempston	Reg 9	501284	248482
4	Sharnbrook	Reg 10	499836	260078
5	Kempston Hardwick	Reg 10	511351	250135
6	Willington	Reg 10	511908	250290
7	Willington	Reg 10	511886	250329
8	Willington	Reg 10	510469	249787
9	Bedford	Reg 10	507495	248564
10	Harrold	Reg 10	492693	256147
11	Oakley	Reg 10	499116	254353

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If you are unhappy with the way the authority has handled your request, you may ask for an internal review. Please email requestforinformation@bedford.gov.uk and we will arrange for an internal review of your case. Under Regulation 11(2) this needs to be done no later than 40 working days after the date of this letter. If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision.

The Information Commissioner can be contacted at: Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF
www.ico.gov.uk

Yours sincerely

Customer Feedback Officer

Customer Services & Customer Feedback

Bedford Borough Council, Borough Hall, Cauldwell Street, Bedford, MK42 9AP

Website: www.bedford.gov.uk

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From

Sent: Wednesday, March 20, 2024 3:36 PM

To: EH Admin Support < EHAdmin@bedford.gov.uk >

Cc

Subject: [External] East Park - Request for environmental information

Attention: This email originated from outside of Bedford Borough Council. Please be extra vigilant when opening attachments or clicking links.

To whom it may concern,

Having yet to complete a request for available contamination-related information from the council, we are interested to learn the following general information requests to assist with the ground conditions baseline for the East Park site (see attached plan). Please can you confirm and provide the associated information as to whether:

- your records show the presence of any historic or current Landfills/ infilling of gravel pits/artificial deposits of land/illegal tipping or burning on or within the immediate vicinity of the Site;
- you have any information with respect to any previous ground investigations undertaken on site;
- any part of the site is listed on the contaminated land register you hold or whether it has been earmarked for investigation under Part II a of the 1990 Environmental Protection Act;
- You have any records in association with unexploded ordnance (UXO) within the Site; and,
- You have any records of any private water abstractions.

We appreciate that the site partially falls within the jurisdiction of Huntingdonshire District Council and we have contacted them separately on this matter.

Please let me know if there is a cost associated with this and your method for payment.

Best regards,

Smith Grant LLP Suite 16 - Bryn Estyn Business Centre Bryn Estyn Road Wrexham

LL13 9TY





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From: 3csharedservices@infreemation.co.uk

Sent: 11 April 2024 12:38

To:

Subject: C) East Park - Request for information

Follow Up Flag: Follow up Flag Status: Flagged

This response has also been sent to

@huntsdc.gov.uk by

Request ref SR 391619 EIR 14695

Environmental Information Regulations Enquiry for East Park, Land East Of Little Staughton And Land Between South Of Great Staughton And Hail Weston, Kimbolton Road, Hail Weston, Cambridgeshire

Further to your request for environmental information received on 12 March 2024 and with payment received on 3 April 2024, I confirm that the Council has now considered your request under the Environmental Information Regulations 2004.

Request:

Having yet to complete a request for available contamination-related information from the council, we are interested to learn the following general information requests to assist with the ground conditions baseline i.e. whether:

- 1. your records show the presence of any historic or current Landfills/ infilling of gravel pits/artificial deposits of land/illegal tipping or burning on or within the immediate vicinity of the Site;
- 2. you have any information with respect to any previous ground investigations undertaken on site;
- 3. any part of the site is listed on the contaminated land register you hold or whether it has been earmarked for investigation under Part II a of the 1990 Environmental Protection Act;
- 4. You have any records in association with unexploded ordnance (UXO) within the Site; and,
- 5. You have any records of any private water abstractions.

Response:

We are now able to answer your questions in the order they appear in your e-mail. Our response relates only to the enquiry sites D and E that are located within Huntingdonshire.

- 1. The Council is not aware of any open, closed or pre-licensing landfill sites on or within the immediate vicinity of the enquiry site. The data for this comes from the Environment Agency, Bromholme Lane, Brampton, Huntingdon, PE28 4NE or via their website at https://data.gov.uk/.
- 2. Environmental Health are not aware of any previous ground investigations undertaken within the enquiry site boundary.
- 3. The Council has completed the preliminary inspection of the district in accordance with its duties under the Environmental Protection Act 1990 Part 2A and its Contaminated Land Inspection Strategy. In respect of the enquiry site, no further actions are proposed in connection with Part 2A. All sites within the district will be the subject of re-inspection at some future date as legislation requires councils to inspect "from time to time".
- 4. Environmental Health do not hold records in connected with UXO except when ground investigations have been undertaken (see answer to question 2).
- 5. Environmental Health do not keep records of unlicensed water abstractions. There are no licensed water abstractions within 2km of the enquiry site within Huntingdonshire.

We aim to provide a high quality service to you and hope that you are satisfied with this response. If you have

any further questions, please do not hesitate to contact us.

Yours sincerely

Information Management Team

3C Shared Services

For Huntingdonshire DC - freedomofinformation@huntsdc.gov.uk
For South Cambridgeshire DC - foi@scambs.gov.uk
For Cambridge City Council -foi@cambridge.gov.uk

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Appeals Process

The Council is committed to transparency and openness, and it is our intention to comply fully with the laws that govern access to information. If you have any cause to believe that the terms of the Environmental Information Regulations 2004 are not being met by us, please let us know in the first instance. If you are still dissatisfied you can address your complaint to the Information Governance Manager, who will undertake an Internal Review of your case. Further to this you have the subsequent option to contact the Information Commissioner's Office.

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From: 3csharedservices@infreemation.co.uk

Sent: 25 January 2024 21:48

To:

Subject: [FOI/1035] (HDC) Foot and mouth burial sites

Follow Up Flag: Follow up Flag Status: Flagged

Dear Louise Stock

Request FOI/1035

I write further to your request for information received on 16/01/2024 in which you requested the following information:

I am enquiring with respect to whether you can provide the location(s) of any recorded foot and mouth burial sites within your district covering the areas as circled.

Map attached.

It is acknowledged that part of the area is located within Bedfordshire Borough Council and we have contacted them separately

Your request has been given careful consideration under the Environmental Information Regulations 2004 however we have established that the information you requested is not held by Council.

If you have any queries about this email please do not hesitate to contact us directly, quoting the reference number listed at the top of this email in all communications.

If you are unhappy with the Council's response to your request and wish to make a complaint please write to us or complete the on-line complaint form that can be found on our website.

If after going through the Council's Internal Review process you are still not satisfied, you can contact the Information Commissioner direct.

Information Commissioner

Helpline:

0303 123 1113

Wycliffe House

01625 545 745

Water Lane

Email:

casework@ico.org.uk

Wilmslow

Website:

www.ico.org.uk

Cheshire SK9 5AF

Yours Sincerely

Information Management Team

3C Shared Services

Email:

For South Cambridgeshire DC - foi@scambs.gov.uk
For Cambridge City Council -foi@cambridge.gov.uk
For Huntingdonshire DC - freedomofinformation@huntsdc.gov.uk

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From:

Sent: 26 January 2024 10:44

To:

Dan Wayland

Subject:

FW: [FOI/1035] (HDC) Foot and mouth burial sites

Hi Dan,

Response re foot and mouth burial sites from Huntingdonshire Council – basically stating they don't hold this information. Any ideas on who I should contact next?

Thanks Louise

From: 3csharedservices@infreemation.co.uk <3csharedservices@infreemation.co.uk>

Sent: Thursday, January 25, 2024 9:48 PM

To: @smithgrant.co.uk> **Subject:** [FOI/1035] (HDC) Foot and mouth burial sites

Dear

Request FOI/1035

I write further to your request for information received on 16/01/2024 in which you requested the following information:

I am enquiring with respect to whether you can provide the location(s) of any recorded foot and mouth burial sites within your district covering the areas as circled.

Map attached.

It is acknowledged that part of the area is located within Bedfordshire Borough Council and we have contacted them separately

Your request has been given careful consideration under the Environmental Information Regulations 2004 however we have established that the information you requested is not held by Council.

If you have any queries about this email please do not hesitate to contact us directly, quoting the reference number listed at the top of this email in all communications.

If you are unhappy with the Council's response to your request and wish to make a complaint please write to us or complete the on-line complaint form that can be found on our website.

If after going through the Council's Internal Review process you are still not satisfied, you can contact the Information Commissioner direct.

Information Commissioner

Helpline: 0303 123 1113

01625 545 745

Water Lane

Wycliffe House

Email: casework@ico.org.uk

Wilmslow

Website: www.ico.org.uk

Cheshire SK9 5AF

Yours Sincerely

Information Management Team

3C Shared Services

Email:

For South Cambridgeshire DC - foi@scambs.gov.uk
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From: ormation
To: Cc: ormation

Subject: Request pursuant to Freedom of Information Act 2000 – Request No. 21303

Date: 14 February 2024 13:51:01

Attachments: image001.png image002.png image003.png

Bedford BC - OFFICIAL-Unsecure



Request pursuant to Freedom of Information Act 2000 - Request No. 21303

I am writing in respect of your recent enquiry for information held by the Council under the provisions of the Freedom of Information Act 2000.

Under the Freedom of Information Act the authority must state whether or not the information exists and I confirm that we do not hold any information on Foot and Mouth burial sites in the Bedford Borough area.

If for whatever reason you are unhappy with our response to your application you are entitled to pursue any dissatisfaction through the Council's Internal Review Procedure. Pursuant to Section 17 (7) of the Act the procedure provided by the Council for dealing with complaints about the determination of this request for information is the Council's FOI Complaints Procedure, a copy of which can be obtained on request or is set out at: https://www.bedford.gov.uk/council-and-democracy/data-protection-foi-eir/

Yours sincerely



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From: Freedom of Information < Freedom of. Information@bedford.gov.uk >

Sent: Wednesday, January 17, 2024 2:05 PM

То

Cc ...Information@bedford.gov.uk>

Subject: Request pursuant to Freedom of Information Act 2000 – Request No. 21303

Bedford BC - OFFICIAL-Unsecure

Dear

Request pursuant to Freedom of Information Act 2000 - Request No. 21303

Thank you for your e-mail requesting information under the Freedom of Information Act 2000.

We will proceed with the request which we received today. It is our intention to have the information delivered to you as soon as possible otherwise within the statutory 20 working days, by the 14th February.

In consideration of the request, which may be subject to any exemptions the Council may rely on to refuse the request, some of which are absolute and some of which only apply where the public interest in maintaining the exemption outweighs that in disclosing the information.

Any future correspondence you may have with the Council in relation to this matter should be emailed to freedomofinformation@bedford.gov.uk

Yours sincerely



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From: @smithgrant.co.uk>

Sent: Tuesday, January 16, 2024 4:25 PM

To: EH Admin Support < EHAdmin@bedford.gov.uk>
Cc: @axis.co.uk>

Subject: [External] Foot and mouth burial sites

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To whom it may concern,

I am enquiring with respect to whether you can provide the location(s) of any recorded foot and mouth burial sites within north Bedfordshire covering the areas as shown within the circled areas.



It is acknowledged that part of the area is located within Huntingdon Council and we will also be contacting them in due course.

Best regards,



Stock BSc (Hons) MSc CSci MiEnvSc

Associate

Smith Grant LLP

Suite 16 - Bryn Estyn Business Centre Bryn Estyn Road Wrexham LL13 9TY Tel: 01978 822367 Mob: 07535 213500



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APPENDIX G REFERENCES

¹ HMSO (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/572/contents/made [Last accessed: 14 September 2023]

² House of Commons Business, Energy and Industrial Strategy Committee.(27 April 2023) 'HC 1299. Revised (Draft) National Policy Statement for Energy: Government Response to the Committee's Ninth Report of Session 2021 – 2022'

³ Department for Communities and Local Government (2012). National Planning Policy Framework, issued 27 March 2012; last updated 7 February 2025 [Last Accessed: 14 September 2023]

⁴ Department for Communities and Local Government (2014). Planning Practice Guidance. Land Affected by Contamination, published 12 June 2014, last updated 22 July 2019 [Last Accessed: 14 September 2023]

⁵ Bedford Borough Council (2020). Bedfordshire Local Plan to 2040. Available at: https://www.bedford.gov.uk/planning-and-building-control/planning-policy/local-plan-2030 [Last Accessed: 14 September 2023]

⁶ Huntingdonshire District Council (2023). Huntingdonshire Local Plan to 2036. Available at: https://huntingdonshire.gov.uk/planning/local-plan-to-2036/ [Last Accessed: 14 September 2023]

⁷ Department for Environment and Rural Affairs (1990). Environmental Protection Act 1990: Part 2AContaminated Land Statutory Guidance. Available at: Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (publishing.service.gov.uk) [Last Accessed: 14 September 2023]

⁸ Water Framework Directive (2017). The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. Available at: The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (legislation.gov.uk). [Last Accessed: 14 September 2023]

⁹ Environmental Permitting Regulations (2016). Available at: The Environmental Permitting (England and Wales) Regulations 2016 (legislation.gov.uk) [Last Accessed: 14 September 2023]

¹⁰ Environment Agency (2021). Land Contamination: Risk Management, issued 8th October 2020, last updated 12 June 2025. Available at: https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm [Last Accessed: 14 September 2023]

¹¹ British Geological Survey (2020) GeoIndex (onshore) map viewer. Available at: GeoIndex (onshore) - British Geological Survey (bgs.ac.uk) [Last Accessed: 14 September 2023]

¹² UK Radon (2022) UK maps of radon. Available at: UKradon - UK maps of radon [Last Accessed: 14 September 2023]

¹³ Envirocheck (2022). Envirocheck Historical Mapping Reports: 299346790_1_1, 299347293_1_1, 299347791_1_1, 299347801 1 1. [Last Accessed: 14 September 2023]

¹⁴ Groundsure (2023). Groundsure Historical Mapping Reports: GS-JJT-TWL-RJP-XQN, GSIP-2023-13935-15406_a, GSIP-2023-13935-15406_b. [Last Accessed: 14 September 2023]

¹⁵ Envirocheck (2022). Envirocheck Datasheets: 299346790_1_1, 299347293_1_1, 299347791_1_1, 299347801_1_1. [Last Accessed: 14 September 2023]

¹⁶ Groundsure (2023). Groundsure Reports: GS-JJT-TWL-RJP-XQN, GSIP-2023-13935-15406_a, GSIP-2023-13935-15406_b. [Last Accessed: 14 September 2023]

¹⁷ Building Research Establishment (2023). Radon: Guidance on protective measures for new buildings (including supplementary advice for extensions, conversions and refurbishment projects). [Last Accessed: 14 September 2023]

¹⁸ Natural England (2013). Magic Maps. Available at: MAGIC (defra.gov.uk) [Last Accessed: 14 September 2023]

¹⁹ Huntingdonshire Planning Portal (2024). Public Access to Planning Applications located with the Huntingdonshire District Council Area. Available at: Simple Search (huntingdonshire.gov.uk) [Last Accessed: 14 September 2023]

²⁰ Wilson, S. Card, G. Haines, S (2009) 'Ground Gas Handbook'