Environmental Impact Assessment (EIA) Scoping Report

Sedgeby Solar Ltd
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Planning Act 2008
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 - 10 (3) (4)

Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REQUEST FOR A SCOPING OPINION

Client:	**Sedgeby Solar Ltd**
Project:	**Sedgeby Solar Farm**
Date:	**January 2026**
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GLOSSARY

DEFINED TERM	DEFINITION
"the Applicant"	Sedgeby Solar Limited
"the Proposed Development"	The construction and operation of a solar farm plus Battery Energy Storage System (BESS) with associated infrastructure with a generating capacity of over 100 megawatts (MW) (alternating current, AC) of solar power
"the Site"	Land near Little Sessay, North Yorkshire
"the EIA Regulations"	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Acronyms	
AAWT	Annual Average Weekday Traffic
AC	Alternating Current
AD	Anaerobic Digester
AGL	Above Ground Level
AIA	Arboricultural Impact Assessment
AILs	Abnormal Indivisible Loads
ALC	Agricultural Land Classification
ANC	Association of Noise Consultants
AOD	Above Ordnance Datum
APEM	APEM Limited
AQMA	Air Quality Management Area
ARW	Ancient Replanted Woodland
ASNW	Ancient Semi-Natural Woodland
ATC	Automatic Traffic Count
AWI	Ancient Woodland Inventory
BEIS	Business, Energy and Industrial Strategy
BESS	Battery Energy Storage System
BGS	British Geological Society
BMV	Best and most versatile
BNG	Biodiversity Net Gain
BOCC5	Fifth Birds of Conservation Concern
BoS	Balance of System
BS	British Standards
BSI	British Standards Institute
CAST	Combined Aerodrome Safeguarding Team
CIEEM	Chartered Institute of Ecology and Environmental Management

CRTN	Calculation of Road Traffic Noise
dB	Decibels
DC	Direct Current
DCO	Development Consent Order
DEMP	Decommissioning Environmental Management Plan
DHA	DHA Planning Limited
DLL	District Level Licensing
DMRB	Design Manual for Roads and Bridges
DTM	Digital Terrain Modelling
EA	Environment Agency
EcIA	Ecological Impact Assessment
ECOW	Environmental Clerk of Works
EDNA	Environmental DNA
EDSA	Ecological Desk Study Area
EEA States	European Economic Area Member States
EHD	Environmental Health Department
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EN-1	Overarching NPS for Energy
EN-3	NPS for renewable energy infrastructure
EPC	Engineering, Procurement and Construction
EPDs	Environmental Product Declarations
ES	Environmental Statement
EU	European Union
FAA	Federal Aviation Administration
FAR	Further Assessment Required
FCD	Field Capacity Days
FRA	Flood Risk Assessment
FWMA	Flood and Water Management Act
GHG	Greenhouse gas
GLTA	Ground Level Tree Assessment
GVA	Gross Value Added
GW	Gigawatts
Ha	Hectares
HCL	Historic Landscape Characterisation
HDD	Horizontal Directional Drilling
HDV	Heavy Duty Vehicles
HEDBA	Historic Environment Desk-Based Assessment
HER	Historic Environment Record
HGVs	Heavy Good Vehicles

HIS	Habitat Suitability Index
HPI	Habitats of Principal Importance
HV	High Voltage
IDB	Internal Drainage Board
IEF	Important Ecological Features
IEMA	Institute of Environmental Management and Assessment
IHBC	Institute of Historic Building Conservation
ISEP	Institute of Sustainability and Environmental Professionals
LCAs	Lifecycle assessments
LCRM	Land Contamination Risk Management Guidance
LDV	Light Duty Vehicles
LEMP	Landscape and Ecological Management Plan
LGVs	Light Goods Vehicles
LiDAR	Light Detection and Ranging
LLFA	Lead Local Flood Authority
LSOAs	Lower Super Output Areas
LTP4	North Yorkshire Local Transport Plan
LV	Low Voltage
M	Metres
MAFF	Ministry of Agriculture, Fisheries and Food
MLs	Noise Monitoring Locations
MoD	Ministry of Defence
MSA	Minerals Safeguarding Area
MW	Megawatts
NCR	National Cycle Route
NERC Act	Natural Environment and Rural Communities Act 2006
NESO	National Energy System Operator
NGET	National Grid Electricity Transmission
NHLE	National Heritage List for England
NMU	Non-Motorised User
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
NPS	National Policy Statement
NPSE	The Noise Policy Statement for England
NSIP	Nationally Significant Infrastructure Project
NSRs	Noise Sensitive Receptors
NYC	North Yorkshire Council
OBSMP	Outline Battery Safety Management Plan
OCEMP	Outline Construction Environmental Management Plan
OCTMP	Outline Construction Traffic Management Plan

ODEMP	Outline Decommissioning Environmental Management Plan
OHL	Overhead Line
OLEMP	Outline Landscape and Ecological Management Plan
ONS	Office for National Statistics
OOEMP	Outline Operational Environmental Management Plan
OSMP	Outline Soil Management Plan
PCS	Power Conversion System
PEA	Preliminary Ecological Appraisal
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
PRA	Preliminary Roost Assessment
PRF	Potential Roost Features
PRoW	Public Rights of Way
PWMS	Precautionary Working Method Statements
RAF	Royal Air Force
RIS	Rail Industry Standard
RPAs	Root Protection Areas
RVAA	Residential Visual Amenity Assessment
SGHAT	Sandia Laboratories' Solar Glare Hazard Analysis Tool
SINC	Site of Importance for Nature Conservation
SMS	Skylark Mitigation Strategy
SoS	Secretary of State for Energy and Climate Change
SPA	Special Protection Area
SRN	Strategic Road Network
SSEW	Soil Survey of England and Wales
SSSI	Site of Special Scientific Interest
SWDS	Surface Water Drainage Strategy
SWMP	Site Waste Management Plan
SZTV	Screened Zones of Theoretical Visibility
TA	Transport Assessment
TAs	Technical Appendices
TCC	Temporary Construction Compounds
TPOs	Tree Protection Orders
UKCP18	UK Climate Projections 18
WBCSD	World Business Council for Sustainable Development
WFD	Water Framework Directive
WG	Working Group
ZoI	Zone of Influence

1 INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

1.1.1 This Scoping Report has been prepared on behalf of Sedgeby Solar Limited ("the Applicant") as a formal request to the Planning Inspectorate (PINS) for an Environmental Impact Assessment (EIA) Scoping Opinion in respect of the proposed construction and operation of a solar farm plus Battery Energy Storage System (BESS) with associated infrastructure with a generating capacity of over 100 megawatts (MW) (alternating current, AC) of solar power (the "Proposed Development") near Little Sessay, North Yorkshire ("the Site").

1.1.2 As a generating station with a generating capacity of over 100MW(AC)[1] (approximately c.350MW) the Proposed Development constitutes a Nationally Significant Infrastructure Project (NSIP) which will require a Development Consent Order (DCO) granted by the Secretary of State for Energy and Climate Change (SoS) in accordance with the Planning Act 2008[2]. PINS manages the process for NSIPs on behalf of the SoS. This includes EIA Scoping, public consultation and examination before making a recommendation to the SoS, who makes the final decision on whether to grant a DCO.

1.1.3 Due to the size, scale and NSIP status of the Proposed Development, the Applicant intends to undertake an EIA, the findings of which will be reported in an Environmental Statement (ES) submitted in support of the Application for a DCO in accordance with The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017[3] (as amended) (hereafter referred to as "the EIA Regulations").

1.1.4 DHA Planning Limited (DHA), on behalf of the Applicant, has prepared this Scoping Report to inform PINS' formal EIA Scoping Opinion under the EIA Regulations to agree the depth, breadth and scope of the assessments that are required within the ES that will support the Application.

1.1.5 There is no standard format for an ES. The EIA Regulations require that an ES at least contains the information specified in Regulation 14(1-3). It must also include any additional information specified in Schedule 4 of the Regulations which is relevant to the specific characteristics of a particular development, or type of development, and to the environmental features likely to be significantly affected.

1.1.6 This Scoping Report has been prepared with reference to:

- NSIP – Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements (parts 5 and 6)[4].

[1] Infrastructure Planning (Onshore Wind and Solar Generation) Order 2025.
[2] https://www.legislation.gov.uk/ukpga/2008/29/contents
[3] https://www.legislation.gov.uk/uksi/2017/572/contents
[4] https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an

- NSIP – Advice Note Nine: Rochdale Envelope[5]
- NSIP - Technical Advice Page for Scoping Solar Development[6]
- NSIP - Advice on Cumulative Effects Assessment[7]
- Overarching National Policy Statement (NPS) for Energy (EN-1 – December 2025)[8]
- NPS for renewable energy infrastructure (EN-3 – December 2025)[9]

1.1.7 This Scoping Report presents information to assist PINS in the process of preparing a written opinion on the scope of information that should be set out in the ES. It outlines DHA's and the wider consultant team's initial assessment of the potentially significant environmental effects that the EIA would need to examine and the scope of the information that would need to be provided in the ES.

1.1.8 This Scoping Report has been prepared by DHA with technical input as follows:

Topic	Consultant
Traffic and Transport	DHA Transport
Noise and Vibration	Metrica Consulting
Socio-economics and Human Health	Pegasus Group
Glint and Glare	Metrica Consulting
Agricultural Land	Kernon Countryside Consultants
Flood Risk and Drainage	Pegasus Group
Ecology	APEM Ltd
Landscape and Visual Impact	Pegasus Group
Arboriculture	Barton-Hyett
Cultural Heritage and Archaeology	Cotswold Archaeology

TABLE 1.1: TECHNICAL INPUT TO THIS SCOPING REPORT

1.1.9 This Scoping Report is supported by a number of surveys and reports attached within the appendices. A number of these surveys and reports (primarily relating to agricultural land, ecology and arboriculture) were undertaken at an early stage of the Proposed Development to assist in informing the project and refining the red line boundary. Therefore, the area and/or red line boundary shown in some of the appendices will differ to the draft order limits (red line boundary) submitted as part of this Scoping Report provided at Appendix I. Notwithstanding this, the appended surveys and reports provide useful baseline information for the majority of the Site and therefore are still of assistance

[5] https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope
[6] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-technical-advice-page-for-scoping-solar-development
[7] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment
[8] Overarching National Policy Statement for energy (EN-1), 2025 - GOV.UK
[9] National Policy Statement for renewable energy infrastructure (EN-3), 2025 - GOV.UK

to the Planning Inspectorate, and any consultees, in forming their Scoping Opinion and remain relevant to the Proposed Development. As the Proposed Development progresses the appended surveys and reports will be updated as further assessments are undertaken as part of the preparation of the Environmental Statement. All final assessments and reports in the final ES submitted as part of the DCO application will be based upon and cover the final order limits.

1.2 PROJECT DETAILS

1.2.1 The key details of the Proposed Development subject to this Scoping Request are set out in Table 1.2 below.

Applicant	Sedgeby Solar Ltd
Site Address	Land south of Little Sessay, North Yorkshire
Brief Description of Development	Construction and operation of a solar farm plus BESS with associated infrastructure (with an approximate generating capacity of 350 MW(AC) of solar power, plus 350 MW of BESS).
Site Area	Approximately 420 hectares (ha)

TABLE 1.2: PROJECT DETAILS

1.3 LIMITATIONS AND ASSUMPTIONS

1.3.1 This Scoping Report has been informed by ongoing survey work at the Site, supplemented by desk-based information sources. At the time of writing, the development proposals are not fixed and are subject to change. This Scoping Report has been written based on information available at the time of writing. All assumptions and recommendations set out in this Scoping Report are based on the professional experience of members of the consultant team.

1.3.2 DHA is registered with the Institute of Sustainability and Environmental Professionals (formerly Institute of Environmental Management and Assessment) Quality Mark.

1.4 THE APPLICANT

1.4.1 The Applicant is a wholly owned subsidiary of BayWa r.e. UK Limited, which is owned by its German parent company BayWa r.e. AG & Energy Infrastructure Partners.

1.4.2 BayWa r.e. AG is an international project developer of wind, solar and BESS projects. Their activities include the planning, development and construction of these projects, as well as their operation and maintenance, and energy trading. BayWa r.e. is also a leading global supplier to the solar distribution market. In total, they have successfully brought

online more than 6 giga watts (GW) of renewable energy across the globe. In the UK & Ireland, BayWa r.e. UK has a project pipeline in excess of 4 GW, being delivered from offices in Glasgow, Edinburgh, Cork and Milton Keynes. BayWa r.e. also has an operation service which manages over 1.7 GW of solar, onshore wind, and BESS sites across the UK and Ireland.

1.4.3 BayWa r.e. UK has extensive experience of delivering solar projects in the UK. They have already delivered 23 UK solar projects (totalling approximately 384MW) including Vine Farm (a 46MWp solar park in Cambridge) as well as Bracks Solar Farm (a 30MWp solar park in Cambridgeshire). BayWa r.e. UK also secured a DCO for the Oaklands Farm Solar Park NSIP in June 2025.

1.5 SITE DESCRIPTION

Location Plan

1.5.1 Regulation 10(3)(a) requires a request for a Scoping Opinion to be accompanied by *"a plan sufficient to identify the land".* Such a plan is provided in Figure 1.1. A full size, scalable plan is provided in Appendix I of this Scoping Report. The red line shows the maximum extent of the proposed Order Limits.

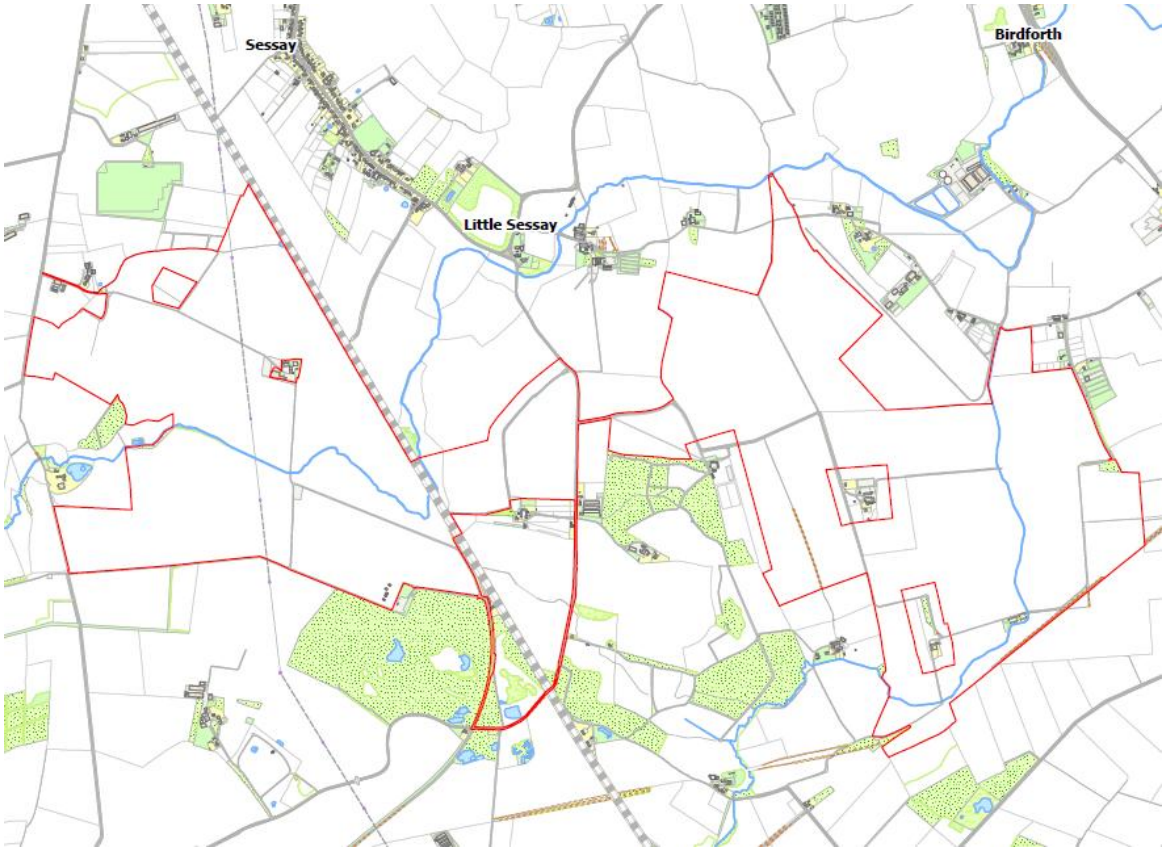
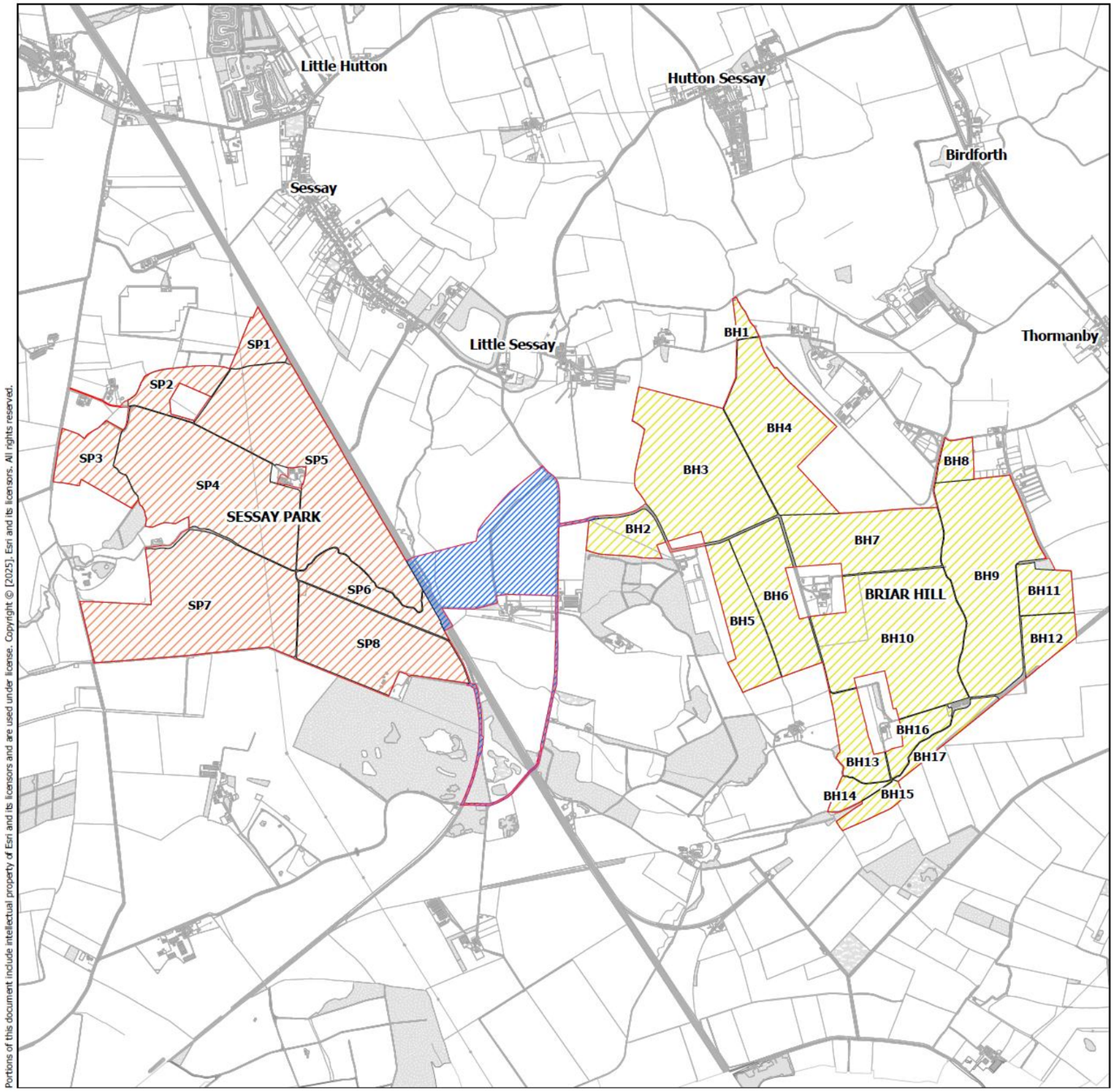


FIGURE 1.1: SITE LOCATION PLAN

The Site

1.5.2 The Site is located south of Little Sessay, North Yorkshire. The Site is approximately 420 ha, split across two 'development parcels' – known as Sessay Park (west) and Briar Hill (east). Connecting the two 'development parcels' is an area of land to be used to provide an electrical connection between them using an underground cable. This is referred to as the 'Cable Route Search Area'.

1.5.3 The Site lies entirely within the administrative boundary of North Yorkshire Council (NYC).



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Site Boundary
Cable Route Search Area
Briar Hill Field Splits
Sessay Park Field Splits

NOTES:

FIGURE REF: TMY17c.v2
DATE OF ISSUE: 18/12/2025
1:18,000 @ A3
PRODUCED: MCE
ISSUED TO: RFS

BayWa r.e.

FIGURE:
Sedgeby Field Splits

PROJECT:
Sedgeby Solar Farm

Spatial Reference:
Name: British National Grid
PCS: British National Grid
GCS: GCS OSGB 1936
Projection: Transverse Mercator

0 0.25 0.5 Kilometers
0 5 10 Kilometers

FIGURE 1.2: SITE IDENTIFICATION PLAN

Briar Hill

1.5.4 The Briar Hill Parcel is situated approximately 800 metres (m) southwest of the village of Thormanby, 1.9km north of Raskelf and 650m southeast of Little Sessay. At its northern extent the Site extends to Birdforth Beck and Mill Lane and at its southern extent parallel to a former dismantled railway line approximately 400m north of New Road. High and Low Wood extend along the parcel's western boundary.

1.5.5 The Briar Hill Parcel comprises a series of predominantly arable fields bound by ditches and hedgerows with existing farm tracks.

1.5.6 The land is currently utilised for agriculture, primarily supplying anaerobic digestion plants and the production of cattle feed. No crops grown are used for direct human consumption. An aerial view of the parcel is provided in Figure 1.3.

1.5.7 For the ease of reference and consistency throughout the Scoping Report, the Site has been given a referencing system for each individual field comprising the land parcel (BH1 = Briar Hill Field 1 etc). This is shown in Figure 1.4.

1.5.8 An area of land between Race Lane and the East Coast Mainline Railway forms part of the Order Limits to allow a connecting cable to be installed between the two parcels. Further detail in this regard is provided under 'Cable Search Area' below and Section 2.

1.5.9 At its western extent the Briar Hill Parcel sits at approximately 25m Above Ordnance Datum (AOD), rising to 35m AOD in the north and sloping west to east to 30m AOD in the southeast.

1.5.10 There are two watercourses within the Briar Hill Parcel of the Site, identified on OS mapping as New Cut running north to south in the west of the parcel and Sun Beck running north to south in the east of the parcel. There are two public footpaths (Route Code: 10.127/13/1 and 10.127/9/2) that run through the Briar Hill Parcel. There are also a number of existing overhead lines (OHL) that run through the parcel and some well-established access tracks which will be utilised by the Proposed Development.

1.5.11 Briar Hill Farm, and associated agricultural buildings, are situated within the middle of the parcel but outside the proposed Order Limits (surrounded by fields BH6, BH7 and BH10 as shown on Figure 1.4). The property and buildings are financially involved in the Proposed Development.

1.5.12 Throstle Nest, a residential property is outside the Order Limits but enclosed by it on all sides (Field BH10, BH13 and BH16 shown in Figure 1.4). The property is Grade II listed (see Site Constraints).

FIGURE 1.3: AERIAL VIEW OF THE BRIAR HILL PARCEL

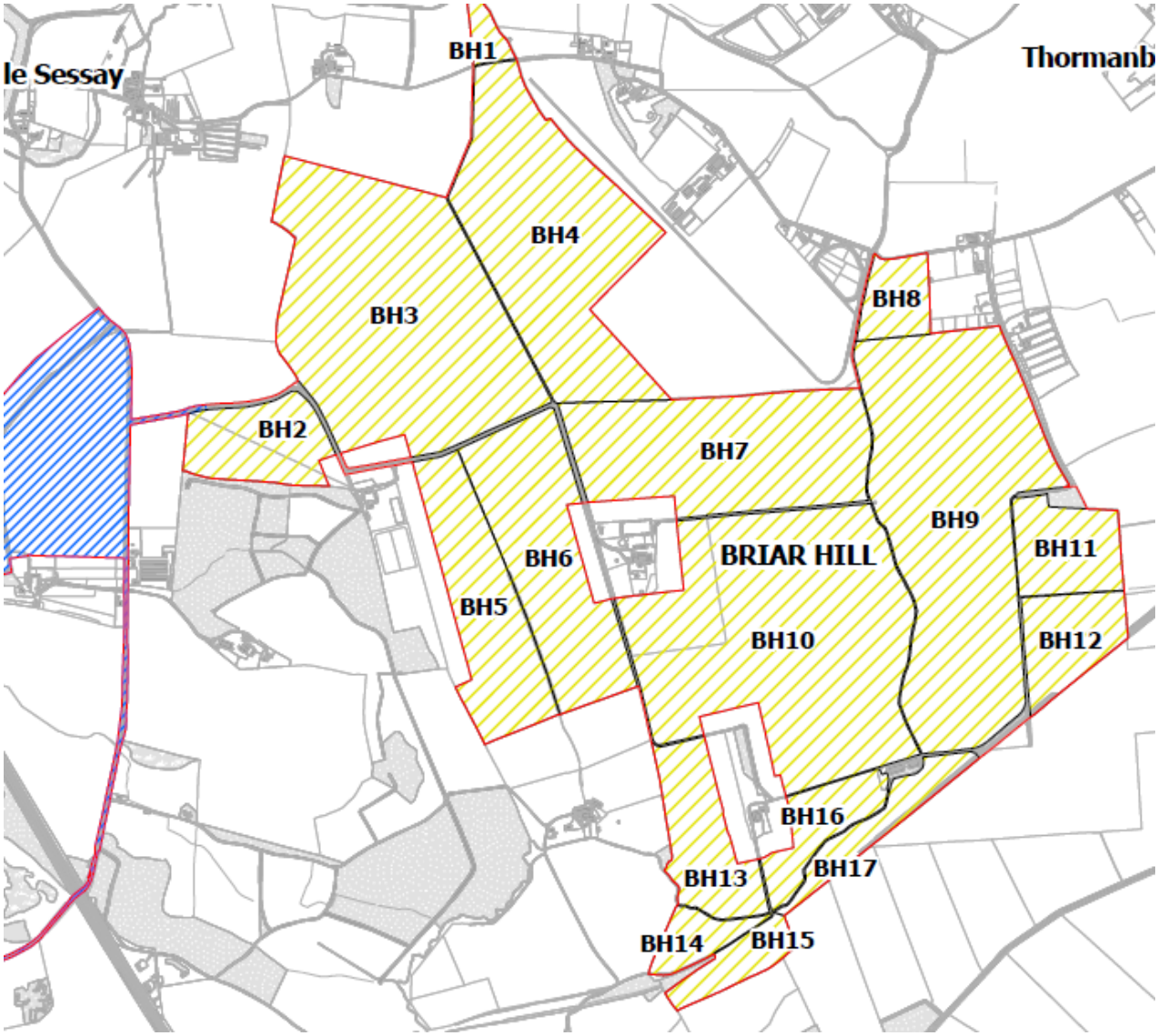


FIGURE 1.4: BRIAR HILL FIELD REFERENCE PLAN

Sessay Park

1.5.13 The Sessay Park Parcel lies approximately 780m southwest of Little Sessay and 500m southwest of Sessay. At its western extent, it extends to Blind Piece Lane and at its eastern extent to the East Coast Mainline railway. The southern boundary joins West Moor and East Moor woodlands, with the boundary extending along an existing track within East Moor Wood running north to south and Jobbing Cross Road. This area of woodland is also a designated Site of Special Scientific Interest (SSSI) known as Pilmoor SSSI (see Site Constraints).

1.5.14 At its western extent, the Sessay Park Parcel sits at approximately 25m AOD, rising to 30m AOD in the north sloping towards Birdforth Beck within the centre of the parcel at

approximately 23m AOD. The southern boundary of the Sessay Park Parcel sits at about 25m AOD.

1.5.15 A single watercourse, Birdforth Beck, runs west to east through the parcel bisecting it north and south.

1.5.16 There are several smaller drainage ditches within the parcel and a small pond in the north-east corner, adjacent to the railway. There are no residential properties or public footpaths within the Sessay Park Parcel. There are two residential properties that are located adjacent to the western extent of the parcel (Clarkwood and New Mills Farm), and one located adjacent to the southeast corner of the parcel (Station House). There is a cluster of agricultural buildings (up to 6 m high) and a 400 kV OHL and pylons, owned by National Grid Electricity Transmission (NGET), that run north-south through the centre of the Sessay Park Parcel. The land parcel comprises a series of predominantly arable fields bound by ditches, hedgerows and tree lines with existing farm tracks.

1.5.17 The land is currently utilised for agriculture, primarily supplying anaerobic digestion plants and the production of cattle feed. A small part of the parcel, along the southern boundary, is utilised for small-scale chicken farming using mobile hutches on rotation. Figure 1.5 provides an aerial view of the parcel.

1.5.18 For the ease of reference and consistency throughout the Scoping Report, the Site has been given a referencing system for each individual field comprising the land parcel (SP1 = Sessay Park Field 1 etc). This is shown in Figure 1.6

FIGURE 1.5: AERIAL VIEW OF THE SESSAY PARK PARCEL

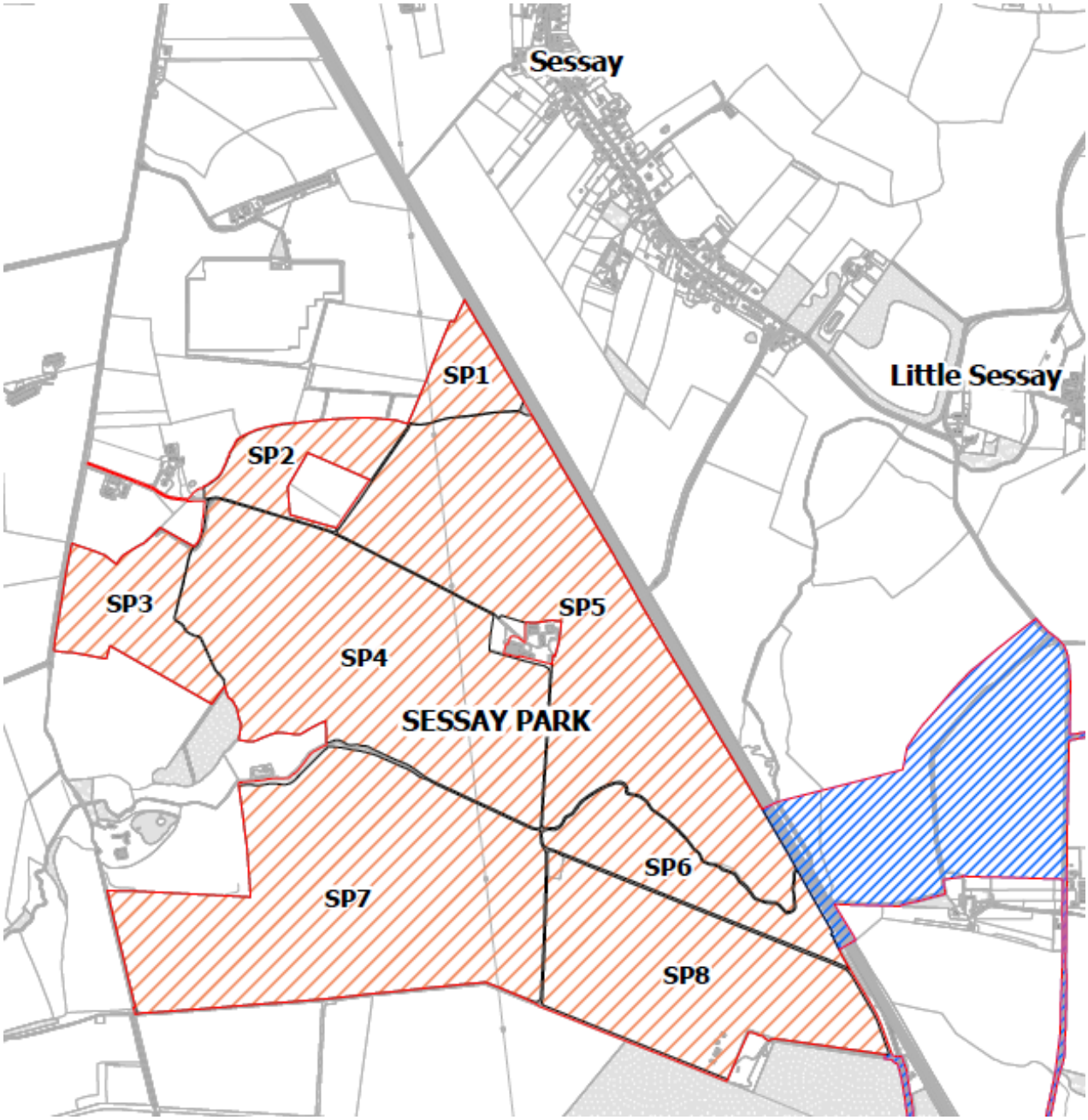


FIGURE 1.6: SESSAY PARK FIELD REFERENCE PLAN

Cable Search Area

1.5.19 Connecting the two 'development parcels' is an area of land to be used to provide an electrical connection between them using an underground cable. This is referred to as the 'Cable Route Search Area' and is shown in Figure 1.7 below.

1.5.20 This connection may route across intervening farmland comprising a large arable field, crossing the East Coast Mainline and Birdforth Beck via Horizontal Directional Drilling (HDD).

1.5.21 An alternative route within the public road is also being explored (i.e., via Race Lane, across the existing road bridge at Jobbing Cross Road and along the existing forestry track through East Moor Wood).

1.5.22 See Section 2 Nature and Purpose of the Proposed Development for further detail.

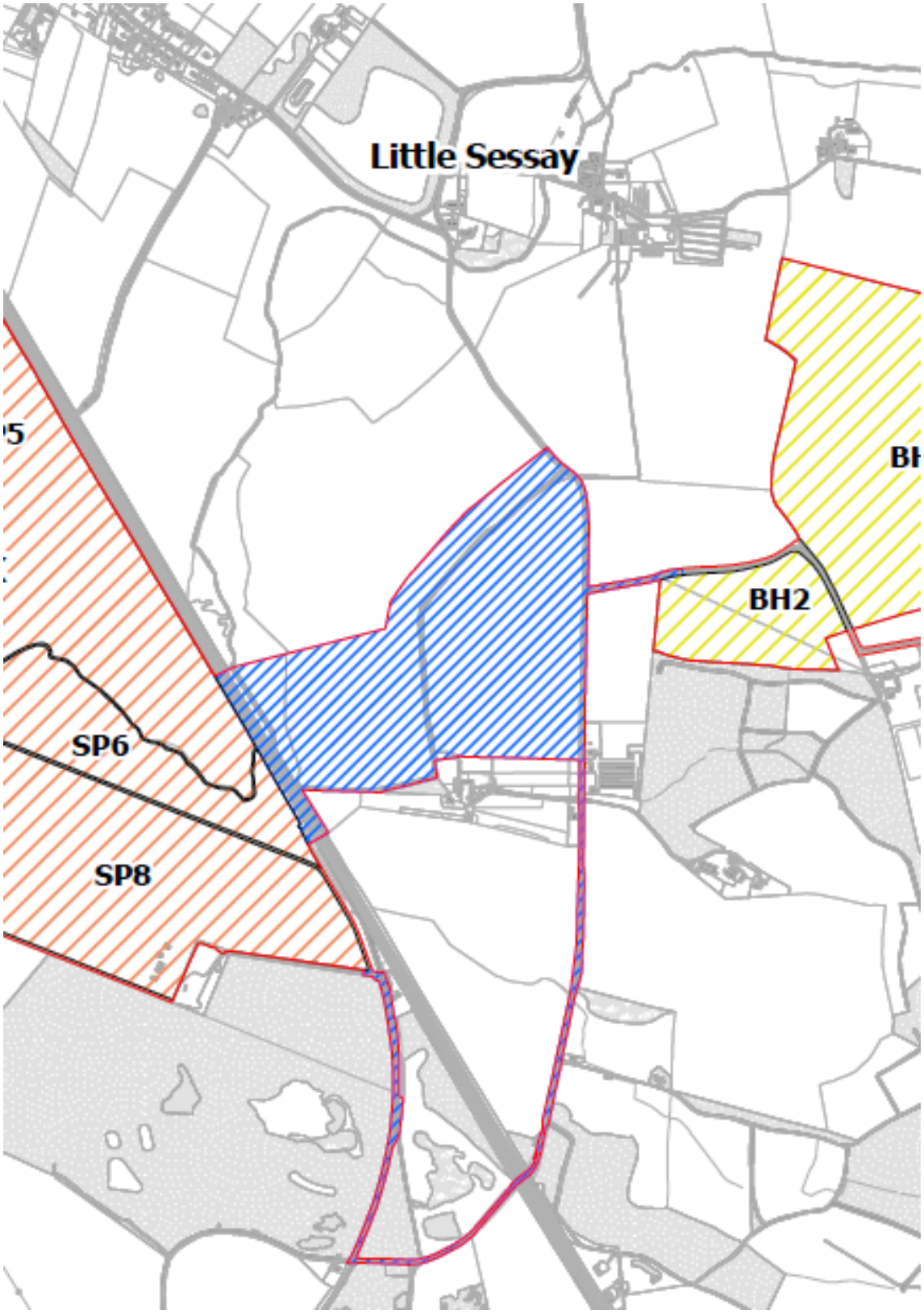


FIGURE 1.7: CABLE ROUTE SEARCH AREA SHOWN IN BLUE.

Planning History

1.5.23 There are no available records of any recent and/or relevant planning history for the Site that has any bearing on the Proposed Development.

1.6 SITE CONSTRAINTS

1.6.1 A summary of the known sensitivities/sensitive areas within the Site, or within a 10km Zone of Influence (ZoI) of the Site (informed by the topic specialist sections of this Report), are provided in the Tables below and shown spatially in Figure 1.8(a-d).

SENSITIVE FEATURES WITHIN THE SITE (BRIAR HILL)	
Sites of Special Scientific Interest	X
European sites	X
National Parks	X
World Heritage Sites	X
Scheduled Monuments	X
Listed buildings	✓ Whilst outside the proposed Order Limits, Throstle Nest is encircled by the Site and is a Grade II listed, early C19 farmhouse.
National Landscapes	X
Flood zones	✓ Areas of flood zones 2 and 3 extend across the parcel.
Groundwater protection zones	X
Other	X

TABLE 1.3 SENSTIVE FEATURES WITHIN THE SITE (BRIAR HILL)

SENSTIVE FEATURES WITHIN THE SITE (SESSAY PARK)	
Sites of Special Scientific Interest	✓ The DCO boundary extends along an existing track within East Moor Wood which is designated as Pilmoor SSSI running north to south to Jobbing Cross Road.
European sites	X
National Parks	X
World Heritage Sites	X
Scheduled Monuments	X
Listed buildings	X
National Landscapes	X
Flood zones	✓ Areas of flood zones 2 and 3 extend across the parcel, largely contiguous with Birdforth Beck.
Groundwater protection zones	X
Other	X

TABLE 1.4 SENSTIVE FEATURES WITHIN THE SITE (SESSAY PARK)

SENSTIVE FEATURES WITHIN THE SITE (CABLE ROUTE SEARCH AREA)	
Sites of Special Scientific Interest	✓ The DCO boundary extends along an existing track within East Moor Wood which is designated as Pilmoor SSSI running north to south to Jobbing Cross Road.
European sites	X
National Parks	X
World Heritage Sites	X
Scheduled Monuments	X
Listed buildings	X
National Landscapes	X
Flood zones	✓ Areas of flood zones 2 and 3 associated with Birdforth Beck extend across the farm land.
Groundwater protection zones	X
Other	X

TABLE 1.5 SENSTIVE FEATURES WITHIN THE SITE (CABLE ROUTE SEARCH AREA)

SENSITIVE FEATURES IN PROXIMITY TO THE SITE	
SSSI	The nearest SSSI to the Site is Pilmoor SSSI, at East Moor wood. The SSSI is adjacent to the south boundary of Sessay Park. Part of the Order Limits Order Limits encompasses an existing track that sits within the SSSI. The next nearest SSSI is Gormire Located 8km north of the Site.
European sites	The nearest European site is the North York Moors Special Protection Area (SPA) located approximately 12km north of the Site.
National Parks	The North York Moors National Park is located approximately 4.8km northeast of the Site.
World Heritage Sites	The nearest World Heritage Site is Studley Royal Park located approximately 10km southwest of the Site.
Scheduled Monuments	The nearest Schedule Monument is a medieval moated site, fishponds and associated field system 125m south of Eldmire Cottage. It is located approximately 1.8km west of the Site.
National Landscapes	The Howardian Hills National Landscape is located approximately 3.1km east of the Site.
Listed buildings	There are three Grade II listed buildings located close to (within 400m of the Site): Woodend, Woodmans House Farmhouse and a bridge over Birdforth Beck. There are two Grade II* churches in proximity to the Site: Church of St Cuthbert at Little Sessay and Church of St Mary Magdalene at Thormanby.
Conservation Areas	Little Sessay and Sessay are designated as a heritage Conservation Area.
Other	High Wood and Low Wood that lie adjacent to the western boundary of the Briar Hill are designated as ancient woodland and a Site of Importance for Nature Conservation (SINC) in the NYC Development Plan.

TABLE 1.6 SENSTIVE FEATURES IN PROXIMITY TO THE SITE

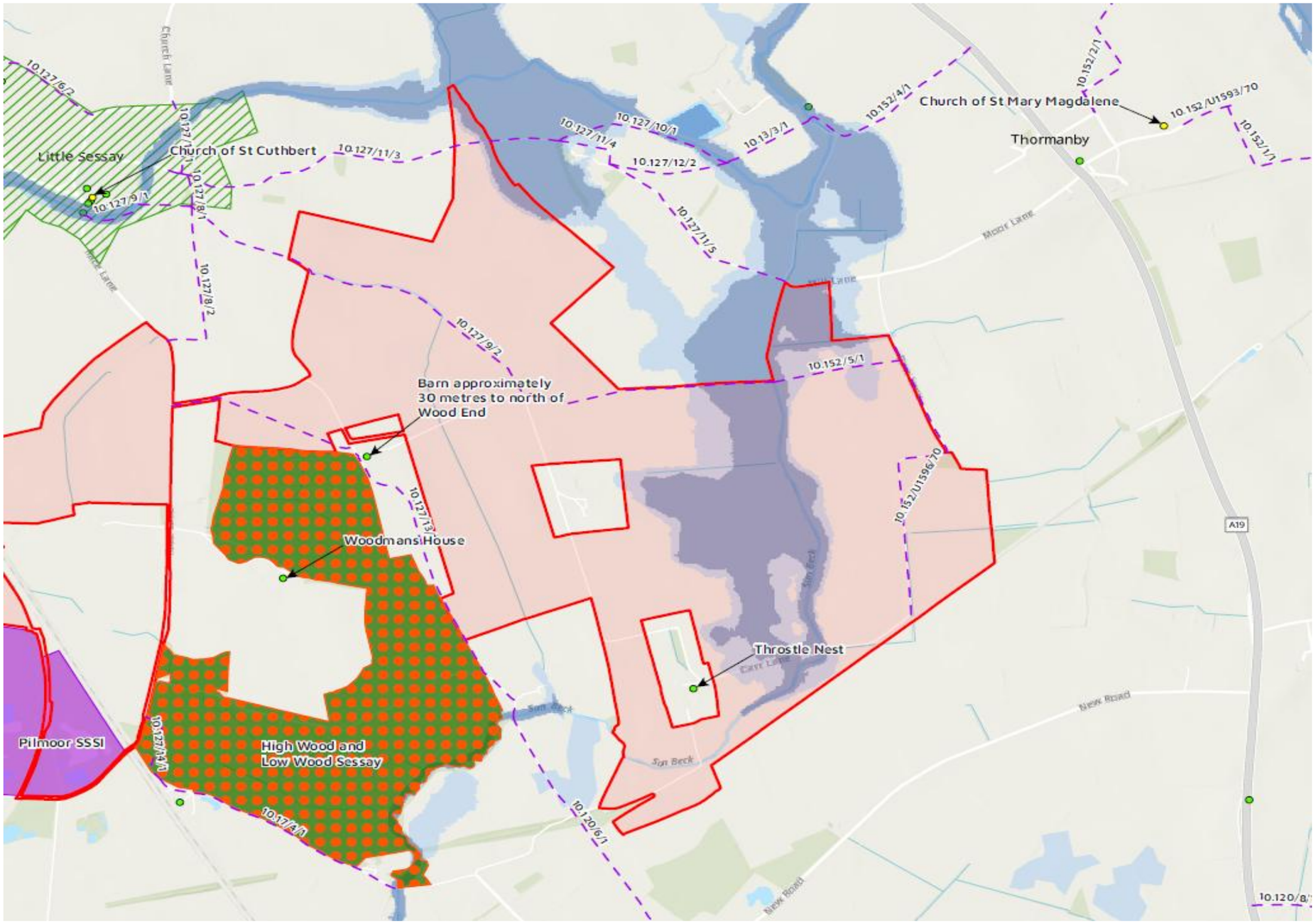
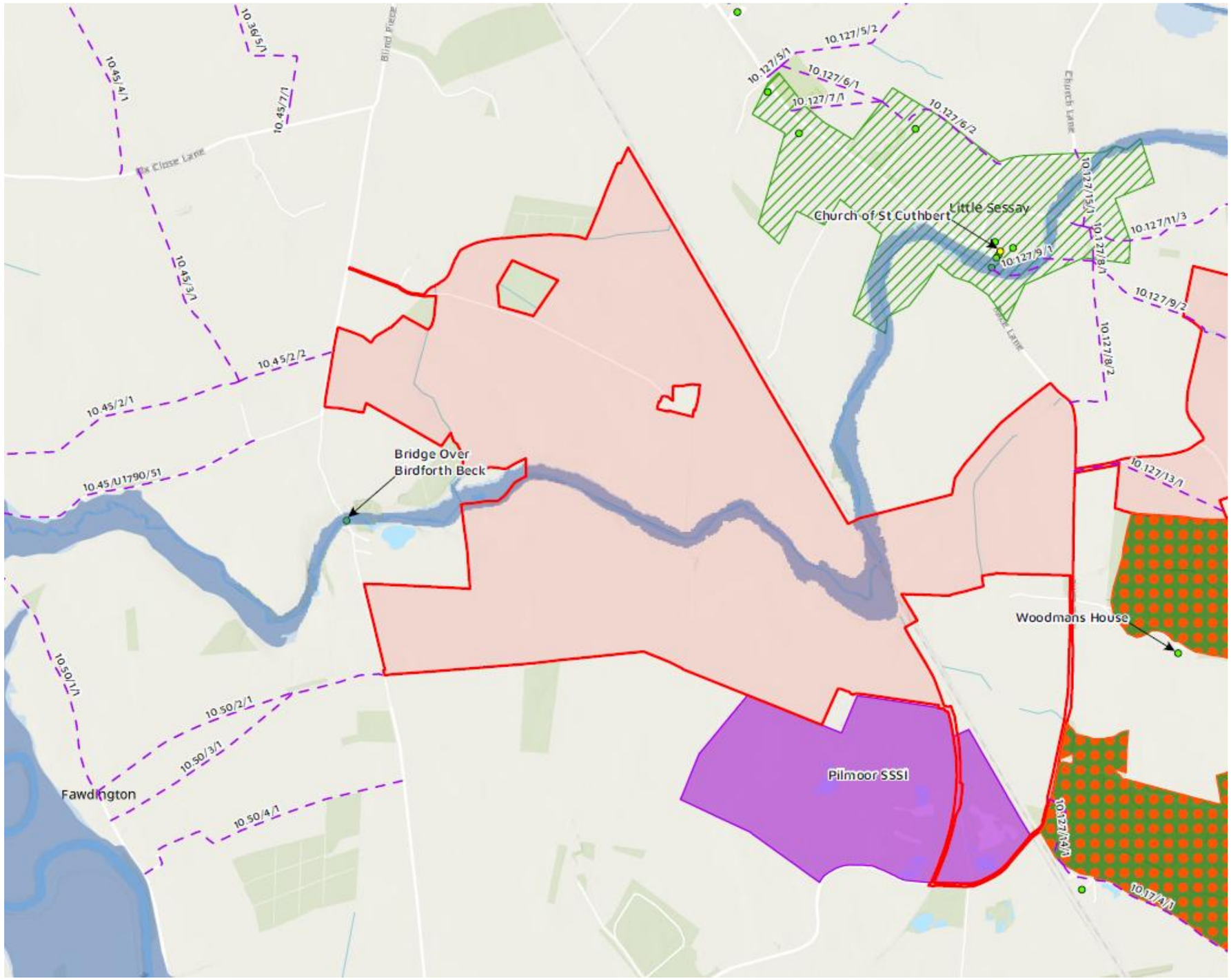


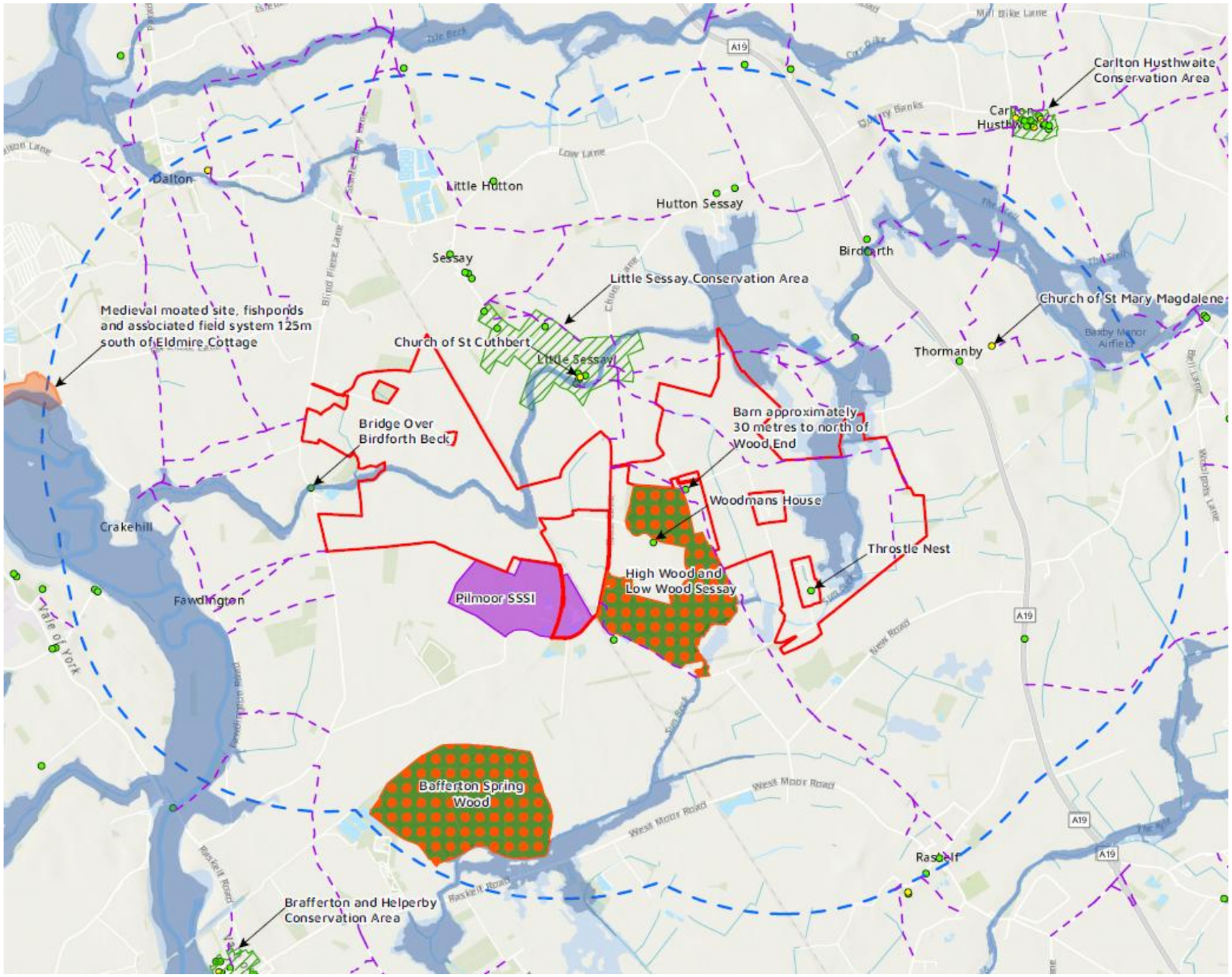
FIGURE 1.8A: SENSTIVE FEATURES WITHIN THE SITE (EAST)



Key

- Site Boundary
- Ancient Woodland
- Flood Zone 2
- Flood Zone 3
- SSSI
- Sessay Conservation Area
- Site of Importance for Nature Conservation
- Public Rights of Way (PROW)
- Grade II* Listed Building
- Grade II Listed Building

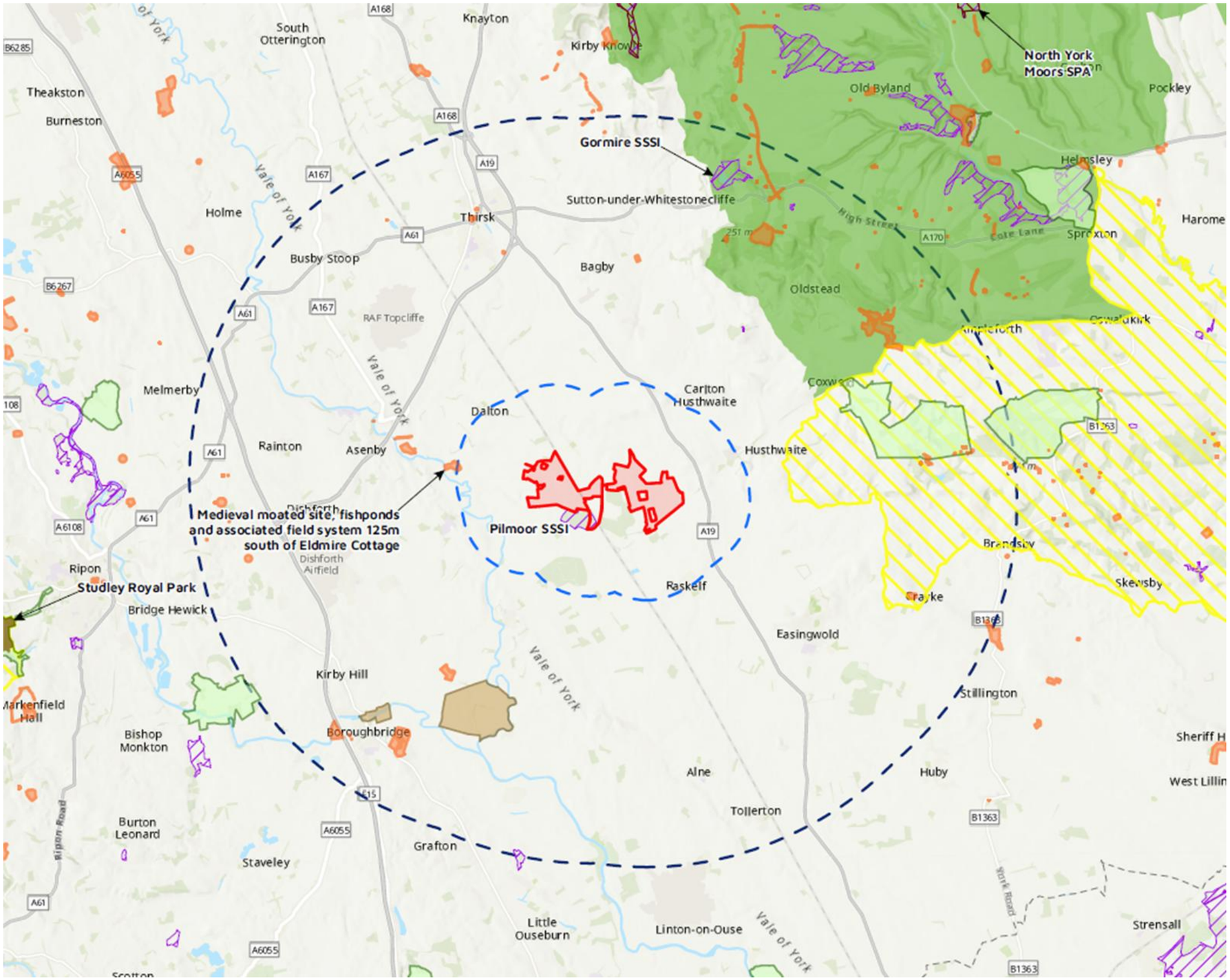
FIGURE 1.8B: SENSTIVE FEATURES WITHIN THE SITE (WEST)



Key

- Site Boundary
- 2km Buffer
- Ancient Woodland
- Flood Zone 3
- Flood Zone 2
- Scheduled Monuments
- SSSI
- Conservation Area
- Site of Importance for Nature Conservation
- Grade II* Listed Building
- Grade II Listed Building
- Public Rights of Way (PROW)

FIGURE 1.8C: SENSITIVE AREAS WITHIN 2KM OF THE SITE BOUNDARY



Key

- Site Boundary
- 2km Buffer
- 10km Buffer
- North York Moors National Park
- Special Protection Areas
- Scheduled Monuments
- Parks and Gardens
- World Heritage Sites
- Howardian Hills National Landscape
- SSSI
- Registered Battlefields

FIGURE 1.8D: SENSTIVE AREAS BETWEEN 2-10KM OF THE SITE BOUNDARY

2 NATURE AND PURPOSE OF THE DEVELOPMENT

2.1 THE PROPOSED DEVELOPMENT

Description of the Proposed Development

2.1.1 The Applicant wishes to seek a DCO for a proposed solar farm with an approximate generating capacity of 350MW with an associated BESS of approximately 350MW. The Proposed Development would therefore have a generating capacity of over 100MW[10] AC and would be located on 420 ha of land, split across two 'development parcels' – Briar Hill and Sessay Park.

2.1.2 The solar farm will principally comprise a series of solar panel arrays, an onsite customer electricity substation, switchgear and BESS together with access, landscaping and other works. Each parcel will be contained by a perimeter fence with CCTV surveillance. Access within, and through, the Proposed Development will be facilitated by existing and new tracks. A comprehensive landscaping and ecological mitigation and enhancement scheme will form a key part of the Proposed Development.

2.1.3 Construction and decommissioning vehicle access to the Sessay Park Parcel will be via a new access from Blind Piece Lane to the west to bypass Clarkwood Farm. Operational access will be from Blind Piece Lane, via an existing access track. Vehicle access to the Briar Hill Parcel will be from the west from Race Lane via an existing entrance and access track.

2.1.4 The BESS, onsite customer substation and switchgear are proposed to be co-located in a central area on the Sessay Park Parcel, located behind existing agricultural buildings and in close proximity to the existing pylons. The Briar Hill Parcel will therefore comprise solar panel arrays and associated infrastructure.

2.1.5 An area of land joining the Briar Hill Parcel and the Sessay Park Parcel is being assessed to locate and route the connecting electricity cable between the two parcels (Cable Route Search Area). This connection may take a route across intervening farmland, before crossing the East Coast Mainline via HDD. An alternative route within the public road is also being assessed (i.e., via Race Lane, across the existing road bridge at Jobbing Cross Road and along the existing forestry track through East Moor Wood). Both routes have been discussed with Network Rail during early consultation.

2.1.6 A high-level Scoping Concept Plan is provided as Figure 2.1 showing the Proposed Development.

2.1.7 The layout of the Proposed Development is not yet finalised, but the Scoping Concept Plan shows the likely maximum spatial layout. The design of the Proposed Development will continue to evolve following statutory, non-statutory and public engagement and alongside the information being gathered as part of the EIA of the Proposed Development. It has already been informed by baseline surveys and initial discussions with consultees.

[10] Infrastructure Planning (Onshore Wind and Solar Generation) Order 2025

2.1.8 Current known constraints have informed the design, and the application of development free buffers have been applied to the Scoping Concept Plan, (Figure 2.1) including:

- A 10 m buffer to all watercourses;
- Avoidance of all Root Protection Areas (RPAs) and Tree Protection Orders (TPOs) as far as possible, except for small areas of fence lines and new on-site tracks;
- All electrically sensitive infrastructure (e.g., transformers, substation) will be located outside Flood Zones 2 & 3;
- A 15 m buffer to Ancient Woodland (except if and where electricity cables might be required to route under an existing forestry track through East Moor wood);
- Application of development free buffers to residential properties at Throstle Nest and Woodend (both Grade II listed);
- A minimum 100 m development free buffer to all residential properties;
- Preserving existing Public Rights of Way (PRoW) and application of a development free buffer of 5 m to the fence line on both sides; and
- Existing hedgerows / field boundaries / trees to be retained as far as possible.

Off-site Grid connection

2.1.9 The Proposed Development will need to connect to the NGET to export the electricity generated. A connection agreement was signed with NGET, naming the point of connection as a new 400kV substation to be located within the Thormanby area. The location of the new 400kV substation had not been confirmed, as NGET are undertaking a site finding exercise to determine the most suitable location.

2.1.10 Following the National Energy System Operator (NESO) led Gate 2 to Whole Queue connection reform process, the project was awarded a Gate 1 contract. Gate 1 contracts are devoid of project specific detail, containing no information on the connection configuration, cost or programme. The relevant network company will only consider these details when the project is awarded a Gate 2 contract in subsequent application windows.

2.1.11 As a result of this, this scoping report does not consider the offsite NGET point of connection or the grid connection route as it is currently unknown. This will become common practice within the DCO planning process due to the previously mentioned grid reform applying to all future energy generation projects.

2.1.12 The strategy for incorporating the cable route to the point of connection specified by NGET will be reviewed throughout the pre-application phase of the project and will be heavily dependent on the information provided by NGET. The Applicant is aware of other solar NSIPs which are progressing through EIA and Examination while seeking flexibility so the outcome of these comparable projects will be monitored. If it is not progressed through a single application, then the Applicant will explain the reasons for any alternative approach.

2.1.13 The approach to consenting the cable route will likely be an iterative process, depending on when information is provided by NGET.

2.1.14 Despite this change in the way grid connection offers are awarded within the UK, there is still a strong and clear need to progress with this project due to government targets through 2030 and beyond. Progression within the planning application process will bolster our future Gate 2 application, to allow the project to make a significant contribution to national energy targets.

Parameters of the Proposed Development

2.1.15 As is common amongst all solar DCOs, the detailed design of the Proposed Development will inevitably require a degree of flexibility to allow for the length of time incurred through the DCO process from inception through to making an application, Examination, discharging Requirements and through to the construction of the Proposed Development. This will extend over a period of several years. Furthermore, the solar industry is progressing through a period of rapid technological advancement in addition to a large range of cost variables and product availability issues. A degree of flexibility is therefore required with respect to the precise location and design of plant, equipment and ancillary works.

2.1.16 To reflect this and in accordance with the Rochdale Envelope principles, as set out in PINS Advice Note 9, a series of maximum parameters that provide the strategic framework for the Proposed Development will be devised as part of the Application. These parameters are the framework on which the EIA will be undertaken and which the Proposed Development will be required to accord with when discharging Requirements at the detailed design stage post granting of the DCO.

2.1.17 The parameters for the Proposed Development will be embedded into the Work Plans, similar to, and building on the Scoping Concept Plan provided in Figure 2.1. The areas defined on the plan for specific infrastructure or activities (Works Areas) will form a series of ‘spatial envelopes’ within which the identified Works are to be located. This allows a degree of flexibility at the detailed design stage as to the precise layout and location of the relevant Works that make up the Proposed Development.

2.1.18 In addition to the flexibility sought for the layout of the Proposed Development, a degree of flexibility will be required in respect of the precise dimensions of components comprising the Proposed Development and the method of installation of various Works. Maximum “worst case” parameters will therefore be devised to ensure the EIA is robust.

2.1.19 To assist with the EIA Scoping process, initial design parameters have been formulated and are presented in Table 2.1. Similarly, these parameters are not yet fixed, however they demonstrate the likely maximum quantum or scale of the infrastructure that will form the Proposed Development.

SCHEME COMPONENT	DESIGN PARAMETER (DRAFT)
Solar panels, located on metal mounting structures	• South-facing rows of modular solar panel arrays. • Front, lower edge of the modules will be approximately 0.8 m above ground level. Please note – certain areas of panels might need to be elevated further following consultation with the Environment Agency due to location in Flood Zones 2 & 3. • Maximum height of approximately 3.5 m on the rear, upper edge, (maximum height anticipated to be where panels may be required to be raised in Flood Zones 2 & 3 to accommodate maximum flood depths). • Each row to be spaced at a minimum of 2.5m to prevent overshadowing panels by adjacent rows. • Panels will be coated in anti-reflective substances. **See Figure 2.2 showing example PV array.**
Inverters	• Small electrical units mounted on the support structures under the solar panels at the end of most rows of panels. • Collect the Direct Current (DC) electricity from the solar panels and convert it into AC electricity. • Cables from the panels to the inverters will likely sit in cable trays appended to the back of the mounting structures, rather than being underground. • This electricity is then directed into the Transformers via underground cabling. **See Figure 2.3 showing example inverters.**
Transformers	• Number of transformers required to be confirmed as the project progresses. • Transformer units collect the AC electricity supplied from the inverters and increase the voltage directing it towards the switchgear. • Each comprises a metal box approximately 3.70 m high x 7.5 m wide x 2.9 m long. • These will be dark green or recessive grey. • These will be located on a concrete base, approximately 0.6 m above ground level. • During operation, accessed via a network of unobstructed internal grass or gravel access tracks. • Transformers will be located outside Flood Zones 2 & 3. **Figure 2.4 provides a photo of an example transformer.**
On-site cabling, including the requirement for HDD	• Low Voltage (LV) cabling collects electrical output from solar panels, running in cable trays fastened to underside of solar panels to the inverters. • High Voltage (HV) cabling, if required, will be underground, likely leading from the transformers to the on-site substation. • HDD - a pipeline is bored under the feature to be crossed (e.g., watercourse, utility asset, railway) to emerge at a target point on the opposite side. Temporary 'launch pads' will be required for the entry and exit points during construction. • Crossing techniques such as HDD and / or appending cables to existing watercourse crossings are preferred, however, the option for trenching is included at this stage. • Underground cables will be required to join the two development parcels, Sessay Park (west) and Briar Hill (east). Multiple options are being explored at this stage but could include HDD under the railway or cable laid under Race Lane and Jobbing Cross. Both are included in the Scoping Concept Plan in Figure 2.1.

BESS facility	• Maximum area approximately 5.5 ha • Power Conversion System (PCS) – equivalent of inverters on solar panels, convert the DC stored in the batteries into an AC which allows the electricity to be fed back into the grid. • BESS Containers – number of containers to be confirmed as project progresses. Dimensions will be approximately. 9.4 m x 1.8 m x 2.5 m (length, width, height). Would be dark green or recessive grey in colour. Containers will sit on concrete piles or blocks, raised to approx. 0.6 m above ground level. • BESS Auxiliary Transformer – equivalent of transformer on solar site, collecting the electricity from the PCS units and directing it towards the switchgear. • Internal BESS Unit Fire Suppression System – will be informed through collaboration with the hydrology team and will be dependent on the water supply present onsite, chemistry of battery used and spacing of BESS containers. • BESS compound security fencing - Steel palisade security fencing with lockable double-leaf access gates, up to 3 m high. • Located outside Flood Zones 2 & 3. **Figure 2.5 provides a photo of an example BESS facility.**
Project Substation and switchgear room	• An enclosure will house the Project Substation, which collects all the generated AC electricity from the transformers and includes the switchgear room. • The AC electricity will then connect to the electricity network. • The Project Substation will be approximately 7.2 m long x 5.3 m wide x 3.7 m high and will house the switchgear room for the Proposed Development. • Foundations – Likely located on a concrete base, approximately 0.6 m above ground level. • Located outside Flood Zones 2 & 3. • Underground cables will then connect the Project Substation to NGET infrastructure. This is excluded from the Scoping Report (see position below on grid connection above).
Fencing and security measures	• The Site will be secured by a galvanised mesh deer fence (approximately 2 m high), supported on wooden poles (approximately 3 m spacing). • The fence will include mammal gaps to allow the continued movement of species that currently utilise the Site. • Minimum buffer of 5 m from the fence to the solar panels. • CCTV cameras will be located around the perimeter of the Site, at approximately 50 m intervals. These will be located on steel masts, approximately 3.5 m high. CCTV cameras will face inwards towards the Site and be remotely monitored. **Figure 2.6 provides a photo of the proposed fencing.**
Lighting	• Lighting is not required within the solar panel arrays. Motion sensing security lighting will be provided within transformers and within the BESS to be used only for maintenance and security purposes.
Access tracks including new and upgraded access(es)	• Existing access tracks will be utilised as far as possible. • Any new tracks will be sensitively designed, typically along field boundaries (with appropriate buffers) and/ or between rows of panels. • New on-site tracks typically consist of compacted crushed stoned surface or in some places unobstructed corridors of grass, linking the transformer units and providing access for maintenance. • Access tracks are an average of 3.5m wide, but a maximum of approximately 6 m wide and will utilise existing field entrances, as far as possible.

	• Any new construction tracks (where existing tracks cannot be utilised) will likely be 3.5 – 6 m wide, made up of compacted gravel with a geotextile membrane.
New, temporary watercourse crossing(s) and upgrades to existing watercourse crossings	• Where internal construction access tracks are required to cross a watercourse (where existing crossings cannot be used), a temporary crossing solution will be utilised. The intention will be to remove this temporary crossing solution following construction. • There are 5 existing on-site watercourse crossings which will be utilised and may require upgrading.
Habitat management including landscaping and planting	• The layout of infrastructure will be designed to minimise impacts on the existing trees and hedgerows which will be retained and protected wherever possible. • Existing field accesses will be used wherever possible. • Further landscape and ecological enhancement to be developed with ecology, ornithology and arboriculture input.
Temporary Construction Compounds (TCC)	• Likely two on each Proposed Development parcel, with additional satellite compounds where required. • Each approximately 50 m x 50 m • Likely consist of metal plates to avoid damage to the ground and / or compacted gravel. The TCC would be utilised as the site office, staff parking and storage. • They would likely consist of metal storage containers, approximately 3.3 m high x 2.5 m wide x 6 m long. • As construction will primarily take place during daytime, on-site lighting will be limited to emergency lights over the TCC, Project Substation, BESS and transformers. • Following construction (approximately 18 months), the TCC will be removed, and the land utilised for solar panels or habitat management.

TABLE 2.1: INITIAL DESIGN PARAMETERS

Development lifespan and phases

2.1.20 Development Consent is sought for a period of 40 years which will be the maximum period the Proposed Development will operate for once constructed and commissioned. Construction of the Proposed Development is anticipated to take 18 months. At the end of the 40-year operational period, the Proposed Development would cease operation, and the Site would be decommissioned whereby all above ground infrastructure and equipment will be removed with the land thereby available to revert back to its previous use at the end of that period. Decommissioning will be in line with best practice at the time and is expected to be completed within 18 months.

2.1.21 Development Consent is targeted for 2028/2029 with construction beginning in 2031. The Proposed Development is therefore expected to become operational in 2033 and operate until 2073.

2.1.22 These timescales are indicative based on the current grid connection contract and subject to change.

Construction

2.1.23 Construction of the Proposed Development will likely run in parallel on both Briar Hill and Sessay Park Parcels.

2.1.24 The construction process will broadly proceed as follows:

- **Enabling and civil works.**
    - Construction of site entrance (Sessay Park) and upgrade of existing site entrance (if required, for Briar Hill).
    - Establishment of TCCs, which include site offices/welfare area and parking area.
    - Upgrading, modification or improvement of highways where required for site construction.
    - Preparation of land for construction, including localised site levelling (where required) and vegetation clearance.
    - Import of construction materials, plant and equipment to the Site.
    - Establishment of the construction area fence where required for construction works to progress (the installation of the perimeter fence will progress with construction in each area and therefore will not be complete at the start of construction).
    - Construction of the internal access tracks.
    - Marking out the location of the operational infrastructure.
    - Installation of site drainage.
- **BESS construction.**
    - Installation of electric cabling.
    - Construction of foundations.
    - Import of components to the Site.
    - Installation of BESS, auxiliary transformer and PCS units.
    - Installation of perimeter fencing, gates and CCTV.
    - Installation of water storage tanks and associated fire-fighting infrastructure.
- **Construction substation compound and welfare facilities.**
    - Installation of electric cabling.
    - Construction of foundations.
    - Import of components to the Site.
    - Installation of transformers, harmonic filter, statcoms, control building, welfare building, and storage containers.
    - Installation of perimeter fencing, gates and CCTV.

  - Installation of water storage tank, deluge system and associated fire-fighting equipment.

- **Trenching and Installation of electric cabling within the Order Limits.**
- **Installation of solar panels.**
  - Import of components to the Site.
  - Piling and erection of solar array module mounting structures, using mobile piling rigs to install metal piles up to 2m in depth.
  - Mounting of solar array modules to the mounting structure using hand-held power tools.
  - Trenching and installation of electric cabling.
  - Installation of inverters and transformer units.
  - Installation of perimeter fencing, gates and CCTV.
- Site re-instatement and landscaping works.
  - Removal of temporary construction access tracks and construction compounds and laydowns areas.
  - Planting and establishment of hedgerows, trees, grassland and other habitats

2.1.25 An Outline Construction Environmental Management Plan (OCEMP) will be developed and used to capture all of the mitigation for potential construction related effects identified through the EIA. The OCEMP will form an Appendix to the ES.

Operation

2.1.26 Once the Proposed Development has been commissioned the ongoing operation and maintenance activities required are limited and principally include:

- Equipment maintenance and servicing.
- Replacement of broken or faulty equipment.
- Ongoing monitoring of equipment performance.
- Ongoing implementation of the proposed landscaping and ecological works in accordance with a Landscape and Ecological Management Plan (LEMP).

2.1.27 An Outline Operational Environmental Management Plan (OOEMP) will be developed and used to capture any mitigation required for effects related to the operation of the Proposed Development for 40 years, as identified through the EIA. The OOEMP will form an Appendix to the ES.

Decommissioning

2.1.28 At the end of its operational life, the Proposed Development will be fully decommissioned, in line with best practice at the time.

2.1.29 It is proposed that above ground plant, machinery and equipment will be removed together with all perimeter fencing and hard standing. Internal access tracks are to be removed unless the landowner wishes them to remain. All cables will also be removed except where the impact of removal is deemed to outweigh the benefit of the cables remaining in situ at the time of decommissioning. The land within the Site will be made available for agricultural use after decommissioning.

2.1.30 An Outline Decommissioning Environmental Management Plan (ODEMP) will be developed and used to capture any mitigation required for effects related to the decommissioning of the Proposed Development. The ODEMP will form an Appendix to the ES.

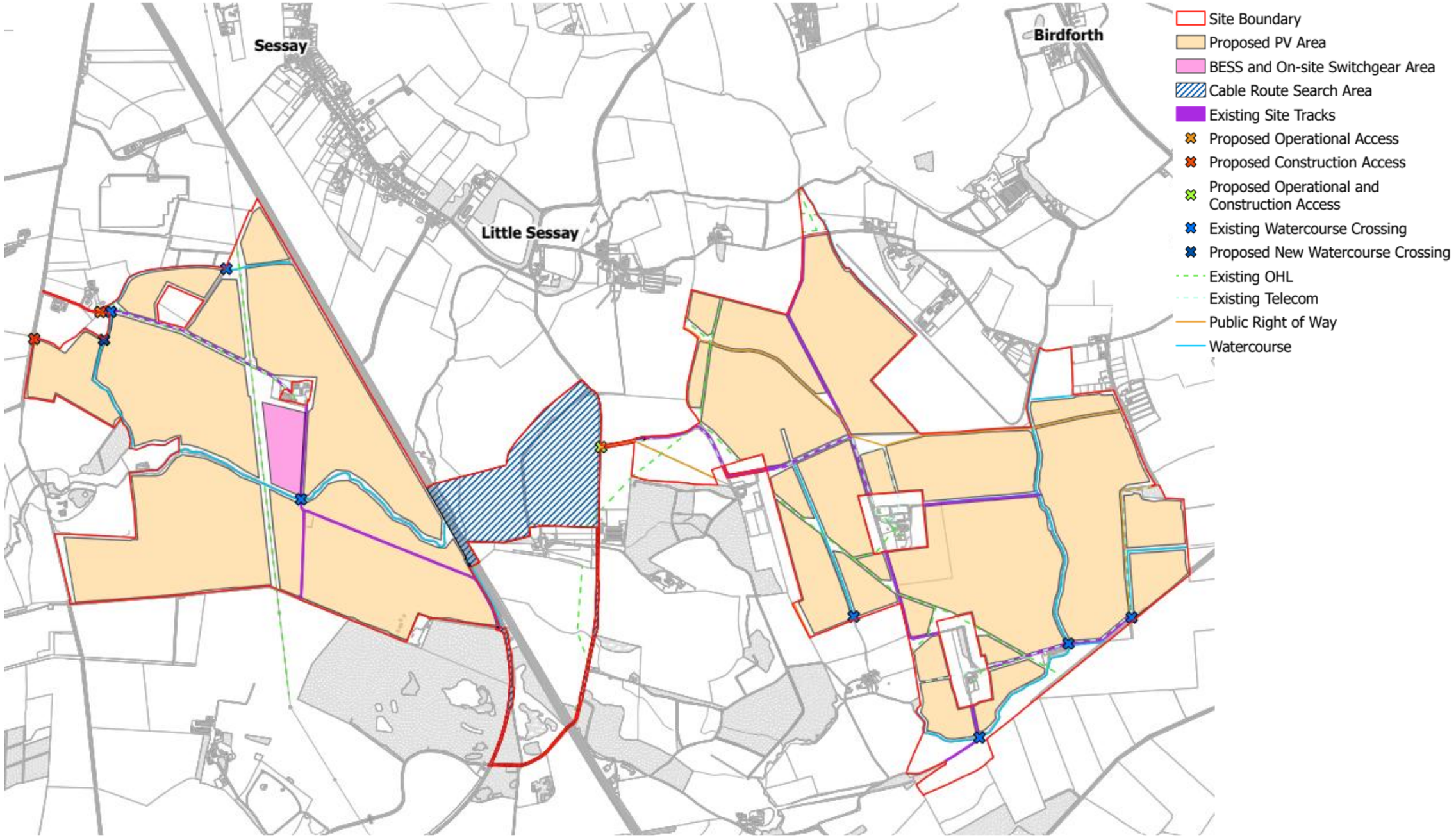


FIGURE 2.1: SCOPING CONCEPT PLAN

FIGURE 2.2: EXAMPLE SOLAR PANEL ARRAYS

FIGURE 2.3: EXAMPLE PHOTO OF INVERTERS

FIGURE 2.4: EXAMPLE PHOTO OF A TRANSFORMER

FIGURE 2.5: EXAMPLE PHOTO OF A BESS

FIGURE 2.6: EXAMPLE PHOTO OF SOLAR FARM PERIMETER FENCING

3 APPROACH TO EIA

3.1 EIA ASSESSMENT METHODOLOGY – GENERAL APPROACH

3.1.1 An environmental impact is an alteration, positive or negative, to some aspect of the environment (sensitive receptors[11]) that causes an effect to occur as a result of a proposed development.

3.1.2 The EIA will identify the likely positive and negative significant environmental effects of the Proposed Development. These effects will be reported in the ES, taking into account current knowledge of the Site and its surroundings (baseline), and drawing upon the findings of number of activities which have contributed to the EIA process as follows:

- Establishing existing baseline conditions;
- Consultation with the relevant statutory and non-statutory consultees throughout the process;
- Consideration of legislation and guidelines as relevant to EIA;
- Consideration of technical standards for the development of significance criteria;
- Review of secondary sources, previous environmental studies and publicly accessible databases and information;
- Desk based assessment;
- Physical surveys and monitoring;
- Computer modelling (where appropriate and proportionate); and
- Expert opinion.

3.1.3 EIA assessment methodology distinguishes between the sensitivity of the receptor and the type and size of impact that will affect the receptor, either directly or indirectly. This methodology distinguishes between effects that are significant and effects that are not significant. Where significant effects are identified, the relevant ES Chapter will propose mitigation measures (i.e. ways of avoiding, limiting or offsetting potentially significant effects) where possible.

3.2 DETERMINING THE SIGNIFICANCE OF EFFECTS IN THE ES

3.2.1 The purpose of the ES is to identify the positive and negative environmental effects of a proposed development, including an assessment of the degree to which such effects are likely to be significant. The evaluation of the significance of an effect is fundamental to the EIA process. The degree of an effect (i.e. significant or not significant) determines the

[11] A receptor is a part of the natural or man-made environment, such as a river, woodland, protected species, a person or a dwelling, that is affected by an impact.

practices that should be adopted to avoid or mitigate an adverse effect. Conversely, it identifies the degree of value of a beneficial effect.

3.2.2 The degree of an effect is determined by the interaction of two factors: (i) the magnitude, scale, severity or probability of an impact or change, and (ii) the value, importance or sensitivity of the resource being affected. This is then used to determine whether an effect is significant or not. Figure 3.1 shows the general matrix[12] used to determine the degree of each effect identified and whether an effect is significant. Significant effects are likely to be a material factor in the decision whether to grant consent.

3.2.3 Although the environmental effects in this report are described under discrete technical headings, the EIA will pay close attention to the interrelationships between the topic areas in order to assemble a holistic picture of the likely significant effects and mitigation measures. ES topic authors will co-ordinate their assessments where relevant to address potential intra-project[13] effects.

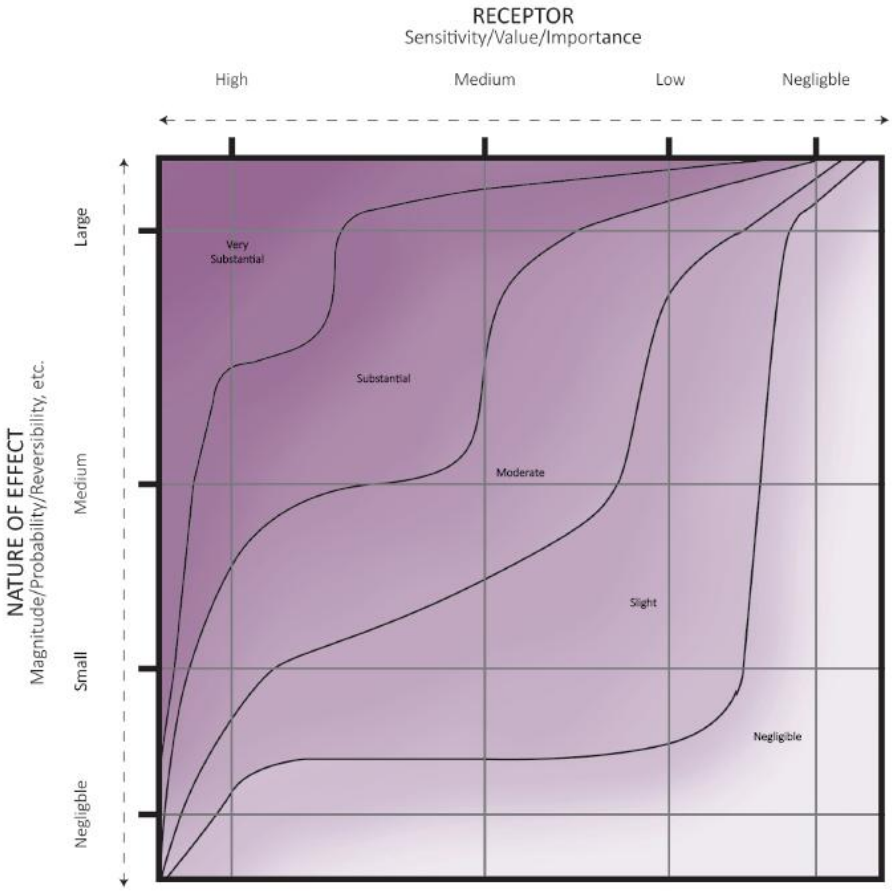


FIGURE 3 1 SIGNIFICANCE MATRIX

3.2.4 As a general rule, significance is determined taking into account a variety of factors. These include the:

[12] Adapted from Figure 6.3 of the Institute of Environmental Assessment and Management's State of Environmental Impact Assessment Practice in the UK 2011.
[13] Intra-project effects – the interaction and combination of different residual environmental effects of the Proposed Development affecting the same receptor.

- Value of the resource (e.g. whether it is of international, national, regional and local level importance);
- Magnitude of the impact;
- Duration involved;
- Reversibility of the effect; and
- Number and sensitivity of receptors.

3.2.5 The methodologies proposed for the topic specific chapters are discussed in Section 4 of the Scoping Report and will be further detailed in the ES.

3.3 IDENTIFICATION OF MITIGATION MEASURES AND SIGNIFICANT RESIDUAL EFFECTS

3.3.1 Where possible, identifying potential significant effects will be used to guide the mitigation measures proposed. The effects of the Proposed Development with the proposed mitigation in place will then be reassessed to determine the significance of effect post mitigation (i.e., the residual effects).

3.3.2 At the end of each environmental assessment, where relevant, there will be a residual effects table, which summarises any likely significant environmental effects remaining after mitigation. Any significant effects remaining after mitigation, or which cannot be mitigated, will be reported appropriately as the significant residual effects of the development. Significant effects are likely to be a material factor in the decision whether to grant consent.

3.4 CUMULATIVE EFFECTS

3.4.1 Paragraph (5) of Schedule 4 to the EIA Regulations states that the ES should include *"a description of the likely significant effects of the development on the environment resulting from… (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources".*

3.4.2 The effects of the Proposed Development in combination with other consented or proposed developments, will be assessed within the EIA where appropriate.

3.4.3 Cumulative effects will be considered on an issue-by-issue basis. The cumulative effects of other developments are considered only where sufficient information is available (i.e. when there is adequate information publicly available).

3.4.4 The proposed approach to the identification of cumulative development within the zone of influence of the Proposed Development is set out in Section 4.12.

4 PROPOSED SCOPE OF THE EIA

4.1 SCOPING AN EIA

4.1.1 There is no standard format for an ES. The EIA Regulations require that an ES at least contains the information specified in Regulation 14(1-3). It must also include any additional information specified in Schedule 4 of the Regulations which is relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

4.1.2 The purpose of scoping is to 'scope in' only those impacts of a development considered to have the potential to result in likely significant environmental effects. Where a particular environmental feature, or component of it, has not been included within the proposed scope of the EIA, this is not to suggest that there will be no associated effects; rather that these are not considered to be among the potentially significant effects. Similarly, what might constitute a likely significant effect for a development type on one site does not automatically mean that it represents the potential for a significant effect on all sites. Consideration must be given to the known context and baseline of a site available at the time of undertaking scoping and forming a Scoping Opinion.

4.1.3 Decisions about the likely significant effects of the Proposed Development, and therefore the scope of the ES, have been based upon professional judgement, with reference to the description of the Proposed Development, and using information about:

- Receptors (people and environmental resources) that could be affected by the Proposed Development;
- Activities involved in constructing, operating and decommissioning the Proposed Development;
- Changes that could result from these activities (e.g. changes in traffic flows or landcover as a result of the Proposed Development);
- Expected magnitude and other characteristics of the environmental changes that could result from these activities and that could affect important receptors; and
- Susceptibility of important receptors to exposure to these changes e.g. how biodiversity receptors might be affected by changes in land cover.

4.1.4 In accordance with the EIA Regulations, the following factors have been considered the scoping exercise:

- Specific characteristics of the Proposed Development;
- Environmental features likely to be affected by the Proposed Development;
- Extent of any likely impact;
- Transfrontier nature of the impact;
- Magnitude and complexity of the impact;

- Probability of the impact; and
- Duration, frequency and reversibility of the impact.

Commitments Register

4.1.5 Following advice in PINS Advice Note 'Nationally Significant Infrastructure Project: Technical Advice Page for Scoping Solar Development' and NSIPs: Commitments Register, a draft Commitments Register has been provided below. This sets out the measures committed to be the Applicant and relied upon in considering the likely significant effects of the Proposed Development in setting out the proposed scope of the ES.

4.1.6 The purpose of a Commitments Register is to track commitments made by the Applicant throughout the NSIP planning process, including during detailed design, procurement, construction, operation and decommissioning. The final version submitted with the Application will be provided as a separate Appendix to the ES.

				RELEVANT ASPECT / TOPIC																					
COMMITMENT REFERENCE	COMMITMENT	MONITORING	PROJECT PHASE	TRAFFIC AND TRANSPORT	NOISE AND VIBRATION	SOCIO-ECONOMICS HUMAN HEALTH	CLIMATE CHANGE	GLINT AND GLARE	LAND USE AND AGRICULTURE	GROUND CONDITIONS	WATER ENVIRONMENT	BIODIVERSITY	LANDSCAPE AND VISUAL IMPACT	CULTURAL HERITAGE	ARBORICULTURE	MAJOR ACCIDENTS AND DISASTERS	LIGHTING	UTILITIES	WASTE	ELECTRO-MAGNETIC FIELDS (EMF)	AIR QUALITY	COMMITMENT SECURING MECHANISM	DELIVERY	ASSOCIATED SUPPORTING DOCUMENTATION
CO1	Avoiding Heavy Good Vehicles (HGVs) passing Sessay Primary school during drop off & pick up times.	TBC	Construction and decommissioning	✓																		TBC	Construction and decommissioning	OCEMP and ODEMP
CO2	Using defined access routes to the Site from the A19 for all construction and decommissioning traffic (Sessay Park Parcel A19>Church Lane> Low>Blind Piece Lane. Briar Hill Parcel A19>Church Lane>Race Lane)	TBC	Construction and decommissioning	✓	✓																	TBC	Construction and decommissioning	OCEMP and ODEMP
CO3	Preparation of a Construction Traffic Management Plan to be approved by the Local Highway Authority and included within the OCEMP and ODEMP.	TBC	Construction and decommissioning	✓																		TBC	Construction and decommissioning	OCEMP and ODEMP
CO4	Construction and decommissioning traffic to be restricted to outside peak traffic hours	TBC	Construction and decommissioning	✓																		TBC	Construction and decommissioning	OCEMP and ODEMP
CO5	An inspection of the defined construction/decommissioning route to and from the A19 prior to construction will take place and where required any potholes will be filled, ensuring that construction vibration from traffic will be minimised as far as practicable. This will be secured in the Construction Traffic Management Plan included in the OCEMP and ODEMP.	TBC	Construction and decommissioning		✓																	TBC	Construction and decommissioning	OCEMP and ODEMP
CO6	A minimum 100 m development free buffer to all residential properties.	TBC	Construction, operation and decommissioning		✓			✓					✓									Works Plans	Construction, operation and decommissioning	N/a
CO7	A Phase I ground contamination assessment will be produced and submitted in support of the Application. Should this identify contaminate/made ground within the Site, a suitable ground investigation will take place prior to commencement		Pre-construction						✓	✓	✓	✓										TBC	Pre-commencement	TBC

				RELEVANT ASPECT / TOPIC																				
COMMITMENT REFERENCE	COMMITMENT	MONITORING	PROJECT PHASE	TRAFFIC AND TRANSPORT	NOISE AND VIBRATION	SOCIO-ECONOMICS HUMAN HEALTH	CLIMATE CHANGE	GLINT AND GLARE	LAND USE AND AGRICULTURE	GROUND CONDITIONS	WATER ENVIRONMENT	BIODIVERSITY	LANDSCAPE AND VISUAL IMPACT	CULTURAL HERITAGE	ARBORICULTURE	MAJOR ACCIDENTS AND DISASTERS	LIGHTING	UTILITIES	WASTE	ELECTRO-MAGNETIC FIELDS (EMF)	AIR QUALITY	COMMITMENT SECURING MECHANISM	DELIVERY	ASSOCIATED SUPPORTING DOCUMENTATION
	of development and remediation if necessary. This will be secured in the OCEMP and a Requirement in the DCO.																							
C08	To prevent contamination risk to soils, surface water and ground water the BESS will be located on an impermeable surface and with a sealed drainage system that will be automated to contain all water for offsite and appropriate disposal in the result of a fire.	TBC	Construction and operation							✓	✓	✓										Flood Risk Assessment (FRA)	Construction and operation	FRA
CO9	The Site is to be sequentially arranged to locate vulnerable infrastructure (including the BESS, substation and transformers) outside of Flood Zones 2 and 3 where possible.	TBC	Construction								✓											Work Plans	Construction	FRA
CO10	Surface water flow paths through the Site will remain as exiting, with no major alterations in ground levels resulting in loss of flood storage, truncation of flow routes or cross catchment transfer.	TBC	Construction								✓											FRA	Construction	FRA
CO11	The height of the solar panels will be designed as such that they are elevated adequately above the ground and do not impede surface water flow routes.	TBC	Construction								✓											Works Description/ Rochdale parameter	Construction	FRA
CO12	Transformers will be elevated approximately 0.6m above ground level, whereby they will be removed from pluvial flood risk (identified to have depths of 0.2m-0.6m across the site).	TBC	Construction								✓											Works Description/ Rochdale parameter	Construction	FRA
CO13	Solar panels located within the Flood Zone 2 and 3 extents will be elevated a minimum of 0.6 m above the corresponding interpolated	TBC	Construction								✓											Works Description/ Rochdale parameter	Construction	FRA

				RELEVANT ASPECT / TOPIC																					
COMMITMENT REFERENCE	COMMITMENT	MONITORING	PROJECT PHASE	TRAFFIC AND TRANSPORT	NOISE AND VIBRATION	SOCIO-ECONOMICS HUMAN HEALTH	CLIMATE CHANGE	GLINT AND GLARE	LAND USE AND AGRICULTURE	GROUND CONDITIONS	WATER ENVIRONMENT	BIODIVERSITY	LANDSCAPE AND VISUAL IMPACT	CULTURAL HERITAGE	ARBORICULTURE	MAJOR ACCIDENTS AND DISASTERS	LIGHTING	UTILITIES	WASTE	ELECTRO-MAGNETIC FIELDS (EMF)	AIR QUALITY	COMMITMENT SECURING MECHANISM	DELIVERY	ASSOCIATED SUPPORTING DOCUMENTATION
	flood level for that catchment area of the Site.																							
C014	Proposed impermeable surfaces will be minimised wherever possible. Existing access tracks will be reused, with any new access being formed of semi-pervious material.	TBC	Construction						✓		✓											Works schedule/ Works plans	Construction	FRA
CO15	Left unmanaged, construction and decommissioning of the Proposed Developments could impact the level of contaminants on the Site that could subsequently pollute surface water flows and/or Ordinary Watercourses. Standard and proven industry guidance and mitigation measures will be set out in the OCEMP and ODEMP to avoid/mitigate this potential impact.	TBC	Construction and decommissioning						✓	✓	✓	✓										OCEMP and ODEMP	Construction and decommissioning	N/a
CO16	A Surface Water Drainage Strategy (SWDS) will be implemented to ensure the runoff rate from the Site does not increase as a result of the Proposed Development. The SWDS will be developed in line with the latest guidance and provide water quality management.	TBC	Construction								✓	✓										FRA	Construction	FRA
CO17	Existing watercourse crossings will be utilised as far as possible. One temporary watercourse crossing is required for the construction phase of the Proposed Development, where it is proposed to utilise an existing temporary crossing point.	TBC	Construction								✓	✓										Works schedule/ Works plans	Construction	FRA
CO18	A 10m buffer is proposed to all watercourses.	TBC	Construction								✓	✓										Works plans	Construction	FRA
CO19	Avoidance of all RPAs and TPOs as far as possible, except for small areas of fence lines and new on-site tracks.	TBC	Construction									✓	✓		✓							Works Plans	Construction	N/a
CO20	A minimum 15 m buffer to Ancient Woodland to all development except and in	TBC	Construction									✓	✓		✓							Works Plans	Construction	N/a

				RELEVANT ASPECT / TOPIC																				
COMMITMENT REFERENCE	COMMITMENT	MONITORING	PROJECT PHASE	TRAFFIC AND TRANSPORT	NOISE AND VIBRATION	SOCIO-ECONOMICS HUMAN HEALTH	CLIMATE CHANGE	GLINT AND GLARE	LAND USE AND AGRICULTURE	GROUND CONDITIONS	WATER ENVIRONMENT	BIODIVERSITY	LANDSCAPE AND VISUAL IMPACT	CULTURAL HERITAGE	ARBORICULTURE	MAJOR ACCIDENTS AND DISASTERS	LIGHTING	UTILITIES	WASTE	ELECTRO-MAGNETIC FIELDS (EMF)	AIR QUALITY	COMMITMENT SECURING MECHANISM	DELIVERY	ASSOCIATED SUPPORTING DOCUMENTATION
	relation to any cabling that may be laid within the existing track that runs through East Moor Woods.																							
CO21	Existing hedgerows / field boundaries / trees will be retained as far as possible.	TBC	Construction					✓				✓	✓	✓	✓							Works Plans	Construction	N/a
CO22	Preserving existing PRoW and application of a development free buffer of 5 m to the fence line on both sides.	TBC	Construction and operation										✓									Works Plans	Construction and operation	N/a
CO23	Application of development free buffers to residential properties at Throstle Nest and Woodend (both Grade II listed).	TBC	Construction										✓	✓								Works Plans	Construction	N/a
CO24	An Outline Battery Safety Management Plan (OBSMP) prepared by competent experts will be produced and submitted with the DCO application to ensure that any associated risk associated with the BESS (principally fire risk) is as minimal as practical possible.	TBC	Construction and operation							✓	✓					✓						OBSMP	Construction and operation	N/a
CO25	There will be no artificial lighting within the solar arrays. Motion sensing security lighting will be provided within the substation and BESS compound to be used only for maintenance and security purposes.	TBC	Operation									✓	✓									TBC	Operation	N/a

				RELEVANT ASPECT / TOPIC																				
COMMITMENT REFERENCE	COMMITMENT	MONITORING	PROJECT PHASE	TRAFFIC AND TRANSPORT	NOISE AND VIBRATION	SOCIO-ECONOMICS HUMAN HEALTH	CLIMATE CHANGE	GLINT AND GLARE	LAND USE AND AGRICULTURE	GROUND CONDITIONS	WATER ENVIRONMENT	BIODIVERSITY	LANDSCAPE AND VISUAL IMPACT	CULTURAL HERITAGE	ARBORICULTURE	MAJOR ACCIDENTS AND DISASTERS	LIGHTING	UTILITIES	WASTE	ELECTRO-MAGNETIC FIELDS (EMF)	AIR QUALITY	COMMITMENT SECURING MECHANISM	DELIVERY	ASSOCIATED SUPPORTING DOCUMENTATION
CO26	A Site Waste Management Plan (SWMP) will be prepared as part of the OCEMP which will set out: • The waste streams that will be generated; • How the waste hierarchy will be applied to these wastes; • Good practice measures for managing waste; and • Roles and responsibilities for waste management. This will also be included in the OOEMP and the ODEMP.	TBC	Construction, operation and decommissioning																✓			OCEMP, OOEMP and ODEMP	Construction, operation and decommissioning	N/a
CO27	Standard and proven construction/demolition methodologies are available to minimise dust effects as set out in the Institute of Air Quality Management guidance 'Assessment of dust from demolition and construction 2024'. These will be set out in the OCEMP and the ODEMP and secured via the DCO.	TBC	Construction and decommissioning									✓			✓						✓	OCEMP and ODEMP	Construction and decommissioning	N/a

TABLE 4.1: COMMITMENTS REGISTER

4.2 TRAFFIC AND TRANSPORT

Introduction

4.2.1 This Chapter considers the traffic and transport impacts of the Proposed Development through its construction, operational and decommissioning phases. This Chapter considers the traffic and transport impacts of the Proposed Development through its construction, operational and decommissioning phases.

4.2.2 It has been prepared by DHA Transport – transport planning consultants with wide ranging experience across all development planning sectors.

4.2.3 In addition to an ES chapter, a technical Transport Assessment (TA) will be prepared to accompany the Application and assess the impacts of the Proposed Development on the local highway network. This will form an Appendix to the ES chapter.

Consultation

4.2.4 North Yorkshire Council has been contacted but no response has been received at the time of writing.

4.2.5 No other engagement with consultees has taken place to date.

Regulatory and policy framework

4.2.6 The following policy and guidance documents will inform the approach to the design and assessment of the Proposed Development:-

- Overarching National Policy Statement for Energy (EN-1)[14];
- Policy Statement for Renewable Energy Infrastructure (EN-3)[15];
- Environmental Assessment of Traffic and Movement[16];
- National Planning Policy Framework[17];
- National Planning Policy Guidance[18];

[14] Department for Energy Security and Net Zero (2025). Available at: Overarching National Policy Statement for Energy (EN-1) – December 2025
[15] Department for Energy Security and Net Zero (2025). Available at: National Policy Statement for Renewable Energy Infrastructure (EN-3)
[16] Institute of Environmental Management and Assessment (IEMA) (2023). Available at: https://www.iema.net/media/5mrmquib/iema-report-environmental-assessment-of-traffic-and-movement-rev07-july-2023.pdf
[17] National Planning Policy Framework (2024). Available at: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf
[18] National Planning Policy Guidance (2014). Available at: https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements

- Design Manual for Roads and Bridges[19];
- Manual for Streets[20];
- Manual for Streets 2[21];
- North Yorkshire Council Highways Specification[22];
- North Yorkshire Local Transport Plan 4 (LTP4)[23].

Study Area

4.2.7 The Traffic and Transport Study Area (referred to hereafter as the 'Study Area') encompasses the extent of the road network that will be utilised to facilitate traffic movements associated with the construction, operational, and decommissioning phases of the Proposed Development. This includes local roads providing access to the Site from the primary and Strategic Road Network (SRN) and any areas where improvements or changes may be required to accommodate construction traffic (these will be referred to as 'the Highways Works').

4.2.8 The potential access routes forming the Study Area have been identified for assessment as part of the initial scoping process and are discussed further below. The assessment of the access route options and Study Area will be clearly set out once developed in consultation with NYC, as the Local Highway Authority.

4.2.9 The nearest classified A-road (the A19) is located 6km from the Site at its furthest point, which is considered an appropriate radius for consideration for traffic and transport purposes.

4.2.10 The construction and decommissioning impacts of the Proposed Development will be concentrated on the local road network immediately surrounding the Site. Effects will be quickly diluted with the distance travelled away from the Site once vehicles have accessed the primary and SRN; therefore, no wider assessment (i.e., beyond the local road network) is considered necessary.

4.2.11 During operation of the Proposed Development, the impacts will be negligible on the local and wider highway network.

[19] Standards for Highways (2025). Available at: https://www.standardsforhighways.co.uk/search?q=&pageNumber=1&suite=DMRB&to=2025-10-06&from=2025-10-06
[20] Department for Transport (2007) Manual for Streets. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pfd
[21] The Chartered Institution of Highways & Transportation (2010) Manual for Streets 2. Available at: https://www.ciht.org.uk/media/9351/manual-for-streets-2.pdf
[22] North Yorkshire County Council (2025). Available at: https://www.northyorks.gov.uk/roads-parking-and-travel/roads-and-pavements/road-adoption
[23] North Yorkshire County Council (2020). Available at: https://harrogatecycleaction.org.uk/wp-content/uploads/2020/01/Local_transport_plan_four_LTP4.pdf

Existing conditions

Information Sources

4.2.12 In considering the traffic and transport impacts of the Proposed Development, the following sources of information have been reviewed for this Chapter:-

- Ordnance Survey Open Data;
- Online mapping (e.g. Open Street Map, Google Maps);
- Seven-day Automatic Traffic Count (ATC) surveys, which were undertaken in July 2025 on Race Lane and Blind Piece Lane, at the locations illustrated below in Figure 4.1. The results of these surveys will be detailed within the forthcoming TA and will inform the ES Chapter;
- A site visit, which was undertaken in June 2025 to assess the Site access and construction routeing options.

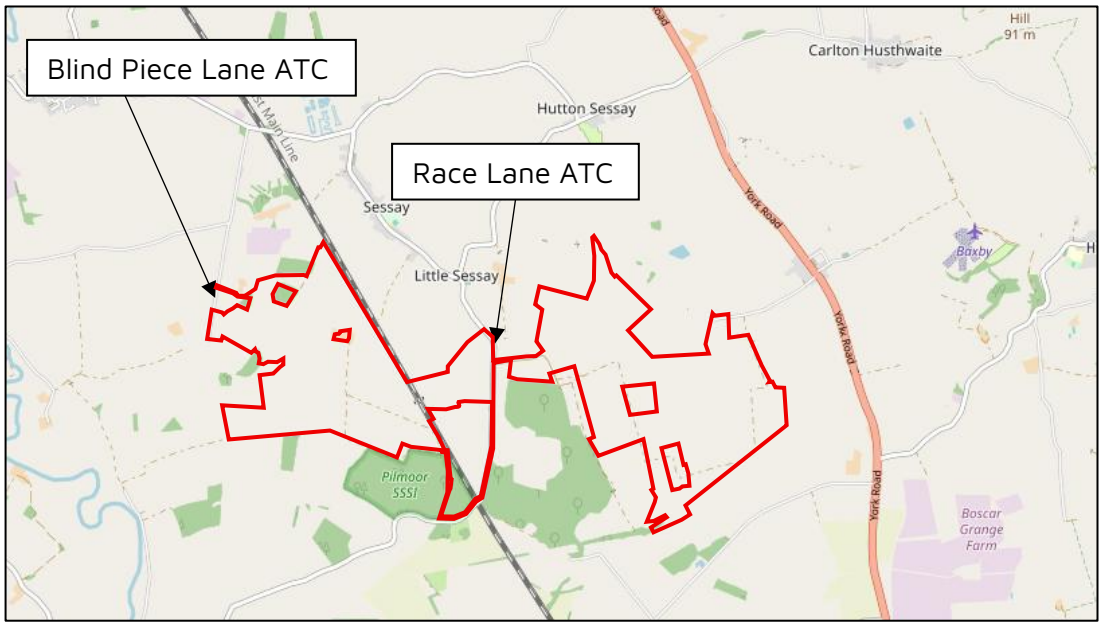


FIGURE 4.1: SITE LOCATION (COURTESY OF OPENSTREETMAP)

Local Highway Network

4.2.13 Two principal routes for construction traffic have been identified between the Site and the A19. These routes have been chosen to avoid – as far as possible – sensitive receptors and allow for physical highway constraints and limitations, such as weight and height restrictions. The routes are shown in Figure 4.2 overleaf. Areas highlighted in orange denote potential receptors.

4.2.14 It is noted that a number of routes to the Site were explored; the two routes that have been chosen are seen to be those with the least limiting factors, such as width and height

restrictions, tight turning angles, gradient changes or passing through land not under the control of the Highway Authority or the Applicant.

4.2.15 The identified access routes to the Site are highlighted in black (proposed access to Sessay Park) and blue (proposed access to Briar Hill).

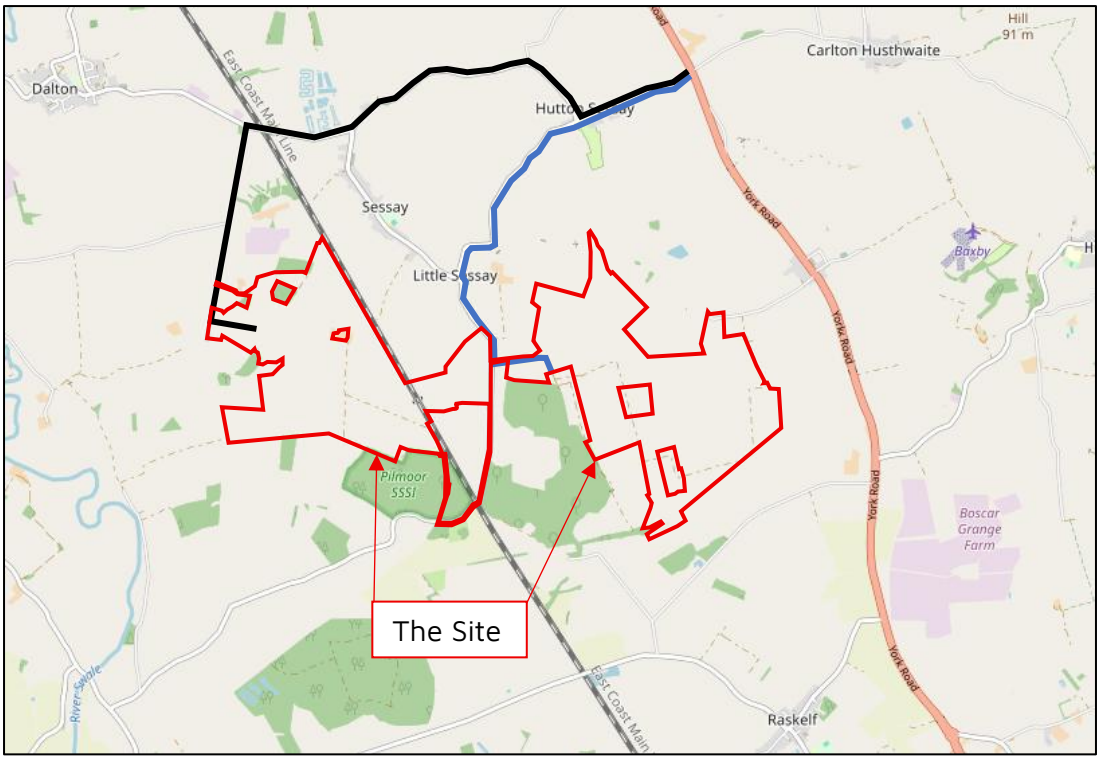


FIGURE 4.2: PROPOSED CONSTRUCTION VEHICLE ROUTES TO SITE (COURTESY OF OPENSTREETMAP)

Proposed Construction Access Routes

4.2.16 It is proposed that the Site will be accessed from the A19 York Road via Church Lane. An area-wide weight restriction of 7.5 tonnes is in place; however it is noted that this is 'except for access', which is understood to be to dissuade HGVs from accessing Dalton Industrial Estate from the A19, rather than due to physical restrictions in the area.

4.2.17 Construction traffic routing to the eastern parcel of the Site (Briar Hill) will exit the A19 and travel westbound along Church Lane. At the Sessay Church of England Primary School and St Cuthbert's Church, traffic will turn left on to Race Lane before routing south and then turning left into the existing access to Briar Hill Farm. This route is approximately 4km in length.

4.2.18 It is noted that the proposed route crosses a narrow bridge over Birdforth Beck immediately to the south of Little Sessay. Sessay Church of England Primary School and St Cuthburt's Church are also a short distance to the north of this bridge. The movement of HGVs will be restricted during school drop-off and pick-up times.

4.2.19 Construction traffic routing to the western parcel of the Site (Sessay Park) will exit the A19 and travel westbound along Church Lane. Traffic will turn right onto Low Lane and route through Little Hutton and across the East Coast Main Line via the existing bridge. Traffic will then turn left on to Blind Piece Lane before routing south and turning into the Site via

a new access, avoiding the existing access into Sessay Park, which passes Clarkwood Farm. This route is approximately 6km in length.

4.2.20 Each of the above-referenced bridges and receptors is subject to regular HGV and agricultural vehicle movements currently, with no known material adverse consequences. Therefore, it is considered that with appropriate mitigation in place (e.g. temporal and frequency restrictions), they would be capable of accommodating vehicle movements associated with all phases of the Proposed Development.

4.2.21 No HGVs associated with construction of the Proposed Development will be routed via Sessay Garth.

Walking and Cycling Network

4.2.22 Due to the rural nature of the Site, there is a limited provision of footways alongside the carriageways of the roads within the Study Area.

4.2.23 National Cycle Route (NCR) 657 routes between Little Sessay and Dalton and will therefore interact with the proposed construction route to Sessay Park.

4.2.24 PRoW 10.127/13/1 routes through Briar Hill between Race Lane and North End. It is noted that this PRoW routes parallel to the access route to Briar Hill for approximately 135m.

High-Level Baseline Traffic Review

4.2.25 Seven-day ATC surveys were undertaken in July 2025 on Race Lane and Blind Piece Lane, at the locations illustrated in Figure 4.1 above.

4.2.26 A summary of the recorded traffic volumes is provided in Table 4.2 below. These figures are two-way averages across the seven days of the survey.

ATC LOCATION	TIME PERIOD	TWO-WAY TRIPS (DAILY AVERAGE)
Blind Piece Lane ATC	08:00-09:00	1
	17:00-18:00	2
	24hr	17
Race Lane ATC	08:00-09:00	11
	17:00-18:00	15
	24hr	173

TABLE 4.2: ATC SURVEY RESULTS SUMMARY

Assessment Methodology

Desk Study and Site Visit

4.2.27 Potential receptors have been identified using online mapping, satellite imagery and the site visit, and will be screened as part of future EIA work. These include:-

- Villages and standalone residential properties;
- Visitor attractions;
- Commercial premises;
- Schools; and
- PRoWs.

Consultation

4.2.28 Following EIA Scoping, discussions on the format and scope of the ES Traffic and Transport Chapter and TA will continue with North Yorkshire Council's Highways Development Control Team.

Potential effects and mitigation

4.2.29 For the purposes of the ES Chapter, the Environmental Assessment of Traffic Movement guidance produced by IEMA (now ISEP) recommends two rules to be considered when determining whether the impact of traffic should be assessed on a road link:-

- Rule 1 – include highway (road) links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%); and
- Rule 2 – include any other specifically sensitive areas where total traffic flows will increase by 10% or more.

4.2.30 The 30% threshold is based upon research and experience of the environmental effects of traffic, with less than a 30% increase generally resulting in imperceptible changes. The guidance considers that projected changes in total traffic flow of less than 10% create no discernible environmental effects. Full detail of the methodology will be provided in the ES Chapter.

4.2.31 IEMA guidance considers the following receptors to be sensitive to the potential impact of traffic increase. These will be assessed for the Study Area:-

- Severance of Communities;
- Road Vehicle Driver and Passenger Delay;
- Non-Motorised User (NMU) Delay;
- NMU Amenity;

- Fear and Intimidation on and by Road Users;
- Road User and Pedestrian Safety; and
- Hazardous / Large Loads.

4.2.32 The significance of effects will be evaluated, taking into consideration the relevant policy context and the likely changes to baseline conditions and any mitigation proposed. The significance levels will also be informed by the sensitivity and magnitude of effects per IEMA guidance.

4.2.33 For the purposes of the assessment, those effects identified as being 'Moderate' or greater will be regarded as being Significant for the purpose of the EIA Regulations. Effects of 'Minor' or less will be identified but will not be considered Significant for the purpose of the EIA Regulations. Effects will be defined as either be 'Adverse' or 'Beneficial' in nature.

Construction

4.2.34 The potential effects will be greatest during the construction phase of the Proposed Development, when materials and contractors will be brought to the Site. Construction of the Proposed Development will take approximately 18 months and will operate on a 24 working days per month basis.

4.2.35 This will result in a temporary increase in traffic travelling to and from the Site on the local road network, which is likely to comprise of:-

- Delivery of solar panels, mounting equipment, electrical hardware and cabling etc.; and
- Civil, electrical and landscaping contractors.

4.2.36 Whilst some periods of construction will necessitate more vehicle trips than others, effects are likely to be relatively evenly spread over the construction period. A breakdown of the construction phase vehicle trip generation is provided in Table 4.3 below.

VEHICLE TYPE	NUMBER OF VEHICLES	NUMBER OF VEHICLE MOVEMENTS		
		TOTAL CONSTRUCTION PHASE	PER MONTH	PER DAY
Heavy Goods Vehicles	6,224	12,448	692	29
Light Goods Vehicles	7,586	15,172	843	35
Total	13,810	27,620	1,534	64

TABLE 4.3: CONSTRUCTION PHASE MOVEMENT BREAKDOWN

4.2.37 Split across the two parcels of the Site, the development would generate approximately 18 two-way light vehicle movements, 15 two-way HGV movements, and 32 total two-way movements per parcel, per day on average.

4.2.38 The Proposed Development is established technology that uses standard components with minimal ground works. The relative complexity and associated risk to the aforementioned receptors are therefore low.

4.2.39 Due to the predictable nature of the construction programme and known precedents of other similar sites, the likely impact is highly predictable and relatively fixed.

4.2.40 The Proposed Development would result in the removal of vehicle movements associated with the extant agricultural use of the Site, thereby offsetting the number of movements generated by the construction phase and reducing its residual effects. During the most recent harvest season, approximately 106, 44-tonne HGVs visited the Site over two days, utilising the local roads. Many more agricultural vehicle movements visit the Site on a regular basis.

4.2.41 The Applicant has provided estimates of expected vehicle movements per month over the construction period based on experience at similar sites. These forecast that the busiest month for construction trips would average 54 daily two-way vehicle trips per construction route. This would comprise approximately 26 two-way light vehicle movements and 27 two-way HGV movements per day.

4.2.42 Construction trips would be restricted to using the proposed construction routes. As these routes currently experience relatively low levels of traffic, it is possible that parts of them will experience traffic impacts beyond the IEMA thresholds. However, the existing low level of traffic also serves to highlight the limited number of individuals and receptors that these trips would impact.

4.2.43 There will be fewer than ten Abnormal Indivisible Loads (AILs) associated with the Proposed Development, with these likely located at Sessay Park. The number will be confirmed as the detailed design of the on-site substation and battery facility is progressed. The delivery of AILs will be managed through an Outline Construction Traffic Management Plan (OCTMP) included in the OCEMP and submitted with the Application and appended to the ES.

Operation

4.2.44 During the operational phase of the Proposed Development, it is envisaged that the volume of traffic would be negligible, with only occasional visits (approximately one LGV per week to Sessay Park and Briar Hill) needing to be made for scheduled and emergency maintenance.

Decommissioning

4.2.45 Decommissioning of the Proposed Development will result in much the same effects as during the construction phase.

4.2.46 Therefore, the nature of the Proposed Development is such that the greatest impacts are likely to occur during the construction and decommissioning phases. It is assumed that the assessment of the construction phase would already present the ‘worst-case’ in traffic and transport terms and capture all effects associated with the decommissioning phase and this will consequently be the focus of the assessment of transport effects presented in the ES.

Approach to Mitigation

4.2.47 Whilst the assessment will focus on the construction phase, mitigation will be secured for the construction and decommissioning phases in the OCTMP and is likely to include:-

- Approved HGV routing and communications protocols;
- Temporary signage and traffic control;
- A limited number of new haul roads within the Site. Where possible, existing vehicle tracks will be used, many of which are of a good standard and do not require significant upgrading; and
- Limited operational hours (e.g. deliveries by HGVs can be restricted to certain hours outside of highway network and/or school peak periods. Operatives travelling to and from the Site will be instructed to travel outside of peak hours and shift patterns can be arranged in order to facilitate this).

4.2.48 As has been noted, access routes to the Site are also constrained by several features, including the East Coast Main Line railway. The utilisation of the specified vehicle routes means that the routing of traffic can be reliably predicted and managed.

4.2.49 The impact of the operational phase of the Proposed Development will naturally be limited to the minimum necessary. The proposed use does not require intensive maintenance and there will be no staff permanently based on the Site; therefore, no further mitigation during this phase is necessary.

Cumulative Effects

4.2.50 There are a limited number of major committed or emerging developments locally, based on an initial assessment of local cumulative development sites. The potential for the Proposed Development to result in cumulative effects with other locally proposed and approved development will be considered systematically within the ES chapter to identify with what schemes cumulative effects might occur and where.

4.2.51 The OCTMP will require coordination with the relevant Highway Authorities, which will include a mechanism to avoid clashes of network availability and alignment of CTMP measures.

Assumptions and limitations

4.2.52 At this stage, the exact extent of the Study Area cannot be confirmed, as detailed discussions have not yet taken place with the Local Highway Authority, although it is likely to be predominantly restricted to the proposed construction routes.

4.2.53 The proposed Study Area has been determined using our understanding of the local road network and potential receptors; however, this will be formally agreed as part of pre-application discussions. Any additional assessment scope requested will be assessed as part of both the TA and the ES Chapter.

4.2.54 The above-referenced ATC surveys provide an overview of current traffic conditions on the immediate local highway network at a set point in time and whilst conditions can be

subject to daily / seasonal variations, the traffic data to be included within the forthcoming assessment will be representative of current highway conditions. Further ATC surveys are likely to be conducted within the wider Study Area to inform the Application in due course.

Effects scoped in and out of the assessment

Effects to be Scoped In

4.2.55 Traffic generated during the construction phase of the Proposed Development will be assessed. As has been noted, the effects associated with the decommissioning phase are anticipated to be equivalent to – or less than – the construction phase and therefore it is considered that the construction phase presents a robust, 'worst-case' assessment.

4.2.56 The effects to be assessed during the construction phase of the Proposed Development on those links impacted by the traffic generated are as follows:-

- Severance;
- Driver Delay;
- NMU Delay;
- NMU Amenity;
- Fear and Intimidation;
- Road User and Pedestrian Safety; and
- Hazardous and Large Loads.

Effects to be Scoped Out

Alternative Modes of Construction Access (Excluding Road)

4.2.57 There are no viable alternative modes of transport to the Site for construction materials, such as means of rail or river access. As such, only access by road for construction vehicles will be considered within the assessment.

Operational Phase

4.2.58 As outlined above, it is considered that the significance of the environmental effects during the operational phase of the Proposed Development would be negligible and not significant with respect to traffic and transport. Therefore, a detailed assessment of the operational phase of the Proposed Development is recommended to be scoped out of the ES.

Decommissioning Phase

4.2.59 As outlined above, the assessment of the construction phase of the Proposed Development would represent the 'worst-case' in traffic and transport terms and capture

all effects associated with the decommissioning phase. On that basis, a separate assessment of the decommissioning phase is proposed to be scoped out.

Summary of Scope

4.2.60 A summary of the proposed scope of the ES Traffic and Transport assessment is included in Table 4.4.

4.2.61 Based on the above appraisal of potential effects, all construction impacts affecting traffic and transportation associated with the Proposed Development are proposed to be scoped in within the EIA, with operational and decommissioning impacts to be scoped out.

4.2.62 A TA will be prepared to support the Application, informed by the pre-application advice to be provided by NYC. The TA will assess the traffic and transport impacts of the Proposed Development, with mitigation measures identified as appropriate.

EFFECT	CONSTRUCTION	OPERATION	DECOMMISSIONING
Severance	Scoped In	Scoped Out	Scoped Out
Driver Delay	Scoped In	Scoped Out	Scoped Out
NMU Delay	Scoped In	Scoped Out	Scoped Out
NMU Amenity	Scoped In	Scoped Out	Scoped Out
Fear and Intimidation	Scoped In	Scoped Out	Scoped Out
Road User and Pedestrian Safety	Scoped In	Scoped Out	Scoped Out
Hazardous and Large Loads	Scoped In	Scoped Out	Scoped Out

TABLE 4.4: TRAFFIC AND TRANSPORT SCOPING SUMMARY

Key Traffic and Transport Scoping Questions

- **Question T1 - Is the proposed Study Area scope acceptable?**

  The proposed Study Area constitutes only those routes illustrated on Figure 4.2, as these are the routes construction vehicles will take, plus the A19, and may be extended further along the SRN if required

- **Question T2 - Is it acceptable to determine the Operational Phase as having negligible transport impacts, and for the Decommissioning Phase to have comparable impacts to the Construction Phase – and therefore that neither of these phases require detailed assessment?**

- **Question T3 - Are the proposed mitigation measures sufficient?**

  These are typical construction routing arrangements, but would welcome views on if any further requirements are necessary

- **Question T4 - What committed / cumulative developments do we need to be aware of to consider as part of our assessment?**

- **Question T5 - Is the scope of effects we have scoped into the assessment acceptable?**

4.3 NOISE AND VIBRATION

Introduction

4.3.1 This Chapter of the Scoping Report relates to the potential effects of the Proposed Development on the environment due to noise and vibration during the construction, operation and decommissioning phases. The assessment will be undertaken by Metrica Environmental Consulting Ltd.

4.3.2 No consultation has been undertaken in relation to noise and vibration to date. Consultation will be undertaken with the Environmental Health Department (EHD) of NYC to agree the noise and vibration assessment methodology and assessment criteria in due course.

Consultation

4.3.3 North Yorkshire Council has been contacted but no response has been received at the time of writing.

4.3.4 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

4.3.5 The following guidance, legislation and information sources will be considered when carrying out the EIA:

- Control of Pollution Act 1974[24];
- Environmental Protection Act 1990[25];
- National Policy Statements EN1, EN3 and EN5[26];
- National Planning Policy Framework (NPPF)[27];
- National Planning Policy Guidance (NPPG)[28];
- The Noise Policy Statement for England (NPSE)[29];

[24] HMSO (1974), Control of Pollution Act, Part III.
[25] HMSO (1990), Environmental Protection Act, Part III.
[26] Department for Energy Security and Net Zero, National Policy Statements for energy infrastructure, 2025.
[27] Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities, National Planning Policy Framework (NPPF).
[28] Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities, Planning Practice Guidance – Noise.
[29] Department for Environment, Food and Rural Affairs (2010), Noise Policy Statement for England (NPSE).

- British Standards (BS) 7445-1:2003 Description and measurement of environmental noise – Part 1: Guide to quantities and procedures (BS 7445:2003)[30];
- BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142)[31];
- BS 8233:2014 Guidance on sound insulation and noise reduction for buildings (BS 8233)[32];
- BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1 (Noise)[33];
- BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites –Part 2 (Vibration)[34];
- Calculation of Road Traffic Noise (CRTN)[35]; and
- Design Manual for Roads and Bridges (DMRB) Volume 11[36].

Existing Known Baseline Conditions

4.3.6 To establish the existing background noise environment in the locality of the Proposed Development, background noise monitoring has been undertaken at 11 locations representative of the nearest Noise Sensitive Receptors (NSRs). The monitoring was undertaken between Monday 26th February and Friday 7th March 2025, for approximately 5 days at each location. The monitoring was conducted in accordance with the methodology described in BS 7445 and BS 4142.

4.3.7 Figure 4.3 presents the nearest NSRs to the Proposed Development, as well as the Noise Monitoring Locations (MLs).

4.3.8 During the background noise monitoring, the local acoustic environment was noted to be dominated by road traffic noise from the A19 located to the east of the Site, particularly during daytime periods. To the west and centre of the Site, the East Coast Main Line was the dominant noise source, with high-speed trains passing approximately once every 15-minutes. Other noise sources across the Site include farming activity and vehicle traffic along local roads.

4.3.9 Consultation with the EHD at NYC will be undertaken to discuss the results of the background noise monitoring.

[30] British Standards Institute (BSI, 2019), BS 7445-1:2003 Description and measurement of environmental noise – Part 1: Guide to quantities and procedures.
[31] British Standards Institute (BSI, 2019), BS 4142 2014-A1:2019 Methods for rating and assessing industrial and commercial sound.
[32] British Standards Institute (BSI, 2014), 8233:2014 Guidance on sound insulation and noise reduction for buildings.
[33] British Standards Institute (BSI, 2014), BS 5228:2009-A1:2014, Code of practice for noise and vibration control on construction and open sites – Part 1: Noise (BS 5228-1).
[34] British Standards Institute (BSI, 2014), BS 5228:2009-A1:2014, Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration (BS 5228-2).
[35] HMSO Department of Transport (1988), Calculation of Road Traffic Noise (CRTN).
[36] Highways England (2019), Design Manual for Roads and Bridges (DMRB) Volume 11 – LA 111 – Noise and Vibration.

4.3.10 With regards to construction and decommissioning noise, the DMRB Volume 11 (Sections 3.5 – 3.8) provides the following study areas:

- Construction Activities – 300 m;
- Construction Traffic – 50 m either side of the kerb line for public roads; and
- Construction Vibration – 100 m.

4.3.11 As guidance relating to operational noise does not define any study areas, a conservative study area of 500 m from areas where noise emitting equipment could be installed is proposed. This is based on professional judgement and substantial experience working on similar solar and BESS projects. The extent of the study area will be agreed with the EHD at NYC through the consultation process.

4.3.12 The ES will identify all NSRs within 500 m of the Site. Rather than assessing all NSRs within 500 m of the Site, a representative selection of Assessment Locations will be made. Where numerous NSRs are located in close proximity to each other, the Assessment Location is that which is closest to the Site, on the basis that should effects be acceptable at the closest receptor, they will be acceptable at locations further from the Site.

4.3.13 Figure 4.3 presents NSRs within 1 km of the Site and the proposed Assessment Locations. Consultation with NYC will be undertaken to confirm the appropriateness of the selected Assessment Receptors.

Metrica
ENVIRONMENTAL CONSULTING

- Monitoring Location
- Assessment Location
- Noise Sensitive Receptor
- Scoping Development Boundary

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Noise Monitoring and Assessment Locations

**Sedgeby Solar and BESS
Noise and Vibration Scoping**

FIGURE 4.3 NSRS WITHIN 1 KM OF THE SITE AND THE PROPOSED ASSESSMENT LOCATIONS

Potential Effects and Mitigation

4.3.14 The following effects are considered as part of this Scoping Report:

- Construction Activity Noise;
- Construction Activity Vibration;
- Construction Traffic Noise;
- Construction Traffic Vibration;
- Operational Noise;
- Operational Traffic Noise and Vibration;
- Operational Vibration; and
- Decommissioning Noise and Vibration.

Construction Activity Noise Effects

4.3.15 Potential noise effects at NSRs during the construction phase are typically due to the following construction activities:

- Construction of hardstanding and access tracks;
- Installation of PV module mounting structures and fencing;
- Installation of substation and BESS plant;
- Installation of on-site cable route; and
- HDD works (if required).

4.3.16 The level of noise at NSRs due to construction activities is dependent on the distance to construction works and equipment being used.

4.3.17 Noise effects due to construction activities are temporary in nature and can be controlled through the application of good practice and other mitigation measures; and as such, are unlikely to result in significant effects.

4.3.18 However, at this stage it is not possible to conclude that construction effects would be not significant in all cases. As such, a proportionate assessment of construction noise will be undertaken to determine the level of effect at NSRs and identify appropriate mitigation, where it might be required.

Construction Activity Vibration Effects

4.3.19 Some construction activities can generate ground-borne vibration in close proximity to the activity in question. Activities which could result in vibration include:

- Vibration piling of solar array mounting structures, fencing and HDD; and
- Vibratory compaction of hardstanding areas.

4.3.20 Typically, there is no reasonable prospect of significant vibration impact at distances more than 25 m. In addition, vibration effects are temporary in nature and can be controlled through the application of good practice and other mitigation measures. While it is considered unlikely that construction activities will take place within 25 m of any sensitive receptor, vibration through construction activities cannot be scoped out at this stage. As such, a proportionate assessment of construction activity vibration will be undertaken to determine the potential for significant effects and identify appropriate mitigation, where it might be required.

Construction Traffic Noise Effects

4.3.21 HGVs and other construction traffic will generate noise along the access routes during the construction phase of the Proposed Development. While noise from construction traffic can be managed through good practice measures (i.e. staggering deliveries, limiting deliveries during sensitive periods etc.) the Noise and Vibration ES chapter will include an assessment of construction traffic noise during the traffic phase.

Construction Traffic Vibration Effects

4.3.22 Vibration from construction traffic can be transmitted through the ground by the interaction of the vehicle tyres and the road surface. The passage of vehicles over irregularities in the road (i.e. potholes) can create locally increased levels of vibration. It is notable that DMRB scopes out operational vibration from a new road on the basis that a maintained road surface will be free of irregularities.

4.3.23 As part of the Application, an OCTMP will be developed. The OCTMP will commit the contractor to an inspection of the defined construction route to and from the A19 prior to construction and where required fill any potholes, ensuring that construction vibration from traffic will be minimised as far as practicable. The measures contained within the OCTMP will be secured as part of the DCO. On the basis that the construction access routes will be appropriately maintained, no traffic induced vibration will occur; and as such, construction traffic vibration effects are scoped out of further assessment.

Operation Noise Effects

4.3.24 During the operational phase, noise would be generated by the substation, transformers, solar inverters and BESS plant associated with the Proposed Development.

4.3.25 The Proposed Development will be designed to avoid significant operational noise effects where possible, either through locating equipment at sufficient distance to NSRs, selection of quiet equipment, or inclusion of mitigation such as acoustic screens or attenuators. Predictions at the nearest NSRs will be calculated and assessed against the assessment criteria.

Operation Road Traffic Noise and Vibration Effects

4.3.26 Operational traffic movements will be limited to occasional maintenance (approximately 1 LGV per week, to each parcel of the Site) visits via car / van and will be negligible compared to the existing baseline road traffic flows. As such, noise and vibration due to operational road traffic movements are scoped out.

Operational Vibration

4.3.27 In line with similar developments, operational equipment installed as part of the Proposed Development (solar panels, battery containers, transformers etc.) will emit negligible levels of vibration. As such, operational vibration is scoped out of further assessment, as there is no reasonable prospect of a significant effect.

Decommissioning Noise and Vibration Effects

4.3.28 Decommissioning noise will be the same or less than the construction phase and will be managed in accordance with a DEMP. As such, the assessment of noise and vibration effects as part of the construction phase is representative of both construction and decommissioning activities. As such, the assessment of decommissioning noise and vibration effects is scoped out of the ES, but necessary mitigation measures will be set out in the ODEMP submitted with the Application and appended to the ES.

Assessment Methodology

Construction Activity Noise Assessment

4.3.29 Noise associated with construction activities will be predicted at the NSRs using the methodology in BS 5228-1 based on plant noise emission levels, distance to receptors, plant 'on-time' etc. The predicted levels will be assessed against the criteria in Section E.3.3 *Example Method 2: 5 dB(A) Change* of BS 5228-1.

4.3.30 Example Method 2 states that noise is potentially significant if the total noise (pre-construction ambient level plus construction noise) exceeds the pre-construction ambient noise by 5 decibels (dB) or more, subject to lower cutoff values of 65 dB, 55 dB and 45 dB $L_{Aeq,t}$[37] from construction noise alone for daytime, evening and night-time periods, respectively, and where construction duration is of one month or more.

4.3.31 Table 4.5 presents the criteria for the construction activity noise magnitude of effect based on criteria in BS 5228-1. The criteria in Table 4.5 apply where the existing ambient noise at assessment receptors is below 60 dB, 55 dB or 45 dB during daytime, evening and night-time periods respectively. Where the existing ambient noise level is above these levels, magnitude of effects will be adjusted accordingly.

[37] LAeq,T : A-weighted equivalent continuous sound level T denotes the time period over which the fluctuating sound levels were averaged, for example LAeq,8h is the equivalent continuous noise level over an 8 hour period.

MAGNITUDE OF EFFECT	DAYTIME[38]	EVENING[39]	NIGHT-TIME[40]
High	> 75 dB L_{Aeq}	> 65 dB L_{Aeq}	> 55 dB L_{Aeq}
Medium	> 65 dB L_{Aeq} ≤ 75 dB L_{Aeq}	> 55 dB L_{Aeq} ≤ 65 dB L_{Aeq}	> 45 dB L_{Aeq} ≤ 55 dB L_{Aeq}
Low	> 55 dB L_{Aeq} ≤ 65 dB L_{Aeq}	> 45 dB L_{Aeq} ≤ 55 dB L_{Aeq}	> 35 dB L_{Aeq} ≤ 45 dB L_{Aeq}
Negligible	≤ 55 dB L_{Aeq}	≤ 45 dB L_{Aeq}	≤ 35 dB L_{Aeq}

TABLE 4.5: CONSTRUCTION AND DECOMMISSIONING NOISE MAGNITUDE OF EFFECT

4.3.32 The criteria in Table 4.5 apply where an activity is undertaken for a period of one month or more. For activities occurring at any NSR for less than one month, the magnitude of effect is considered to be Negligible.

Construction Activity Vibration Assessment

4.3.33 The level of vibration at the assessment receptors will be predicted using the method in Table E.1 of BS 5228-2 which is based on the distance to receptor and a scaling factor.

4.3.34 Table 4.6 presents the vibration level effect, based on the vibration levels in Table B.1 of BS 5228-2, along with the subsequent magnitude of effect.

VIBRATION LEVEL (PPV[41] MM/S)	EFFECT	MAGNITUDE OF EFFECT
> 10	Vibration is likely to be intolerable for any more than a very brief exposure to this level.	High
≥ 1.0 to < 10	It is likely that vibration of this level in residential environments will cause complaint but can be tolerated if prior warning and explanation has been given to residents.	Medium
≥ 0.3 to < 1.0	Vibration might just be perceptible in residential environments.	Low
< 0.3	Vibration unlikely to be perceptible.	Negligible

TABLE 4.6: CONSTRUCTION VIBRATION MAGNITUDE OF EFFECT

Construction Traffic Noise Assessment

4.3.35 Baseline traffic noise levels will be predicted based on the methodology in CRTN, utilising baseline traffic flows along the construction traffic route for the proposed year of construction. The percentage increase in all traffic and HGVs will be used to calculate the change in traffic noise due to construction traffic during the construction works.

4.3.36 The magnitude of effects for construction traffic noise, as defined in the DMRB, are presented in Table 4.7.

[38] 0700 – 1900 Monday – Friday and 0700 – 1300 Saturdays
[39] 1900 – 2300 weekdays, 1300 – 2300 Saturdays and 0700 – 2300 Sundays
[40] 2300 – 0700 all days
[41] Peak Particle Velocity

	MAGNITUDE OF EFFECT			
	NEGLIGIBLE	LOW	MEDIUM	HIGH
Increase in Traffic Noise Level	< 1 dB	1 dB – 3 dB	3 dB – 5 dB	> 5 dB

TABLE 4.7: CONSTRUCTION TRAFFIC NOISE MAGNITUDE OF EFFECT

4.3.37 The above assessment methodology is suitable where Annual Average Weekday Traffic (AAWT) traffic movements are above 1000. Where existing traffic flows are less than 1000, the assessment of construction traffic noise will be based on the absolute level of noise, as calculated using the 'Haul Road' method in BS 5228-1, where the predicted noise level is expressed as an equivalent continuous noise level during the working day. This calculated level will then be assessed against the criteria in Table 4.5.

Operational Noise

4.3.38 The assessment of operational noise effects will be undertaken according to the methodology set out in BS 4142.

4.3.39 The results from the background noise monitoring will be used to determine representative daytime and night-time background noise levels at the assessment receptors.

4.3.40 Noise from operational plant associated with the substation, inverters, transformers and BESS will be predicted at the assessment receptors using noise modelling software and plant noise emission data provided by the Applicant.

4.3.41 The assessment will consider the level by which the Proposed Development's BS 4142 Rating level exceeds the prevailing background sound levels, as well as the context in which the sound will occur. BS 4142 states that a difference of around +5 dB is likely to be an indication of an adverse effect.

4.3.42 BS 4142 states that where the Rating level and background levels at a receptor are low, changes in the absolute level should be taken into account. It states:

"Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night."

4.3.43 BS 4142 does not define 'low' in terms of background sound or rating levels; however, the Association of Noise Consultants (ANC) Technical Note[42] on BS 4142 states that:

"BS 4142 does not define 'low' in the context of background sound levels nor rating levels. The note to the Scope of the 1997 version of BS 4142 defined very low background sound levels as being less than about 30 dB L_{A90}[43], and low rating levels as being less than about 35 dB $L_{Ar,Tr}$.

[42] BS 4142:2014+A1:2019 Technical Note, Association of Noise Consultants Good Practice Working Group, March 2020

[43] LA90 : A-weighted, sound level just exceeded for 90% of the measurement period and calculated by statistical analysis. See also the background noise level.

The WG (Working Group) suggest that similar values would not be unreasonable in the context of BS 4142, but that the assessor should make a judgement and justify it where appropriate".

4.3.44 As such, where background noise levels are found to be low (i.e. below 30 dB L_{A90}), a lower threshold Rating level (L_{Ar}) of 35 dB has been adopted. The operational noise limits are therefore a combination of a margin of 5 dB above the representative background level, subject to a fixed lower threshold of 35 dB, L_{Ar}. Table 4.8 below presents the operational noise magnitude of effect.

MAGNITUDE OF EFFECT	
High	Rating level above 35 dB and 10 dB or more above background, depending on context.
Medium	Rating level above 35 dB and between 6 dB and 10 dB above background, depending on context.
Low	Rating level is between 25 dB L_{Ar} and 35 dB L_{Ar}; or Rating level is above 35 dB L_{Ar}, but less than 5 dB above background.
Negligible	Rating level is less than 25 dB L_{Ar}; or Rating level is more than 10 dB below background.

TABLE 4.8: OPERATIONAL NOISE MAGNITUDE OF EFFECT

Sensitive Receptors

4.3.45 The sensitivity of potentially affected receptors will be assessed in line with Table 4.9 below.

SENSITIVITY OF RECEPTOR	DEFINITION
High	Residential dwellings, schools and hospitals.
Medium	Offices, internal teaching / training spaces.
Low	Commercial premises.

TABLE 4.9: FRAMEWORK FOR DETERMINING SENSITIVITY OF RECEPTORS

4.3.46 Based on an initial desk-based study, the closest (and therefore worst case) NSRs are residential, and are therefore of High sensitivity. As such, providing noise and vibration effects are not significant at the closest NSRs, effects at all other NSRs will also be not significant, regardless of their sensitivity.

4.3.47 PRoW are not considered to be NSRs as their use by the public is highly temporary and transitory.

Significance of Effect

4.3.48 The sensitivity of the NSR and the magnitude of the predicted effects will be used to determine the significance of the likely effects. Table 4.10 summarises guideline criteria for assessing the significance of noise and vibration effects.

MAGNITUDE OF EFFECTS	HIGH	MEDIUM	LOW	NEGLIGIBLE
High	Major	Moderate	Minor	Minor
Medium	Moderate	Minor	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

TABLE 4.10: FRAMEWORK FOR ASSESSMENT OF THE SIGNIFICANCE OF EFFECTS

4.3.49 Effects predicted to be of 'major' or 'moderate' significance are considered to be 'significant' in the context of the EIA Regulations.

Cumulative Effects

4.3.50 The assessment will identify any other developments either operational, consented or currently in planning, which have the potential to result in cumulative effects (i.e. where the Study Area (defined at paragraph 4.3.8) for a cumulative development overlaps with the Study Area for the Proposed Development). Where required, the potential cumulative noise and vibration effects will be assessed according to the assessment criteria agreed with statutory consultees.

4.3.51 In addition, a cumulative search will be undertaken to identify any new NSRs either under construction, consented or currently in planning within the Study Area for the Proposed Development. Where required, these will be included in the assessment to ensure any potential impacts from the Proposed Development at new NSRs are considered.

Assumptions and Limitations

4.3.52 The 'Rochdale envelope' approach is to be used where project details may not always be confirmed or finalised. For the assessment of noise and vibration, throughout each stage of design there is an almost infinite combination of plant locations which could occur. In addition, it is not necessary to assume an extreme worst-case scenario for either construction or operational impacts, as this would involve all plant being located directly adjacent to all NSRs, which is not possible in practice. As such, the construction and operational noise and vibration assessments will be based on the Indicative Layout produced for the Proposed Development. This can be mitigated through the DCO Requirements, where a CEMP and Operational Noise Management Plan can be submitted to and approved by the NYC, which will demonstrate how the final layout will comply with relevant construction and operation noise and vibration limits.

4.3.53 As part of the assessment, modelling of both construction and operational noise will include a number of worst-case assumptions, which will be detailed in the ES chapter. In practice, the assumptions made as part of the assessment will result in an overprediction of noise and vibration levels; and as such, can be considered a reasonable worst case.

Summary Effects Scoped In and Out of the Assessment

4.3.54 The aspects described in Table 4.11 below are proposed to be scoped out, or in, of the noise and vibrations assessment, respectively.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Construction Traffic Vibration	Construction Activity Noise
Operational Traffic Noise and Vibration	Construction Activity Vibration
Operational Vibration	Construction Traffic Noise
Decommissioning Noise and Vibration	Operational Noise

TABLE 4.11: EFFECTS TO BE SCOPED OUT OR IN OF THE NOISE ASSESSMENT

Key Noise and Vibration Scoping Questions

- **Question N1 - Do you agree with the proposed Assessment Locations identified in Figure 4.3?**
- **Question N2 – Do you agree that vibration from construction traffic can be scoped out of the assessment?**
- **Question N3 – Do you agree that operational road traffic and vibration effects can be scoped out?**
- **Question N4 – Do you agree with the construction noise assessment criteria?**
- **Question N5 – Do you agree with the operational noise assessment criteria?**

4.4 CLIMATE CHANGE

Introduction

4.4.1 This section of the Scoping Report considers the assessment of potential impacts on and due to climate change. Climate change here is considered in terms of the impact of greenhouse gas (GHG) emissions caused directly or indirectly by the Proposed Development, which contribute to climate change. The resilience of the Proposed Development to climate change over its operational lifetime and the potential for climate change effects to exacerbate or ameliorate the effects of the Proposed Development on the environment is also considered.

Consultation

4.4.2 NYC has been contacted but no response has been received at the time of writing.

4.4.3 No other engagement with consultees has taken place to date.

Regulatory and policy framework

4.4.4 The following legislation, policy and guidance are relevant to the assessment of the effects of the Proposed Development on GHG emissions and climate change resilience:

- The Climate Change Act 2008 (as amended)[44]
- Overarching National Policy Statement for Energy (EN-1) 2025
- National Policy Statement for renewable energy infrastructure (EN-3) 2025
- Institute of Environmental Management and Assessment (IEMA) guide (now Institute Sustainability and Environmental Professionals ISEP) 'Assessing Greenhouse Gas Emissions and Evaluating their Significance' (IEMA, 2022)[45]
- Institute of Environmental Management and Assessment (IEMA) (now Institute Sustainability and Environmental Professionals ISEP) guide Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation (IEMA, 2020)[46]
- Business, Energy and Industrial Strategy (BEIS) (2021): Green Book supplementary guidance: valuation of energy use and greenhouse gas emissions for appraisal[47]

[44] https://www.legislation.gov.uk/ukpga/2008/27/contents
[45] https://www.iema.net/media/xmgpoopk/2022_iema_greenhouse_gas_guidance_eia.pdf
[46] https://www.iema.net/media/mabhqino/iema-eia-climate-change-resilience-june-2020.pdf
[47] https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal

- British Standards Institute (BSI) (2011) PAS 2050:2011 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services[48]

- World Business Council for Sustainable Development (WBCSD) (2015) The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard[49]

Existing known baseline conditions

4.4.5 The Site consists mainly of arable land, scattered trees, and hedgerows. The abundance of vegetation within the Site suggests a relatively high carbon sink potential.

4.4.6 The baseline conditions include the existing carbon stock (e.g. carbon sequestered within vegetation present) and sources of GHG emissions (e.g. from agricultural vehicles and machinery) within the Site from the existing activities on-site. As the land use within the Site is largely agricultural, it is estimated that the baseline conditions of the land will have minor levels of associated GHG emissions.

4.4.7 Whilst the growing of crops will sequester carbon in the short term for the duration of a growing cycle, this carbon would be subsequently released in a relatively short cycle during the agricultural practices of management, harvesting and consumption.

4.4.8 The resulting net GHG emissions of the baseline conditions are therefore dependent on soil and vegetation types present, and fuel use for the operation of agricultural vehicles and machinery. However, it is anticipated that these emissions will not be material in the context of the overall Proposed Development.

Proposed Study Area

4.4.9 Following the latest ISEP Guidance, the study area for the lifecycle GHG impact assessment is considered the global climate. The assessed receptor is the global atmosphere since GHG emissions are not geographically limited, and the impact would contribute towards a global effect rather than directly affecting any specific local receptor(s).

Potential effects and mitigation

GHG emissions and net effect on climate change

4.4.10 The Proposed Development will off-set GHG emissions associated with fossil fuel combustion (principally natural gas) for the production of electricity. However, the construction of the Proposed Development and the manufacturing and transportation of the components of the Proposed Development will have associated GHG emissions. The future decommissioning, and recycling of components, of the Proposed Development will also have associated GHG emissions.

[48] https://knowledge.bsigroup.com/products/specification-for-the-assessment-of-the-life-cycle-greenhouse-gas-emissions-of-goods-and-services
[49] https://ghgprotocol.org/sites/default/files/ghgp/standards/ghg-protocol-revised.pdf

4.4.11 An assessment of the net GHG emissions of the Proposed Development will be undertaken to understand the degree of positive or negative contribution to climate change.

4.4.12 The assessment will take a lifecycle approach to consider GHG emissions across the construction, operational and decommissioning phases of the Proposed Development.

4.4.13 Mitigation to reduce the GHG emissions of the Proposed Development will be proposed where feasible and reported in the ES.

Climate change resilience

4.4.14 The IEMA Guidance (now Institute of Sustainability and Environmental Professionals - ISEP) (2020) states that there are two key elements to assessing climate change adaptation in EIA:

- Project resilience: defined as "the risks of changes in the climate to the project (i.e. the resilience or conversely the vulnerability of a project to future climate changes). This element will take into account the design of the proposed development and mitigation measures such as additional tree planting".

- In combination impacts: described as "the extent to which climate exacerbates or ameliorates the effects of the project on the environment".

4.4.15 Effects related to the climate resilience of the Proposed Development and the potential for climate change to exacerbate or ameliorate the effects of the Proposed Development on the environment have therefore been scoped into the ES and will be assessed in accordance with the IEMA guidance.

4.4.16 Mitigation to increase the climate change resilience of the Proposed Development and to mitigate any potential for climate change to exacerbate the adverse environmental effects will be proposed where feasible and reported in the ES.

Assessment methodology

GHG emissions and net effect on climate change

4.4.17 The embodied carbon of the Proposed Development will be assessed using published literature values from lifecycle assessments (LCAs) and Environmental Product Declarations (EPDs). This is likely to include manufacturing, transport and installation for the solar modules and Balance of System (BoS) components (primarily inverters, transformers and cabling).

4.4.18 GHG emission reductions from the operation of the Proposed Development will be assessed based on the carbon intensity of the alternative source of generation that is displaced (i.e., the generator that would have been supplying the grid with electricity in the business-as-usual baseline without the Proposed Development).

4.4.19 Hence, the emissions savings would be compared with appropriate sources, including both present-day average carbon intensity of electricity generation on the UK NGET at the time of the assessment and future marginal generation intensity predictions, calculated by BEIS.

4.4.20 The GHG emissions associated with the Proposed Development will be contextualised as follows to determine the significance of the effect:

- With reference to the absolute magnitude of net GHG emissions as a percentage of applicable carbon budgets at the UK and local authority scale;
- Through considering any increase/reduction in absolute GHG emissions and GHG intensity compared with baseline scenarios, including projections for future changes in those baselines; and
- With reference to whether the Proposed Development contributes to and is in line with the UK's national carbon budget goals and existing or emerging policy that supports for GHG emissions reduction.

Climate change resilience

Development resilience

4.4.21 A Climate Change Resilience Appraisal will be undertaken to inform the ES. The Appraisal will consider future climate conditions and the impact this will have on the Proposed Development. The following factors will be included in the assessment of the Proposed Development's resilience to climate change:

- Increased average temperatures and incidence of heatwaves;
- Increased frequency of heavy precipitation events; and
- Increase in strong wind events.

4.4.22 The Appraisal will be undertaken with reference to the UK Climate Projections 18 (UKCP18) projections shown for the northeast England over the lifetime of the Proposed Development.

In combination impacts

4.4.23 The in-combination assessment will consider if and how climate change over the lifetime of the Proposed Development will present risk to and/or exacerbate the environmental effects of the Proposed Development in respect of each of the topic chapters.

Cumulative Effects

4.4.24 All developments which emit GHGs have the potential to impact the atmospheric mass of GHGs as a receptor and so may have a cumulative impact on climate change.

4.4.25 Consequently, cumulative effects due to other specific local developments are not individually identified but would be taken into account when evaluating the impact of the Proposed Development by defining the atmospheric mass of GHGs as a high sensitivity receptor.

Assumptions and limitations

4.4.26 Where detailed information is not available regarding energy use, types and quantities of materials used, or the embodied carbon of key features of the assets, assumptions will be made based on industry approximations and professional best practice.

4.4.27 All assumptions and limitations, including any exclusions, together with assumptions for choices and criteria leading to exclusion of input and output data will be documented as part of the assessment.

Summary Effects scoped in and out of the assessment

4.4.28 The aspects described in Table 4.12 below are proposed to be scoped out, or in, of the climate change assessment, respectively.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Cumulative effects	GHG emissions and net effect on climate change
	Climate change resilience

TABLE 4.12: EFFECTS TO BE SCOPED OUT OR IN OF THE CLIMATE CHANGE ASSESSMENT

Key Climate Change Scoping Questions

- **Question CC1 – Do consultees agree with the proposed assessment methodology?**
- **Question CC2 – Do consultees agree with the proposed approach to cumulative effects?**

4.5 SOCIO-ECONOMICS AND HUMAN HEALTH

Introduction

4.5.1 The Socio-Economic Chapter of the Environmental Statement will provide an assessment of the likely significant socio-economic effects generated by the Proposed Development. This will include the identification and assessment of likely effects during the construction, operational and decommissioning phases of the Proposed Development, and including cumulative effects.

Consultation

4.5.2 NYC has been contacted but no response has been received at the time of writing.

4.5.3 No other engagement with consultees has taken place to date.

Regulatory and policy framework

4.5.4 Relevant local plans and strategies will be reviewed, including but not limited to:

- Overarching National Policy Statement for Energy (EN-1)[50]
- National Policy Statement for Renewable Energy (EN-3)[51]
- North Yorkshire is currently preparing a Local Plan for the new Local Authority however as the draft is not yet available, the most relevant document for the Proposed Development is the Hambleton Local Plan Publication Draft[52]. It establishes four key priorities: Driving Economic Vitality; Enhancing Health and Wellbeing; Caring for the Environment and Providing a Special Place to Live. The Local Plan will be pivotal to delivery of these. It includes a long-term vision, objectives and strategic policies that reflect the Council's corporate ambitions.
- The North Yorkshire Economic Growth Strategy 2024-2029[53]
- The North Yorkshire Climate Change Strategy 2023-2030[54]

Existing known baseline conditions

4.5.5 Baseline socio-economic conditions will be established using the most up-to-date available secondary data, establishing the extent to which the following key indicators have changed over time. Baseline information will be sought from sources that include:

- Office for National Statistics (ONS);

[50] Overarching National Policy Statement for Energy (EN-1), 2025. Department for Energy Security and Net Zero.
[51] National Policy Statement for Renewable Energy (EN-3), 2025. Department for Energy Security and Net Zero.
[52] Hambleton Local Plan Publication Draft, 2019. Hambleton District Council.
[53] North Yorkshire Council Economic Growth Strategy, 2024-2029. North Yorkshire Council.
[54] North Yorkshire Council Climate Change Strategy, 2023-2030. North Yorkshire Council.

- Ministry of Housing, Communities & Local Government;
- Local authority sources; and
- Information obtained from the Applicant.

4.5.6 A summary of key baseline characteristics of the relevant geographies at this present time is as follows:

- Population: Between 2014 and 2024 the population of North Yorkshire grew by 5.2%. This compares to population growth of 5.9% in Yorkshire and the Humber and 7.8% in England. Over the slightly shorter timeframe of 2014 to 2022, the population in Hambleton increased by 3.0%. Over this period, the fastest growing age group in Hambleton were those aged 65+ with an increase of 21.5%. Between 2022 and 2042, the population of Hambleton is projected to increase by 12.1% and North Yorkshire is projected to decline by 7.2%, compared to an increase of 8.6% for Yorkshire and the Humber and 10.8% for England.
- Employment: Based on data from the ONS, as of 2023, there were 307,000 jobs in North Yorkshire, 46,000 of which were in Hambleton. For Hambleton, this equated to no growth since 2015, and a rise of 4.4% in North Yorkshire. The increase in North Yorkshire was below the equivalent changes in employment for Yorkshire and the Humber (6.3%) and England (8.9%). As of 2023, 5.5% of all jobs in both Hambleton and North Yorkshire were in the construction sector.
- Unemployment: As of July 2025, the claimant count in North Yorkshire was 2.0%, which was the same rate as in July 2022. The latest rate was below the corresponding figures for Yorkshire and the Humber (4.2%) and England (4.1%).
- Commuting data: According to Census data, as of 2021 there were 32,418 people that lived and worked in Hambleton. In 2021, there were 12,528 people that worked in Hambleton and lived elsewhere and 10,980 people that lived in Hambleton but worked elsewhere.
- Economic Output: Between 2013 and 2023, the Gross Value Added (GVA) in North Yorkshire grew by 109% from £9.5billion to £20billion. This was above the growth in GVA that was seen in Yorkshire and the Humber (106.6%), but below the growth seen in England (119.5%).
- Deprivation: The Proposed Development is located across two Lower Super Output Areas (LSOAs), Hambleton 009C and Hambleton 011A. Based on data from the Index of Multiple Deprivation, Hambleton 009C has an overall rank of 24,727 putting it in the top 30% least deprived LSOAs in England (out of 32,844, rank 1 is most deprived and 32,844 is least). Hambleton 009C has its highest rank in barriers to housing and services with an overall rank of 5,549, putting it in the top 20% most deprived LSOAs. It has its lowest rank in health and disability with a rank of 32,372, putting it in the top 10% least deprived

LSOAs for this domain. Hambleton 011A has an overall rank of 21,665, putting it in the top 40% least deprived LSOAs in the country. It has its highest rank in the barriers to housing and services domain with a rank of 1,977, putting it in the top 10% most deprived LSOAs for this domain. It has its lowest rank in crime with a rank of 32,056, putting it in the top 10% least deprived LSOAs for this domain.

4.5.7 Other key indicators that will be included in the baseline analysis are:

- Business base;
- Qualifications and skills;
- Economic activity;
- Visitor Economy; and
- Accommodation provision.

Proposed Study Area

4.5.8 The assessment will establish baseline socio-economic conditions within those areas likely to be affected by the Proposed Development. Study areas are defined based on an understanding of relevant local and wider economic geographies, and the extent to which socio-economic effects are likely to be contained within these established statistical geographies. It is proposed to analyse data (where available) for the geographies set out in Table 4.13.

SPATIAL SCALE	TITLE	JUSTIFICATION FOR INCLUSION
Primary Impact Zone	Hambleton	The Site is located within Hambleton and most impacts are expected to be retained within this area.
Secondary Impact Zone	North Yorkshire	The area of Hambleton is within North Yorkshire and some impacts may affect this wider scale.
Comparator Areas		
Regional	Yorkshire and the Humber	Looking at the region enables analysis to compare the primary and secondary impact zones to the wider area in order to further understand the local context.
National	England	Looking at the national scale enables analysis to compare the primary and secondary impact zones to the rest of the country in order to further understand the local context.

TABLE 4.13: STUDY AREA FOR THE SOCIO-ECONOMIC ASSESSMENT

Potential effects and mitigation

4.5.9 During construction, it is anticipated that the Proposed Development will generate the following socio-economic effects:

- Employment – direct, indirect and induced jobs based in the local and wider impact areas;
- Economic output – measured in GVA (generated by the employment supported during the construction phase);
- Accommodation – potential impacts on available accommodation as a result of construction workers required during the construction phase.

4.5.10 Once completed and fully operational, it is anticipated that the socio-economic effects associated with the Proposed Development will include the following:

- Employment – direct, indirect and induced jobs based in the local and wider impact areas associated with ongoing maintenance;
- Economic output – measured in GVA ;
- Business rates revenue – measured in terms of the business rates generated by the Proposed Development comparing to existing levels, where available; and

4.5.11 During decommissioning, it is anticipated that the Proposed Development will generate the following socio-economic effects:

- Employment – direct, indirect and induced jobs based in the local and wider impact areas;
- Economic output – measured in GVA;
- Accommodation – potential impacts on available accommodation as a result of workers required during the decommissioning phase.

4.5.12 Significant effects on human health are considered unlikely to result from the Proposed Development on the basis of the baseline data set out at 4.5.4 above (Indices of Deprivation), the nature of the Proposed Development (solar farms do not offer complex pathways for human health effects[55]) and the scope of other topic chapters that will consider any viable impact pathways (i.e. residential amenity, noise, contamination) which would lead to potential duplication.

[55] Solar panels are inert made of stable materials like silicon, glass, and aluminium, and do not emit harmful radiation. Solar farms do not emit any emissions to air or water. The Proposed Development will not contain electrical cables greater than 132kv that could generate harmful levels of EMF

4.5.13 Table 4.14 presents a summary of the proposed scope of the assessment, including consideration of potential effects, the study areas within which the effect is applicable, and the relevant receptors.

POTENTIAL EFFECT	RELEVANT STUDY AREA	POTENTIAL RECEPTORS(S)
Construction		
Employment	Primary & Secondary impact zones	District and county level economy
Economic contribution	Primary & Secondary impact zones	District and county level economy
Serviced/Non-Serviced Accommodation Demand	Primary impact zone	District visitors
Operation		
Employment	Primary & Secondary impact zones	District and county level economy workforce
Economic contribution	Primary & Secondary impact zones	District and county level economy
Business rates	Primary impact zone	District economy
Decommissioning		
Employment	Primary & Secondary impact zones	District and county level economy
Economic contribution	Primary & Secondary impact zones	District and county level economy
Serviced/Non-Serviced Accommodation Demand	Primary impact zone	District visitors

TABLE 4.14: SUMMARY OF ASSESSMENT SCOPE

4.5.14 Requirements for mitigation and opportunities for enhancement measures will be identified and discussed with relevant consultees as soon as practicable.

Assessment methodology

4.5.15 There is no overarching Government guidance that sets out the preferred methodology for assessing the likely socio-economic effects of development proposals.

4.5.16 The approach adopted for this assessment is based on professional experience, best practice and benchmarking across the industry, and in consideration of the policy requirements/tests set out within the NPS's, NPPF, and relevant local policy.

4.5.17 The first step in the assessment will be to identify the sensitivity of receptors. In socio-economic assessments, receptors are not sensitive to changing environmental conditions in the same way as many environmental receptors are. To address this, the assessment will draw on a combination of measurable indicators (jobs, population, etc.) and a consideration of the importance of the receptor in policy terms to gauge the receptor's sensitivity. The sensitivity criteria proposed to be used in the Socio-Economics ES Chapter is presented in Table 4.15.

4.5.18 The magnitude of change upon each receptor will then be determined by considering the predicted deviation from baseline conditions, both before and, if required, after mitigation. The magnitude of effect criteria proposed to be used in the Socio-Economics ES Chapter is presented in Table 4.16.

4.5.19 Wherever possible, the magnitude of change will be quantified. Where this is not possible, for example, for the effects on disturbance to neighbourhood amenity, consideration of magnitude of change will be on a qualitative basis and justified through baseline research, review of relevant policy, consultation undertaken and professional judgement.

4.5.20 There are no industry standard significance criteria for the assessment of socio-economic and human health effects. The assessment is quantitative where possible. In circumstance where this is not possible, the assessment is qualitative in nature based on professional judgement. The significance of effect is identified by combining the sensitivity of the receptor against the magnitude of impact using the matrix in Table 4.17. Any major or moderate effects are considered significant whilst minor or minor to moderate effects are considered not significant.

SENSITIVITY	EVIDENCE FOR SENSITIVITY ASSESSMENT
High	Evidence of direct and significant socio-economic challenges relating to receptor. Accorded a high priority in local, regional or national economic regeneration policy. Evidence of direct and significant socio-economic challenges including: • Areas with levels of unemployment well in excess of regional / national averages, and/or trend of considerable job reduction identified. • Significantly high rise in population according to projections up to 2038. • Areas with high levels of deprivation, i.e. deprivation levels within 20% most deprived decile according to IMD 2019. • Areas with levels of GVA that are lower than the regional and/or national averages overall. • Construction-related GVA lower than regional and/or national averages. • Areas with low accommodation occupancy rates and high bedspace capacity.
Medium	Some evidence of socio-economic challenges linked to receptor, which may be indirect. Change relating to receptor has medium priority in local, regional and national economic and regeneration policy. Some evidence of socio-economic challenges, including: • Areas with levels of unemployment above regional / national averages, and/or trend of job reduction/no job growth identified. • Average rise in population according to projections up to 2038. • Areas with moderate levels of relative deprivation, i.e. deprivation levels within 50% most deprived deciles according to IMD 2019. • Areas with levels of GVA that are similar to the regional and/or national averages overall. • Construction-related GVA that are similar to regional and/or national averages. • Areas with medium accommodation occupancy rates and moderate bedspace capacity.
Low	Little evidence of socio-economic challenges relating to receptor. Receptor is accorded a low priority in local, regional and national economic and regeneration policy. Little evidence of socio-economic challenges, including: • Areas with levels of unemployment in line with regional / national averages, and/or trend of particular growth in job numbers identified. • Lower than average rise in population according to projections up to 2038. • Areas with low levels of relative deprivation, i.e. i.e. deprivation levels within 50% least deprived deciles according to IMD 2019). • Areas with levels of GVA that are in excess of the regional and/or national averages overall. • Construction-related GVA in excess of regional and/or national averages. • Areas with high levels of accommodation occupancy and limited levels of surplus bedspaces.

Negligible	No socio-economic issues relating to receptor. Receptor is not considered a priority in local, regional and national economic development and regeneration policy. No socio-economic issues relating to a receptor, including: • Areas with levels of unemployment less than regional / national averages. • Projected decrease / population projections estimated to remain same in period up to 2038. • Areas with low levels of relative deprivation, i.e. deprivation levels within 20% least deprived decile according to IMD 2019. • Areas with levels of GVA that are well in excess of the regional and/or national averages overall. • Construction-related GVA well in excess of regional and/or national averages. • Areas with high levels of accommodation occupancy and low levels of surplus bedspaces

TABLE 4.15: CRITERIA FOR SENSITIVITY OF RECEPTOR

MAGNITUDE OF IMPACT	DESCRIPTION / CRITERIA
High	• Proposed Development would cause a large change to existing socio-economic conditions in terms of absolute and/or percentage change. • Considerable increase / decrease on existing baseline levels of employment. • Greater than 5% increase / decrease in GVA generated. • Considerable increase in local employment and training opportunities. • Considerable increase in business rates generated. • Considerable increase in accommodation demand.
Medium	• Proposed Development would cause a moderate change to existing socio-economic conditions in terms of absolute and/or percentage change. • Moderate increase / decrease on existing baseline levels of employment. • 1% - 5% increase / decrease in GVA generated. • Moderate increase in local employment and training opportunities. • Moderate increase in business rates generated. • Moderate increase in accommodation demand.
Low	• Proposed Development would cause a minor change to existing socio-economic conditions in terms of absolute and/or percentage change. • Limited increase / decrease on existing baseline levels of employment. • 0.1% - 0.99% increase / decrease in GVA generated. • Limited, but some increase in local employment and training opportunities. • Limited increase in business rates generated.
Negligible	• No discernible change in baseline socio-economic conditions.

TABLE 4.16: CRITERIA FOR MAGNITUDE OF EFFECT

MAGNITUDE OF CHANGE	SENSITIVITY OF RECEPTOR			
	High	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor to Moderate	Negligible
Low	Moderate	Minor to Moderate	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

TABLE 4.17: SIGNIFICANCE OF EFFECT

Cumulative Effects

4.5.21 Cumulative proposals will be studied as part of this assessment. The proposals which will be assessed will be those within the Primary and Secondary Impact Zones as listed in Table 4.13 as these are where the potential receptors are located, which are also associated with renewable energy development, and for which there is potential for overlap in respect of potential effects with the Proposed Development. The assessment will specify whether cumulative proposals are scoped in or out of the analysis with justification as to why sites have been excluded. The rationale for omitting certain sites from the assessment will likely be a result of a lack of overlapping potential effects present.

Assumptions and limitations

4.5.22 Baseline information is derived from the latest available statistics, however there is often a time-lag associated with the publication of this data. As such, the latest available data at the time of finalisation of assessment documentation will be presented.

Summary of Effects scoped in and out of the assessment

4.5.23 Table 4.18 provides a summary of the impacts that will be scoped in, or out, of the assessment.

4.5.24 It is proposed to scope out wider tourism effect and health and wellbeing from each of the development phases. This is due to the fact that there is not expected to be a significant effect, be it adverse or beneficial in respect of either of these potential effects.

SOCIO-ECONOMIC IMPACT	SCOPED IN/OUT
Construction	
Employment	In
Economic contribution	In
Serviced/Non-Serviced Accommodation Demand	In
Wider tourism effect	Out
Health and wellbeing	Out
Operation	
Employment	In
Economic contribution	In
Business rates	In
Wider tourism effect	Out
Health and wellbeing	Out
Decommissioning	
Employment	In
Economic contribution	In
Serviced/Non-Serviced Accommodation Demand	In
Wider tourism effect	Out
Health and wellbeing	Out

TABLE 4.18: SUMMARY OF IMPACTS TO BE SCOPED IN, OR OUT, OF THE ASSESSMENT

Key Socio-economic Scoping Questions

- **Question S1 - Are you in agreement that the potential effects to be scoped in include employment, economic contribution and change in accommodation demand for the construction and decommissioning phases, and employment, economic contribution and business rates for the operational phase only?**

- **Question S2 - Are you in agreement that there is only a potential for significant effect on the change in demand on accommodation in respect of visitors to the area, as opposed to there being a potential for significant effect on the wider tourism industry? As such, are you in agreement that a wider tourism impact assessment is scoped out of the assessment for all development phases?**

- **Question S3 - Are you in agreement that there is no potential for significant effect on health and wellbeing as a result of the Proposed Development and therefore this potential effect has been scoped out of the assessment for all development phases?**

- **Question S4 - Are you in agreement that the study area includes Primary Impact Zone (Hambleton) and Secondary Impact Zone (North Yorkshire) for all potential effects?**

- **Question S5 -Are there any particular mitigation measures or enhancement measures that you envisage relevant to the potential effects assessed within the scope of the socio-economics assessment?**

4.6 AGRICULTURAL LAND AND SOILS

Introduction

4.6.1 This Chapter sets out the potential significant effects on agricultural land. It considers the following key resources or considerations:

- the effects on agricultural land quality;
- the effects on soils and soil resources;
- the localised effects on agricultural businesses;
- the wider effects on food production and the rural economy.

4.6.2 This Chapter has been prepared by Kernon Countryside Consultants Ltd. It follows an Agricultural Land Classification (ALC) Survey of the Site by Amet Property Ltd and provided as Appendix II.

Consultation

4.6.3 North Yorkshire Council has been contacted but no response has been received at the time of writing.

4.6.4 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

Legislation

4.6.5 There is no legislation of direct relevance to the assessment.

National Planning Policy

4.6.6 The key national policies relevant to the Proposed Development include:

- Overarching National Policy Statement for Energy 2025 (EN-1)[56];
- National Policy Statement on Renewable Energy Infrastructure 2025 (EN-3)[57]; and
- National Planning Policy Framework 2024[58].

[56] Department for Energy and Net Zero (2024), Overarching National Policy Statement for Energy ('EN-1', 2025)
[57] Department for Energy and Net Zero (2024), National Policy Statement on Renewable Energy Infrastructure ('EN-3', 2025)
[58] Ministry of Housing, Communities and Local Government (formerly the Department for Levelling Up, Housing and Communities) (2024) National Planning Policy Framework (NPPF)

Guidance

4.6.7 Other Guidance that will be considered will include:

- Natural England's TIN049 (2012) Protecting the best and most versatile agricultural land[59];
- Ministry of Agriculture, Fisheries and Food (MAFF) (1988) ALC of England and Wales: revised guidelines and criteria for grading the quality of agricultural land[60]
- Defra (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites[61]
- Institute of Quarrying (2021) Good Practice Guide for Handling Soils[62]; and
- Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA) (2022) A New Perspective on Land and Soil in Environmental Impact Assessment (hereafter the 'ISEP Guidance')[63].

Existing Known Baseline Conditions

4.6.8 The baseline is assessed in terms of:

- Agricultural land quality;
- Soils and soil type; and
- Local agricultural circumstances.

Agricultural Land Quality

4.6.9 Agricultural land is measured under a system of ALC. This grades land based on the long-term physical limitations of land for agricultural use, including climate (temperature, rainfall, aspect, exposure and frost risk), site (gradient, micro-relief and flood risk) and soil (texture, structure, depth and stoniness) criteria, and the interactions between these factors determining soil wetness, droughtiness and utility. The system is described in Natural England's Technical Information Note TIN049 (2012)[64].

4.6.10 Land is divided into five grades, 1 to 5. Grade 3 is divided into two subgrades, referred to as Grade 3a and Grade 3b. Land falling into ALC Grades 1, 2 and Subgrade 3a is the

[59] Natural England Technical Information Note TIN049 "Protecting the Best and Most Versatile agricultural land", edition 2 (2012)
[60] Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land, MAFF (1988)
[61] Department for Environment, Food and Rural Affairs (2009), Construction Code of Practice for the Sustainable Use of Soils on Construction Sites
[62] The Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings
[63] Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA) Guide "A New Perspective on Land and Soil in Environmental Impact Assessment" (2022)
[64] https://publications.naturalengland.org.uk/publication/35012

"best and most versatile" (BMV) (as defined in the NPPF (2024), Annex 2[65]. Natural England estimate in TIN049 that 42% of agricultural land in England is of BMV quality[66].

4.6.11 The MAFF produced a series of "provisional" ALC maps in the 1970s. These were reprinted by Natural England in 2010. These maps were produced at a scale of 1:250,000 and are for strategic purposes only. They do not show the subgrades of Grade 3.

4.6.12 The provisional map for Yorkshire and the Humber[67] shows the Site as a mixture of Grade 2 "very good quality" and undifferentiated Grade 3 "good to moderate quality" agricultural land, in common with most of the wider area. Figure 4.4 shows the provisional ALC maps for the area.

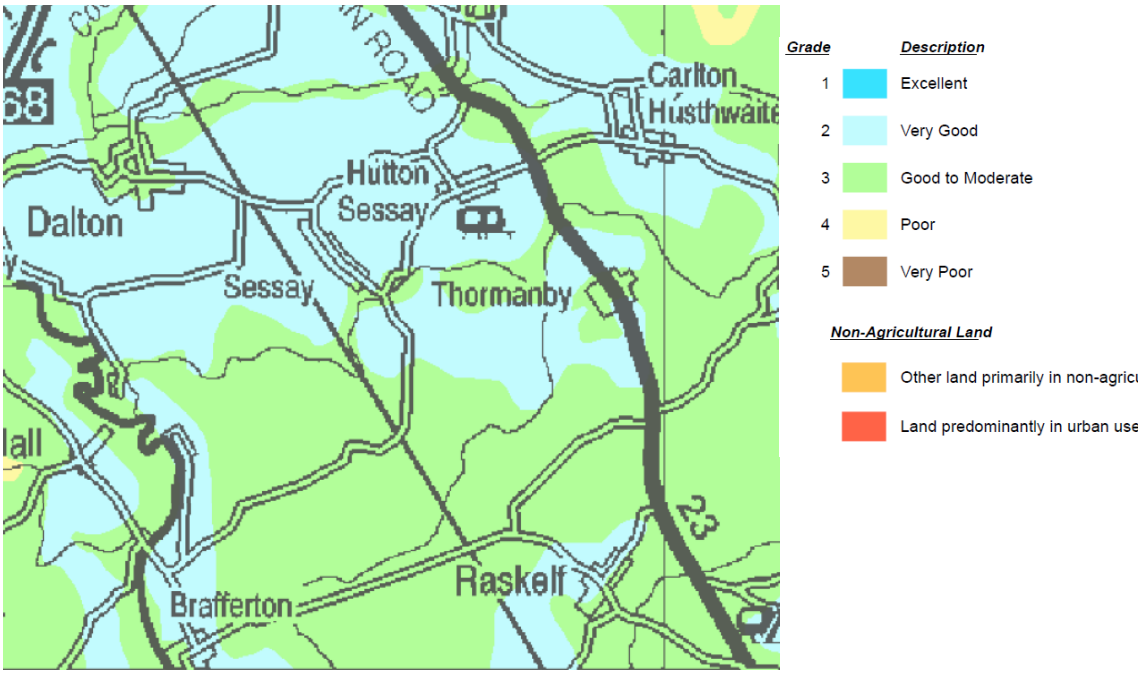


FIGURE 4.4 EXTRACT 1:250,000 MAFF PROVISIONAL ALC

4.6.13 In 2017, Natural England published a series of maps, also at 1:250,000 scale, showing the likelihood of BMV land[68]. These maps divide the country into three categories: low (<20% area BMV), moderate (20%-60% area BMV), and high (>60% area BMV). The Site is shown as falling into the "moderate likelihood" category (20% - 60% BMV) and high likelihood (>60% BMV). Figure 4.5 shows the predictive BMV maps for the area.

[65] ibid
[66] ibid
[67] Natural England (2010), 1:250,000 Agricultural Land Classification Yorkshire and the Humber Region
[68] Natural England, 2017, Likelihood of Best and Most Versatile Agricultural Land, Available at: https://publications.naturalengland.org.uk/category/5208993007403008

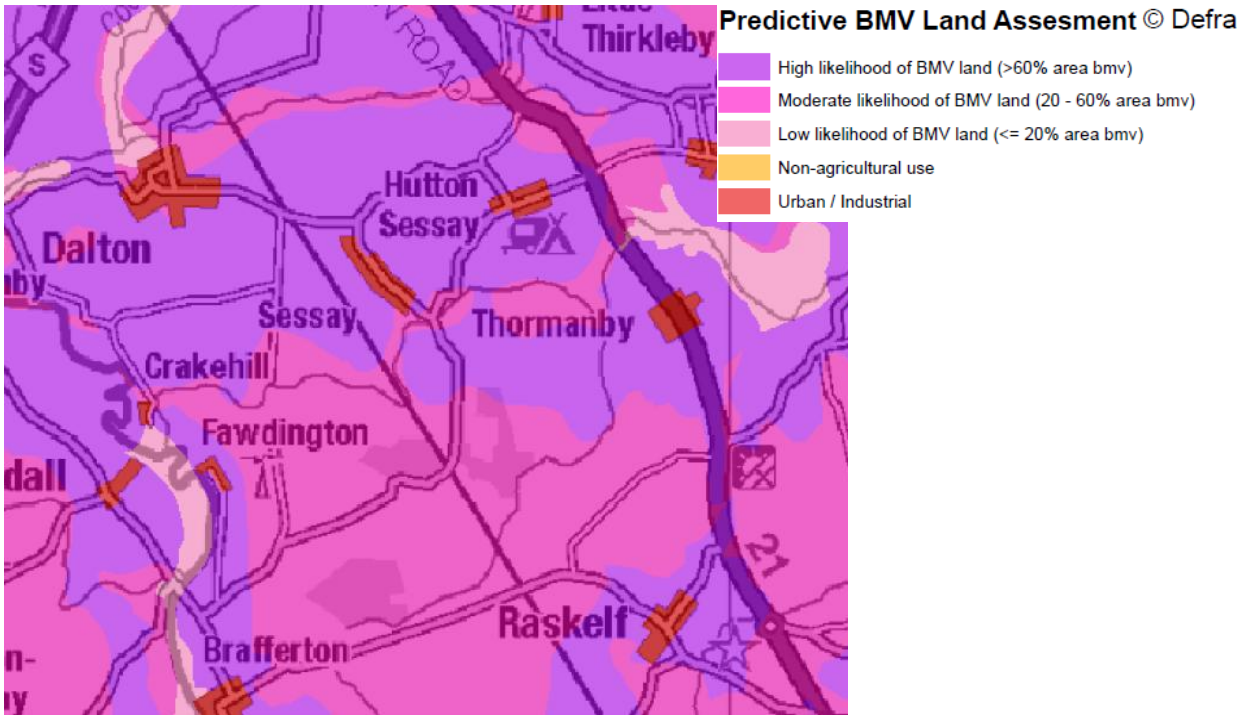


FIGURE 4.5 EXTRACT NATURAL ENGLAND'S PREDICTIVE BMV

4.6.14 A detailed ALC survey has been completed for the Site. This has been completed at a detailed survey level, involving 1 auger sample per hectare. The results are shown on the ALC map extract at Figure 4.6.

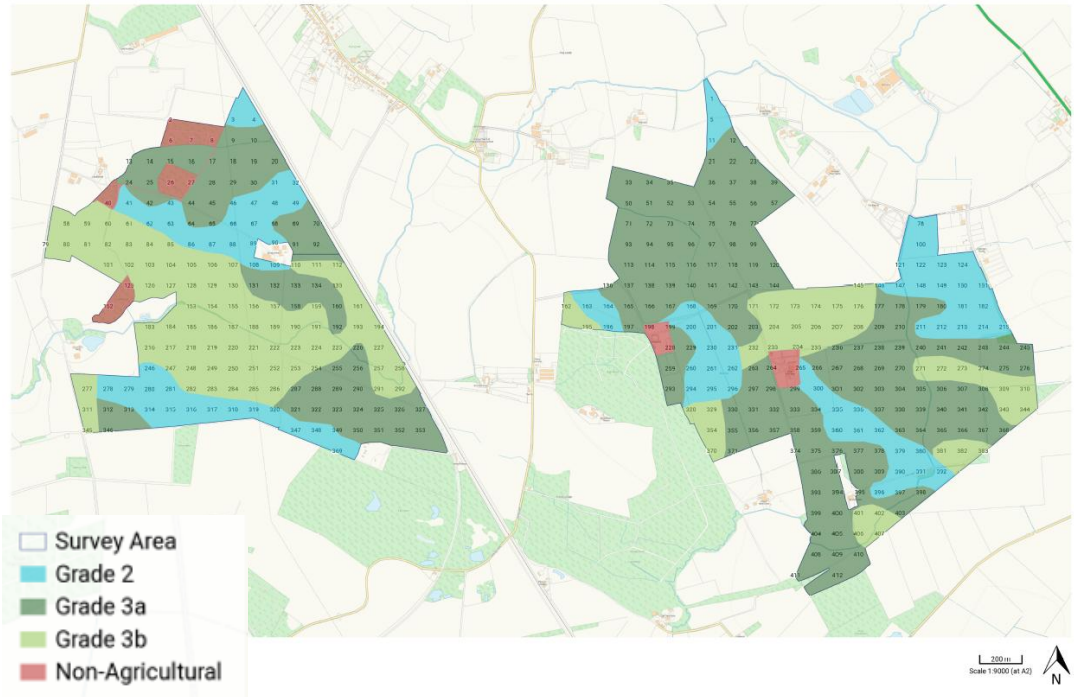


FIGURE 4.6 DETAILED ALC RESULTS

4.6.15 The results are set out in Table 4.19, rounded to the nearest whole hectare.

ALC GRADE	AREA (HA)	PERCENTAGE OF THE SITE (%)
1 excellent	0	0
2 very good	87	21
3a good	201	48
3b moderate	115	28
4 poor	0	0
5 very poor	0	0
Non-agricultural	12	3
Total	**415**	**100**

TABLE 4.19: ALC RESULTS

Soils and Soil Type

4.6.16 Soils have been mapped historically by the Soil Survey of England and Wales (SSEW)[69] at a 1:250,000 scale. The SSEW mapping for the Sessay Park parcel of the Site identifies that the soils are expected to comprise mostly soils of 831b Sessay Association. This is described as fine and coarse loamy often stoneless permeable soils affected by groundwater, associated with slowly permeable seasonally waterlogged fine loamy over clay soils.

4.6.17 Soils for the Briar Hill parcel of the Site are shown as mostly 711p Dunkeswick soils (seasonally waterlogged fine loamy and fine loamy over clayey soils) and 821 Blackwood Association (deep permeable sandy and coarse loamy soils).

4.6.18 The detailed ALC survey identified the soils as follows:

(i) the soils to the south of the Sessay Park parcel and the majority of Briar Hill parcel are a sandy loam or loamy sand or occasionally sand topsoil over moderately structured loamy sand, sandy loam and sand subsoils. Subsoils are sometimes gleyed but never slowly permeable. Subsoil structures appear in places to be poorer than might be expected, possibly as a result of heavy machinery transiting the land over the years;

(ii) the southwest of the Sessay Park parcel is a heavy clay loam or clay topsoil over a gleyed, slowly permeable clay subsoil;

(iii) the north of the Sessay Park parcel is a medium sandy loam over subsoils that vary quite significantly over short distances from moderately structured sandy soils to poorly structured clay soils;

(iv) the northwest of the Briar Hill parcel varies significantly over quite short distances with topsoil ranging from loamy sand to heavy clay loam and subsoils from moderately structured sandy soils to reddish poorly structured clay soils.

[69] SSEW (1983), Soils of England and Wales Sheet 1 Northern England

Farming Circumstances

4.6.19 The Site forms part of a single agricultural business. The land within the Site is all in arable use. The crops grown are whole-crop wheat and barley grown as an energy crop for an Anaerobic Digester (AD) near Thormanby, and another near Dalton, and maize grown for a mix of AD use and feed for a dairy herd.

Proposed Study Area

4.6.20 The proposed Study Area for the land quality, soils and farm business impact assessment will be the Site. A wider area will be considered in terms of the cumulative assessment, likely to be a county or regional assessment.

Potential Effects and Mitigation

4.6.21 The potential for adverse effects on agricultural land (both on the soils and the land quality) resulting from the construction of the following elements of the Proposed Development:

- Temporary construction compounds ;
- Access tracks;
- PV panel mounting structures;
- Vehicle trafficking;
- Electrical cabling;
- Switchgear area and BESS and;
- Electrical Infrastructure.

4.6.22 Construction effects may arise as a result of impacts on soils, either from physical movement of the soils or physical movement across the soils by vehicles. As part of the assessment an Outline Soil Management Plan (OSMP) will be developed to guide good practice and minimise potential effects on soils and agricultural land quality.

4.6.23 A number of potential impacts are capable of mitigation by the careful use of, and handling, of soils. These potential impacts are generally scoped-in to the assessment and are then addressed (for the purposes of mitigation and impact minimisation) through the OSMP.

Temporary Construction Compounds

4.6.24 The topsoil removed for the TCCs will be placed temporarily in a low-level bund or bunds on land outside the TCCs. These bunds are short-term storage areas for the topsoil, which will be used in restoration of these areas once construction is complete. As such, the TCCs are not expected to have any adverse long-term effects on soils or agricultural land quality. Details of soil handling to prevent any loss of topsoil will be detailed in the OSMP included in the OCEMP in this regard.

Access Tracks

4.6.25 Existing access tracks within the Site will be utilised, as far as possible. The topsoil removed for new construction of access tracks will be placed in low-level bunds in proximity to where it is excavated. These bunds are long-term storage areas for the topsoil, which will be used in restoration when the Proposed Development is decommissioned after operation. As such, any new access tracks are not expected to have any permanent significant adverse effects on soils or agricultural land quality. Details of soil handling to prevent any loss of topsoil will be detailed in the OSMP included in the OCEMP in this regard.

Solar Array Mounting Structures

4.6.26 The solar panels will be mounted onto piles, and it is anticipated that these will be inserted into the ground using a pneumatic hammer action, which pushes the piles straight down into the soil to the correct depth. This process does not involve any digging or mixing of the soils. It is similar to the process of knocking-in a fence post as the soil simply moves laterally as the pile is knocked in. As a consequence, there is not expected to be any significant adverse effects to soil resource and the inherent agricultural land quality.

Vehicle Tracking

4.6.27 Construction of the Proposed Development will involve vehicle trafficking over agricultural land. There is the potential for the soil to be adversely affected by vehicular movement if not managed properly. Mitigation measures will be detailed in the OSMP included in the OCEMP in this regard, to mitigate adverse effects to soils (e.g. compaction).

Electrical Cabling

4.6.28 Cabling around the solar panels is usually limited to the end of each row of panels, connecting back to the electrical structure. This cabling normally involves a narrow trench with soils replaced in the same order as they were removed, shortly after the trench is dug. Subject to good practice, this operation does not cause a significant effect on soils.

4.6.29 A larger cable connection may be required in the Cable Route Search Area. This will also involve a narrow trench, and short-term disturbance, and no long-term adverse effect on soils.

BESS and On-Site Switchgear Area

4.6.30 The BESS and substation/switchgear area may affect soils and will be considered. The BESS could involve an area of up to 5 ha and given the scale of the Site and the possible works required there is the potential for a permanent land-quality downgrading. The physical works, and the land area, land quality and soil types involved, will be considered. The BESS area is mostly a mixture of ALC subgrades 3a and 3b.

Electrical Infrastructure

4.6.31 Associated electrical infrastructure such as transformers, switchgear and metering equipment may require the construction of bases. In many cases these will not require

deep foundations as the equipment will stand on the ground. The physical works involved, and the potential effects on soils and land quality, will be considered.

Operation

4.6.32 The land under and around the solar arrays will be converted to grassland use and potentially farmed by the grazing of sheep. Depending upon the grazing regime, there may be periodic need for some mowing or topping of grassland, but this will be normal agricultural activity and should have no adverse effect on soils. Operational activities will be covered by the OSMP within the OOEMP. By careful operation, there should be no significant adverse effects on soil resource or agricultural land quality during operation.

4.6.33 The Proposed Development has the potential for adverse economic impacts, as a result of reduced agricultural income for the business affected during the operational stage. However, this will be mitigated by alternative incomes received by leasing of the land for the Proposed Development. It is anticipated that agricultural activity, involving grazing of sheep, will be part of the ongoing land management.

Decommissioning

4.6.34 Decommissioning works are anticipated to include removing the solar arrays, shallow (< 1 metre) cabling, fixed infrastructure, fencing etc however, will be tailored to best practice at the time of decommissioning. These works, depending upon time of year and ground conditions, have the potential to effect soils and land quality in localised small areas. The soils are mostly sandy and resilient to being handled, and no significant adverse effects that are not capable of being rectified with normal agricultural land management machinery, are expected. Detailed guidance will be presented in the OSMP which will be provided in the ODEMP.

Proposed Scope

4.6.35 With regard to the potential effects from the various construction and operational activities described in paragraphs 4.6.21-4.6.34 above, the potential effects proposed to be scoped into or out of the Agricultural Land ES Chapter are as follows:

- Scoped-in: potential temporary effects on soils and land quality from TCCs;
- Scoped-in: Potential temporary disturbance and crop loss from construction activities;
- Scoped-in: potential effects on land quality from construction and decommissioning activities;
- Scoped-in: potential effects on soils during construction, operation and decommissioning activities;
- Scoped-in: potential economic and land-use effects and implications for farm businesses and the rural economy, from construction, operation and decommissioning.

4.6.36 The methodology to determine significance of effect is based on the ISEP Guidance. The assessment methodology identifies the sensitivity of the various receptors in terms of their importance (e.g. BMV land quality) and their susceptibility to damage (e.g. sensitive soil type).

4.6.37 The ISEP Guidance considers land of ALC Grade 1 to be of "very high" sensitivity, Grades 2 and 3a to be of "high" sensitivity and land of Subgrade 3b to be of "medium" sensitivity. Land of Grades 4 and 5 is "low" sensitivity. We proposed to amalgamate all BMV land (Grades 1, 2 and 3a) into a single "high" sensitivity category.

4.6.38 The methodology will consider soils of high clay content in wetter climate regions to be sensitive to damage from trafficking. The Field Capacity Days (FCD) for the Site is 146, based on the ALC methodology.

4.6.39 The ISEP Guidance does not provide magnitude and sensitivity definitions for farm businesses, although effects are described in Paragraph 8.3.3 therein. The criteria in Tables 4.20 to 4.22 below are based on professional judgement. The methodology considers farm businesses to be more resilient to change. Full-time businesses that would be terminated by the Proposed Development are identified as a major adverse magnitude of impact, with farm businesses less affected being identified as moderate or minor magnitude impacts. The sensitivity of farms is reflective of their resilience to change.

4.6.40 The sensitivity of receptors will be measured as set out in Table 4.20 below.

SENSITIVITY	ALC/BIOMASS PRODUCTION	SENSITIVITY OF TOPSOIL AND SUBSOIL	AGRICULTURAL BUSINESSES
High	Land of ALC Grades 1, 2 and subgrade 3a	High clay soils where the FCD* is >150, or medium textured soils where the FCD is >225	Agricultural businesses are always adapting. No business type is considered of high sensitivity to change.
Medium	Land of ALC Subgrade 3b	High clay soils where the FCD is <150, or medium textured soils where the FCD is <225	Full-time businesses, and farm businesses where the location of land is particularly important such as dairy farms.
Low	Land of ALC Grades 4 and 5	Soils with a high sand fraction where the FCD is <225	Part-time farms or farms with low sensitivity to change, e.g. arable land held on short-term arrangements.
Negligible	Land of ALC Grades 4 and 5 with only indirect links	No soil type is considered to be of negligible sensitivity to change.	Agricultural land that is not farmed or does not form part of a farm business.

**FCD: days when the soil is replete with water*

TABLE 4.20: METHODOLOGY FOR DETERMINING RECEPTOR SENSITIVITY

4.6.41 The magnitude of impacts will be assessed as per the methodology set out in Table 4.21 below. The determination of "loss" will draw on the definition in the ISEP Guidance. This defines "loss" for assessing magnitude as "permanent, irreversible loss of one or more soil functions or soil volumes (including permanent sealing or land quality downgrading)". It identifies that "temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soils" [Table 3, ISEP Guidance].

MAGNITUDE OF IMPACT	DEFINITION	
	Effects on Agricultural Land and Soils	**Effects on Agricultural Businesses**
High	The Scheme would directly lead to the loss (including permanent sealing or land quality downgrading) of over 50 hectares of soil-related features; or potential for improvement in one or more soil functions over an area of more than 50 ha.	The impact of development would render a full-time agricultural business non-viable.
Medium	The Scheme would directly lead to the loss (including permanent sealing or land quality downgrading) over an area of between 20 and 50 hectares of soil-related features; or potential for improvement in one or more soil functions over an area of between 20 ha and 50 ha.	The impact of the development would require significant changes in the day-to-day management of a full-time agricultural business, or closure of a part-time agricultural business. Loss of buildings or impacts on drainage or water supplies affecting the potential for at least 5 ha of adjacent land to be farmed fully.
Low	The Scheme would directly lead to the loss (including permanent sealing or land quality downgrading) of less than 20 hectares of soil-related functions; or potential for improvement in one or more soil functions over an area of less than 20 ha.	Land take would require only minor changes in the day-to-day management / structure of a full-time agricultural business or land take would have a significant effect on a part-time business. Minor effects, direct or indirect, on surrounding land beyond the boundaries of the Site.
Negligible	No discernible loss or reduction or improvement of soil functions or volumes.	Land take would require only negligible changes in the day-to-day management of a full-time agricultural business or land take would require only minor changes to a part-time farm business

TABLE 4.21: METHODOLOGY FOR DETERMINING MAGNITUDE OF CHANGE

4.6.42 The assessment of the significance of effects will be determined based on the matrix in Table 4.22 below.

		SENSITIVITY OF RECEPTOR / RECEIVING ENVIRONMENT TO CHANGE / IMPACT			
		HIGH	MEDIUM	LOW	NEGLIGIBLE
Magnitude of Impact	High	Major	Major-Moderate	Moderate-Minor	Negligible
	Medium	Major-Moderate	Moderate	Minor	Negligible
	Low	Moderate-Minor	Minor	Negligible	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

TABLE 4.22: METHODOLOGY FOR DETERMINING SIGNIFICANCE

Cumulative Effects

4.6.43 The cumulative effects on agricultural land, and agricultural land use (eg food production), will be considered on a local authority administrative or regional basis. The effects assessed will include land loss and land use considerations.

Assumptions and Limitations

4.6.44 There are no significant limitations to the assessment made in this Chapter.

Summary Effects Scoped In and Out of the Assessment

4.6.45 All potential impacts are, at this stage, scoped in as set out in Table 4.23. However, overall, no significant adverse effects are expected albeit this topic cannot be entirely scoped out until the assessment is completed.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
	Potential temporary effects on soils and land quality from TCCs;
	Potential temporary disturbance and crop loss from construction activities;
	Potential effects on land quality from construction and decommissioning activities;
	Potential effects on soils during construction, operation and decommissioning activities;
	Potential economic and land-use effects and implications for farm businesses and the rural economy, from construction, operation and decommissioning.

TABLE 4.23: SUMMARY OF IMPACTS TO BE SCOPED IN, OR OUT, OF THE ASSESSMENT

Key Agricultural Land and Soils Scoping Questions

- **Question A1 - Can PINS confirm that all agricultural matters should be scoped in?**

- **Question A2 - Can PINS confirm that the threshold set out in Tables 4.20 and 4.21 (as revised) are agreed?**

4.7 ECOLOGY

Introduction

4.7.1 This section of the Scoping Report has been prepared by APEM Ltd (APEM) and sets out the currently understood ecology baseline conditions, the proposed surveys required to update the baseline conditions, and the proposed approach to assessing potential impacts from the Proposed Development on ecological receptors. The ecological assessment will cover the construction, operational and decommissioning phases of the Proposed Development, along with any cumulative impacts, where appropriate.

4.7.2 The Scoping chapter has been informed by a desk-based review of existing ecological information, including a Preliminary Ecological Appraisal (PEA) undertaken in 2024[70], and a subsequent peer review undertaken in 2025[71]. For ornithological receptors, this Scoping chapter has been informed by baseline surveys undertaken during the 2024 and 2025 breeding seasons along with a review of publicly available ornithological information. The review process has helped to identify potential gaps in baseline data coverage, ensure alignment with current guidance, and highlight where further surveys or refinements to the Study Area are likely to be required.

4.7.3 The approach to ecological assessment methodologies, consultation and mitigation, as well as the initial assessment results, any potential significant effects, and any ecological receptors scoped out at this stage are also identified.

Consultation

4.7.4 NYC has been contacted but no response has been received at the time of writing.

4.7.5 No other engagement with consultees has taken place to date.

Regulatory and policy framework

Legislation

4.7.6 A framework of international, national and local legislation exists to protect and conserve wildlife and habitats. The following core legislation exists to protect habitats and species of nature conservation importance:

- The Conservation of Habitats and Species Regulations 2017 (as amended)[72];
- The Wildlife and Countryside Act 1981 (as amended)[73];
- Environment Act 2021[74];

[70] QUANTS environmental (2024) Land at Thormanby, Thirsk, North Yorkshire. October 2024.
[71] APEM (2025) Thormanby Scoping PEAR of PEA. P17866. BayWa r.e. July 2025. Final v0.1
[72] Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents
[73] Available at: https://www.legislation.gov.uk/ukpga/1981/69
[74] Available at: https://www.legislation.gov.uk/wsi/2022/223/made

- The Natural Environment and Rural Communities Act 2006 (NERC Act; particularly Section 41);[75]
- National Park and Access to the Countryside Act 1949 (as amended)[76];
- The Hedgerow Regulations 2017[77];
- The Invasive Alien Species (Enforcement and Permitting) Order 2019[78];
- The Protection of Badgers Act 1992[79];
- Wild Mammals (Protection) Act 1996[80]; and,
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017[81].

National Planning Policy

4.7.7 NPS set out the policy basis for NSIPs and will form the basis for the determination of the application for the Scheme. The NPSs that are relevant to the Scheme and the Ecology and Biodiversity Chapter of the ES are:

- Overarching National Policy Statement for Energy (EN-1) 2025 - Sections 4.6 and 5.4
- National Policy Statement for Renewable Energy Infrastructure (EN-3) 2025 - Section 2.10

Local Planning Policy

4.7.8 North Yorkshire is currently preparing a Local Plan for the new Local Authority however as the draft is not yet available, the most relevant document for the Proposed Development is the Hambleton Local Plan Publication Draft. Key policies encourage the protection, management, and enhancement of biodiversity, habitats, and ecological networks, with a particular focus on river corridors, woodlands, and other priority habitats.

4.7.9 Although the Local Plan is currently under consultation for an updated version, the current plan remains in effect until the updated version is adopted. The Local Plan highlights:

- Maintaining and improving biodiversity across North Yorkshire through the protection of designated and non-designated sites, ecological networks, and priority habitats.

[75] Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents
[76] Available at: https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97#:~:text=An%20Act%20to%20make%20provision,and%20improvement%20of%20public%20paths
[77] Available at: https://www.legislation.gov.uk/wsi/2017/565
[78] Available at: https://www.legislation.gov.uk/uksi/2019/527/contents
[79] Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents
[80] Available at: https://www.legislation.gov.uk/ukpga/1996/3#:~:text=If%2C%20save%20as%20permitted%20by,be%20guilty%20of%20an%20offence
[81] Available at: https://www.legislation.gov.uk/uksi/2017/407/contents

- Ensuring that new development avoids adverse effects on protected species and habitats and incorporates mitigation or enhancement measures where impacts are unavoidable.
- Promoting the resilience of ecosystems, including river corridors and connected habitats, to support long-term ecological sustainability.
- Encouraging the incorporation of green infrastructure, habitat creation, and ecological enhancements within developments to contribute to county-wide biodiversity objectives.

4.7.10 All proposals should be considered in light of these policies to ensure ecological impacts are appropriately assessed and mitigated.

Guidance

4.7.11 In addition to standard guidance for EIA projects, the ecology chapter will also be compliant with the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment (EcIA) in The UK and Ireland Terrestrial, Freshwater, Coastal and Marine[82]'.

Proposed Study Area

4.7.12 The Ecological Desk Study Area (EDSA) has been defined to capture designated sites and species records with potential connectivity to the Site. The EDSA will cover a maximum 10 km buffer for European designated sites; 5 km for statutory national and non-statutory designated sites; a 5 km protected species buffer for bats; and 2 km for any other protected and notable species records. These buffers provide an appropriate context for identifying ecological receptors that may be subject to direct, indirect, or cumulative impacts as a result of the Proposed Development and align with the approach to defining the ZoI.

4.7.13 For ornithological features, the Ornithological Study Area has been defined to capture any designated sites that have potential connectivity to the Site using NatureScot (2014) guidance on foraging ranges (this is also best practice in England). The following search areas have been considered:

- 20km for statutory sites for wintering geese and/or swans; and
- 10km for statutory sites designated for other ornithological features.

Existing known baseline conditions

4.7.14 This section outlines the methodologies and results of ecological surveys and desk-studies undertaken to date and their results used to determine the known ecological baseline conditions. Details of which are included within Appendix IV (Preliminary Ecological Appraisal), Appendix V (Breeding Bird Survey) and Appendix VI (Breeding Quail Survey).

[82] CIEEM. (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester

Proposed Surveys and Assessment Methodologies

4.7.15 This section outlines the surveys and assessments deemed here as necessary to inform the ES including assessment methodologies and approaches.

Approach to Assessment Methodologies

4.7.16 Ecological surveys will be undertaken in line with current guidance and best practice to establish the baseline conditions within the Site.

4.7.17 In accordance with the latest CIEEM guidance, the approach used for the EIA will consider:

- The importance and sensitivity of each Important Ecological Features (IEF)
- The characteristics and magnitude of potential impacts; and
- Application of professional judgement to determine whether the integrity of the ecological feature would be affected.

4.7.18 In line with CIEEM guidance, rather than applying a simple matrix to determine significance, the assessment will consider the nature of the receptor, the scale and duration of impacts, and the ecological context, applying professional judgement to conclude whether the receptor's integrity is affected and the significance of any effects.

4.7.19 For the purpose of the EIA, an effect that negatively affects the integrity of a IEF will be considered to be significant. The significance of effects will be assessed in an appropriate geographic context.

4.7.20 ES will be additionally supported by Technical Appendices (Tas) containing complete details of the surveys, analysis methods and results. Any data related to sensitive receptors will be included in a separate Confidential Appendix – which will not be available to the public.

Designated Sites – Further Assessments Requirements

National Designated Sites

4.7.21 No site-specific ecological surveys are required for the designated sites themselves, as these are statutory and non-statutory designations already well-documented by NE and the LPA. However, additional desk-based assessment will be undertaken to confirm the presence of any updated or newly designated sites within the relevant search radius prior to submission of the ES.

4.7.22 The assessment will also review the most recent NE IRZs and conservation objectives for all designated sites within 5 km of the Site boundary, including Pilmoor SSSI, to identify any potential pathways for indirect impacts (e.g. hydrological connectivity, dust deposition, air quality, or surface water runoff).

4.7.23 Where potential pathways are identified, these will be examined through the relevant EIA technical disciplines (e.g. hydrology, drainage, etc) to ensure that potential effects on

designated sites are fully assessed and that appropriate avoidance or mitigation measures are embedded within the design and construction methodology.

4.7.24 Consultation with NE and the LPA Ecologist will be undertaken as part of the EIA process to confirm data sources, agree the scope of assessment, and ensure that statutory requirements relating to designated sites are met.

Additional Surveys to be Undertaken

4.7.25 The following field surveys are proposed to be undertaken to complete the assessment of baseline conditions and inform the impact assessment within the Ecology Chapter of the ES.

4.7.26 These surveys will be undertaken in accordance with current best practice. The survey and assessment methodologies are designed to:

- Confirm and update the ecological baseline for habitats and species within and adjacent to the Site;
- Provide quantitative and qualitative data to inform the evaluation of IEFs;
- Support the application of professional judgement in determining the magnitude and significance of potential effects; and
- Inform the design and implementation of avoidance, mitigation, and enhancement measures to be incorporated into the OCEMP and Biodiversity Net Gain (BNG) Strategy.

4.7.27 The survey outputs will also feed directly into the Statutory Biodiversity Metric and the overall Ecological Impact Assessment, ensuring that baseline data collection, evaluation, and mitigation design remain fully integrated and consistent throughout the EIA process.

4.7.28 The following field surveys are proposed to be undertaken to complete the assessment of the baseline conditions and inform the impact assessment within the Ecology Chapter of the ES.

Terrestrial Habitat Surveys

4.7.29 An updated ecological walkover survey of the Site will be required to validate the habitats previously recorded and to identify any changes since the 2024 baseline survey. This will include a condition assessment of all habitats and ground-truthing of data collected during the 2024 survey, undertaken in accordance with the Statutory Biodiversity Metric Condition Assessment methodology[83] (July 2025 version, or any subsequent update available at the time of survey).

[83] UKHab (2024). *UK Habitat Classification* Version 2 (at http://www.ukhab.org)

Protected and Notable Species Surveys

Bats

4.7.30 An updated[84] Preliminary Roost Assessment (PRA) of all structures located within the Site will be undertaken. Following current best practice guidance[85], buildings will be reassessed to determine the actual or potential presence of bats, and the need for further survey and/ or mitigation. Buildings will be classified as negligible, low, moderate or high.

4.7.31 An updated Ground Level Tree Assessment (GLTA) of all trees within the survey area will be undertaken. Following current best practice guidance[86], trees will be reassessed to determine the actual, or potential, presence of bats, and the need for further survey and/ or mitigation. Trees will be classified as "None" (no Potential Roost Features (PRF) present), "PRF" (PRFs present) or, "FAR" (Further Assessment Required – where the presence of PRFs cannot be ruled out).

4.7.32 Where buildings or trees within 50 m of the Site are identified as having potential to support roosting bats, impacts should be avoided wherever possible through the iterative design process. If avoidance is not achievable, further survey effort will be required, such as presence/likely absence surveys or aerial inspections of PRFs.

Great Crested Newt and Other Amphibians

4.7.33 Thirty-two waterbodies (24 ponds and 8 ditches) have been identified within 500 m of the Site. Following best practice guidance[5] a Habitat Suitability Index (HSI) will be undertaken at each waterbody in order to assess the waterbodies suitability in supporting breeding GCN.

4.7.34 Following the HSI assessment, all waterbodies scoring "Average" or higher will be considered for further investigation using environmental DNA (eDNA) surveys. Should any of the waterbodies yield a positive result from the eDNA analysis, this would indicate a potential presence of GCN, and as a precaution, additional traditional surveys would be undertaken. These conventional presence/absence surveys typically involve nocturnal torch surveys, egg searches, and netting, conducted during the species' active breeding season (March - June), to confirm the presence or absence of GCN and inform any necessary mitigation measures.

GCN District Level Licence (Optional)

4.7.35 The Site is located within an area that is eligible for the GCN District Level Licensing (DLL) scheme[87]. According to NE's datasets, the surrounding region falls within amber and green

[84] Building and Trees change over time due to growth, storm damage, disease, or decay. A building assessed as "negligible", or tree assessed as "None" potential one year may develop features suitable for bat roosts, birds, or other wildlife the next.
[85] Collin, J. (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th ed.). Bat Conservation Trust, London.
[86] Collin, J. (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th ed.). Bat Conservation Trust, London.
[87] Natural England. (2023). Great crested newts: district level licensing schemes for developers, ecologists and landowners. Department for Environment, Food & Rural Affairs. Available at: https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes-for-developers

zones, which are suitable for DLL. These zones indicate areas where GCN populations are present or likely to be present, making them appropriate for the DLL scheme.

4.7.36 By joining the DLL scheme, surveys for GCN are not required, nor is a mitigation plan. The DLL scheme ensures that proposed works are legally compliant, by securing off-site compensation ponds instead of carrying out detailed surveys and applying for a mitigation licence.

Otter

4.7.37 Targeted otter surveys will be undertaken along suitable sections of Birdforth Beck and Sun Beck and associated watercourses, extending up to 250 m upstream and downstream of the Site where access permits. Surveys will be conducted between April and October inclusive, with up to two survey visits required, and will follow current best practice methodologies for assessing otter presence and activity[88].

Fish

4.7.38 Given the presence of waterbodies within the Site, potential impact pathways (both direct and indirect) to aquatic receptors exist. However, as a minimum 10 m buffer will be maintained from all waterbodies, the requirement for full aquatic ecological surveys will be determined based on a risk-based assessment of potential impacts, the sensitivity of each waterbody, and any protected species present. Where necessary, targeted aquatic ecological surveys (electrofishing, netting, or visual surveys) will be undertaken to inform the EIA and any subsequent mitigation requirements.

Badger

4.7.39 A targeted badger survey will be undertaken within the Site and will be extended to include a minimum of 30 m outside of the Site boundary.

Water vole

4.7.40 Targeted water vole surveys will be undertaken along all suitable habitat within the Site that lies within the potential influence zone of the Site. This includes watercourses located within 50 m of proposed infrastructure, with surveys extending up to 250 m upstream and downstream where access allows to capture connected habitat and movement corridors. Surveys will be undertaken between April and October inclusive and will require up to two site visits in line with best practice guidance[89].

Reptiles

4.7.41 Due to the presence of habitats suitable for supporting a range of reptile species within the Site, baseline surveys will be required where these habitats may be impacted by the Proposed Development. Habitats of particular importance include areas of woodland

[88] *Otter Protection: Best practice Guidance for Developers, Ecologists, and Planning Authorities* (UK) 29/1/24 UK Wild Otter Trust.
[89] Strachan, R., Moorhouse, T. and Gelling, M. (2011). Water Vole Conservation Handbook – 3rd Edition, Wildlife Conservation Research Unit, Oxford

edges, tall grass, scrub, hedgerows, and log or stone piles, which may provide shelter, basking sites, and foraging opportunities.

4.7.42 The reptile suitability surveys will inform any necessary mitigation measures to avoid, reduce, or compensate for potential impacts on reptiles during the construction and operational phases of the Proposed Development.

4.7.43 Conducted during the reptiles' active season, typically between April and September, these surveys employ methods like the use of artificial refugia (e.g., roofing felt or corrugated metal sheets) to detect basking reptiles and estimate population densities.

Terrestrial Invertebrates

4.7.44 Due to the presence of a locally designated site and habitats within the Site that are suitable for supporting a diverse assemblage of terrestrial invertebrates, baseline invertebrate surveys will be undertaken in areas where these habitats may be affected by the Proposed Development. Surveys will comprise an initial walkover to identify key habitat features, followed by targeted invertebrate sampling using standard techniques such as sweep-netting, pitfall traps, and beating. Surveys will be undertaken during the main active period for invertebrates, typically between May and September, to ensure seasonal variations in species presence are captured. The results will provide a robust baseline to inform potential mitigation or enhancement measures.

4.7.45 There is a possible that the Tansy beetle could be present within the Site which is nationally scarce within the UK and listed on the WCA 1981.

Aquatic Invertebrates

4.7.46 Aquatic invertebrate surveys will be undertaken if a watercourse is considered likely to be adversely affected by the Proposed Development.

4.7.47 Targeted WCC surveys will be undertaken along all suitable freshwater habitat present within the Site. Surveys will be conducted up to a maximum of 500 m upstream and downstream, where access allows, of potentially impacted watercourses. Surveys will be conducted at least twice between July and September inclusive. The survey will follow best practice guidelines[90] to ensure accurate detection and minimal disturbance to the species.

Other Protected and Notable Mammals

4.7.48 Brown hare have been recorded during walkover surveys within the Site. Given their use of open arable land and field margins for foraging and breeding, mitigation and precautionary working practice measures to avoid, reduce, or compensate for potential impacts on brown hare during the construction and operational phases of the Proposed Development will be considered and set out in the OCEMP submitted with the Application.

4.7.49 Hedgehog records and suitable habitat identified within the Site, including woodland, hedgerows, and scrub. Mitigation and precautionary working practice measures to avoid,

[90] Peay S (2003). Monitoring the White-clawed Crayfish *Austropotamobius pallipes*. Conserving Natura 2000 Rivers Monitoring Series No. 1, English Nature, Peterborough

reduce, or compensate for potential impacts on hedgehogs during the construction and operational phases of the Proposed Development will be considered.

Invasive Non-native Species

4.7.50 The presence of INNS will be identified during the completion of updated habitat walkover survey. The potential impacts of the introduction or spread of INNS will be considered as part of the ES.

Ornithology

4.7.51 Ornithology Baseline Surveys will be undertaken during the 2026 breeding season to update the ornithological baseline and inform the impact assessment. The survey scope will cover the following surveys undertaken in 2024 and 2025:

- Breeding Bird Surveys;
- Barn Owl Nest Check; and,
- Breeding Quail Survey.

4.7.52 The survey methods used will replicate those followed during previous surveys undertaken during 2024 and 2025.

Assessment Methodology

4.7.53 The EcIA will be conducted in accordance with the current guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM; CIEEM, 2018)[91].

4.7.54 The Ecology Chapter of the EIA will be additionally supported by Technical Appendices containing complete details of the surveys, analysis methods and results.

4.7.55 In accordance with the latest CIEEM guidance, the approach used for the EIA will consider the importance and sensitivity of an IEF/IOF with the characteristics and severity of the impact and apply professional judgement to conclude whether the integrity of the IEF will be adversely affected.

4.7.56 For the purpose of the EIA, an impact that negatively affects the integrity of an IEF/IOF will be considered to be significant. The significance of impacts will be assessed in an appropriate geographic context.

[91] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

Potential effects and mitigation

Potential Effects

4.7.57 Potentially significant ecological effects scoped into the assessment will be determined based on pathways for impacts, relevant guidance, baseline data recorded during surveys and professional judgment.

Assessment Pathways

4.7.58 Receptors may be impacted by the Proposed Development through the following pathways:

- Permanent or temporary loss of suitable habitat (breeding, roosting, foraging, commuting, sheltering, nesting) for a range of protected and priority species (including bats, badger, otter, GCN, reptiles, water vole, fish, invertebrates, hedgehog, brown hare and birds) during construction.
- Direct injury or killing of species during vegetation clearance, groundworks and construction activities, particularly for less mobile species (e.g. amphibians, reptiles, hedgehog, invertebrates) and for mammals using setts or burrows (e.g. badger, water vole).
- Habitat degradation and changes in condition through dust deposition, pollution, hydrological alteration, nutrient enrichment and sedimentation affecting terrestrial, riparian and aquatic habitats (including Birdforth Beck, Sun Beck, ditches, ponds, woodland, hedgerows, scrub and grassland).
- Disturbance and displacement of protected and priority species (bats, otter, badger, breeding/foraging birds, reptiles, invertebrates) due to noise, vibration, lighting and visual intrusion during construction, operation and decommissioning phases of the Proposed Development.
- Barrier effects restricting the movement and ecological connectivity of commuting/foraging species (notably bats, fish, otter, water vole, terrestrial mammals and birds) as a result of new infrastructure, fencing or altered habitat networks during operation of the Proposed Development.
- Effects on designated sites (Pilmoor SSSI, Yorkshire Rivers IIA, Sessay Wood and Brafferton Spring Wood SINCs, Ancient Woodland) from from air quality impacts, dust, runoff and hydrology, disturbance, edge effects etc.
- There is no expected pathway for effect between the Proposed Development and any European site (Special Protection Area, Special Area of Conservation or Ramsar site). Notwithstanding the a Habitat Regulations Screening Assessment will be provide as an Appendix to the ES chapter.
- Introduction and spread of INNS (Himalayan balsam, giant hogweed, rhododendron) via soil/water movement, machinery, equipment and staff during all phases of the Proposed Development.

Key Ecological Receptors

4.7.59 The following ecological receptors will be considered as part of the assessment process:

- Habitats of Principal Importance (HPI) listed under Section 41 of the NERC Act 2006, including arable field margins, hedgerows, ponds, and woodland;
- Designated terrestrial habitats and sites, including Pilmoor SSSI, Sessay Wood SINC, Brafferton Spring Wood SINC, the Yorkshire Rivers IIA, and adjacent Ancient and Semi-Natural Woodland and Ancient Replanted Woodland parcels;
- Assemblages of terrestrial and aquatic invertebrates associated with field margins, grassland, hedgerows, and riparian habitats;
- Locally valuable habitats and landscape features providing ecological connectivity, including hedgerow networks, woodland edges, and grassland–arable interfaces;
- Species listed under Annex I of the Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive);
- Species listed under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended);
- Amber and Red listed in BoCC5 (Stanbury et al., 2021[92]); and,
- Species listed under Section 41 of the NERC Act (2006).

4.7.60 Baseline surveys undertaken to date indicate that the Site supports habitats and species typical of intensively managed agricultural land, with ecological interest primarily associated with boundary habitats, field margins, and scattered trees. Target terrestrial receptors likely to be included within the EIA are those of local to regional importance, particularly:

- Bats – roosting, foraging and commuting species utilising hedgerows, woodland edges, and watercourse corridors;
- Badger – with potential foraging and sett-building activity within arable margins and woodland edges;
- Water vole and otter – along Birdforth Beck, Sun Beck, and associated ditches;
- Reptiles – using rough grassland, scrub, and field boundaries;
- Great crested newt – within off-site ponds and terrestrial refugia adjacent to arable land;
- Hedgehog and brown hare – associated with grassland, margins, and fallow areas

[92] Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114**: 747.

- Priority invertebrates, including Tansy beetle, potentially associated with riparian and marginal vegetation;

- Large numbers of breeding farmland birds of conservation concern. This included grey partridge, skylark, yellow wagtail, yellowhammer and corn bunting which all had a minimum of ten territories recorded within the Site.

Mitigation

4.7.61 As part of the iterative design process, a number of embedded mitigation measures have already been incorporated into Scoping Concept Plan to avoid or substantially reduce potential ecological effects. These measures have been informed by the findings of the baseline surveys and desk study data. Embedded measures include:

- Avoidance of designated and sensitive habitats, including the retention of a minimum 10 m buffer from all watercourses and a 15 m buffer from all areas of Ancient Woodland (except potentially the grid cable that may route under an existing forestry track through East Moor Wood);

- Retention and protection of existing trees, hedgerows, and woodland wherever possible, avoiding encroachment into RPAs and maintaining natural habitat connectivity across the Site;

- Use of existing access tracks and field boundaries to minimise new habitat disturbance; and

- Minimum 100 m offset from residential properties, providing both ecological and amenity benefits.

Construction Phase

4.7.62 Further ecological protection and management measures will be developed through the OOCEMP which will include an OHMP and Precautionary Working Method Statements (PWMS). These will provide detailed mitigation and habitat management prescriptions where required, informed by the results of targeted surveys.

4.7.63 Where additional site-specific measures are identified (e.g. exclusion zones around active badger setts, nesting bird buffers, or presence of an Environmental Clerk of Works (ECoW)), these will be implemented through the OCEMP to ensure ecological compliance during construction.

4.7.64 The embedded design measures, together with the mitigation and management commitments secured through the OCEMP, will ensure that potential ecological effects are avoided or reduced as far as practicable at source and that the Proposed Development proceeds in accordance with best practice and legislative requirements.

Operational Phase

4.7.65 Routine maintenance required during operation of the Proposed Development is expected to be minimal, limited to isolated areas and of temporary duration. However, should significant operational works (for example track upgrades or panel replacement) be required during the breeding bird season, the mitigation measures outlined above for the construction phase will be implemented to ensure compliance with the relevant legislation.

4.7.66 An Outline Landscape and Ecological Management Plan (OLEMP) and OOEMP will be produced and submitted with the Application. The OLEMP will outline all required habitat management activities required for favourable habitat establishment and management and all other ecological mitigation recured. The OLEMP will be secured as part of the DCO. The OOEMP will provide specific guidance relating to the roles and responsibilities for mitigation and monitoring during the operational phase of the Proposed Development, ensuring compliance with environmental legislation.

Decommissioning Phase

4.7.67 As decommissioning works are likely to be of a similar nature and duration as construction activities, the mitigation measures outlined above for the construction phase will be implemented to ensure compliance with relevant legislation.

4.7.68 All decommissioning mitigation will be outlined and secured in the ODEMP.

Skylark Mitigation Strategy

4.7.69 Due to the number of skylark (a BoCC5 red-listed and priority species under the NERC Act) recorded breeding during the 2024 BBS, a Skylark Mitigation Strategy (SMS) is proposed to provide continued opportunities for skylark within the local area.

4.7.70 The SMS would aim to create suitable foraging habitat for skylark in the locality of the Site, compensating for the potential loss of skylark territories associated with the construction and operation of the Proposed Development. The SMS will be developed alongside further design work and will be informed by future baseline surveys, along with the previously conducted 2024 BBS. It is intended that a draft mitigation and compensation strategy would be developed alongside consultees to ensure suitability.

4.7.71 To compensate for the loss of skylark habitat, it is proposed that skylark plots are established. To mitigate potential impacts on breeding skylark resulting from habitat loss associated with the construction of the Proposed Development, areas where skylark are currently breeding will be identified. Within these areas, skylark plots will be established to enhance habitat suitability and promote successful breeding. Research has shown that the implementation of skylark plots can lead to a threefold increase in breeding pairs (Donald and Morris, 2005). The anticipated increase in skylark breeding activity as a result of these measures will serve to compensate for as many of the lost territories caused by the Proposed Development as reasonably practical.

4.7.72 Consideration has been given to relevant guidance provided by both the RSPB[93] and UK Government sources[94], which recommend that fields intended to support skylark plots should exceed 5 ha in size where an open landscape is present, or exceed 10ha where fields are enclosed by woodland or tree boundaries. In addition, skylark plots should be situated a minimum of 50m from field margins or boundary features to maximise their suitability for breeding.

[93] RSPB (undated). 'Farming for Wildlife: Skylark Plots.'
[94] Rural Payments Agency and Natural England (2024). 'AB4: Skylark plots.' Available at: https://www.gov.uk/countryside-stewardshipgrants/skylark-plots-ab4

Enhancement

4.7.73 To evaluate whether the Proposed Development will achieve BNG, the proposed works will be assessed against key ecological attributes, as outlined in current guidance for the delivery of BNG in England (e.g., DEFRA 2023 Biodiversity Metric and relevant Natural England guidance).

4.7.74 Potential measures may include, for example, the restoration or improvement of species-poor grasslands and modified habitats, and the planting of native trees and scrub, particularly along watercourses and hedgerows, to improve habitat connectivity and strengthen ecological networks within and beyond the Site boundaries.

4.7.75 The appropriateness and feasibility of any enhancement measures will be discussed with relevant consultees, including Local Planning Authority biodiversity officers and NE, throughout the EIA process.

4.7.76 Prescriptive enhancement measures will be detailed post-consent, by way of Requirements, within an OHMP (or similar) for the Proposed Development.

Cumulative Effects

4.7.77 An assessment of potential cumulative effects will be undertaken within the EIA. The baseline conditions will inform the scope of the cumulative assessment and will follow CIEEM guidance[95].

4.7.78 At this stage, no projects have been screened in or out of the cumulative assessment and it is intended that relevant projects within 10 km of the Site (depending on baseline condition results) will be considered in the cumulative effects screening and assessment.

Assumptions and limitations

4.7.79 The assessment of potential effects on habitats and protected species will be informed primarily by baseline survey data collected during the 2026 survey seasons. This will be supplemented by information from the 2024 PEA surveys. It is assumed that these surveys provide a representative picture of the habitats and species present within the Site at the time of survey.

4.7.80 Limitations: Seasonal and annual variations in species presence or detectability may not be fully captured. Additionally, species with cryptic behaviours or low population densities may not have been detected, meaning that absence of evidence is not necessarily evidence of absence.

4.7.81 The assessment will also draw upon existing desk-based information, including local biological records, statutory and non-statutory designations, and previous ecological reports for the area. It is assumed that this data accurately reflects the distribution of habitat types and protected or notable species within the Proposed Development and its immediate surroundings.

4.7.82 For ornithological features, the assessment will be informed by baseline survey data collected during the 2026 breeding bird season and supplemented by surveys conducted

[95] CIEEM. (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester

during 2024 and 2025. It is assumed that this data will provide a representative overview of bird activity and species presence within the Proposed Development and its immediate surroundings.

4.7.83 Any limitations associated with the baseline data, such as restricted access, suboptimal weather conditions, or incomplete seasonal coverage, will be clearly identified and discussed within the assessment. These limitations will be taken into account when evaluating the potential impacts of the Proposed Development on habitats and species, and in the formulation of appropriate mitigation, compensation, or enhancement measures where necessary.

Summary Of Effects/Receptors scoped in and out of the assessment

4.7.84 Ecology receptors scoped-in to the assessment will be determined based on pathways for impacts, relevant guidance (NE), baseline data recorded during surveys and professional judgement. Considering the current baseline conditions, it is proposed that the following will be scoped in for assessment.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
	Pilmoor SSSI within IRZ – effects on National designated site features
BoCC5 Green-listed bird species	Yorkshire Rivers IIA (Tansy beetle risk) – risk to ecological features
North York Moors SPA – effects on ornithological receptors	Brafferton Spring Wood and Sessay Wood SINC – effects on SINC ecological features
	Ancient woodland - Edge effects (light, noise, dust, pollution), potential indirect hydrological impacts, irreversible habitat loss if encroached
	Habitats within the Site - Habitat loss (temporary/permanent), disturbance during construction, fragmentation, changes in land management affecting biodiversity, reduced connectivity, pollution / runoff, alteration to hydrology
	Bats - Loss of roost features (trees, buildings), loss of foraging / commuting habitat, light/noise disturbance, barrier effects
	GCN - Loss of breeding/terrestrial habitat, disturbance, mortality during works, pollution of ponds/ditches
	Otter- Disturbance (noise, vibration, lighting), loss/degradation of riparian habitat, barrier effects from infrastructure, injury / death during works
	Fish - Habitat degradation from pollution/runoff, barrier effects to movement, disturbance to spawning habitat

	Badger - Loss of foraging habitat, disturbance or destruction of setts, injury / death during works
	Water vole - Habitat loss/degradation (ditches, Beck), pollution impacts, disturbance during construction
	Reptiles - Habitat loss (scrub/grass margins), direct mortality during clearance, disturbance, injury / death during works
	Terrestrial invertebrates (e.g. Tansy beetle) - Habitat loss (tansy patches), disturbance, shading, pollution
	Aquatic invertebrates (e.g. white-clawed crayfish) - Habitat degradation, pollution/runoff, sedimentation, disturbance
	INNS (Himalayan balsam, giant hogweed, rhododendron) - Spread within, and beyond, the Site via soil/water movement
	Displacement/disturbance effects on target bird species
	Barrier effects on target bird species
	Habitat loss for target bird species
	Potential effects to Species listed under Annex I of the Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive)
	Potential effects to Amber and Red listed in BoCC5 (Stanbury et al., 2021[96])
	Potential effects to Species listed under Section 41 of the NERC Act (2006)

TABLE 4.24: EFFECTS SCOPED IN AND OUT OF THE ASSESSMENT

Key Ecology Scoping Questions

- **Question E1 - Do consultees agree with the scope of surveys completed and proposed for 2026?**
- **Question E2 - Do consultees agree with the scoped out impact pathways?**
- **Question E3 - Do consultees agree with the receptors scoped out of the assessment?**

[96] Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114**: 747.

- **Question E4 - Do consultees agree with the proposed mitigation and compensation measures, particularly relating to skylark?**

4.8 LANDSCAPE AND VISUAL IMPACT

Introduction

4.8.1 The Scoping Report has been informed by desktop study and visits to the Site and surrounding area.

4.8.2 The landscape and visual chapter of the ES will review the Site and its surrounding context in order to describe and identify the relative level of effects arising as a result of the Proposed Development, in relation to the landscape features, the character of the local landscape and the visual amenity of people who view the Site and surrounding landscape.

Consultation

4.8.3 North Yorkshire Council has been contacted but no response has been received at the time of writing.

4.8.4 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

4.8.5 It is anticipated the following legislation, policy and guidance will be referred to as part of the assessment:

- National Policy Statement (NPS) for Energy (EN-1) 2025[97];
- NPS for Renewable Energy Infrastructure (EN-3) 2025[98];
- NPS for Electricity Networks Infrastructure (EN-5) 2025[99];
- National Planning Policy Framework
- Hambleton Local Plan, February 2022[100];
- Emerging North Yorkshire Local Plan[101];

[97] Overarching National Policy Statement for Energy (EN-1) – December 2025
[98] National Policy Statement for Renewable Energy Infrastructure (EN-3)
[99] National Policy Statement for Electricity Networks Infrastructure (EN-5) – December 2025
[100] https://www.northyorks.gov.uk/planning-and-conservation/planning-policy/planning-policy-your-local-area/hambleton-planning-policy/hambleton-local-plan/about-hambleton-local-plan
[101] https://www.northyorks.gov.uk/planning-and-conservation/planning-policy/north-yorkshire-local-plan

- Guidelines for Landscape and Visual Assessment, 3rd Edition (GLVIA3), (Landscape Institute and the Institute for Environmental Management and Assessment, 2013)[102];
- Landscape Institute (2021) Assessing landscape value outside national designations, Technical Guidance Note 02/21[103];
- Landscape Institute (2019) Technical Guidance Note 06/19, Visual Representation of Development Proposals[104];
- Landscape Institute (2019) Technical Guidance Note 02/19, Residential Visual Amenity Assessment[105];
- North Yorkshire and York Landscape Characterisation Project, May 2011[106];
- Hambleton Landscape Character Assessment and Sensitivity Study, May 2016[107]; and
- North York Moors Landscape Character Assessment Update 2021, Final Report, December 2021[108].

National Policy Statements

4.8.6 EN-1 (5.10.5-5.10.6), in respect of landscape impact states:

> "Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation.
>
> Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate".

4.8.7 EN-3 sets out at 2.10.92 that:

> "The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries. Applicants should also consider opportunities for individual trees within the boundaries to grow on to maturity".

[102] https://www.landscapeinstitute.org/technical/glvia3-panel/
[103] https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/
[104] https://www.landscapeinstitute.org/news/new-visual-representation-guidance-2019/
[105] https://www.landscapeinstitute.org/technical-resource/rvaa/
[106] https://www.northyorks.gov.uk/environment-and-neighbourhoods/conservation/describing-and-understanding-our-landscape
[107] https://www.northyorks.gov.uk/sites/default/files/fileroot/planning_migrated/planning_policy/SD27_Landscape_Character_Assessment_and_Sensitivity_Study_May_2016.pdf
[108] https://www.northyorkmoors.org.uk/planning/landscape-character-assessment/North-York-Moors-LCA-Update-FINAL-REPORT-December-2021-for-website.pdf

National Planning Policy Framework

4.8.8 Paragraph 187 of the NPPF in relation to valued landscapes, states:

> *'Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
>
> *b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland…'*

Local Planning Policy

4.8.9 The Hambleton Local Plan (the Local Plan), adopted February 2022, sets out the current planning policy, despite the Site being located within the North Yorkshire Council administrative area since 2023. At the time of writing a North Yorkshire Local Plan was in the process of being created, however, policy within the Hambleton Local Plan remains in place until it is replaced.

4.8.10 Policy E7 of the Local Plan in relation to Hambleton's Landscapes, states:

> *'The Council will protect and enhance the distinctive landscapes of the district. A proposal will be supported where it:*
>
> *a. takes into consideration the degree of openness and special characteristics of Hambleton's landscapes;*
>
> *b. conserves and, where possible, enhances any natural or historic landscape features that are identified as contributing to the character of the local area;*
>
> *c. conserves and, where possible, enhances rural areas which are notable for their remoteness, tranquillity or dark skies;*
>
> *d. takes account of areas that have been identified as being particularly sensitive to/or suitable for certain forms of development;*
>
> *e. protects the landscape setting of individual settlements and helps to maintain their distinct character and separate identity by preventing coalescence with other settlements; and*
>
> *f. is supported by an independent landscape assessment where the proposal is likely to have a detrimental impact on the landscape...'*

4.8.11 Policy RM6 of the Local Plan in relation to renewable and low carbon energy, states:

> *'Renewable and low-carbon energy installations, including associated infrastructure, will be encouraged…*

When identifying and considering landscape and visual impacts regard will be had to the Hambleton Landscape Character Assessment and Sensitivity Study (May 2016) or successor documents.

Having identified potential adverse planning impacts the proposal must seek to address them all firstly by seeking to avoid the impact, then to minimise the impact. Enhancement and/or compensatory measures should be assessed, as appropriate, and included in order to make the impact acceptable. All reasonable efforts to avoid, minimise and, where appropriate, compensate will be essential for significant adverse impacts to be considered as being fully addressed…'

4.8.12 The Site lies with part of an area identified as Green Infrastructure under Policy E4 of the Local Plan. Policy E4 states:

'The Council will seek to protect existing green infrastructure, secure improvements to its safety and accessibility, and secure net gains to green infrastructure provision by requiring development proposals to:

a. incorporate and where possible enhance existing green infrastructure features as an integral part of the design, and provision of a landscaping scheme which deals positively with the transition between development and adjoining land;

b. capitalise on opportunities to enhance and/or create links between green infrastructure features within the site and, where possible, with nearby features beyond the site, for example with multi-user paths, including linking green spaces, and/or address fragmentation of green infrastructure through inclusion of street trees, green roofs and other features as appropriate;

c. where the site is located within, or in close proximity to a green infrastructure corridor, or a component of green infrastructure, enhance or create links within, to and between the site and the corridor and to enhance the functionality of the corridor;

d. increase woodland cover with appropriate tree species;

e. where possible, increase access to woodland in the district; and

f. take opportunities to protect and enhance the public right of way network, avoiding unnecessary diversions and through the addition of new links.'

4.8.13 Other policies of relevance to landscape and visual matters within the Local Plan include the following:

- Policy E1 – Design
- Policy E2 – Amenity
- Policy E6 – Nationally Protected Landscapes
- Policy IC3 – Open Space, Sport and Recreation
- Policy S1 – Sustainable Development Principles
- Policy S5 – Development in the Countryside

Existing Known Baseline Conditions

Site Context

4.8.14 The Site is broadly located between the settlements of Thirsk and Easingwold, close to the A19, occupying multiple agricultural fields within a relatively flat agricultural landscape. A number of smaller settlements lie close to the Site, including Little Sessay and Sessay to the north, Thormanby, Birdforth and Hutton Sessay to the north-east, Raskelf to the south-east, Cundall to the west and Dalton to the north-west. A number of farmsteads and residential properties are located close to the Site boundary, with select properties surrounded by the Site boundary including Briar Hill Farm and Throstle Nest. The East Coast Main Line passes through the centre of the Site between the stations of Thirsk and York. The A19 is located approximately 0.65km to the north-east of the Site at its closest point, with a network of minor roads passing close to or adjacent to the Site providing links to settlements and farmsteads.

Landscape Designations

4.8.15 The Site is not covered by any designation at a national, regional or local level that recognises a specific landscape importance. The Howardian Hills National Landscape lies approximately 3.1km to the east of the Site at its closest point. The North York Moors National Park lies approximately 4.8km to the north-east of the Site at its closest point.

4.8.16 A PRoW (10.127/9/2) crosses the north-eastern edge of the Briar Hill parcel from Little Sessay to Carr Lane. Limited parts of other PRoW (10.127/11/3 and 10.127/13/1) cross the Briar Hill parcel to the north-east. Other PRoWs lie close to the Site, particularly to the north and west of the Site.

4.8.17 A number of listed buildings lie close to the Site, as well as Little Sessay Conservation Area to the north of the Site. Sessay Wood is identified as Ancient Woodland, as well as a SINC, which lies between the two parcels that make up the Site.

Landscape Character

4.8.18 The Site lies to the north-west extent of National Character Area 28: Vale of York.

4.8.19 At a regional scale, the landscape character within North Yorkshire is set out within the North Yorkshire and York Landscape Characterisation Project (May 2011), prepared by Chris Blandford Associates on behalf of North Yorkshire County Council. The Site is located within the Farmed Lowland and Valley Landscape County Primary Landscape Unit and specifically within the southern edge of Landscape Character Type 25: Settled Vale Farmland. The Site also lies close to Landscape Character Type 28: Vale Farmland with Plantation Woodland and Heathland.

4.8.20 The landscape character at a local level is set out within the Hambleton Landscape Character Assessment and Sensitivity Study (May 2016), prepared by LUC on behalf of Hambleton District Council. The Site is located within Landscape Character Area 18: Birdforth Farmland and is located just north of Landscape Character Area 25: Tholthorpe Moors.

4.8.21 The North York Moors is covered by the North York Moors Landscape Character Assessment Update 2021, Final Report (December 2021). Although the character assessment does not cover the Site, it is located within the Study Area (see below).

Landscape Features

4.8.22 The Site consists of a series of large scale agricultural fields, mostly in arable use (used for cattle feed or energy crops for Anaerobic Digestors), defined by field boundary hedgerows and is mostly gently undulating. There is limited built form within the Site, limited to farm tracks and overhead powerlines, with all buildings situated outside the Site boundary. The East Coast Main Line and Race Lane minor road dissect central parts of the Site.

4.8.23 Two water courses cross the Site, Birdforth Beck within the Sessay Park parcel, which features established riparian vegetation and the Sun Beck within the Briar Hill parcel, which is more open in nature. The Site also features other agricultural ditches/drains.

4.8.24 Vegetation within the Site is largely limited to field boundaries or water courses. Areas of established woodland lie adjacent to the Site, including Pilmoor SSSI)) and Sessay Wood (Ancient Woodland), both located to the south of the Site.

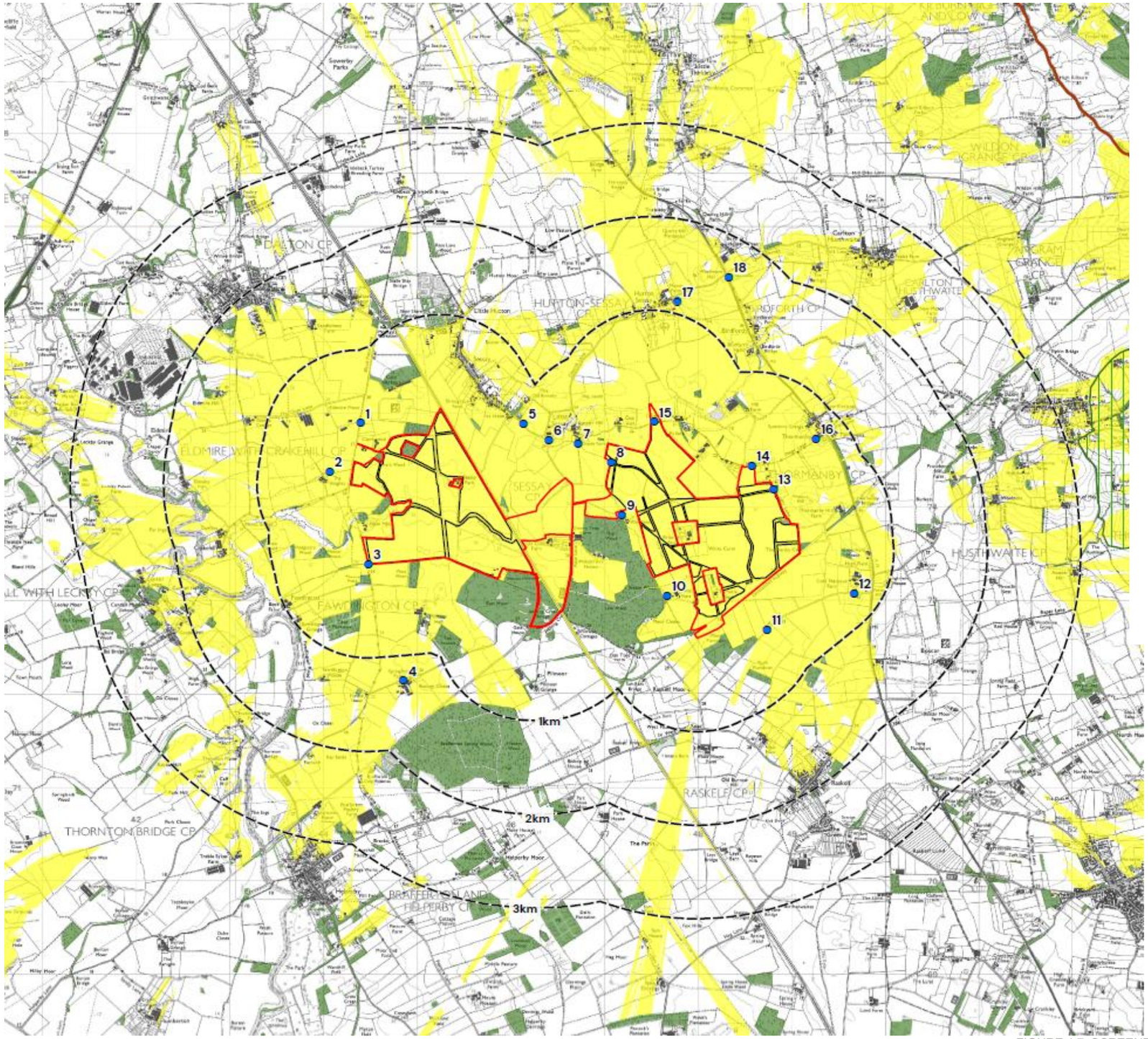
Proposed Study Area

4.8.25 In order to assist with defining the Study Area, Screened Zones of Theoretical Visibility (SZTV) (refer to Figures 4.7 and 4.8) have been produced at a range of up to 10km, which have identified the potential locations from which the Proposed Development may be visible. The SZTVs have been produced using Digital Terrain Modelling (DTM) and Light Detection and Ranging (LiDAR) data. Existing built development (8m tall) and larger blocks of woodland have also been modelled (15m tall) to take account of the screening effect that these would provide.

4.8.26 The SZTVs have been run, assuming an average height of 3.5m across the Site for the elements which form the Proposed Development.

4.8.27 The SZTVs are a useful tool used to provide a focus on the area and receptors that are most likely to be visible to the Proposed Development but should always be subject to ground proofing. In this regard, site visits were undertaken in 2025 to understand the actual likely visibility of the Proposed Development at the Site.

4.8.28 Following a review of the 10km SZTV and following further site analysis, it is proposed that an appropriate study area for the assessment is up to 3km from the Site. However, the exception to the 3km study area would include land within national landscape designations, including the Howardian Hills National Landscape to the east and the North York Moors National Landscape to the north-east (as illustrated on Figures 4.7 and 4.8), up to a distance of 7.5km from the Site. In locations beyond 3km which are outside of the national landscape designations where the Proposed Development would be theoretically visible, it is likely to result in no greater than minor visual effects. This is due to the minimal degree to which the Proposed Development would alter the overall view, which at this distance and when considering the local topography, would be more heavily influenced by other features and characteristics of the view



KEY

- SITE BOUNDARY
- SITE BOUNDARY BUFFERS TO 3KM
- PROPOSED PV AREA
- OS LOCAL WOODLAND
- OS LOCAL BUILDING
- NORTH YORK MOORS NATIONAL PARK
- HOWARDIAN HILLS NATIONAL LANDSCAPE
- VIEWPOINTS WITHIN 3KM OF THE SITE
- SCREENED ZONE OF THEORETICAL VISIBILITY - 3.5M DEVELOPMENT HEIGHT

Screened ZTV Production Information -

- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

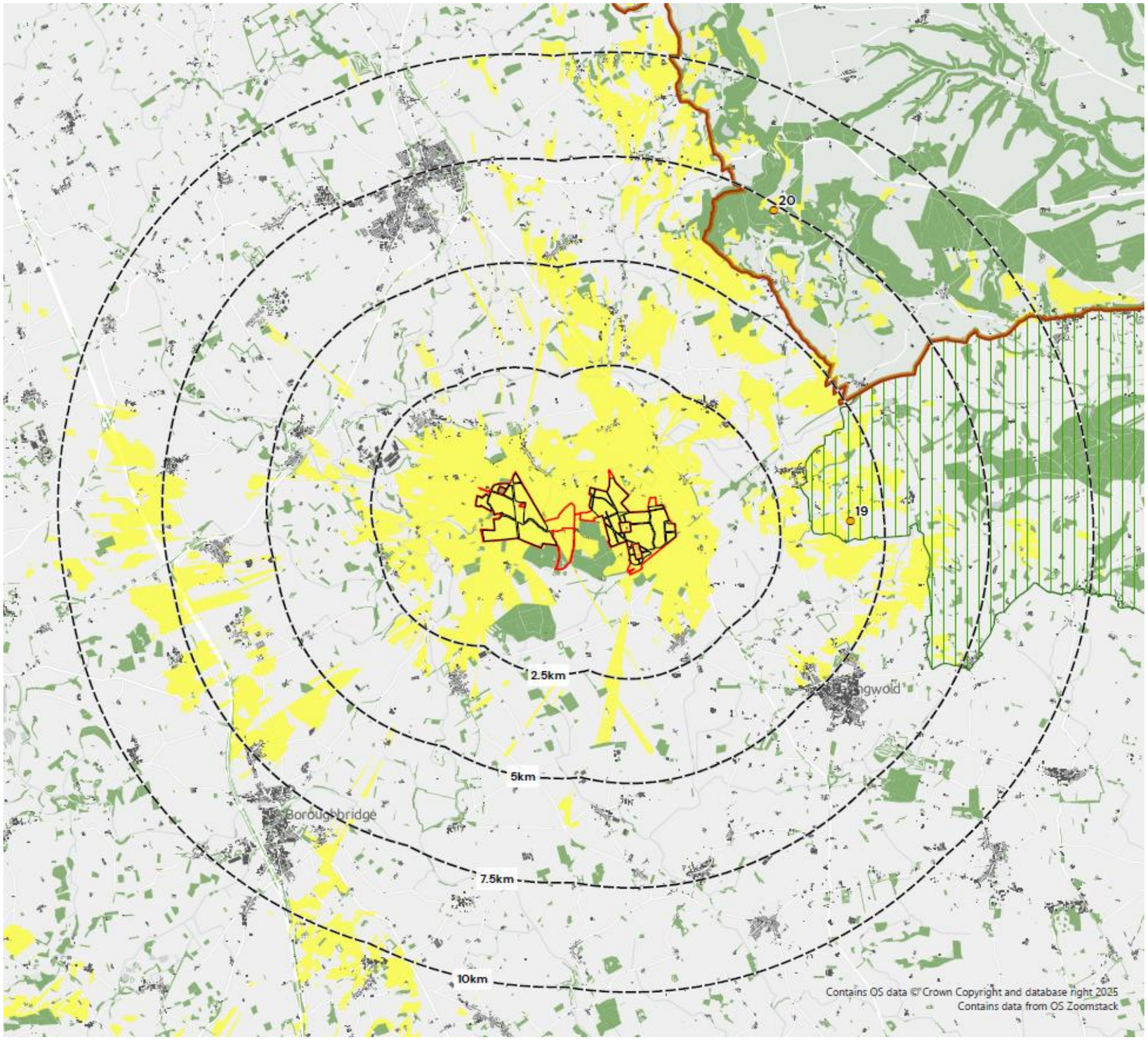
- Indicative woodland and building heights are modelled at 15m and 8m respectively.

- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)

- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

FIGURE 4.7: SCREENED ZONE OF THEORETICAL VISIBILITY AND PROPOSED VIEWPOINTS WITHIN 3KM



KEY

- SITE BOUNDARY
- SITE BOUNDARY BUFFERS TO 10KM
- PROPOSED PV AREA
- OS LOCAL WOODLAND
- OS LOCAL BUILDING
- NORTH YORK MOORS NATIONAL PARK
- HOWARDIAN HILLS NATIONAL LANDSCAPE
- VIEWPOINTS BEYOND 3KM OF THE SITE
- SCREENED ZONE OF THEORETICAL VISIBILITY – 3.5M DEVELOPMENT HEIGHT

Screened ZTV Production Information –

- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 15m and 8m respectively.

- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)

- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

FIGURE 4.8: SCREENED ZONE OF THEORECTICAL VISIBILITY AND PROPOSED VIEWPOINTS BEYONED 3KM

Potential Effects and Mitigation

4.8.29 It is proposed that the ES Chapter will consider the potential effects of the Proposed Development upon:

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

4.8.30 The ES Chapter will address all phases of the Proposed Development and effects will be considered both during the construction phase, when the Proposed Development is being built (temporary effects) and following completion of construction (long-term effects). Long-term landscape and visual effects would be assessed both in the winter of Year 1 (the year in which the construction is completed and the Proposed Development becomes operational) and in the summer of Year 15 (15 years of operation). In the Year 15 scenario, it is assumed that vegetation planted as part of the Proposed Development will have established and exhibit a degree of maturity. In addition, consideration of decommissioning of the Proposed Development would also be undertaken.

4.8.31 Consideration shall be given to seasonal variations in the visibility of the Proposed Development and these will be described where necessary.

4.8.32 Both 'beneficial' and 'adverse' effects shall be identified in the assessment and reported as appropriate. Effects shall be described as 'neutral' where beneficial effects are deemed to balance the adverse effects. The adverse and beneficial effects shall be communicated in each case so that the judgement is clear.

Assessment Viewpoints

4.8.33 The assessment of visual effects will be undertaken with reference to viewpoint analysis as recommended by best practice guidelines. It is, however, acknowledged that viewpoints are simply snap shots of the view from a small number of potential locations where the Proposed Development could be visible. The visual assessment will therefore provide a broader discussion of visual effects on a range of visual receptors throughout the Study Area with reference made to the views represented by the selected viewpoints.

4.8.34 Based on initial findings from visits to the Site, a provisional list of viewpoints has been developed which it is considered would be appropriate for the assessment. The proposed locations are set out in Table 4.25 below and are illustrated on the SZTVs (Figures 4.7 and 4.8). The list of viewpoints has been selected to represent a range of views and viewer types.

VIEWPOINT NO.	APPROXIMATE COORDINATES	VIEWPOINT DESCRIPTION	RECEPTOR TYPE
1	444394, 474898	Blind Piece Lane close to Clarkwood Farm	Road
2	444064, 474376	Public Right of Way (10.45/2/2) adjacent to The Heights	Recreational & Residential
3	444475, 473390	Public Right of Way (10.50/2/1)	Recreational
4	444849, 472144	Jobbing Cross adjacent to Springfield Farm	Road & Residential
5	446133, 474890	Sessay Garth, Sessay	Road & Residential
6	446403, 474714	Church of St Cuthbert, Little Sessay	Road & Residential
7	446719, 474683	Spilman Farm Shop and Café from junction of Public Rights of Way (10.127/9/1, 10.127/9/2 and 10.127/8/1)	Recreational & Residential
8	447073, 474481	Public Right of Way (10.127/9/2) within the Briar Hill parcel of the Site	Recreational
9	447183, 473917	Public Right of Way (10.127/13/1) within the Briar Hill parcel of the Site, adjacent to Woodend Farm	Recreational & Residential
10	447667, 473054	Public Right of Way (10.127/13/1), adjacent to Owlet Nest	Recreational & Residential
11	448737, 472688	New Road	Road
12	449666, 473074	New Road, adjacent to Cold Harbour Farm	Road & Residential
13	448808, 474187	Public Right of Way (10.152/5/1) within the Briar Hill parcel of the Site, adjacent to Carr Lane	Recreational
14	448575, 474442	Mill Lane	Road
15	447530, 474910	Moor Lane/Public Right of Way (10.127/11/3) within the Briar Hill parcel of the Site, between Greenfields House and Copp Hall	Road & Recreational
16	449260, 474733	Moor Lane, adjacent to the edge of Thormanby	Road & Residential
17	447775, 476198	Public Right of Way (11.73/2/1) adjacent to Hutton Sessay	Recreational & Residential
18	448329, 476453	A19 at the junction with Church Lane and Quarry Banks	Road

19	453270, 473887	Thornton Lane / NCN Route 65 south of High House Farm, within the Howardian Hills National Landscape	Road & Recreational
20	451430, 481312	Kilburn White Horse within the North York Moors National Park	Recreational

TABLE 4.25: PROVISIONAL LIST OF VIEWPOINTS

Supporting Visual Material

4.8.35 It is proposed that the ES Chapter will be accompanied by visualisations of the Proposed Development to illustrate the view from three of the viewpoints in the area surrounding the Site. The proposed locations are set out below:

- Viewpoint 3: Public Right of Way (10.50/2/1);
- Viewpoint 9: Public Right of Way (10.127/13/1) within the Briar Hill parcel of the Site, adjacent to Woodend Farm;
- Viewpoint 16: Moor Lane, adjacent to the edge of Thormanby; and
- Viewpoint 20: Kilburn White Horse within the North York Moors National Park.

4.8.36 The visualisations would be undertaken using Landscape Institute guidance, namely 'Visual Representation of Development Proposals, Technical Guidance Note 06/19, September 2019'. Visualisations would be produced during two different time periods - at Year 1 and Year 15 (which will include maturing vegetation) of operation of the Proposed Development.

Landscape and Visual Receptors

Landscape Features

4.8.37 The ES Chapter will consider the effects upon landscape features within and immediately adjacent to the Site, including topography and landform, water features and drainage, land use and built form and vegetation.

4.8.38 It is considered that there would be no direct effects upon Sessay Wood Ancient Woodland due to the proposed 15m development free buffer from the edge of the woodland. Therefore, landscape effects upon this woodland are scoped out of the Chapter.

Landscape Character

4.8.39 The ES Chapter will consider effects upon landscape character up to 3km from the Site, including at a national, regional and local level, as well as within the Site and its immediate environs.

4.8.40 Beyond 3km, it is considered that the Proposed Development is unlikely to result in any effects greater than minor upon landscape character, and therefore, it is proposed that they are scoped out of further assessment.

Visual Receptors

4.8.41 In terms of visual receptors, the type which would be considered will include residential, recreational and road users within 3km of the Site, unless specifically stated otherwise. It is considered that where visual receptors are located beyond 3km, the Proposed Development is unlikely to result in any visual effects greater than minor, and therefore, it is proposed that they are scoped out of further assessment.

4.8.42 Within 3km of the Site, those residential, recreational and road receptors which appear outside the theoretical visibility of the SZTV (Figure 4.7), are proposed to be scoped out of the assessment.

4.8.43 It is considered that, although the settlements of Raskelf, Dalton, Cundall and Husthwaite are located within 3km of the Site and have some theoretical visibility covering parts of the settlement, they are sufficiently distant from the Proposed Development and would likely have very limited, or no visibility, due to the number of intervening field boundaries including trees and hedgerows. Therefore, these settlements are proposed to be scoped out of the assessment.

Landscape Designations

4.8.44 The ES Chapter will consider any indirect effects on the North York Moors National Park, including upon its special qualities, specifically the following qualities:

> *'1. A surprising range of contrasting landscapes, with extensive views…*
>
> *…5. A place of escape from towns and cities, offering a true sense of remoteness and the darkest of skies…'*

4.8.45 The ES Chapter will consider any indirect effects upon the Howardian Hills National Landscape, including its special qualities as set out in the Howardian Hills Management Plan 2019-2024, specifically the special quality which states *'A landscape of high visual quality'*.

Residential Visual Amenity Assessment

4.8.46 A detailed consideration with regard to the visual amenity of the nearest residential properties to the Site shall be included within the chapters Chapter. For any residential properties located within 0.5km of the Proposed Development, a separate standalone Residential Visual Amenity Assessment (RVAA) will be prepared as an appendix to the Chapter. The RVAA will be prepared in line with the principles set out in best practice guidance 'Residential Visual Amenity Assessment (RVAA) -Technical Guidance Note 02/19, Landscape Institute (2019).

Potential Mitigation and Enhancement Measures

4.8.47 Mitigation measures may include:

- Avoidance of effects;
- Reduction in magnitude of effects; and
- Compensation for effects (which may include enhancements to offset any adverse effects).

4.8.48 The primary mitigation adopted in relation to landscape and visual matters is likely to be embedded within the design of the Proposed Development. This will include the consideration given to avoiding, and minimising, landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as 'mitigation by design'.

4.8.49 In addition, as part of the Proposed Development, areas of new mitigation planting would be introduced. Newly planted vegetation takes a number of years to mature and average growth rates shall be taken into consideration in the assessment. The effectiveness of vegetation would improve over time (both in terms of integrating the Proposed Development into the surrounding landscape and in providing visual screening) and this shall be considered appropriately. Consideration of local landscape character and vernacular would be taken account of, to avoid creating landscape features which are not apparent in the locality.

Assessment Methodology

4.8.50 It is acknowledged from the outset that, in common with almost all commercial solar energy development proposals, some landscape and visual effects would occur as a result of the Proposed Development.

4.8.51 A key principle of the European Landscape Convention is that all landscapes matter and should be managed appropriately. It is also acknowledged that landscapes provide the surroundings for people's daily lives and often contribute positively to the quality of life and economic performance of an area.

4.8.52 A Landscape and Visual ES Chapter will be undertaken by Chartered Landscape Architects at Pegasus Group who are experienced in the assessment of landscape and visual effects of solar energy developments and are familiar with the local landscape.

Overview of Approach and Methodology

4.8.53 It is proposed that the main objectives of the ES Chapter will be as follows:

- To identify, evaluate and describe the current landscape character of the Site and its surroundings and also any notable individual or groups of landscape features within the Site;
- To determine the sensitivity of the landscape to the type of development proposed;
- To identify potential visual receptors (i.e. people that would be able to see the Proposed Development) and evaluate their sensitivity to the type of changes proposed;

- To identify and describe any impacts of the Proposed Development in so far as they affect the landscape and/or views of it and evaluate the magnitude of change due to these impacts;
- To identify and assess any cumulative landscape and visual effects;
- To identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape and visual effects; and
- To evaluate the level of residual landscape and visual effects.

Published Guidance

4.8.54 The ES Chapter shall be undertaken in accordance with the principles of best practice, as outlined in published guidance documents, notably the third edition of the GLVIA3.

4.8.55 The methodology and assessment criteria for the assessment shall be developed in accordance with the principles established in this best practice document. It should be acknowledged that GLVIA3 establishes guidelines, not a specific methodology. The preface to GLVIA3 states:

> *'This edition concentrates on principles and processes. It does not provide a detailed or formulaic 'recipe' that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.'*

4.8.56 The approach shall therefore be developed specifically for this assessment to ensure that the methodology is fit for purpose.

Distinction between Landscape and Visual Effects

4.8.57 In accordance with the published guidance, landscape and visual effects shall be assessed separately, although the procedure for assessing each of these is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:

- Landscape effects relate to the effects of the proposals on the physical and perceptual characteristics of the landscape and its resulting character and quality; and
- Visual effects relate to the effects on specific views experienced by visual receptors and on visual amenity more generally.

Significance Criteria

4.8.58 The level (relative significance) of landscape and visual effects is determined by combining judgements regarding the sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. In determining the level of residual effects, all mitigation measures are taken into account.

4.8.59 The relative level of effect is described as 'major', 'moderate/major', 'moderate', 'moderate/minor', 'minor' or 'minor/no effect'. 'No effect' may also be recorded as

appropriate where the effect is so negligible it is not even noteworthy. Those effects described as major, major/moderate and in some cases moderate, may be regarded as significant effects as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, however the final conclusions are as a result of professional judgement.

Cumulative Effects

4.8.60 An assessment of the potential for cumulative landscape and visual effects shall be undertaken. It is proposed that this would consider all consented or proposed energy-based schemes within 5km of the Site. It is proposed to scope out other consented or proposed developments greater than 5km from the Site.

Assumptions and Limitations

4.8.61 Access during site visits were restricted to publicly accessible locations or land within the Site. Assumptions will be made regarding views from most private properties. These assumptions will be based on an understanding of the properties and features present within the wider landscape gained during visits to the Site from publicly accessible locations. Assumptions will be guided by professional experience and judgement.

4.8.62 Although the SZTVs (Figures 4.7 and 4.8) take account of existing built development (8 m tall) and larger blocks of woodland (15 m tall) to take account of the screening effect that these would provide, the screening effect provided by smaller blocks of woodland and hedgerow trees have not been taken into account. Consequently, the actual extent of the area from which the Proposed Development is visible is likely to be much smaller than shown on the SZTVs.

4.8.63 The SZTVs (Figures 4.7 and 4.8) do not define the extent of visibility of the Proposed Development, rather, state that either, all or part of the Proposed Development is visible from that particular point within the landscape. The SZTVs are only a tool to assist the Landscape Architect to identify where the Site would potentially be visible from. The SZTV needs to be ground proofed and professional judgement used to evaluate the significance of effects of the Proposed Development.

Summary of Effects Scoped In and Out of the Assessment

4.8.64 Table 4.26 below sets out the elements relating to landscape and visual impacts that are proposed to be scoped in, or out, of the ES Chapter:

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Effects upon the Sessay Wood Ancient Woodland.	Landscape features within and adjacent to the Site, including topography and landform, water features and drainage, land use and built form and vegetation.
National and local landscape character beyond 3km of the Site.	National, regional, local and site landscape character within 3km of the Site.

Visual receptors with no theoretical visibility within 3km of the Site.	Visual receptors with theoretical visibility within 3km of the Site.
Visual receptors beyond 3km of the Site.	Visual effects from all proposed viewpoints, including those within the North York Moors National Park and Howardian Hills National Landscape.
The settlements of Raskelf, Dalton, Cundall and Husthwaite within 3km of the Site.	RVAA for properties up to 0.5km from the Proposed Development.
Cumulative effects with other consented or proposed development greater than 5km from the Site boundary	Special qualities of the North York Moors National Park.
	Special qualities of the Howardian Hills National Landscape.

TABLE 4.26: SUMMARY OF EFFECTS SCOPED IN AND OUT OF THE ASSESSMENT

Key Landscape and Visual Scoping Questions

- **Question L1 - Is the 3km study area from the extents of the Proposed Development, with the exception of Howardian Hills National Landscape and North York Moors National Landscape having a study area up to 7.5km, considered appropriate?**
- **Question L2 - Do consultees consider the selection of viewpoints and visualisations appropriate?**
- **Question L3 - Is it considered appropriate to scope out all landscape character and visual receptors beyond 3km, apart from those located within the Howardian Hills National Landscape and North York Moors National Landscape?**
- **Question L4 - Is the exclusion of the settlements of Raskelf, Dalton, Cundall and Husthwaite from the assessment considered appropriate?**
- **Question L5 - Is the approach to the RVAA, including the 0.5km study area, considered appropriate?**
- **Question L6 - Is the proposed assessment approach to the Landscape and Visual ES Chapter deemed appropriate?**

4.9 GLINT AND GLARE

Introduction

4.9.1 This section of the Scoping Report relates to the potential effects of the Proposed Development in relation to Glint and Glare. The assessment will be undertaken by Metrica Environmental Consulting Ltd.

4.9.2 A glint and glare assessment will be undertaken to assess the likely effect of solar reflection on receptors within the surrounding area to the Site. The assessment will consider the effects of the Proposed Development on residential, road, rail and aviation receptors.

4.9.3 In line with Government advice on the assessment of NSIPs[109], the Glint and Glare assessment will be provided as TAs to the ES, rather than as a stand-alone Chapter. However, a summary of the assessment and the conclusions of the assessment in terms of whether the effect is significant or not (and including any proposed mitigation) will be provided within the Summary Chapter of the main ES.

Consultation

4.9.4 North Yorkshire Council has been contacted but no response has been received at the time of writing.

4.9.5 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

Planning Policy

4.9.6 The glint and glare assessment will be undertaken with due regard to the relevant national policy documents, including:

- The National Planning Policy Framework[110]; and
- National Policy Statement for Renewable Energy Infrastructure (EN-3)[111].

4.9.7 With regard to glint and glare impacts, EN-3 does not provide specific assessment criteria, or give guidance on what is considered to be an acceptable level of impact. However, footnote 93 of EN-3 notes that solar PV panels are specifically designed to absorb, rather than reflect light:

"Most commercially available solar panels are designed with anti-reflective glass or are produced with anti-reflective coating and have a reflective capacity that is generally equal

[109] Planning Inspectorate (March 2025). Nationally Significant Infrastructure Projects: Technical Advice Page for Scoping Solar Development.
[110] National Planning Policy Framework 2025
[111] UK Department for Energy Security and Net Zero (2025) National Policy Statement for Renewable Energy Infrastructure (EN-3).

to or less hazardous than other objects typically found in the outdoor environment, such as bodies of water or glass buildings".

4.9.8 Notwithstanding the above, solar PV panels may reflect the sun's rays at certain times / angles, potentially causing glint and glare effects. EN-3 recommends a two-stage approach to determining the potential for glint and glare impacts. As a first stage, receptors should be mapped qualitatively to identify any potential glint and glare issues and determine whether a detailed glint and glare assessment is necessary as part of a given planning application. With specific reference to aviation, EN-3 notes that:

> …"there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms".

4.9.9 Notwithstanding the above, EN-3 does not provide specific assessment criteria, or give guidance on what is considered to be an acceptable level of impact.

Technical Guidance

4.9.10 UK planning guidance does not provide a specific methodology for assessing the impact of glint and glare. However, the following guidance is regularly applied to assessments in the UK and together is considered to provide a reasonable and robust approach:

- Measurement and Assessment of Light Immissions[112];
- Rail Industry Standard (RIS) 'RIS-0737-CCS'[113];
- Aerodrome Safeguarding Advice Notice 5: Renewable Energy Developments: Solar Photovoltaic Developments[114] ; and
- Review of Solar Energy System Projects on Federally-Obligated Airports (2013 Interim Policy and 2021 Update)[115].

Measurement and Assessment of Light Emissions

4.9.11 The German Ministry for Environment, Health and Consumer Protection published the Measurement and Assessment of Light Immissions in 1993, which was most recently updated in 2014. Paragraph 8 of the most recent version of the guidelines is dedicated to the assessment of reflections from solar PV panels.

4.9.12 The guidelines state that… [translated from German]

> *"…experience has shown that emission locations that are more than approximately 100 m away from a photovoltaic system only experience short-term glare effects.*

[112] Ministry for the Environment, Health and Consumer Protection (2014). Light Guidelines (Leitlinie des Ministeriums für Umwelt, Gesundheit und Verbraucherschutz zur Messung und Beurteilung vonm Lichtimmissionen,
[113] Rail Industry Standard (RIS) RIS-0737-CCS 'Signal Sighting Assessment Requirements'
[114] CAA (2024). Renewable Energy Developments, CAST Aerodrome Safeguarding Guidance Note 5.
[115] Federal Aviation Administration (2021) Review of Solar Energy System Projects on Federally-Obligated Airports

Only in the case of extensive photovoltaic parks could more distant emission locations still be relevant."

4.9.13 In addition, the guidelines note that where a reflection source is located in the same direction (+/- 10 degrees) as the sun itself, the direct glare from the sun masks any reflections, and can therefore be scoped out of further assessment.

4.9.14 For those receptors within the study area described in paragraph 4.10.26, the guidelines state that effects are acceptable providing that glare is experienced for no more than 30 minutes on any given day, or more than 30 hours (1,800 minutes) per year.

RIS-0737-CCS

4.9.15 Network Rail guidance does not provide a specific methodology for the assessment of glint and glare effects on rail infrastructure. However, Rail Industry Standard (RIS) RIS-0737-CCS states that…" a planned change external to the railway could affect signal sighting, for example changes that affect the built environment (for example, a new structure causing obscuration, a solar farm causing reflection)."

4.9.16 Network Rail is being consulted regarding the Proposed Development.

Renewable Energy Developments: Solar Photovoltaic Developments

4.9.17 The UK Civil Aviation Authority (CAA) issued a guidance note in July 2023. This guidance note was prepared by the Combined Aerodrome Safeguarding Team (CAST), supported by the CAA, and aims to provide safeguarding advice in relation to solar photovoltaic developments on a range of matters, including glint and glare.

4.9.18 With specific reference to glint and glare effects, the guidance note states that:

"In most cases, an assessment should be undertaken for a solar PV development which is being proposed within a specific distance (indicated by the aerodrome authority) from an aerodrome. For many aerodromes, 5 km is the distance of choice but it could be considered out to 10 km. In exceptional circumstances, assessments may be required beyond 10 km."

4.9.19 No specific methodology or assessment criteria are defined for assessing the impact of glint and glare on aviation infrastructure.

Review of Solar Energy Systems Projects on Federally-Obligated Airports

4.9.20 In 2013, the United States' Federal Aviation Administration (FAA) published interim guidance which stated that for a solar PV development to obtain FAA approval or to receive no objection, there should be no more than a "low potential for after-image" along the final 2-mile approach path for any existing or proposed runway, as defined by Sandia Laboratories' Solar Glare Hazard Analysis Tool (SGHAT).

4.9.21 SGHAT categorises glint and glare into three tiers of severity (ocular hazards) that are referred to as different colours in the model output. These categories show the potential impact of retinal irradiance as a function of subtended source angle as defined by Ho et al. (2011) and implemented by SGHAT software and its successors. It should be noted that these categories are intensity, rather than duration-dependent:

- Red glare: Glare predicted with a potential for permanent eye damage (retinal burn);
- Yellow glare: Glare predicted with a potential for temporary after image; and
- Green glare: Glare predicted with a low potential for temporary after image.

4.9.22 It also notes that no significant impacts are possible for reflections located more than 50 degrees either side of the direction of travel. Page 2 of the Interim guidance stated that:

> "the FAA expects to continue to update these policies and procedures as part of an iterative process as new information and technologies become available."

2021 Update

4.9.23 In accordance with the above, the Interim FAA guidance was updated in 2021 to reflect the state of knowledge at the time.

4.9.24 As part of the update, the FAA withdrew the requirement to undertake glint and glare analysis using SGHAT as the software is no longer available. The assessment of glint and glare impacts due to the Proposed Development therefore uses modelling alternative industry standard software which utilises the same methodology as SGHAT.

4.9.25 With regard to the potential for solar glint and glare impacts in general, the 2021 update states the following in the section entitled 'Developments Since Interim Policy':

> *"Initially, the FAA believed that solar energy systems could introduce a novel glint and glare effect to pilots on final approach. FAA has subsequently concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare from on-airport solar energy systems on personnel working in ATCT [Air Traffic Control Tower] cabs. Therefore, FAA has determined the scope of agency policy should be focused on the impact of on-airport solar energy systems to federally-obligated towered airports, specifically the airport's ATCT cab."*

4.9.26 Given the above, the FAA now consider that with the exception of ATCT, no unacceptable glint and glare impacts are expected from solar PV panels in terms of aviation safety.

Existing Known Baseline Conditions

4.9.27 The Site comprises agricultural land with generally open topography. The Site is currently free from any reflective infrastructure or solar arrays.

Proposed Study Area

Residential Receptors

4.9.28 As stated in paragraph 4.10.10, glint and glare effects are unlikely to be an issue for receptors more than approximately 100 m from solar PV panels, due to the reduced intensity and short duration of effects beyond this distance. However, as this distance is

approximate and dependent upon the extent of the Proposed Development, the Residential Receptor Study Area for this assessment has been based upon a 200 m buffer distance in order to ensure a robust approach.

Road and Rail Receptors

4.9.29 The assessment criteria for road and rail infrastructure relate purely to glare intensity, rather than duration of effects. In the absence of specific assessment criteria for effects on roads and rails, it is a standard approach for the assessment to be undertaken in line with FAA guidance (see Section 4.10.19), i.e. whilst 'green' glare is acceptable, any incidence of 'yellow' or 'red' glare is considered an adverse impact, regardless of duration.

4.9.30 An appropriate study area for road and rail infrastructure has been determined through modelling undertaken by the authors of this chapter (Metrica Environmental Consulting Ltd). It was found that for typical large-scale solar developments in the UK, 'yellow glare' is unlikely to occur beyond approximately 375 m, based on a number of conservative parameters (i.e. a 2 km^2 (2 km x 1 km) solar PV array with no anti-reflective coatings, tilt angles of 20 to 30 degrees, and receptors located along the longer array boundary, at heights between 1.5 m and 50 m Above Ground Level (AGL)).

4.9.31 Notwithstanding the above, and in order to align with previous glint and glare assessments for recently consented solar DCOs[116], a Study Area of 1 km for road and 500 m for rail infrastructure will be adopted. This is considered a highly conservative approach.

4.9.32 In addition, in line with widely accepted best practice and previous glint and glare assessments for consented solar DCO (see above), modelling has been limited to national and regional routes (motorways, A roads and B roads). Local (unnumbered / unclassified) roads within the study area are not modelled due to their reduced traffic densities and speeds, meaning the potential impact of any temporary reflection is inherently low.

Aerodromes and Aviation Infrastructure

4.9.33 The Study Area for aerodromes as defined in CAA guidance (See paragraph 9.2.13) is as follows:

- 10 km for safeguarded civil or military aerodromes[117]; and
- 5 km for other / non-safeguarded aerodromes.

4.9.34 Notwithstanding the above, CAA guidance also states that:

> "in exceptional circumstances, assessments may be required beyond 10 km".

4.9.35 In line with the above, and as a conservative approach, an additional screening exercise was undertaken to identify additional safeguarded civil or military aerodromes, between 10 and 13 km from the Site. The screening exercise identified no additional aerodromes requiring consideration.

[116] Examples include but not limited to Cottam (EN010133) and Mallard Pass (EN010127) Solar Projects
[117] As defined in UK Government (2016) 'town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas)',

4.9.36 It should be noted that any approach paths within the Study Area will be included, regardless of whether the aerodrome itself is located within that Study Area.

Exclusion Areas

4.9.37 For the ground-based receptors (i.e., residential receptors / road / rail infrastructure), no visible reflections can occur when located 'behind' the proposed solar PV panels. For reflections to occur, the receptor must have a line of sight to the front of a solar PV panel. For south-facing panels (as is the case for the Proposed Development), this covers azimuths from 270, through 0, to 90 degrees from the northernmost solar array.

4.9.38 In line with the guidance detailed in 4.10.11, the excluded sector has been increased by a further 10 degrees on either side. In these 10-degree sectors, reflections could only occur shortly after sunrise / before sunset, and any reflections would appear to come from the same direction the direct glare from the sun itself, thereby masking any additional effects.

4.9.39 For south-facing panels (as is the case for the Proposed Development), the above process results in an exclusion area of 100 degrees either side of north, from the northernmost PV panel in a given array.

4.9.40 It should be noted that these exclusion areas do not apply to tall buildings (e.g., apartment blocks) and airborne receptors (i.e., aircraft). Under certain combinations of sun elevation and panel tilt angle, reflections could theoretically be observed from 'behind' the panels when viewed from a high elevation. The study areas for aerodromes and aviation infrastructure therefore remain as described in paragraph 4.10.31, and any buildings of more than three stories within 200 m of the solar PV arrays are assessed regardless of position relative to the solar arrays (no such buildings have been identified with respect to the Proposed Development).

Potential Effects and Mitigation

Potential Impacts upon Ground-Based Receptors

4.9.41 Glint and glare are most likely to impact upon a ground-based receptor close to dusk and dawn when the sun is at its lowest in the sky. Therefore, any effects typically occur early in the day or late in the day, with light reflected to the west at dawn and east at dusk. Ground-based receptors located 'behind' the panels (in this case, to the north of the Proposed Development) will not experience glint and glare effects, as the solar PV panels' reflective surfaces would not be visible from this position.

4.9.42 A stretch of the closest major road (A19) lies within the Study Area for roads and will therefore require detailed assessment. The receptor height assumed for road traffic is specified as 2.25 m AGL. This height represents a typical worst case for a range of road users, including cars, motorcycles, horse riders and HGVs.

4.9.43 The East Coast Main Line (railway) runs adjacent to the eastern boundary of the Sessay Park parcel of the Site and may experience glint and glare effects where clear views of the array exist from the track, based on a receptor height of 2.75 m, in line with current best practice. Existing screening (e.g., vegetation) along this section of railway appears limited with some open views into the Site. The stretch of rail line within 500 m of the Site

will be assessed, but with effective mitigation it is not anticipated that glint and glare will have a significant effect.

4.9.44 In line with widely accepted best practice, and in line with glint and glare assessments for consented solar applications across the UK, solar reflections experienced by users of PRoWs, bridleways, or permissive paths are not assessed in detail for the following reasons:

- Any reflections which do occur at any given location will be limited in area, infrequent, transient, and cannot occur on all routes / directions simultaneously;
- Reflections from solar panels are equal to or less hazardous those from waterbodies or glass windows[118], both of which are common features of the outdoor environment in the vicinity of PRoWs, bridleways and other routes; and
- As the PV panels do not focus light, any glint and glare effects are not injurious to health, and are easily avoidable if considered necessary.

4.9.45 With specific regard to bridleways and equestrian interests in general, British Horse Society guidance states that…*"the incidence of glare or dazzle [from solar PV panels] is very low compared with glass"* and… "*any reflection is unlikely to be a direct problem to horses, riders or carriage-drivers because of the angles and distances involved".*

Potential Impacts upon Aviation Receptors

4.9.46 There are a number of military aerodromes that lie within the 13 km Study Area, including Royal Air Force (RAF) Topcliffe, RAF Dishforth and RAF Linton-On-Ouse. Consultation is ongoing with the Ministry of Defence (MoD) to confirm which, if any, of the RAF sites are operational and / or subject to additional safeguarding measures. Details of all consultation undertaken will be included in the PEIR and ES assessments. Any active military or safeguarded aerodromes will be considered where their approach paths are either partially or wholly located within 10 km of the Site regardless of location of the aerodrome itself, in addition to any specific comments received from the MoD.

4.9.47 Baxby Manor and Bagby are located within the 5 km non-safeguarded aerodrome Study Area. A detailed assessment will be undertaken, supported by consultation with the relevant operators.

4.9.48 Any ATCT within the respective study areas will be assessed at the published height of the cab.

Assessment Methodology

4.9.49 Modelling and assessment of glint and glare effects will be conducted using software implementing the SGHAT methodology, which accounts for the following site-specific parameters:

- Reflection Source:
  - Latitude, longitude and elevation of the Proposed Development;

[118] As per National Policy Statement for Renewable Energy Infrastructure (EN3), footnote 93.

- Panel tilt, height, and azimuth (orientation relative to north); and
- Panel technology (fixed / tracking, and presence of anti-reflective coatings);

- Propagation path:
  - Local terrain; and
  - Existing or proposed obstructions (e.g., forestry, non-sensitive buildings, etc.)

- Receptor:
  - Receptor type e.g. (dwelling, road, rail, flight path, ground-based aviation assets);
  - Receptor location;
  - Height AGL is typically taken as 2 m for terrestrial receptors, except in the following cases: 2.75 m for rail, 2.25 m for roads, and structures such as ATCT, which are modelled on a case-by-case basis;
  - A pupil diameter of 2 mm, focal length of 17 mm, and an ocular transmission coefficient 0.5; and
  - Viewing angle and direction of travel (mobile receptors only).

4.9.50 Weather conditions will limit the frequency of bright sunshine during the year, and therefore the potential for glint and glare effects. Sunshine duration data from the closest long-term Met Office station will be taken into account within the assessment, and the approach will be presented in the full report.

4.9.51 The assessment will consider the solar reflection with respect to the published guidance and best practice. Mitigation measures will be recommended where necessary to reduce impacts upon receptors. The recommended mitigation measures will be included in the design of the Proposed Development.

Cumulative Effects

4.9.52 For those receptors where the assessment criteria are based purely on ocular impact (i.e. road, rail, and aviation receptors), any additional glare experienced from other developments would need to occur at precisely the same time as the glare from the Proposed Development, at the same point along the route, and in the same field of view in order to result in a cumulative effect. There is no reasonable prospect of this occurring in practice and as such, the assessment of cumulative effects for these receptors has been scoped out.

4.9.53 Notwithstanding the above, cumulative effects are a consideration for receptors where the total duration is a factor (i.e. residential dwellings), as other sources of glare may increase the overall duration that glare effects are experienced, if they occur at different times.

4.9.54 Given that the Residential Receptor Study Area is 200 m from the Site, it stands to reason that the potential for cumulative impacts is limited to any other glare-emitting developments being located within 400 m of the Proposed Development's solar PV arrays. For any such developments, cumulative impacts are limited to areas where the study areas for the two developments overlap ('the Cumulative Study Area').

4.9.55 An initial cumulative development search has been undertaken (see Section 4.13 of this Report). The only solar project within 400 m is a ground-mounted array at Cold Harbour Farm, 200 m north of the Sessay Park parcel at its closest point. However, no receptors have been identified within the Cumulative Study Area, and no cumulative impacts are therefore anticipated.

4.9.56 The cumulative search will be updated as the assessment progresses.

Assumptions and Limitations

4.9.57 Receptor locations are identified through desk-based mapping using publicly available datasets. This assessment will use industry-standard glint and glare computer modelling software. Whilst the results are as accurate as is reasonably practicable based on the current state of knowledge, the complexity of glint and glare effects inherently results in some modelling limitations. The key limitations/ assumptions are as follows:

- The modelling algorithm does not rigorously represent the detailed geometry of a PV system; detailed features such as gaps between modules, variable height of the PV array, and support structures may affect actual glare results; and
- Random number computations are utilised by various steps of the algorithm, and predicted minutes of glare can vary between modelling runs as a result.

4.9.58 Overall, this assessment represents a typical worst case, and any uncertainties arising from the above are unlikely to affect the overall outcome and conclusions of the assessment.

4.9.59 The final approach required to mitigate glint and glare effects is dependent upon many factors, including the final location of the solar PV panels, their height, orientation, type and tilt, as well as screening in terms of buildings, vegetation, hedgerows etc. It is therefore a standard approach to assess an indicative layout based on the largest potential solar PV array area, with typical parameters for tilt, orientation etc. However, to ensure that the final mitigation properly responds to the final design to be constructed, the detailed mitigation will be designed to match the final PV design, in consultation with relevant parties.

Summary Effects Scoped In and Out of the Assessment

4.9.60 Table 4.27 below summarises the effects scoped in and out of the assessment.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Minor / local roads.	Roads within 1 km and rail lines within 500 m of the Proposed Development solar PV arrays.

Safeguarded or military aerodromes and approach paths more than 10 km from the Proposed Development solar panel arrays.	Residential receptors within 200 m of the Proposed Development solar PV arrays.
Non-safeguarded aerodromes and flight paths more than 5 km from the Proposed Development solar panel arrays.	Safeguarded or military aerodromes / ATCTs and approach paths within 10 km of the Proposed Development solar PV arrays.
Roads more than 1 km and rail lines more than 500 m from the Proposed Development solar panel arrays.	Non-safeguarded aerodromes / ATCTs and approach paths more than 5 km from the Proposed Development solar PV arrays.

TABLE 4.27: SUMMARY OF EFFECTS SCOPED IN AND OUT OF THE ASSESSMENT

Key Glint and Glare Scoping Questions

- **Question GG1 - The Ministry of Defence is requested to confirm whether any assets within the study area undertake active aviation operations that should be treated as receptors.**
- **Question GG2 - For aviation receptors, do the standard assessment parameters—specifically the 2-nautical-mile approach path and, where relevant, Air Traffic Control Tower receptors—provide sufficient coverage, or are there additional approach paths or visual circuits that require assessment?**
- **Question GG3 – Do PINS and the relevant Local Planning Authorities agree with the proposed 200-metre study area for residential receptors?**
- **Question GG4 – Do PINS and the relevant Local Planning Authorities agree with the proposed 1-kilometre study area for road-user receptors?**
- **Question GG5 – Do PINS and the relevant Local Planning Authorities agree with the proposed 500-metre study area for rail receptors?**

4.10 CULTURAL HERITAGE AND ARCHAEOLOGY

Introduction

4.10.1 This chapter of the Scoping Report has been produced by Cotswold Archaeology. It sets out considerations regarding the potential impacts of the Proposed Development upon cultural heritage and archaeology ('heritage assets'), encompassing buried archaeological remains; historic buildings, structures and monuments; and historic landscapes.

4.10.2 The baseline conditions are first established with an overview of baseline surveys followed by the proposed assessment methodology. The potential effects are then presented which form the basis of the issues proposed to be scoped in and out of the ES.

Consultation

4.10.3 NYC has been contacted but no response has been received at the time of writing.

4.10.4 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

4.10.5 The legislation and policy relevant to heritage assets includes:

- The Ancient Monuments and Archaeological Areas Act (1979)[119] provides for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection. It does not refer to the 'setting' of Scheduled Monuments.
- The National Heritage Act 1983 is one of four Acts of Parliament providing for the protection and management of the historic environment, including the establishment of the Historic Monuments & Buildings Commission, now Historic England.
- The Planning (Listed Buildings and Conservation Areas) Act 1990[120] places a duty the Local Planning Authority (or, as the case may be, the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications. It does not apply to the setting of Conservation Areas.
- The Hedgerows Regulations 1997[121] provide protection for 'important' hedgerows within the countryside, controlling their alteration and removal by means of a system of statutory notification.
- The National Planning Statement for Energy 2025 (NPS EN-1)[122], Section 5.9: historic environment. This states that *"the construction, operation and*

[119] UK Government (1979). *Ancient Monuments and Archaeological Areas Act 1979*
[120] UK Government (1990). *Planning (Listed Buildings and Conservation Areas) Act 1990*
[121] UK Government (1997). *The Hedgerows Regulations 1997*
[122] Department for Energy Security & Net Zero (2025) *Overarching National Policy Statement for Energy (EN-1)*

decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface of the ground" (Paragraph 5.9.1). It then continues to define heritage assets, how the potential impact of development should be assessed, and how this should be regarded in decision making, before detailing why and how to record heritage assets in advance of development.

- In the National Policy Statement for Energy (EN-3) 2025[123], Section 2.10 considers solar photovoltaic generation, with Paragraphs 2.10.99-2.10.111 relating to cultural heritage. The document recognises the generally limited nature of below ground impacts and that solar developments can include positive effects, such as the protection of archaeological assets.

- The Hambleton Local Plan (adopted 2022)[124] policies on the historic environment (S7 and E5) seek to conserve and enhance the significance of heritage assets, including their settings and the wider historic environment. Development proposals are expected to be sensitive to historic context, contribute positively to local character, and demonstrate an understanding of potential impacts. Great weight is given to the conservation of designated and non-designated heritage assets, and any harm must be clearly justified, with opportunities taken to enhance or better reveal their significance.

4.10.6 Guidance documents relevant to the assessment heritage assets include:

- Conservation Principles (Historic England 2008)[125].

- Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015)[126].

- Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England 2017)[127].

- Chartered Institute for Archaeologists' Standard and guidance for historic environment desk-based assessment (2020)[128].

- The Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation (IHBC) and Chartered Institute for Archaeologists (CIfA) Principles of Cultural Heritage Impact Assessment in the UK (2021)[129].

[123] Department for Energy Security & Net Zero (2025) *National Policy Statement for Renewable Energy Infrastructure (EN-3)*
[124] Hambleton District Council (2022) *Hambleton Local Plan*
[125] Historic England (formerly English Heritage) (2008) *Conservation Principles, Polices and Guidance for the Sustainable Management of the Historic Environment*
[126] Historic England (2015) *Historic Environment Good Practice Advice in Planning Note 2 – Managing Significance in Decision-Taking in the Historic Environment*
[127] Historic England (2017) *Historic Environment Good Practice Advice in Planning Note 3 – The Setting of Heritage Assets (second edition)*
[128] Chartered Institute for Archaeologists (CIfA), (2020) *Standard and guidance for historic environment desk-based assessment*
[129] Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation (IHBC) and Chartered Institute for Archaeologists (CIfA) (2021) *Principles of Cultural Heritage Impact Assessment in the UK*

Existing Known Baseline Conditions

Baseline Surveys

4.10.7 Cotswold Archaeology have prepared a draft Historic Environment Desk-Based Assessment (HEDBA; Appendix VII) which assesses the effects of the Proposed Development upon buried archaeology and built heritage assets. The HEDBA was informed by a variety of sources, including the National Heritage List for England (NHLE), North Yorkshire Historic Environment Record (HER), historic aerial photographs, cartographic and documentary sources and LiDAR data.

Built Heritage

4.10.8 No designated heritage assets are located within the Site. The closest assets to the Site comprise two Grade II Listed Buildings adjacent to the Briar Hill parcel:

- Throstle Nest (NHLE: 1190704), an early 19th century farmhouse; and
- The Barn approximately 30m to the North of Wood End (NHLE: 1150696), an early 19th century barn.

4.10.9 Within 1km of the Site there are a further 22 Listed Buildings (two Grade II* Listed and 20 Grade II Listed). The nearest Grade II* Listed Building comprises the Church of St Cuthbert, a 19th century church located approximately 600m to the north-west of the Briar Hill parcel of the Site, and approximately 880m to the east of the Sessay Park parcel. This asset is located within the Sessay Conservation Area, which is located approximately 240m to the north-east of the Sessay Park parcel and approximately 210m to the north-west of the Briar Hill parcel.

4.10.10 The nearest Registered Park and Garden is the Grade II Listed Newburgh Priory, located approximately 5.3km to the east of the Site.

Archaeology

4.10.11 There are no designated historic assets of archaeological interest (Scheduled Monuments) within the Site. The nearest Scheduled Monument is the medieval moated site, fishponds and associated field system 125m to the south of Eldmire Cottage, approximately 1.8km to the west of the Site.

4.10.12 The HEDBA identified a low to moderate potential for archaeological remains within the Site. Prehistoric activity in the wider area is represented by stray finds of worked flint and bronze artefacts, with a limited chance of similar unstratified finds within the Site. Within the Sessay Park parcel, the supposed location of a Bronze Age round barrow known as 'Giant's Grave' has been recorded, although there is some uncertainty regarding the precise location of the feature and no earthworks indicative of a barrow are visible on LiDAR data. Any surviving remains are therefore likely to have been subject to a high degree of disturbance.

4.10.13 Evidence for Iron Age and Roman activity is concentrated approximately 500m to the east of the Site, where settlement remains are recorded adjacent to a Roman road. Cropmarks identified in the Briar Hill Parcel potentially relate to agricultural features of late prehistoric or Roman date.

4.10.14 The Site likely formed part of the rural hinterland of nearby medieval and post-medieval settlements, with potential for below-ground features such as field boundaries and ridge and furrow. Potential modern remains within the Site included the former Malton Branch Railway, parts of the embankments for which survive above ground, and the demolished Urchin Head farmstead, as well as agricultural features and former quarry pits.

Historic Landscape

4.10.15 The Historic Landscape Characterisation (HLC) presented in the HEDBA identifies the majority of the Site as encompassed within an area of 'modern improved fields', indicating a landscape that was subject to later 20th century alterations and the removal of field boundaries to assist in facilitating modern large-scale farming. Such modern fields/landscapes are not of heritage significance.

4.10.16 Hedgerows marking the historic boundaries within the Site meet the Archaeology and History criteria of 'important' historic hedgerows as laid out in the 1997 Hedgerow Regulations.

Proposed Study Area

4.10.17 A 1km study area (hereafter referred to as "the Study Area"), measured from the boundaries of the Site, is considered appropriate to provide a contextual baseline of known heritage assets and to inform on the likelihood of encountering archaeological remains within the Site. The Study Area also formed the basis for assessing potential impacts to surrounding designated heritage assets, arising from changes to their settings, within the draft HEDBA. However, there is scope to refine elements of the Study Area to accommodate the assessment of heritage assets that lie at greater distance from the Site, should this be identified through consultation with the relevant heritage advisors.

Potential Effects and Mitigation

4.10.18 Archaeological remains would be principally affected during ground disturbance which would occur as part of the construction phase of the Proposed Development. Based on the draft HEDBA and the understanding of the Site, there is a potential that buried archaeological remains are present within the Site. However, the minimal nature of ground disturbing activities associated with the construction and decommissioning of the solar element of the Proposed Development means that significant effects on the archaeological interest (significance) of any potentially surviving remains is unlikely.

4.10.19 EN-3 (2023) recognises (at Paragraph 2.10.101) that *"Below ground impacts, although generally limited, may include direct impacts on archaeological deposits through ground disturbance associated with trenching, cabling, foundations, fencing, temporary haul routes etc."* It goes on to state (at Paragraph 2.10.102) that *"solar PV developments may have a positive effect, for example archaeological assets may be protected … as the site is removed from regular ploughing or low-level piling is stipulated".*

4.10.20 Developing this point further, the size and frequency of the driven piles and cable runs for the solar arrays are so slight that even if their location were to coincide exactly with buried remains there would be no or negligible material loss of archaeological interest.

4.10.21 Furthermore, mitigation through detailed design (avoidance) can allow for any especially sensitive buried archaeological remains (such as human remains) to be safeguarded

completely from any disturbance. If required, other complimentary techniques involve ballast footings (such as concrete shoes) to avoid piling completely. The HEDBA and geophysical survey will aid in the identification of any such locations and inform the need for any further surveys (such as trial trenching) so that any sensitive remains can be safeguarded.

4.10.22 More intrusive groundworks are expected to occur in relation to the excavation of foundations for the BESS and within the footprint of associated infrastructure. Impacts to archaeological remains within these locations will be mitigated through appropriate investigation and recording to allow their preservation by record.

4.10.23 Due to the potential for archaeological remains to be impacted during the construction and decommissioning phases of the Proposed Development, particularly in association with the excavations required for the BESS and aspects of supporting infrastructure, Archaeology is proposed to be scoped into the EIA.

Built Heritage

4.10.24 The potential effects upon the designated historic assets during the construction and decommissioning phases of the Proposed Development would derive from the presence of machinery, fencing, construction compounds, as well as increased noise and traffic. Construction and decommissioning operations are temporary by nature, and the impacts associated with these works would be temporary and limited and would not cause significant effects to those designated historic assets. As such, effects upon built heritage during construction and decommissioning are proposed to be scoped out of the EIA.

4.10.25 During operation the Proposed Development would introduce change into the setting of designated heritage assets. Any resulting impacts upon those assets due to alterations within their settings would be perceived for the duration of the operational phase.

4.10.26 For all designated heritage assets, their heritage significance is largely derived from their physical fabric, which will not be affected by the Proposed Development. With regard to their setting, the views towards the assets are the critical components of their experience, the vast majority of these being views from up close, as it is in those views that their physical fabric and (for historic buildings) special interest can be appreciated. In terms of physical surrounds, the greatest effect of the Proposed Development will be the placement of solar panels and associated infrastructure within adjacent farmland. This matter needs detailed consideration and the development of options to potentially mitigate any effects. The HEDBA identified the Grade II Listed Buildings of Throstle Nest and Barn North of Wood End as the key sensitive heritage receptors to the Proposed Development, with the Site forming part of their historically associated farmland.

4.10.27 Accordingly, it is proposed that effects upon Built Heritage during operation are scoped into the EIA, with the potential effects upon heritage assets assessed through the methodology detailed below. Appropriate mitigation measures will be incorporated into the design of the Proposed Development for any sensitive assets as the proposal evolve.

Historic Landscape

4.10.28 The Historic Landscape Character within the Site is not of heritage value and is not sensitive to change as a result of the Proposed Development. While historic hedgerows are present within the Site, the design and layout of the Proposed Development mean that impacts are unlikely, as almost all hedgerow is to be retained. Any potential impacts on

these features, such as removal of sections of historic hedgerows to facilitate access during construction, are expected to be minimal, temporary, and reversible, and they would not materially affect the character or significance of the historic landscape.

4.10.29 Historic landscape is therefore proposed to be scoped out of the EIA. Any impacts arising from the Proposed Development will be appropriately assessed within the HEDBA.

Assessment Methodology

Further Surveys

4.10.30 A detailed HEDBA, discussing the historic assets which may be affected by the Proposed Development has been drafted and will be updated in line with the detailed design. This assessment investigates the potential extent and the significance of buried archaeological remains within the Site which may be affected by the Proposed Development and presents in the results of the examination of further data including aerial photographic records, historic mapping and LiDAR imagery. It incorporates a settings assessment of the key designated and non-designated heritage assets in proximity of the Site and identifies the key sensitive receptors to be assessed within the ES.

4.10.31 To further clarify the archaeological potential within the Site, a geophysical survey will be undertaken. The results of the HEDBA and geophysical survey will then inform the need for, and scope of, any additional investigations which may be required to ensure the potential archaeological remains are investigated and recorded at an appropriate stage in the development process, in line with the requirements of the national and local planning policies requiring the protection of archaeological remains. Further investigations will also be deployed as required.

Determining Significance of Effects

Receptor sensitivity/importance/value

4.10.32 The assessment of heritage value has been guided primarily by the policies and guidance contained in Historic England's 'Conservation Principles' (English Heritage, 2008). This defines the value of a historic asset with reference to the following four key forms of value set out in Table 4.28.

VALUES	DESCRIPTION
Evidential	Derives from those elements of a heritage asset that can provide evidence about past human activity, including its physical remains or historic fabric
Historical	Derives from aspects of past ways of life, or association with notable families, persons, events, or movements – it embodies the connection between past events and society with the present
Aesthetic	Derives from the sensory and intellectual stimulation drawn from a heritage asset. It may include its physical form, and how it lies within its setting. It may also be the result of design, or an unplanned outcome of a process of events
Communal	Derives from the meanings that a heritage asset has for the people who relate to it, or for whom it figures in their collective experience or memory. It may be commemorative or symbolic and relate to issues of identity or collective memory

TABLE 4.28: HISTORIC VALUES

4.10.33 Criteria for assessing heritage value (sensitivity / importance) is set out in Table 4.29. As well as considering the principles above, this reflects current heritage statute and policy and professional best-practice guidance, including GPA3. The terms expressed in the NPPF are used. This defines heritage asset of the 'highest significance' as World Heritage Sites, Scheduled Monuments, Protected Wreck Sites, Registered Battlefields, Grade I and II* Listed Buildings, and Grade I and II* Registered Parks and Gardens. The term significance, as adopted by EN-1, EN-3 and the NPPF to describe the interests or values of a historic asset or assets, has been avoided here to save confusion with the EIA terminology of significance criteria and 'significant effects'.

IMPORTANCE OF RESOURCE / ASSET	DESCRIPTION
High	World Heritage Sites and heritage assets of acknowledged international importance, or that can contribute significantly to acknowledged international research objectives. Historic assets or groups of assets that can contribute substantially to acknowledged national research objectives. Scheduled Monuments, Registered Historic Landscapes. Grade I and II* Registered Parks/Gardens. Grade I and II* Listed Buildings or other Listed Buildings that can be shown to have exceptional qualities in their fabric or associations not adequately reflected in their Listing grade, or undesignated structures of clear national importance. Conservation Areas containing very important buildings.
Medium	Heritage assets, or groups of assets (including archaeological remains), that contribute to regional research objectives. Grade II Registered Parks/Gardens. Grade II Listed Buildings or historic buildings which can be shown to be of comparable significance. Conservation Areas containing important buildings which contribute significantly to their historic character, or historic townscapes with important historic integrity.
Low	Heritage assets, including archaeological remains, displaying limited evidential, historic, aesthetic, or communal value as identified by Conservation Principles. Heritage assets, or groups of assets, that contribute to a limited degree to regional research objectives. Locally Listed buildings and unlisted buildings of modest quality in their fabric or historical association. Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade.
Uncertain	Heritage assets, including archaeological remains, the importance of which has not yet been ascertained.
Negligible	Heritage assets or groups of assets that cannot appreciably contribute to acknowledged regional research objectives. Archaeological remains with very little or no surviving archaeological interest. Buildings of no architectural or historical note.

Table 4.29 Importance of Heritage Assets

Magnitude of Impact

4.10.34 The magnitude of impact upon heritage assets is defined as the change resulting from development that affects the asset. The classification of the magnitude of change on heritage assets is rigorous and based on consistent criteria. This takes account of such factors as the physical scale and type of disturbance anticipated and whether features or evidence would be lost that are fundamental to their historic character and integrity. Changes may be 'adverse' or 'beneficial'.

4.10.35 Depending on the nature of the change and the duration of the Proposed Development, effects can be 'temporary and/or reversible' or 'permanent and irreversible'. Change in

itself, however, may not necessarily be harmful to heritage assets. For example, judgements (such as Paragraph 45 of the judgement by Lindblom J in R (Forge Field Society) v. Sevenoaks DC [2014] EWHC 1895 (Admin))[130] have clarified that in the context of the Planning (Listed Buildings and Conservation Areas) Act 1990 'preserving' means doing 'no harm'; and does not necessarily mean 'no change'. Similarly, Historic England's Conservation Principles (English Heritage, 2008) defines 'preserve' as 'to keep safe from harm'.

4.10.36 This will include the consideration of such issues as: which, and how many, elements of a heritage asset are affected; whether the change physically modifies the asset or whether it comprises changes in visual aspects, noise or access that would alter its setting; and whether the change in the value of an asset will be adverse or beneficial.

4.10.37 In terms of the assessment of effects arising from change to an asset's setting, the guidance provided by Historic England in GPA3 makes clear that "*analysis of setting is different from landscape assessment. While landscapes include everything within them, the entirety of very extensive settings may not contribute equally to the significance of a heritage asset, if at all.*"

4.10.38 The magnitude of impact on each individual heritage asset is assessed using the criteria in Table 4.30. Changes may be adverse or beneficial; however, in the most part the descriptions offered below focus on adverse change.

MAGNITUDE OF IMPACT	DESCRIPTION
High	Total changes to valued components of the assets, including arising from alteration to setting of heritage assets.
Moderate	Changes to the asset, including to valued settings, such that it is noticeably modified.
Low	Changes to the asset, including arising from alteration to valued settings, such that it is slightly altered. Changes such that the significance of the asset is slightly affected.
No Impact	Inconsequential changes to archaeological remains, historic building elements or their settings.

Table 4.30 Magnitude of Impact

Significance of Effect

4.10.39 The significance of effect upon any historic asset is a product of the importance of the asset, and the magnitude of change upon its values. This is summarised in Table 4.31. Where two alternatives are given in the table, professional judgement is used to decide which best reflects the significance of effect.

[130] Lindblom J. (2014) *R (Forge Field Society and others) v Sevenoaks District Council* (2014) EWHC 1895 (Admin). Available at: http://www.bailii.org/ew/cases/EWHC/Admin/2014/1895.html

Magnitude of Impact	Historic Asset Importance			
	High	Medium	Low	Negligible
High	Major	Major	Minor to Moderate	Neutral
Medium	Major to Moderate	Minor to Moderate	Minor	Neutral
Low	Minor to Moderate	Minor to Moderate	Minor	Neutral
No Impact	Neutral	Neutral	Neutral	Neutral

TABLE 4.31: CRITERIA FOR SIGNIFICANCE OF EFFECT

4.10.40 For the purposes of this Chapter, 'significant effects' are considered to be of 'Moderate' significance of effect or higher. The significance of effect can be 'adverse' or 'beneficial'. Such effects may also be 'temporary' or 'permanent', and 'reversible' or 'irreversible'.

4.10.41 The measured significance of effect may be equated to key concepts in planning policy and heritage guidance regarding the assessment of development effects upon historic assets, as per Table 4.32. Key principles that are considered, in accordance with EN-1, EN-3 and NPPF, are whether the effect comprises substantial harm or total loss. When a significant effect is identified, it may be appropriate to propose suitable mitigation measures to avoid, reduce or offset the effect.

SIGNIFICANCE OF EFFECT	CRITERIA
Major Adverse	Extensive harm to or total loss of the values of a designated heritage asset (or asset worthy of designation) such that development should not be consented unless substantial public benefit is delivered by the development. Such effects arising from setting are exceptional, and would only occur where the relationship between the asset and its setting is critical to its heritage values.
Moderate Adverse	Less than extensive harm to or total loss of the values of a designated heritage asset (or asset worthy of designation), arising through changes to setting, such that the harm should be weighed against the public benefit delivered by the development to determine consent. Harm to a non-designated heritage asset, of a greater degree than that perceived of as Minor Adverse, which should be considered in determining an application.
Minor Adverse (not significant)	Less than extensive harm to the value of a designated heritage asset arising through changes to setting, of a lesser degree than that perceived as Moderate Adverse, but which should still be weighed against the public benefit delivered by the development to determine consent.
Neutral	Effect that is nil or imperceptible.
Minor Beneficial (not significant)	Development will deliver a positive contribution and / or better reveal the values of a non-designated heritage asset.
Moderate Beneficial	Development will deliver a positive contribution and / or better reveal the values of a designated heritage asset (or asset worthy of designation)

	such that an application should be treated favourably.
Major Beneficial	Development will deliver a positive contribution and / or better reveal the values of a designated heritage asset of recognised international importance such that an application should be treated very favourably.

TABLE 4.32: DESCRIPTION OF THE SIGNIFICANCE OF EFFECT WITH REFERENCE TO HERITAGE POLICY

Cumulative Effects

4.10.42 Consideration will be given to the cumulative effects of the Proposed Development, where sufficient information exists in the public domain to allow for a meaningful assessment to be undertaken. This will focus on the reported potential for the other developments to themselves result in adverse impacts on the heritage assets, through alteration to setting and thus, identify where a cumulative impact on these designated heritage assets would result in a greater significant effect.

Assumptions and Limitations

4.10.43 Archaeological remains within the Site are to be assessed through an updated HEDBA, geophysical survey, and if required, trial trench evaluation. This will inform suitable mitigation measures to ensure that significant effects are avoided.

4.10.44 It should be noted that these investigations cannot absolutely preclude the discovery of previously unrecorded buried archaeological remains during construction of the Proposed Development. The potential for such discoveries is, however, substantially reduced through the iterative process of assessment and archaeological investigation.

4.10.45 Sufficient access to all relevant assets and areas of the Site was available to enable a comprehensive assessment of potential effects on built heritage. The assessment is based on site observations, historic records, and professional judgement, ensuring that conclusions are robust and reliable.

Summary Effects Scoped In and Out of the Assessment

4.10.46 Based on the assessment presented above, it is highly likely that the Proposed Development can be accommodated without significant environmental effects on the heritage assets.

4.10.47 Due to the potential for buried archaeological remains to be impacted by construction groundworks, particularly within the footprint of the BESS and supporting infrastructure, Archaeology is proposed to be scoped into the EIA. Further investigations—including an updated HEDBA, geophysical survey, and trial trenching (if required)—will be undertaken to inform appropriate and proportionate mitigation measures.

4.10.48 Built heritage is proposed to be scoped into the EIA, with potential effects arising through setting during the operational phase of the Proposed Development. This will be assessed in detail and mitigation considered where necessary. Due to their limited and temporary nature, effects upon built heritage during construction and decommissioning are proposed to be scoped out of the EIA.

4.10.49 The proposed scope of the EIA, in relation to heritage assets, is summarises in Table 4.33 below:

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Effects on historic landscape during construction, operation and decommissioning	Effects on archaeology during construction
Effects upon built heritage during construction and decommissioning	Effects upon built heritage during operation

TABLE 4.33: SUMMARY OF EFFECTS SCOPED IN AND OUT OF THE ASSESSMENT

Key Cultural Heritage and Archaeology Questions

- **Question CH1 - Do consultees have any comments on the proposed approach to heritage asset selection for the assessment of setting, including the proposed 1km study area with the inclusion of assets beyond this distance on a case-by-case basis?**
- **Question CH2 - Are there any specific heritage assets that consultees recommend should be included within LVIA viewpoints, for the purposes of understanding intervisibility?**
- **Question CH3 - Do consultees have any comments on the proposed scoping out of settings effects at construction and decommissioning stages due to these being short-lived and unlikely to materially affect the significance of heritage assets?**
- **Question CH4 - Do consultees have any views on the proposed approach to mitigating potential effects on heritage asset significance arising from changes to setting?**
- **Question CH5 - Do consultees have any comments or recommendations regarding the proposed scope and timing of further archaeological investigations, noting that a geophysical survey is already proposed to be undertaken to inform the Environmental Statement?**

4.11 ALTERNATIVES

4.11.1 The EIA Regulations (Schedule 4, Paragraph 2) require an ES to include:

"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"

4.11.2 A dedicated chapter or section of the ES will therefore be provided to address the following:

- site selection/suitability and alternatives;
- the layout of the Proposed Development including design iteration and alternatives; and
- grid connection options.

4.11.3 The consideration of "no development" as an alternative to the Proposed Development is not proposed to be included in the ES. "No development" is not considered a reasonable alternative due to the Applicant having secured a signed grid connection offer and the national critical priority for nationally significant scale solar development.

4.12 CUMULATIVE EFFECTS

4.12.1 The effects of the Proposed Development in combination with other consented or proposed developments, will be assessed within the EIA where appropriate.

4.12.2 Cumulative effects will be considered on an issue-by-issue basis. The cumulative effects of other developments are considered only where sufficient information is available (i.e. when there is adequate information publicly available).

4.12.3 The PINS Advice Note 'Advice on Cumulative Effects Assessment' identifies a four-stage approach as follows:

Stage 1 – Establish the NSIP's ZOI and identify long list of 'other development'

4.12.4 A review of other developments will be undertaken, initially encompassing a ZOI defined by the environmental topic specialists to prepare a long list of 'other development'.

4.12.5 A long list of other developments is provided in Appendix VIII and includes (subject to the above):

- Development currently under construction;
- Approved applications which have not yet been implemented (covering the past five years and taking account of those that received planning consent over three years ago and are still valid but have not yet been completed);
- Submitted applications not yet determined;

- Refused applications, subject to appeal procedures not yet determined;
- Development on the National Infrastructure Planning Programme of Projects; and
- Development identified in the relevant Development Plan (and emerging Development Plans).

4.12.6 The 'long list' has been compiled using 15 km radius applied to the boundary of each parcel of the Site. Within this 15 km radius, sub-zones were established to capture relevant developments whilst using a methodical approach. These sub-zones were defined as follows:

- Within 1 km – all development greater than "householder development";
- Within 1–5 km – all development greater than 50 dwellings, 1,000m^2 and all energy infrastructure; and
- Within 5–15 km - all development greater than 100 dwellings, 5,000m^2 and all energy infrastructure.

4.12.7 This long list will be developed at Stage 2 to form a shortlist utilising input and expertise from the technical project team and the ongoing survey and assessment work.

4.12.8 Consultees are requested to identify projects that should be covered in the cumulative effect assessment if they are not identified below.

4.12.9 A plan showing the spatial relationship of the above cumulative sites to the Proposed Development is provided in Appendix VIII.

Stage 2 – Identify shortlist of 'other development' for Cumulative Effects Assessment

4.12.10 Following consultation on the above through the EIA Scoping process, the intention is to have a consolidated long list of potential cumulative development with consultee input.

4.12.11 In accordance with the PINS Advice Note, this long list will then be further refined and scrutinised by the project team and any developments of a nature or scale without the potential to result in cumulative impacts will be excluded and justification for this recorded and provided.

4.12.12 This shortlist will then be re-consulted on using the above Advice Note at the PEIR statutory consultation stage.

Stage 3 – Information gathering

4.12.13 Following establishment of the shortlist a comprehensive information gathering exercise with take place relating to collect the following information to allow a full cumulative effects assessment to take place and be presented in the ES:

- Proposed design and location information;
- Proposed programme of demolition, construction, operation and/or decommissioning; and

- Environmental assessments that set out baseline data and effects arising from 'other development'.

Stage 4 – Assessment

4.12.14 The assessment of cumulative effects will be addressed on a topic by topic basis set out in specific section in each of the ES Chapters (and supporting technical documents). This will report the cumulative assessments undertaken, identify any potential significant effects and mitigation proposed before reporting the likely significant cumulative effects of the Proposed Development (if any).

4.12.15 A summary table reporting all of the likely significant residual cumulative effects will be provided in the summary chapters of the ES. All identified mitigation will also be included in the schedule of accommodation that will also be identified in the summary chapters of the ES.

Key Questions

- **Question CE1 - Do consultees agree that the long list of potential cumulative sites for consideration in the EIA is comprehensive at this stage?**

- **Question CE2 - Are there any other sites/proposed developments that should be included in the list Appendix VIII?**

4.13 SUPPORTING TECHNICAL ASSESSMENTS

Battery safety management

4.13.1 An OBSMP) will be produced by competent experts and appended to the ES as a TA. The BSMP will set out how the risk of battery fire has been reduced and will be managed to the minimal probability possible. The BSMP will be agreed with the statutory Fire and Rescue Service.

Ground contamination

4.13.2 The Site does not lie within a Ground Water Source Protection Zone or a Drinking Water Safeguard Zone (Groundwater) as identified on Magic Map[131]. The Site is entirely underlain by various mudstone bedrocks, which are generally impermeable and therefore restrict groundwater emergence. Similarly, a range of clayey superficial deposits across the site and the presence of clayey soils will also reduce the risk of groundwater emergence.

4.13.3 The British Geological Society (BGS) Hydrogeology Aquifer Classification classifies Sessay Park as a 'low productivity aquifer', whilst Briar Hill noted to have 'rocks with essentially no groundwater'. Historic mapping shows the Site to have been undeveloped and in agricultural use since at least the 1850s (see HEDBA in Appendix VII).

4.13.4 Whilst it is acknowledged that a formal Phase I Assessment of the Site has not yet been completed, the balance of probability is such that it is unlikely that extensive or complex ground contamination exists across the Site.

4.13.5 In order to inform the design of the Proposed Development, a programme of intrusive targeted site investigation may be required. Site investigation would target potential areas of made ground within the Site identified as part of the Phase I assessment. Should made ground be identified, soil sampling, laboratory analysis and a suitable assessment shall then be undertaken in accordance with current best practice in order to ascertain the potential risk posed to ground conditions in relation to human health and the wider environment.

4.13.6 If this assessment determines that remediation or risk management is required to address any potential risks posed by made ground, a process of remediation options appraisal, remediation strategy, remediation implementation and verification shall be entered into in accordance with Environment Agency's Land Contamination Risk Management Guidance (LCRM 2023). This work is standard practice and standard effective mitigation exists, improving the ground conditions such that any risks posed are reduced to acceptable levels. Examples include:

- Standard ground contamination remediation practices (e.g. removing contaminated materials for suitable licensed off-site disposal and/or capping areas with a clean topsoil layer);

[131] https://magic.defra.gov.uk/

- Through the adoption of appropriate design (with basic remedial measures i.e., ground gas and vapour membranes), and suitable working practices employed during the construction phase; and

- Suitably resistant below ground infrastructure be designed in line with the UK industry guidance.

4.13.7 The above is standard practice exercised on almost all development sites and can be secured with the OCEMP and a requirement in the DCO.

4.13.8 In respect of introducing new sources of contamination into the Site, established mitigation measures and / or construction practices exist to prevent this from occurring (e.g. which will be secured in the OCEMP and Outline Decommissioning Environment Management Plan (ODEMP)).

4.13.9 The only material contamination risk during the operation of the Proposed Development, would result from a fire associated with the BESS. However, the BESS will be located on an impermeable surface and with a sealed drainage system that will be automated to contain all water for offsite and appropriate disposal in the result of a fire.

4.13.10 It is therefore proposed that ground contamination is provisionally scoped out of the ES. A more proportionate approach (in a similar fashion to PINS approach to Glint and Glare) would be adopted and it is proposed that the Phase I technical assessment is appended to the main ES.

4.13.11 This position can be reviewed at the PEIR stage and/or further agreed with relevant consultees once the Phase I is completed. In the likely event, that significant/extensive/complicated contamination exists within the Site, an appropriate chapter in the ES can be included.

CEMP/OEMP/DEMP/LEMP

Construction Environmental Management Plan

4.13.12 An outline Construction Environmental Management Plan (OCEMP) will be produced and appended to the main ES. This document is intended to set out the responsibilities with regards to compliance with legislation and capture any commitments made in the Commitments Register and any other mitigation measures required to mitigate/avoid adverse effects associated with the construction of the Proposed Development.

4.13.13 It should be considered a live document, that will remain so right through the project process and until construction of the Proposed Development is complete.

4.13.14 The OCEMP will be updated and confirmed by the appointed Engineering, Procurement and Construction (EPC) Contractor ahead of construction commencing, in the form of a detailed CEMP that will be required to be submitted to and approved by NYC prior to commencement of development. The EPC Contractor will prepare the detailed CEMP which will be referenced by construction staff on a day-to-day basis for the mitigation and management of construction-related effects. It will provide documented procedures for controlling environmental impacts and for preventing disruption to local residents and businesses during the construction phase of the Proposed Development.

Operational Environmental Management Plan

4.13.15 An outline Operational Environmental Management Plan (OCEMP) will be produced and appended to the main ES. This document is intended to set out the responsibilities with regards to compliance with legislation and capture any commitments made in the Commitments Register and any other mitigation measures required to mitigate/avoid adverse effects associated with the operation of the Proposed Development.

4.13.16 It should be considered a live document, that will remain so right through the project process until the Proposed Development is decommissioned.

4.13.17 The OOEMP will be finalised by the the Applicant, in the form of a detailed OEMP that will be required to be submitted to and approved by NYC prior to first operation of the Proposed Development. The OEMP will be referenced by operational staff on a day-to-day basis for the mitigation and management of any potential effects. It will provide documented procedures for controlling environmental impacts and for preventing disruption to local residents and businesses during the operational phase of the Proposed Development.

Decommissioning Environmental Management Plan

4.13.18 An ODEMP will be produced and appended to the main ES. This document is intended to set out the responsibilities with regards to compliance with legislation and capture any commitments made in the Commitments Register and any other mitigation measures required to mitigate/avoid adverse effects associated with the decommissioning of the Proposed Development.

4.13.19 The ODEMP will be updated and confirmed by the appointed Contractor ahead of decommissioning work commencing, in the form of a detailed DEMP that will be required to be submitted to and approved by NYC. The Contractor will prepare the detailed DEMP which will be referenced by construction staff on a day-to-day basis for the mitigation and management of decommissioning-related effects. It will provide documented procedures for controlling environmental impacts and for preventing disruption to local residents and businesses during the decommissioning phase of the Proposed Development.

Landscape and Ecological Management Plan

4.13.20 An OLEMP will be produced and appended to the main ES. The OLEMP will set out a framework for the planting, management and monitoring of landscaping and ecological mitigation and enhancement habitats for the Proposed Development identified in the EIA.

Key Questions

- **Question TA1 - Do consultees agree that glint and glare, battery safety and ground contamination can be addressed in standalone reports appended to the ES but without their own ES chapters?**

4.14 SUMMARY OF PROPOSED SCOPE OF THE ES

4.14.1 The table overleaf sets out the full proposed scope of the ES.

SUMMARY OF THE SCOPE OF PROPOSED MAIN ES CHAPTERS	
Traffic and Transport	The following effects (during construction only) are to assessed: • Severance • Driver Delay • Non-motorised User Delay • Non-motorised User Amenity • Fear and Intimidation • Road User and Pedestrian Safety • Hazardous and Large Loads
Noise and vibration	• Construction Activity Noise • Construction Activity Vibration • Construction Traffic Noise • Operational Noise
Climate Change	• GHG emissions and net effect on climate change • Climate change resilience
Socio-economics	During construction: • Employment • Economic Contribution • Serviced/Non-Serviced Accommodation Demand During Operation • Employment • Economic contribution • Business rates During Decommissioning • Employment • Economic Contribution • Serviced/Non-Serviced Accommodation Demand

Agricultural Land	• Potential temporary effects on soils and land quality from TCCs; • Potential temporary disturbance and crop loss from construction activities; • Potential effects on land quality from construction and decommissioning activities; • Potential effects on soils during construction, operation and decommissioning activities; • Potential economic and land-use effects and implications for farm businesses and the rural economy, from construction, operation and decommissioning.
Ecology	• Pilmoor SSSI – effects on national designated site features • Yorkshire Rivers IIA (Tansy beetle risk) – risk to ecological features • Brafferton Spring Wood and Sessay Wood SINC – effects on SINC ecological features • Ancient woodland - Edge effects (light, noise, dust, pollution), potential indirect hydrological impacts, irreversible habitat loss if encroached • Habitats within the Site - Habitat loss (temporary/permanent), disturbance during construction, fragmentation, changes in land management affecting biodiversity, reduced connectivity, pollution / runoff, alteration to hydrology • Bats - Loss of roost features (trees, buildings), loss of foraging / commuting habitat, light/noise disturbance, barrier effects • GCN - Loss of breeding/terrestrial habitat, disturbance, mortality during works, pollution of ponds/ditches • Otter- Disturbance (noise, vibration, lighting), loss/degradation of riparian habitat, barrier effects from infrastructure, injury / death during works • Fish - Habitat degradation from pollution/runoff, barrier effects to movement, disturbance to spawning habitat • Badger - Loss of foraging habitat, disturbance or destruction of setts, injury / death during works • Water vole - Habitat loss/degradation (ditches, Beck), pollution impacts, disturbance during construction • Reptiles - Habitat loss (scrub/grass margins), direct mortality during clearance, disturbance, injury / death during works • Terrestrial invertebrates (e.g. Tansy beetle) - Habitat loss (tansy patches), disturbance, shading, pollution • Aquatic invertebrates (e.g. white-clawed crayfish) - Habitat degradation, pollution/runoff, sedimentation, disturbance • INNS (Himalayan balsam, giant hogweed, rhododendron) - Spread within, and beyond, the Site via soil/water movement • Displacement/disturbance effects on target bird species

	• Barrier effects on target bird species • Habitat loss for target bird species • Potential effects to Species listed under Annex I of the Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive) • Potential effects to Amber and Red listed species in BoCC5 (Stanbury et al., 2021) • Potential effects to Species listed under Section 41 of the NERC Act (2006)
Landscape and Visual Impact	• Landscape features within and adjacent to the Site, including topography and landform, water features and drainage, land use and built form and vegetation. • National, regional, local and site landscape character within 3km of the Site. • Visual receptors with theoretical visibility within 3km of the Site. • Visual effects from all proposed viewpoints, including those within the North York Moors National Park and Howardian Hills National Landscape. • Residential Amenity and Visual Assessment for properties up to 0.5km from the Proposed Development. • Special qualities of the North York Moors National Park. • Special qualities of the Howardian Hills National Landscape.
Cultural Heritage and Archaeology	• Effects on archaeology during construction • Effects upon built heritage during operation

TABLE 4.34: SUMMARY OF SCOPE OF THE ES

SUPPORTING EIA STUDIES/ASSESSMENT/MANAGEMENT PLANS
GLINT AND GLARE IMPACT ASSESSMENT
BATTERY SAFETY MANAGEMENT PLAN
PHASE I GROUND CONTAMINATION ASSESMENT
HABITAT REGULATIONS SCREENING ASSESSMENT
CEMP/DEMP/OEMP/LEMP

TABLE 4.35: SUPPORTING STUDIES/REPORTS/MANAGEMENT PLANS

5 TOPICS PROPOSED TO BE SCOPED OUT OF THE EIA

5.1 WATER ENVIRONMENT

Introduction

5.1.1 This Scoping assessment considers the effects of the Proposed Development on flood risk and drainage during all development stages (construction, operation and decommissioning).

5.1.2 This Chapter presents the baseline conditions of the Site and identifies any likely significant effects of the Proposed Development which are proposed to be scoped into the EIA, whilst also identifying those effects that can be scoped out of the EIA. A draft Flood Risk Assessment is provided as Appendix III to this Scoping Report.

5.1.3 A proposed methodology and significance criteria for the EIA is also provided.

Consultation

5.1.4 North Yorkshire Council has been contacted but no response has been received at the time of writing.

5.1.5 A meeting was held with the Environment Agency on 19th November 2025. Prior to the meeting the EA were provided with the FRA in Appendix III and it was agreed that significant effects on the Water Environment were unlikely to result from the Proposed Development and this topic could be scoped out of the EIA.

5.1.6 No other engagement with consultees has taken place to date.

Regulatory and Policy Framework

5.1.7 The policy and guidance relevant to the assessment of flood risk and drainage impacts resulting from the Proposed Developments is set out in Table 5.1.

POLICY/GUIDANCE	SUMMARY
National Policy Statements (Including NSIPs)	Any new planning application (including proposed NSIPs) that require a Flood Risk Assessment (FRA) will also require a Surface Water Drainage Strategy. The NPS EN-1 considers the flood risk impacts associated with energy infrastructure developments, ensuring flood risk from all sources is assessed and emphasising that proposed developments in areas of flood risk should be designed and constructed to remain operational in times of flood.
National Planning Policy Framework (NPPF)[132]	Chapter 14 of the NPPF "Meeting the challenge of climate change, flooding and coastal change" highlights the requirements on planning applications in relation to taking a proactive approach to mitigating and adapting to climate change, moving development away from flood risk areas where

[132] Ministry of Housing, Communities & Local Government, 2024, National Planning Policy Framework

	possible and considering marine and coastal management where applicable.
National Planning Practice Guidance (PPG)[133]	The PPG for "Flood risk and coastal change" advises how to take account of and address the risks associated with flooding and coastal change in the planning process.
Land Drainage Act 1991	The Land Drainage Act is "an Act to consolidate the enactments relating to internal drainage boards, and to the functions of such boards and of local authorities in relation to land drainage, with amendments to give effect to recommendations of the Law Commission." The act requires that a watercourse be maintained by its owner in such a condition that the free flow of water is not impeded. Under the Land Drainage Act 1991, you need consent if you want to build or alter a culvert or structure (such as a weir) to control the flow of water on any ordinary watercourse or where proposals will cause an obstruction to flow.
Water Framework Directive	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 ('WFD Regulations 2017') consolidate, revoke and replace the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003, which transpose the European Union (EU) Water Framework Directive (WFD) into national law. The WFD is a wide-ranging piece of European legislation that establishes a new legal framework for the protection, improvement and sustainable use of surface waters, coastal waters and groundwater across Europe in order to: • Promote sustainable water use. • Contribute to the mitigation of floods and droughts. • Prevent deterioration and enhance status of aquatic ecosystems, including groundwater. • Reduce pollution.
Flood and Water Management Act (2010)	The Flood and Water Management Act (FWMA) 2010 takes forward some of the proposals set out in three previous strategy documents published by the UK Government: Future Water, Making Space for Water and the UK Government's response to the Sir Michael Pitt Review of the summer 2007 floods. In doing so, it gives the Environment Agency (EA) a strategic overview of flood risk and gives local authorities responsibility for preparing and putting in place strategies for managing flood risk from groundwater, surface water and ordinary watercourses in their areas.
National standards for sustainable drainage systems (SuDS)[134]	The national standards provide information on the integration of SuDS and management of surface water runoff for new infrastructure and development.

TABLE 5.1: WATER RESOURCES, FLOOD RISK & DRAINAGE –KEY POLICY AND GUIDANCE

Existing Known Baseline Conditions

Topography and Waterbodies

5.1.8 Within the Sessay Park Parcel, the Birdforth Beck (a Swale and Ure Internal Drainage Board (IDB) managed watercourse) flows east to west through the centre, with two

[133] Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government, 2024, Planning Practice Guidance.
[134] Department for Environment Food & Rural Affairs, July 2025, National standards for sustainable drainage systems (SuDS)

tributaries reaching their confluence within the Site. Ground levels typically fall towards the watercourses, as shown in Figure 5.1.

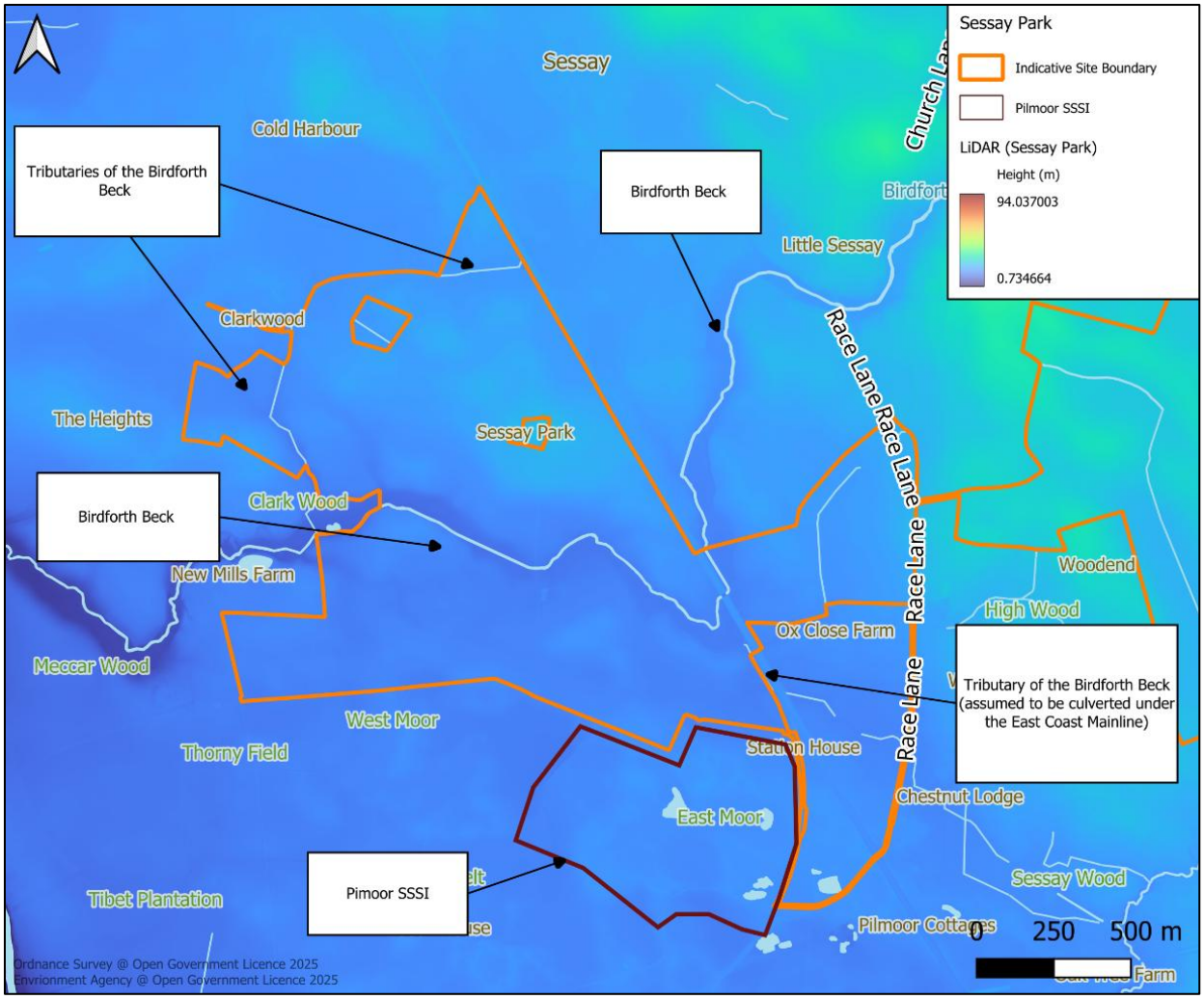


FIGURE 5.1: SESSAY PARK TOPOGRAPHY AND WATERCOURSES

5.1.9 Within the Briar Hill Parcel, the Sun Beck (a Kyle and Upper Ouse IDB managed watercourse) flows from north to south-west through the centre of the Site. There are several tributaries of the Sun Beck within the Site including New Cut and other unnamed Ordinary Watercourses. Ground levels typically fall towards the watercourses, as shown in Figure 5.2.

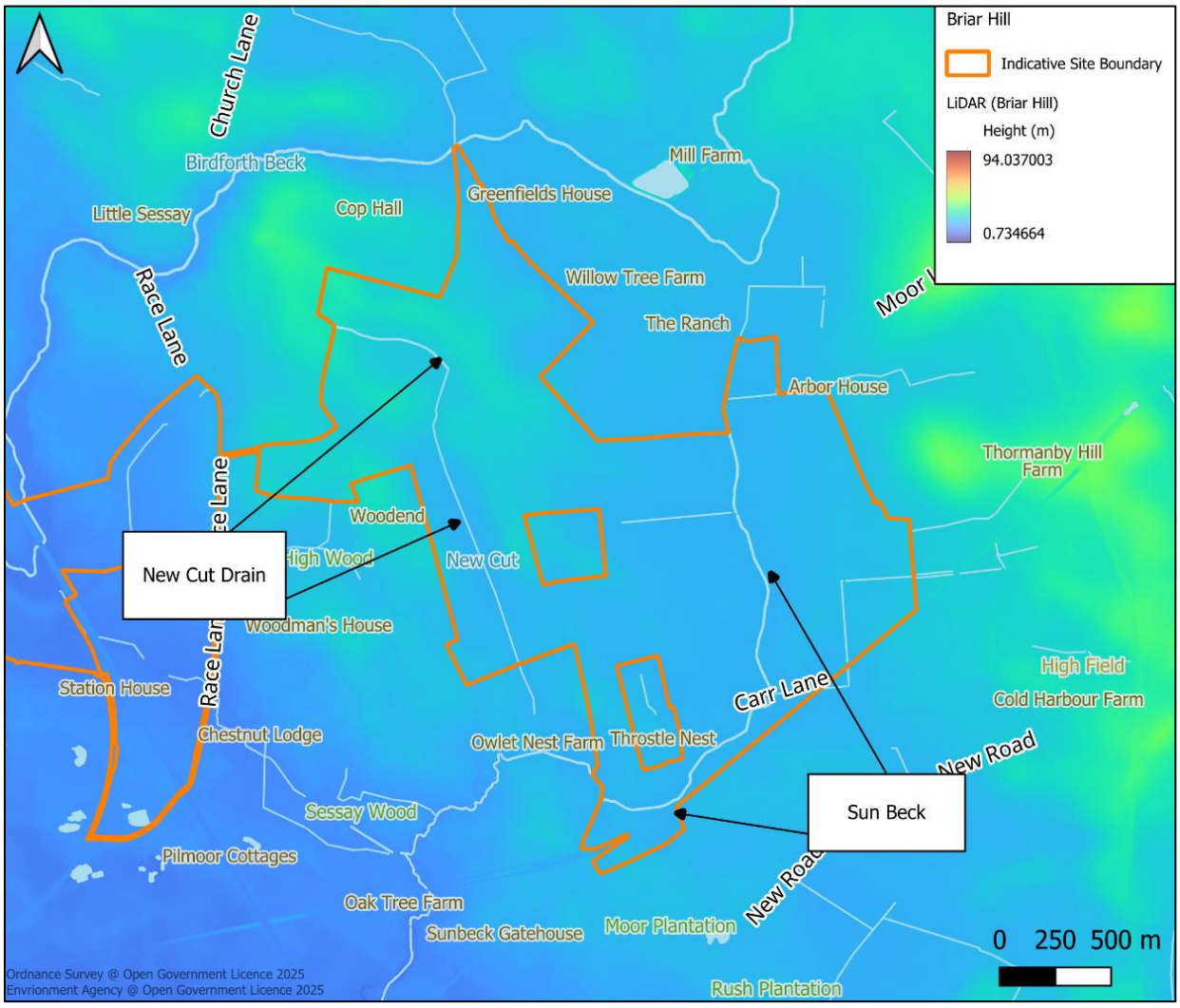


FIGURE 5.2: BRIAR HILL TOPOGRAPHY AND WATERCOURSES

5.1.10 The Pilmoor Site of SSSI is located immediately west of the Sessay Park Parcel boundary and is partially designated as a Lowland Fen Priority Habitat. The Site is topographically lower than the Pilmoor SSSI and as such there are no watercourses flowing from the Site into the Pilmoor SSSI.

Flood Risk

5.1.11 The Environment Agency Flood Map for Planning[135] shows the majority of the Site to be within Flood Zone 1, however, there are Flood Zone 2 and Flood Zone 3 extents associated with the on-site watercourses.

5.1.12 The Environment Agency Risk of Flooding from Surface Water dataset[136] shows various areas of surface water pooling and flow routes within the Site, aligned with localised topographical depressions and the on-site watercourses.

[135] https://flood-map-for-planning.service.gov.uk/map
[136] https://flood-map-for-planning.service.gov.uk/map

5.1.13 There are no Environment Agency recorded instances of flooding within the site.

5.1.14 Flood risk to the Site from all sources has been assessed in the FRA which forms Appendix III.

Geology

5.1.15 The British Geological Survey geology mapping[137] shows the Site is underlain by Penarth Group Mudstone, the Mercia Mudstone Formation, and the Redcar Mudstone Formation. There are several types of superficial deposits across the Site, primarily consisting of clay, sand and silt, including Vale of York Formation (cay, sand and gravel), Alne Glaciolacustrine Formation, Breighton Sand Formation and Alluvium (clay, silt, sand and gravel). The Pilmoor SSSI is shown to have some isolated pockets of peat superficial deposits, however, there is no peat within the Site itself.

5.1.16 Soilscapes mapping shows the soils within the Site to generally be slightly acidic, loamy/clayey soils.

Groundwater

5.1.17 The British Geological Survey hydrogeology mapping[138] shows the Sessay Park Parcel to be underlain by a low productivity aquifer, whilst the Briar Hill Parcel is shown to be underlain by 'rocks with essentially no groundwater'.

5.1.18 The Site is not located within a Source Protection Zone but is located within a Drinking Water Safeguard Zone for surface water.

5.1.19 The Pilmoor SSSI is located immediately west of the Sessay Park Parcel and is partially designated as a Lowland Fen Priority Habitat, which is a groundwater and/or rainwater fed ecosystem. The development is not expected to have an effect on the groundwater level or quality in the SSSI.

Water Quality

5.1.20 The Site is located within a Countryside Stewardship Water Quality Priority Area, a Sediment Issues Priority area and a Phosphate Issues Priority area, however, it is not identified to be in a Nitrate Vulnerable Zone.

5.1.21 The Birdforth Beck is a Water Framework Directive identified waterbody which is classified as having a 'Moderate' ecological classification. Reasons for not achieving a 'Good' classification include private sewage treatment, poor nutrient management and sewage discharge.

Proposed Study Area

5.1.22 Based upon professional judgement, the Site and a 1km buffer from the Site boundary has been considered as "the Study Area" with regard to identifying key hydrological related

[137] https://geologyviewer.bgs.ac.uk/?_ga=2.204529945.868486190.1758872315-1948968993.1758872315
[138] https://map.bgs.ac.uk/arcgis/services/GeoIndex_Onshore/hydrogeology/MapServer/WmsServer

receptors that may be impacted by the construction, operation and/or decommissioning of the Proposed Development.

5.1.23 A 1km buffer is considered a sufficient distance to enable the deposition of silts in overland flows and dilution of any concentrated pollutants so that waterbodies at a greater distance than the buffer would not be at significant risk of being affected.

5.1.24 Specific hydrological receptors within the 1km buffer include:

- Pilmoor SSSI;
- Birdforth Beck and associated tributaries;
- Sun Beck and associated tributaries;
- Crakehill Beck – Downstream of the Birdforth Beck, a tributary of the River Swale;
- Stanks Beck – Downstream of the Sun Beck, approximately 0.9km south of the Site; and
- Pilmoor Grange (Source Protection Zone 1) – Approximately 0.45km south of the Site, a small Inner Protection Zone (0.7ha in size).

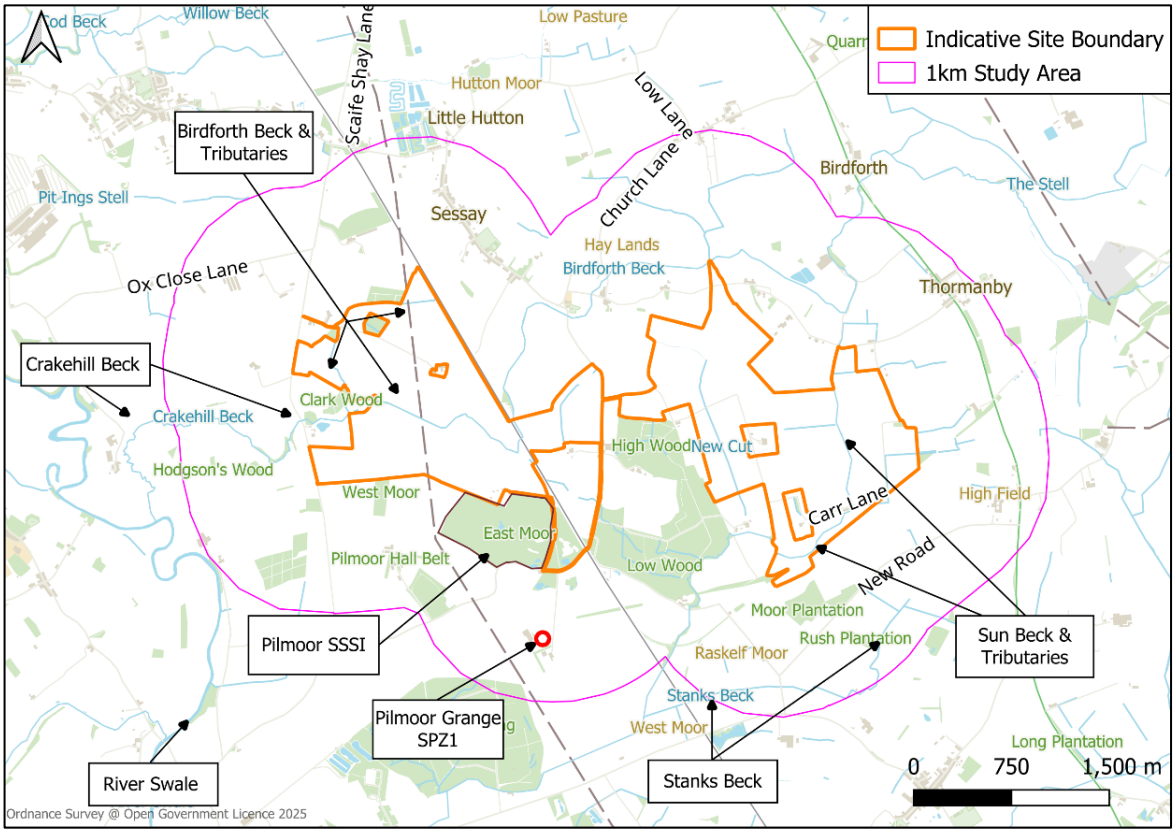


FIGURE 5.3: 1KM PROPOSED STUDY AREA

Proposed Effects and Mitigation

5.1.25 The Proposed Development has the potential to affect flood risk and drainage during both construction, operation and decommissioning. The following potential effects have been identified:

- Effects on water quality associated with surface water flows and Ordinary Watercourses on Site. Left unmanaged, construction, operation and decommissioning of the Proposed Developments could impact the level of contaminants on the Site that could subsequently pollute surface water flows and/or Ordinary Watercourses. Contaminants may include silt, oils and chemicals.

- Effects on groundwater quality and groundwater levels. Left unmanaged, construction, operation and decommissioning of the Proposed Development could impact the level of contaminants on the Site that could subsequently pollute groundwater. Contaminants may include silt, oils and chemicals. The Pilmoor SSSI and the Pilmoor Grange Source Protection Zone 1 are groundwater sensitive receptors which could be potentially affected by the Proposed Development, although they are topographical elevated above the site. Effects on Pilmoor SSSI from all viable pathways will be addressed in the Ecology chapter of the ES.

- Effects on Ordinary Watercourses. During the construction, operation and decommissioning of the Proposed Development, the capacity, quality and riparian area of existing Ordinary Watercourses in the Site could be impacted. This could be associated with silting up of the watercourses where silt in surface water runoff is not managed, or with development in close proximity to the existing Ordinary Watercourses causing potential changes to riparian areas, or where proposed watercourse crossings are to be installed.

- Effects on flood risk both on-site and downstream. During the construction, operation and decommissioning phase of the Proposed Development, the area of impermeable hardstanding may increase. Construction plant may compact the ground. Left unmanaged, this could increase surface water runoff rates and volumes. Fluvial flood risk may also increase if the Proposed Development reduces the capacity of Ordinary Watercourses and the associated floodplain.

- Effects on surface water drainage patterns. Construction and operation and decommissioning of the Proposed Development, left unmanaged, could impact the existing surface water drainage patterns including through changes to existing land drains.

5.1.26 At this stage of the EIA, mitigation and enhancement measures are still being developed. The following list highlights some of the expected measures to be proposed:

- Surface water flow paths through the Site will remain as existing, with no major alterations in ground levels resulting in loss of flood storage, truncation of flow routes or cross catchment transfer.

- The height of the solar panels will be designed as such that they are elevated adequately above the ground and do not impede surface water flow routes.

- The solar panels located within Flood Zone 2 of the Flood Map for Planning will be elevated a minimum of 600mm above the interpolated flood level.

- Proposed impermeable surfaces will be minimised wherever possible. Existing access tracks will be reused, with any new access being formed of semi-pervious material.

- A SWDS will be implemented to ensure the runoff rate from the Site does not increase as a result of the Proposed Development. The SWDS will be developed in line with the latest guidance[139] and provide water quality management.

- Existing watercourse crossings will be utilised as far as possible. One temporary watercourse crossing is required for the construction phase of the Proposed Development, where it is proposed to utilise an existing temporary crossing point. The need for a Water Framework Directive Assessment will be confirmed in due course and agreed with the EA. A WFD Screening Report will be produce and shared with the EA for agreement. In any event, significant effects are unlikely, and the Water Framework Directive Assessment will be provided as a standalone report if required.

- A 10m buffer is proposed to all watercourses. This is greater than the minimum easement requested in the standard guidance of the IDBs and Lead Local Flood Authority (LLFA).

- A SWDS included in the FRA and OCEMP will be implemented for the Proposed Development to manage silty runoff and surface water flow routes during the construction phase of the Proposed Development.

5.1.27 The potential effects have been reviewed alongside the proposed mitigation to be scoped in or scoped out of the assessment. The results are shown in Table 5.2.

EFFECT	PHASE	SCOPED IN	SCOPED OUT	JUSTIFICATION
Surface and Fluvial Water Quality	Construction		✓	A construction phase SWDS and OCEMP will be submitted as part of the planning application.
	Operation		✓	The Site is located within a Drinking Water Safeguarded Zone for surface water. The appended proposed Surface Water Drainage Strategy includes SuDS to appropriately manage pollution potential.
	Decommissioning		✓	A DEMP/Outline Decommissioning Plan will be submitted as part of the planning application.
Groundwater Quality and Level	Construction		✓	A construction phase SWDS and OCEMP will be submitted as part of the planning application. The proposals include no groundwater abstractions

[139] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds

			which could alter the groundwater level within the Pilmoor SSSI, or lead to pollution of the Pilmoor Grange Source Protection Zone.
	Operation	✓	The Site is underlain by a low productivity aquifer and rocks with essentially no groundwater and is not within a Source Protection Zone. The appended proposed Surface Water Drainage Strategy includes SuDS to appropriately manage pollution potential.
	Decommissioning	✓	A DEMP/Outline Decommissioning Plan will be submitted as part of the planning application. Decommissioning will not include for groundwater abstractions which coud alter groundwater levels.
Ordinary Watercourses	Construction	✓	A construction phase SWDS and OCEMP will be submitted as part of the planning application. A minimum 10m buffer will be applied to all watercourses. Existing watercourse crossings will be utilised for the construction phase
	Operation	✓	A minimum 10m buffer will be applied to all watercourses. No new permanent watercourse crossings are proposed. The appended FRA demonstrates there will be no loss of flood storage volume as a result of the Proposed Development.
	Decommissioning	✓	A DEMP/Outline Decommissioning Plan will be submitted as part of the planning application. A minimum of 10m buffer will be applied to all watercourses.
Flood Risk	Construction	✓	A construction phase SWDS and OCEMP will be submitted as part of the planning application. The OCEMP will provide information on drilling fluid breakout plans for directional drilling, emergency spill response procedure and battery

			safety management plan where required.
	Operation	✓	The appended FRA demonstrates the Proposed Development will be safe from flooding from all sources for its proposed lifetime and not increase the risk of flooding elsewhere.
	Decommissioning	✓	A DEMP/Outline Decommissioning Plan will be submitted as part of the planning application. The DEMP/Outline Decommissioning Plan will provide information on emergency spill response and procedure.
Surface Water Drainage Patterns	Construction	✓	A construction phase SWDS and OCEMP will be submitted as part of the planning application.
	Operation	✓	The appended proposed SWDS includes SuDS to appropriately manage surface water drainage patterns in accordance with National Guidance, ensuring there is no increase in runoff rate post development.
	Decommissioning	✓	A DEMP/Outline Decommissioning Plan will be submitted as part of the planning application.

TABLE 5.2: FLOOD RISK AND DRAINAGE EFFECTS SCOPING SUMMARY

Assessment Methodology

5.1.28 For any effects scoped in, the significance of effects of the Proposed Development on flood risk and drainage, both the sensitivity of the receptor and the magnitude of change will be assessed.

5.1.29 The proposed sensitivity definitions for the assessment of the effect significance are detailed in Table 5.3.

SENSITIVITY	DEFINITION
High	• Receptor with a high quality and rarity, regional or national scale importance and limited potential for substitution/replacement. • Inner Source Protection Zone (Zone 1). • SSSI or SAC. • Excellent water quality. • Large scale industrial agricultural abstractions (>1000m^3/day) within 2km downstream, or abstractions for public drinking water supply. • Watercourse widely used for recreation, directly related to watercourse quality (e.g. swimming, salmon fishery etc.) within 2km downstream.

	• Conveyance of flow and material, such as a Main River >10m wide. • Active floodplain area with importance in relations to flood defences. • Water resources that support economic and social development at a local scale. • Areas located in Flood Zone 3b.
Medium	• Receptor with a medium quality and rarity, local scale importance and limited potential for substitution/replacement. • Outer Source Protection Zone (Zone 2). • Nitrate Vulnerable Zone. • Highly productive aquifer. • Good water quality. • Large scale industrial agricultural abstractions (500-1000m3/day) within 2km downstream. • Surface water abstractions for private water supply for more than 15 people. • Watercourse used for recreation, directly related to watercourse quality (e.g. swimming, salmon fishery etc.). • Active floodplain area with importance in relations to flood defences. • Areas located in Flood Zone 2 or 3.
Low	• Receptor with a low quality and rarity, limited local scale importance and reasonable potential for substitution/replacement. • Total Catchment Source Protection Zone (Zone 3). • Moderately productive aquifer. • Fair water quality. • Industrial/agricultural abstractions (50-499m3/day) within 2km downstream. • Groundwater abstractions 50-500m3/day - Private water supplies present. • Watercourse not widely used for recreation, or recreation use not directly related to watercourse quality. • Watercourses < 10m wide.
Negligible	• Receptor with a negligible quality and rarity, local scale and good potential for substitution/replacement. • No Source Protection Zone. • Low productivity aquifer/rocks with essentially no groundwater. • Environmental equilibrium stable and resilient to changes that are greater than natural fluctuations, without detriment to its present character • Polluted/poor water quality. • Industrial/agricultural abstractions < 50m3/day within 2km downstream. • Fish sporadically present or restricted, no designated fisheries; not used for recreation. • Watercourses < 5m wide. • Areas located in Flood Zone 1. • Receptor heavily engineered or artificially modified and may dry up during summer months.

TABLE 5.3: RECEPTOR SENSITIVITY

5.1.30 The magnitude of change of impact on a receptor is detailed in Table 5.4. The magnitude of change is independent of its sensitivity and will be determined by professional judgement with supporting evidence.

MAGNITUDE OF CHANGE	DEFINITION
High	• Results in major change to the aquatic environment (e.g. permanent deterioration in flow regime, water quality or habitat) that would result in permanent loss of sensitive habitat of deterioration in WFD status. • Loss of employment source. • Permanent loss of water resource of reduced water resource availability. • Pollution of potable source of abstraction. • Significant change in baseline flood risk (spatial extent, temporal duration, flow, water level).
Medium	• Marginal change to the aquatic environment (e.g. in relation to flow regime, water quality or habitat) that would result in a temporary (but reversible) change and would not result in a permanent change in baseline WFD statues. • Reduction in water resource availability and/or quality. • Moderate change in baseline flood risk (spatial extent, temporal duration, flow, water level).
Low	• Marginal change to the aquatic environment (e.g. in relation to flow regime, water quality or habitat) that would result in a short-term change that would not pose a risk to baseline WFD status. • Minor reduction in water resource availability and/or quality, which would not affect water users. • Nominal change in flood risk (spatial extent, temporal duration, flow, water level).
Negligible	• No measurable change to the aquatic environment (e.g. in relation to flow regime, water quality or habitat). • No measurable change to the resource availability of quality. • No measurable change in flood risk (spatial extent, temporal duration, flow, water level).

TABLE 5.4: MAGNITUDE OF CHANGE CRITERIA

5.1.31 The significant of effects is determined by considering the sensitivity of the receptor and the magnitude of change. The effect is defined in accordance with the matrix presented in Table 5.5.

		SENSITIVITY OF RECEPTOR			
MAGNITUDE OF CHANGE		**High**	**Medium**	**Low**	**Negligible**
	High	Major	Major	Moderate	Negligible
	Medium	Major	Moderate	Minor to Moderate	Negligible
	Low	Moderate	Minor to Moderate	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

TABLE 5.5: SIGNIFICANCE CRITERIA

5.1.32 Based on Table 5.5, effects of the Proposed Development on flood risk and drainage will be defined as either major, moderate, minor or negligible. Only major and moderate effects are considered to be significant.

Consultation

5.1.33 The Environment Agency, Lead Local Flood Authority, Sewerage Undertaker and IDB have been contacted to obtain baseline information relevant to the Site.

5.1.34 Formal consultation with relevant statutory and non-statutory consultees will be undertaken as the Proposed Development progresses.

5.1.35 A meeting was undertaken with the Environment Agency on 19th November 2025. The Environment Agency confirmed they had no major concerns with the proposed flood risk approach and supported scoping out flood risk from the EIA, on the provision that site-specific hydraulic modelling of the on-site watercourses is undertaken to support the planning submission at the appropriate juncture. A meeting note summarising the consultation is included within the appendices of the FRA included in Appendix 11.1.

Cumulative Effects

5.1.36 In accordance with national and local planning policies, other developments will be expected to adhere to the same measures to ensure that other developments do not increase flood risk elsewhere or result in adverse effect on water quality.

5.1.37 It is therefore envisaged that the Proposed Development will cause no detriment to downstream receptors. Therefore, it is considered unlikely that any cumulative effects will arise within the catchment, and therefore cumulative effects can be scoped out.

Assumptions and Limitations

5.1.38 The desktop study undertaken as part of this assessment is based upon available data from the Environment Agency, British Geological Survey, Soilscapes and Yorkshire Water. The information is understood to be the latest available at the time of writing.

5.1.39 The topographical evaluation is based upon the provided Unmanned Arial Vehicle survey, as opposed to traditional topographical survey techniques, and the accuracy of the survey should be treated accordingly. Consultation with the relevant stakeholders is ongoing at the time of writing.

Summary Effects Scope In and Out of the Assessment

5.1.40 On the basis of the proposed mitigation included in the appended FRA and accompanying SWDS, all potential effects have been scoped out for all development phases as summarised in Table 5.6, subject to the proposed mitigation discussed in 5.1.26.

EFFECTS SCOPED OUT OF THE ASSESSMENT	EFFECTS SCOPED INTO THE ASSESSMENT
Surface and Fluvial Water Quality (including WFD)	
Groundwater Quality and Level	
Flood Risk	
Surface Water Drainage Patterns	
Ordinary Watercourses	

TABLE 5.6: SUMMARY OF EFFECTS SCOPED IN AND OUT FROM ALL PHASES OF DEVELOPMENT

5.2 ARBORICULTURE

5.2.1 A baseline survey of the Site has been undertaken by Quants Environmental (2025). This survey was carried out in accordance with British Standard 5837:2012. A baseline Arboricultural Survey report was also produced. The survey identified a number of significant trees and woodland within, and adjacent to, the Order Limits. The baseline survey is provided in Appendix IX.

5.2.2 Barton Hyett Associates have reviewed the baseline survey and carried out a desk-based assessment of arboricultural considerations/constraints associated with the Order Limits. The references used below related to the unique identifiers assigned to arboricultural features within the Quants Environmental Arboricultural Report.

Designations (Statutory and Non-Statutory)

Statutory:

5.2.3 A TPO check for the site was carried out via the online TPO map hosted by the LPA (North Yorkshire Council). Three woodland areas were identified as being protected by TPO. The woodland areas are W1, W4 and W7 as identified within the Quants Environmental Arboricultural Report (see Appendix IX) and also identified as Areas A1A, A1B, A2 within the TPO itself. The TPO reference is 1984/01. All of these woodlands are located outside, but adjacent to, the Order Limits.

5.2.4 Woodland W5 (as shown in Appendix IX) is located within a SSSI. The SSSI is known 'Pilmoor SSSI' and is described in the Natural England Designation Site Inventory as '*Broadleaved, Mixed and Yew Woodland - Lowland'*. Woodland W5 is located outside, but adjacent to, the Order Limits.

Non-Statutory:

5.2.5 The Ancient Woodland Inventory (England) (AWI), hosted by DEFRA, records W1 as an area of Ancient Woodland known as Low and High Sessay Wood. According to the Inventory, W1 is formed by areas of both Ancient Replanted Woodland (ARW) and Ancient Semi-Natural Woodland (ANSW). Woodland area W1 is located outside, but adjacent to, the Order Limits.

Potential effects and mitigation

5.2.6 Arboricultural features would be principally affected during ground disturbance which would occur as part of the construction phase of the Proposed Development. Based on an assessment of the baseline survey and the location of the relevant arboricultural features within the Order Limits any significant effects on arboricultural features can be designed out of the Proposed Development. This can be done through the use of appropriate buffers between development and retained trees and woodlands. Although most, if not all, arboricultural impacts could be designed out, a detailed assessment of the Proposed Development will be required. The applicant is committing to:

- The provision of a minimum 15m buffer to all Ancient Woodland (except potentially for electricity cables routed under an existing forestry track through East Moor Wood).

- The retention, as far as possible of all existing hedgerows and field boundary trees
- The retention of all TPO'd trees
- The avoidance of all Root Protection Areas as far as possible (except for small areas of perimeter fence and new site access tracks).

5.2.7 The baseline conditions have been established through undertaking of an onsite survey and desk-based assessment. This has established the nature of the arboricultural considerations in the context of the design of the Proposed Development. The baseline data will be used to design out arboricultural impact through the iterative design process; this will likely include the preparation of draft Arboricultural Impact Assessment's (AIA). The final detailed assessment of the Proposed Development will then be undertaken through the AIA process, set out within BS5837:2012, and will identify any required mitigation needed to limit any arboricultural effects to an acceptable level.

5.2.8 It is therefore highly likely that the Proposed Development can be accommodated without significant effects on the arboricultural features within the Study Area. Arboriculture is proposed to be scoped out of detailed assessment within the EIA, based on current evidence indicating a low potential for significant effects.

5.2.9 Arboricultural matters will assessed in detail within a standalone AIA submitted in support of the DCO application.

5.3 AIR QUALITY

5.3.1 The potential air quality impacts of the Proposed Development are considered to be:

- Impacts of dust arising during the construction and decommissioning phases of the Proposed Development; and
- Impacts of vehicle and plant emissions during the construction and decommissioning phases of the Proposed Development.

5.3.2 The key pollutants affecting human health are nitrogen dioxide (NO_2) and particulate matter of less than 10 microns (PM10). The UK Objectives[140] for NO_2 are 200 µg m-3 hourly mean (not to be exceeded more than 18 times a year) and 40 µg m-3 annual mean concentrations and for PM10 are: 50 µg m-3 24 hourly mean (not to be exceeded more than 35 times a year) and 40µgm-3 annual mean concentrations. Where air quality exceeds UK Objectives Local Authorities are obligated to declare Air Quality Management Areas (AQMAs) to monitor air quality and produce strategies to seek to bring air quality back within Objective levels.

5.3.3 The first and most recent Air Quality Status Report for North Yorkshire Council published in 2024 outlines the current position:

"*In March 2024 a revised single AQAP (Draft) was submitted to Defra which recommended the revocation of four of the eight established AQMAs across North Yorkshire, with plans to also address the remaining four AQMAs with the aim of bringing the air quality standards below the AQO. Following recent feedback on the interim draft*

[140] Air Quality Standards Regulations 2010 and Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

ASR for Hambleton, which is currently being reviewed by Defra, a fifth AQMA (Bedale) will also be revoked, and the final AQAP will reflect this decision. Further work is underway, with the final submission of the AQAP due in September 2024…

Following a consistent downward trend in Air Quality issues in relation to NO2, NYC are planning to revoke four AQMAs for NO2, and one AQMA in relation to PM10. The remaining three AQMAs will continue to be monitored in relation to NO2 and the AQO of 40µg/m3. Should these remaining AQMAs consistently fall below the AQO for 3 years or more, NYC will seek to revoke the AQMAs in line with local authority expectations, or sooner if advised to do so by Defra".

5.3.4 Under Conclusions and Priorities the report states:

"This report provides the results of the monitoring of nitrogen dioxide (NO2) concentrations over the past 5 years. The NO2 annual mean concentrations are compared to the AQO of 40µg/m3 for England.

The annual mean objective of 40µg/m3 for England was not exceeded at any of the monitoring stations in any of the areas covered by NYC in 2023. In fact, there is a steady decrease in annual concentrations consistent with an overall predicted downward trend for the majority of locations. Concerns around the Bedale AQMA, due to some expected commercial development changes in the area, means that monitoring will continue in this area, however it is anticipated that the annual mean objective will remain low as a consequence of the improvements seen since the construction of the bypass. Following recent feedback on the interim draft ASR for Hambleton, which is currently being reviewed by Defra, the AQMA for (Bedale) will also be revoked, and the final AQAP therefore will reflect this change".

5.3.5 NYC's website[141] identifies four AQMA's as exiting in the authority area:

- Wetherby Road, Harrogate - traffic related;
- Bond End, Knaresborough - traffic related;
- New Street, Selby - traffic related; and
- Staithes village, Scarborough - domestic heating related.

5.3.6 These are not locations whereby construction traffic from the Proposed Development would route. There are AQMAs outside of the NYC Authority area but dispersal of traffic over the network with increasing distance from the Site suggests significant effects are unlikely.

5.3.7 The IAQM guidance 'Land-Use Planning & Development Control: Planning For Air Quality 2017' provides indicative criteria for requiring an air quality assessment at Table 6.2:

5.3.8 For Light Duty Vehicles (LDV)[142] - A change of LDV flows of:

- more than 100 AADT within or adjacent to an AQMA

[141] https://www.northyorks.gov.uk/environment-and-neighbourhoods/pollution/air-quality/local-air-quality-management
[142] The IAQM guidance defines LDV as "cars and small vans <3.5t gross vehicle weight".

- more than 500 AADT elsewhere.

5.3.9 For Heavy Duty Vehicles (HDV[143]) – A change of HDV flows of:

- more than 25 AADT within or adjacent to an AQMA

- more than 100 AADT elsewhere.

5.3.10 The construction of the Proposed Development is expected to generate the greatest level of traffic of all the development phases as follows:

35 LDV movements (AADT)

29 HDV movements (AADT)

5.3.11 The Site is not located in proximity to an AQMA and significant air quality effects resulting from emissions to air from vehicles can therefore be scoped out for the construction phase of the Proposed Development. Vehicle movements during decommissioning will be equal to but probably less than construction and no effects are anticipated during operation due to the low number of anticipated vehicle movements and nature of the Proposed Development.

5.3.12 Standard and proven construction/decommissioning methodologies are available to minimise dust effects as set out in the Institute of Air Quality Management guidance 'Assessment of dust from demolition and construction 2024'[144]. The IAQM guidance states that following the application of appropriate levels of mitigation to control dust emissions (as set out therein) that residual effects will be reduced to a level that is "not significant".

5.3.13 It is therefore suggested that a risk assessment is provided within the OCEMP to be submitted with the ES and the relevant mitigation measures specified to the degree of risk identified within the IAQM guidance is set out and secured therein.

5.4 LIGHTING

5.4.1 Lighting is not required within the solar arrays. Motion sensing security lighting will be provided within the substation and BESS compound to be used only for maintenance and security purposes.

5.4.2 Effects resulting from artificial lighting are therefore scoped out of the ES.

5.5 WASTE

5.5.1 Waste during construction is likely to come from the following sources:

- Waste from site offices and welfare facilities;
- Packaging waste from incoming materials; and

[143] The IAQM guidance defines HDV as "goods vehicles + buses >3.5t gross vehicle weight".
[144] https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf

- Other waste from construction of fencing, access roads, cable off-cuts and other supporting infrastructure.

5.5.2 Almost all the infrastructure required for a solar farm is manufactured off-site and delivered to the Site. There will be no extensive groundworks associated with the Proposed Development except for the BESS/substation where ground levelling may be required.

5.5.3 Solar farms are a low waste generator in terms of construction and compared to almost all other development types.

5.5.4 It is proposed that a SWMP will be prepared as part of the OCEMP, which will set out:

- The waste streams that will be generated;
- How the Waste Hierarchy[145] will be applied to these wastes;
- Good practice measures for managing waste; and
- Roles and responsibilities for waste management.

5.5.5 All management of waste will be in accordance with the relevant regulations (applicable at the time of construction, operation and decommissioning) and waste will be transported by licensed waste hauliers to waste management sites which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them.

5.5.6 The operational phase of the solar farm will generate very minimal amounts of waste associated with the presence of on-site staff during maintenance visits and the replacement of any failing or broken equipment during.

5.5.7 An OOEMP is to be produced and submitted with the ES to capture and secure any mitigation required during the operational phase of the Proposed Development. An appropriate section on waste management procedure will be included in this document, and it is considered that this will represent a proportionate and appropriate way to address waste during the operation of the Proposed Development.

5.5.8 At the end of its operational life, the Proposed Development will be decommissioned and all infrastructure removed from the Site, in line with best practice at the time. As much of the infrastructure as possible will be recycled with the rest disposed of as required and the work will be undertaken in accordance with the relevant regulations and recycling opportunities available at that point in time.

5.5.9 An ODEMP is to be produced and submitted with the ES to capture and secure any mitigation required during the decommissioning phase of the Proposed Development. Similarly to the OCEMP it is proposed that the ODEMP requires the provision of a SWMP for the decommissioning phase which again will set out:

- The waste streams that will be generated;
- How the Waste Hierarchy will be applied to these wastes and how maximum recycling rates will be achieved;

[145] Guidance on applying the Waste Hierarchy, Defra, 2011

- Good practice measures for managing waste; and
- Roles and responsibilities for waste management.

5.5.10 Considering the above, it is concluded that significant waste effects are not expected during construction, operation or decommissioning of the Proposed Development, and hence the need for a separate waste chapter has been scoped out of the EIA.

5.5.11 However, estimates of the type and quantity, of expected residues and emissions and quantities and types of waste produced during the construction and operation phases will be provided as required under Schedule 4 of the EIA Regulations. The mitigation will be embedded in the OCEMP, OOEMP and ODEMP submitted alongside the Application.

5.6 MINERALS

5.6.1 The Site sits within a Minerals Safeguarding Area (MSA) for sand and gravel designated in the North Yorkshire County Council Minerals and Waste Joint Plan 2022[146].

5.6.2 The nature of a solar farm is such that it does not permanently sterilise or destroy the mineral resource of the site in which it is located. Solar farms are not materially ground intrusive and are time limited.

5.6.3 The Proposed Development will therefore result in the temporary sterilisation of the mineral resource within the Site for a period of 40 years, after which following decommissioning the Site would be available for mineral extraction should it be required. This is not considered to represent a significant effect of the Proposed Development and it is considered that effects on minerals resource can be scoped out of the ES.

5.7 TELECOMMUNICATIONS AND UTILITIES

5.7.1 A full utilities assessment will be undertaken and submitted alongside the EIA.

5.7.2 Land rights including easements, wayleaves and other interests in the land are addressed and evidenced in the land referencing exercise necessitated through the DCO process.

5.7.3 Protective Provisions and requirements in the DCO are standard and common practice in DCO's that ensure that adverse effects to telecommunications and utilities are safeguarded.

5.7.4 It is concluded that significant effects on telecommunications and utility receptors are not likely and will be addressed elsewhere (e.g., Statements of Common Ground, Protective Provisions) during the DCO process. It is therefore not considered necessary to include a chapter on telecoms and utilities within the ES.

[146] Minerals and Waste Joint Plan, North Yorkshire Council, 2022. Adopted by: North Yorkshire County Council - February 2022, North York Moors National Park Authority – March and City of York Council - April 2022

5.8 ELECTROMAGNETIC FIELDS (EMF)

5.8.1 PINS advice note 'Nationally Significant Infrastructure Projects: Technical Advice Page for Scoping Solar Development' states:

"Where proposed cables are over 132 kV, an EMF assessment should be provided in an appendix to the Environmental Statement. This should include the location, routing and voltages of any cables over 132kV and a risk assessment to any human and ecological sensitive receptors within the ZoI."

5.8.2 At present, electrical cables of 132 kV or greater are not anticipated to be required within the proposed Order Limits.

5.8.3 To connect to NGET infrastructure, the cable could be >132 kV. However, as set out in Section 2.2 (of this Report) there is no defined off-site grid connection location at present and the cable specifications will not be known until NGET confirm the location of the new substation. This may or may not be known before the DCO Application is made.

5.8.4 Therefore, based on information known at present, effects on EMF are scoped out of the ES. Should electrical cables of 132 kV or greater be confirmed as required as the project progresses and EMF assessment will be procured and appended to the ES.

5.9 MAJOR ACCIDENTS AND DISASTERS

5.9.1 The nature of the Proposed Development and its rural location indicate that it is not likely to result in accidents or disasters that would result in significant environmental effects or that it is vulnerable to accidents and disasters from neighbouring land uses.

5.9.2 The only element of the Proposed Development that presents any risk of an accident which may have environmental effects is the BESS. Notwithstanding this, the BESS is to be located >0.9km from the nearest residential receptor and it is proposed that an OBSMP is produced and submitted with the DCO Application to ensure that any associated risk is as minimal as practically possible.

5.9.3 The Proposed Development does not fall within the scope of EU legislation 2012/18/EU (control of major-accident hazards involving dangerous substances)[147] or Council Directive 2009/71/Euratom (Community framework for the nuclear safety of nuclear installations)[148] as identified in Schedule 4 of the EIA Regulations.

5.9.4 A major accidents and disasters chapter is scoped out of the ES of this basis.

5.10 TRANSBOUNDARY EFFECTS

5.10.1 The PINS Advice Note Twelve: Transboundary Impacts and Process Relevant to Nationally Significant Infrastructure Projects[149] (The Planning Inspectorate, 2020) explains

[147] https://eur-lex.europa.eu/eli/dir/2012/18/oj/eng
[148] https://eur-lex.europa.eu/eli/dir/2009/71/oj/eng
[149] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-transboundary-impacts-and-process

the statutory notification and consultation requirements in respect of transboundary effects of development on European Economic Area Member States ('EEA States').

5.10.2 Annex 1 of Advice Note Twelve sets out the transboundary screening proforma for potential effects on the environment on another EEA member state. Examination of the list clearly demonstrates that there would be no effects from the Proposed Development on EEA States and so a transboundary assessment is not required in the ES.

5.11 SUMMARY OF TOPICS SCOPED OUT OF THE EIA

5.11.1 Table 5.7 below summarises the effects of the Proposed Development not considered likely to significant and are therefore proposed to be scoped out of the ES.

SUMMARY OF TOPICS SCOPED OUT OF THE ASSESSMENT	
Water Environment	• During construction, operation and decommissioning
Arboriculture	• Impacts of trees, TPO trees and woodland during construction, operation and decommissioning.
Air quality	• Road traffic vehicle emissions during construction, operation and decommissioning • Dust generation during construction and decommissioning – established mitigation to be set out and secured in the OCEMP and ODEMP
Lighting	• During construction, operation and decommissioning
Waste	• During construction, operation and decommissioning – Site Waste Management Plans to be provided in the OCEMP, OOEMP and ODEMP
Minerals	• During construction, operation and decommissioning
Telecommunications and Utilities	• During construction, operation and decommissioning
Electro-Magnetic Fields	• During construction, operation and decommissioning – subject to position in respect of the grid connection to NGET infrastructure.
Major Accidents and Disasters	• During construction, operation and decommissioning – standalone Battery Safety Management Plan to be provided
Transboundary Effects	• During construction, operation and decommissioning

TABLE 5.7: TOPICS PROPOSED TO BE SCOPE OUT OF ASSESSMENT IN THE EIA

Key Questions

- **Question TSO1 - Are consultees in agreement that the following topics can be scoped out of the EIA?**
    - **Water Environment**
    - **Arboriculture**
    - **Air quality**
    - **Lighting**
    - **Waste**
    - **Minerals**
    - **Telecommunications and Utilities**
    - **Electro-Magnetic Fields**
    - **Major Accidents and Disasters**
    - **Transboundary Effects**

6 SUMMARY

6.1 ENVIRONMENTAL STATEMENT (ES) SCOPE

6.1.1 From this scoping exercise, it has been possible to reach a preliminary view on the environmental features that are potentially likely to be significantly affected by the Proposed Development and should be included within the EIA. All of the identified effects that are potentially significant are listed in the overleaf below.

SUMMARY OF THE SCOPE OF PROPOSED MAIN ES CHAPTERS	
Traffic and Transport	The following effects (during construction only) are to be assessed: • Severance • Driver Delay • Non-motorised User Delay • Non-motorised User Amenity • Fear and Intimidation • Road User and Pedestrian Safety • Hazardous and Large Loads
Noise and vibration	• Construction Activity Noise • Construction Activity Vibration • Construction Traffic Noise • Operational Noise
Climate Change	• GHG emissions and net effect on climate change • Climate change resilience
Socio-economics	During construction: • Employment • Economic Contribution • Serviced/Non-Serviced Accommodation Demand During Operation • Employment • Economic contribution • Business rates During Decommissioning • Employment • Economic Contribution • Serviced/Non-Serviced Accommodation Demand

Agricultural Land	• Potential temporary effects on soils and land quality from TCCs; • Potential temporary disturbance and crop loss from construction activities; • Potential effects on land quality from construction and decommissioning activities; • Potential effects on soils during construction, operation and decommissioning activities; • Potential economic and land-use effects and implications for farm businesses and the rural economy, from construction, operation and decommissioning.
Ecology	• Pilmoor SSSI – effects on national designated site features • Yorkshire Rivers IIA (Tansy beetle risk) – risk to ecological features • Brafferton Spring Wood and Sessay Wood SINC – effects on SINC ecological features • Ancient woodland - Edge effects (light, noise, dust, pollution), potential indirect hydrological impacts, irreversible habitat loss if encroached • Habitats within the Site - Habitat loss (temporary/permanent), disturbance during construction, fragmentation, changes in land management affecting biodiversity, reduced connectivity, pollution / runoff, alteration to hydrology • Bats - Loss of roost features (trees, buildings), loss of foraging / commuting habitat, light/noise disturbance, barrier effects • GCN - Loss of breeding/terrestrial habitat, disturbance, mortality during works, pollution of ponds/ditches • Otter- Disturbance (noise, vibration, lighting), loss/degradation of riparian habitat, barrier effects from infrastructure, injury / death during works • Fish - Habitat degradation from pollution/runoff, barrier effects to movement, disturbance to spawning habitat • Badger - Loss of foraging habitat, disturbance or destruction of setts, injury / death during works • Water vole - Habitat loss/degradation (ditches, Beck), pollution impacts, disturbance during construction • Reptiles - Habitat loss (scrub/grass margins), direct mortality during clearance, disturbance, injury / death during works • Terrestrial invertebrates (e.g. Tansy beetle) - Habitat loss (tansy patches), disturbance, shading, pollution • Aquatic invertebrates (e.g. white-clawed crayfish) - Habitat degradation, pollution/runoff, sedimentation, disturbance • INNS (Himalayan balsam, giant hogweed, rhododendron) - Spread within, and beyond, the Site via soil/water movement • Displacement/disturbance effects on target bird species

	• Barrier effects on target bird species • Habitat loss for target bird species • Potential effects to Species listed under Annex I of the Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive) • Potential effects to Amber and Red listed species in BoCC5 (Stanbury et al., 2021) • Potential effects to Species listed under Section 41 of the NERC Act (2006)
Landscape and Visual Impact	• Landscape features within and adjacent to the Site, including topography and landform, water features and drainage, land use and built form and vegetation. • National, regional, local and site landscape character within 3km of the Site. • Visual receptors with theoretical visibility within 3km of the Site. • Visual effects from all proposed viewpoints, including those within the North York Moors National Park and Howardian Hills National Landscape. • Residential Amenity and Visual Assessment for properties up to 0.5km from the Proposed Development. • Special qualities of the North York Moors National Park. • Special qualities of the Howardian Hills National Landscape.
Cultural Heritage and Archaeology	• Effects on archaeology during construction • Effects upon built heritage during operation

TABLE 6.1: SUMMARY OF THE SCOPE OF PROPOSED MAIN ES CHAPTERS

SUPPORTING EIA STUDIES/ASSESSMENT/MANAGEMENT PLANS
GLINT AND GLARE IMPACT ASSESSMENT
BATTERY SAFETY MANAGEMENT PLAN
PHASE I GROUND CONTAMINATION ASSESMENT
HABITAT REGULATIONS SCREENING ASSESSMENT
CEMP/DEMP/OEMP/LEMP

TABLE 6.2: SUMMARY OF THE SCOPE OF PROPOSED MAIN ES CHAPTERS

6.1.2 Although the environmental features are described here under separate headings, the EIA will pay close attention to the interrelationships between the various factors to assemble a holistic picture of the likely significant effects and mitigation measures.

6.1.3 It should be reiterated that the purpose of scoping is to 'scope in' only those aspects considered to have the potential to result in likely significant environmental effects. Where a particular environmental feature, or component of it, has not been included within the proposed scope of the EIA, this is not to suggest that there will be no associated effects; rather that these are not considered to be significant effects.

6.1.4 It is proposed that each chapter of the ES will follow a similar format, as follows:

- Introduction;
- Legislation and policy;
- Methodology (including standards, guidance and criteria used in the assessment, and any problems experienced);
- Baseline conditions (including identification of sensitive receptors);
- Assessment of potential effects during construction and post completion of the Proposed Development;
- Mitigation measures proposed;
- Residual effects;
- Cumulative effects; and
- Summary.

Key Scoping Questions

6.1.5 A summary of the Key Scoping Questions identified in the Scoping Report is provided in Table 6.3 below.

KEY SCOPING QUESTIONS	
Traffic and Transport	• Question T1 - Is the proposed Study Area scope acceptable? The proposed Study Area constitutes only those routes illustrated on Figure 4.2, as these are the routes construction vehicles will take, plus the A19, and may be extended further along the SRN if required • Question T2 - Is it acceptable to determine the Operational Phase as having negligible transport impacts, and for the Decommissioning Phase to have comparable impacts to the Construction Phase – and therefore that neither of these phases require detailed assessment? • Question T3 - Are the proposed mitigation measures sufficient? These are typical construction routing arrangements, but would welcome views on if any further requirements are necessary • Question T4 - What committed / cumulative developments do we need to be aware of to consider as part of our assessment? • Question T5 - Is the scope of effects we have scoped into the assessment acceptable?
Noise and vibration	• Question N1 - Do you agree with the proposed Assessment Locations identified in Figure 4.3? • Question N2 – Do you agree that vibration from construction traffic can be scoped out of the assessment? • Question N3 – Do you agree that operational road traffic and vibration effects can be scoped out? • Question N4 – Do you agree with the construction noise assessment criteria? • Question N5 – Do you agree with the operational noise assessment criteria?
Climate Change	• Question CC1 – Do consultees agree with the proposed assessment methodology? • Question CC2 – Do consultees agree with the proposed approach to cumulative effects?
Socio-economics	• Question S1 - Are you in agreement that the potential effects to be scoped in include employment, economic contribution and change in accommodation demand for the construction and decommissioning phases, and employment, economic contribution and business rates for the operational phase only? • Question S2 - Are you in agreement that there is only a potential for significant effect on the change in demand on accommodation in respect of visitors to the area, as opposed to there being a potential for significant effect on the wider tourism industry? As such, are you in agreement that a wider tourism impact assessment is scoped out of the assessment for all development phases?

	• Question S3 - Are you in agreement that there is no potential for significant effect on health and wellbeing as a result of the Proposed Development and therefore this potential effect has been scoped out of the assessment for all development phases? • Question S4 - Are you in agreement that the study area includes Primary Impact Zone (Hambleton) and Secondary Impact Zone (North Yorkshire) for all potential effects? • Question S5 - Are there any particular mitigation measures or enhancement measures that you envisage relevant to the potential effects assessed within the scope of the socio-economics assessment?
Agricultural Land	• Question AL1 - Can PINS confirm that all agricultural matters should be scoped in? • Question AL2 - Can PINS confirm that the threshold set out in Tables 4.20 and 4.21 (as revised) are agreed?
Ecology	• Question E1 - Do consultees agree with the scope of surveys completed and proposed for 2026? • Question E2 - Do consultees agree with the scoped-out impact pathways? • Question E3 - Do consultees agree with the receptors scoped out of the assessment? • Question E4 - Do consultees agree with the proposed mitigation and compensation measures, particularly relating to skylark?
Glint and Glare	• Question GG1 - The Ministry of Defence is requested to confirm whether any assets within the study area undertake active aviation operations that should be treated as receptors. • Question GG2 - For aviation receptors, do the standard assessment parameters—specifically the 2-nautical-mile approach path and, where relevant, Air Traffic Control Tower receptors—provide sufficient coverage, or are there additional approach paths or visual circuits that require assessment? • Question GG3 – Do PINS and the relevant Local Planning Authorities agree with the proposed 200-metre study area for residential receptors? • Question GG4 – Do PINS and the relevant Local Planning Authorities agree with the proposed 1-kilometre study area for road-user receptors? • Question GG5 – Do PINS and the relevant Local Planning Authorities agree with the proposed 500-metre study area for rail receptors?

Landscape and Visual Impact	• Question L1 - Is the 3km study area from the extents of the Proposed Development, with the exception of Howardian Hills National Landscape and North York Moors National Landscape having a study area up to 7.5km, considered appropriate? • Question L2 - Do consultees consider the selection of viewpoints and visualisations appropriate? • Question L3 - Is it considered appropriate to scope out all landscape character and visual receptors beyond 3km, apart from those located within the Howardian Hills National Landscape and North York Moors National Landscape? • Question L4 - Is the exclusion of the settlements of Raskelf, Dalton, Cundall and Husthwaite from the assessment considered appropriate? • Question L5 - Is the approach to the RVAA, including the 0.5km study area, considered appropriate? • Question L6 - Is the proposed assessment approach to the Landscape and Visual ES Chapter deemed appropriate?
Cultural Heritage and Archaeology	• Question CH1 - Do consultees have any comments on the proposed approach to heritage asset selection for the assessment of setting, including the proposed 1km study area with the inclusion of assets beyond this distance on a case-by-case basis? • Question CH2 - Are there any specific heritage assets that consultees recommend should be included within LVIA viewpoints, for the purposes of understanding intervisibility? • Question CH3 - Do consultees have any comments on the proposed scoping out of settings effects at construction and decommissioning stages due to these being short-lived and unlikely to materially affect the significance of heritage assets? • Question CH4 - Do consultees have any views on the proposed approach to mitigating potential effects on heritage asset significance arising from changes to setting? • Question CH5 - Do consultees have any comments or recommendations regarding the proposed scope and timing of further archaeological investigations, noting that a geophysical survey is already proposed to be undertaken to inform the Environmental Statement?
Supporting EIA studies/assessment/management plans	• Question TA1 - Do consultees agree that glint and glare, battery safety and ground contamination can be addressed in standalone reports appended to the ES but without their own ES chapters?
Cumulative effects	• Question CE1 - Do consultees agree that the long list of potential cumulative sites for consideration in the EIA is comprehensive at this stage? • Question CE2 - Are there any other sites/proposed developments that should be included in the list?

Topics scoped out of the ES	• Question TSO1 - Are consultees in agreement that the following topics can be scoped out of the EIA? ▪ Water Environment ▪ Arboriculture ▪ Air quality ▪ Lighting ▪ Waste ▪ Minerals ▪ Telecommunications and Utilities ▪ Electro-Magnetic Fields ▪ Major Accidents and Disasters ▪ Transboundary Effects

TABLE 6.3: SUMMARY OF KEY SCOPING QUESTIONS

APPENDIX I: SITE LOCATION PLAN (ORDER LIMITS PLAN)

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Site Boundary

NOTES:	FIGURE REF: TMY14.v5	
	DATE OF ISSUE: 28/08/2025	
	1:18,000 @ A3	PRODUCED: MCE
		ISSUED TO: AGY

BayWa r.e.

FIGURE:
Scoping Plan

PROJECT:
Sedgeby Solar Farm

Spatial Reference:
Name: British National Grid
PCS: British National Grid
GCS: GCS OSGB 1936
Projection: Transverse Mercator

0 0.25 0.5 Kilometres
0 6 12 Kilometers

N W E S

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APPENDIX II: AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION
THORMANBY – TWO LAND PARCELS, BRIAR HILL AND SESSAY PARK

CLIENT: THORMANBY SOLAR LIMITED
PROJECT: THORMANBY – TWO LAND PARCELS, BRAIAR HILL AND SESSAY PARK
DATE: 17TH APRIL 2025 – ISSUE 1
ISSUED BY: JAMES FULTON MRICS FAAV

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1. EXECUTIVE SUMMARY

1.1 This report assesses the Agricultural Land Classification (ALC) grading of 414.6Ha, of agricultural land at Briar Hill Farm, Sessay, Thirsk.

1.2 The limiting factor found to be soil wetness where soils are heavier with slowly permeable subsoils, droughtiness where soils are lighter and occasionally topsoil texture in areas where the topsoil is sand and droughtiness only limits these sample points to grade 3a.

1.3 The land is graded as follows:

Grade 2:	86.8 Ha
Grade 3a:	200.6 Ha
Grade 3b:	114.8 Ha
Non-agricultural:	12.4 Ha

2. INTRODUCTION

2.1 Amet Property Ltd have been instructed by Thormanby Solar Limited. to produce an Agricultural Land Classification (ALC) report on a 421.6-hectare site on land at Briar Hill Farm, Sessay, Thirsk. The ALC report is being prepared to accompany a planning application to be submitted for a proposed solar farm with associated ancillary infrastructure.

2.2 The report's author is James Fulton BSc (Hons) MRICS FAAV who has worked as a chartered surveyor, agricultural valuer, and agricultural consultant since 2004, has a degree in agriculture which included modules on soils and over 10 years' experience in advising farmers on soil structure and cultivation methods and in producing agricultural land classification reports. Additional information on authors experience is found at ***appendix 1***.

2.3 The report is based on a site visit conducted by James Fulton and five assistant surveyors on the 20th and 21st of March 2025 during which the conditions were sunny and the soils were found to be dry in the top ten to 15cm abd moist below.

2.4 During the inspection 10 trial pits were dug to a depth of 120cm. In addition to the trial pits an auger was used to take approximately one sample per hectare on the proposed development site to a depth of 120cm with smaller trial pits at some of these locations to confirm soil structure and colour where it was not clear from the auger samples. A plan of auger points and trial pit locations can be found at ***appendix 2***. The trial pit locations were selected as they were representative of the soils found on site. Where subsoils were inspected with a spade, descriptions of structure have been recorded based on the soil survey field handbook[1]; where an auger has been used the structure is described as good, moderate or poor based on figure 9,10 and 11 in the MAFF[2] guidance. Colours are described using Munsell Colours[3].

2.5 The surveyed area extends to 414.6Ha of arable and grassland spread across 35 fields. The site is located at Briar Hill Farm, and Sessay Park, Thirsk.

2.6 Further information has been obtained from the MAGIC website, the Soil Survey of England and Wales, the British Geological Survey, the Meteorological Office and 1:250,000 series Agricultural Land Classification maps.

2.7 The collected information has been judged against the Ministry of Agriculture Fisheries and Food Agricultural Land Classification of England and Wales revised guidelines and criteria for grading the quality of agricultural land.

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[1] Hodgson, JM (1997) Soil Survey Field Handbook

[2] MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications

[3] Munsell Color (2009) Munsell Soil Color Charts

2.8 The principal factors influencing agricultural production are climate, site and soil and the interaction between them MAFF (1988) & Natural England (2012)[4].

2.9 The report is prepared and formatted considering the latest BSSS guidance[5].

3. PUBLISHED INFORMATION

3.1 Eastern block

The British Geological Survey 1:50,000 scale map shows the bedrock geology to be Redcar Mudstone Formation – Mudstone with superficial deposits of Vale of York Formation – Clay, sandy, gravelly on the west half of the block and small patches throughout the southeast. The map shows that the east half of the block largely has the bedrock geology to be Redcar Mudstone Formation – Mudstone with superficial deposits of Breighton Sand Formation – Sand, silty, gravelly in the east half the site and patches in the north. Large patches in the north of the site have the bedrock geology of Redcar Mudstone Formation – Mudstone with superficial deposits of Alluvium – Clay, silt, sand and gravel. A small patch along the stream in the south is shown to have the bedrock geology of Redcar Mudstone Formation – Mudstone with superficial deposits of Alne Glaciolacustrine Formation – Clay, silty. Small patches in the west half of the site are shown to have the bedrock geology of Redcar Mudstone Formation – Mudstone with superficial deposits of Vale of York Formation – Sand, gravelly. Patches through the centre of the site are shown to have the bedrock geology of Redcar Mudstone Formation – Mudstone with superficial deposits of Sutton Sand Formation – Sand. There is a patch in the northwest of the site which is shown to have the bedrock geology of Mercia Mudstone Group – Mudstone with superficial deposits of Lacustrine Deposits – Clay and silt.

Western block

The British Geological Survey 1:50,000 scale map shows the bedrock geology to be Mercia Mudstone Group – Mudstone with superficial deposits of Vale of York Formation – Clay, sandy, gravelly. The corners of the site and large patches in the middle of the site is shown to have the bedrock geology of Mercia Mudstone Group – Mudstone with superficial deposits of Alne Glaciolacustrine Formation – clay, silty. The south of the site is shown to have the bedrock geology of Mercia Mudstone Group – Mudstone with superficial deposits of Breighton Sand Formation – sand, silty, gravelly. There is a large patch in the centre of the site surrounding 'Sessay Park' with the bedrock geology of Mercia Mudstone Group – Mudstone with superficial deposits of Vale of York Formation – sand, gravelly. The stream which runs through the south of the site from east

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[4] MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications

Natural England (2012) - *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition

[5] BSSS (2022) Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

to west is surrounding by the bedrock geology of Mercia Mudstone Group – Mudstone with superficial deposits of Alluvium – clay, silt, sand and gravel.

3.2 The soils on the east block are identified as being 821b BLACKWOOD Association, deep permeable sandy and coarse loamy soils in the east of the block. In the west of the block the soils are identified as being 711p DUNKESWICK Association, slowly permeable seasonally waterlogged fine loamy and fine loamy over clayey soils.
The soils on the west block are identified as being 831b SESSAY Association, fine and coarse loamy often stoneless, permeable soils affected by groundwater in the north of the site. The south of the site identifies the soils as being 821b BLACKWOOD Association, deep permeable sandy and coarse loamy soils.

3.3 The 1:250,000 series Agricultural Land Classification maps show the land to be Grade 2, in the north of both blocks of the site and Grade 3 in the south. These plans are of strictly limited value, using an out-of-date methodology at a very small scale (low detail) level of survey. Further information on the limits of their use can be found in TIN049.

4. CLIMATE

4.1 Climate has a major, and in places overriding, influence on land quality affecting both the range of potential agricultural uses and the cost and level of production.

4.2 There is published agro-climatic data for England and Wales provided by the Meteorological Office, such data for the subject site is listed in the table below.

Agro-Climatic Data – Full details can be found at ***appendix 3***

Grid Reference	446334,473703
Altitude (ALT)	31
Average Annual Rainfall (AAR)	639
Accumulated Temperature - Jan to June (ATO)	1362
Duration of Field Capacity (FCD)	145
Moisture Deficit Wheat	103
Moisture Deficit Potatoes	94

4.3 The main parameters used in assessing the climatic limitation are average annual rainfall (AAR), as a measure of overall wetness; and accumulated temperature (ATO), as a measure of the relative warmth of a locality.

4.4 The AAR and ATO provide climatic limitation to grade 1.

4.5 Most of the site is shown to be in flood zone 1 – areas with a less than 1 in 1000 annual chance of flooding. The area surrounding the stream in the east apart of the east block of the site; and the stream in the centre of the site, on the west block of the site are shown to be Flood Zone 3 – areas with greater than 1 in 100 annual chances of flooding. There was no evidence of flooding seen during the site visit and it is considered flood risk will not result in a limitation to land grade.

5. STONINESS

5.1 The stones that were identified in the topsoil are not of sufficient size or quantity to limit land grade.

6. GRADIENT AND MICRORELIEF

6.1 The site is gently sloping with no gradient or microrelief that limits land grade.

7. SOILS

7.1 Full information on the sample points along with trial pit descriptions and photographs and lab test results can be found at ***appendix 4***. The soils generally follow the expectations of the soil mapping with the excetion of the Sessay association soils at Sessay Park where subsoils are less permeable and heavier textured than might be expected.

7.2 The soils to the south of the western block and the majority of the eastern block are a sandy loam or loamy sand or occasionally sand topsoil over moderately structured loamy sand, sandy loam and sand subsoils. Subsoils are sometimes gleyed but never slowly permeable. Subsoil structures appear in places to be poorer than might be expected, possibly as a result of heavy machinery transiting the land over the years.

7.3 The southwest of the western block is a heavy clay loam or clay topsoil over a gleyed, slowly permeable clay subsoil.

7.4 The north of the western block is a medium sandy loam over subsoils that vary quite significantly over short distances from moderately structured sandy soils to poorly structured clay soils.

7.5 The northwest of the eastern block varies significantly over quite short distances with topsoil ranging from loamy sand to heavy clay loam and subsoils from moderately structured sandy soils to reddish poorly structured clay soils.

INTERACTIVE FACTORS

8. WETNESS

8.1 An assessment of the wetness class of each sample point was made based on the flow chart at Figure 6 and the graphs at figure 7 and 8 in the MAFF guidance.

Wetness class Assessment

Depth to gley	Depth to SPL	Coarse subsoil	Wetness Class
No gley	No SPL	N/A	I
40-70	No SPL	Yes	I
<40	No SPL	Yes	I
<40	No SPL	No	II
40-70	No SPL	No	I
40-70	>50	N/A	II
40-70	<50	N/A	III
<40 or reddish <60	>67	N/A	II
<40 or reddish <60	39-67	N/A	III
<40 or reddish <60	<39	N/A	IV

8.2 The wetness class and topsoil texture were then assessed against Table 6 of the MAFF guidance to determine the ALC grade according to wetness. The wetness assessment can be found at ***appendix 4***.

8.3 Survey points range from wetness class I to wetness class IV which combined with sand to clay topsoil result in wetness limitation from grade 1 to grade 3b.

9. DROUGHTINESS

9.1 Droughtiness limits are defined in terms of moisture balance for wheat and potatoes using the formula:

MB (Wheat) = AP (Wheat) - MD (Wheat)

and

MB (Potatoes) = AP (Potatoes) - MD (Potatoes)

Where:
MB = Moisture Balance
AP = Crop Adjusted available water capacity
MD = Moisture deficit

9.2 Moisture deficit for wheat and potatoes can be found in the agro-climatic data and are as follows:

MD (Wheat) = 103
MD (Potatoes) = 94

9.3 Crop adjusted available water is calculated by reference to the total available water and easily available water which is calculated by reference to soil texture and structural condition and the stone content.

9.4 The moisture balance was calculated for sample point locations. This assessment can be found at ***appendix 4***.

9.5 Droughtiness is the most limiting factor where soils are light and not limited by wetness with droughtiness limitations ranging from grade 1 to grade 3b.

10. AGRICULTURAL LAND CLASSIFICATION

10.1 The Agricultural Land Classification provides a framework for classifying land according to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principle ways: they may affect the range of crops that can be grown, the level of yield, the consistency of yield and the cost of obtaining it.

10.2 The principle physical factors influencing agricultural production are climate, site and soil and the interactions between them which together form the basis for classifying land into one of 5 grades; grade 1 being of excellent quality and grade 5 being land of very poor quality. Grade 3 land, which constitutes approximately half of all agricultural land in the United Kingdom is divided into 2 subgrades – 3a and 3b. A full definition of all of the grades can be found at ***appendix 5.***

10.3 This assessment sets out that the site is limited by wetness, droughtiness and texture.

10.4 Individual sample points range from having no limit to a limit of grade 3b. Where there is a single or small number of survey points that grade differently to the surrounding land they are not mapped separately as they will all be farmed together.

10.5 The breakdown of land by classification is:

Grade 2:	86.8 Ha
Grade 3a:	200.6 Ha
Grade 3b:	114.8 Ha
Non-agricultural:	12.4 Ha

10.6 A plan of the land grading can be found at ***appendix 6***.

Appendix 1 – Details of the Authors Experience

James Fulton

Professional Education and Qualifications

BSc (Hons) Agriculture, University of Nottingham (2004)

Member of the Royal Institution of Chartered Surveyors (MRICS) (2008)

Fellow of the Central Association of Agricultural Valuers (FAAV) (2009)

Relevant Work Experience

While working for a regional firm from 2004 until 2016 as part of my work I provided advice to farmers on soils, cultivation techniques and cropping and was involved in field trials which assessed cropping and cultivation techniques and how they impacted soil structure. At the same time I worked alongside an experienced surveyor who produced Agricultural Land Classification reports and I received training in field survey techniques and the ALC process to the point where I was able to produce ALC reports.

In 2016 I left my employer and formed Amet Property Ltd providing development consultancy and other rural practice surveying services. Of all of the services that we provide Agricultural Land Classification reports is the single largest area of work accounting for approximately 70% of all of my working time.

While I am not a member of the BSSS I meet the minimum competencies set out by the BSSS in Document 1 *Foundation skills in field soil investigation, description and interpretation* and Document 2 *Agricultural Land Classification (England and Wales)*

Professional Standards

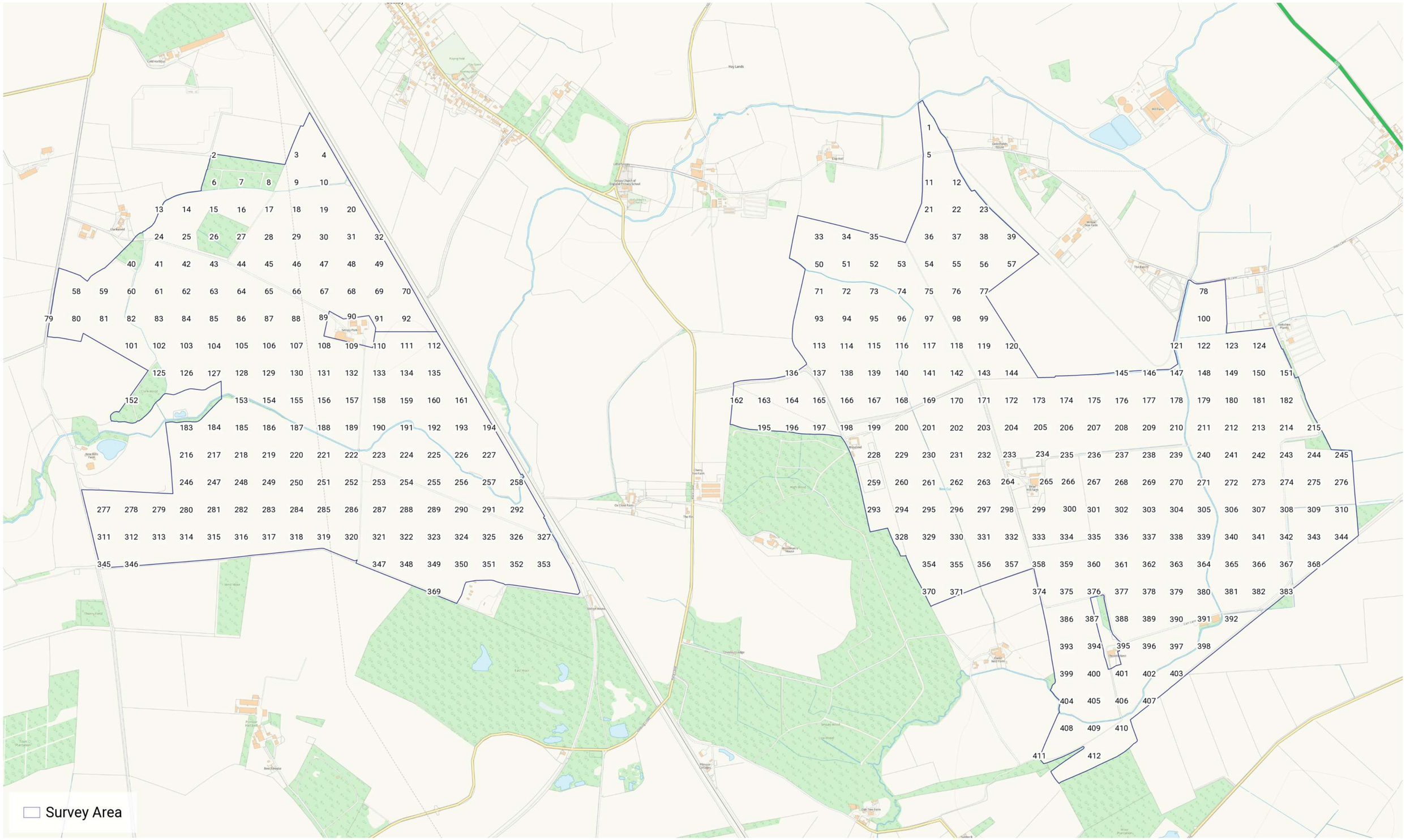
As a member of the Royal Institution of Chartered Surveyors and Fellow of the Central Association of Agricultural Valuers I am bound by their professional standards and am only able to carry out work where I am suitably qualified and experienced to do so. Due to the formal and practical training that I have received I am able to competently produce Agricultural Land Classification reports.

Assistant Surveyors

All assistant surveyors have completed the BSSS working with soil course and have been trained to meet the requirements of BSSS Document 1 *Foundation skills in field soil investigation, description, and interpretation.*

Appendix 2 - Map of Survey Points

Land App



Produced on Land App, Apr 17, 2025.
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200 m
Scale 1:9000 (at A2)

N

Appendix 3 – Climatic Data

Site Details: Thormanby – two land parcels, Briar Hill and Sessay Park

Grid reference (centre of site): 446334,473703

Altitude: Mean 30.52 AOD

Climatic data from surrounding locations:

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
44504700	17	635	0.6	320	1379	2329	106	97	143
44504750	27	634	0.9	320	1366	2314	104	95	142
45004700	24	640	0.6	325	1370	2321	104	94	149
45004750	41	646	0.6	335	1349	2297	100	89	154

Altitude Adjusted

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity Adjustment
44504700	643.11	1363.59	144.17	104.05	94.42	14.14%
44504750	637.17	1361.99	142.46	103.42	94.23	63.30%
45004700	643.91	1362.57	149.57	103.06	92.76	8.07%
45004750	639.71	1360.95	153.09	101.52	91.00	14.49%

Appendix 4a - Sample Point Assessment

		Topsoil				Stoniness		Upper Subsoil						Lower Subsoil									Grade	Wetness Assesment			Grade	Droughtiness Assessment		Grade	Grade by
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm 2-6cm >6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Comments	limit by Texture	Depth to SPL	Gley	Wetness Class	limit by Wetness	MB Wheat	MB Potato	limit by Droughtiness	most limiting factor
1	33	0 - 35	mSL		10YR 3 / 3			35 - 60	mSL		10YR 5 / 2			Moderate	60 - 120	SC		10YR 5 / 1		MO	Poor		1	35	60	III	2	37.80	16.33	1	2
2	28	Non Agricultural																													
3	28	0 - 40	mSL		10YR 2 / 2			40 - 120	C		5YR 5 / 4		FOB	Poor	-			/					1	40	red	III	2	26.80	13.33	2	2
4	30	0 - 30	mSL		10YR 3 / 2			30 - 40	C		10YR 5 / 1		FOB	Poor	40 - 120	C		5YR 5 / 3	5%	MOB	Poor		1	30	40	III	2	19.92	7.53	2	2
5	33	0 - 35	mSL		10YR 3 / 3			35 - 60	mSL		10YR 5 / 2			Moderate	60 - 120	SC		10YR 5 / 1		MO	Poor		1	60	60	II	1	37.80	16.33	1	1
6	33	Non Agricultural																													
7	32	Non Agricultural																													
8	31	Non Agricultural																													
9	28	0 - 30	mSL		10YR 3 / 2			30 - 40	C		10YR 5 / 3		FOB	Poor	40 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	30	red	IV	3a	19.92	7.53	2	3a
10	30	0 - 25	mSL		10YR 3 / 2			25 - 40	C		10YR 5 / 3		FOB	Poor	40 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	25	red	IV	3a	17.92	5.53	2	3a
11	34	0 - 30	mSL		10YR 4 / 2			30 - 60	mSL		10YR 5 / 6		FO	Moderate	60 - 120	C		5YR 4 / 4			Poor		1	60	red	III	2	30.80	15.33	1	2
12	33	0 - 35	LmS		10YR 4 / 3			35 - 50	mSL		10YR 5 / 2		CO	Moderate	50 - 120	mS		10YR 5 / 6			Moderate		2			I	1	-0.20	-11.67	3a	3a
13	27	0 - 20	mSL		10YR 2 / 2			20 - 45	SCL		10YR 4 / 1		FOB	Poor	45 - 120	C		5YR 5 / 4		COB	Poor		1	20	red	IV	3a	18.80	5.33	2	3a
14	29	0 - 30	mSL		10YR 2 / 2			30 - 50	SCL		10YR 5 / 2		FOB	Poor	50 - 120	C		5YR 5 / 4		COB	Poor		1	30	red	IV	3a	22.80	9.33	2	3a
15	32	0 - 20	mSL		10YR 2 / 2			20 - 50	C		10YR 5 / 2	5%	COB	Poor	50 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	20	20	IV	3a	14.72	2.33	2	3a
16	28	0 - 20	mSL		10YR 2 / 2			20 - 35	C		10YR 5 / 2	5%	COB	Poor	35 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	20	20	IV	3a	14.72	2.33	2	3a
17	27	0 - 35	SCL		10YR 3 / 2			35 - 40	C		N 5 /	5%	COB	Poor	40 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	35	35	IV	3b	21.62	9.23	2	3b
18	27	0 - 35	SCL		10YR 3 / 2			35 - 40	C		N 5 /	5%	COB	Poor	40 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	35	35	IV	3b	21.62	9.23	2	3b
19	27	0 - 35	SCL		10YR 4 / 2			35 - 40	C		N 5 /	5%	COB	Poor	40 - 120	C		5YR 6 / 4	5%	MOB	Poor		1	35	35	IV	3b	21.62	9.23	2	3b
20	27	0 - 35	SCL		10YR 4 / 2			35 - 40	C		N 6 /	5%	COB	Poor	40 - 120	C		5YR 6 / 4	5%	MOB	Poor		1	35	35	IV	3b	21.62	9.23	2	3b
21	36	0 - 35	LmS		10YR 3 / 3			35 - 120	LmS		10YR 5 / 6			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
22	34	0 - 40	LmS		10YR 3 / 3			40 - 120	mS		10YR 5 / 6			Moderate	-			/					2			I	1	-9.20	-20.67	3a	3a
23	33	0 - 35	mSL		10YR 3 / 3			35 - 60	SCL		10YR 5 / 2	5%	MO	Poor	60 - 120	C		10YR 5 / 1		MO	Poor		1	35	35	IV	3a	24.52	9.83	2	3a
24	27	0 - 30	mSL		10YR 4 / 2			30 - 45	SCL		10YR 6 / 2		MOB	Poor	45 - 120	C		5YR 5 / 4		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
25	27	0 - 35	mSL		10YR 4 / 2			35 - 45	SCL		10YR 6 / 2		MOB	Poor	45 - 120	C		5YR 5 / 4		MOB	Poor		1	35	35	IV	3a	24.80	11.33	2	3a
26	34	Non Agricultural																													
27	33	Non Agricultural																													
28	28	0 - 30	mSL		10YR 4 / 2			30 - 50	LmS		10YR 6 / 2		FO	Poor	50 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	50	red	III	2	-5.48	-17.87	3a	3a
29	27	0 - 30	mSL		10YR 4 / 2			30 - 45	LmS		10YR 6 / 2		FO	Poor	45 - 120	C		5YR 5 / 3	2%	MOB	Poor		1	45	red	III	2	2.27	-10.77	3a	3a
30	27	0 - 35	SCL		10YR 4 / 2			35 - 120	C		5YR 5 / 4	5%	MOB	Poor	-			/				Hole	1	35	red	IV	3b	21.62	9.23	2	3b
31	28	0 - 20	SCL		10YR 3 / 2			20 - 35	mSL		10YR 5 / 2	5%	COB	Poor	35 - 120	mSL		7.5YR 5 / 4	5%	COB	Poor		1		20	I	1	15.67	-7.17	2	2
32	28	0 - 25	SCL		10YR 3 / 2			25 - 35	mSL		10YR 5 / 2	5%	COB	Poor	35 - 120	mSL		7.5YR 5 / 4	5%	COB	Poor		1		25	I	1	18.92	-3.92	2	2
33	37	0 - 30	HCL		10YR 4 / 2			30 - 50	C		10YR 4 / 1		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	30	30	IV	3b	25.80	12.33	2	3b
34	39	0 - 30	mSL		10YR 4 / 3			30 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	30	30	IV	3a	22.80	9.33	2	3a
35	37	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
36	34	0 - 35	LmS		10YR 3 / 3			35 - 120	LmS		10YR 5 / 6			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
37	34	0 - 40	LmS		10YR 3 / 3			40 - 120	mS		10YR 5 / 6			Moderate	-			/					2			I	1	-9.20	-20.67	3a	3a
38	33	0 - 35	LmS		10YR 3 / 3			35 - 120	LmS		10YR 5 / 6			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
39	33	0 - 35	mSL		10YR 3 / 3			35 - 120	SCL		10YR 5 / 3	5%	MOB	Poor	-			/					1	35	35	IV	3a	28.27	9.23	2	3a
40	27	Non Agricultural																													
41	27	0 - 30	mSL		10YR 3 / 3			30 - 50	mSL		10YR 5 / 4			Moderate	50 - 120	C		5YR 4 / 4		COGB	Poor		1	50	red	III	2	26.80	13.33	2	2
42	29	0 - 30	mSL		10YR 3 / 3			30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3a	22.80	9.33	2	3a
43	31	0 - 30	mSL		10YR 3 / 2	3% 2%		30 - 50	mSL		10YR 5 / 3		MO	Moderate	50 - 120	C		5YR 4 / 4		COGB	Poor		1	50	30	III	2	24.40	10.93	2	2
44	30	0 - 30	SCL		10YR 4 / 2			30 - 50	SCL		10YR 5 / 2		COB	Poor	50 - 120	C		5YR 5 / 3	2%	MOB	Poor		1	30	30	IV	3b	21.89	8.85	2	3b
45	30	0 - 30	SCL		10YR 4 / 2			30 - 50	SCL		10YR 5 / 2		COB	Poor	50 - 120	C		5YR 5 / 3	2%	MOB	Poor		1	30	30	IV	3b	21.89	8.85	2	3b
46	29	0 - 50	mSL		10YR 3 / 2			50 - 70	mSL		10YR 4 / 2		CO	Moderate	70 - 120	C		N 5 /	2%	MOB	Poor		1	70	50	II	1	38.15	21.33	1	1
47	30	0 - 20	mSL		10YR 3 / 2			20 - 35	mSL		10YR 5 / 2	5%	COB	Moderate	35 - 120	mSL		7.5YR 5 / 4	5%	COB	Moderate		1		25	I	1	47.02	11.83	1	1
48	32	0 - 25	mSL		10YR 3 / 2			25 - 120	mSL		10YR 5 / 2	5%	COB	Moderate	-			/					1		25	I	1	48.37	13.18	1	1
49	33	0 - 25	mSL		10YR 3 / 2			25 - 120	mSL		10YR 5 / 2	5%	COB	Moderate	-			/					1		25	I	1	48.37	13.18	1	1
50	38	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
51	38	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
52	38	0 - 35	HCL		10YR 4 / 2			35 - 70	C		5YR 4 / 4		MOBG	Poor	70 - 120	C		10YR 5 / 1			Poor	f face 10yr 5:	1	35	red	IV	3b	28.30	14.83	2	3b
53	38	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
54	36	0 - 35	LmS		10YR 3 / 3			35 - 120	LmS		10YR 5 / 6			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
55	35	0 - 40	LmS		10YR 3 / 3			40 - 120	mS		10YR 5 / 4			Moderate	-			/					2			I	1	-9.20	-20.67	3a	3a
56	34	0 - 35	LmS		10YR 3 / 3			35 - 120	LmS		10YR 5 / 6			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
57	33	0 - 35	LmS		10YR 3 / 3			35 - 90	LmS		10YR 5 / 6			Moderate	90 - 120	mSZL		10YR 5 / 1			Moderate		2			I	1	12.80	-16.67	3a	3a
58	24	0 - 35	C		10YR 4 / 2			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
59	25	0 - 35	HCL		10YR 4 / 2			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
60	25	0 - 35	HCL		10YR 4 / 2			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
61	25	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
62	27	0 - 35	mSL		10YR 4 / 2	5%		35 - 50	LmS		10YR 5 / 6	5%	CO	Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	red	III	2	15.40	1.93	2	2
63	27	0 - 35	mSL		10YR 4 / 2	5%		35 - 50	mSL		10YR 4 / 2	5%	CO	Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	red	III	2	23.95	10.48	2	2
64	28	0 - 35	mSL		10YR 4 / 3	5%		35 - 120	C		5YR 4 / 4		COBG	Poor	-			/					1	35	red	IV	3a	22.00	8.53	2	3a
65	30	0 - 30	mSL		10YR 4 / 3	5%		30 - 120	C		5YR 4 / 4		COBG	Poor	-			/					1	30	red	IV	3a	20.40	6.93	2	3a
66	30	0 - 40	mSL		10YR 3 / 2			40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	SCL		10YR 7 / 1	2%	MOB	Poor		1	80	40	II	1	23.20	1.33	2	2
67	29	0 - 45	mSL		10YR 3 / 2			45 - 80	mSL		10YR 5 / 3		MOB	Moderate	80 - 120	SCL		10YR 7 / 2	2%	MOB	Poor		1	80	45	II	1	45.20	20.33	1	1
68	30	0 - 30	mSL		10YR 3 / 2	large stones on s		30 - 120	C		5YR 5 / 4	5%	COB	Poor	-			/				Core 7	1	30	red	IV	3a	19.32	6.93	2	3a
69	31	0 - 30	mSL		10YR 3 / 2			30 - 120	C		5YR 5 / 4	5%	COB	Poor	-			/					1	30	red	IV	3a	19.32	6.93	2	3a
70	38	0 - 30	mSL		10YR 3 / 2			30 - 80	C		5YR 5 / 4	5%	COB	Poor	80 - 120	C		10YR 6 / 6	5%	COB	Poor		1	30	red	IV	3a	19.32	6.93	2	3a
71	36	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
72	36	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
73	37	0 - 35	mSL		10YR 4 / 3			35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
74	37	0 - 35	MCL		10YR 4 / 3			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
75	35	0 - 35	LmS	N	10YR 3 / 3			35 - 120	LmS		10YR 5 / 3			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
76	34	0 - 35	LmS	N	10YR 3 / 3			35 - 120	LmS		10YR 5 / 3			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
77	34	0 - 35	LmS	N	10YR 3 / 3			35 - 120	LmS		10YR 5 / 3			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
78	32	0 - 30	mSL		10YR 3 / 2			30 - 50	LmS		10YR 6 / 4		MO	Moderate	50 - 120	LmS		10YR 6 / 1		MOB	Moderate		1			I	1	7.80	-6.67	2	2
79	26	0 - 35	C		10YR 4 / 2			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
80	26	0 - 35	C		10YR 4 / 2			35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
81	26	0 - 35	C		10YR 4 / 2			35 - 120	C		5YR 5 / 3		COBG	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
82	25	0 - 30	HCL		10YR 4 / 2			30 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
83	25	0 - 30	HCL		10YR 4 / 2			30 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
84	27	0 - 40	HCL		10YR 4 / 2			40 - 120	C		10YR 4 / 2		CO	Poor	-			/					1	40	40	III	3b	30.80	17.33	1	3b
85	27	0 - 30	HCL		10YR 4 / 2			30 - 120	C		5YR 4 / 4		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b

		Topsoil					Stoniness				Upper Subsoil						Lower Subsoil								Grade	Wetness Assesment			Grade	Droughtiness Assessment		Grade	Grade by
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Comments	limit by Texture	Depth to SPL	Gley	Wetness Class	limit by Wetness	MB Wheat	MB Potato	limit by Droughtiness	most limiting factor
86	26	0 - 35	mSL		10YR 4 / 3					35 - 50	mSL		7.5YR 5 / 3		MO	Poor	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	35	III	2	21.80	8.33	2	2
87	26	0 - 35	mSL		10YR 4 / 3					35 - 50	mSL		7.5YR 5 / 3		MO	Poor	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	35	III	2	21.80	8.33	2	2
88	28	0 - 35	mSL		10YR 4 / 2					35 - 50	mSL		10YR 5 / 6			Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	red	III	2	27.80	14.33	2	2
89	29	0 - 35	mSL		10YR 4 / 3					35 - 50	LmS		10YR 6 / 2		CO	Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	35	III	2	18.80	5.33	2	2
90	30	Non Agricultural																															
91	32	0 - 30	mSL		10YR 3 / 2					30 - 80	C		5YR 5 / 4	5%	COB	Poor	80 - 120	C		10YR 6 / 6		COB	Poor		1	30	red	IV	3a	20.62	6.93	2	3a
92	28	0 - 35	mSL		10YR 3 / 2					35 - 80	C		5YR 5 / 4	5%	COB	Poor	80 - 120	C		10YR 6 / 6		COB	Poor		1	35	red	IV	3a	22.92	9.23	2	3a
93	38	0 - 35	mSL		10YR 4 / 3					35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3a	24.80	11.33	2	3a
94	37	0 - 35	MCL		10YR 4 / 3					35 - 50	SCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3b	28.30	14.83	2	3b
95	37	0 - 35	MCL		10YR 4 / 3					35 - 50	SCL		10YR 5 / 1		CO	Poor	50 - 120	C		10YR 5 / 1			Poor		1	35	35	IV	3b	28.30	14.83	2	3b
96	36	0 - 35	MCL		10YR 4 / 3					35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
97	37	0 - 35	mSL		10YR 4 / 3					35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3a	24.80	11.33	2	3a
98	37	0 - 35	LmS		10YR 3 / 3					35 - 120	LmS		10YR 5 / 3			Moderate	-			/				ss wcab	2			I	1	-2.20	-16.67	3a	3a
99	35	0 - 35	LmS		10YR 3 / 3					35 - 120	LmS		10YR 5 / 3			Moderate	-			/					2			I	1	-2.20	-16.67	3a	3a
100	33	0 - 35	mSL		10YR 3 / 2					35 - 50	LmS		10YR 6 / 3		MOB	Good	50 - 120	LmS		10YR 6 / 2		MOB	Good		1			I	1	37.30	7.83	2	2
101	24	0 - 35	C		10YR 4 / 2					35 - 120	C		5YR 5 / 3		COBG	Poor	-			/					1	35	red	IV	3b	24.80	11.33	2	3b
102	26	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
103	27	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
104	26	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
105	26	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
106	26	0 - 30	HCL		10YR 4 / 2					30 - 50	mSL		10YR 5 / 3		MO	Poor	50 - 120	C		10YR 5 / 2		CO	Poor		1	50	30	III	3b	21.80	8.33	2	3b
107	30	0 - 35	MCL		10YR 4 / 2					35 - 120	C		10YR 5 / 1			Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
108	31	0 - 35	mSL		10YR 4 / 2					35 - 50	SCL		7.5YR 5 / 3		CO	Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	35	III	2	27.80	14.33	2	2
109	31	0 - 30	mSL		10YR 4 / 2					30 - 50	SCL		7.5YR 5 / 2		CO	Moderate	50 - 120	C		5YR 4 / 4		COBG	Poor		1	50	30	III	2	26.80	13.33	2	2
110	30	0 - 35	SCL		10YR 5 / 2					35 - 120	C		5YR 5 / 4	5%	MOB	Poor	-			/					1	35	red	IV	3b	21.62	9.23	2	3b
111	29	0 - 35	SCL		10YR 5 / 2					35 - 120	C		5YR 5 / 4	5%	MOB	Poor	-			/					1	35	red	IV	3b	21.62	9.23	2	3b
112	28	0 - 40	SCL		10YR 5 / 2				FO	40 - 120	C		5YR 4 / 4	5%	MOB	Poor	-			/					1	40	red	IV	3b	23.92	11.53	2	3b
113	36	0 - 35	mSL		10YR 3 / 3					35 - 70	SCL		10YR 4 / 2		CO	Poor	70 - 120	C		10YR 5 / 2		MOB	Poor		1	35	35	IV	3a	26.80	11.33	2	3a
114	36	0 - 35	mSL		10YR 3 / 3					35 - 60	mSL		10YR 5 / 2	5%	CO	Moderate	60 - 120	C		10YR 5 / 1		COB	Poor		1	60	35	III	2	30.22	14.58	1	2
115	36	0 - 45	LmS		10YR 3 / 3					45 - 70	LmS		10YR 5 / 6			Moderate	70 - 120	mSL		10YR 5 / 4		MO	Moderate		2			I	1	26.80	-12.67	3a	3a
116	35	0 - 45	LmS		10YR 3 / 3					45 - 70	mS		10YR 5 / 4			Moderate	70 - 120	HCL		10YR 5 / 1		MO	Moderate		2			I	1	18.80	-17.67	3a	3a
117	34	0 - 35	mSL		10YR 4 / 3					35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3a	24.80	11.33	2	3a
118	36	0 - 45	mSL		10YR 3 / 3					45 - 60	SCL		10YR 4 / 4		FB	Moderate	60 - 120	C		10YR 5 / 1		COB	Poor		1	60	60	II	1	32.80	18.33	1	1
119	34	0 - 40	LmS		10YR 3 / 3					40 - 120	SCL		10YR 5 / 2	5%	MO	Poor	-			/					2	40	40	III	2	14.57	-4.47	2	2
120	34	0 - 35	LmS		10YR 3 / 3					35 - 70	SCL		10YR 5 / 2	5%	MO	Poor	70 - 120	C		10YR 5 / 1		MO	Poor		2	35	35	IV	3a	11.15	-4.77	2	3a
121	32	0 - 35	LmS		10YR 3 / 2					35 - 60	LmS		10YR 6 / 3		MO	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		35	II	1	-2.20	-16.67	3a	3a
122	33	0 - 40	mSL		10YR 3 / 2					40 - 60	LmS		10YR 6 / 3		MO	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		1		40	II	1	15.80	1.33	2	2
123	32	0 - 40	mSL		10YR 3 / 2					40 - 65	LmS		10YR 6 / 4		MO	Moderate	65 - 120	LmS		10YR 6 / 1		MOB	Moderate		1		40	II	1	15.80	1.33	2	2
124	34	0 - 35	mSL		10YR 3 / 2					35 - 60	LmS		10YR 6 / 3		MO	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		1		35	II	1	11.80	-2.67	2	2
125	27	Non Agricultural																															
126	27	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
127	27	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
128	26	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
129	26	0 - 30	HCL		10YR 4 / 2					30 - 120	C		5YR 4 / 4		CO	Poor	-			/					1	30	red	IV	3b	25.80	12.33	2	3b
130	28	0 - 35	MCL		10YR 4 / 2					35 - 120	C		10YR 5 / 1			Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
131	29	0 - 35	mSL		10YR 4 / 3		5%			35 - 120	C		5YR 4 / 4		MOG	Poor	-			/					1	35	red	IV	3a	22.00	8.53	2	3a
132	30	0 - 35	mSL		10YR 4 / 3		5%			35 - 120	C		5YR 4 / 4		MOG	Poor	-			/					1	35	red	IV	3a	22.00	8.53	2	3a
133	29	0 - 40	mSL		10YR 4 / 2				FO	40 - 100	mSL		10YR 6 / 3		FO	Moderate	100 - 120	SCL		5YR 6 / 2	5%	MOB	Poor		1	100	100	I	1	50.05	19.33	1	1
134	29	0 - 40	mSL		10YR 3 / 2				FO	40 - 80	mSL		10YR 6 / 3		FO	Moderate	80 - 120	SCL		5YR 6 / 2	5%	MOB	Poor		1	80	80	I	1	43.30	19.33	1	1
135	27	0 - 35	mSL		10YR 3 / 2				FO	35 - 120	C		5YR 4 / 4	5%	MOB	Poor	-			/					1	35	red	IV	3a	21.62	9.23	2	3a
136	36	0 - 30	mSL		10YR 3 / 3					30 - 120	C		5YR 4 / 4		MOG	Poor	-			/					1	30	red	IV	3a	22.80	9.33	2	3a
137	37	0 - 35	mSL		10YR 4 / 3					35 - 120	C		10YR 5 / 1		CO	Poor	-			/					1	35	35	IV	3a	24.80	11.33	2	3a
138	37	0 - 30	mSL		10YR 4 / 3					30 - 70	LmS		10YR 5 / 2			Moderate	70 - 120	C		10YR 5 / 1		MO	Poor		1	70	70	II	1	12.80	-6.67	2	2
139	34	0 - 40	LmS		10YR 3 / 3					40 - 120	LmS		10YR 4 / 2			Moderate	-			/					2			I	1	-0.20	-14.67	3a	3a
140	34	0 - 45	LmS		10YR 3 / 3					45 - 70	LmS		10YR 5 / 6			Moderate	70 - 120	mSL		10YR 5 / 4		MO	Moderate		2			I	1	26.80	-12.67	3a	3a
141	36	0 - 35	mSL		10YR 4 / 3					35 - 50	SCL		10YR 5 / 2	5%	MO	Poor	50 - 120	C		10YR 5 / 1		MO	Poor		1	35	35	IV	3a	23.90	10.43	2	3a
142	36	0 - 45	LmS		10YR 3 / 3					45 - 70	mS		10YR 5 / 4			Moderate	70 - 120	mSL		10YR 5 / 1		MO	Moderate		2		70	I	1	23.80	-17.67	3a	3a
143	34	0 - 35	mSL		10YR 4 / 3					35 - 70	SCL		10YR 5 / 2	5%	MO	Poor	70 - 120	C		10YR 5 / 1		MO	Poor		1	35	35	IV	3a	25.15	9.23	2	3a
144	33	0 - 40	mSL		10YR 3 / 3					40 - 70	LmS		10YR 5 / 4			Moderate	70 - 120	C		10YR 5 / 1		MO	Poor		1	70	70	II	1	20.80	1.33	2	2
145	32	0 - 35	mS		10YR 3 / 2					35 - 70	LmS		10YR 5 / 6		COB	Good	70 - 120	LcS		10YR 5 / 2		COB	Good		3b		70	I	1	9.80	-9.67	2	3b
146	32	0 - 30	LmS		10YR 3 / 2					30 - 70	LmS		10YR 5 / 6		COB	Good	70 - 120	LcS		10YR 5 / 2		COB	Good		2		70	I	1	12.80	-6.67	2	2
147	32	0 - 30	LmS		10YR 3 / 2					30 - 70	LmS		10YR 6 / 2		COB	Good	70 - 120	LmS		10YR 6 / 3		MOB	Good		2		30	I	1	22.80	-6.67	2	2
148	33	0 - 30	LmS		10YR 3 / 2					30 - 55	LmS		10YR 6 / 3		CO	Good	55 - 120	LmS		10YR 5 / 6		COB	Good		2		30	I	1	22.80	-6.67	2	2
149	31	0 - 35	LmS		10YR 3 / 2					35 - 60	LmS		10YR 6 / 3		CO	Good	60 - 120	LmS		10YR 5 / 6		COB	Good		2		35	I	1	23.30	-6.17	2	2
150	33	0 - 35	mSL		10YR 3 / 2					35 - 50	LmS		10YR 6 / 3		MOB	Good	50 - 120	LmS		10YR 6 / 2		MOB	Good		1		35	I	1	37.30	7.83	2	2
151	34	0 - 40	mSL		10YR 3 / 2					40 - 60	mSL		10YR 5 / 1		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Good		1		40	I	1	44.80	16.33	1	1
152	29	Non Agricultural																															
153	25	0 - 35	MCL		10YR 4 / 2					35 - 50	SCL		10YR 5 / 4			Moderate	50 - 120	C		10YR 4 / 1		CO	Poor		1	50	50	III	3a	31.30	17.83	1	3a
154	24	0 - 35	HCL		10YR 4 / 2		3%	2%		35 - 120	C		10YR 4 / 1		MO	Poor	-			/					1	35	35	IV	3b	25.32	11.85	2	3b
155	24	0 - 35	HCL		10YR 4 / 2					35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
156	24	0 - 35	HCL		10YR 4 / 2					35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	28.30	14.83	2	3b
157	24	0 - 35	HCL		10YR 4 / 2					35 - 60	SCL		10YR 5 / 3		MO	Poor	60 - 120	mS		10YR 6 / 1		COB	Moderate		1	35	35	IV	3b	17.30	8.83	2	3b
158	25	0 - 40	SCL		10YR 4 / 2				FO	40 - 60	SCL		10YR 5 / 2		CO	Poor	60 - 120	C		5YR 5 / 4	5%	MOB	Poor		1	40	40	III	3a	25.85	12.73	2	3a
159	27	0 - 30	SCL		10YR 4 / 2				FO	30 - 120	C		5YR 4 / 4	5%	MOB	Poor	-			/				Hole	1	30	red	IV	3b	19.32	6.93	2	3b
160	27	0 - 30	mSL		10YR 5 / 2					30 - 60	SCL		10YR 5 / 2		CO	Poor	60 - 120	SCL		10YR 6 / 2		MOB	Poor		1	30	30	IV	3a	29.80	9.33	2	3a
161	27	0 - 30	SCL		10YR 4 / 2					30 - 50	SCL		7.5YR 5 / 2		CO	Poor	50 - 120	C		5YR 4 / 4	5%	MOB	Poor		1	30	30	IV	3b	20.52	8.13	2	3b
162	34	0 - 35	MCL		10YR 4 / 3	5%				35 - 120	C		5YR 4 / 4	5%		Poor	-			/					1	35	red	IV	3b	22.15	9.75	2	3b
163	34	0 - 35	mSL		10YR 3 / 3	10%				35 - 70	SCL		10YR 5 / 2	10%		Moderate	70 - 120	C		5YR 4 / 4	10%	MOG	Poor		1	70		I	1	20.95	7.83	2	2
164	35	0 - 35	mSL		10YR 3 / 3					35 - 70	SCL		10YR 5 / 2	10%		Moderate	70 - 120	C		5YR 4 / 4	10%	MOG	Poor		1	70		I	1	26.55	13.43	2	2
165	36	0 - 35	mSL		10YR 4 / 3					35 - 120	C		5YR 4 / 4	5%	MOBG	Poor	-			/					1	35	red	IV	3a	21.62	9.23	2	3a
166	36	0 - 35	mSL		10YR 4 / 3					35 - 50	SCL		10YR 5 / 2	10%	CO	Poor	50 - 120	C		5YR 4 / 4	10%	MOG	Poor		1	35	red	IV	3a	18.45	7.13	2	3a
167	35	0 - 40	mSL		10YR 4 / 3					40 - 70	mSL		10YR 6 / 1			Moderate	70 - 120	LmS		10YR 6 / 2			Poor		1			I	1	1.80	19.33	3a	3a
168	33	0 - 40	MCL		10YR 4 / 3	3%				40 - 70	SCL		10YR 4 / 2		CO	Moderate	70 - 120	C		5YR 4 / 4		CBG	Poor		1	70	40	II	2	36.76	21.29	1	2
169	35	0 - 30	MCL		10YR 4 / 3	3%				30 - 120	C		10YR 5 / 2		CO	Poor	-			/					1	30	30	IV	3b	24.27	10.80	2	3b
170	35	0 - 35	mSL		5YR 4 / 4					35 - 120	C		5YR 4 / 4		COBG	Poor	-			/					1	35	red	IV	3a	24.80	11.33	2	3a
171	36	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2		FO	Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b

		Topsoil					Stoniness			Upper Subsoil						Lower Subsoil								Grade	Wetness Assesment			Grade	Droughtiness Assessment		Grade	Grade by
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Comments	limit by Texture	Depth to SPL	Gley	Wetness Class	limit by Wetness	MB Wheat	MB Potato	limit by Droughtiness	most limiting factor
172	35	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2		VFO	Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
173	34	0 - 40	mS		10YR 3 / 2					40 - 60	LmS		10YR 5 / 2		CO	Moderate	60 - 120	LmS		10YR 6 / 2		MO	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
174	33	0 - 40	mS		10YR 3 / 2					40 - 60	LmS		10YR 5 / 2		CO	Moderate	60 - 120	LmS		10YR 6 / 2		MO	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
175	33	0 - 35	mS		10YR 3 / 2					35 - 60	LmS		10YR 5 / 2		CO	Moderate	60 - 120	LmS		10YR 6 / 2		MO	Moderate		3b		35	I	1	-5.70	-20.17	3a	3b
176	33	0 - 35	mS		10YR 3 / 2					35 - 70	LmS		10YR 5 / 6		COB	Moderate	70 - 120	LcS		10YR 5 / 1		COB	Moderate		3b		70	I	1	-5.70	-20.17	3a	3b
177	33	0 - 35	LmS		10YR 3 / 2					35 - 70	LmS		10YR 5 / 6		COB	Moderate	70 - 120	LcS		10YR 5 / 2		COB	Moderate		2		70	I	1	-2.20	-16.67	3a	3a
178	33	0 - 30	LmS		10YR 3 / 2					30 - 70	LmS		10YR 6 / 2		COB	Moderate	70 - 120	LmS		10YR 6 / 3		MOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
179	33	0 - 30	LmS		10YR 3 / 2					30 - 55	LmS		10YR 6 / 3		CO	Moderate	55 - 120	LmS		10YR 5 / 6		COB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
180	33	0 - 35	LmS		10YR 3 / 2					35 - 60	LmS		10YR 6 / 3		CO	Moderate	60 - 120	LmS		10YR 5 / 6		COB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
181	33	0 - 40	LmS		10YR 3 / 2					40 - 60	mSL		10YR 5 / 1		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	I	1	10.80	-2.67	2	2
182	33	0 - 40	mSL		10YR 3 / 2					40 - 60	mSL		10YR 5 / 1		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		1		40	I	1	26.80	13.33	2	2
183	24	0 - 35	C		10YR 4 / 2				FO	35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
184	24	0 - 35	C		10YR 4 / 2				FO	35 - 120	C		10YR 4 / 2		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
185	24	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 4 / 2		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
186	24	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 4 / 2		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
187	24	0 - 30	C		10YR 4 / 2					30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
188	24	0 - 30	mSL		10YR 4 / 2					30 - 60	mSL		10YR 5 / 2		MOB	Moderate	60 - 120	C		10YR 5 / 1		CO	Poor		1	60	30	III	2	30.80	15.33	1	2
189	24	0 - 30	MCL		10YR 4 / 2					30 - 50	mSL		10YR 5 / 2		MOB	Moderate	50 - 120	C		10YR 5 / 1		CO	Poor		1	50	30	III	2	29.80	16.33	2	2
190	24	0 - 35	HCL		10YR 4 / 2					35 - 50	HCL		10YR 5 / 3		CO	Poor	50 - 120	C		10YR 5 / 1		CO	Poor		1	35	35	IV	3b	26.80	13.33	2	3b
191	24	0 - 25	SCL		10YR 4 / 2					25 - 35	LmS		2.5YR 4 / 4		MO	Good	35 - 120	C		N 5 /		COB	Poor		1	35	35	IV	3b	19.80	6.33	2	3b
192	27	0 - 30	mSL		10YR 4 / 3					30 - 70	LmS		10YR 5 / 4		CB	Moderate	70 - 120	LcS		10YR 5 / 6		FB	Moderate		1			I	1	7.80	-6.67	2	2
193	26	0 - 30	SCL		10YR 4 / 2					30 - 40	SCL		7.5YR 5 / 2		CO	Moderate	40 - 120	C		5YR 4 / 4	5%	MOB	Poor		1	40	30	IV	3b	21.92	9.53	2	3b
194	26	0 - 30	MCL		10YR 4 / 2	5%				30 - 120	C		5YR 4 / 4	5%		Poor	-			/					1	30	red	IV	3b	19.77	7.38	2	3b
195	35	0 - 35	HCL		10YR 4 / 2	5%				35 - 50	HCL		10YR 5 / 2		CO	Poor	50 - 120	C		5YR 4 / 4	5%	MOG	Poor		1	35	35	IV	3b	21.55	9.15	2	3b
196	36	0 - 35	mSL		10YR 4 / 3					35 - 120	mSL		10YR 5 / 1		MO	Moderate	-			/					1		35	II	2	55.80	18.33	1	2
197	39	0 - 35	mSL		10YR 4 / 3					35 - 120	C		5YR 4 / 4	5%		Poor	-			/					1	35	red	IV	3a	21.62	9.23	2	3a
198	35	0 - 30	mSL		10YR 4 / 3					30 - 120	C		10YR 5 / 1	5%		Poor	-			/					1	30	30	IV	3a	19.32	6.93	2	3a
199	34	0 - 35	mSL		10YR 4 / 3					35 - 120	LmS		10YR 5 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
200	34	0 - 35	mSL		10YR 4 / 3					35 - 120	LmS		10YR 6 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
201	35	0 - 35	mSL		10YR 4 / 3					35 - 60	LmS		10YR 6 / 1		MO	Moderate	60 - 120	SCL		10YR 5 / 6			Poor		1	60	35	III	2	23.80	1.33	2	2
202	35	0 - 35	mSL		5YR 4 / 4					35 - 120	C		5YR 4 / 4		COBG	Poor	-			/					1	35	red	IV	3a	24.80	11.33	2	3a
203	35	0 - 35	mSL		5YR 4 / 4					35 - 120	C		5YR 4 / 4		COBG	Poor	-			/					1	35	red	IV	3a	24.80	11.33	2	3a
204	33	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2			Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate	Hole	3b		60	I	1	-7.20	-21.67	3a	3b
205	34	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2			Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
206	33	0 - 40	mS		10YR 3 / 2					40 - 60	LmS		10YR 5 / 3		CO	Moderate	60 - 120	LmS		10YR 6 / 2		MO	Moderate		3b		40	II	1	-4.20	-18.67	3a	3b
207	33	0 - 30	mS		10YR 3 / 2					30 - 70	LmS		10YR 5 / 6		COB	Moderate	70 - 120	LcS		10YR 5 / 1		COB	Moderate		3b		70	I	1	-7.20	-21.67	3a	3b
208	33	0 - 30	mS		10YR 3 / 2					30 - 70	LmS		10YR 5 / 6		COB	Moderate	70 - 120	LcS		10YR 6 / 3		COB	Moderate		3b		70	I	1	-7.20	-21.67	3a	3b
209	32	0 - 30	LmS		10YR 3 / 2					30 - 70	LmS		10YR 5 / 6		COB	Moderate	70 - 120	LmS		10YR 6 / 3		COB	Moderate		2		70	I	1	-4.20	-18.67	3a	3a
210	32	0 - 30	LmS		10YR 3 / 2					30 - 70	LmS		10YR 6 / 2		COB	Moderate	70 - 120	LmS		10YR 6 / 3		MOB	Moderate	core 1	2		30	I	1	-4.20	-18.67	3a	3a
211	32	0 - 40	LmS		10YR 3 / 2					40 - 110	mSL		10YR 5 / 4		COB	Moderate	110 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		110	I	1	35.80	3.33	2	2
212	33	0 - 40	LmS		10YR 3 / 2					40 - 100	mSL		10YR 5 / 4		COB	Moderate	100 - 120	LmS		10YR 6 / 2		MOB	Moderate		2		100	I	1	30.80	3.33	2	2
213	32	0 - 40	LmS		10YR 3 / 2					40 - 100	mSL		10YR 5 / 4		COB	Moderate	100 - 120	LmS		10YR 6 / 2		MOB	Moderate		2		100	I	1	30.80	3.33	2	2
214	33	0 - 45	LmS		10YR 3 / 2					45 - 110	mSL		10YR 5 / 4		COB	Moderate	110 - 120	LmS		10YR 5 / 1		MOB	Moderate	Hole	2		110	I	1	34.80	2.33	2	2
215	33	0 - 45	LmS		10YR 3 / 2					45 - 100	mSL		10YR 5 / 4		COB	Moderate	100 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		100	I	1	29.80	2.33	2	2
216	24	0 - 35	C		10YR 4 / 2				FO	35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
217	24	0 - 35	C		10YR 4 / 2				FO	35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
218	24	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
219	24	0 - 30	HCL		10YR 4 / 2					30 - 120	C		10YR 4 / 2		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
220	24	0 - 30	C		10YR 4 / 2					30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
221	24	0 - 30	C		10YR 4 / 2					30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
222	24	0 - 30	C		10YR 4 / 2					30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
223	24	0 - 30	SC		10YR 3 / 2					30 - 40	C		10YR 5 / 2		CO	Poor	40 - 120	C		N 6 /		MO	Poor		1	30	30	IV	3b	22.80	9.33	2	3b
224	24	0 - 25	SC		10YR 4 / 2					25 - 35	C		10YR 5 / 1		MO	Poor	35 - 120	C		N 5 /		MOB	Poor		1	25	25	IV	3b	20.80	7.33	2	3b
225	24	0 - 30	SC		10YR 3 / 2					30 - 45	C		10YR 5 / 1		CO	Poor	45 - 120	C		N 5 /		COB	Poor		1	30	30	IV	3b	22.80	9.33	2	3b
226	26	0 - 35	mSL		10YR 4 / 3					35 - 120	C		5YR 5 / 4		MOBG	Poor	-			/					1	35	red	IV	3a	24.80	11.33	2	3a
227	26	0 - 35	mSL		10YR 4 / 3					35 - 80	mSL		10YR 4 / 4			Moderate	80 - 120	C		5YR 5 / 3		MOBG	Poor		1	80	80	I	1	39.80	18.33	1	1
228	36	0 - 30	mSL		10YR 4 / 2					30 - 120	C		5YR 5 / 3		MOBG	Poor	-			/					1	30	red	IV	3a	22.80	9.33	2	3a
229	35	0 - 35	mSL		10YR 4 / 3					35 - 60	SCL		10YR 5 / 3		CO	Poor	60 - 120	C		10YR 5 / 1		MO	Poor		1	35	35	IV	3a	25.80	11.33	2	3a
230	33	0 - 35	mSL		10YR 4 / 3					35 - 120	LmS		10YR 6 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
231	34	0 - 35	mSL		10YR 4 / 3					35 - 120	LmS		10YR 6 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
232	35	0 - 30	mSL		10YR 4 / 3					30 - 120	C		10YR 5 / 1	5%	CO	Poor	-			/					1	30	30	IV	3b	19.32	6.93	2	3b
233	35	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2			Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
234	33	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2			Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
235	33	0 - 30	mS		10YR 3 / 2					30 - 60	LmS		10YR 6 / 2		VFO	Moderate	60 - 120	LmS		10YR 6 / 3		MO	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
236	33	0 - 35	LmS		10YR 3 / 2					35 - 50	LmS		10YR 6 / 3		MOB	Moderate	50 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		35	II	1	-2.20	-16.67	3a	3a
237	32	0 - 35	LmS		10YR 3 / 2					35 - 50	LmS		10YR 6 / 3		MOB	Moderate	50 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		35	II	1	-2.20	-16.67	3a	3a
238	31	0 - 35	LmS		10YR 3 / 2					35 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 6		COB	Moderate		2		35	II	1	-2.20	-16.67	3a	3a
239	31	0 - 40	LmS		10YR 3 / 2					40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 6		COB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
240	33	0 - 40	LmS		10YR 3 / 2					40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 6		COB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
241	32	0 - 40	LmS		10YR 3 / 3					40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
242	34	0 - 40	LmS		10YR 3 / 3					40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
243	36	0 - 40	LmS		10YR 3 / 2					40 - 60	LmS		10YR 6 / 4		VMOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
244	37	0 - 40	LmS		10YR 3 / 2					40 - 60	LmS		10YR 6 / 4		VMOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
245	38	0 - 40	LmS		10YR 3 / 2					40 - 60	LmS		10YR 6 / 4		VMOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
246	24	0 - 40	mSL		10YR 3 / 2					40 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	6.80	-4.67	2	2
247	24	0 - 40	mSL		10YR 4 / 2					40 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	40	40	IV	3a	26.80	13.33	2	3a
248	24	0 - 35	C		10YR 4 / 2				FO	35 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
249	24	0 - 30	C		10YR 4 / 2				FO	30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
250	24	0 - 30	C		10YR 4 / 2				FO	30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
251	24	0 - 30	C		10YR 4 / 2				FO	30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
252	24	0 - 30	C		10YR 4 / 2					30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
253	24	0 - 30	SCL		10YR 4 / 2					30 - 40	C		2.5YR 4 / 4		COB	Poor	40 - 120	C		10YR 5 / 1		MOB	Poor		1	30	red	IV	3b	22.80	9.33	2	3b
254	24	0 - 35	mSL		10YR 4 / 2					35 - 40	C		2.5YR 4 / 4		COB	Poor	40 - 120	C		10YR 5 / 1		MOB	Poor		1	35	red	IV	3a	24.80	11.33	2	3a
255	24	0 - 35	mSL		10YR 3 / 2					35 - 50	C		10YR 5 / 1		CO	Poor	50 - 120	C		N 4 /		COB	Poor		1	35	35	IV	3a	24.80	11.33	2	3a
256	24	0 - 30	mSL		10YR 3 / 2					30 - 50	C		10YR 5 / 1		CO	Poor	50 - 120	C		N 4 /		COB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
257	24	0 - 35	HCL		10YR 4 / 3					35 - 120	C		5YR 4 / 4		MOGB	Poor	-			/					1	35	red	IV	3b	28.30	14.83	2	3b

		Topsoil					Stoniness		Upper Subsoil						Lower Subsoil								Grade	Wetness Assesment			Grade	Droughtiness Assessment		Grade	Grade by
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm 2-6cm >6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Comments	limit by Texture	Depth to SPL	Gley	Wetness Class	Grade limit by Wetness	MB Wheat	MB Potato	limit by Droughtiness	most limiting factor
258	24	0 - 35	mSL		10YR 4 / 3			35 - 70	mS		10YR 5 / 2		CO	Moderate	70 - 120	C		10YR 5 / 1		MO	Poor		1	70	35	II	1	11.80	-9.67	2	2
259	39	0 - 30	mSL		10YR 4 / 2			30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3a	22.80	9.33	2	3a
260	36	0 - 35	mSL		10YR 4 / 3			35 - 60	LmS		10YR 5 / 1		MO	Moderate	60 - 120	C		10YR 5 / 1		MO	Poor		1	60	35	III	2	17.80	1.33	2	2
261	33	0 - 35	mSL		10YR 4 / 2			35 - 120	LmS		10YR 6 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
262	33	0 - 35	mSL		10YR 4 / 2			35 - 120	LmS		10YR 6 / 1		MO	Moderate	-			/					1		35	I	1	11.80	-2.67	2	2
263	35	0 - 30	mSL		10YR 4 / 3			30 - 120	C		10YR 5 / 1	5%	CO	Poor	-			/					1	30	30	IV	3a	19.32	6.93	2	3a
264	34	0 - 30	mSL		10YR 4 / 3			30 - 120	C		10YR 5 / 1	5%	CO	Poor	-			/					1	30	30	IV	3a	19.32	6.93	2	3a
265	33	0 - 30	mSL		10YR 2 / 2			30 - 60	mSL		10YR 6 / 3		VMOB	Moderate	60 - 120	mS		7.5YR 6 / 1		COB	Moderate		2		30	I	1	18.80	9.33	2	2
266	32	0 - 40	LmS		10YR 2 / 2			40 - 70	LmS		10YR 6 / 4		VMOB	Moderate	70 - 120	mS		7.5YR 6 / 1		COB	Moderate	Hole	2		40	I	1	-5.20	-14.67	3a	3a
267	30	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 2		MOB	Moderate	50 - 120	LmS		10YR 6 / 4		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
268	30	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 1		MOB	Moderate	50 - 120	LmS		10YR 6 / 4		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
269	30	0 - 35	LmS		10YR 3 / 2			35 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 6		COB	Moderate		2		35	II	1	-2.20	-16.67	3a	3a
270	32	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 6		COB	Moderate	core 4	2		40	II	1	-0.20	-14.67	3a	3a
271	33	0 - 40	mS		10YR 3 / 2			40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	mS		10YR 6 / 1		MOB	Moderate		3b		40	II	1	-8.20	-18.67	3a	3b
272	33	0 - 40	mS		10YR 3 / 2			40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	mS		10YR 6 / 1		MOB	Moderate		3b		40	II	1	-8.20	-18.67	3a	3b
273	33	0 - 40	mS		10YR 3 / 2			40 - 80	LmS		10YR 6 / 3		MOB	Moderate	80 - 120	mS		10YR 6 / 1		MOB	Moderate		3b		40	II	1	-8.20	-18.67	3a	3b
274	33	0 - 40	LmS		10YR 3 / 2			40 - 70	LmS		10YR 6 / 4		CMOB	Moderate	70 - 120	mS		10YR 6 / 1		MOB	Moderate		2		40	II	1	-5.20	-14.67	3a	3a
275	35	0 - 35	LmS		10YR 3 / 1			35 - 60	LmS		10YR 6 / 1		MOB	Moderate	60 - 120	mS		10YR 5 / 1		COB	Moderate		2		35	II	1	-8.20	-18.67	3a	3a
276	36	0 - 35	LmS		10YR 3 / 1			35 - 60	LmS		10YR 6 / 1		MOB	Moderate	60 - 120	mS		10YR 5 / 1		COB	Moderate		2		35	II	1	-8.20	-18.67	3a	3a
277	24	0 - 30	HCL		10YR 3 / 3			30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
278	24	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		10YR 3 / 2			Moderate	-			/					1			I	1	6.80	-4.67	2	2
279	24	0 - 45	mSL		10YR 3 / 2			45 - 120	C		5YR 4 / 4			Poor	-			/					1	45	red	III	2	28.80	15.33	2	2
280	24	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	6.80	-4.67	2	2
281	24	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	6.80	-4.67	2	2
282	24	0 - 35	C		10YR 4 / 2		FO	35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
283	24	0 - 30	C		10YR 4 / 2		FO	30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
284	24	0 - 30	C		10YR 4 / 2		FO	30 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	30	30	IV	3b	22.80	9.33	2	3b
285	24	0 - 35	C		10YR 4 / 2		FO	35 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
286	24	0 - 35	C		10YR 4 / 2		FO	35 - 120	C		10YR 5 / 2		MO	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
287	24	0 - 30	mSL		10YR 4 / 2			30 - 40	C		2.5YR 4 / 4		COB	Poor	40 - 120	C		10YR 5 / 1		MOB	Poor		1	30	red	IV	3a	22.80	9.33	2	3a
288	24	0 - 35	mSL		10YR 4 / 2			35 - 50	SCL		2.5YR 4 / 4		MOB	Poor	50 - 120	C		N 5 /		MOB	Poor	Hole	1	35	red	IV	3a	24.80	11.33	2	3a
289	24	0 - 30	mSL		10YR 4 / 2			30 - 90	C		10YR 5 / 2		CO	Poor	90 - 120	C		N 5 /		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
290	24	0 - 35	mSL		10YR 4 / 2			35 - 90	C		10YR 5 / 2		CO	Poor	90 - 120	C		N 5 /		MOB	Poor		1	35	35	IV	3a	24.80	11.33	2	3a
291	25	0 - 20	C		10YR 4 / 2			20 - 50	C		7.5YR 5 / 1		COB	Poor	50 - 120	C		10YR 5 / 1		MOB	Poor		1	20	20	IV	3b	18.80	5.33	2	3b
292	26	0 - 20	C		10YR 4 / 2			20 - 50	C		7.5YR 5 / 1		COB	Poor	50 - 120	C		10YR 5 / 2		VMOB	Poor		1	20	20	IV	3b	18.80	5.33	2	3b
293	39	0 - 30	mSL		10YR 4 / 2			30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3a	22.80	9.33	2	3a
294	37	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		10YR 5 / 2		CO	Moderate	-			/					1		40	I	1	6.80	-4.67	2	2
295	33	0 - 45	mSL		10YR 3 / 2			45 - 120	mS		10YR 7 / 1		CO	Moderate	-			/					1		45	I	1	11.80	0.33	2	2
296	33	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		10YR 5 / 2		CO	Moderate	-			/					1		40	I	1	6.80	-4.67	2	2
297	33	0 - 35	mSL		10YR 3 / 2			35 - 60	SCL		10YR 5 / 3		MO	Poor	60 - 120	C		5YR 4 / 4		COGB	Poor		1	35	35	IV	3a	25.80	11.33	2	3a
298	33	0 - 50	LfS		10YR 3 / 2			50 - 120	fS		10YR 7 / 1		CO	Moderate	-			/				ss wcab	2		50	I	1	70.80	24.33	1	2
299	34	0 - 30	LmS		10YR 2 / 2			30 - 70	LmS		10YR 8 / 2		COB	Moderate	70 - 120	LmS		10YR 7 / 2		VMOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
300	34	0 - 30	LmS		10YR 2 / 2			30 - 60	mSL		10YR 6 / 3		VMOB	Moderate	60 - 120	LmS		7.5YR 6 / 1		COB	Moderate		2		30	I	1	12.80	-0.67	2	2
301	34	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 2		MOB	Moderate	50 - 120	LmS		10YR 6 / 4		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
302	33	0 - 35	LmS		10YR 3 / 2			35 - 50	LmS		10YR 6 / 3		MOB	Moderate	50 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
303	32	0 - 35	LmS		10YR 3 / 2			35 - 50	LmS		10YR 6 / 3		MOB	Moderate	50 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
304	31	0 - 45	LmS		10YR 3 / 2			45 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
305	31	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
306	31	0 - 40	LmS		10YR 3 / 2			40 - 100	LmS		10YR 6 / 3		COB	Moderate	100 - 120	C		10YR 5 / 1		MOB	Moderate		2		40	I	1	3.80	-14.67	3a	3a
307	33	0 - 40	LmS		10YR 3 / 2			40 - 110	LmS		10YR 6 / 3		COB	Moderate	110 - 120	C		10YR 5 / 1		MOB	Moderate		2		40	I	1	1.80	-14.67	3a	3a
308	32	0 - 45	LmS		10YR 3 / 2			45 - 100	LmS		10YR 6 / 3		COB	Moderate	100 - 120	C		10YR 5 / 1		MOB	Moderate		2		45	I	1	5.80	-12.67	3a	3a
309	33	0 - 40	mS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 3		MOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
310	36	0 - 40	mS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 3		MOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
311	24	0 - 30	HCL		10YR 3 / 3			30 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	30	30	IV	3b	25.80	12.33	2	3b
312	24	0 - 35	mSL		10YR 3 / 2			35 - 120	C		10YR 5 / 1		MO	Poor	-			/					1	35	35	IV	3a	24.80	11.33	2	3a
313	24	0 - 35	mSL		10YR 3 / 2			35 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	1.80	-9.67	3a	3a
314	24	0 - 40	mSL		10YR 3 / 2			40 - 120	LmS		7.5YR 5 / 4			Moderate	-			/					1			I	1	15.80	1.33	2	2
315	24	0 - 30	mSL		10YR 3 / 2			30 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	-3.20	-14.67	3a	3a
316	24	No Access due to Poultry																													
317	24	No Access due to Poultry																													
318	25	No Access due to Poultry																													
319	24	No Access due to Poultry																													
320	24	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		7.5YR 4 / 4			Moderate	-			/					1			I	1	6.80	-4.67	2	2
321	24	0 - 30	mSL		10YR 4 / 2			30 - 40	C		2.5YR 4 / 4		COB	Poor	40 - 120	C		10YR 5 / 1		MOB	Poor		1	30	red	IV	3a	22.80	9.33	2	3a
322	24	0 - 30	mSL		10YR 4 / 2			30 - 40	C		2.5YR 4 / 4		COB	Poor	40 - 120	C		10YR 5 / 1		MOB	Poor		1	30	red	IV	3a	22.80	9.33	2	3a
323	24	0 - 30	mSL		10YR 3 / 2			30 - 80	C		10YR 5 / 2		CO	Poor	80 - 120	C		N 5 /		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
324	24	0 - 35	mSL		10YR 3 / 2			35 - 50	C		10YR 5 / 1		CO	Poor	50 - 120	C		N 6 /		MOB	Poor		1	35	35	IV	3a	24.80	11.33	2	3a
325	24	0 - 30	mSL		10YR 3 / 2			30 - 50	SCL		10YR 5 / 1		CO	Poor	50 - 120	C		N 5 /		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
326	26	0 - 30	mSL		10YR 3 / 2			30 - 60	SCL		10YR 5 / 1		CO	Poor	60 - 120	C		N 4 /		MOB	Poor		1	30	30	IV	3a	23.80	9.33	2	3a
327	26	0 - 20	C		10YR 4 / 1		FOB	20 - 45	C		10YR 6 / 1		COB	Poor	45 - 120	C		N 6 /		COB	Poor		1	20	20	IV	3b	18.80	5.33	2	3b
328	37	0 - 40	SCL		10YR 2 / 2			40 - 120	C		10YR 6 / 1		MOB	Poor	-			/					1	40	40	IV	3b	26.80	13.33	2	3b
329	33	0 - 35	SCL		10YR 2 / 2			35 - 120	C		10YR 6 / 1		MOB	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
330	33	0 - 35	LmS		10YR 2 / 2			35 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	LmS		10YR 6 / 4		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
331	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 5 / 1		COB	Moderate	60 - 120	LmS		10YR 7 / 2		COB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
332	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 5 / 1		COB	Moderate	60 - 120	LmS		10YR 7 / 2		COB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
333	33	0 - 30	mS		10YR 3 / 2			30 - 60	LmS		10YR 5 / 4		MOB	Moderate	60 - 120	LmS		10YR 6 / 3		COB	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
334	33	0 - 30	mS		10YR 3 / 2			30 - 60	LmS		10YR 5 / 4		MOB	Moderate	60 - 120	LmS		10YR 6 / 3		COB	Moderate		3b		60	I	1	-7.20	-21.67	3a	3b
335	33	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	mSL		10YR 5 / 1		MOB	Moderate		2		40	II	1	34.80	-2.67	2	2
336	33	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	mSL		10YR 5 / 1		MOB	Moderate		2		40	II	1	34.80	-2.67	2	2
337	32	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 5 / 2		COB	Moderate	60 - 120	LmS		10YR 7 / 1		MOB	Moderate		2		40	II	1	-0.20	-14.67	3a	3a
338	32	0 - 45	LmS		10YR 3 / 2			45 - 60	LmS		10YR 5 / 2		COB	Moderate	60 - 120	LmS		10YR 7 / 1		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
339	32	0 - 45	LmS		10YR 3 / 2			45 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
340	33	0 - 40	LmS		10YR 3 / 1			40 - 90	LmS		10YR 6 / 3		COB	Moderate	90 - 120	C		10YR 5 / 1		COB	Moderate		2		40	II	1	5.80	-14.67	3a	3a
341	33	0 - 40	LmS		10YR 3 / 2			40 - 100	LmS		10YR 6 / 3		COB	Moderate	100 - 120	C		10YR 5 / 1		MOB	Moderate		2		40	II	1	3.80	-14.67	3a	3a
342	33	0 - 45	LmS		10YR 3 / 2			45 - 100	LmS		10YR 6 / 3		COB	Moderate	100 - 120	C		10YR 5 / 1		MOB	Moderate		2		45	I	1	5.80	-12.67	3a	3a
343	35	0 - 40	mS		10YR 3 / 1			40 - 60	LmS		10YR 6 / 3		MOB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		3b		40	II	1	-4.20	-18.67	3a	3b

		Topsoil					Stoniness		Upper Subsoil						Lower Subsoil								Grade	Wetness Assesment			Grade	Droughtiness Assessment		Grade	Grade by
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm 2-6cm >6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Comments	limit by Texture	Depth to SPL	Gley	Wetness Class	limit by Wetness	MB Wheat	MB Potato	limit by Droughtiness	most limiting factor
344	35	0 - 40	mS		10YR 3 / 1			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		3b		40	II	1	-4.20	-18.67	3a	3b
345	24	0 - 30	HCL		10YR 3 / 2			30 - 120	C		10YR 5 / 1		MO	Moderate									1	30	30	IV	3b	38.80	24.33	1	3b
346	24	0 - 40	mSL		10YR 3 / 2			40 - 120	mS		7.5YR 4 / 4			Moderate									1			I	1	6.80	-4.67	2	2
347	24	No Access due to Poultry																													
348	24	No Access due to Poultry																													
349	24	No Access due to Poultry																													
350	24	0 - 30	mSL		10YR 3 / 2			30 - 50	C		10YR 5 / 1		CO	Poor	50 - 120	C		N 6 /		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
351	24	0 - 35	mSL		10YR 3 / 2			35 - 50	SCL		10YR 5 / 1		CO	Poor	50 - 120	C		N 6 /		MOB	Poor		1	35	35	IV	3a	24.80	11.33	2	3a
352	26	0 - 30	mSL		10YR 3 / 2			30 - 50	C		10YR 5 / 1		CO	Poor	50 - 120	C		N 6 /		MOB	Poor		1	30	30	IV	3a	22.80	9.33	2	3a
353	26	0 - 20	C		10YR 4 / 1		FOB	20 - 45	C		10YR 6 / 1		COB	Poor	45 - 120	C		N 6 /		COB	Poor	Core 6	1	20	20	IV	3b	18.80	5.33	2	3b
354	36	0 - 35	SCL		10YR 2 / 2			35 - 120	C		10YR 6 / 1		MOB	Poor	-			/					1	35	35	IV	3b	24.80	11.33	2	3b
355	35	0 - 35	mSL		10YR 2 / 2			35 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	LmS		10YR 6 / 4		MOB	Moderate		1		35	I	1	11.80	-2.67	2	2
356	33	0 - 40	mS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 4		COB	Moderate	60 - 120	LmS		10YR 7 / 4		COB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
357	33	0 - 40	LmS		10YR 2 / 2			40 - 60	LmS		10YR 6 / 4		COB	Moderate	60 - 120	LmS		10YR 7 / 4		COB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
358	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 3		COB	Moderate	60 - 120	LmS		10YR 5 / 4		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
359	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 3		COB	Moderate	60 - 120	LmS		10YR 5 / 4		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
360	33	0 - 35	LmS		10YR 3 / 2			35 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	mSL		10YR 5 / 1		MOB	Moderate		2		35	I	1	32.80	-4.67	2	2
361	33	0 - 35	LmS		10YR 3 / 2			35 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	mSL		10YR 5 / 1		MOB	Moderate		2		35	I	1	32.80	-4.67	2	2
362	32	0 - 40	LmS		10YR 3 / 2			40 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	mSL		10YR 5 / 1		MOB	Moderate		2		40	I	1	34.80	-2.67	2	2
363	32	0 - 45	LmS		10YR 3 / 2			45 - 70	LmS		10YR 5 / 2		COB	Moderate	70 - 120	LcS		10YR 6 / 1		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
364	32	0 - 45	LmS		10YR 3 / 2			45 - 70	LmS		10YR 5 / 2		COB	Moderate	70 - 120	LcS		10YR 6 / 1		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
365	33	0 - 30	LmS		10YR 3 / 1			30 - 60	SCL		10YR 5 / 1		CO	Poor	60 - 120	C		2.5YR 4 / 4	5%	MOB	Poor	Hole	2	30	30	IV	3a	9.85	-3.27	2	3a
366	33	0 - 45	mSL		10YR 3 / 1			45 - 100	SCL		10YR 6 / 1		COB	Moderate	100 - 120	C		2.5YR 4 / 4		MOB	Poor		1	45	45	III	2	44.80	20.33	1	2
367	33	0 - 45	mSL		10YR 3 / 1			45 - 80	SCL		10YR 6 / 1		COB	Moderate	80 - 120	C		2.5YR 4 / 4		MOB	Poor		1	45	45	III	2	38.80	20.33	1	2
368	33	0 - 40	LmS		10YR 3 / 1			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 1		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
369	29	Non Agricultural																													
370	36	0 - 35	mS		10YR 3 / 2			35 - 50	LmS		10YR 5 / 1		COB	Moderate	50 - 120	C		2.5YR 4 / 4		MOB	Poor		3b	50	35	III	2	1.30	-12.17	3a	3b
371	35	0 - 35	LmS		10YR 3 / 2			35 - 50	mSL		10YR 4 / 1		COB	Moderate	50 - 120	C		2.5YR 4 / 4		MOB	Poor		2	50	35	III	2	13.80	0.33	2	2
372	33	0 - 40	mS		10YR 2 / 2			40 - 50	LmS		10YR 6 / 2		MOB	Moderate	50 - 120	LmS		10YR 7 / 2		COB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
373	33	0 - 40	mS		10YR 2 / 2			40 - 50	LmS		10YR 6 / 2		MOB	Moderate	50 - 120	LmS		10YR 7 / 2		COB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
374	33	0 - 35	LmS		10YR 3 / 1			35 - 45	LmS		10YR 6 / 3		COB	Moderate	45 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
375	33	0 - 35	LmS		10YR 3 / 1			35 - 45	LmS		10YR 6 / 3		COB	Moderate	45 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
376	33	0 - 40	LmS		10YR 3 / 1			40 - 45	LmS		10YR 6 / 3		COB	Moderate	45 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		40	I	1	-0.20	-14.67	3a	3a
377	33	0 - 30	LmS		10YR 3 / 1			30 - 60	LmS		10YR 7 / 4		MOB	Moderate	60 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
378	33	0 - 35	LmS		10YR 3 / 1			35 - 60	LmS		10YR 7 / 4		VMOB	Moderate	60 - 120	LfS		10YR 7 / 2		COB	Moderate		2		35	I	1	39.80	-10.67	3a	3a
379	33	0 - 30	LmS		10YR 3 / 1			30 - 50	LmS		10YR 7 / 4		VMOB	Moderate	50 - 120	LfS		10YR 7 / 2		COB	Moderate		2		30	I	1	44.80	-6.67	2	2
380	33	0 - 30	LmS		10YR 3 / 1			30 - 50	LmS		10YR 7 / 4		VMOB	Moderate	50 - 120	LfS		10YR 7 / 2		COB	Moderate		2		30	I	1	44.80	-6.67	2	2
381	33	0 - 35	mS		10YR 3 / 2			35 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 3		MOB	Moderate		3b		35	I	1	-5.70	-20.17	3a	3b
382	33	0 - 40	mS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 4		MOB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
383	33	0 - 40	mS		10YR 3 / 2			40 - 60	LmS		10YR 6 / 2		COB	Moderate	60 - 120	LmS		10YR 6 / 4		MOB	Moderate		3b		40	I	1	-4.20	-18.67	3a	3b
386	33	0 - 45	LmS		10YR 3 / 2			45 - 70	LmS		7.5YR 7 / 2		MOB	Moderate	70 - 120	LmS		10YR 7 / 4		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
387	33	0 - 45	LmS		10YR 2 / 2			45 - 70	LmS		7.5YR 7 / 2		MOB	Moderate	70 - 120	LmS		10YR 7 / 4		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
388	33	0 - 35	LmS		10YR 3 / 2			35 - 60	LmS		10YR 7 / 4		MOB	Moderate	60 - 120	LmS		10YR 5 / 2		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
389	33	0 - 30	LmS		10YR 3 / 2			30 - 60	LmS		10YR 7 / 4		MOB	Moderate	60 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
390	33	0 - 30	LmS		10YR 3 / 2			30 - 50	LmS		10YR 7 / 4		VMOB	Moderate	50 - 120	LfS		10YR 7 / 2		COB	Moderate		2		30	I	1	44.80	-6.67	2	2
391	33	0 - 30	LmS		10YR 3 / 2			30 - 60	LmS		10YR 6 / 2		MOB	Moderate	60 - 120	LmS		10YR 5 / 3		MOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
392	33	0 - 30	mSL		10YR 3 / 2			30 - 60	LmS		10YR 7 / 2		MOB	Moderate	60 - 120	LmS		10YR 5 / 3		COB	Moderate		1		30	I	1	7.80	-6.67	2	2
393	33	0 - 50	LmS		10YR 2 / 2			50 - 70	LmS		7.5YR 7 / 2		MOB	Moderate	70 - 120	LmS		10YR 5 / 3		MOB	Moderate	Core 3	2		50	I	1	3.80	-10.67	3a	3a
394	33	0 - 50	LmS		10YR 2 / 2			50 - 70	LmS		7.5YR 6 / 2		MOB	Moderate	70 - 120	LmS		10YR 7 / 2		MOB	Moderate		2		50	I	1	3.80	-10.67	3a	3a
395	33	Non Agricultural																													
396	33	0 - 35	LmS		10YR 3 / 2			35 - 50	LmS		10YR 7 / 3		COB	Moderate	50 - 120	LfS		10YR 8 / 1		COB	Moderate		2		35	I	1	46.80	-4.67	2	2
397	33	0 - 35	LmS		10YR 3 / 2			35 - 60	LmS		10YR 7 / 3		COB	Moderate	60 - 120	LfS		10YR 8 / 1		COB	Moderate		2		35	I	1	39.80	-10.67	3a	3a
398	33	0 - 30	LmS		10YR 3 / 2			30 - 60	LmS		10YR 6 / 2		MOB	Moderate	60 - 120	LmS		10YR 5 / 3		MOB	Moderate		2		30	I	1	-4.20	-18.67	3a	3a
399	33	0 - 50	LmS		10YR 2 / 2			50 - 70	LmS		7.5YR 6 / 2		MOB	Moderate	70 - 120	LmS		10YR 7 / 4		MOB	Moderate		2		50	I	1	3.80	-10.67	3a	3a
400	33	0 - 45	LmS		10YR 2 / 2			45 - 70	LmS		7.5YR 6 / 2		MOB	Moderate	70 - 120	LmS		10YR 7 / 4		MOB	Moderate		2		45	I	1	1.80	-12.67	3a	3a
401	33	0 - 30	mS		10YR 3 / 2			30 - 50	LmS		10YR 6 / 2		MOB	Moderate	50 - 120	LmS		10YR 6 / 6		CO	Moderate		3b		30	I	1	-7.20	-21.67	3a	3b
402	33	0 - 35	mS		10YR 3 / 2			35 - 50	LmS		10YR 6 / 2		MOB	Moderate	50 - 120	LmS		10YR 6 / 6		CO	Moderate		3b		35	I	1	-5.70	-20.17	3a	3b
403	33	0 - 35	LmS		10YR 3 / 2			35 - 60	LmS		10YR 6 / 2		MOB	Moderate	60 - 120	LmS		10YR 5 / 3		MOB	Moderate		2		35	I	1	-2.20	-16.67	3a	3a
404	33	0 - 40	LmS		10YR 2 / 1			40 - 60	LfS		7.5YR 7 / 2		MOB	Moderate	60 - 120	C		10YR 6 / 2		MOB	Moderate		2	60	40	III	2	24.80	4.33	2	2
405	33	0 - 40	LmS		10YR 2 / 1			40 - 60	LfS		7.5YR 7 / 2		MOB	Moderate	60 - 120	C		10YR 6 / 2		MOB	Moderate		2	60	40	III	2	24.80	4.33	2	2
406	33	0 - 30	mS		10YR 3 / 2			30 - 50	LmS		10YR 6 / 2		MOB	Moderate	50 - 120	LmS		10YR 6 / 6		CO	Moderate		3b		30	I	1	-7.20	-21.67	3a	3b
407	33	0 - 35	mS		10YR 2 / 1	5%		35 - 90	LmS		10YR 6 / 3		VMOB	Moderate	90 - 120	LmS		10YR 5 / 6		FOB	Moderate	Core 2	3b		35	I	1	-7.63	-22.10	3a	3b
408	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 5 / 6		COB	Moderate	60 - 120	LmS		10YR 6 / 1		COB	Moderate		2		60	I	1	-0.20	-14.67	3a	3a
409	33	0 - 40	LmS		10YR 3 / 2			40 - 60	LmS		10YR 5 / 6		COB	Moderate	60 - 120	LmS		10YR 6 / 1		COB	Moderate		2		60	I	1	-0.20	-14.67	3a	3a
410	33	0 - 30	LmS		10YR 2 / 1	2%		30 - 70	LmS		10YR 6 / 2		COB	Moderate	70 - 120	LmS		10YR 5 / 4		MOB	Moderate		2		30	I	1	-4.92	-19.39	3a	3a
411	33	0 - 40	LmS		10YR 3 / 2	2%		40 - 70	LmS		10YR 6 / 4		COB	Moderate	70 - 120	LmS		10YR 5 / 4		MOB	Moderate		2		40	I	1	-1.16	-15.63	3a	3a
412	33	0 - 30	LmS		10YR 2 / 1	2%		30 - 70	LmS		10YR 6 / 2		COB	Moderate	70 - 120	LmS		10YR 5 / 1		MOB	Moderate		2		30	I	1	-4.92	-19.39	3a	3a
	30.52																														

Appendix 4b – Trial Pit Descriptions

Sample Point No. 30		
Horizon 1	0-35cm Dark greyish brown (10YR 4/2) sandy clay loam.	
Horizon 2	35-120cm Reddish brown (5YR 5/4) clay with a weak coarse angular blocky structure, very firm consistence and many ochreous mottles.	
Horizon 3		
Pictures		
Horizon 1 	Horizon 2 	Horizon 3
Slowly permeable layer	Starts at 35cm – evidenced by coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Red soil – resistant to gleying	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	21.62	
MB potatoes	9.23	
Droughtiness Limitation	2	

Sample Point No. 52		
Horizon 1	0-35cm Dark greyish brown (10YR 4/2) heavy clay loam.	
Horizon 2	35-70cm Reddish brown (5YR 4/4) clay with a weak coarse angular blocky structure and many ochreous mottles.	
Horizon 3	70-120cm Grey (10YR 5/1) clay with a massive structure and very firm consistence.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Starts at 35cm – evidenced by weak coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Red soil – resistant to gleying	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	28.30	
MB potatoes	14.83	
Droughtiness Limitation	2	

Sample Point No. 98		
Horizon 1	0-35cm Dark brown (10YR 3/3) loamy medium sand.	
Horizon 2	35-120cm Brown (10YR 5/3) loamy medium sand with a weak coarse angular blocky structure and firm consistence.	
Horizon 3		
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Not present	
Gleying	Not present	
Wetness Class	I	
Wetness limitation	1	
MB Wheat	-2.20	
MB potatoes	-16.67	
Droughtiness Limitation	3a	
Texture limitation	2	

Sample Point No. 143		
Horizon 1	0-35cm Brown (10YR 4/3) medium sandy loam.	
Horizon 2	35-70cm Greyish brown (10YR 5/2) sandy clay loam with a weak coarse platy structure, 5% stoniness and many ochreous mottles.	
Horizon 3	70-120cm Grey (10YR 5/1) clay with many ochreous mottles, a weak coarse angular blocky structure and very firm consistence.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Starts at 35cm – evidenced by coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 35cm – evidenced by greyish colours and ochreous mottles.	
Wetness Class	IV	
Wetness limitation	3a	
MB Wheat	25.15	
MB potatoes	9.23	
Droughtiness Limitation	2	

Sample Point No. 159		
Horizon 1	0-30cm Dark greyish brown (10YR 4/2) sandy clay loam with few ochreous mottles.	
Horizon 2	30-120cm Reddish brown (5YR 4/4) clay with a weak coarse angular blocky structure, 5% stoniness and many ochreous mottles.	
Horizon 3		
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Starts at 30cm – evidenced by coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Red soil – resistant to gleying	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	19.32	
MB potatoes	6.93	
Droughtiness Limitation	2	

Sample Point No. 204		
Horizon 1	0-30cm Very dark greyish brown (10YR 3/2) medium sand.	
Horizon 2	30-60cm Light brownish grey (10YR 6/2) loamy medium sand with a weak medium angular blocky structure and very friable consistence.	
Horizon 3	60-120cm Pale brown (10YR 6/3) loamy medium sand with many ochreous mottles and a coarse angular blocky structure, with firm a consistence.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Not present	
Gleying	Not present	
Wetness Class	I	
Wetness limitation	1	
MB Wheat	-7.20	
MB potatoes	-21.67	
Droughtiness Limitation	3a	
Texture limitation	3b	

Sample Point No. 214		
Horizon 1	0-45cm Very dark greyish brown (10YR 3/2) loamy medium sand.	
Horizon 2	45-110cm Yellowish brown (10YR 5/4) medium sandy loam with a medium platy structure and very friable consistence.	
Horizon 3	110-120cm Grey (10YR 5/1) medium sand with common ochreous mottles and a medium angular blocky structure, with a firm consistence.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	N/A	
Gleying	N/A	
Wetness Class	I	
Wetness limitation	1	
MB Wheat	37.80	
MB potatoes	2.33	
Droughtiness Limitation	2	
Texture limitation	2	

Sample Point No. 266		
Horizon 1	0-40cm Very dark brown (10YR 2/2) loamy medium sand.	
Horizon 2	40-70cm Light yellowish brown (10YR 6/4) loamy medium sand with a very coarse angular blocky structure, firm consistence and very many ochreous mottles.	
Horizon 3	70-120cm Grey (7.5YR 6/1) medium sand with a coarse angular blocky structure, firm consistence and common ochreous mottles.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	N/A	
Gleying	N/A	
Wetness Class	II	
Wetness limitation	1	
MB Wheat	-5.2	
MB potatoes	-14.67	
Droughtiness Limitation	3a	
Texture limitation	2	

Sample Point No. 288		
Horizon 1	0-35cm Very dark brown (10YR 4/2) medium sandy loam.	
Horizon 2	35-50cm Reddish brown (2.5YR 4/4) sandy clay loam with a coarse prismatic structure, very firm consistence and many ochreous and black mottles.	
Horizon 3	50-120cm Grey (N 5/) clay with a massive structure, extremely firm consistence and many ochreous mottles.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Starts at 35cm – evidenced by coarse prismatic structure with less than 0.5% biopores >0.5mm.	
Gleying	Red soil – resistant to gleying	
Wetness Class	IV	
Wetness limitation	3a	
MB Wheat	24.80	
MB potatoes	11.33	
Droughtiness Limitation	2	

Sample Point No. 298		
Horizon 1	0-50cm Very dark greyish brown (10YR 3/2) loamy fine sand.	
Horizon 2	50-120cm Light grey (10YR 7/1) fine sand with a weak coarse angular blocky structure and common ochreous mottles.	
Horizon 3		
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Not present	
Gleying	Starts at 50cm – evidenced by greyish colours and ochreous mottles.	
Wetness Class	I	
Wetness limitation	1	
MB Wheat	70.80	
MB potatoes	24.33	
Droughtiness Limitation	1	
Texture Limitation	2	

Sample Point No. 365		
Horizon 1	0-30cm Very dark grey (10YR 3/1) loamy medium sand.	
Horizon 2	30-60cm Grey (10YR 5/1) sandy clay loam with a weak coarse angular blocky structure, friable consistence.	
Horizon 3	60-120cm Reddish brown (2.5YR 4/4) clay with a coarse prismatic structure, firm consistence, 5% stoniness and many ochreous mottles.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
Slowly permeable layer	Starts at 30cm – evidenced by weak coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 30cm – evidenced by greyish colours and ochreous mottles.	
Wetness Class	IV	
Wetness limitation	3a	
MB Wheat	9.85	
MB potatoes	-3.27	
Droughtiness Limitation	2	

Site Photos

Sample Point 68

Sample Point 210

Sample Point 270

Sample Point 353

Sample Point 373

Sample Point 393

Sample Point 407

ANALYTICAL REPORT

Report Number	**86291-25**	**W250**	**AMET PROPERTY**	**Client**	**BAYWA RE**
Date Received	**26-MAR-2025**		**HENWICK BARN**		**THORMANBY**
Date Reported	**04-APR-2025**		**BULWICK**		
Project	**SOIL**		**CORBY**		
Reference	**BAYWA RE**		**NORTHANTS**		
Order Number			**NN17 3DU**		

Laboratory Reference		**SOIL743732**	**SOIL743733**	**SOIL743734**	**SOIL743735**	**SOIL743736**	**SOIL743737**				
Sample Reference		**30**	**52**	**98**	**98 SS**	**143**	**159**				
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**				
Coarse Sand 2.00-0.63mm	% w/w	2	2	2	2	1	2				
Medium Sand 0.63-0.212mm	% w/w	15	14	32	34	24	14				
Fine Sand 0.212-0.063mm	% w/w	33	30	51	51	42	43				
Silt 0.063-0.002mm	% w/w	21	21	6	6	15	20				
Clay <0.002mm	% w/w	29	33	9	7	18	21				
Textural Class **		SCL/HCL	HCL	LmS	LmS	SCL/mSL	SCL				

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

Document Control

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** Please see the attached document for the definition of textural classes.

Reported by

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ANALYTICAL REPORT

Report Number	**86292-25**	**W250**	**AMET PROPERTY**	**Client**	**BAYWA RE**
Date Received	**26-MAR-2025**		**HENWICK BARN**		**THORMANBY**
Date Reported	**04-APR-2025**		**BULWICK**		
Project	**SOIL**		**CORBY**		
Reference	**BAYWA RE**		**NORTHANTS**		
Order Number			**NN17 3DU**		

Laboratory Reference		**SOIL743738**	**SOIL743739**	**SOIL743740**	**SOIL743741**						
Sample Reference		**204**	**214**	**225**	**265**						
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**						
Coarse Sand 2.00-0.63mm	% w/w	0	1	4	3						
Medium Sand 0.63-0.212mm	% w/w	34	32	17	28						
Fine Sand 0.212-0.063mm	% w/w	56	52	25	43						
Silt 0.063-0.002mm	% w/w	4	6	20	11						
Clay <0.002mm	% w/w	6	9	34	15						
Textural Class **		mS	LmS	HCL/SC	mSL						

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**86293-25**	**W250**	**AMET PROPERTY**	**Client**	**BAYWA RE**
Date Received	**26-MAR-2025**		**HENWICK BARN**		**THORMANBY**
Date Reported	**09-APR-2025**		**BULWICK**		
Project	**SOIL**		**CORBY**		
Reference	**BAYWA RE**		**NORTHANTS**		
Order Number			**NN17 3DU**		

Laboratory Reference		**SOIL743742**	**SOIL743743**	**SOIL743744**	**SOIL743745**						
Sample Reference		**266**	**288**	**298**	**298 SS**						
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**						
Coarse Sand 2.00-0.63mm	% w/w	1	3	0	0						
Medium Sand 0.63-0.212mm	% w/w	33	22	26	29						
Fine Sand 0.212-0.063mm	% w/w	52	47	58	63						
Silt 0.063-0.002mm	% w/w	7	13	7	4						
Clay <0.002mm	% w/w	7	15	9	4						
Textural Class **		LmS	mSL	LfS	fS						

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
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ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

Class	Code
Sand	S
Loamy sand	LS
Sandy loam	SL
Sandy Silt loam	SZL
Silt loam	ZL
Sandy clay loam	SCL
Clay loam	CL
Silt clay loam	ZCL
Clay	C
Silty clay	ZC
Sandy clay	SC

For the *sand, loamy sand, sandy loam* and *sandy silt loam* classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

- vf Very Fine (more than 2/3's of sand less than 0.106 mm)
- f Fine (more than 2/3's of sand less than 0.212 mm)
- c Coarse (more than 1/3 of sand greater than 0.6 mm)
- m Medium (less than 2/3's fine sand and less than 1/3 coarse sand).

The subdivisions of *clay loam* and *silty clay loam classes* according to clay content are indicated as follows:

- M medium (less than 27% clay)
- H heavy (27-35% clay)

Organic soils i.e. those with an organic matter greater than 10% will be preceded with a letter O.

Peaty soils i.e. those with an organic matter greater than 20% will be preceded with a letter P.

APPENDIX 5 - DESCRIPTION OF ALC GRADES

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.

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.

Grade 3 - good to moderate quality agricultural land Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

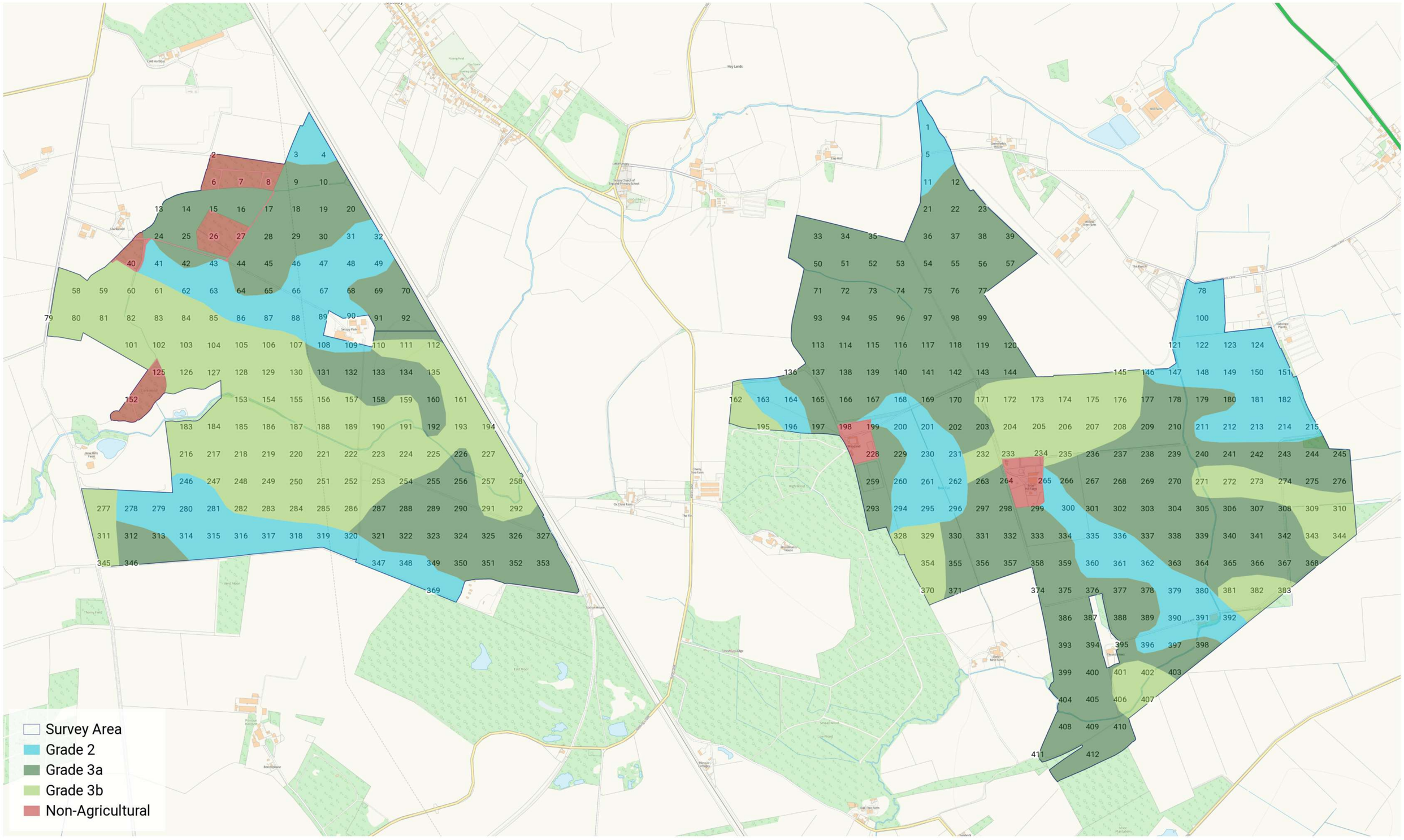
Subgrade 3a - good quality agricultural land Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 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.

Grade 4 - poor quality agricultural land Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 - very poor-quality agricultural land Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Appendix 6 - Map of ALC Grade



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200 m
Scale 1:9000 (at A2)

N

APPENDIX III: DRAFT FLOOD RISK ASSESSMENT

Provided as separate document.

APPENDIX IV: PRELIMINARY ECOLOGICAL APPRAISAL

Land at Thormanby,

Thirsk, North Yorkshire

Preliminary Ecological Appraisal

October 2024

Report reference	101.157
Revision	1
Prepared by	Lewis Clark
Approved by	Andrew Westgarth CEnv MCIEEM
Issue date	Rev 1. 10th October 2024

This report is valid for a period of 12 months from the issue date.

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1 Introduction

1.1.1.1 This report presents the results of a Preliminary Ecological Appraisal (PEA) undertaken on Land at Thormanby, York, North Yorkshire, YO61 4NN. The survey has been completed to provide supporting information in relation to a proposed development at the site[1].

1.1.1.2 The study area (see Figure 1) extends to approximately 414 ha split into two development parcels; Briar Hill Farm to the east (centred at approximate grid reference SE 4807 7380) and Sessay Park to the west (centred at approximate grid reference SE 4536 7403). Briar Hill Farm is located at an altitude of approximately 30-46 metres above sea level (ASL) with Sessay Park located at approximately 23-32 metres ASL. The landform is generally flat or gently sloping and comprises predominantly arable fields.

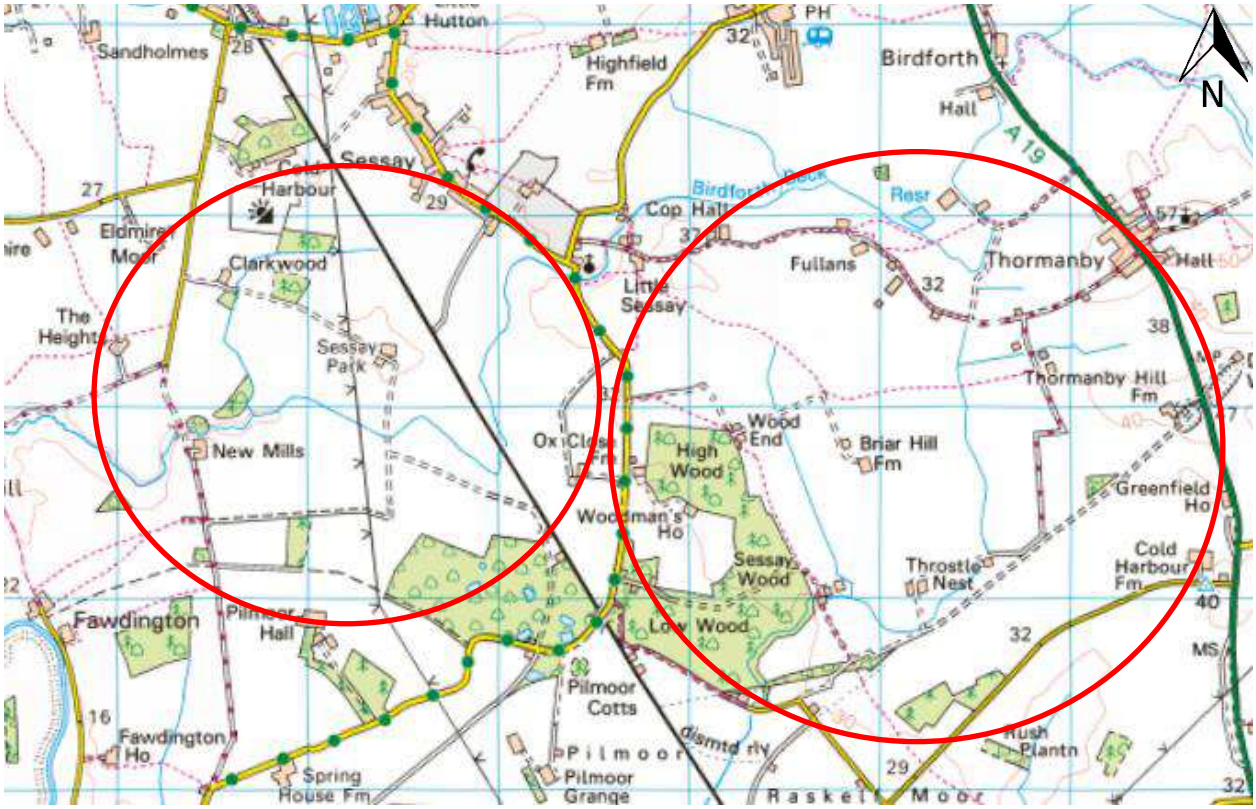
1.1.1.3 The aims of this assessment were to identify the habitat types present on the site, to assess the potential for protected / notable species to occur and to make any recommendations for further surveys or assessments which may be required to inform a proposed development at the site.

1.1.1.4 The site survey was undertaken on multiple dates from May-July in 2024 by Andrew Westgarth CEnv MCIEEM, Toby Fisher CEnv MCIEEM, Lewis Clark and Alice Rowe. A desk-based study was undertaken to obtain existing ecological records for the site and surrounding area.

Figure 1. Site Location (aerial imagery dated 2023)

[1] The PEA has been undertaken to support a DCO application for installation of a solar array.

Figure 2. Site Location



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2 Methodology

2.1 Desk Study

2.1.1.1 North & East Yorkshire Ecological Data Centre (NEYEDC) were contacted, in May 2024, for searches of protected sites and records of protected species within a 2 km radius of the site.

2.1.1.2 In addition, the following data sources were searched for statutorily protected sites and additional ecological data of relevance to the assessment such as previously granted European Protected Species Mitigation (EPSM) licences and off-site waterbodies:

- Multi Agency Geographic Information for the Countryside (MAGIC).
- Ordnance Survey 1:10,000 mapping.
- Aerial imagery (dated 2002, 2008, 2009, 2012, 2013, 2015, 2018, 2020, 2021, 2023).

2.2 Personnel

2.2.1.1 The Preliminary Ecological Appraisal survey was undertaken by Andrew Westgarth CEnv MCIEEM[2] [3], Toby Fisher CEnv MCIEEM[4] [5], Lewis Clark[6] and Alice Rowe.

2.3 Preliminary Ecological Field Survey

2.3.1.1 A Preliminary Ecological Appraisal of the site was conducted on five visits to the site between May-July in accordance with the standard survey methodology[7] [8]. The dates of survey visits and weather conditions at the time of visits are displayed in Table 1.

2.3.1.2 The habitats on the site were assessed and categorised in order to provide baseline information and subsequent interpretation of the ecological value of the site.

2.3.1.3 In addition, the site was searched for evidence of protected / notable species and assessed in terms of its potential to support protected / notable species such as Badger, Great Crested Newt, Water Vole, reptiles and bat species. Any built structures and trees within the site were inspected externally and from ground level for evidence of bats and for potential bat roost features.

Table 1. Survey weather conditions.

Date	Weather conditions
23rd May 2024	14°C, cloud cover 100%, wind Bft 1/2, dry.
5th June 2024	13°C, cloud cover 50%, wind Bft 3, dry with sunny spells.
17th June 2024	15°C, cloud cover 90%, wind Bft 1, occasional showers.
1st July 2024	16°C, cloud cover 90%, wind Bft 2/3, dry, light breeze.
4th July 2024	14°C, cloud cover 20%, wind Bft 5, dry and breezy.

[2] Natural England Class Licence Registration No. 2015-14953-CLS-CLS - CL18 Level 2 (Bats).

[3] Natural England Class Licence Registration No. WML- CL08: 2015-16752-CLS-CLS (Great Crested Newts).

[4] Natural England Class Licence Registration No. 2015-10756-CLS-CLS - CL18 Level 2 (Bats).

[5] Natural England Class Licence Registration No. WML- CL08:2015-16681-CLS-CLS (Great Crested Newts).

[6] Natural England Class Licence Registration No. 2023-11722-CL08-GCN (Great Crested Newts).

[7] Chartered Institute of Ecology and Environmental Management (CIEEM). (2017). Guidelines for Preliminary Ecological Appraisal, Second Edition. December 2017. CIEEM, Winchester.

[8] UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org)

2.4 Limitations

2.4.1.1 The site visit was undertaken within the optimum season for Phase 1 Habitat Surveys (April to September). A small outbuilding located at the northernmost point of Briar Hill Farm was inaccessible during the survey; it was possible to determine the potential for protected species to use the building via external assessment and as such this is not considered a significant limitation. A patch of 'Broadleaved Woodland; Mixed' within the northern area of Sessay Park was fenced off by barbed wire and inaccessible. Overall, there were no significant limitations.

3 Results

3.1 Desk Study

3.1.1.1 Information provided by NEYEDC is reproduced in Appendix 7 with key information summarised below.

3.1.2 Internationally / Nationally Protected Sites

3.1.2.1 No internationally designated nature conservation sites were identified within 1 km of the site.

3.1.2.2 NEYEDC identified two nationally protected site located within 1 km of the site:

- Pilmoor SSSI[9] is located immediately beyond the southern boundary Sessay Park (grid ref. SE459730).

3.1.3 Locally Designated Sites

3.1.3.1 NEYEDC identified one Local Wildlife Sites (SINC[10]) within 1 km of the site:

- Sessay Wood SINC is located immediately beyond the western boundary of Briar Hill Farm (grid ref. SE466732). The local wildlife site is listed as an ancient or long-standing neutral to calcareous woodland.

3.1.3.2 NEYEDC identified one Important Invertebrate Area (IIA) within 1 km of the site; the Yorkshire Rivers IIA covers a segment of the western area within Sessay Park.

3.1.4 Priority Habitats and Ancient Woodlands

3.1.4.1 NEYEDC identified land listed under the Ancient Woodland Inventory located within 1 km of the site. 34 ha of Ancient and Semi-Natural Woodland is located within the site boundary; and Ancient Replanted Woodland borders the site covering 38 ha.

3.1.4.2 There are several areas of Deciduous Woodland within 1 km of the site including within site boundaries; the most notable of these areas are located in the northern area of Sessay Park. Deciduous Woodland covers a total of 119 ha within 1 km of the site.

3.1.4.3 Small patches of Traditional Orchard are located within 1 km of the site up to the border of the site boundary. Traditional Orchard covers a total of 1.2 ha within 1 km of the site.

3.1.4.4 There are numerous patches of Lowland Heathland located within 1 km of the site; the closest is located approximately 197 m from the site. Lowland Heathland covers a total of 0.8 ha within 1 km of the site.

3.1.4.5 One small area of Lowland Fen is present within 1 km of the site, located approximately 299 m from the site and covering 686 sqm.

3.1.4.6 Numerous patches of 'no main habitat but additional habitats present' are located within 1 km of the site, covering a total of 1.2 ha.

3.1.5 Species Records

3.1.5.1 Please note the paucity of records for certain areas may be attributed to lack of survey and recording input rather than a limited number of species within an area.

[9] SSSI – Site of Special Scientific Interest

[10] SINC - Sites of Importance for Nature Conservation

Birds

3.1.5.2 NEYEDC provided four bird records within 1 km of the site which; three records relate to Corn Bunting found on the BoCC Red List[11]. The closest of these records is located approximately 664 m north-west of Sessay Park. There are no records for the site itself.

Bats

3.1.5.3 NEYEDC provided eight bat records within 1 km of the site. All records comprise Common Pipistrelle located at Sessay C of E Primary School (approx. grid ref. SE4638674751) approximately 630 m west of Briar Hill Farm. The records detail multiple roosts comprising between one and three individual bats – dated between 24/05/2017 and 06/07/2017.

Badger

3.1.5.4 No Badger records are located <500 m from the site.

Water Vole

3.1.5.5 NEYEDC provided one Water Vole record within 1 km of the site located at grid ref. SE4872, approximately 330 m south of the southern boundary of Briar Hill Farm – dated 1983.

Otter

3.1.5.6 NEYEDC provided two Otter records within 1 km of the site, both located at Birdforth Beck (grid ref. SE464747) approximately 584 m west of Briar Hill Farm – dated between 14/09/2000 and 24/06/2002.

Hedgehog

3.1.5.7 NEYEDC provided three Hedgehog records within 1 km of the site. The closest of these records is located 526 m west Briar Hill Farm at grid reference SE4632374275 – dated 20/08/2015.

Other Fauna

3.1.5.8 NEYEDC provided no amphibian or reptile records within 1 km of the site.

3.2 Preliminary Ecological Field Survey

3.2.1.1 Please also refer to Appendices 3-6 and photos included at Appendix 2.

3.2.1.2 The site (known as 'Thormanby') is located approximately 812 metres southwest of the village of Thormanby and ~512 metres south of Sessay village; the town of Thirsk lies ~7.44 km to the north with North York Moors National Park ~4.35 km northeast. The site extends to approximately 414 ha and is split into two areas; Briar Hill Farm to the east (centred at approximate grid reference SE 4807 7380) and Sessay Park to the west (centred at approximate grid reference SE 4536 7403). Briar Hill Farm is located at an altitude of approximately 30-46 metres a.s.l with Sessay Park located approximately 23-32 metres a.s.l; the two areas of the site lie ~761 metres apart. The landform is generally flat or gently sloping and comprises predominantly arable fields.

3.2.1.3 The immediate area surrounding the site is dominated by agricultural land with occasional small farmsteads interspersed. The East Coast Main Line railway runs along the entire eastern boundary of Sessay Park. Patches of woodland lie immediately beyond the site boundary at multiple locations; these include Sessay Wood located adjacent to the western boundary of Briar Hill Farm, and woodland associated with Pilmoor Wood SSSI located along the southern boundary of Sessay Park.

3.2.1.4 Waterbodies in the surrounding area include Birdforth Beck which runs north of the site and through Sessay Park crossing the east and west boundaries, tributaries of the beck also cross Briar Hill Farm.

[11] BoCC - Birds of Conservation Concern 5: the Red List for Birds (2021)

Ponds nearby to the site are scattered with a concentration centred within Pilmoor Wood SSSI and a small number located within private farmsteads. The closest waterbody is located immediately beyond the southern boundary of Sessay Park.

3.2.2 Habitats

Cereal Crops

3.2.2.1 The majority of the site comprises arable cropland used for the production of Cereal Crops; at the time of the survey numerous crop types were present at varied growth stages.

Modified Grassland

3.2.2.2 Modified Grassland is present within buffer strips located along the field boundaries of arable fields; these strips of grassland are present in a large proportion of arable fields at the site and measure up to 10 m in width. A grassland buffer is present along either side of Birdforth Beck running north-south through Briar Hill Farm and east-west through Sessay Park. Modified Grassland is present on the banks of the beck and ditches at the site. The grassland buffers at the field boundaries are regularly disturbed and compacted by farm vehicles.

3.2.2.3 Modified Grassland is the main habitat in occasional fields at the site including an unmanaged field at the northernmost extent of Briar Hill Farm; a portion of land adjacent to the eastern boundary of Sessay Park near Birdforth Beck that appears to flood on occasion; and numerous fields along the southern boundary of Sessay Park used to house poultry sheds.

3.2.2.4 The species composition and morphology of plant species present within Modified Grassland areas at the site is influenced by excess nutrients present from the fertilisation of arable fields. Species present include Yorkshire Fog *Holcus lanatus*, Creeping Bent *Agrostis stolonifera*, Perennial Rye-grass *Lolium perenne,* False oat-grass *Arrhenatherum elatius*, Cock's-foot *Dactylis glomerata*, Annual Meadow-grass *Poa annua*, Rough Meadow-grass *Poa trivialis*, Reed Canary-grass *Phalaris arundinacea*, Great brome *Bromus deandrus*, Creeping thistle *Cirsium arvense*, Broad-leaved dock *Rumex obtusifolius*, Thyme-leaved speedwell *Veronica serpyllifolia*, Dandelion *Taraxacum officinale*, Hairy willowherb *Epilobium hirsutum*, Lady's thumb *Persicaria maculosa*, Grey Field-speedwell *Veronica polita*, Cut-leaved Cranesbill *Geranium dissectum*, Meadowsweet *Filipendula ulmaria*, Common nettle *Urtica dioica*, Creeping buttercup *Ranunculus repens*, Ribwort plantain *Plantago lanceolata*, Large-leaved avens *Geum macrophyllum*, White clover *Trifolium repens*, Pineappleweed *Matricaria discoidea*, Lesser burdock *Arctium minus*, Common hogweed *Heracleum sphondylium*, Cow parsley *Anthriscus sylvestris,* Horseweed *Erigeron canadensis,* Meadow cranesbill *Geranium pratense*, Scarlet pimpernel *Anagallis arvensis*, Hedge woundwort *Stachys sylvatica*, Common nipplewort Lapsana communis, Common chickweed Stellaria media, Rosebay willowherb *Chamaenerion angustifolium*, Cleavers *Galium aparine*, Horsetail *Equisetum arvense*, White dead-nettle *Lamium album*, Common vetch *Vicia sativa*, Silverweed *Potentilla anserina*, Smooth bedstraw *Cruciata laevipes*, Lesser celandine *Ficaria verna,* Black medick *Medicago lupulina*, Common ragwort *Jacobaea vulgaris*, Bird's-foot trefoil *Lotus corniculatus*, Hedge mustard *Sisymbrium officinale*, Dove's-foot cranesbill *Geranium molle*, Daisy *Bellis perennis*, Common groundsel *Senecio vulgaris*, Common centaury *Centaurium erythraea*, Common sowthistle *Sonchus oleraceus*, Lesser stitchwort *Stellaria graminea*, Narrow-leaved hawksbeard *Crepis tectorum*, Spear thistle *Cirsium vulgare*, Common poppy *Papaver rhoeas* and Fat-Hen *Chenopodium album*.

3.2.2.5 Plant species present within grassland on the banks of ditches and the beck comprised a selection of the above with the following additions: Tansy *Tanacetum vulgare*, Himalayan Balsam *Impatiens glandulifera*, Hemp-agrimony *Eupatorium cannabinum*, Red campion *Silene dioica*, White campion *Silene latifolia*, Creeping cinquefoil *Potentilla reptans*, Bramble *Rubus fruticosa*, Germander speedwell *Veronica Chamaedrys*, Common valerian *Valeriana officinalis*, Wild mustard *Sinapis arvensis*, Hedge bedstraw *Gallium mollugo*, Bittersweet nightshade *Solanum dulcamara*, Field bindweed *Convolvulus arvensis*, Water figwort *Scrophularia umbrosa*, Dog rose *Rosa canina*, Woolly burdock *Arctium tomentosum*, Ground-ivy *Glechoma hederacea* and Garlic mustard *Alliaria petiolata.*

Artificial Unvegetated; Unsealed Surface

3.2.2.6 Artificial Unvegetated; Unsealed Surface at the site comprises numerous access tracks connecting fields and the farmsteads at the site. In addition, a handful of small areas used for storage and general purpose are present located near the central farmstead at Sessay Park, and at a junction between trackways in the southern segment of Sessay Park.

3.2.2.7 Plant species are present in these areas where ground is less regularly disturbed by vehicles or footfall; species present are limited to Cock's-foot *Dactylis glomerata,* Annual Meadow-grass *Poa annua,* Pineappleweed *Matricaria discoidea,* Ribwort plantain *Plantago lanceolata,* Spear thistle *Cirsium vulgare*, Borad-leaved dock *Rumex obtusifolius,* Dandelion *Taraxacum officinale*, Creeping buttercup *Rananculus repens*, Horsetail *Equisetum arvense,* Herb robert *Geranium robertianum,* Common groundsel *Senecio vulgaris*, Common sorrel *Rumex acetosa* and Sorrel *Achillea millefolium.*

Developed Land; Sealed Surface (Buildings and Hardstanding)

3.2.2.8 Developed Land; Sealed Surface present at the site encompasses a small number of outbuildings at the site along with associated hardstanding and numerous trackways. Two adjacent outbuildings used for general storage are present towards the southern boundary of Briar Hill Farm along with a small outbuilding at the northernmost extent; approximately thirty-two poultry sheds were present adjacent to the southern boundary of Sessay Park at the time of the survey with numerous others under construction.

Mixed Scrub

3.2.2.9 Two small pockets of Mixed Scrub are present at the site, located along Birdforth Beck towards the eastern boundary of Sessay Park. The pockets of scrub follow the line of the beck and comprise predominantly Hawthorn *Crataegus monogyna* with Elder *Sambucus nigra*, Crab apple *Malus sylvestris* and Ivy *Hedera helix.*

Willow Scrub

3.2.2.10 Three small areas of Willow Scrub are present at the site along the eastern boundary of Sessay Park. Towards the northern extent of the eastern boundary a pocket of scrub associated with a pond is established; towards the southern extent of the eastern boundary two pockets of scrub are encroaching into the site from the railway embankment beyond the site boundary. Species present comprise *Willow* and *Poplar sp.*

Other Woodland; Broadleaved

3.2.2.11 A handful of patches of Other Woodland; Broadleaved are present at the site; these include a small area located along the eastern site boundary at Briar Hill Farm; a strip of woodland located along Birdforth Beck connecting to the western boundary of Sessay Park; and two larger patches along the northern and western boundaries of Sessay Park respectively.

3.2.2.12 Species present comprise predominantly broadleaved trees and a similar composition of species was recorded across the woodland at the site. Species include Oak *Quercus robur*, Birch *Betula pendula*, Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Alder *Alnus glutinosa*, Field maple *Acer campestre,* Wych elm *Ulmus glabra*, *Willow sp*., Western hemlock *Tsuga heterophylla*, with an understorey of Hawthorn *Crataegus monogyna*, Holly *Ilex aquifolium*, Blackthorn *Prunus spinosa* and Hazel *Corylus avellana.* Ground flora species include Common nettle *Urtica dioica,* Rhododendron *Rhododendron ponticum*, Lesser burdock *Arctium minus*, Lords and Ladies *Arum maculatum*, Enchanter's nightshade *Circaea lutetiana*, Wood avens *Geum urbanum*, Cleavers *Gallium aparine,* Male fern *Dryopteris filix-mas*, Honeysuckle *Lonicera periclymenum*, Dog's mercury *Mercurialis perennis*, Germander speedwell *Veronica chamaedrys*, Wood sorrel *Oxalis montana,* Lesser celandine *Ficaria verna,* Selfheal *Prunella vulgaris*, Hedge woundwort *Stachys sylvatica,* Common primrose *Primula vulgaris,* Bramble *Rubus fruticosa*, Ivy *Hedera helix,* Dog rose *Rosa canina*, and Herb-paris *Paris quadrifolia.*

Other Woodland; Mixed

3.2.2.13 Two patches of Other Woodland; Mixed are present at the site within Sessay Park; the woodland patches are located within the northern segment of Sessay Park within an arable field and along the northern site boundary respectively. Species present resemble a similar composition to those recorded within broadleaved woodland at the site, with a higher proportion of coniferous species including Scots Pine *Pinus sylvestris* and Sitka Spruce *Picea sitchensis.* Beech *Fagus sylvatica* was also recorded as an addition within the mixed woodland patches.

Felled Woodland

3.2.2.14 A linear strip of recently Felled Woodland (felled approximately within the last year preceding the survey) is present in the southeast corner of the site at Briar Hill Farm. The woodland has been felled to facilitate used of a trackway; the resulting habitat present comprises bare ground punctuated by segments of grassland.

Trees

3.2.2.15 A number of individual trees of varied maturity and size are present at the site with a higher density of trees located at Briar Hill Farm. The vast majority of trees are located along the site boundaries and are occasionally positioned within a hedgerow; a single large tree stands alone within an arable field in the northern segment of Briar Hill Farm. 6no. trees considered to be of 'Very Large Size' and high ecological value are located at Sessay Park; five of these are situated on the western site boundary with one along the southern boundary. Species present at the site include Oak *Quercus Robur*, *Willow sp*. (incl. Grey willow *Salix cinerea,* Crack willow *Salix fragilis*), Hawthorn *Crataegus monogyna,* Ash *Fraxinus excelsior*, Poplar sp. (incl. Lombardy poplar *Populus nigra italica*), Field maple *Acer campestre* and Alder *Alnus glutinosa.*

3.2.2.16 Target notes 'TN1' and 'TN2' (see Figure A3.1) reference ecologically valuable deadwood present along the site boundary in the form of standing dead-trees and/or fallen trunks.

Line of Trees

3.2.2.17 Line of Trees features are present at the site along sections of the southern boundaries at both Briar Hill Farm and Sessay Park, in addition to a section of the eastern boundary at Briar Hill Farm towards the southwest corner of the site.

3.2.2.18 Multiple features categorised as 'Line of Trees – associated with bank or ditch' are also present at both development parcels. At Sessay Park the features run along ditches on the eastern and western boundary and along a considerable portion of Birdforth Beck; at Briar Hill Farm two small fragmented features are positioned along Birdforth Beck with an additional feature along a field boundary ditch in the western area of the site.

3.2.2.19 Species identified within Line of Trees features at the site include Alder *Alnus glutinosa*, Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Oak *Quercus robur*, Lombardy poplar *Populus nigra italica,* Grey willow *Salix cinerea,* Birch *Betula pendula*, Crab apple *Malus sylvestris*, Goat willow *Salix caprea*, Crack willow *Salix fragilis* with understorey species including Blackthorn *Prunus spinosa*, Hawthorn *Crataegus monogyna* and Elder *Sambucus nigra*. The features associated with a bank or ditch generally included a larger proportion of Alder *Alnus glutinosa*, *Willow sp.* and Sycamore *Acer pseudoplatanus.*

Native Hedgerow

3.2.2.20 A network of Native Hedgerow features is present at the site with a slightly higher density of hedgerows at Briar Hill Farm; some of the features comprise standard trees with multiple features associated with the ditches and Birdforth Beck at the site. The degree of management applied to hedgerows at the site is varied with field boundary hedgerows generally well-managed to approximate dimensions of 1.5 x 1.5 m; this includes hedgerows planted in recent years lining access roads. A proportion of hedgerows are outgrown and unmanaged to dimensions up to 6 x 3 m. Species

richness within hedgerows at the site was largely low-moderate per 20 m section of hedgerow; occasionally hedgerows are characterised by multiple gaps.

3.2.2.21 Species recorded within Native Hedgerows at the site include Hawthorn *Crataegus monogyna*, Elder *Sambucus nigra*, Ash *Fraxinus excelsior*, Field maple *Acer campestre*, Hazel *Corylus avellana*, Blackthorn *Prunus spinosa*, Wych elm *Ulmus glabra, Willow sp., Prunus sp*. (incl. Common Plum *Prunus domestica*), Cherry laurel *Prunus laurocerasus* with climbers Dog rose *Rosa canina*, Ivy *Hedera helix*, Bramble *Rubus fruticosa*, Honeysuckle *Lonicera periclymenum* and Hedge bindweed *Calystegia sepium.*

Watercourses

3.2.2.22 The site comprises approximately 3.87 km of watercourse associated with Birdforth Beck and a further ~5.12 km of drainage ditches situated along field boundaries (see Appendix 4). At Briar Hill Farm the beck runs from the northern site boundary through to the southwest corner of the site where it crosses the western boundary; at Sessay Park the beck runs from the eastern boundary to the western boundary centrally across the site. A higher density of drainage ditches is present at Briar Hill Farm with the features situated between arable fields. At Sessay Park a drainage ditch runs along the eastern boundary towards the southeast corner of the site, with a long connected ditch running from the eastern site boundary in the north of the site to the western boundary centrally within the site.

3.2.2.23 Birdforth Beck at the site comprises an approximate width of 5 m at the waters surface with a water depth up to 20 cm at the time of the survey. The banks are steep and up to 2 m high. Vegetation within the beck is limited with algal growth on portions of the riverbed evident and occasional Branched Bur-reed *Sparganium erectum* recorded.

3.2.2.24 The ditches at the site were approximately 1-1.5 m wide with steep banks up to 2.5 m high; the water level held in the ditches was varied with many recorded with a water depth of a few centimetres. Aquatic vegetation was limited with Watercress Nasturtium officinale recorded occasionally. Vegetation recorded in the ditches or on the banks is listed in paragraph 3.2.2.5.

3.2.3 Invasive Weeds

3.2.3.1 Three species listed on Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) were identified during the survey. Himalayan Balsam *Impatiens gladulifera* was recorded at multiple locations within watercourses across the site (see TN3-TN5 – Figure A3.1; TN1-TN3 – Figure A3.2); Giant Hogweed *Heracleum mantegazzianum* was recorded at one location along the eastern boundary at Sessay Park towards the southeast corner of the site (see TN3 – Figure A3.2); and Rhododendron *Rhododendron ponticum* was recorded within a patch of broadleaved woodland along the eastern boundary of Briar Hill Farm (see TN6 – Figure A3.1).

3.2.4 Amphibians

3.2.4.1 NEYEDC provided no records of Great Crested Newt within 1 km of the site. There is one pond present on site (see P3 – Figure A5.2) located along a ditch at the eastern boundary of Sessay Park towards the northern extent of the site (grid ref. SE 45386 74802); the pond measures approximately 20 x 10 m with a depth up to ~40 cm. The pond presents a suitable proportion of open water with some aquatic vegetation present, the banks are densely vegetated with willow scrub and mature trees adjacent; the pond is potentially suitable for Great Crested Newt. The site provides areas of potentially suitable terrestrial habitat for Great Crested Newt within woodland, grassland and beneath hedgerows.

3.2.4.2 A large debris pile comprising rubble, logs and tree stumps is located along the southern boundary of Briar Hill Farm (see TN7 – Figure A3.1) and provides potentially suitable refuge for Great Crested Newt.

3.2.4.3 Ten waterbodies potentially suitable for breeding Great Crested Newts have been identified within 250 metres of the site (see Appendix 5):

- P1: A small-moderate sized ornamental pond located approximately 172 metres east of the site at grid reference SE 47928 74780. The pond extends to approximately 26 x 22 m. The pond appears to be located within garden space associated with a private residence which comprises mature trees within a patch of woodland and adjacent grassland.
- P2: A small woodland pond within Sessay Wood (located on the boundary of a 500 m search radius) located approximately 255 metres west of the site at grid reference SE 47095 73636. The pond extends to approximately 20 x 16 m.
- P4: A moderate sized pond within an agricultural field associated with an external farmstead approximately 8 m northwest of the site at grid reference SE 44608 74630. The pond extends to approximately 22 x 24 m. The pond appears to be a wet hollow that temporarily holds water throughout the year.
- P5: A large private fishing pond located approximately 63 metres west of the site at grid reference SE 44515 73830. The pond extends to approximately 105 x 77 m.
- P6: A moderate sized pond within a grassland field located approximately 9 m west of the site at grid reference SE 44772 73954. The pond extends to approximately 46 x 22 m. The pond is situated adjacent to woodland that stretches onto site.
- P7-P10: A series of four woodland ponds located within Pilmoor Wood SSSI located between approximately 40 metres and 239 metres south of the site at grid references SE 46192 73020; SE 46051 73262; SE 45942 73099; and SE 45793 73031 respectively.

3.2.4.4 The ponds are assessed as potentially suitable for Great Crested Newts with no obvious major barriers to dispersal of amphibians between the ponds and the site.

3.2.5 Birds

3.2.5.1 A range of birds was observed within and adjacent to the site during the survey. Species included Swallow, Crow, Mallard, Swift, Common Gull, Pied Wagtail, Wood Pigeon, Great Tit, Wren, Rook, Black-headed Gull, Grey Wagtail, Goldfinch, Chiff chaff, Sand Martin, Peregrine Falcon and Heron. Five Species of Principal Importance for the conservation of biodiversity in England[12] was recorded: Skylark, Tree Sparrow, House Sparrow, Corn Bunting and Lapwing.

3.2.5.2 It is noted that Skylark were recorded on three of five survey visits at both Briar Hill Farm and Sessay Park; an estimated minimum of 5no. individuals were recorded on 23rd May 2024 at Briar Hill Farm using multiple fields and calling regularly. It is considered probable that Skylark are nesting in arable fields at the site.

3.2.5.3 A range of common bird species and farmland birds are likely to use multiple habitats at the site for nesting including buildings at the site. Target note 'TN4' represents a large birds nest identified in an Ash tree within a line of trees along Birdforth Beck; target note 'TN5' represents a large brash pile likely constructed within the last six months that provides potential bird nesting habitat (see Figure A3.2).

3.2.6 Bats

3.2.6.1 No direct evidence of bats was observed during the survey. Approximately thirty-two poultry sheds present at the time of the survey were devoid of potential bat roost features and assessed as having negligible bat roost potential. Three buildings at the site located at Briar Hill Farm possess a limited number of potential roost features and are assessed as having low bat roost potential (see Figure A6.1).

3.2.6.2 Building 1 is a small storage building of stone block construction located along the site boundary at the northernmost extent of Briar Hill Farm; the building extends to approximately 5 x 7 metres and sits on the southern bank of Birdforth Beck. The building has a mono-pitch roof with north-facing aspect and comprises a covering of corrugated cement sheeting. Wooden double doors are present on the eastern elevation with no windows present. Vegetation surrounding the building is considerably overgrown with trees, scrub and ruderal species including densely growing nettles

[12] Species listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

established in close proximity to the building. Potential bat roost features are present in gaps at the eaves underneath corrugated material and in small gaps at the top of the wooden doors providing internal access to the building. Based on the identified potential bat roost features and surrounding habitat, Building 1 is assessed as having low bat roost potential.

3.2.6.3 Building 2 is a moderate sized storage building located towards the southern site boundary of Briar Hill Farm to the east of Building 3; the building extends to approximately 27 x 23 metres. The building is of timber frame construction. The lower section of the walls is of stone block construction with vertical wooden wall panelling above; the building is partially open-sided on the east and west-facing elevations. The roof is mono-pitch with a south-facing aspect and covering of corrugated cement sheeting. Potential bat roost features are present behind horizontal wooden planks (fascia fixing) at the external eaves and in gaps within the internal timber frame and wooden wall cladding. Based on the identified potential bat roost features, Building 2 is assessed as having low bat roost potential.

3.2.6.4 Building 3 is a moderate sized storage building located towards the southern site boundary of Briar Hill Farm to the west of Building 2; the building extends to approximately 38 x 19 metres. The building is of timber frame construction with a pitched roof and gable ends. The lower section of the walls is of stone block construction with vertical wooden wall panelling above and corrugated sheeting towards the gable apex. The roof has north and south-facing aspects with a covering of corrugated sheeting. Potential bat roost features are present in gaps at the eaves and verges, gaps internally behind the timber frame, and gaps within wall panelling. Based on the identified potential bat roost features, Building 3 is assessed as having low bat roost potential.

3.2.6.5 A number of trees at the site were assessed as having low bat roost potential based on the presence of potential bat roost features (see Appendix 6). Trees with bat roost potential were recorded at Briar Hill Farm along the eastern site boundary, and at a higher density at Sessay Park along the western and southern boundaries and within woodland.

3.2.6.6 In terms of foraging and commuting habitats, the site provides habitat of potentially moderate-high quality value for bats in relation to the woodland, grassland, hedgerows and trees. Birdforth beck along with hedgerows and treelines at the site provides commuting pathways for bats which connect to foraging habitat in close proximity to the site and in the wider area. There is the potential for bats less tolerant of light pollution to utilise the site based on the rural nature of the site and adjacent habitat in the local area.

3.2.7 Badger

3.2.7.1 Evidence of Badger was recorded at the site at both Briar Hill Farm and Sessay Park.

3.2.8 Water Vole, Otter and White-Clawed Crayfish

3.2.8.1 No evidence of Water Vole, Otter or White-Clawed Crayfish was recorded during the survey.

3.2.8.2 The site comprises approximately 3.87 km of watercourse associated with Birdforth Beck and a further ~5.12 km of drainage ditches; the watercourses at the site provide potentially suitable habitat for Water Vole, Otter and White-Clawed Crayfish and connect to potentially suitable habitat beyond the site boundaries in the wider area. The vegetated banks and grassland buffer strips may offer suitable, sub-optimal habitat for Otter and Water Vole.

3.2.9 Invertebrates

3.2.9.1 A section of Birdforth Beck located centrally within the site at Briar Hill Farm was recorded as supporting Tansy *Tanacetum vulgare*; this plant provides the primary food source for the Tansy beetle *Chrysolina graminis* (a Species of Principal Importance in England[13]) and may support a

[13] Species listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

population of the beetle at the site (see TN8 – Figure A3.1). Tansy *Tanacetum vulgare* is likely to be present elsewhere at the site.

3.2.10 Other Fauna

3.2.10.1 Brown Hare were recorded at the site on multiple visits during the survey including observations of numerous individuals. A population of Brown Hare based at the site or within nearby habitat in the local area is considered to utilise the site for foraging and potentially breeding.

3.2.10.2 An isolated pocket of grassland offers potentially suitable habitat for reptiles; based on the nature of the habitats as a whole, it is considered unlikely reptiles will occur at the site.

3.2.10.3 Hedgehog (a Species of Principal Importance in England) could potentially occur within the site.

4 Conclusions and Recommendations

4.1 Internationally / Nationally Protected Sites

4.1.1.1 No internationally designated nature conservation sites were identified within 1 km of the site. NEYEDC identified two nationally protected site located within 1 km of the site:

- Pilmoor SSSI[14] is located immediately beyond the southern boundary Sessay Park (grid ref. SE459730).

4.1.1.2 Given the nature of the proposed development, the potential for significant impacts on the above site is likely to be low.

4.2 Locally Designated Sites

4.2.1.1 NEYEDC identified one Local Wildlife Sites (SINC[15]) within 1 km of the site:

- Sessay Wood SINC located immediately beyond the western boundary of Briar Hill Farm (grid ref. SE466732).

4.2.1.2 NEYEDC identified one Important Invertebrate Area (IIA) within 1 km of the site; the Yorkshire Rivers IIA covers a segment of the western area within Sessay Park.

4.2.1.3 Based on the likely nature of the development proposals, the proposed development is not likely to significantly affect any locally designated sites.

4.3 Habitats

4.3.1.1 NEYEDC identified areas listed under the Ancient Woodland Inventory including 34 ha of Ancient and Semi-Natural Woodland located within the site boundary, and 38 ha of Ancient Replanted Woodland bordering the site. There are several areas of Deciduous Woodland located within site.

4.3.1.2 The site comprises predominantly arable fields (cereal crops) divided by Birdforth Beck and a network of Native Hedgerows and Ditches. Further habitats present include Modified Grassland, Woodland (both Broadleaved and Mixed), Felled Woodland, Trees, Scrub (both Mixed and Willow), Artificial Unvegetated; Unsealed Surface, Developed Land; Sealed Surface (buildings and hardstanding) and Lines of Trees.

4.3.1.3 Based on the likely nature of the development proposals, significant impacts to priority habitat at the site and within the surrounding area are considered to be low.

Recommendations

4.3.1.4 It is recommended that the following habitats should be retained in situ with suitable buffers of semi-natural vegetation wherever possible: Woodland (both Broadleaved and Mixed), Native Hedgerows, Trees, Lines of Trees. Encroachment on Birdforth Beck should be avoided as far as possible.

4.4 Invasive Weeds

4.4.1.1 Three species listed on Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) were identified during the survey. Himalayan Balsam *Impatiens gladulifera* was recorded at multiple locations within watercourses across the site (see TN3-TN5 – Figure A3.1; TN1-TN3 – Figure A3.2); Giant Hogweed *Heracleum mantegazzianum* was recorded at one location along the eastern boundary at Sessay Park towards the southeast corner of the site (see TN3 – Figure A3.2); and

[14] SSSI – Site of Special Scientific Interest

[15] SINC - Sites of Importance for Nature Conservation

Rhododendron *Rhododendron ponticum* was recorded within a patch of broadleaved woodland along the eastern boundary of Briar Hill Farm (see TN6 – Figure A3.1).

Recommendations

4.4.1.2 It is recommended that an Invasive Weeds Management Plan should be prepared and implemented in order to ensure that Himalayan Balsam, Giant Hogweed and Rhododendron is not spread within or beyond the site and is removed wherever possible. Removal of Rhododendron should comprise an annual effort to exclude the species from woodland through removal of plant material.

4.5 Amphibians

4.5.1.1 NEYEDC provided no records of Great Crested Newt within 1 km of the site. There is one pond present on site (see P3 – Figure A5.2) located along a ditch at the eastern boundary of Sessay Park towards the northern extent of the site (grid ref. SE 45386 74802); the pond measures approximately 20 x 10 m with a depth up to ~40 cm and is potentially suitable for Great Crested Newt.

4.5.1.2 The site provides areas of potentially suitable terrestrial habitat for Great Crested Newt within woodland, grassland and beneath hedgerows. A large debris pile comprising rubble, logs and tree stumps is located along the southern boundary of Briar Hill Farm (see TN7 – Figure A3.1) and provides potentially suitable refuge for Great Crested Newt.

4.5.1.3 Ten waterbodies potentially suitable for breeding Great Crested Newts have been identified within 250 metres of the site (see Appendix 5): P1 located approximately 172 metres east of the site; P2 (located on the boundary of a 250 m search radius) located approximately 255 metres west of the site; P4 located approximately 8 m northwest of the site; P5 located approximately 63 metres west of the site; P6 located approximately 9 m west of the site; and P7-10 located within Pilmoor Wood SSSI between approximately 40 metres and 239 metres south of the site

Recommendations

4.5.1.4 It is recommended that presence-absence surveys for Great Crested Newts are undertaken on the on-site pond and surrounding off-site ponds during the optimal survey period of April to May. The surveys should comprise eDNA sampling or a traditional 3-method survey effort across four site visits. If Great Crested Newts are found to be present, it may be necessary to undertake further survey work with mitigation and compensation measures.

4.6 Birds

4.6.1.1 A range of birds was observed within and adjacent to the site during the survey. Species included Swallow, Crow, Mallard, Swift, Common Gull, Pied Wagtail, Wood Pigeon, Great Tit, Wren, Rook, Black-headed Gull, Grey Wagtail, Goldfinch, Chiff chaff, Sand Martin, Peregrine Falcon and Heron. Five Species of Principal Importance for the conservation of biodiversity in England[16] was recorded: Skylark, Tree Sparrow, House Sparrow, Corn Bunting and Lapwing.

4.6.1.2 It is noted that Skylark were recorded on three of five survey visits at both Briar Hill Farm and Sessay Park; an estimated minimum of 5no. individuals were recorded on 23rd May 2024 at Briar Hill Farm using multiple fields and calling regularly. It is considered probable that Skylark are nesting in arable fields at the site.

4.6.1.3 A range of common bird species and farmland birds are likely to use multiple habitats at the site for nesting including buildings at the site. Target note 'TN4' represents a large birds nest identified in an Ash tree within a line of trees along Birdforth Beck; target note 'TN5' represents a large brash pile likely constructed within the last six months that provides potential bird nesting habitat (see Figure A3.2).

[16] Species listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

Recommendations

4.6.1.4 Development works affecting cropland (Cereal Crops), Buildings, Trees, Native Hedgerows, Lines of Trees or Woodland at the site should be undertaken outside the main bird nesting period (March to August inclusive). If this is not possible, a breeding bird survey must be undertaken prior to works commencing in order to confirm presence or absence of nests. Any works affecting buildings at the site undertaken within the bird nesting period should be supervised by a suitably qualified ecologist. The supervising ecologist should advise all site personnel of the potential presence of nesting birds, their legal protection and the need to minimise disturbance of nesting birds. If active nests are present, they must be retained in situ undisturbed until the nests are no longer active. A nest is classed as active when it contains eggs or chicks and whilst being built.

4.7 Bats

4.7.1.1 No direct evidence of bats was observed during the survey. Approximately thirty-two poultry sheds present at the time of the survey were devoid of potential bat roost features and assessed as having negligible bat roost potential. Three buildings at the site located at Briar Hill Farm possess a limited number of potential roost features and are assessed as having low bat roost potential (see Figure A6.1).

4.7.1.2 A number of trees at the site were assessed as having low bat roost potential based on the presence of potential bat roost features (see Appendix 6).

4.7.1.3 In terms of foraging and commuting habitats, the site provides habitat of potentially moderate-high quality value for bats in relation to the woodland, grassland, hedgerows and trees. Birdforth beck along with hedgerows and treelines at the site provides commuting pathways for bats which connect to foraging habitat in close proximity to the site and in the wider area. There is the potential for bats less tolerant of light pollution to utilise the site based on the rural nature of the site and adjacent habitat in the local area.

Recommendations

4.7.1.4 Prior to any work affecting Buildings (Buildings 1, 2 and 3) or Trees with low bat roost potential at the site, it is recommended that a minimum of 1x dusk emergence bat survey should be undertaken during the optimal survey period May to August inclusive. Depending on the results of the survey, it may be necessary to undertake further surveys, mitigation and/or compensatory measures.

4.7.1.5 It is recommended that, where possible, trees at the site should be retained in situ.

4.8 Badger

4.8.1.1 Evidence of Badger was recorded at the site at both Briar Hill Farm and Sessay Park.

Recommendations

4.8.1.2 It is recommended that a full Badger Walkover Survey is undertaken at the site. Depending on the results of the survey, it may be necessary to undertake further surveys including camera-trap monitoring, mitigation and/or compensatory measures.

4.9 Water Vole, Otter and White-clawed Crayfish

4.9.1.1 No evidence of Water Vole, Otter or White-Clawed Crayfish was recorded during the survey.

4.9.1.2 The watercourses at the site provide potentially suitable habitat for Water Vole, Otter and White-Clawed Crayfish and connect to potentially suitable habitat beyond the site boundaries in the wider area. The vegetated banks and grassland buffer strips may offer suitable, sub-optimal habitat for Otter and Water Vole.

Recommendations

4.9.1.3 Given the number of waterbodies present on site and connectivity to further suitable habitat off-site, it is recommended that two Water Vole presence/absence surveys are undertaken during the months of mid-April to June and July to September.

4.10 Invertebrates and Other Fauna

4.10.1.1 A section of Birdforth Beck located centrally within the site at Briar Hill Farm was recorded as supporting Tansy *Tanacetum vulgare*; this plant provides the primary food source for the Tansy beetle *Chrysolina graminis* (a Species of Principal Importance in England[17]) and may support a population of the beetle at the site (see TN8 – Figure A3.1). Tansy *Tanacetum vulgare* is likely to be present elsewhere at the site.

4.10.1.2 Brown Hare were recorded at the site on multiple visits during the survey including observations of numerous individuals. A population of Brown Hare based at the site or within nearby habitat in the local area is considered to utilise the site for foraging and potentially breeding.

4.10.1.3 An isolated pocket of grassland offers potentially suitable habitat for reptiles; based on the nature of the habitats as a whole, it is considered unlikely reptiles will occur at the site.

4.10.1.4 Hedgehog (a Species of Principal Importance in England) could potentially occur within the site.

Recommendations

4.10.1.5 No further surveys are considered necessary for invertebrates and other fauna.

4.10.1.6 Encroachment into Birdforth Beck should be avoided as far as possible during development, particularly where Tansy Tanacetum vulgare is present on the banks (see TN8 – Appendix A3.1).

4.10.1.7 It is recommended caution should be exercised during works on arable fields particularly at the site to avoid impacting Brown Hare wherever possible.

4.10.1.8 It is recommended caution should be exercised when disturbing the brash pile located at Sessay Park (TN5 – Appendix A3.2) and debris pile at Briar Hill Farm (TN7 – Appendix A3.1) any disturbed fauna including hedgehog should be allowed to disperse freely.

[17] Species listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

Appendix 1. Legislation and Conservation Context

European Protected Species (GCN, Otter, all Bats)

Great Crested Newt (GCN), otter and all British bat species are fully protected through The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the legislation, it is an offence to deliberately capture, injure or kill a GCN, otter or bat. It is an offence to damage or destroy a breeding site or resting place of a GCN, otter or bat. It is also an offence to intentionally or recklessly disturb a GCN, otter or bat while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is also an offence to deliberately disturb a GCN, otter or bat; in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes… and (e) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

Nesting Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, e.g. barn owl, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Appendix 2. Photographs

Photo 1. View of arable field at Briar Hill Farm

Photo 2. View looking west along field margin at Briar Hill Farm

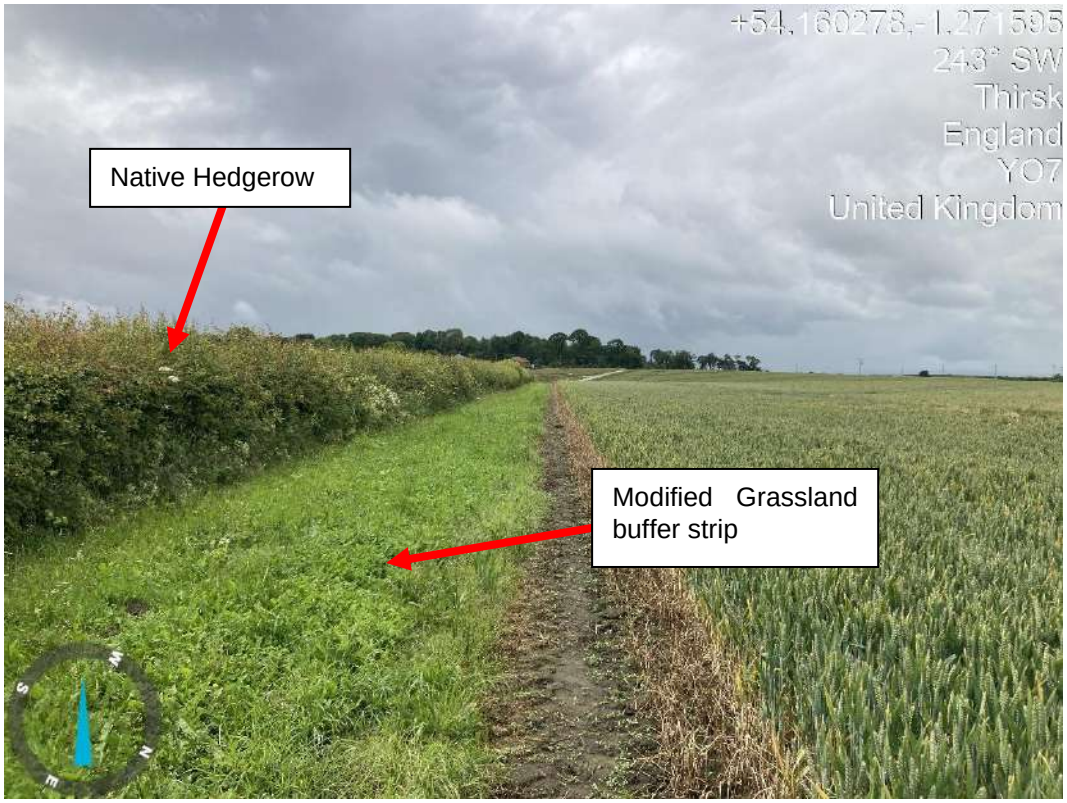


Photo 3. View east along trackway at Briar Hill Farm

Photo 4. View looking northeast along section of Birdforth Beck at Briar Hill Farm

Photo 5. View along ditch at the site

Photo 6. View east to patch of Other Woodland; Broadleaved at Briar Hill Farm

Photo 7. View of on-site pond (P3) along eastern boundary of Sessay Park

Photo 8. View of 'Very Large' sized tree along western boundary at Sessay Park

Photo 9. View looking west to Building 1 at Briar Hill Farm

Photo 10. View looking west to Building 2 at Briar Hill Farm

Photo 11. View looking southwest to Building 3 at Briar Hill Farm

Photo 12. View along area of felled woodland in southeast corner of Briar Hill Farm

Photo 13. View along Line of Trees feature at Briar Hill Farm

Photo 14. View of Birdforth Beck and patch of Himalayan Balsam (indicated by red arrow)

Photo 15. View of Native Hedgerow associated with a bank/ditch at the site

Photo 16. View west to debris piles at Briar Hill Farm (TN7 – Figure A3.1)

Appendix 3. Habitat Maps

Figure A3.1. Habitat Map – Briar Hill Farm

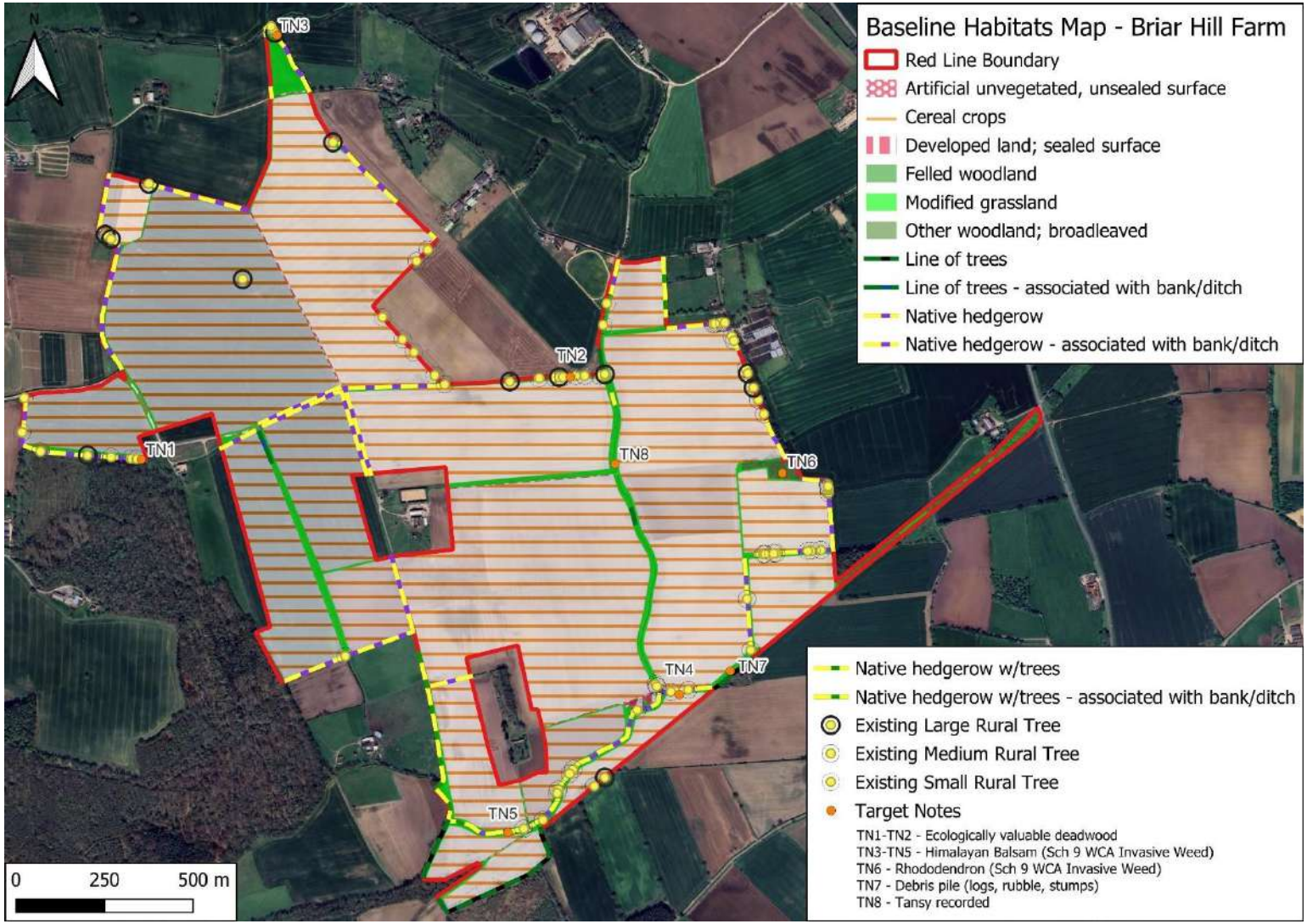
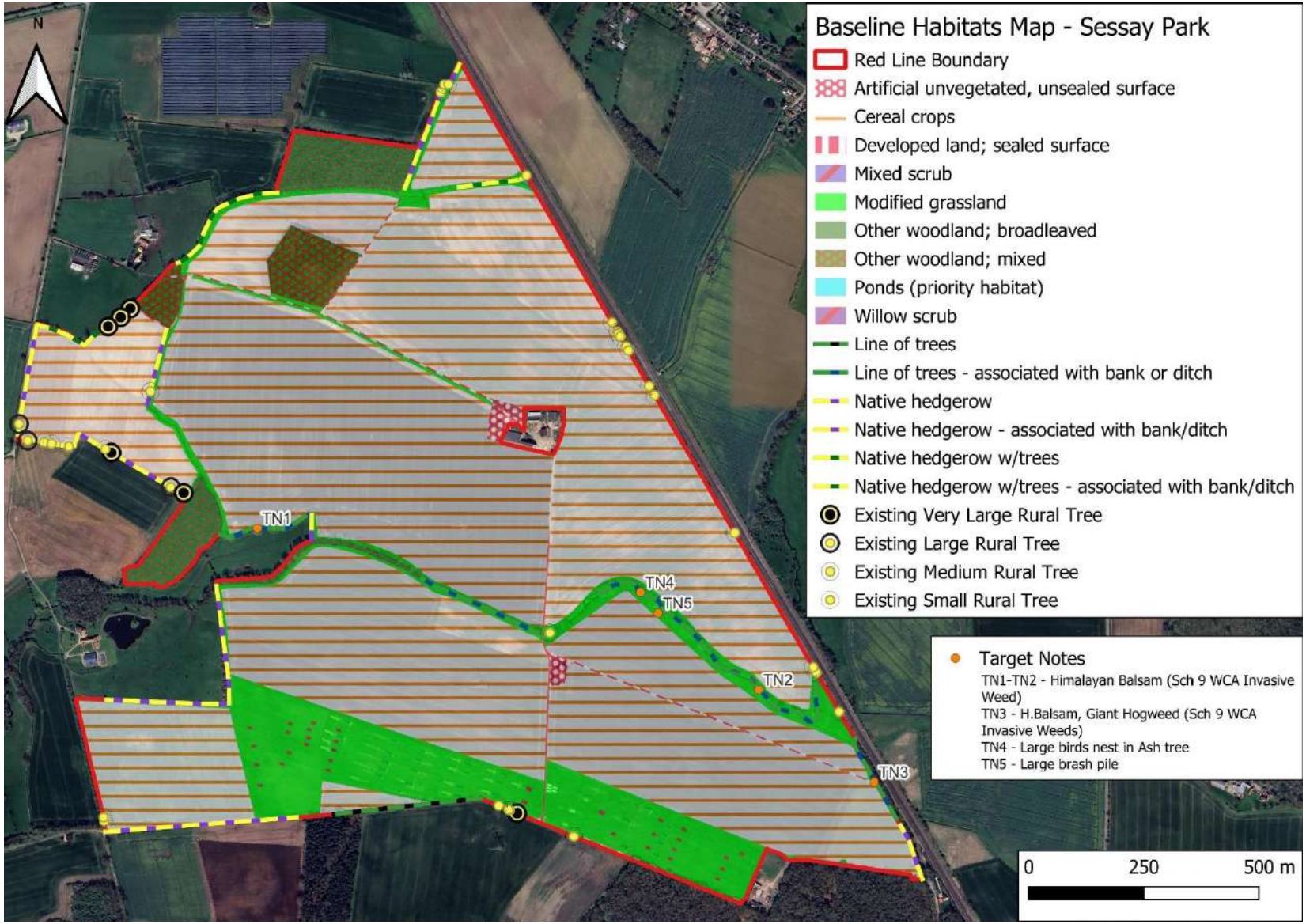


Figure A3.2. Habitat Map – Sessay Park



Appendix 4. Watercourse Maps

Figure A4.1. Watercourse Map – Briar Hill Farm

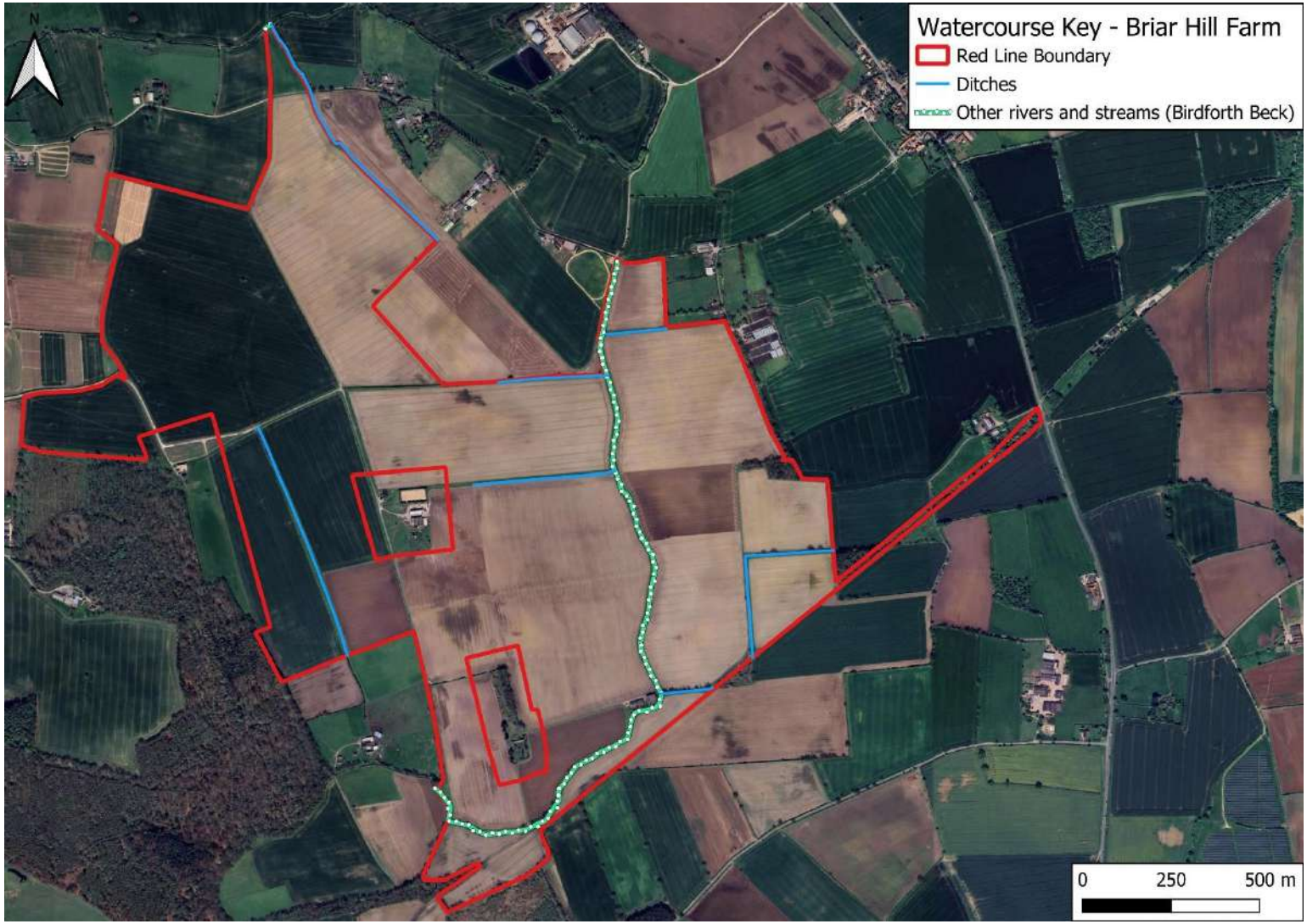
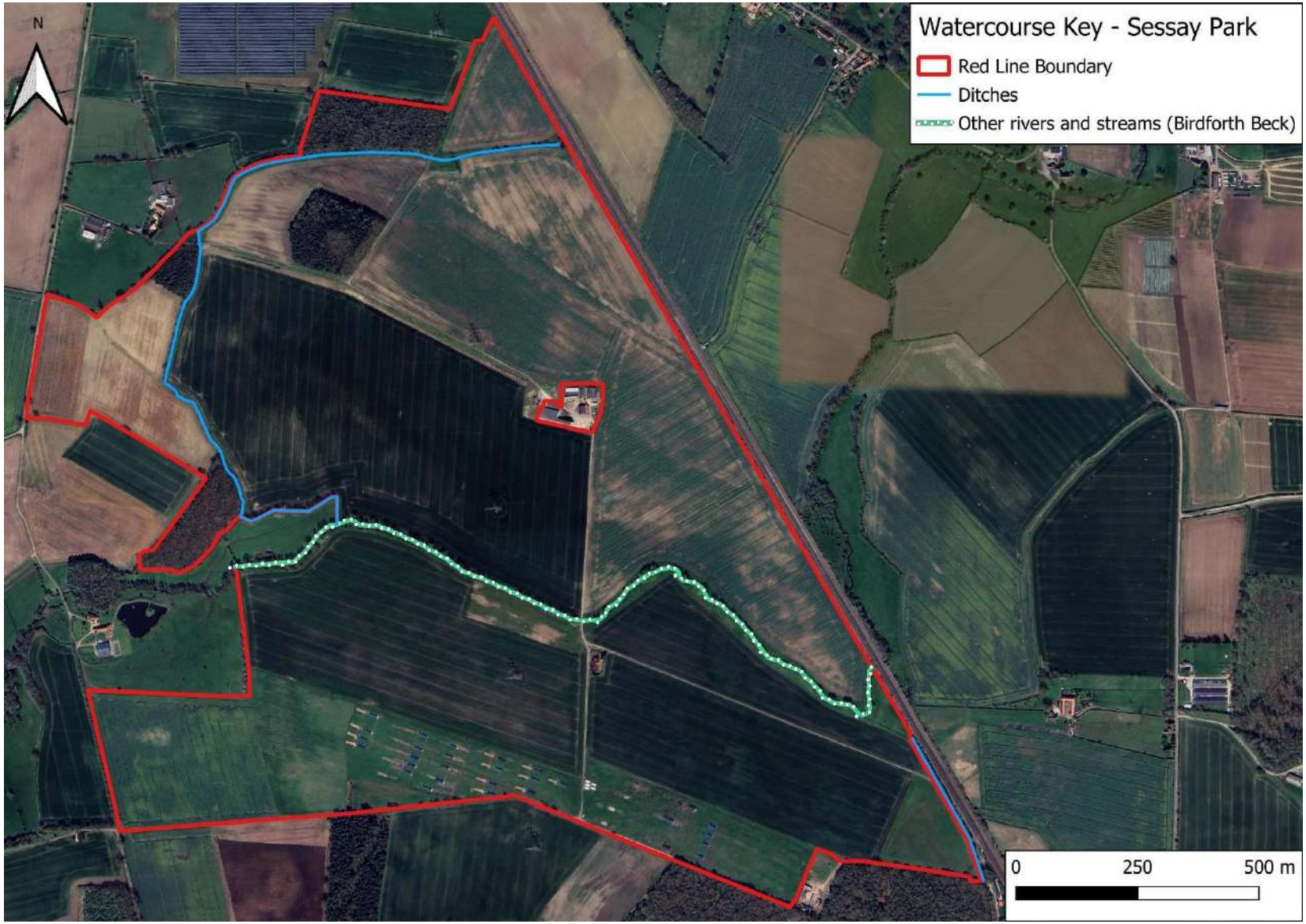


Figure A4.2. Watercourse Map – Sessay Park



Appendix 5. Pond Maps

Figure A5.1. Pond Map – Briar Hill Farm

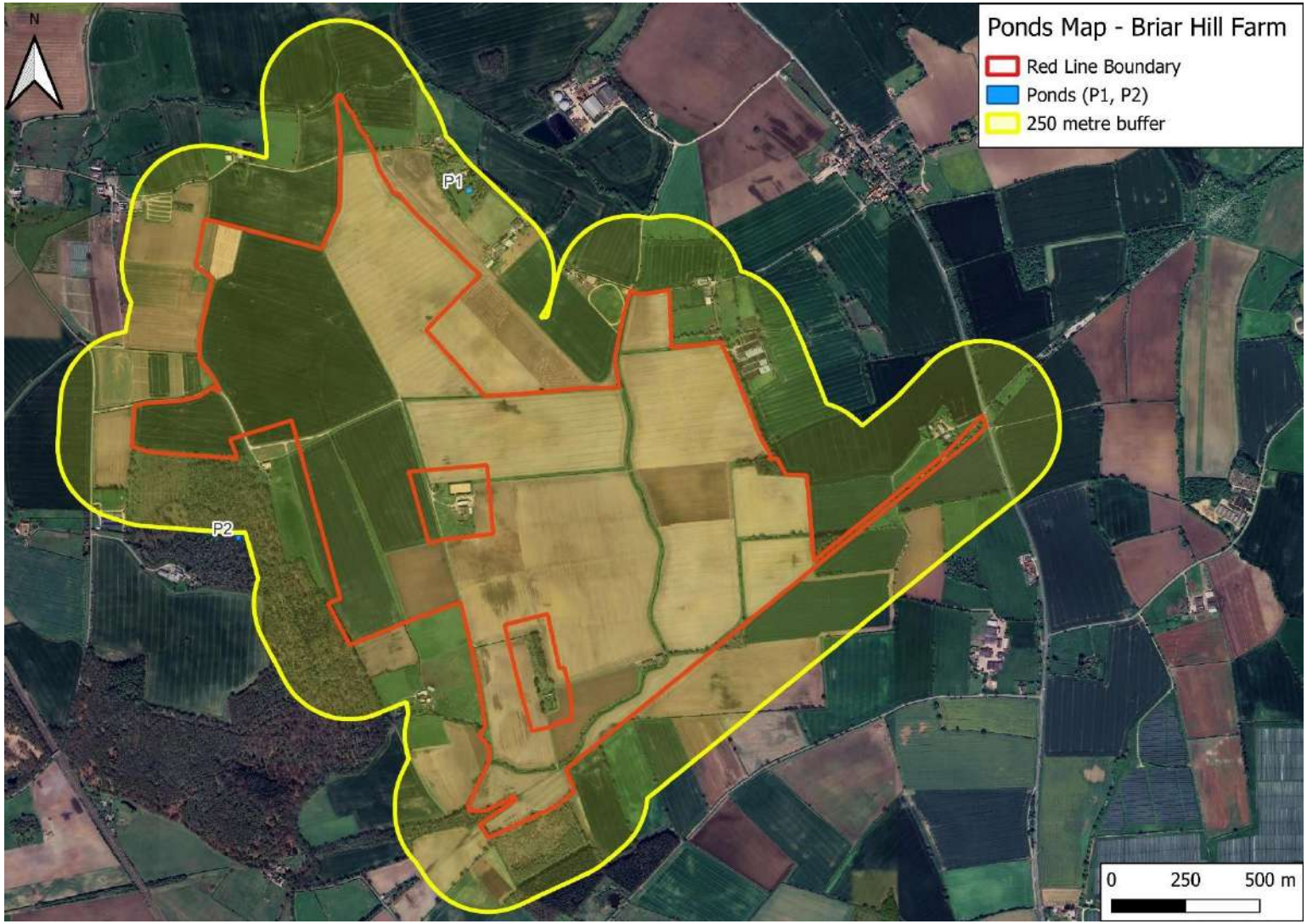
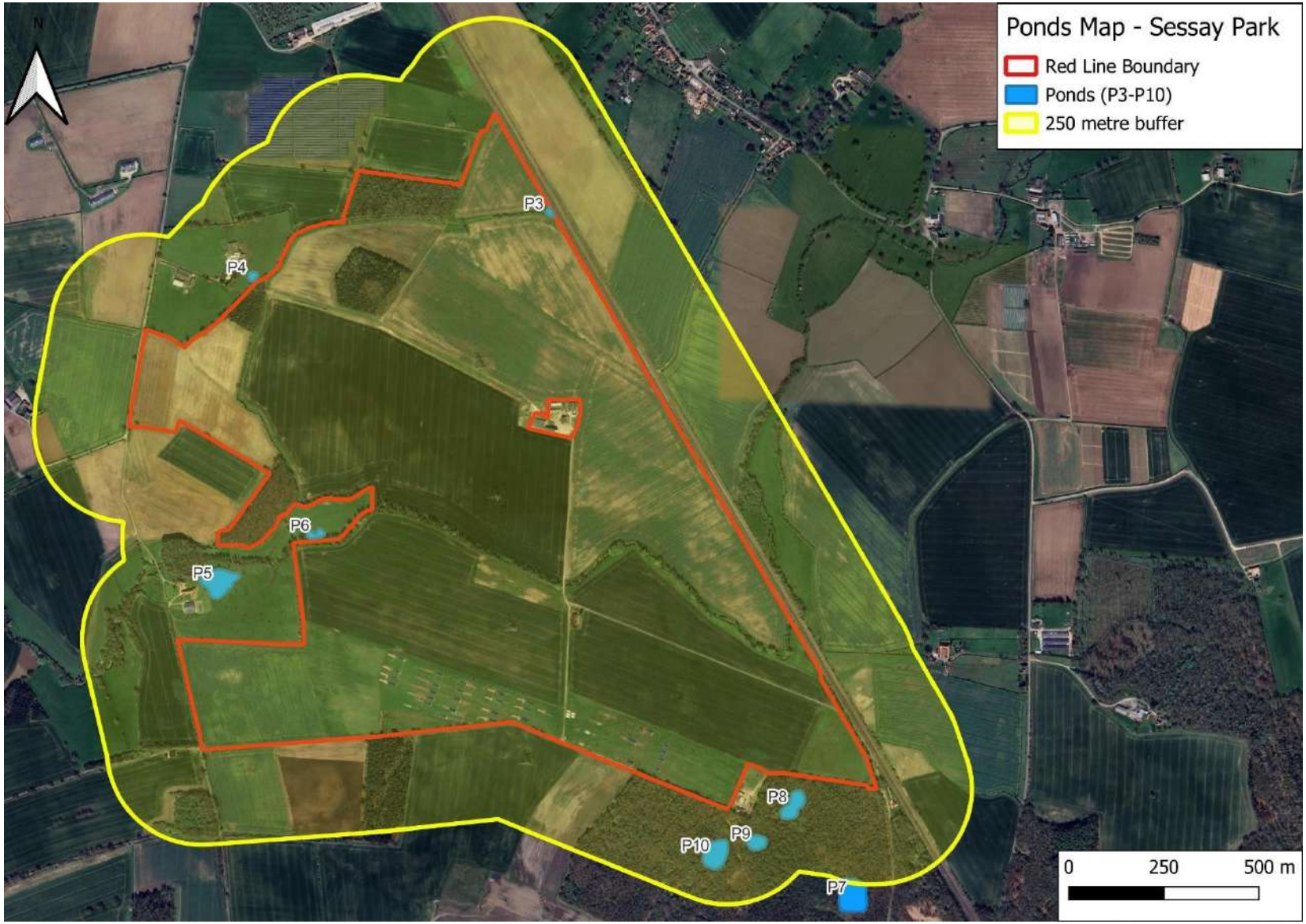


Figure A5.2. Pond Map – Sessay Park



Appendix 6. Bat Roost Potential Maps

Figure A6.1. Bat Roost Potential Map – Briar Hill Farm

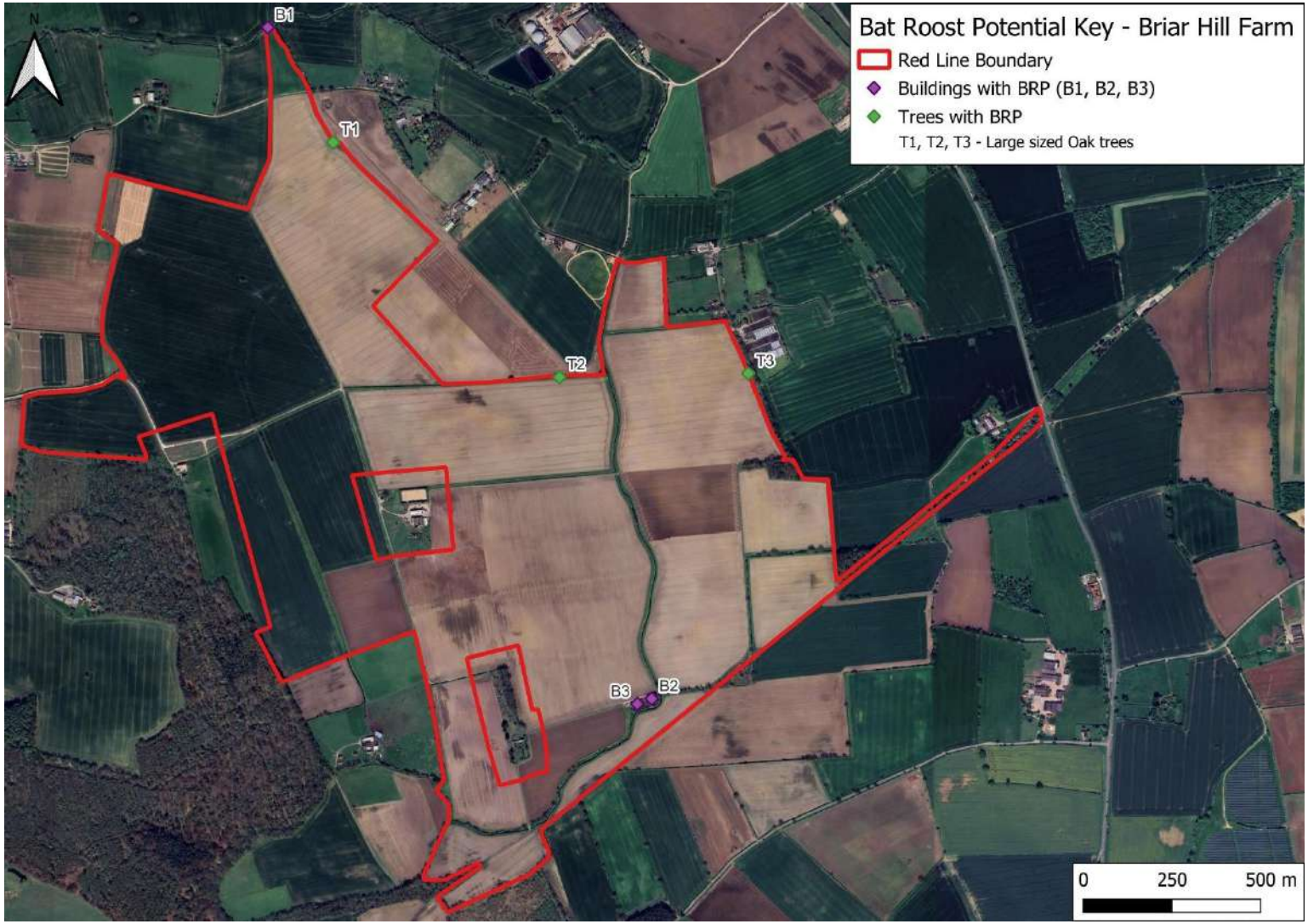
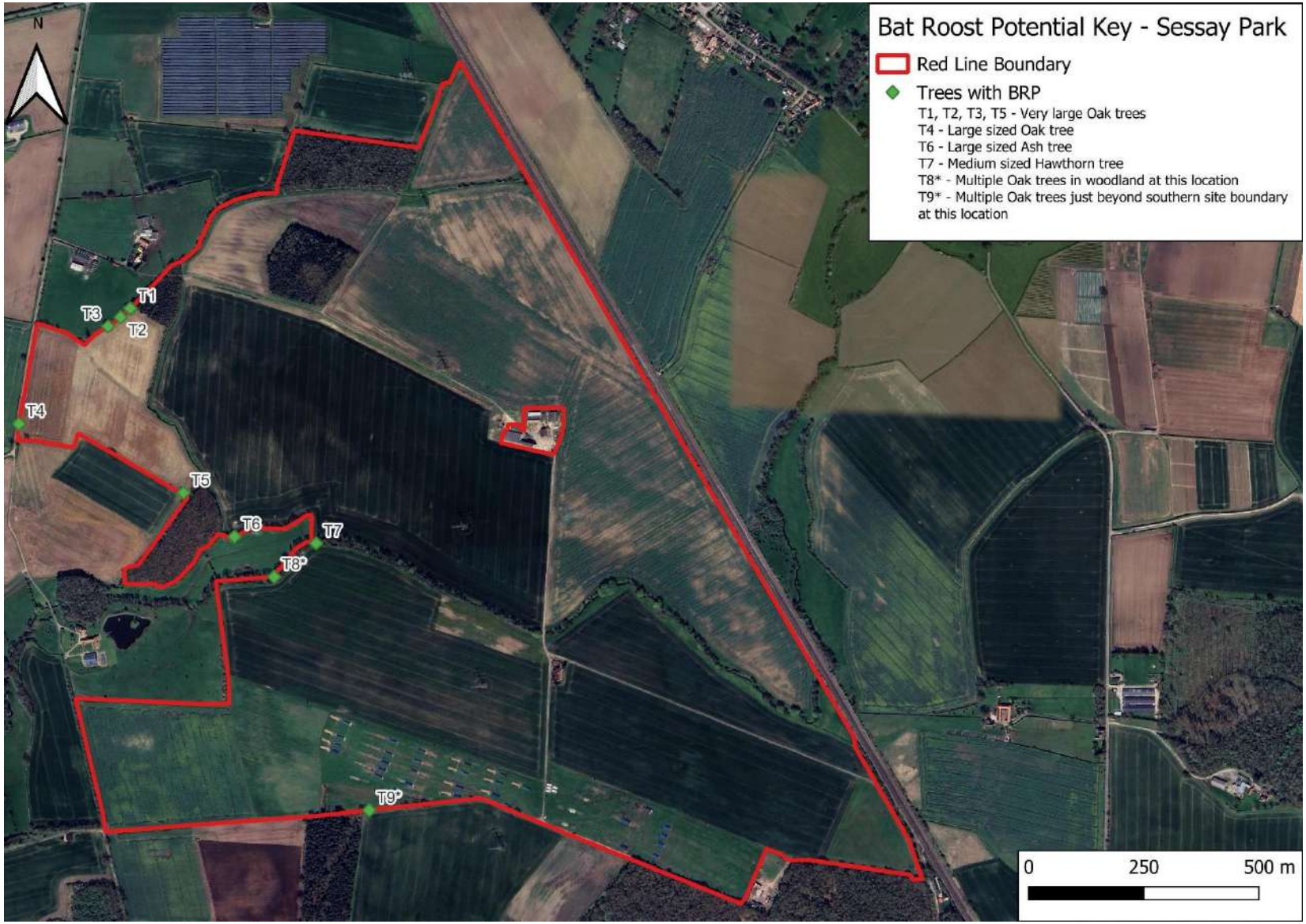


Figure A6.2. Bat Roost Potential Map – Sessay Park



Appendix 7. Information provided by NEYEDC

Data Description

Distance	Indicates the distance, in metres, between the grid reference of the record (using the central point of the grid square) and the search location. For any Sensitive Species Records, this should not be released into the Public Domain.
Species Name	Name of the taxon (usually identified to species level) using the binomial system.
Grid Reference	Grid reference based on the Ordnance Survey grid system.
Date	Date on which the record was made. In some cases this might be a date range, or a vague date such as 'Summer 2010'.
Recorder(s)	One or more people who made the original observation and recorded it in some way. It may have subsequently been included in a data collation by another person or it may have been submitted to the LERC directly.
Abundance	Number of individuals recorded. Where not specified it is assumed that at least one was present.
Record Type	A description of the type of record.
Site Name	The site name (if one has been supplied). For any Sensitive Species Records, this cannot be released into the Public Domain.
Notes	Any additional notes about the sighting. For any Sensitive Species Records, this cannot be released into the Public Domain.
Dataset ID	ID of this dataset. See 'Important Issues' for more details.
Lists	Any local, national or international conservation statuses or legal protection which apply to this species and whether it is included in any Local Biodiversity Action Plans. See 'Abbreviations' for more details.
V	An indicator showing the level of confidence held in the record's correct identification.

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Dataset Information

The records in these results are drawn from the following datasets. Use the Dataset ID next to each record to find its dataset.

Dataset ID	Title	Acknowledgements	Type
D0027/001/01	Initial Records Import	Various	Species
D0032/001/01	BL Ecology - BL Ecology 2014 - 2022	BL Ecology D0032, North & East Yorkshire Ecological Data Centre (2023)	Species
D0078/001/01	Miscellaneous Ecological Consultant Records - Miscellaneous Ecological Consultant Records 2006 - 2021	Various ecological consultancies	Species
D0090/001/01	Quants Environmental - Quants Environmental 2022 - 2023	Quants Environmental D0090, North and East Yorkshire Ecological Data Centre (2024)	Species
D0096/001/01	Big Hedgehog Map - Big Hedgehog Map 2015 - 2022	Big Hedgehog Map – People's Trust for Endangered Species, North & East Yorkshire Ecological Data Centre (2024)	Species
D0002/001/02	North Yorkshire SINC - SINC and Candidate SINCs - North Yorkshire SINC - SINC and Candidate SINCs	North Yorkshire and York SINC panel	Sites
D0011/001/03	Sites of Special Scientific Interest - Sites of Special Scientific Interest	Natural England Open Data Geoportal	Sites
D0082/001/01	Important Invertebrate Areas - Important Invertebrate Areas (IIAs)	Buglife	Sites
D0015/001/04	Ancient Woodland Inventory - Ancient Woodland Inventory	Natural England Open Data Geoportal	Habitats
D0022/001/03	Priority Habitat Inventory - Priority Habitat Inventory	Natural England	Habitats

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Search Location	Grid Reference
Swires Option Ecology Desk Search	

Legally Protected Species

Species Name	Grid Reference	Date	Recorder(s)	Abundance	Record/Sample Type	Site Name	Notes	Dataset ID	Lists	V
Arvicola amphibius (Water Vole)	SE4872	1983	C. Sharp		Field observation	Thormanby	YNU members	D0027/001/01	BAP, RL-EN, S41, WCA5	NA
Emberiza calandra (Corn Bunting)	SE442751	April 2003 to July 2003	Michael Tulloch		Field record/Field observation	Dalton.		D0027/001/01	BAP, RL-NT, S41, UKBR, WBR	NA
Emberiza calandra (Corn Bunting)	SE444755	April 2003 to July 2003	Michael Tulloch		Field record/Field observation	Dalton.		D0027/001/01	BAP, RL-NT, S41, UKBR, WBR	NA
Emberiza calandra (Corn Bunting)	SE480715	April 2003 to July 2003	Michael Tulloch		Field record/Field observation	Raskelf.		D0027/001/01	BAP, RL-NT, S41, UKBR, WBR	NA
Hyacinthoides non-scripta (Bluebell)	SE466732	26/04/1999	Andrew Weston	A DAFOR of Individuals	Field observation	Sessay Wood - 26/04/1999.		D0027/001/01	WCA8	NA
Lutra lutra (Otter)	SE464747	2 records, between 22/06/2002 and 24/06/2002	Geoff Page; G. Page		Live Sighting/Field observation	River Swale, Birdforth Beck, Sessay,Thirsk;River Swale, Birdforth Beck, Sessay, Thirsk	SWALE Catchment, Reliable: unknown. Watched an otter swim u/s towards bridge then beyond bridge 25 metres where it came out of the water and disappeared into scrub; SWALE Catchment, Reliable: unknown. Watched an otter swim u/s towards the bridge, a pause then it swam u/s from the bridge.	D0027/001/01	BAP, Bern2, CHS2, CITES-A, HDir2, HDir4, S41, WCA5	NA

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Species Name	Grid Reference	Date	Recorder(s)	Abundance	Record/Sample Type	Site Name	Notes	Dataset ID	Lists	V
Lutra lutra (Otter)	SE464746	14/09/2000	Unknown (from National Survey)		Spraint/Field observation	Birdforth Beck, Little Sessay	SWALE Catchment, Reliable: Yes. 1 recent and 1 old, stone on shingle bank	D0027/001/01	BAP, Bern2, CHS2, CITES-A, HDir2, HDir4, S41, WCA5	NA
Meles meles (Badger)	SE464727	16/09/2003	Graham Megson	1 Count	Dead/Field observation	Pilmoor SSSI		D0027/001/01	Bern3, PBA	NA
Meles meles (Badger)	SE498730	14/09/2017	Thomas McQuillan	1	Live Sighting/Field observation	A19, north of Raskelf, Raskelf	1 Count; 1 dead badger on road	D0078/001/01	Bern3, PBA	CC
Meles meles (Badger)	SE49437470 *(Centroid)*	05/01/2023	Thomas McQuillan		Dead on road/Field observation	A19, south of Thorganby, Easingwold	Dead on side of road	D0090/001/01	Bern3, PBA	CC
Neovison vison (American Mink)	SE46597307	18/08/2019	Robert Masheder	2 Count of Individual	Field record/Field observation	Sessay. Race Lane, Sessay	Two seen in road.%0A	D0027/001/01	GBNNSIP, INNS, WCA9	UC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4638674751	24/05/2017	BL Ecology	1 Individual	Roost/Field observation	Sessay C of E Primary School, Sessay	Emerged from the apex of the western gable under a roof tile	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4640874744	24/05/2017	BL Ecology	1 Individual	Roost/Field observation	Sessay C of E Primary School, Sessay	Emerged from under the southern eaves ofthe school above the porch	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4639974746	21/06/2017	BL Ecology	2	Roost/Field observation	Sessay C of E Primary School, Sessay	Entered gap under the ridge tile on the east aspect of the south gable end	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4640274746	21/06/2017	BL Ecology	1 Individual	Roost/Field observation	Sessay C of E Primary School, Sessay	Entered a gap between tiles onthe east aspect ofthe southern gable	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4639374746	06/07/2017	BL Ecology	1 Individual	Roost/Field observation	Sessay C of E Primary School, Sessay	Emerged from under a ridge tile on the south-west aspect where mortar was missing	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC

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Species Name	Grid Reference	Date	Recorder(s)	Abundance	Record/Sample Type	Site Name	Notes	Dataset ID	Lists	V
Pipistrellus pipistrellus (Common Pipistrelle)	SE4640774752	06/07/2017	BL Ecology	1 Individual	Roost/Field observation	Sessay C of E Primary School, Sessay	exited a roost from under a lifted roof tile on the north-east corner of the school	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4641274749	21/06/2017 to 06/07/2017	BL Ecology	3	Roost/Field observation	Sessay C of E Primary School, Sessay	Emerged/entered gap under the ridge tile at the apex of the eastern gable	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Pipistrellus pipistrellus (Common Pipistrelle)	SE4641374747	21/06/2017 to 06/07/2017	BL Ecology	2	Roost/Field observation	Sessay C of E Primary School, Sessay	Emerged/entered eastern gable end	D0032/001/01	Bonn2, CHS2, HDir4, WCA5	CC
Rhododendron ponticum	SE466732	26/04/1999	Andrew Weston	R DAFOR of Individuals	Field observation	Sessay Wood - 26/04/1999.		D0027/001/01	GBNNSIP, INNS, WCA9	NA
Sciurus carolinensis (Grey Squirrel)	SE4875	24/05/2004	Geoff Oxford		Dead on road/Field observation	NW of Thormanby		D0027/001/01	GBNNSIP, WCA9	NA

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Priority species										
Species Name	**Grid Reference**	**Date**	**Recorder(s)**	**Abundance**	**Record/Sample Type**	**Site Name**	**Notes**	**Dataset ID**	**Lists**	**V**
Capreolus capreolus (Roe Deer)	SE464727	16/09/2003	Graham Megson	2 Count	Field observation	Pilmoor SSSI		D0027/001/01	Bern3	NA
Ectemnius ruficornis	SE4672	31/07/1990	K.G Payne		Museum Specimen/Field observation	Pipmoor.	Leeds Mus.	D0027/001/01	RDB-NB	UC
Erinaceus europaeus (Hedgehog)	SE493748	18/05/2000	Lisa Kerslake		Field record/Field observation	North Yorkshire.	Thormanby A19 Altitude:	D0027/001/01	BAP, Bern3, RL-VU, S41	NA
Erinaceus europaeus (Hedgehog)	SE4632374275	20/08/2015	Unknown (PTES Volunteer)		Live Sighting/Field observation	Race Lane	BIG Hedgehog Map	D0096/001/01	BAP, Bern3, RL-VU, S41	CC
Erinaceus europaeus (Hedgehog)	SE4547775624	22/07/2019	Unknown (PTES Volunteer)		Live Sighting/Field observation	Sessay Garth	BIG Hedgehog Map	D0096/001/01	BAP, Bern3, RL-VU, S41	CC
Garrulus glandarius (Jay)	SE466732	26/04/1999	Andrew Weston		Field observation	Sessay Wood - 26/04/1999.		D0027/001/01	BDir2.2	NA
Lepus europaeus (Hare)	SE4972	12/03/1998	Geoff Oxford		Field record/Field observation	Easingwold.	Easingwold Altitude: 30	D0027/001/01	BAP, S41	NA
Lepus europaeus (Hare)	SE4974	26/12/2004	Anne Keville		Field record/Field observation	Thormanby.		D0027/001/01	BAP, S41	NA
Lepus europaeus (Hare)	SE491752	01/04/2003	Anne Keville		Field record/Field observation	A19, Thormanby	Field record	D0027/001/01	BAP, S41	NA
Petromyzon marinus (Sea Lamprey)	SE437727	3 records, between 29/06/1993 and 07/07/2000	Withheld (NBN Atlas)		Field record/Field observation	Fawdington	4cbac3ca-a93b-4d72-8f91-f66173eeec89; 950ad723-c1ae-454b-bda8-1fc02ec3b72f; 23457ee9-0095-48f0-9ffe-77c219245f2f	D0027/001/01	BAP, Bern3, HDir2, S41	CC
Pinus sylvestris (Scots Pine)	SE466732	26/04/1999	Andrew Weston	LA DAFOR of Individuals	Field observation	Sessay Wood - 26/04/1999.		D0027/001/01	RDB-NS	NA

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Species Name	Grid Reference	Date	Recorder(s)	Abundance	Record/Sample Type	Site Name	Notes	Dataset ID	Lists	V
Salmo trutta (Brown/Sea Trout)	SE466748	01/01/1997	Withheld (NBN Atlas)		Field record/Field observation	Sessay	e21ba27a-28be-49cd-aa0a-5990cf597ada	D0027/001/01	BAP, S41	CC
Salmo trutta subsp. fario (Brown Trout)	SE466748	1997	Withheld (NBN Atlas)		Field record/Field observation	Sessay	3f72336c-3f09-4bcd-b84b-53a2b5f540d9	D0027/001/01	BAP, S41	CC
Xanthoria ucrainica	SE465747	28/04/1993	Don Smith		Field record/Field observation	Sessay - St.Cuthbert churchyard	12927051-de50-4de5-8b32-fa3e20f3b346	D0027/001/01	RDB-NS	CC
Xanthoria ucrainica	SE496750	12/06/1990	Don Smith	F DAFOR of Lichen	Field record/Field observation	Thormanby - St. Mary churchyard	0492d4e3-cc1e-4369-801e-7ce006390ce9	D0027/001/01	RDB-NS	CC

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INNS
No Records Found

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International Sites - 0 records

Local Sites - 1 records	
North Yorkshire SINC - SINC and Candidate SINCs intersecting 1000m buffer	Sessay Wood (SE47-01) (0m)

National Sites - 2 records	
Sites of Special Scientific Interest intersecting 1000m buffer	Pilmoor (0m)
Important Invertebrate Areas intersecting 1000m buffer	Yorkshire Rivers Iia (0m)

North Yorkshire SINC - SINC and Candidate SINCs

Site Code	Site Name	Status	Evaluation	Grid Ref
SE47-01	Sessay Wood	SINC	Ancient or long-standing neutral to calcareous woodland.	SE466732

Sites of Special Scientific Interest

Site Code	Site Name	Grid Ref
	Pilmoor	SE459730

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Ancient Woodland Inventory				
Habitat	**Distance**	**Area**	**Coverage**	**At Search Location**
Ancient Replanted Woodland	0m - 94m	38.291ha	1.596%	No
Ancient & Semi-Natural Woodland	0m	34.419ha	1.434%	Yes

Priority Habitats Inventory				
Habitat	**Distance**	**Area**	**Coverage**	**At Search Location**
Deciduous woodland	0m - 669m	119.827ha	4.994%	Yes
No main habitat but additional habitats present	111m - 486m	1.275ha	0.053%	No
Traditional orchard	0m - 963m	1.23ha	0.051%	No
Lowland heathland	297m - 389m	0.809ha	0.034%	No
Lowland fens	299m	0.069ha	0.003%	No

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APPENDIX V: BREEDING BIRD SURVEY

BayWa r.e.

Thormanby DCO Solar Site – Breeding Bird Baseline Report 2024

Jalal Khan, Amelia Kirk, Billy Gardener, Matt Rea

COMMERCIAL IN CONFIDENCE

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Date of issue:	**3rd September 2024**

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Revision and Amendment Register

Version Number	Date	Section(s)	Page(s)	Summary of Changes	Approved by
1.0	12/07/2024	All	All	First Draft	AK/JK
1.1	23/08/2024	All	All	Initial Review	BG
1.2	23/08/2024	All	All	JK - Amends following initial review	MRea
1.3	03/09/2024	All	All	Final	JK/BG

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Executive Summary

This report documents the methods and results of a Breeding Bird Survey (BBS) programme, undertaken between April and July 2024, to determine the ornithological baseline within a potential solar farm site (the Site) near Thormanby, North Yorkshire.

A BBS was undertaken following the methods outlined within the Bird Survey & Assessment Steering Group (2024) guidance. Following the conclusion of all surveys, territory analysis was undertaken to determine the number and distribution of target species territories within the Survey Area.

In total, 66 bird species were recorded within the Survey Area during the 2024 breeding season. Of the species recorded, 37 were target species, with 20 considered to be holding territories within the Survey Area. Of these species, ten are BoCC5 red-listed (Stanbury *et al.*, 2021*)* and 12 are listed under Section 41 of the NERC Act 2006.

The Survey Area supports a number of breeding farmland passerine species, many of which are declining. Skylark was the most abundant breeding species, with 135 pairs recorded evenly distributed within open habitats across the Survey Area. A total of 38 pairs of dunnock was also recorded, largely associated with hedgerow field boundaries. Corn bunting and yellowhammer were the most abundant of the other species present, again strongly associated with hedgerow field boundaries. A number of other target species were recorded, however did not exhibit any breeding behaviour. A barn owl survey was also undertaken within one building, and while evidence of barn owl presence was recorded, there was no evidence of any breeding.

1. Introduction

1.1 About this Document

This report provides BayWa r.e. with details of the methodologies and results of the 2024 Breeding Bird Surveys (BBS) associated with the proposed works at a potential solar farm site (the Site) near Thormanby, North Yorkshire. Four monthly BBS visits were undertaken within the Site and a surrounding 500 m buffer (hereafter referred to as the Survey Area). Visits were undertaken between April and July 2024 (inclusive) and included a dusk survey visit as suitable habitat for crepuscular species, such as woodcock (*Scolopax rusticola*), was identified during an initial site walkover.

A barn owl (*Tyto alba*) survey was also undertaken due to the presence of a building which had potential to support breeding barn owl, based on information from the local landowner. An overview of the Site Boundary and the Survey Area is presented in **Figure 1**.

Bird species names used in this report follow the British List (McInerny *et al.*, 2022), which is maintained by the British Ornithologists' Union (BOU), with all species referred to by their British (English) vernacular name. A full species list including scientific names, as well as relevant conservation status, is provided in **Appendix 1** . In addition, weather conditions and figures are presented in **Appendix 2** .

1.2 Background and Scope

APEM were commissioned by BayWa r.e. to undertake a four-visit BBS programme at Thormanby in support of the proposed Thormanby solar farm.

Ornithology surveys were undertaken to determine the ornithological baseline and to inform any future impact assessment required to support a planning submission. The potential risks to birds arising from solar developments include direct habitat loss, disturbance and displacement (Harrison *et al.*, (2017).

The key guidance used to inform the scope of surveys and reporting was published by Natural England (2022) and is considered best practice for developments in England. The methodology used for surveys followed the Bird Survey Guidelines published by the Bird Survey & Assessment Steering Group (2024), which are intended for use by ornithologists engaged in bird surveys for the purpose of assessing ornithological impacts. The surveys focused on a suite of 'target species' which are considered of higher importance.

Target species for the project were determined with reference to guidance, qualifying species of designated sites with potential connectivity to the Site and UK legislation and conservation status. The target species selected for surveys are outlined in **Section 3.**

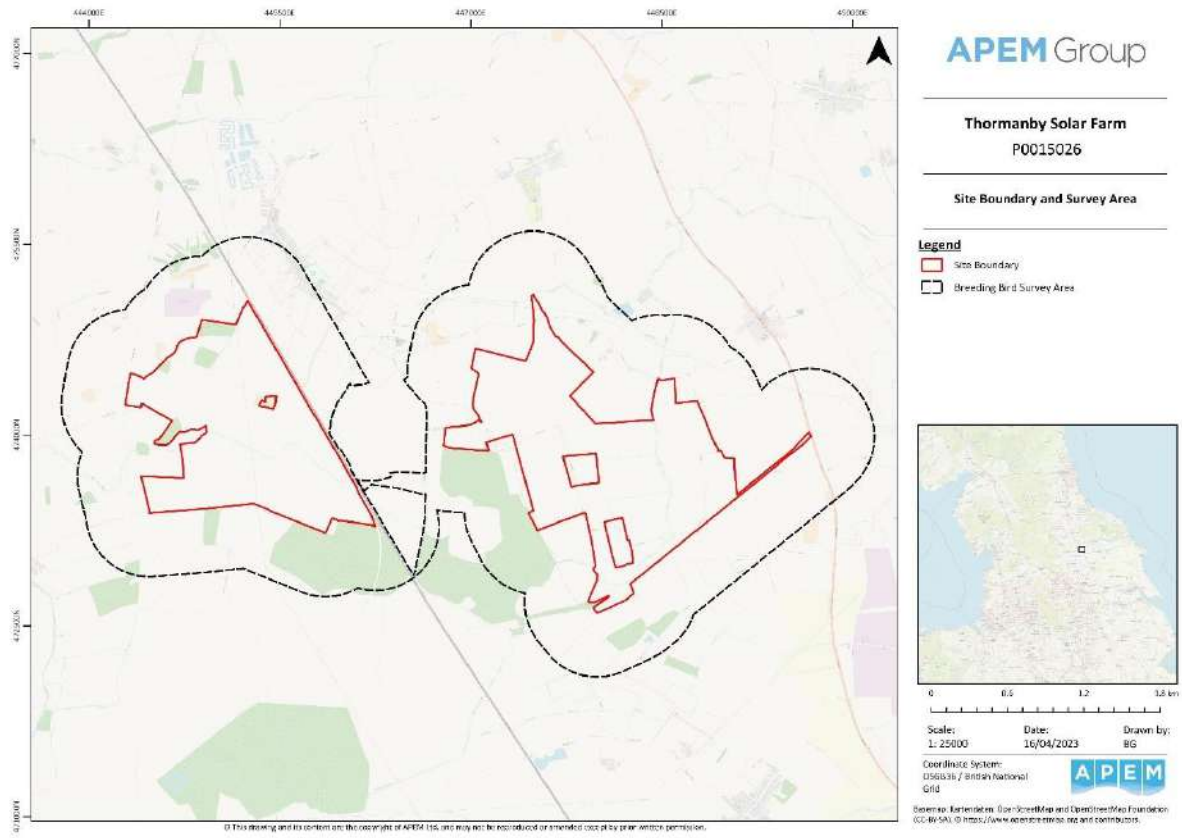

Figure 1 Site Boundary and Survey Area

1.3 Site Location and Description

The Site, with an area of approximately 420 ha, is located in north Yorkshire approximately 25 km north-west of York, south of Little Sessay within the North Yorkshire Council area (National Grid Reference: SE 452 734, nearest postcode: YO7 3NL). The Site is split across two Development Parcels – Sessay Park (west) and Briar Hill (east), which are separated by the East Coast Mainline railway and approximately 800 m of intervening, private land. Habitats present within the Site comprise almost entirely arable agricultural land, with a number of small plantation woodlands present in the west Development Parcel, and a larger woodland within the Survey Area between the two sites in the south. To the north of Sessay Park, the Survey Area also includes an existing solar development at Cold Harbour Farm, and part of the village of Sessay. The River Sun Beck flows through both Development Parcels. In terms of habitats present, the site is representative of the surrounding area.

The North York Moors Special Protection Area (SPA) is located 11.3km from the Survey Area at its nearest point. This SPA is designated for breeding merlin (*Falco columbarius*) and breeding golden plover (*Pluvialis apricaria*).

2. Survey Methods

Presented here are the methods followed during the BBS. To collect robust data, surveys followed standardised approaches to recording bird species occurrence, behaviour, and counts and were undertaken in suitable weather conditions, which are presented in **Appendix 2**

2.1 Surveyors

Surveys were undertaken by Tim Jones and Chris Gomersall, knowledgeable local ornithologists with extensive field experience. They are familiar with and have a detailed understanding of the key survey methodologies recommended within Statutory Nature Conservation Bodies (SNCB) guidance that were used for this project.

2.2 Breeding Bird Surveys

The BBS was conducted following the method outlined by Bird Survey & Assessment Steering Group (2024) guidance, which is loosely based on the Common Birds Census method. Surveys were undertaken within the Site and a 500m buffer, hereafter defined as the 'Survey Area'. Based on APEM's professional judgement, the survey scope was reduced due to the relatively simple habitats present within the Survey Area. An initial site walkover was undertaken on 11/04/2024 to determine the survey scope and assess the Survey Area's potential to support notable species.

Guidance recommends that the proposed survey programme should comprise of five diurnal survey visits and a single dusk visit. The six-visit method has been designed primarily for complex habitats such as lowland deciduous woodland. As the majority of the Survey Area is arable farmland, which is less complex than deciduous woodland, a four-visit approach was considered appropriate based on APEMs professional judgement Visits were carried out from April 2024 to mid-July 2024 (inclusive).

Each visit was undertaken over two to three days, commencing at sunrise, and finishing no later than 11:00. The third visit was conducted at dusk to survey crepuscular and nocturnal species, ending an hour after sunset or when light levels made it too difficult to visually identify species. All areas within the Survey Area were approached to within 50 m, where possible. Inaccessible areas were surveyed from a distance using binoculars and a telescope. The identity and activity of all bird species were recorded using the standard BTO two-letter codes (BTO, 2024).

2.3 Barn Owl Survey

A barn owl survey was undertaken on 24/06/2024 due to the identification of a suitable building for breeding barn owl, where the landowner stated they had previously seen barn owl.

The barn owl survey was undertaken following methods outlined by Hardey *et al.* (2009) to determine whether any nests were present. In line with the methods, the surveyors searched for any signs of barn owl presence, including pellets, feathers and droppings. A camera mounted on a telescopic pole was used to check for any nesting birds, which eliminated the need for use of ladders.

The barn owl survey was undertaken under Natural England Class license CL29. (Natural England, 2024) by Tim Jones, authorised as an Accredited Agent by Keith Ross (license holder).

2.4 Target Species

Natural England (2022) guidance recommends that field surveys should be focused on species that are afforded a higher level of legislative protection or are considered to be of conservation concern, which have been defined as 'target species'. Some species may also be considered target species, as a result of their behaviour, which makes them more likely to be subject to impact from a development. Target species for these surveys were defined as:

- Species listed under Annex I of the Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive);
- Species listed under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended);
- Amber[1] and Red listed in Birds of Conservation Concern 5 (BoCC5) (Stanbury *et al.,* 2021);
- Species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006); and
- Any raptor or wader species not covered by the lists above.

[1] Although woodpigeon, stock dove, rook and wren are amber-listed, this is due to the importance of the UK populations internationally, and as common and widespread breeding species in the UK, it is not considered necessary to include these species as target species, and therefore they have been excluded from territory analysis.

2.5 Territory analysis

The number and distribution of likely territories for each species was determined through a combination of interpretation of behavioural observations and identification of clusters of registrations likely to relate to breeding territories. The method was based on Bibby *et al.* (2000), with an element of professional judgement.

A precautionary approach was taken when determining territories, taking account of indicative breeding behaviour (e.g. singing, alarm calling, gathering nest material or food, feeding newly fledged young, etc.) and use of professional judgement regarding the location of the site, habitats present and species ecology.

For gregarious species where no distinct territories were discernible, which in this survey consisted of house martin, starling, tree sparrow and house sparrow, loose clusters of observations were identified and defined as "activity areas". The number of breeding territories within each activity area was then determined as the total number of adult individuals divided by two (ignoring early or late season counts to take into account the potential presence of pre-breeding feeding flocks and/or juveniles).

For some species groups, such as raptors or wildfowl, BBS is not considered to be the optimal method for monitoring breeding activities. Therefore, a precautionary approach has been taken with estimating the number of territories present or whether breeding occurred. This entails assuming breeding was likely to have occurred if there was indicative behaviour, repeated observations, or if sightings occurred in suitable breeding habitat.

2.6 Limitations

No access to the Wilkinson land was granted for this programme of surveys and so was excluded from the Survey Area. However, the habitats present within this land parcel are similar to those in the rest of the Survey Area and therefore the community of species present will likely be the same as those in the rest of the Survey Area.

The majority of surveys were undertaken in suitable weather conditions, however there were heavy showers during the first survey visit to Sessay Park. Despite this, it is considered that the surveys were suitable to establish the baseline breeding bird population within the Survey Area.

3. Results

In total, 66 bird species were recorded within the Survey Area during the 2024 BBS, including 37 target species. All species recorded during surveys are listed in **Appendix 1**, which includes the species common name, scientific name and BTO codes, which have been utilised within figures.

Territory analysis was undertaken for all target species recorded to provide breeding population estimates within the Survey Area. Of the 37 target species recorded, 20 were observed exhibiting breeding behaviour and considered likely to have bred within the Survey Area. Of these, ten are BoCC5 red-listed (Stanbury *et al*., 2021), eight are BoCC5 amber-listed, 12 are listed under Section 41 of the NERC Act 2006, one is listed under Schedule 1 of the Wildlife and Countryside Act 1981 and one is listed on Annex 1 of the Birds Directive. Results of the territory analysis are provided in **Table 1** below.

3.1 Breeding Target Species

Table 1 Target bird species recorded breeding within the Survey Area

Species name	Scientific Name	Number of territories present within the Site	Number of territories present within the Survey Area	Total Territories Present	Conservation status	Notes	Figure
Grey partridge	*Perdix perdix*	10	4	14	Red; Sec41	Grey partridge is a gamebird species which is BoCC5 red-listed and listed under Section 41 of the NERC Act (2006). Once a common and widespread species, it has experienced severe population declines due to intensification of agriculture. It typically breeds in farmland and grassland. A total of 14 territories were identified in the Survey Area, of which ten were within the Site Boundary. As this is an elusive species, the number of territories is likely to be an underestimate. During the first two visits, eight pairs of grey partridge were recorded within the Briar Hill Survey Area, and six pairs were recorded in the Sessay Park Survey Area, with a territory being designated for each pair. Breeding pairs mainly favoured field boundaries and were largely recorded near the Site Boundary.	14, 15
Quail	*Coturnix coturnix*	2	0	2	Amber; Sch1.1	Quail is a BoCC5 amber-listed gamebird which is also listed under Schedule 1 of the Wildlife and Countryside Act (1981), due to historical population declines. Quail is described in Yorkshire as a "*scarce summer breeder and passage migrant, but greater numbers are present during irruption years, of which 2024 was one*"[2] Two territories were identified, both of which were within the Site Boundary in Briar Hill. This species is also elusive and difficult to record through standard BBS methods, therefore the number of territories may be an underestimate.	15
Oystercatcher	*Haematopus ostralegus*	1	0	1	Amber	Oystercatcher is a BoCC5 amber-listed wader species. It typically breeds in coastal areas, however in recent decades, more oystercatchers have begun to breed inland; in upland areas, farmland, grassland and wetlands. A single territory was identified, within the Site Boundary, in Briar Hill.	15
Sparrowhawk	*Accipiter nisus*	0	1	1	Amber	Sparrowhawk is a small raptor species which is BoCC5 amber-listed. Although a common and widespread species, its population has declined in the past decade. It breeds in a variety of habitats including woodland, urban and suburban areas, and farmland. A single territory was identified, in woodland immediately south of the Sessay Park Site Boundary. Two individuals were recorded in this area during the first visit.	14

[2] pers comms J. Spencer, who is the APEM Ornithology Team Lead, former East Yorkshire Bird Recorder and Yorkshire Rare Bird Record Panel Recorder

Species name	Scientific Name	Number of territories present within the Site	Number of territories present within the Survey Area	Total Territories Present	Conservation status	Notes	Figure
Buzzard	*Buteo buteo*	1	1	2	Green	Buzzard is a common and widespread raptor which is BoCC5 green-listed and breeds in a variety of habitats including woodland, farmland and grassland. Two territories were identified, in the Sessay Park Survey Area, of which one was within the Site Boundary.	14, 15
Skylark	*Alauda arvensis*	102	23	135	Red; Sec41	Skylark is a BoCC5 red-listed passerine species which is also listed under Section 41 of the NERC Act (2006). It typically breeds in grassland and moorland habitat across England. Although a common breeding species, its population has declined significantly in recent years, largely due to intensification of agriculture. Skylark was the most abundant breeding species recorded during surveys, with a total of 135 territories present, of which 102 were within the Site Boundary. Territories were widely distributed across the sites within arable farmland, which is a typical breeding habitat for this species.	2, 3
House martin	*Delichon urbicum*	0	3 (1 activity area)	3 (1 activity area)	Red	House martin is a gregarious passerine species which breeds in urban and suburban areas, farmland and wetlands. It is BoCC5 red-listed due to a recent moderate population decline. One activity area containing three territories was identified on the north-east edge of the Sessay Park Survey Area in the village of Sessay, where a flock including juveniles was recorded. As this record was within an urban habitat, which was not surveyed intensively, and because house martin territories are difficult to accurately determine as noted in Section 2.5, it is possible that further territories were present and this is an underestimate.	10, 11
Willow warbler	*Phylloscopus trochilus*	4	3	7	Amber	Willow warbler is a small passerine species which breeds in a variety of habitats including woodland, scrubland and grassland. It is BoCC5 amber-listed due to a moderate population decline over the past 25 years. Seven territories were identified in total, of which four were within the Site Boundary. Territories were associated with woodland areas and field boundaries with tree cover.	12, 13
Whitethroat	*Curruca communis*	4	12	16	Amber	Whitethroat is a passerine species which breeds in grassland, scrubland and hedgerows. It is amber-listed due to a historical population decline. A total of 16 territories were identified, of which four were within the Site Boundary. All territories were associated with field boundaries.	12, 13
Starling	*Sturnus vulgaris*	0	3 (1 activity area)	3 (1 activity area)	Red; Sec41	Starling is a gregarious passerine species listed under Section 41 of the NERC Act (2006) and is also BoCC5 red-listed due to severe breeding population declines in the UK. Breeding is often associated with urban areas and agricultural buildings. One activity area containing three territories was identified within the Sessay Park Survey Area, where a flock including juveniles was recorded. This territory was associated with agricultural	10

Species name	Scientific Name	Number of territories present within the Site	Number of territories present within the Survey Area	Total Territories Present	Conservation status	Notes	Figure
						buildings. As a semi-colonial species, starling territories are difficult to accurately determine, as noted in Section 2.5, and therefore the total number of territories may be an underestimate.	
Song thrush	*Turdus philomelos*	8	20	28	Amber; Sec41	Song thrush is a passerine species listed under Section 41 of the NERC Act (2006), which typically breeds in areas where trees are present, including gardens and hedgerows. Although a common breeding species, it is BoCC5 amber-listed due to recent declines. A total of 28 song thrush territories were recorded, distributed along both Site Boundaries due to the minimal tree coverage within the Site. Eight of these 28 territories were within the Site Boundary.	12, 13
Mistle thrush	*Turdus viscivorus*	1	1	2	Red	Mistle thrush is a passerine species, which is BoCC5 red-listed due to severe breeding population decline across the UK. It is found in a wide variety of habitats, wherever there are suitable trees for nesting. Farmland is often used for foraging. Two territories were identified within the Briar Hill Survey Area, of which one was within the Site Boundary.	13
Tree sparrow	*Passer montanus*	2 (2 activity areas)	20 (7 activity areas)	22 (9 activity areas)	Red; Sec41	Tree sparrow is a gregarious passerine species listed under Section 41 of the NERC Act (2006) and is also BoCC5 red-listed due to severe breeding population declines in the UK. It breeds in farmland, hedgerows and woodland edges. A total of nine activity areas were identified within the Survey Area, two of which were within the Site Boundary. These activity areas were typically located at field boundaries, and four of them were associated with agricultural buildings. There was an estimated total of 22 territories across the 9 activity areas. As a semi-colonial species, tree sparrow territories are difficult to accurately determine, as noted in Section 2.5, and therefore the total number of territories may be an underestimate.	10, 11
House sparrow	*Passer domesticus*	0	18 (3 activity areas)	18 (3 activity areas)	Red; Sec41	House sparrow is a gregarious passerine species listed under Section 41 of the NERC Act (2006) and is also BoCC5 red-listed due to severe breeding population declines in the UK. Breeding is often associated with urban areas and agricultural buildings. Three activity areas containing 18 territories were identified, all of which were outside the Site Boundary. All three activity areas were associated with agricultural buildings. As a semi-colonial species, house sparrow territories are difficult to accurately determine, as noted in Section 2.5, and therefore the total number of territories may be an underestimate.	10, 11
Dunnock	*Prunella modularis*	25	13	38	Amber; Sec41	Dunnock is a passerine species listed under Section 41 of the NERC Act (2006), which is also BoCC5 amber listed due to recent population decline in the UK. It remains a common breeding species, present in a wide range of habitats wherever there is suitable dense vegetation for breeding. Dunnock was the second most abundant species recorded, with 38 territories identified within the Survey Area, of which 25 were within the Site Boundary. Territories were typically located at field boundaries and in woodland areas.	4, 5

Species name	Scientific Name	Number of territories present within the Site	Number of territories present within the Survey Area	Total Territories Present	Conservation status	Notes	Figure
Yellow wagtail	*Motacilla flava*	12	1	13	Red; Sec41	Yellow wagtail is a ground nesting summer migrant, breeding in farmland and open grassland mainly in southern and eastern Britain. The species is BoCC5 red-listed due to major decline in numbers associated with agricultural intensification. In total, 13 territories were recorded, of which 12 were within the Site Boundary. There were also several records of individuals calling in the middle of Sessay Park during the third visit. Many of these were likely to be juveniles considering the timing of the visit in late June and the increase in records.	12, 13
Linnet	*Linaria cannabina*	9	6	15	Red; Sec41	Linnet is a small passerine listed under Section 41 of the NERC Act (2006) and BoCC5 red-listed due to population decline associated with agricultural intensification, although this is thought to have stabilised. It remains a common bird of farmland and grassland featuring hedgerows and scrub. A total of 15 territories were identified, of which nine were within the Site Boundary. Breeding was associated with field boundaries.	12, 13
Corn bunting	*Emberiza calandra*	24	10	34	Red; Sec41	Corn bunting is a passerine species listed under Section 1 of the NERC Act (2006) and BoCC5 red-listed due to a severe population decline. It breeds in farmland with suitable hedgerows and scrub, as well as grassland. A total of 34 territories were identified for this species, of which 24 were within the Site Boundary. The Briar Hill Survey Area held 29 of the 34 territories and they were widely distributed throughout the area, typically associated with field boundaries.	6, 7
Yellowhammer	*Emberiza citrinella*	15	17	32	Red; Sec41	Yellowhammer is a small passerine species listed under Section 1 of the NERC Act (2006) and BoCC5 red-listed due to recent population decline. The species is most abundant in mixed farmland with suitable hedgerows and scrub for breeding. A total of 32 territories were identified, of which 15 were within the Site Boundary. These were widely distributed across the Survey Area, largely centred on hedgerow boundaries which are typical breeding habitat for this species.	8, 9
Reed bunting	*Emberiza schoeniclus*	3	1	4	Amber; Sec41	Reed bunting is a small passerine, listed under Section 1 of the NERC Act (2006) and BoCC5 amber-listed due to a historical population decline. The species is common and widespread, favouring wetland areas for breeding, but using farmland for foraging in winter. Four territories were identified within the Survey Area, three of which were within the Site Boundary. Territories were associated with field boundaries.	13

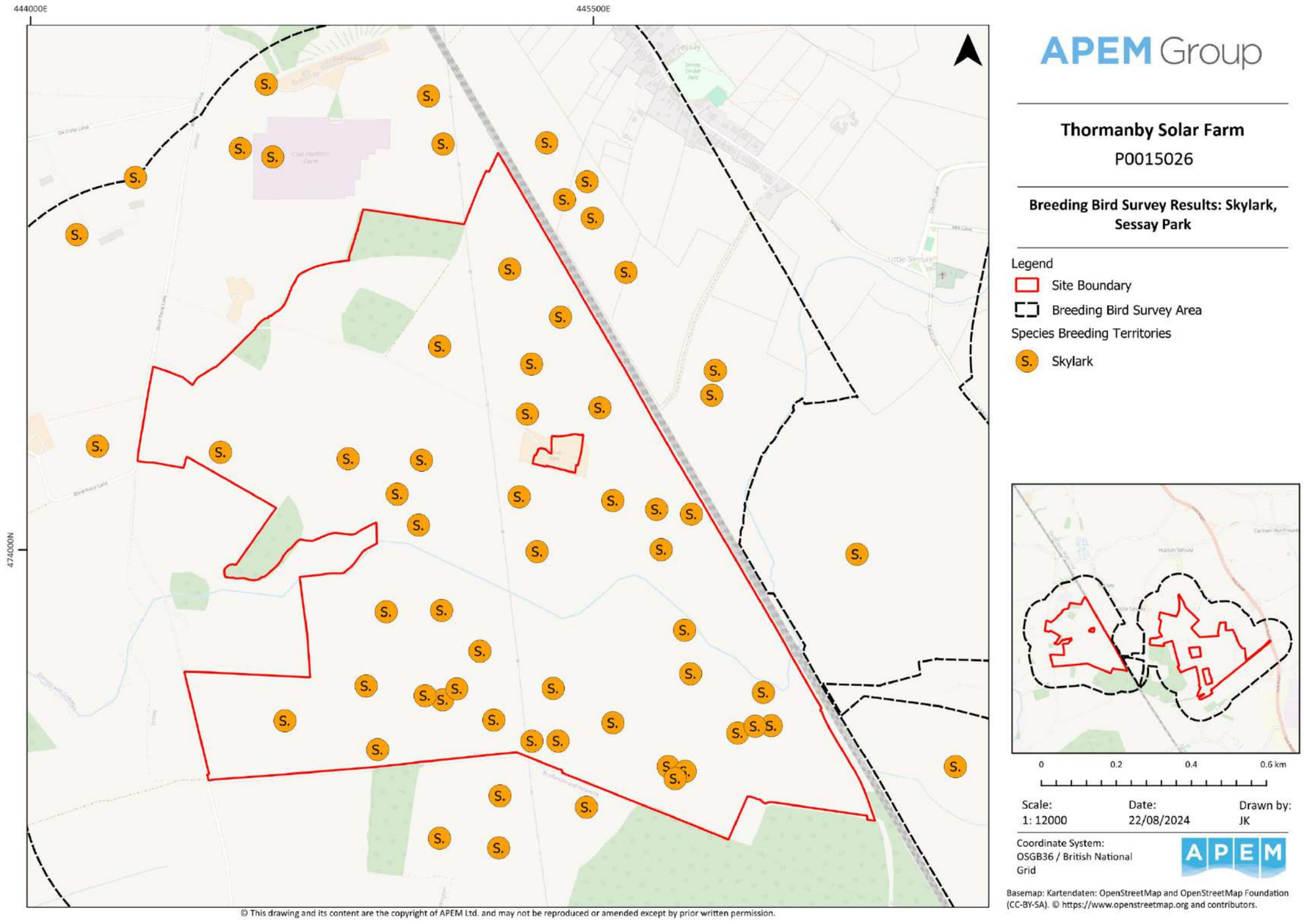

Figure 2 BBS results: Skylark, Sessay Park

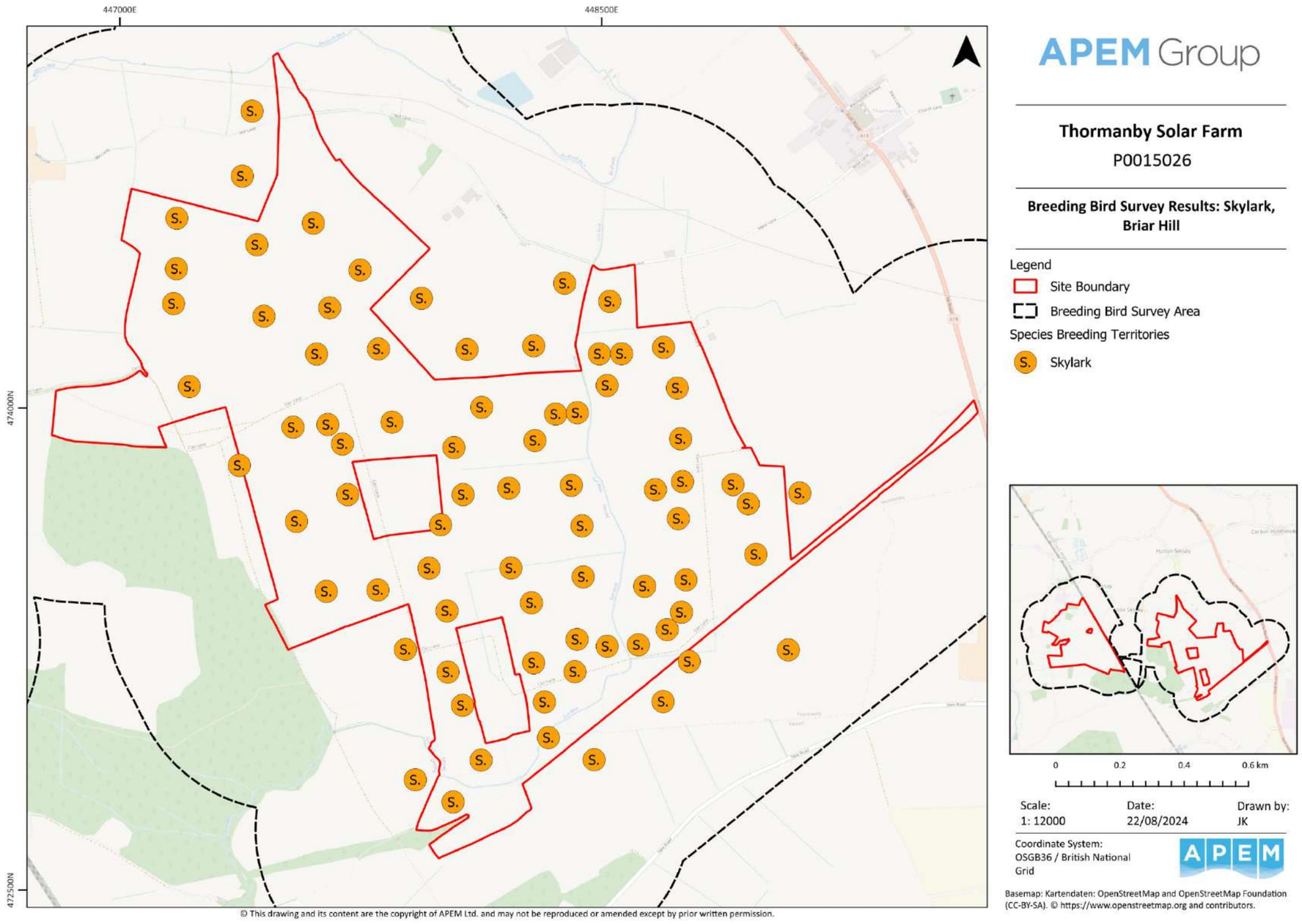

Figure 3 BBS results: Skylark, Briar Hill

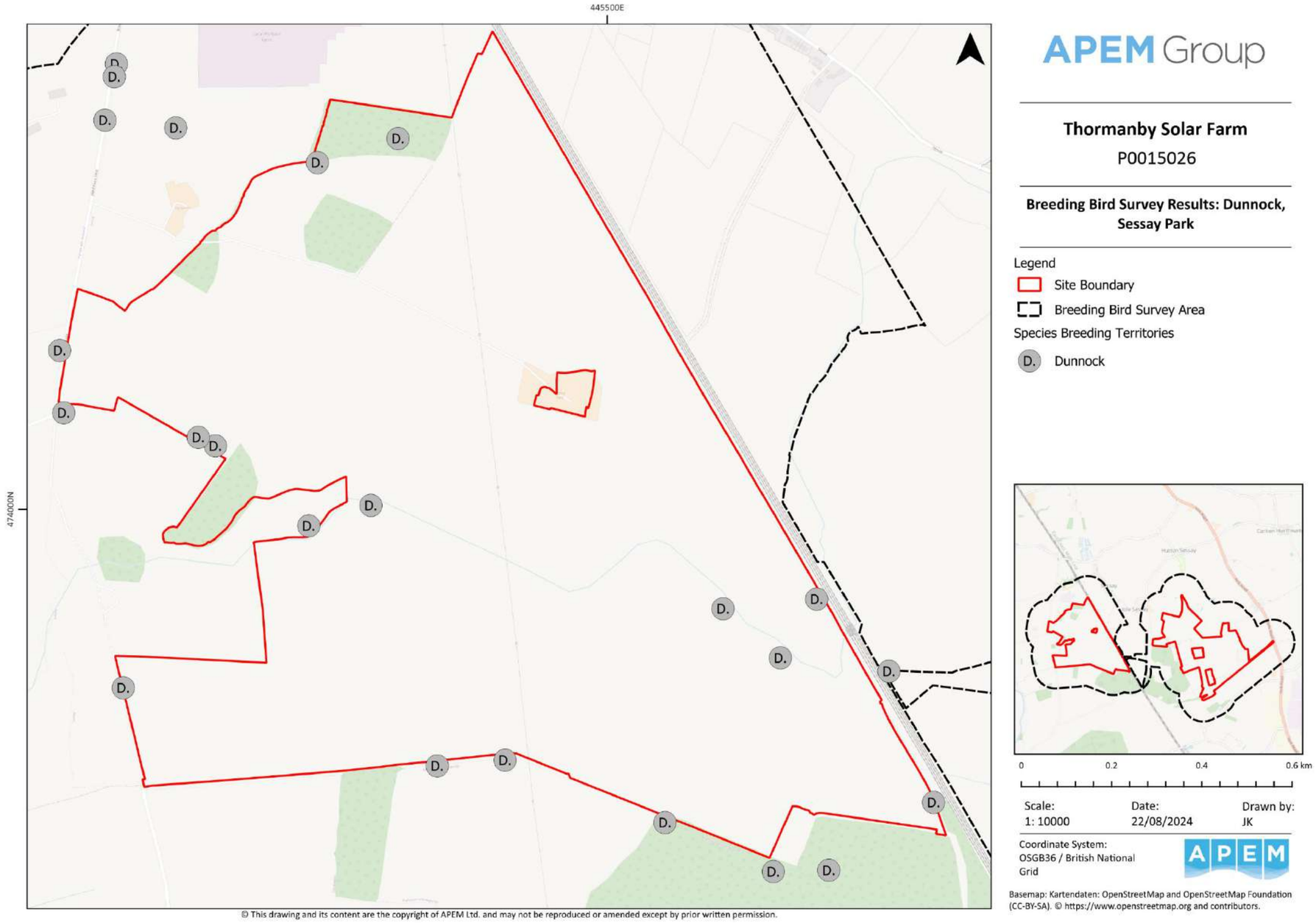

Figure 4 BBS results: Dunnock, Sessay Park

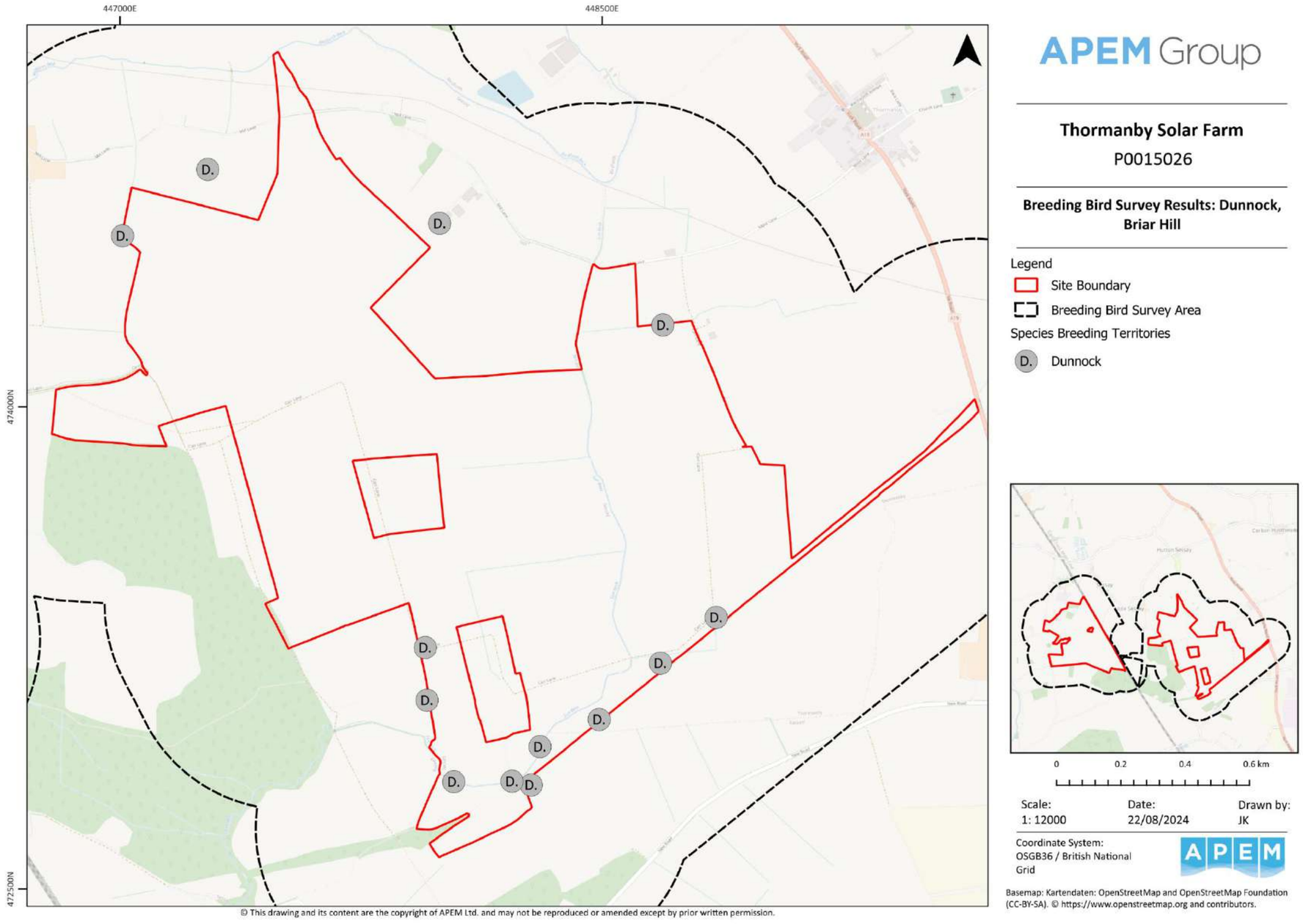

Figure 5 BBS results: Dunnock, Briar Hill

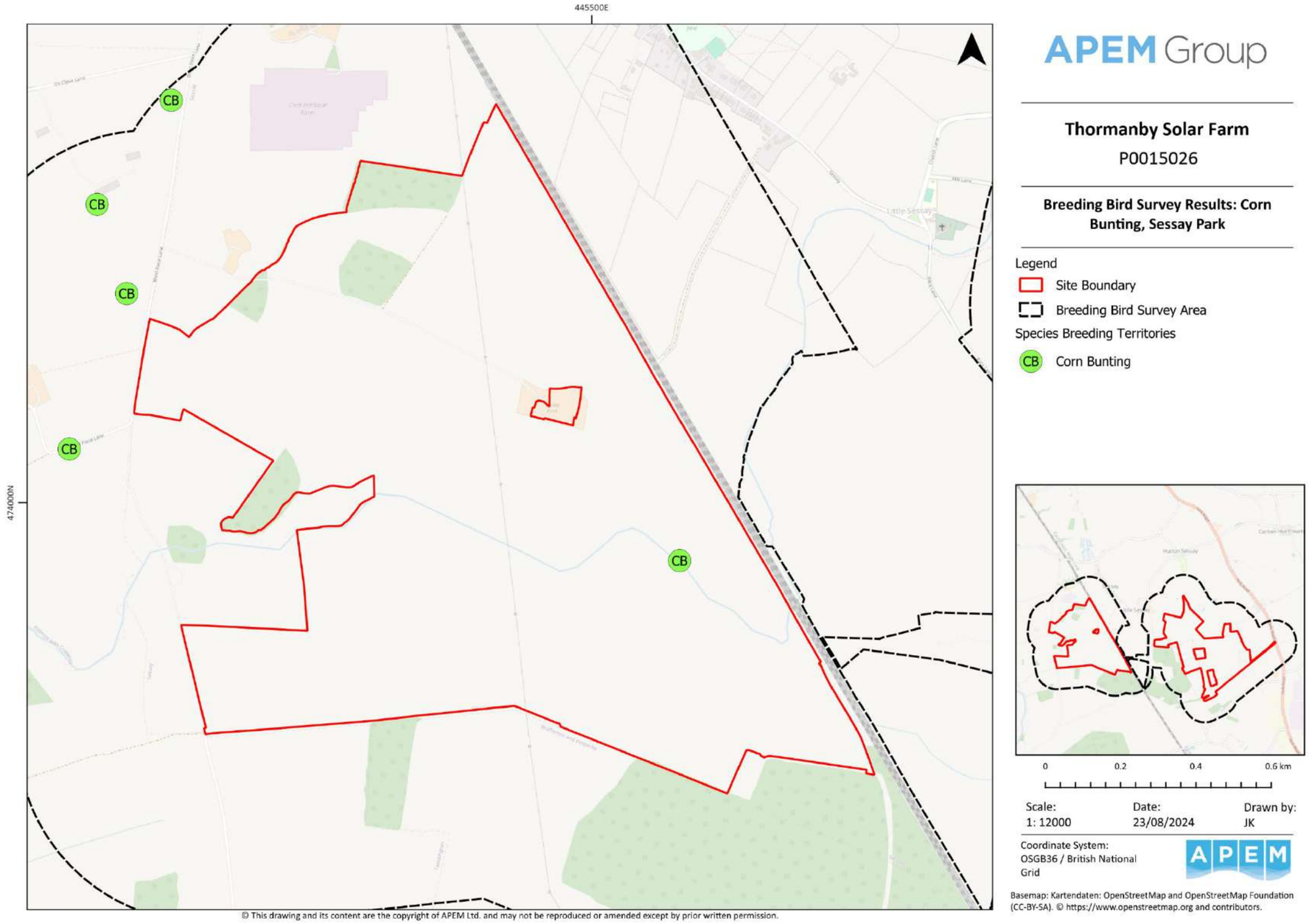

Figure 6 BBS results: Corn Bunting, Sessay Park

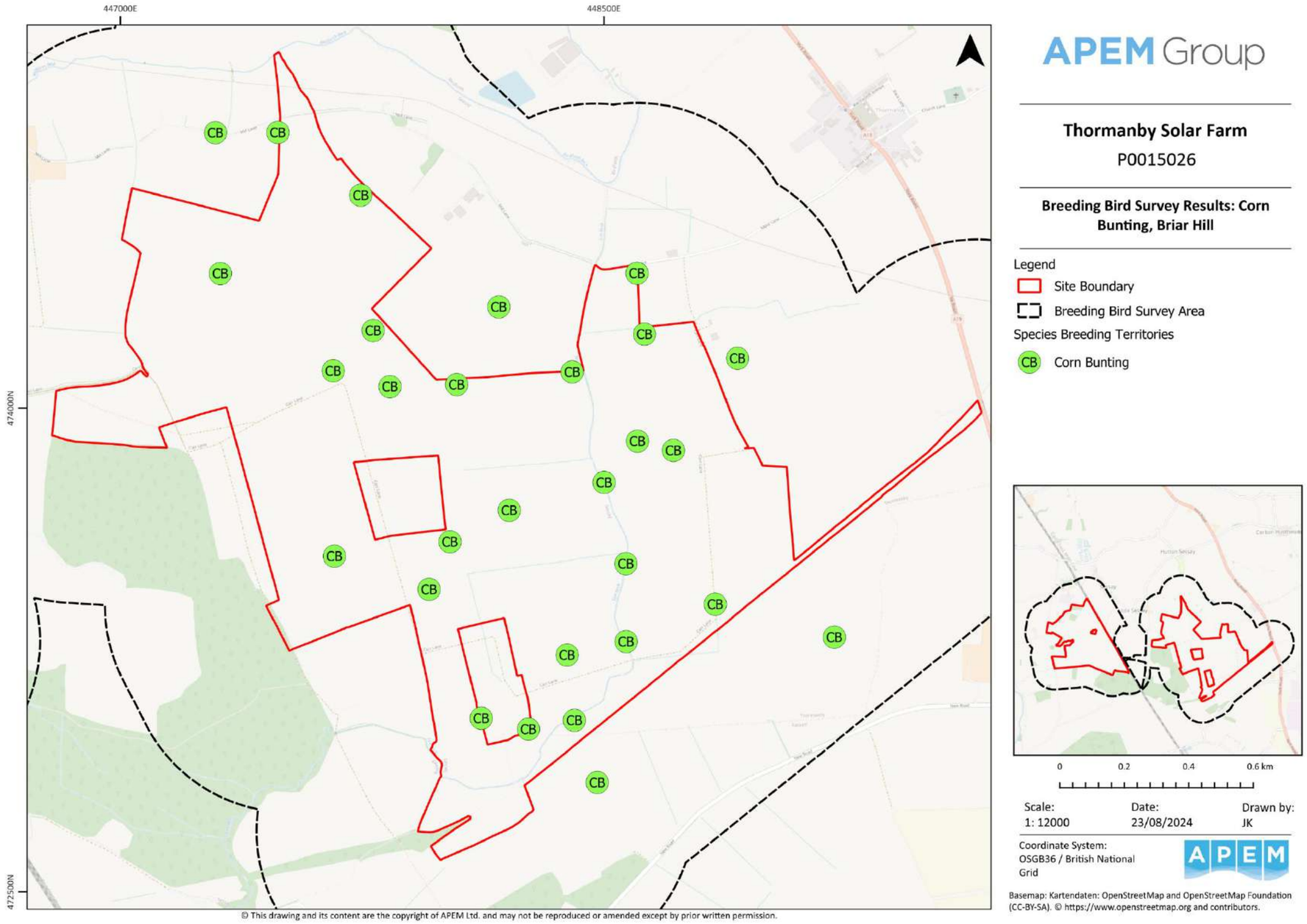

Figure 7 BBS results: Corn Bunting, Briar Hill

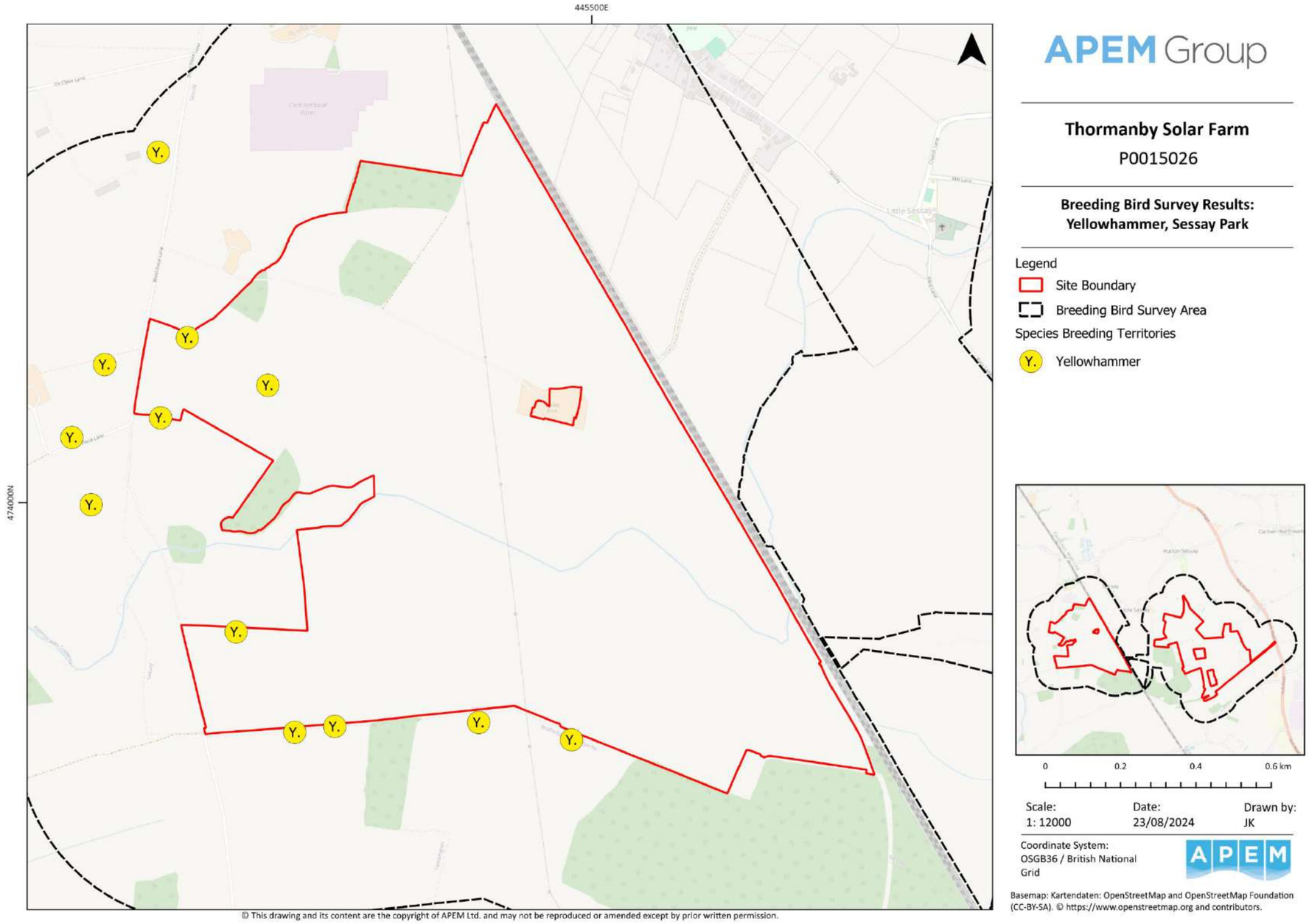

Figure 8 BBS results: Yellowhammer, Sessay Park

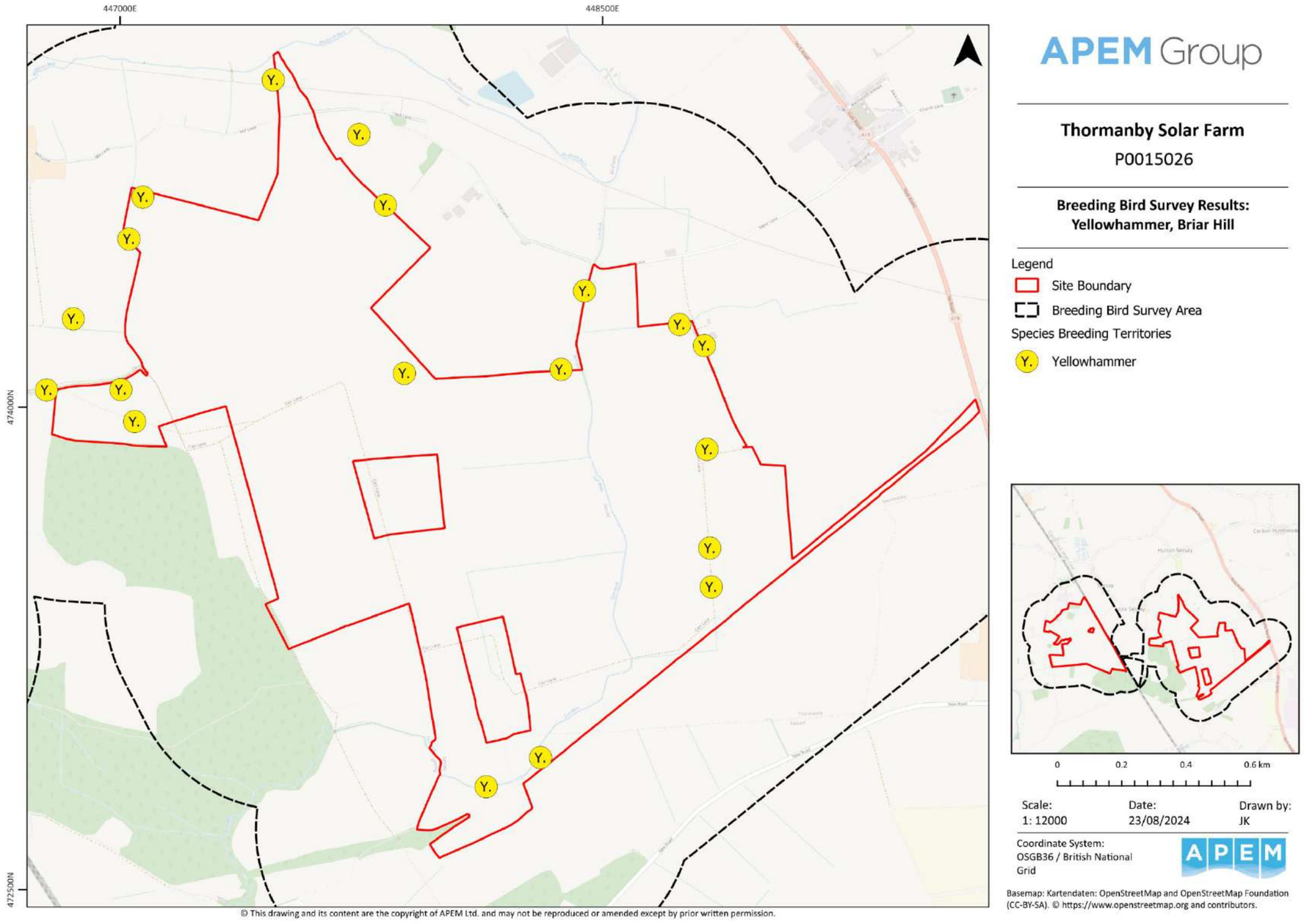

Figure 9 BBS results: Yellowhammer, Briar Hill

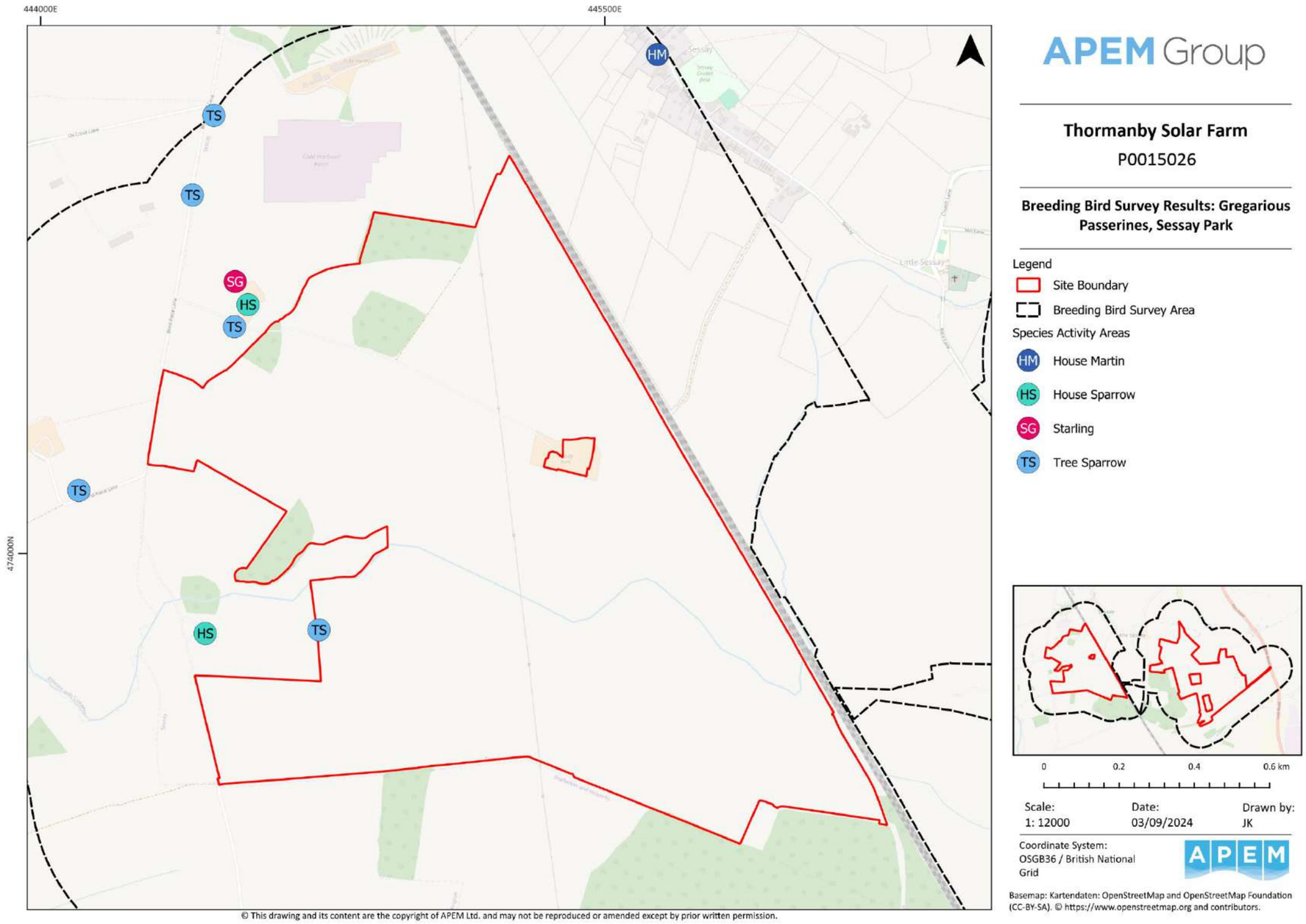

Figure 10 BBS results: Gregarious Passerines, Sessay Park

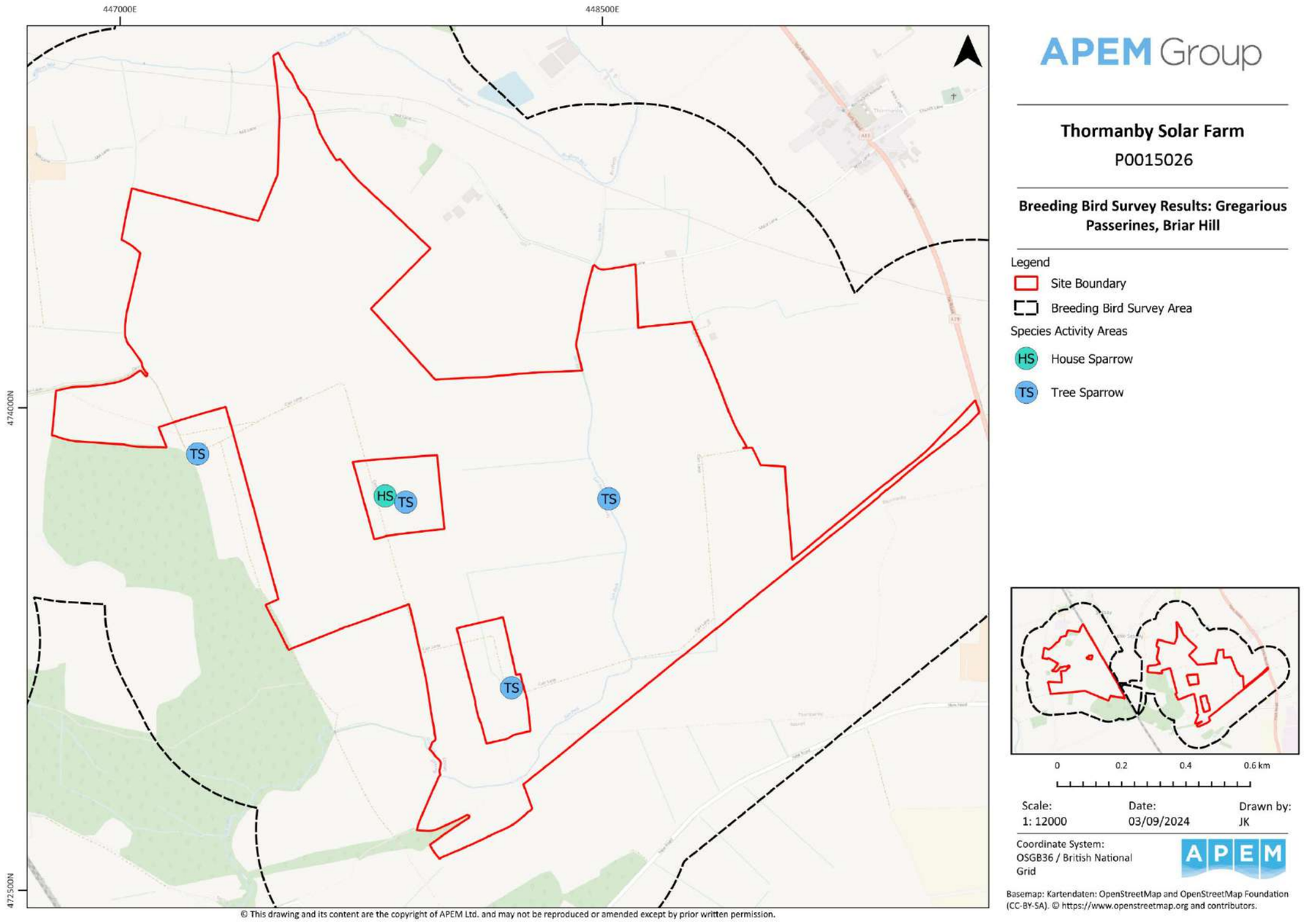

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Figure 11 BBS results: Gregarious Passerines, Briar Hill

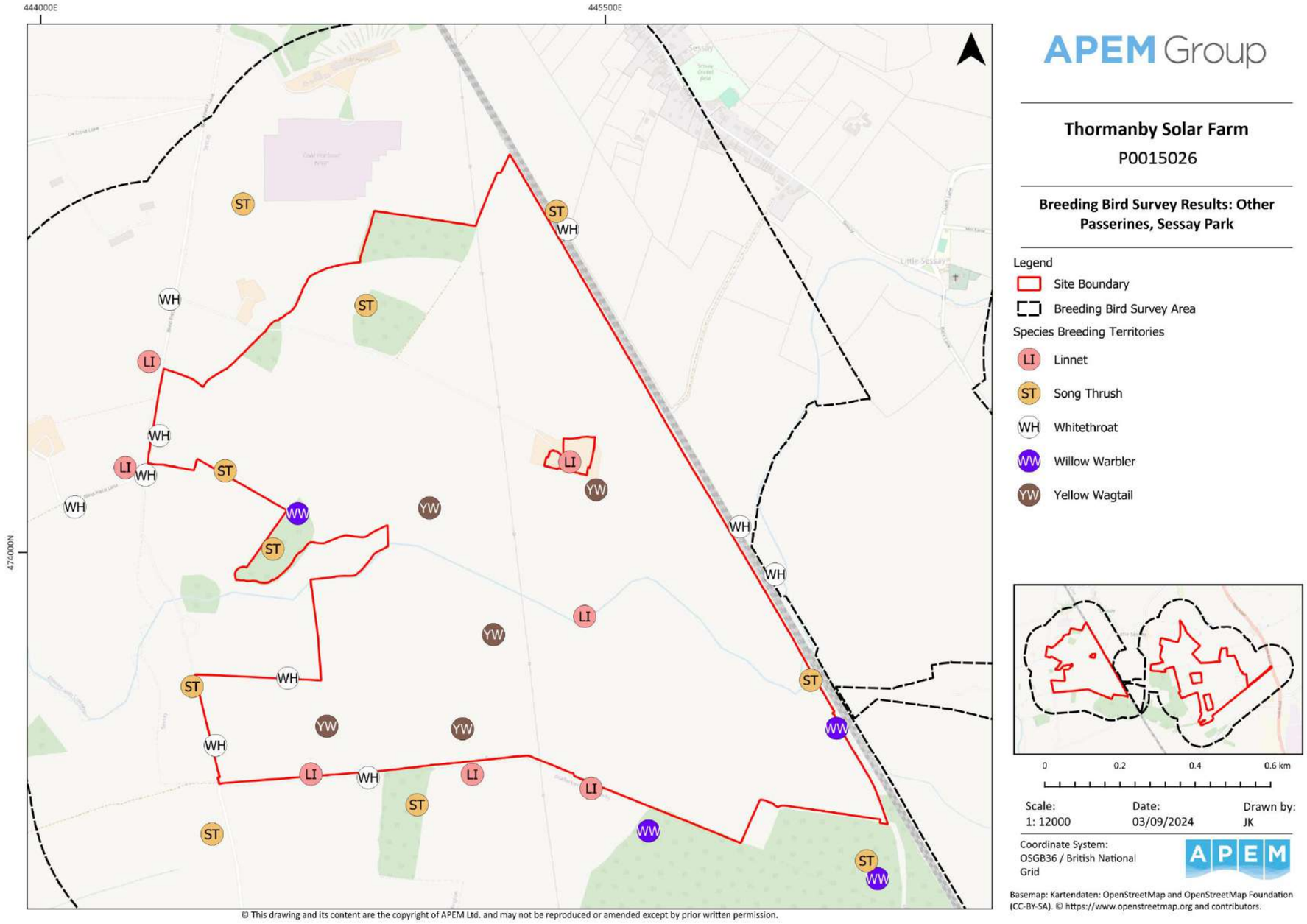

Figure 12 BBS results: Other Passerines, Sessay Park

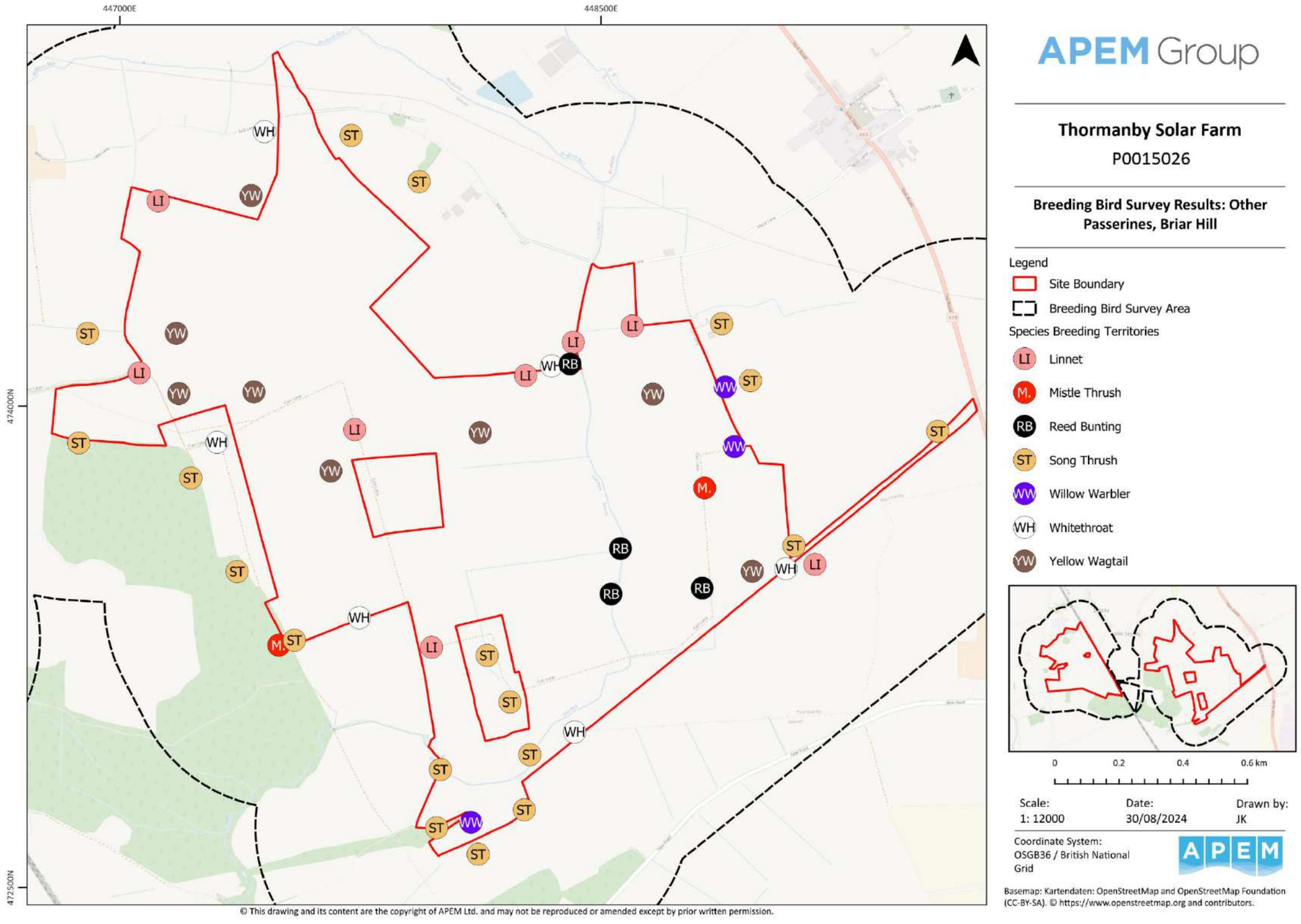

Figure 13 BBS results: Other Passerines, Briar Hill

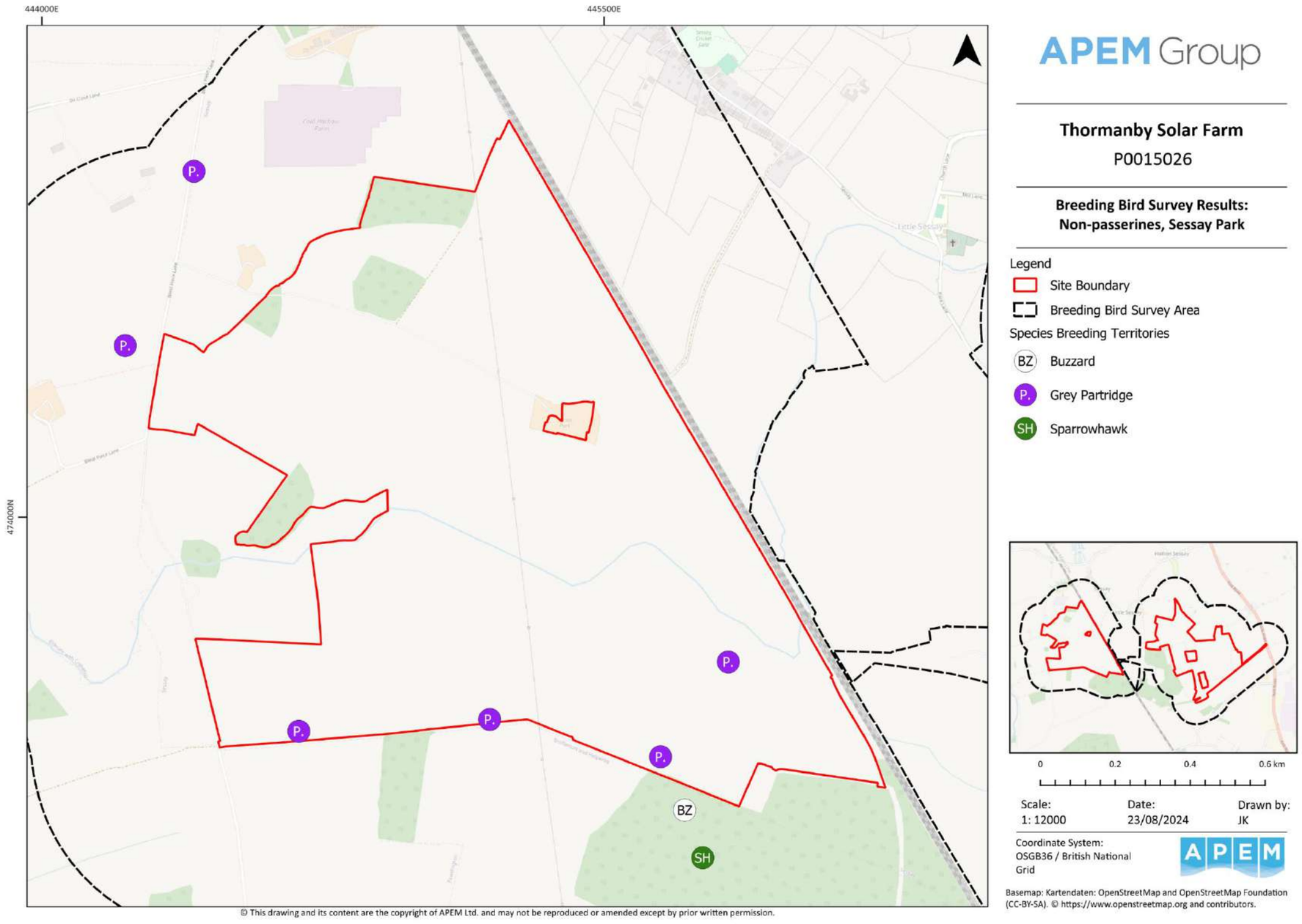

Figure 14 BBS results: Non-passerines, Sessay Park

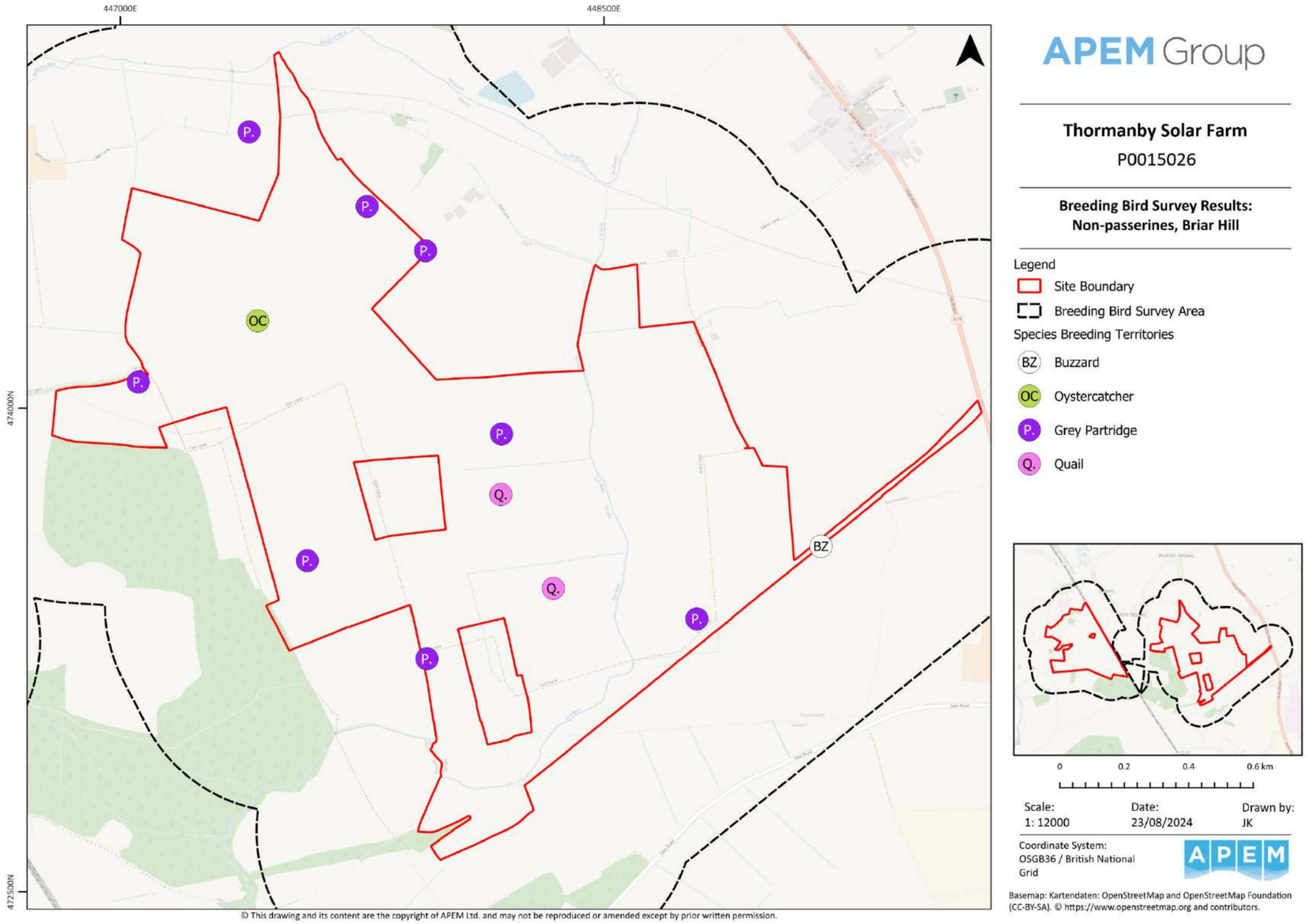

Figure 15 BBS results: Non-passerines, Briar Hill

3.2 Non-breeding Target Species

Of the target species recorded during the BBS, 17 were not considered to be breeding within the Survey Area. These species were greylag goose, (*Anser anser*), shelduck (*Tadorna tadorna*), mallard (*Anas platyrhynchos*), swift (*Apus apus*), moorhen (*Gallinula chloropus*), curlew (*Numenius arquatus*), black-headed gull (*Chroicephalus ridibundus*), herring gull (*Larus argentatus*), lesser black-backed gull (*Larus fuscus*), little egret (*Egretta garzetta*), red kite (*Milvus milvus*), kingfisher (*Alcedo atthis*), kestrel (*Falco tinnunculus*), hobby (*Falco subbuteo*), peregrine (*Falco peregrinus*), meadow pipit (*Anthus pratensis*) and greenfinch (*Chloris chloris*).

The four raptor species were mainly recorded in flight on one or two visits. A single kestrel was present in the Briar Hill Site during visit three with another individual observed, in flight, in the Sessay Park Survey Area during visit four. There was no evidence of breeding within the Survey Area, however they are likely to breed in the wider landscape. A family of peregrines (a pair and two juveniles) was observed in Sessay Park during visit four. These were observed in flight and perched on a pylon, however due to a lack of suitable box pylons, buildings or natural sites for nesting, they were not considered to be breeding within the Survey Area. The surveyor stated that it is possible that these birds were associated with a known breeding site approximately 5 km from the Site.

Curlew were only observed in flight, with four individuals recorded across visits three and four, as were black-headed gulls, with a small flock recorded during visit four. Both species are likely to breed in the wider area. Flocks of swifts were recorded across the Survey Area during visit four. Due to a lack of suitable nest sites, they were not considered to be breeding on Site, however they are likely to use the Site for foraging. There was a single record of kingfisher in flight along the River Sun Beck and a single record of a calling greenfinch at Briar Hill from the first visit, both of which were considered insufficient evidence for breeding activity. There were records of two greylag geese, four shelduck, one moorhen and two meadow pipits in the Sessay Park Survey Area during the first visit, however there was no evidence of breeding. Herring gulls were observed in flight across multiple visits and a flock was observed in the Briar Hill site on the first visit. A large flock of approximately 130 lesser black-backed gulls was also observed in the Sessay Park Survey Area during the third visit. Both species are likely to forage within the Survey Area and breed within the wider landscape.

3.3 Barn Owl Survey Results

Although the building was identified as a suitable nest site and the landowner had observed barn owls using the building, no barn owl nests were identified during the survey. However, numerous barn owl pellets and white marks were observed, indicating the building may be used for roosting. There is the potential for barn owl to forage within the Survey Area where there is suitable habitat for small mammals which are this species favoured prey, particularly any areas of rank grassland.

4. Recommendations and Conclusions

In total 66 bird species were recorded across the Survey Area during the 2024 breeding season. Of the species recorded, 28 are species of conservation concern and, of these, 18 were recorded breeding. Of these 18 species, ten are BoCC5 red-listed (Stanbury et al., 2021), eight are BoCC5 amber-listed, 12 are listed under Section 41 of the NERC Act 2006, one is listed under Schedule 1 of the Wildlife and Countryside Act 1981 and one is listed on Annex 1 of the Birds Directive.

Five Schedule 1 species were observed: quail, red kite, kingfisher, hobby and peregrine. Of these, only quail was considered to be breeding. All of the remaining species except for peregrine were only observed commuting across the Site on one or two occasions and were not considered to be breeding. A family of peregrines was recorded during visit four, including an adult female and a juvenile perched on a pylon, however no suitable nest sites were observed within the Survey Area and it is possible that these birds were associated with a known nest site nearby.

The breeding bird species assemblage recorded within the Survey Area was typical of the habitats present, which were largely arable farmland and grassland with hedgerow boundaries. Notably, a number of farmland species of conservation concern were confirmed to have bred within the Survey Area, including a range of farmland passerines for which there has been a long-term declining trend in the UK due to intensification of agriculture. Of particular note were large numbers of skylark, dunnock, corn bunting and yellowhammer territories and the high breeding densities of these species. The majority of species territories were strongly associated with field boundaries.

It is recommended that territory locations of key species are considered when determining the design and layout of the proposed development and that loss of key breeding and foraging habitat is avoided to minimise impacts on key species. It is recommended that impacts are mitigated through sensitive design (for example retaining hedgerows and field margins used by a number of breeding species), however additional mitigation may be required through implementation of a Breeding Bird Protection Plan. There are opportunities for habitat enhancement and habitat creation within the Site which could improve existing habitats for breeding birds, and which should be considered at the design stage. There is also the potential to attract other farmland species of conservation concern which do not currently breed within the Survey Area.

It is recommended that additional quail surveys are undertaken to accurately determine the breeding population present within the Survey Area. This species is difficult to record through standard survey methods, and species-specific methods state that surveys should be undertaken at dusk to listen for singing males (Gilbert *et al,* 1998).

5. References

Bibby, C. J., Jones, M. and Marsden, S., 1998. Bird Surveys. London: Expedition Advisory Centre, pp 1-137.

Bird Survey & Assessment Steering Group, 2024. Bird Survey Guidelines for assessing ecological impacts, v.1.1.0. Available at: https://birdsurveyguidelines.org. Accessed on: 10th July 2024.

Birdlife International, 2015. European Red List of Birds. Luxembourg: Office for Official Publications of the European Communities.

British Ornithologists' Union, 2017. The British List: A Checklist of Birds of Britain (9th edition). Ibis 160: 190-240.

Eaton, M., and the Rare Breeding Birds Panel, 2022. Rare Breeding Birds in the United Kingdom in 2020. British Birds vol. 115:11. Pp. 623-686.

Gilbert, G., Gibbons, D.W., & Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for UK Key Species.The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

Hardey, J., Crick, H., Wernham, C., Riley, H. & Thompson, D. (2009): Raptors: a field guide to survey and monitoring. 2nd Edition Edinburgh: The Stationery Office.

Harrison, C., Lloyd, H., & Field, C. 2017. Evidence review of the impact of solar farms on birds, bats and general ecology. Natural England.

Heywood, J.J.N., Massimino, D., Balmer, D.E., Kelly, L., Marion, S., Noble, D.G., Pearce-Higgins, J.W., White, D.M., Woodcock, P., Wotton, S. & Gillings, S. 2024. The Breeding Bird Survey 2023. BTO Research Report 765. British Trust for Ornithology, Thetford. Available at: https://www.bto.org/sites/default/files/bto_jncc_rspb_breeding_bird_survey_report_2023.pdf. Accessed on: 12/07/2024.

Natural England, 2022. Wild birds: surveys and mitigation for development projects. https://www.gov.uk/guidance/wild-birds-surveys-and-mitigation-for-development-projects. Accessed on: 12/07/2024.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I., 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

Woodward, I, Aebischer, N., Burnell, D., Eaton, M., Frost., T., Hall, C., Stroud., and Noble, D., 2020. Population estimates of birds in Great Britain and the United Kingdom. In: British Birds 113, pp 69-104

Appendix 1 Species List

English common name	Scientific name	Conservation status
Canada goose	*Branta canadensis*	-
Greylag goose	*Anser anser*	Amber
Shelduck	*Tadorna tadorna*	Amber
Mallard	*Anas platyrhynchos*	Amber
Grey partridge	*Perdix perdix*	Red; Sec41
Quail	*Coturnix coturnix*	Amber; Sch1.1
Red-legged partridge	*Alectoris rufa*	-
Swift	*Apus apus*	Red
Stock dove	*Columba oenas*	Amber
Woodpigeon	*Columba palumbus*	Amber
Moorhen	*Gallinula chloropus*	Amber
Oystercatcher	*Haematopus ostralegus*	Amber
Curlew	*Numenius arquata*	Red
Black-headed gull	*Chroicocephalus ridibundus*	Amber
Herring gull	*Larus argentatus*	Red
Lesser black-backed gull	*Larus fuscus*	Amber
Grey heron	*Ardea cinerea*	Green
Little egret	*Egretta garzetta*	Green; Ann1
Sparrowhawk	*Accipiter nisus*	Amber
Red kite	*Milvus milvus*	Green; Sch1.1 & 1A; Ann1
Buzzard	*Buteo buteo*	Green
Little owl	*Athene noctua*	-
Kingfisher	*Alcedo atthis*	Green; Sch1.1; Ann1
Great spotted woodpecker	*Dendrocopos major*	Green
Kestrel	*Falco tinnunculus*	Amber
Hobby	*Falco subbuteo*	Green; Sch1.1
Peregrine	*Falco peregrinus*	Green; Sch1.1; Ann1
Jay	*Garrulus glandarius*	Green
Magpie	*Pica pica*	Green
Jackdaw	*Coloeus monedula*	Green
Rook	*Corvus frugilegus*	Amber
Carrion crow	*Corvus corone*	Green
Coal tit	*Periparus ater*	Green
Blue tit	*Cyanistes caeruleus*	Green
Great tit	*Parus major*	Green
Skylark	*Alauda arvensis*	Red; Sec41
Swallow	*Hirundo rustica*	Green
House martin	*Delichon urbicum*	Red
Willow warbler	*Phylloscopus trochilus*	Amber

Chiffchaff	*Phylloscopus collybita*	Green
Blackcap	*Sylvia atricapilla*	Green
Garden warbler	*Sylvia borin*	Green
Lesser whitethroat	*Curruca curruca*	Green
Whitethroat	*Curruca communis*	Amber
Goldcrest	*Regulus regulus*	Green
Wren	*Troglodytes troglodytes*	Amber
Treecreeper	*Certhia familiaris*	Green
Starling	*Sturnus vulgaris*	Red; Sec41
Song thrush	*Turdus philomelos*	Amber; Sec41
Mistle thrush	*Turdus viscivorus*	Red
Blackbird	*Turdus merula*	Green
Robin	*Erithacus rubecula*	Green
Tree sparrow	*Passer montanus*	Red; Sec41
House sparrow	*Passer domesticus*	Red; Sec41
Dunnock	*Prunella modularis*	Amber; Sec41
Yellow wagtail	*Motacilla flava*	Red; Sec41
Pied wagtail	*Motacilla alba yarellii*	Green
Meadow pipit	*Anthus pratensis*	Amber
Chaffinch	*Fringilla coelebs*	Green
Greenfinch	*Chloris chloris*	Red
Linnet	*Linaria cannabina*	Red; Sec41
Goldfinch	*Carduelis carduelis*	Green
Siskin	*Spinus spinus*	Green
Corn bunting	*Emberiza calandra*	Red; Sec41
Yellowhammer	*Emberiza citrinella*	Red; Sec41
Reed bunting	*Emberiza schoeniclus*	Amber; Sec41

Appendix 2 Weather Data

Visit	Date	Temperature (Celsius)	Wind (Beaufort scale)	Visibility	Precipitation	Cloud cover (x/8)
1	09/04/2024	8	F3 NNW	Good	Heavy showers	8
1	23/04/2024	6	F2 NNW	Good	None	8
1	25/04/2024	3	F1 N	Excellent	None	8
2	20/05/2024	12	F2 NNW	Good	None	8
2	21/05/2024	8	F2 NNW	Good	None	8
2	21/05/2024	11	F2 NNW	Good	None	7
2	21/05/2024	9	F1	Excellent	None	8
2	24/05/2024	13	F1	Good	None	8
3	24/06/2024	21	F2 SE	Excellent	None	2
3	26/06/2024	22	F1 SSE	Excellent	None	7
4	10/07/2024	16	0	Poor	None	8
4	10/07/2024	15	F5 SE	Good	None	8
4	11/07/2024	13	F2 E	Excellent	None	8
4	11/07/2024	12	F1 NE	Good	None	8

APPENDIX VI: BREEDING QUAIL SURVEY

BayWa r.e.

Thormanby DCO Solar Site – Breeding Quail Surveys 2025

Connor Fraser, Billy Gardener, Matt Rea

COMMERCIAL IN CONFIDENCE

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Revision and Amendment Register

Version Number	Date	Section(s)	Page(s)	Summary of Changes	Approved by
1.0	07/07/2025	All	All	First Draft	CF
1.1	21/07/2025	All	All	Initial Review	BG
1.2	22/07/2025	All	All	Amendments	CF
1.3	23/09/2025	All	All	Amendments	CF
1.4	14/11/2025	All	All	Final Review	MRea
2.0	17/11/2025	All	All	Client Issue	MRea

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Executive Summary

This report documents the methods and results of a Breeding Quail Survey (BQS) programme, undertaken between May and June 2025 (inclusive), to determine the presence of breeding quail, a schedule 1 species, at a potential solar farm site (the Site) near Thormanby, North Yorkshire. This survey follows at least two breeding quail territories being recorded in the 2024 Breeding Bird Survey and were conducted to inform the scoping phase, in consideration of the species' Schedule 1 status.

A two-visit BQS was undertaken following an adapted procedure based on methods outlined by Gilbert *et al*. (1998). Following the conclusion of all surveys, territory analysis was undertaken to determine the number and distribution of quail territories within the Survey Area. Across both visits, a single quail was recorded within the Site.

1. Introduction

1.1 About this Document

This report provides BayWa r.e. with details of the methodologies and results of the 2025 Breeding Quail Surveys (BQS) associated with the proposed works at a potential solar farm site (hereafter referred to as 'the Site') near Thormanby, North Yorkshire. Two BQS visits were undertaken within the Site and a surrounding 100 m buffer (hereafter referred to as the Survey Area). Visits were undertaken at dusk between mid-May and early June 2025, following an adapted procedure based on methods outlined by Gilbert *et al*. (1998).

1.2 Background and Scope

APEM were commissioned by BayWa r.e. to undertake a two-visit BQS programme at Thormanby in support of the proposed Thormanby solar farm. This follows the recording of two probable breeding territories of quail (*Coturnix coturnix*), a Schedule 1 species, during the 2024 breeding season and the abundance of suitable habitat within the Site and surrounding area.

These surveys were conducted to inform the scoping phase and to support the development of initial design and mitigation recommendations, in consideration of the species' Schedule 1 status. The data collected contributes to a clearer understanding of the species' use of the site and surrounding area, as quail is an irruptive species whose populations can vary locally between years.

BQS were undertaken to determine the presence of breeding quail and to inform any future impact assessment required to support a planning submission. The potential risks to birds arising from solar developments include direct habitat loss, disturbance and displacement (Harrison *et al*., 2017).

The key guidance used to inform the scope of surveys and reporting was published by Natural England (2022) and is considered best practice for developments in England. The methodology used for BQS followed an adapted procedure based on methods outlined by Gilbert *et al*. (1998).

1.3 Site Location and Description

The Site, with an area of approximately 420 ha, is located in north Yorkshire approximately 25 km north-west of York, south of Little Sessay within the North Yorkshire Council area (National Grid Reference: SE 452 734, nearest postcode: YO7 3NL). The Site is split across two Development Parcels – Sessay Park (west) and Briar Hill (east), which are separated by the

East Coast Mainline railway and approximately 800 m of intervening, private land. The Site Boundary and Survey Area are shown in **Figure 1.**

Habitats present within the Site comprise almost entirely arable agricultural land, with a number of small plantation woodlands present in the west Development Parcel, and a larger woodland within the Survey Area between the two sites in the south. To the north of Sessay Park, the Survey Area also includes an existing solar development at Cold Harbour Farm, and part of the village of Sessay. The River Sun Beck flows through both Development Parcels. In terms of habitats present, the site is representative of the surrounding area.

The North York Moors Special Protection Area (SPA) is located 11.3km from the Survey Area at its nearest point. This SPA is designated for breeding merlin (*Falco columbarius*) and breeding golden plover (*Pluvialis apricaria*).

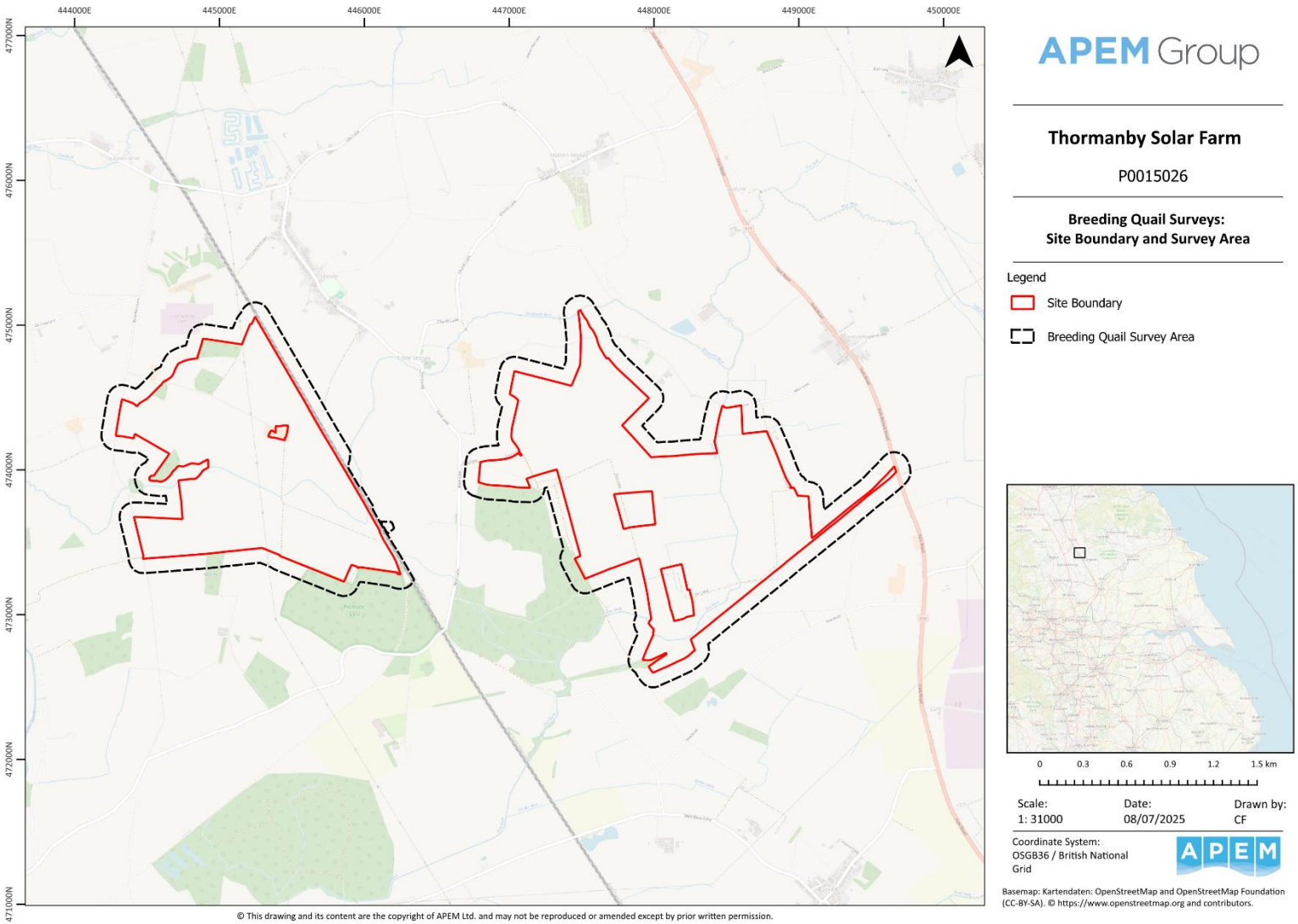

Figure 1. Site Boundary and Survey Area

2. Survey Methods

Presented here are the methods followed during the BQS. To collect robust data, surveys followed standardised approaches to recording quail occurrence, behaviour and abundance. Surveys were undertaken in suitable weather conditions, which are presented in Table 1.

Table 1. Breeding Quail Surveys – Weather Data.

Visit	Date(s)	Temperature (°C)	Visibility	Precipitation	Wind	Cloud cover
Visit 1	19/05/2025	15	Good	None	F1 N	2
	20/05/2025	20	Good	None	F1 E	0
Visit 2	17/06/2025	18	Good	None	F4 SW	4
	18/06/2025	19	Good	None	F2 SW	3

2.1 Surveyors

Surveys were undertaken by Tim Jones and Chris Gomersall, knowledgeable local ornithologists with extensive field experience, who surveyed the Site during the 2024 breeding season. They are familiar with and have a detailed understanding of the key survey methodologies recommended within Statutory Nature Conservation Bodies (SNCB) guidance that were used for this project.

2.2 Breeding Quail Surveys

The BQS programme for 2025 followed an adapted procedure based on the methods outlined in Gilbert *et al*. (1998). Guidance recommends that the proposed survey programme should comprise six dusk surveys, however based on APEM's professional judgement, and as a full suite of baseline surveys (including for quail) will be undertaken during the 2026 breeding season, the scope of surveys was reduced to two visits.

This survey methodology was sufficient for the aim of the surveys, which was to inform scoping, design and mitigation, rather than to collect full baseline data. Visits were undertaken between mid-May and early June, with at least a fortnight between visits in line with guidance.

The Survey Area included all suitable habitats within the Site and a surrounding 100 m buffer. Urban habitats (existing housing, roads etc) were excluded from the Survey Area. Surveyors

approached all potential quail habitat within the Survey Area to 250m where possible. Listening points were marked within the Survey Area where surveyors spent at least five minutes to listen for any singing quail. The locations of singing males were mapped to within 100m, and all quail activity was recorded using standard British Trust for Ornithology (BTO) notation.

2.3 Territory Analysis

All survey records were captured using GIS in order to provide the spatial data in a visual format to accompany this baseline report. The number of singing males recorded during surveys were counted and used to provide an indicative number of breeding territories, in line with survey guidance (Gilbert *et al.*, 1998).

2.4 Limitations

No access to a small part in the south-east of the Sessay Park Survey Area (immediately adjacent to the railway line) was granted for this programme of surveys and so was excluded from surveys. As this is a very small area and is separated from the Site by the railway line, this is not considered a constraint.

Weather conditions were mostly good, with warm, dry evenings, although wind speed during the first survey day in June was slightly higher than optimal, however it is not considered that this impacted the robustness of the survey. Weather data is presented in **Table 1**.

3. Results

Across both survey visits, a single quail was recorded. A male was heard singing within a wheat field on the west side of Briar Hill in late May, but was not recorded again in the June visit. Owing to the single record recorded, this has been classed as a possible breeding territory.

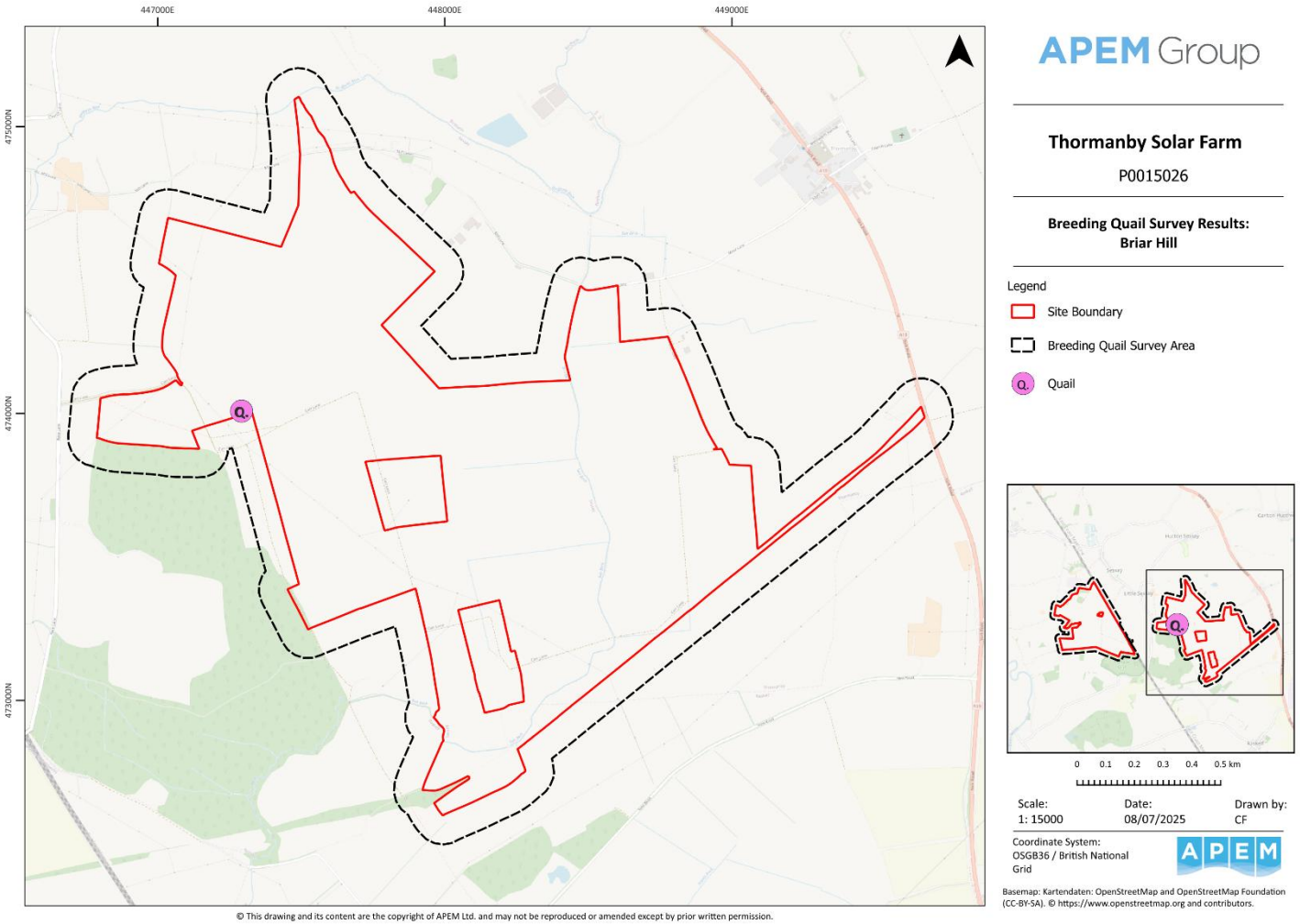

Figure 2. BQS results: Briar Hill

4. Recommendations and Conclusions

The record of a single singing quail within the west of the Briar Hill Site during the 2025 BQS, along with two breeding pairs recorded during the 2024 BBS, indicates that small numbers of quail breed within the Survey Area.

Although quail has been recorded within Briar Hill during both years of survey, during 2024 surveys quail records were 930 m and 1.2 km further to the south-east, respectively. This indicates that although quail breed within the Survey Area, there is no consistent or habitual use of specific fields within the Survey Area, with quail likely to alter breeding locations annually, which could also be as a result of changing land-use. Across 2024 and 2025 surveys, there have been no quail recorded within the Little Sessay Survey Area.

Consequently, at this stage, design modifications specifically for quail are not recommended, given the species' high mobility and abundance of suitable habitat across the Site. It is, however, recommended that targeted breeding quail surveys are incorporated into the 2026 breeding bird surveys at the Site.

5. References

Bird Survey & Assessment Steering Group, 2024. Bird Survey Guidelines for assessing ecological impacts, v.1.1.0. Available at: https://birdsurveyguidelines.org. Accessed on: 10th July 2024.

Gilbert, G., Gibbons, D.W., & Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for UK Key Species.The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

Harrison, C., Lloyd, H., & Field, C. (2017). Evidence review of the impact of solar farms on birds, bats and general ecology. Natural England.

Natural England (2022). Wild birds: surveys and mitigation for development projects. https://www.gov.uk/guidance/wild-birds-surveys-and-mitigation-for-development-projects. Accessed on: 12/07/2024.

APPENDIX VII: DRAFT HISTORIC ENVIRONMENT DESK BASED ASSESSMENT

Cotswold Archaeology

Sedgeby Solar Farm
Little Sessay
North Yorkshire

Historic Environment Desk-Based Assessment

Report prepared for:
BayWa r.e.

On behalf of:
Sedgeby Solar Limited

CA Project: MK1215

CA Report: MK1215_1

October 2025

Andover Cirencester Milton Keynes Suffolk

Sedgeby Solar Farm
Little Sessay
North Yorkshire

Historic Environment Desk-Based Assessment

CA Project: MK1215

CA Report: MK1215_1

prepared by date	Jon Sanigar, Heritage Consultant June 2025
checked by date	Rebecca Wills, Senior Heritage Consultant June2025
approved by signed date	Julia Sulikowska, Principal Heritage Consultant June 2025
issue	**1**

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SUMMARY

Project Name: **Sedgeby Solar Farm, Little Sessay, North Yorkshire**
Location: **Little Sessay, North Yorkshire**
NGR: **445197 474201**

In January 2025, Cotswold Archaeology was commissioned by BayWa r.e. on behalf of Sedgeby Solar Limited to undertake a Heritage Assessment in respect of land to the south and east of Sessay and Thormanby. The proposed development comprises the construction of a solar farm, battery energy storage system and associated access and infrastructure.

The assessment has identified a potential for late prehistoric/Roman remains within the Site. Recorded within Sessay Park parcel of the Site is the supposed location of a Bronze Age barrow named 'Giant's Grave', but no earth mound or ring ditch cropmark is recorded in this area. Within Briar Hill parcel there are undated cropmarks of former field boundaries and enclosures broadly dated to the late prehistoric/Roman period; however, some of the cropmarks correspond to former field boundaries recorded on a 1770 map of the Site.

There is a low potential for early medieval and modern remains, and a high potential for medieval or post-medieval remains. The Site is situated within the agricultural hinterland of historic Sessay and Thormanby, and former field boundaries and medieval/post-medieval ridge and furrow are recorded within the Site. Historic mapping illustrates a former farmstead named Urchin Head was within Briar Hill parcel, which was demolished in the late 19th century.

To further clarify the presence/absence extent and significance of any archaeological remains that may be affected by development within the Site, a programme of further investigations is likely to be required by the archaeological advisors at North Yorkshire Council. This will likely include geophysical survey in the first instance.

This assessment has considered the potential effects of development on surrounding designated heritage assets, through the alteration of their settings. It was established that, on account of intervening development, vegetation, and topography, the proposals would likely not result in any harm to the significance of the Little Sessay Conservation Area and the Grade II* Listed Church of St Cuthbert, or any further assets within the wider surroundings. Two assets, the Grade II Listed Throstle Nest and the Barn at Woodend, were identified as likely to experience at most a low level of less than substantial harm as they are situated within the Site. However a carefully considered design could reduce the impact upon the significance of Throstle Nest and the Barn at Woodend.

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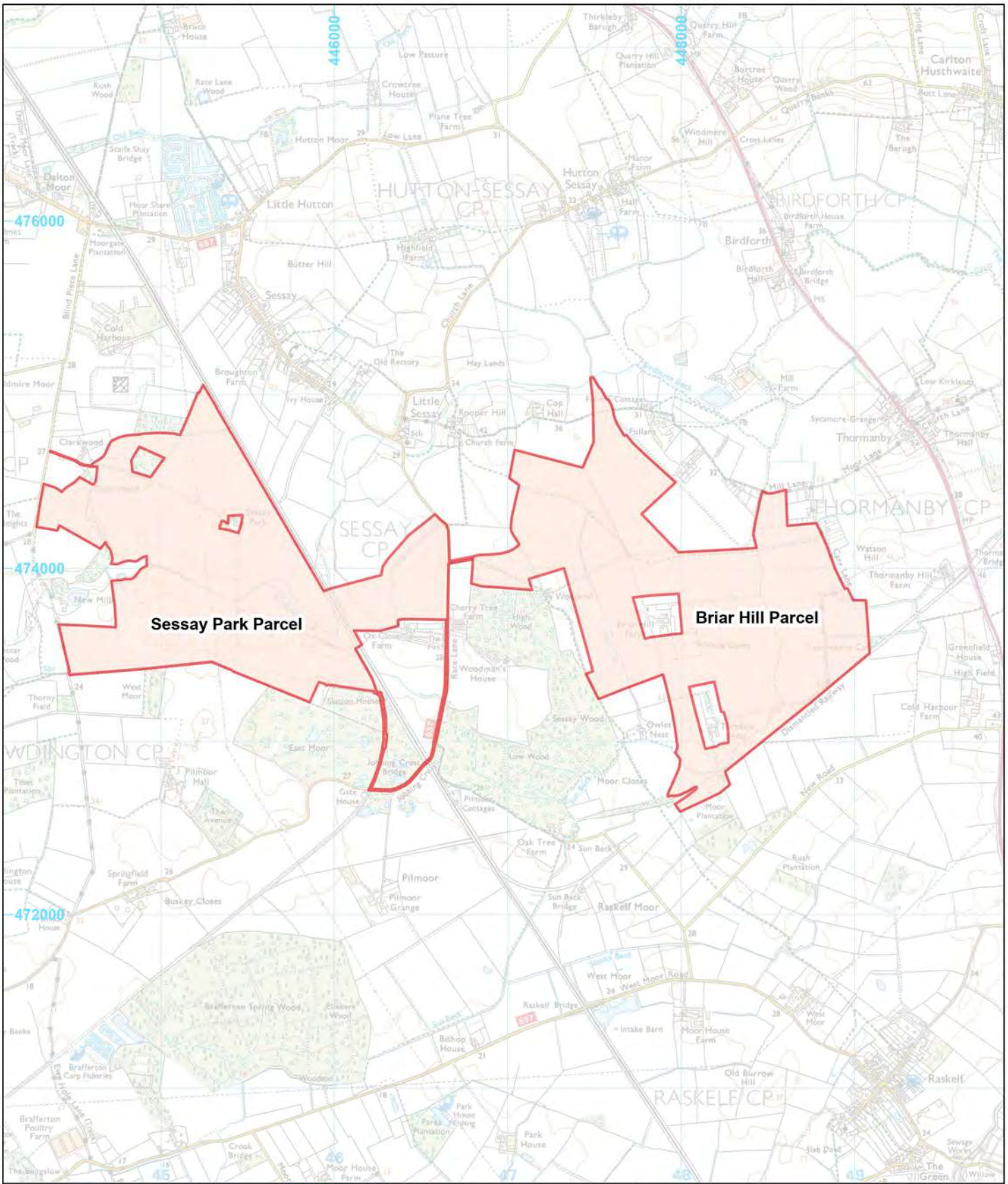

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PROJECT TITLE
Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE
Site Location Plan

DRAWN BY	JXS	PROJECT NO.	MK1215	FIGURE NO.
CHECKED BY	RW	DATE	23/10/2025	1
APPROVED BY	RW	SCALE @ A4	1:30,000	

1. INTRODUCTION

1.1. In January 2025, Cotswold Archaeology was commissioned by BayWa r.e. on behalf of Sedgeby Solar Limited to undertake a Heritage Assessment in respect of land to the south and east of Sessay and Thormanby (hereafter referred to as 'the Site'). Presently in use as agricultural land, a mixture of arable and pasture, the Site is located *c.*680m to the south-west of the village of Thormanby, and *c.*430m to the south of the village of Sessay (NGR: 445197 474201; Fig. 1; Photos 1 and 2).

1.2. The Site comprises two individual areas, which for the purpose of this assessment are referred to as Briar Hill parcel and Sessay Park parcel.

1.3. The proposed development comprises the construction of a solar farm, battery energy storage system and associated access and infrastructure.

Photo. 1 **Briar Hill parcel of the Site, viewed from the east**

Photo. 2 **Sessay Park parcel of the Site, viewed from the north**

Objectives and professional standards

1.4. The composition and development of the historic environment within the Site and wider landscape are discussed in this report. A determination of the significance of

any heritage assets located within the Site, and any heritage assets beyond the Site boundary that may potentially be affected by the development proposals, is presented. Any potential development effects upon the significance of these heritage assets (both adverse and/or beneficial) are then described.

1.5. Cotswold Archaeology is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). This report has been prepared in accordance with appropriate standards and guidance, including the 'Standard and Guidance for Historic Environment Desk-Based Assessment' published by CIfA in 2014 and most recently updated in 2020. This states that, insofar as they relate to the determination of planning applications, heritage desk-based assessments should:

> *'…enable reasoned proposals and decisions to be made [as to] whether to mitigate, offset or accept without further intervention [any identified heritage] impact'* (CIfA 2020, 4).

1.6. The 'Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment' (Historic England 2015), further clarifies that a desk-based assessment should:

> *'…determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area, and the impact of the proposed development on the significance of the historic environment, or will identify the need for further evaluation'* (Historic England 2015, 3).

Statute, policy and guidance context

1.7. The Site is located in the local authority of North Yorkshire Council since 2023. The Site was once within the local authority of Hambleton District Council, and the region is still covered by the Hambleton Local Plan that was adopted in 2022, which covers the period up to 2036. Policies that deal with heritage are:

- S7: The Historic Environment; and
- E5: Development Affecting Heritage Assets.

1.8. This assessment has been undertaken within the key statute, policy and guidance context presented within Table 1.1. The applicable provisions contained within these

statute, policy and guidance documents are referred to, and discussed, as relevant, throughout the text. Fuller detail is provided in Appendix 1.

Statute	Description
Ancient Monuments and Archaeological Areas Act (1979)	Act of Parliament providing for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection.
National Heritage Act 1983 (amended 2002)	One of four Acts of Parliament providing for the protection and management of the historic environment, including the establishment of the Historic Monuments & Buildings Commission, now Historic England.
Planning (Listed Buildings and Conservation Areas) Act (1990)	Act of Parliament placing a duty upon the Local Planning Authority (or, as the case may be, the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications.
National Planning Practice Guidance (updated July 2019)	Guidance supporting the National Planning Policy Framework.
National Planning Policy Framework (2024)	Provides the English government's national planning policies and describes how these are expected to be applied within the planning system. Heritage is subject of Chapter 16 (page 59).
Hambleton Local Plan (2022)	Comprises the local development plan (local plan), as required to be compiled, published and maintained by the local authority, consistent with the requirements of the NPPF (2024). Intended to be the primary planning policy document against which planning proposals within that local authority jurisdiction are assessed. Where the development plan is found to be inadequate, primacy reverts to the NPPF (2024).
Conservation Principles (Historic England 2008)	Guidance for assessing heritage significance, with reference to contributing heritage values, in particular: *evidential* (archaeological), *historical* (illustrative and associative), *aesthetic*, and *communal*.
Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015)	Provides useful information on assessing the significance of heritage assets, using appropriate expertise, historic environment records, recording and furthering understanding, neglect and unauthorised works, marketing and design and distinctiveness.
Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England, 2017)	Provides guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes.
Hedgerows Regulations (1997)	Provides protection for 'important' hedgerows within the countryside, controlling their alteration and removal by means of a system of statutory notification.

Statute	Description
Overarching National Policy Statement for Energy (EN-1) 2011 (Section 5.8 Historic environment)	This states that “the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment” (Paragraph 5.8.1). It continues to define heritage assets, how the potential impact of development should be assessed, and how this should be regarded in decision making, before detailing why and how to record heritage assets in advance of development.
Overarching National Policy Statement for Energy (EN-1) 2023 (Section 5.9 Historic environment)	This discusses relevant policies and approach to assessment under section 5.9: historic environment. This broadly reiterates the adopted NPS EN-1.
Overarching National Policy Statement for Energy (EN-1) 2023 (Section 3.10 on solar photovoltaic generation, with paragraphs 3.10.98-3.10.110 relating to cultural heritage)	Section 3.10 considers solar photovoltaic generation, with paragraphs 3.10.98-3.10.110 relating to cultural heritage. The document recognises (at paragraph 3.10.100) that "below ground impacts are generally limited" and states further (at paragraph 3.10.101) that “solar PV developments may have a positive effect, for example archaeological assets may be protected … as the site is removed from regular ploughing”

Table 1.1 Key statute, policy and guidance

2. METHODOLOGY

Data collection, analysis and presentation

2.1. This assessment has been informed by a proportionate level of information sufficient to understand the archaeological potential of the Site, the significance of identified heritage assets, and any potential development effects. This approach is in accordance with the provisions of the NPPF (2024) and the guidance issued by CIfA (2020). The data has been collected from a wide variety of sources, summarised in Table 2.1.

Source	Data
National Heritage List for England (NHLE)	Current information relating to designated heritage assets, and heritage assets considered to be 'at risk'.
North Yorkshire Historic Environment Record (HER)	Heritage sites and events records, Historic Landscape Characterisation (HLC) data, and other spatial data supplied in digital format (shapefiles) and hardcopy.
Historic England Archive (HEA)	Additional sites and events records, supplied in digital and hardcopy formats.
North Yorkshire County Record Office	Historic mapping, historic documentation, and relevant published and grey literature.
Portable Antiquities Scheme (PAS)	Data regarding the individual locations of findspots discovered via metal detecting etc.
Historic England's Aerial Photograph Research Unit and Historic England's Aerial Photo Explorer website	Vertical and oblique aerial photography ranging in date from the 1940s to present.
Grey Literature	Additional publications, grey literature and other materials specific to the locality.
Defra Data Services Platform (environment.data.gov.uk)	LiDAR imagery and point cloud data, available from the Defra Data Services Platform
Genealogist, Envirocheck, National Library of Scotland & other cartographic websites	Historic (Ordnance Survey and Tithe) mapping in digital format.
British Geological Survey (BGS) website	UK geological mapping (bedrock & superficial deposits) & borehole data.
Site visit	An inspection of the Site and its surrounds was carried out on 05/03/2025.

Table 2.1 Key data sources

2.2. Prior to obtaining data from these sources, an initial analysis was undertaken in order to identify a relevant and proportionate study area. This analysis utilised industry-standard GIS software, and primarily entailed a review of recorded heritage assets in the immediate and wider landscape, using available datasets.

2.3. On this basis a 1km study area, measured from the boundaries of the Site, was considered sufficient to capture the relevant HER data, and provide the necessary context for understanding archaeological potential and heritage significance in respect of the Site. All of the spatial data held by the HER – the primary historic data repository – for the land within the study area, was requested. The records were analysed and further refined in order to narrow the research focus onto those of relevance to the present assessment. Not all HER records are therefore referred to, discussed or illustrated further within the body of this report, only those that are relevant. These are listed in a cross-referenced gazetteer provided at the end of this report (Appendix 2) and are illustrated on the figures accompanying this report.

2.4. A site visit was also undertaken as part of this assessment on 5th March 2025. The primary objectives of the site visit were to assess the Site's historic landscape context, including its association with any known or potential heritage assets, and to identify any evidence for previous truncation of the on-site stratigraphy. The site visit also allowed for the identification of any previously unknown heritage assets within the Site, and assessment of their nature, condition, significance and potential susceptibility to impact. The wider landscape was examined, as relevant, from accessible public rights of way.

Aerial photographs held at Historic England Archive

2.5. Aerial photographs held at Historic England were examined as part of this assessment, ranging in date from 1940 to 1973. The aerial photographs show that the Site was largely associated with agricultural activity throughout the period. Features and buildings noted, which are discussed in further detail below, appear to relate to such activity and correlate with historic mapping available for the Site.

LiDAR imagery

2.6. Existing DEFRA data was analysed with the specific aim of clarifying the extent of any potential archaeological remains.

2.7. LiDAR DTM (Digital Terrain Model) and DSM (Digital Surface Model) ASCII files were downloaded from the DEFRA portal (environment.data.gov.uk), under the Open

Government Licence v3.0. The LiDAR data for the majority of the study area was surveyed in 2021, with the northernmost areas surveyed in 2019. This appeared to have no significant impact on the processed data. Tiles for the entire study area were available at 1m for DTM and DSM resolution for the extent of the study area. The LiDAR files contain British National Grid as the "native" coordinate reference system.

2.8. Where necessary, the tiles were combined into a mosaic raster dataset using Esri ArcGIS Pro 3.3.0 and exported as a single raster (.tif).

2.9. The LiDAR file was then processed using Relief Visualisation Toolbox (RVT) (Kokalj *et al.* 2019 and Zakšek *et al.* 2011) to create several single and blended visualisations. Visualisations were created following Historic England guidelines (Historic England 2010) and guidance in Airborne Laser Scanning Raster Visualisation: A guide to good practice (Kokalj & Hesse 2017). Processing parameters were set to those appropriate for the topography of the area and for archaeological feature enhancement.

2.10. The output images from the RVT software were then imported into ArcGIS Pro 3.3.0 where further settings manipulation was undertaken to enhance the visualization for archaeological feature detection.

2.11. Both DSM and DTM tiles were assessed, but the DSM tiles formed the basis within the desk-based assessment and is illustrated on Fig. 14.

Assessment of heritage significance

2.12. The significance of known and potential heritage assets within the Site, and any beyond the Site which may be affected by the proposed development, has been assessed and described, in accordance with paragraph 207 of the NPPF (2024), the guidance issued by CIfA (2020), Historic Environment Good Practice Advice in Planning Note 2 (Historic England 2015), Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England 2019) and Advice Note 17: Planning and Archaeology (Historic England 2022). Determination of significance has been undertaken according to the industry-standard guidance on assessing heritage value provided within Conservation Principles (English Heritage 2008). This approach considers heritage significance to derive from a combination of discrete heritage values, principal amongst which are: i) evidential (archaeological) value, ii) historic (illustrative and associative) value, iii) aesthetic value, iv) communal value, amongst others. Further detail of this approach, including the detailed definition

of those aforementioned values, as set out, and advocated, by Historic England, is provided in Appendix 1 of this report.

Assessment of potential development effects (benefit and harm)

2.13. The present report sets out, in detail, the ways in which identified susceptible heritage assets might be affected by the proposals, as well as the anticipated extent of any such effects. Both physical effects, i.e. resulting from the direct truncation of archaeological remains, and non-physical effects, i.e. resulting from changes to the setting of heritage assets, have been assessed. With regard to non-physical effects or 'settings assessment', the five-step assessment methodology advocated by Historic England, and set out in the Second Edition of GPA3 (Historic England 2017), has been adhered to (presented in greater detail in Appendix 1).

2.14. Identified effects upon heritage assets have been defined within broad 'level of effect' categories (Table 2.2). These are consistent with key national heritage policy and guidance terminology, particularly that of the NPPF (2024). This has been done in order to improve the intelligibility of the assessment results for purposes of quick reference and ready comprehension. These broad determinations of level of effect should be viewed within the context of the qualifying discussions of significance and impact presented in this report.

2.15. It should be noted that the overall effect of development proposals upon designated heritage assets are judged, bearing in mind both any specific harms or benefits (an approach consistent with the Court of Appeal judgement *Palmer v. Herefordshire Council & ANR* Neutral Citation Number [2016] EWCA Civ 1061).

2.16. In relation to non-designated heritage assets, the key applicable policy is paragraph 216 of the NPPF (2024), which states that:

> *'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the* ***scale of any harm or loss*** *and the* ***significance of the heritage asset*** *[our emphasis].'*

2.17. Thus with regard to non-designated heritage assets, this report seeks to identify the significance of the heritage asset(s) which may be affected, and the scale of any harm or loss to that significance.

Level of effect	Description	Applicable statute & policy
Heritage benefit	The proposals would better enhance or reveal the heritage significance of the heritage asset.	Enhancing or better revealing the significance of a heritage asset is a desirable development outcome in respect of heritage. It is consistent with key policy and guidance, including the NPPF paragraphs 203 and 219.
No harm	The proposals would preserve the significance of the heritage asset.	Preserving a Listed building and its setting is consistent with s66 of the Planning (Listed Buildings and Conservation Areas) Act (1990). Preserving or enhancing the character or appearance of a Conservation Area is consistent with s72 of the Act. Sustaining the significance of a heritage asset is consistent with paragraph 203 of the NPPF, and should be at the core of any material local planning policies in respect of heritage.
Less than substantial harm (lower end)	The proposals would be anticipated to result in a restricted level of harm to the significance of the heritage asset, such that the asset's contributing heritage values would be largely preserved.	In determining an application, this level of harm should be weighed against the public benefits of the proposals, as per paragraph 215 of the NPPF. Proposals involving change to a Listed building or its setting, or any features of special architectural or historic interest which it possesses, or change to the character or appearance of Conservation Areas, must also be considered within the context of Sections 7, 66(1) and 72(2) of the 1990 Act. *The provisions of the Act do not apply to the setting of Conservation Areas*. Proposals with the potential to physically affect a Scheduled Monument (including the ground beneath that monument) will be subject to the provisions of the Ancient Monuments and Archaeological Areas Act (1979); *these provisions do not apply to proposals involving changes to the setting of Scheduled Monuments*. With regard to non-designated heritage assets, the scale of harm or loss should be weighed against the significance of the asset, in accordance with paragraph 216 of the NPPF.
Less than substantial harm (upper end)	The proposals would lead to a notable level of harm to the significance of the heritage asset. A reduced, but appreciable, degree of its heritage significance would remain.	

Level of effect	Description	Applicable statute & policy
Substantial harm	The proposals would very much reduce the heritage asset's significance or vitiate that significance altogether.	Paragraphs 212 - 215 of the NPPF would apply. Sections 7, 66(1) and 72(2) of the Planning Act (1990), and the Ancient Monuments and Archaeological Areas Act (1979), may also apply. In relation to non-designated heritage assets, the scale of harm or loss should be weighed against the significance of the asset, in accordance with paragraph 216 of the NPPF.

Table 2.2 Summary of level of effect categories (benefit and harm) referred to in this report in relation to heritage assets, and the applicable statute and policy.

Limitations of the assessment

2.18. This assessment is principally a desk-based study, and has utilised secondary information derived from a variety of sources, only some of which have been directly examined for the purpose of this assessment. The assumption is made that this data, as well as that derived from secondary sources, is reasonably accurate. The records held by HER and HEA are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within these repositories is not complete, and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

2.19. A selection of archival material pertaining to the Site and study area was consulted in person at the North Yorkshire County Record Office. There may be other relevant material held by the National Archives, other local repositories, and in private collections, although sufficient information to respond to the scope of this assessment was available in from the resources consulted.

2.20. A walkover survey was conducted within the Site on 5th March 2025, which was undertaken in dry and clear weather conditions. Access was afforded within the Site, although such observations are limited since archaeological remains can survive below-ground with no visible surface indications of their presence. It is possible that unknown archaeological remains may be present within the Site, and the presence of modern infrastructure may possibly have inhibited identification of any possible upstanding remains. There is an element of uncertainty over the nature, condition, frequency and extent of the potential buried archaeological resource; which may be

clarified through intrusive investigation. There was also sufficient access to heritage assets to assess likely impacts upon the significance of the assets due to changes to their setting.

2.21. PAS records finds recovered by members of the public, either through systematic metal-detecting/fieldwalking or as chance finds. The locations provided rely on accurate recording by the finder, and only a four figure NGR identifying a location within a 1km square, is provided by the PAS (for the protection of archaeological remains at find sites). As such, these records can provide an indication of activity in the general landscape, but their locations should not be precisely relied upon.

2.22. The best resolution of DTM and DSM LiDAR imagery of the Site, available from the DEFRA portal, is 1m. There appeared to be no significant issues with the data

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3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Landscape context

3.1. The Site covers two individual areas. Sessay Park parcel is located *c.*680m to the south-west of the village of Thormanby, whilst Briar Hill parcel is located *c.*430m to the south of the village of Sessay.

3.2. Both Site areas are located within the Vale of York National Character Area. The Vale of York is an area of relatively flat, low-lying land surrounded by higher land to the north, east and west. High-quality soils across most of the National Character Area (NCA) mean that arable cultivation is the predominant land use, although some pig and dairy farming takes place in the western parts of the NCA. A key feature of the NCA is the rivers that drain surrounding higher land and run southwards through the Vale on towards the Humber basin (Natural England 2014).

Briar Hill parcel (Fig. 1)

3.3. Briar Hill parcel measures *c.*217.4ha in size and comprises for the majority arable fields with a small number used for pasture. The boundaries of the Site are formed by a mixture of ditches, hedgerows and fencing. Located within the Site are a number of farmsteads: Woodend, Briar Hill Farm, and Throstle Nest, which are connected by a trackway running through the Site named Carr Lane. A watercourse named Sun Beck runs through the Site from the north to the south (Fig. 3).

3.4. The highest point of Briar Hill parcel is within the north-western corner where it sits at 38.1m above Ordnance Datum (aOD). The land then slopes downwards to the south-east and east where the majority of the Site sits between 30.8m and 32.7m aOD. The lowest point of the Site is along the Sun Beck at 28.4m aOD.

Geology

3.5. Briar Hill parcel is situated on three types of bedrock. Along the western boundary of the Site is mudstone of Mercia Mudstone Group and Penarth Group. This sedimentary bedrock was formed between 252.2 and 201.3 million years ago during the Triassic period (BGS 2025).

3.6. The majority of Briar Hill parcel is situated upon Redcar Mudstone Formation – mudstone, a sedimentary bedrock formed between 201.3 and 182.7 million years ago during the Jurassic period (BGS 2025).

3.7. Superficial geological deposits are recorded across the whole of Briar Hill parcel in no particular concentration but forming a marbled affect across the area. These deposits comprise Vale Of York Formation - clay, sand and gravel, Alne Glaciolacustrine Formation – clay and silt, and Breighton Sand Formation - sand, silt and gravel. These sedimentary superficial deposits were formed between 116 and 11.8 thousand years ago during the Quaternary period (BGS 2025). In addition sedimentary superficial deposits of Alluvium - clay, silt, sand and gravel, formed between 11.8 thousand years ago and the present during the Quaternary period, are present along watercourses that flow through the Site (BGS 2025).

3.8. The elevated land within the north-western part of the Site occupies Vale Of York Formation – sand and gravel, a sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (BGS 2025).

Sessay Park parcel (Fig. 1)

3.9. Sessay Park parcel measures *c.*205.2ha in size and comprises fields used for arable farming. The boundaries of the Site are formed by a mixture of ditches, hedgerows and fencing. Located within the centre of the Site is a farmstead named Sessay Park. Within the western and northern areas of the Site are small areas of woodland. Bordering the Site to the east a railway line, and the course of the Birdforth Beck flows through the Site from west to east (Fig. 3).

3.10. Within the north-eastern area of the Site the farmstead Sessay Park is situated upon an elevated area of land sitting at *c.*31.5m aOD. The land slopes downwards to the north, west and south of the farmstead, where it sits at *c.*25.8m aOD. The lowest point of the Site is the course of the Birdforth Beck at 21.5m aOD.

Geology

3.11. Sessay Park parcel occupies an area recorded as Mercia Mudstone Group – mudstone (BGS 2025).

3.12. Superficial geological deposits are recorded across the whole of Sessay Park parcel in no particular concentration but forming a marbled affect (Fig. 2). These deposits comprise Vale Of York Formation - clay, sand and gravel, Alne Glaciolacustrine Formation – clay and silt, and Breighton Sand Formation - sand, silt and gravel formed during the Quaternary period (BGS 2025).

3.13. The elevated ground around the farmstead Sessay Park is situated upon Vale Of York Formation – sand and gravel(BGS 2025).

3.14. The course of the Sun Beck (Fig. 3) occupies an area of Alluvium - clay, silt, sand and gravel (BGS 2025).

Designated heritage assets

3.15. There are no Scheduled Monuments, Registered Parks and Gardens, Registered Battlefield Sites, Conservation Areas or World Heritage Sites within the Site.

3.16. There are two Grade II Listed Buildings immediately adjacent to the Briar Hill parcel of the Site, these comprise;

- The Grade II Listed Throstle Nest (Fig. 16: **B**; NHLE: 1190704), an early 19th century farmhouse; and
- The Barn approximately 30m to the North of Wood End (Fig. 16: **C**; NHLE: 1150696), an early 19th century barn.

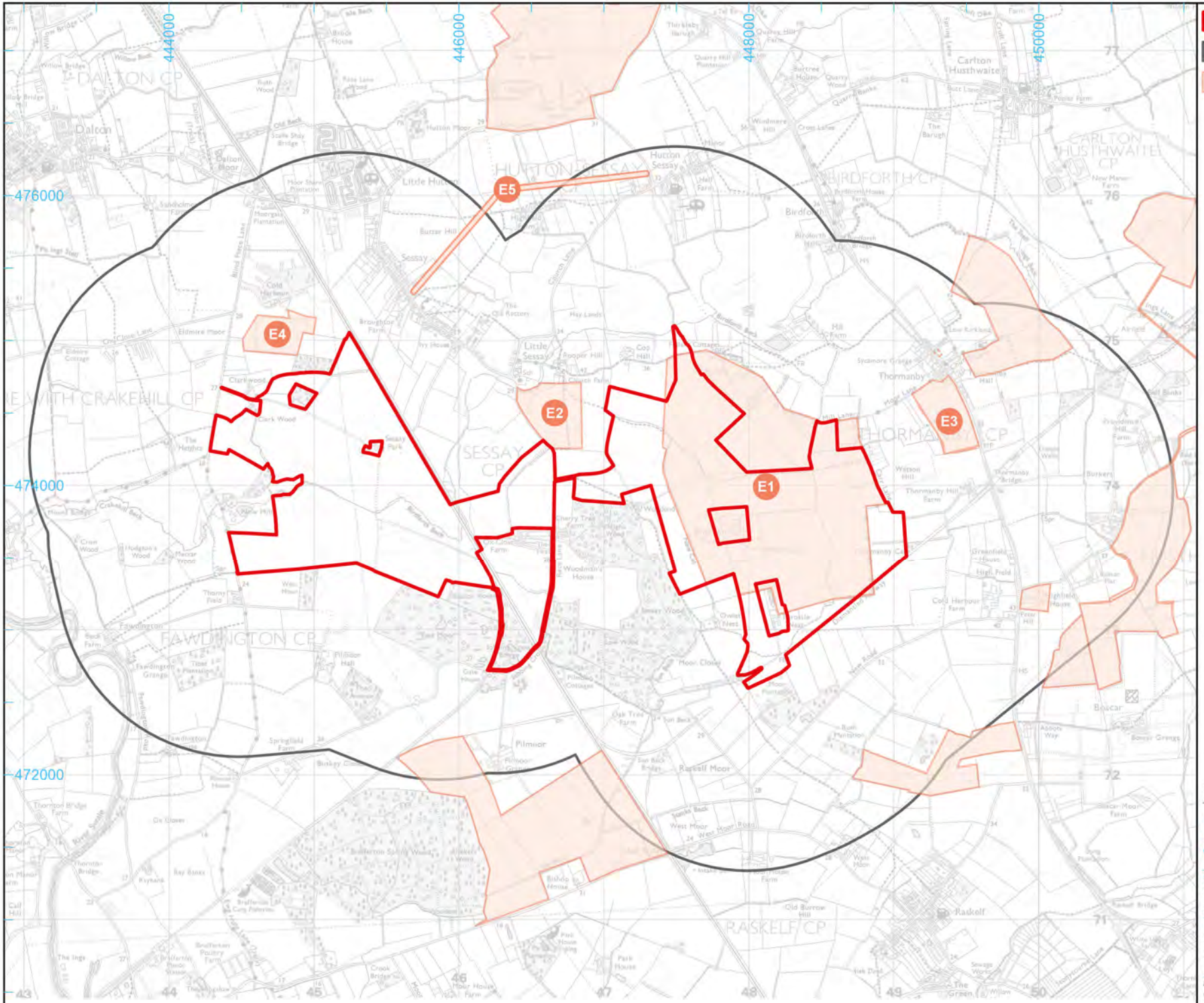
3.17. Within the study area there are a further 22 Listed Buildings (two Grade II* Listed and 20 Grade II Listed). The nearest Grade II* Listed Building comprises the Church of St Cuthbert (Fig. 16: **A**; NHLE: 1190725), a 19th century church located *c.*600m to the west of Briar Hill parcel, and *c.*880m to the east of Sessay Park parcel. This asset is also located within the Sessay Conservation Area, which is located *c.*240m to the north-east of Sessay Park parcel and *c.*210m to the north-west of Briar Hill parcel (Fig. 16: **D**).

3.18. The nearest Scheduled Monument is the medieval moated site, fishponds and associated field system 125m to the south of Eldmire Cottage (NHLE: 1015419) *c.*1.8km to the west of the Site.

3.19. The nearest Registered Park and Garden is the Grade II Listed Newburgh Priory (NHLE: 1001066) located *c.*5.3km to the east of the Site.

Previous archaeological investigations

3.20. A small number of previous archaeological fieldwork has previously been carried out within the study area. Previous investigations, which included assessments, as well as a range of geophysical surveys, fieldwalking, metal detecting, watching briefs and evaluations, are illustrated on Fig. 2. Those of relevance to this assessment are listed in Appendix 2. The results of these investigations are discussed below.



Site

Study Area

Previous Investigation

N

0 1km

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PROJECT TITLE

Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE

Previous Archaeological Investigations

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3.21. Within Briar Hill parcel an aerial photograph interpretation of a number of sites along the proposed Picton - Shipton Overhead Transmission Lines was undertaken by Air Photo Services in 1992 (Air Photo Services 1992; Fig. 2: **E1**).

3.22. Metal detecting surveys were undertaken on land adjacent the north-east of Sessay Park Parcel and *c.*160m to the west of Briar Hill parcel (Fig. 3: **E2**) between 1999 and 2002 by The Brigantian Club. The surveys revealed artefacts from the Roman to post-medieval periods.

3.23. An archaeological evaluation and fieldwalking were undertaken *c.*500m to the east of Briar Hill parcel (Fig. 2: **E3**) in 1993 by MAP Archaeological Consultancy Ltd. The fieldwalking recorded a small collection of 90 pottery sherds, four of which were Roman (MAP Archaeological Consultancy Ltd 1993). The second stage, comprising fieldwalking, geophysical and earthwork survey, recorded an earthwork platform, rounded mounds, a stone scatter of a foundation, and ridge and furrow (Anthony Walker and Partners 1993).

3.24. A geophysical survey and a trial trench evaluation were undertaken to the immediate north-west of Sessay Park parcel (Fig. 2: **E4**) in 2014 by Wardell Armstrong. The geophysical survey recorded anomalies believed to be of agricultural origin, these include post-medieval field boundaries, plough furrows and land drains (Wardell Armstrong 2014a). The subsequent evaluation recorded archaeological features in the form of ditches or gullies, possibly forming an enclosure or drainage system (Wardell Armstrong 2014b).

Palaeolithic to Mesolithic (500,000 BC to 4,000 BC)

3.25. Human activity throughout the Palaeolithic period was characterised by small bands of hunter-gatherers moving through the landscape and exploiting resources, with findspots and lithic remains focused on riverside locations within the river terrace gravels (Wymer 1999). With the exception of seasonal hunting camps, people in these periods seldom established long-term sites, and evidence of activity is sparse in the archaeological record.

3.26. The regional research agenda (Roskams and Whyman 2007) identifies the paucity of Palaeolithic remains in comparison to other periods. However, artefacts predominantly comprising stone tools (i.e. handaxes) are present within the region.

3.27. Evidence for human activity within the region during the Mesolithic period is predominantly concentrated in the uplands of the North York Moors and along the coastal lowlands (Roskams and Whyman 2007). There is increased evidence of occupation bases and production sites within Yorkshire during this period. River corridors were a focus of prehistoric (Mesolithic) activity and evidence including arrowheads has been recovered from along the river corridor (Roskams and Whyman 2007).

3.28. Evidence of the Palaeolithic and Mesolithic periods is not recorded within the Site, although evidence of the Mesolithic is recorded within the study area by the PAS comprising two flint blades between *c.*660 and *c.*1km to the north-east of the Site (locations not reproduced).

Neolithic to Bronze Age (4,000 BC to 750 BC)

3.29. The Neolithic period within the region is comparably abundant and, again, there is much occupation focus activity along the river corridors. Further occupation and activity occurred in the Yorkshire Dales and relatively low-lying land (Roskams and Wyman 2007). The Neolithic period saw the increase in landscape monuments, including henges and funerary mounds and a transition towards home bases and settlements (Carver 2013; Darvill 2010). A notable example of Neolithic monuments within the region are the Thornborough Henges *c.*16km to the west of the Site.

3.30. The Bronze Age also saw the increase in a sedentary subsistence strategy (i.e. an agrarian economy). Although the evidence of this in the region is sparse (Roskams and Whyman 2007), remains associated with Bronze Age activity and ceremonial practices are recorded along the river channels and within the broader landscape (Vyner 2013; Roskams and Whyman 2007).

Funerary remains

3.31. Recorded within the western area of Sessay Park parcel is the supposed location of a mound named 'Giant's Grave' (Fig. 3: **51**) near New Mills. This mound is possibly a long or round barrow which was excavated in 1863, and is alleged to have contained a "*skeleton of abnormal size, and a weapon shaped something like the blade of a scythe*". An observation was made in 1951 stating that "*there are huge mounds of sand, but not a long barrow as some suggest, unless changes have been made; much quarrying apparently. There may be truth in a barrow or grave of some kind*."

Site
Study Area
Neolithic
Neolithic to Bronze Age
Bronze Age
Bronze Age to Iron Age
Iron Age to Roman
Roman
Roman to Medieval
Prehistoric to Modern
Roman Road
Potential Roman/Medieval Road
Water Course

N

Topographic data
OS data © Crown copyright and database right [2025]

55m aOD
16m aOD

0 1km

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PROJECT TITLE
Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE
Prehistoric and Roman Archaeological Remains

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3.32. Another observation within Sessay Park Parcel was made in 1971 which noted that quarrying had been undertaken in this area and if there was a barrow there is no trace of it now. A review of LiDAR imagery (Fig. 14) does not indicate the presence of a long or round barrow at this location, nor are there any cropmarks of ring ditches within this area of the Site. Evidence of potential quarry pitting is depicted to the north of the recorded location of the barrow however. Another supposed location for the barrow is given *c.*620m to the south-west of Sessay Park parcel (Fig. 3: **11**), however the HER states that this has been imprecisely located.

Artefacts

3.33. Evidence of the Neolithic activity is not recorded within the Site but is recorded within the study area, whilst evidence of the Bronze Age is both recorded within the Site and study area. Both periods are represented within the study area by unstratified surfaces findspots. These comprise:

- Three flint axes recorded *c.*760m to the south of Sessay Park parcel (Fig. 3: **1**);
- Pieces of worked flint *c.*340 to the north of Sessay Park parcel (Fig. 3: **2** and **7**);
- A perforated stone axe *c.*1km to the south of Briar Hill parcel (Fig. 3: **3**);
- Three stone axe heads and a perforated mace head *c.*270m to the south of Sessay Park parcel and *c.*1.2km to the south-west of Briar Hill parcel (Fig. 3: **4**);
- A stone axe reportedly found amongst rubble from the house which was "once the residence of the Darells of Sessay", located *c.*230m to the north of Sessay Park parcel and *c.*480m to the west of Briar Hill parcel (Fig. 3: **5**);
- A Neolithic flint axe and Bronze Age bronze palstave were recovered *c.*750m to the north-west of Sessay Park parcel parcel (Fig. 3: **6**);
- A Bronze Age flanged bronze axe and a flint arrowhead from Coldharbour Farm *c.*700m to the north-west of Sessay Park parcel (Fig. 3: **8**); and
- A Bronze Age flanged axe head *c.*510m to the north of Sessay Park parcel (Fig. 3: **52**).

3.34. A total of four Bronze Age artefacts have been recorded within the study area by the PAS. These findspots comprise two bronze axeheads *c.*400m to the south-east of Briar Hill parcel, and a bronze chisel and axehead *c.*840m to the north of Briar Hill parcel (locations not reproduced).

3.35. The presence of artefacts dating to the Neolithic and Bronze Age periods indicates a background of activity within the surrounding landscape during these periods. These findspots do not occur in concentrations therefore locating potential settlement is difficult to ascertain.

Iron Age to Romano-British (750 BC to AD 410)

3.36. Large, nucleated settlement and mixed-use sites appear more frequently in the Iron Age, along with a greater number of smaller farmsteads, reflecting the wider cultivation of the landscape achieved through larger populations and more effective technology. This was associated with widespread clearance of woodland, ordering of increasingly open landscapes and formalising of territory boundaries.

3.37. The Roman invasion of Britain in AD 43 was followed by the rapid implementation of centralised administration, based on towns and cities, and supported by a network of well-engineered roads which enhanced trade and communication. The Roman period began in Yorkshire around AD 70, as the Romans gradually expanded northwards through England. The city of York (*Eboracum*) was a major Roman centre *c.*30km to the south-east of the Site.

3.38. Evidence of the Iron Age and Roman periods is recorded within both the Site and the study area.

Within the Site

3.39. Potential settlement and agricultural evidence dating to the late prehistoric and Roman periods has been identified within Briar Hill parcel of the Site. Recorded within the western, central and southern areas of Briar Hill parcel are cropmarks of former field systems (Fig. 13: **12** and **13**). The cropmarks nearest to Briar Hill Farm were non-intrusively investigated as part of a desk-based assessment in 1992 as part of the Picton-Shipton Overhead Transmission Line. The evaluation of aerial photographs mapped linear ditches, trackways and fragments of enclosures and boundaries between Briar Hill Farm and Throstle Nest that are consistent with Iron Age/Roman features. The report concluded that the features predate the modern landscape, and there are some features which may be natural amongst them (Fig. 2: **E1**; Air Photo Services 1992). However, later within this assessment, it was noted that these cropmarks correspond with former field boundaries depicted on the 1770 Sessay Map (Fig. 19), and therefore these cropmarks (**12** and **13**) likely date to the post-medieval period instead of the Iron Age/Roman periods.

3.40. Further to these cropmarks, a series of dark spots are recorded on the 2018 aerial photograph *c.*660m to the north-east of Briar Hill Farm (ringed on Fig. 4). These cropmarks are not present as above ground features or visible on LiDAR imagery (Fig. 14), and therefore may be of natural origin, although they may also represent features such as pits which could date to the late prehistoric. These are undated features not recorded by the HER, but could be interpreted as extraction pits, but potentially date from the prehistoric onwards.

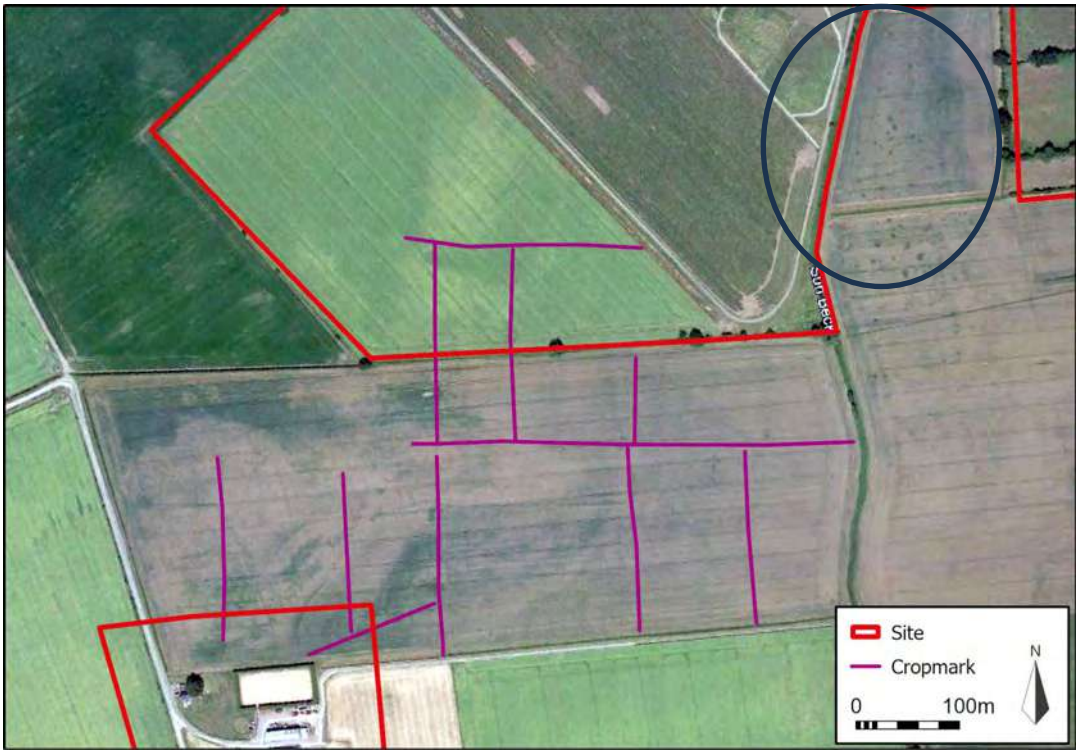

Fig. 4 Cropmarks of a former field system within Briar Hill parcel of the Site (Google, Imagery © 2018 Landset/Copernicus)

3.41. Cropmarks of an enclosure, trackway and boundaries of an uncertain date are recorded within the northern area of Briar Hill parcel (Fig. 3: **15**; Fig. 2: **E1**). The aerial photograph evaluation for the Picton-Shipton Overhead Transmission Line in 1992 investigated the existing aerial photographic evidence and mapped an area of ditches running contrary to the post-medieval and modern landscapes, comprising a double ditched trackway and associated boundaries, as well as a rectilinear enclosure with rounded corners. The HER states that they appear to be Iron Age/Roman in form, however the appearance on aerial photography is suggestive of a more recent or modern origin (Air Photo Services 1992). These cropmarks were also noted on 2011

oblique aerial photographs[1]. Whilst these features could be the remains of a prehistoric or Roman agricultural landscape, the potential that they relate to medieval or post-medieval field boundaries should not be discounted.

3.42. The PAS indicates that two Iron Age artefacts have been recorded within Briar Hill parcel of the Site. These findspots comprise a bronze harness or hanging mount towards the south-eastern area of Briar Hill parcel, and a bronze fob recorded in the north-eastern area of the Briar Hill parcel (locations not reproduced).

Within the study area

3.43. Recorded *c.*670m west of Briar Hill parcel is the trajectory of a Roman road (Fig. 3: **9**) on a north to south alignment, which would have been the route from Thirsk to the River Tees at Stamford Bridge, *c.*28km to the south-east of the Site. Recorded along this route is evidence of Roman settlement, which comprises:

- A cropmark of a complex of field boundaries and trackways of probable Iron Age or Roman date visible on air photographs (Fig. 3: **14**) *c.*1.2km to the east of Briar Hill parcel;
- A possible Roman building with associated human bone *c.*480m to the east of Brian Hill parcel (Fig. 2: **E3**; Fig. 3: **16** and **19**). Excavations in 1960 recorded the foundations of a circular buildings, where further evaluations undertaken in 1990s for the A19 Thormanby By-pass recorded four Roman pot sherds (MAP Archaeological Consultancy 1993; Anthony Walker and Partners 1993);
- A coin hoard recorded *c.*1.2km to the north of Briar Hill parcel in the late 19th century (Fig. 3: **17**).

3.44. The route of a possible Roman road is also located to the immediate west of Sessay Park parcel of the Site on a north to south orientation (Fig. 3: **10**). The HER states that local tradition suggests that the road is Roman in date, but there is nothing to substantiate this beyond the straight alignment, therefore the route could be at least medieval in date instead.

[1] https://historicengland.org.uk/images-books/archive/collections/aerial-photos/record/28160_004

3.45. Additional remains of this period recorded within the study area comprise the site of undisclosed Roman remains at Burrows Hill, *c.*1.1km to the south of Briar Hill parcel (Fig. 3: **18**).

3.46. The PAS records three Iron Age artefacts within the study area comprising a bronze mount and a fragment of tankard *c.*200m to the north-west of Briar Hill parcel, and a bronze toggle *c.*1.1km to the north-east of Briar Hill parcel (locations not reproduced). The Roman period is better represented, with a total of 89 Roman metal artefacts recorded within the study area by the PAS, none of which are recorded within the Site. The artefacts seem to form two distinct concentrations; one concentration along the route of the Roman road to the east of Briar Hill parcel (Fig. 3: **9**) indicating activity along the course of the road; and, one concentration to the north of Little Sessay *c.*660m to the north-west of Briar Hill parcel and *c.*1km to the north-east of Sessay Park parcel, comprising Roman coins and brooches which could broadly illustrate the location of Roman settlement (locations not reproduced).

Early medieval and medieval (AD 410 to 1539)

3.47. The archaeological evidence of the early medieval period is sparse within the region (Roskams and Whyman 2007), and the North Yorkshire HER records no evidence of the period within the Site or study area, but evidence of the early medieval period is recorded as findspots by the PAS. It is possible that occupation sites dated to the early medieval are concealed by later settlements, such as the development of the settlements of Sessay and Thormanby in proximity to the Site.

3.48. After the Romans left Britain in AD 410, the Angles conquered and settled in the area at the end of the 6th century AD, and created a Kingdom named Deifr or Dewyr, and renamed Eborcum (York) to '*Eoforwic*' (Kirklees Cousins ND). In the 7th century AD, Deifr later formed part of the Kingdom of Northumbria in about AD 600, with *Eoforwic* as its capital.

3.49. The Viking period began in Britain about AD 787 when they began crossing the North Sea and settling along the eastern coast of England. It is known from the Anglo-Saxon Chronicle that in AD 867, two rival Anglian kings of Northumbria were killed and that the Vikings stormed '*Eoforic*' (York) which they called '*Jorvik*'. They made York, located *c.*30km to the south-west of the Site, their power-base, establishing themselves along the coast and rivers (Kirklees Cousins ND). The Danelaw (area of

England ruled by the Danish) within the region ended in the 11th century when the kingdom passed to the Saxon king, Edward the Confessor.

3.50. During the early medieval and medieval periods the Site likely lay within the agricultural hinterland of both Sessay (including Little Sessay and Hutton Sessay) and Thormanby.

Early medieval artefacts

3.51. Early medieval metal objects are recorded in between Areas 1 and 2 of the Site that form a concentration around the village of Little Sessay by the PAS (locations not reproduced). These objects comprise bronze strap ends, mounts, buckles, coins, stirrup strap mount and brooches, illustrating that early medieval settlement activity was likely present within the immediate surroundings of Little Sessay.

Sessay and Thormanby

3.52. The settlement of Sessay was recorded in the Domesday Survey of 1086 with a population of eight households under the ownership of the bishop of Durham. The settlement had three ploughlands and three men's plough teams (Powell-Smith ND). The name of Sessay derives from the Old English meaning 'Sedge Island', with *secg* (Old English) meaning a sedge, a reed or a rush, and *ēg* (Anglian) meaning an island. In ancient settlement-names, most frequently refers to dry ground surrounded by marsh (University of Nottingham ND). At the time of the Norman invasion, the manor at Sessay was in the possession of the Bishop of Durham and St Cuthbert's Church, Durham. It became a Mesne lordship (a lord who had vassals who held land from him, but who was himself a vassal of a higher lord), and was held after the Norman invasion first by the Percy family, and then by the Darrel family from the end of the 12th century into the late 15th century. When the family line of succession ended, it passed by marriage to the Dawnay family in 1525. One descendant, John Dawney was made Viscount Downe in 1680 (Hambleton District Council 2017).

3.53. The settlement of Thormanby was also recorded in the Domesday Survey of 1086 with a population of 1.5 households (12 villagers, four smallholders and one priest), under the ownership of King William. The settlement had 27 ploughlands, 1.5 leagues of pasture, 1 league of woodland and one mill (Powell-Smith ND). The name of Thormanby derives from the Old Norse meaning 'Thormothr's farm/settlement', with *Thorman/Thormorthr* being a personal name, and *bȳ* meaning a farmstead, a village (University of Nottingham ND).

Within the Site

3.54. Within the Site are the cropmarks of ridge and furrow noted on aerial photographs from 2020 (Fig. 5; Google Earth), with a large amount of ridge and furrow cropmarks recorded within Sessay Park parcel around Sessay Park farm. These cropmarks are all on different alignments in comparison to the present field system layout, and therefore indicates the presence of medieval open field system within the landscape. The ridge and furrow could be medieval in date, although the cropmarks are straight in character rather than the S-shaped medieval ridge and furrow, therefore they could be of post-medieval in date as well.

3.55. Recorded within the western area of Sessay Park parcel is the location of a potential medieval deer park (Fig. 5: **22**). The HER states that a deer park comprising 600 acres (242ha) had existed within this area until the 18th century around Sessay Park Farm. The overall extent of the deer park is uncertain, and the parkland is not depicted on 19th century mapping, plus the Historic Landscape Characterisation (Fig. 15) does not indicate that this deer park survives within the landscape either. An additional deer park to the south of the Site (Fig. 5: **25**) was said to have been enclosed with a double ditch and fence, therefore the deer park within Sessay Park parcel could also have been enclosed with a similar boundary. These types of features were not noted on the LiDAR imagery of the Site, and if they were present they might have been ploughed away.

3.56. A total of 113 medieval artefacts are also recorded within the study area by the PAS (locations not reproduced), although only two of these objects are recorded within the Site. These artefacts comprise a gold finger ring within the northern part of Briar Hill parcel and lead trade weight within the south-eastern part of Briar Hill parcel. The medieval artefacts seem to form concentrations around the historic villages of Little Sessay and Thormanby, likely illustrating the spread of artefacts (possibly as rubbish) across fields during manuring.

Within the study area

3.57. An additional 14th century deer park is recorded *c.*970m to the south of Briar Hill parcel Fig. 5: **25**). The third Ralph de Nevil had license from Richard II in 1387 to enclose his wood at Raskelf, near the King's Forest of Galtres, and to construct a park and “three deer-leaps each 100 ft in length”, adjacent to it. The park was enclosed with a double ditch and fence.

Site
Study Area
Medieval
Medieval Building
Medieval to Modern
Post-medieval to Modern
Modern Building
Second World War Crash Site
Former Railway Line
Railway Line
Ridge and furrow
Second World War
Cropmark
Horse Race

N

0 1km

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PROJECT TITLE
Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE
Medieval to Modern Archaeological Remains

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3.58. Recorded *c.*180m to the north of Briar Hill parcel is the medieval core of the village of Little Sessay (Fig. 5: **21** and **26**). This area in particular has the earthworks of a deserted medieval village, and the site of a 12th/14th century church. Furthermore, there are three medieval buildings within this village comprising the site of the former 12th century Sessay Hall, the Grade II Listed Church Lane Bridge and Grade II Listed medieval cross. Given the proximity of the settlement, there is some potential that associated remains could extend into Briar Hill parcel, however no evidence for this has been identified.

3.59. Further deserted medieval settlement is recorded *c.*1km to the south-west of Sessay Park parcel (Fig. 5: **27**), and evidence of earthwork and cropmark remains of medieval cultivation is recorded *c.*350m to the north of Sessay Park parcel (Fig. 5: **23**).

3.60. Recorded the immediate west of the Sessay Park parcel the route of a possible medieval road (Fig. 5: **10**). This a cobbled road that is traditionally considered to be Roman in date, although its line is following a Parliamentary boundary, therefore the route could be medieval in date.

Post-medieval and modern (1539 to present day)

3.61. After the manor had passed to the Dawnay family in the 16th century, by the 1700s the settlement had moved and was well established to the north in its present day location. Mid-18th century mapping and Tithe Maps clearly indicate a regular pattern of burgage plots to either side of the village street (Hambleton District Council 2017).

3.62. During the post-medieval period the Site likely remains agricultural in character within the environs of both Sessay (including Little Sessay and Hutton Sessay) and Thormanby. This is evidenced by the remains of ridge and furrow recorded within the Site and the study area (Fig. 5), as well multiple recorded post-medieval to modern field boundaries to the north of the Site (Fig. 5: **30** to **44**), some of which (**44**) might span within the eastern extension od the Sessay Park parcel. The LiDAR imagery (Fig. 14) of the Site recorded limited shallow earthworks of former field boundaries within the Site. A previously discussed, cropmarks within Briar Hill parcel that were interpreted as potential late prehistoric or Roman field systems (Fig. 4: **12** and **13**), were also identified on a 2018 aerial photograph (Fig. 4). Whilst these cropmark features could be of an earlier date, they could represent former post-medieval field

boundaries as these cropmarks line up with former field boundaries depicted on the 1770 Sessay Map (Fig. 9) that were once located around Briar Hill Farm.

3.63. In addition, the LiDAR imagery (Fig. 14) and the Site visit noted that across both areas of the Site, field boundaries are formed by ditches or drains, allowing water to flow towards the Sun or Birdforth Becks. It could be that these ditches have origins in the post-medieval and modern periods.

3.64. In the 18th and 19th centuries parts of the Parish of Sessay were owned by the Right Honourable Lord Viscount Downe, and multiple surveys were undertaken in the 18th and 19th centuries of their lands (Figs. 6 to 9). The Dawnay family seat was at Wykeham Abbey near Scarborough, Yorkshire *c.*50km to the east of the Site. The Parish of Sessay formed part of the Dawnay family estates for over 400 years before being sold at auction in 1918 (Sessay Parish Council ND).

Parish of Thormanby in the 18th and early 19th centuries

3.65. The earliest available map for the area of the Site located within the Parish of Thormanby is the 1770 survey of Thormanby for the Viscount Downe (Fig. 6). It depicts the Site within an expansive area called 'Carr', meaning that this area was likely a type of waterlogged wooded terrain dominated by shrubs.

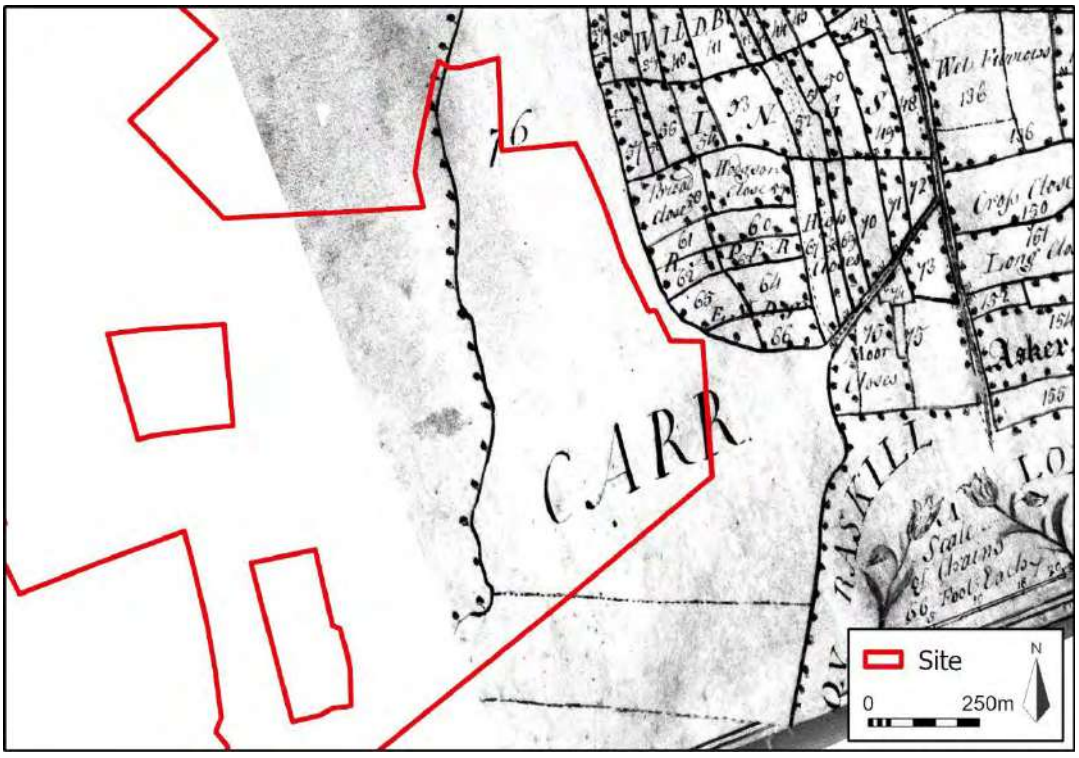

Fig. 6. Extract of the 1770 survey of Thormanby for Viscount Downe (courtesy of North Yorkshire Archives)

3.66. The second map is the 1828 survey of Thormanby for the Viscount Downe (Fig. 7), which depicts the eastern side of Briar Hill parcel in very similar way to the 1842 Thormanby Parish Tithe Map.

Fig 7. Extract of the 1828 survey of Thormanby for Viscount Downe (courtesy of North Yorkshire Archives)

Photo 3 **Site of the former sand pit, viewed from the north**

3.67. The 1842 Thormanby Parish Tithe Map (Fig. 8) depicts this part of the Site occupying 38 individual plots which were for the majority arable in use (Appendix 4). None of the previous field names allude to a former use or the potential presence of archaeological remains, except for Plot 77 which was named 'Sand Hole Close' (Fig. 8). A sand pit is not depicted on the Tithe Map, but a sand pit is shown within this plot

on both the 1828 survey of Thormanby (Fig.7) and the 1856 Ordnance Survey[2]. It was noted during the site visit that the sand pit had been backfilled and covered with trees (Photo 3). The Tithe Map illustrates the predominate owner of the plots was Lord Viscount Downe, with Rev. John Higginson also identified as an owner of a small number of plots.

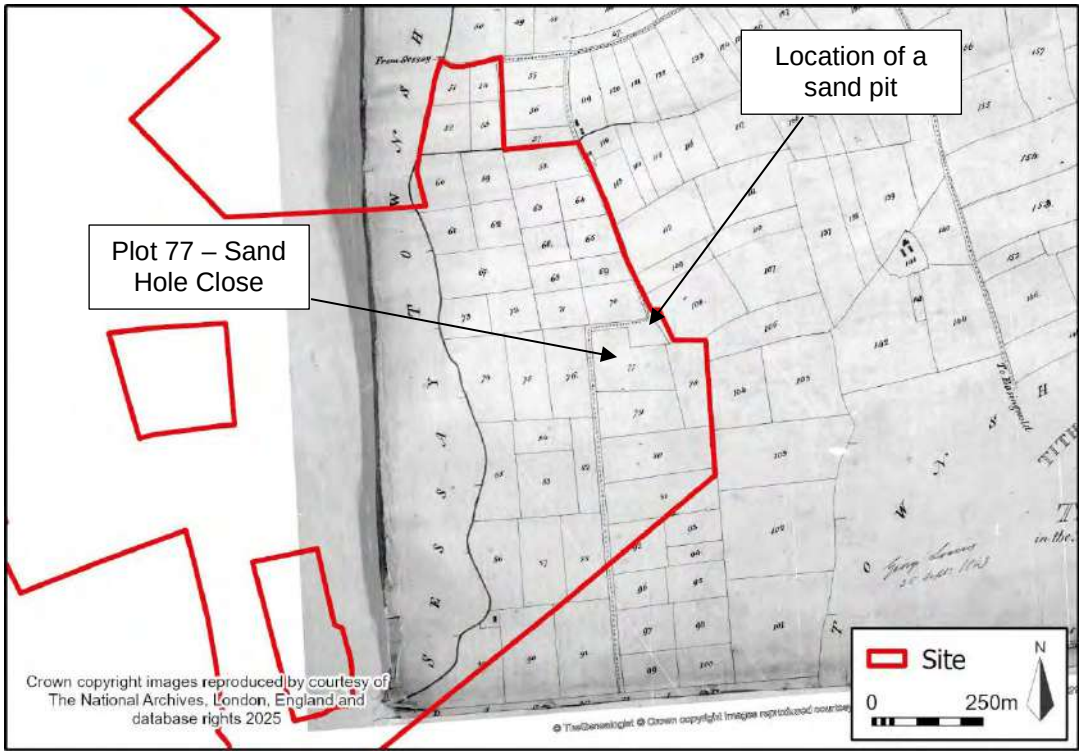

Fig. 8 Extract of the 1842 Thormanby Parish Tithe Map

Parish of Sessay in the 18th and early 19th centuries

3.68. The earliest available maps of Sessay are the 1770 and late 1700s surveys of Sessay for the Viscount Downe. Both depict the Site in a similar fashion to one another with little change, therefore this assessment will discuss the 1770 map only. No major changes are depicted on the late 1700s survey (not reproduced). The 1770 (Fig. 9) survey illustrates both areas of the Site as occupying many small irregular and rectangular fields, in particular Briar Hill parcel. These fields were likely set out before the Enclosure Act and likely reflect the post-medieval (or even medieval) field systems within the parish of Sessay. The map illustrates that the majority of Sessay Park parcel comprised large fields which could reflect large areas of pasture.

[2] https://maps.nls.uk/view/102344593

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Site

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Courtesy of the North Yorkshire Archive

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1770 survey of Sessay for the Viscount Downe

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Site

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Sessay Park

Site of former Urchin Head

Woodend

Briar Hill Farm

Throstle Nest

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1842 Sessay Cum Hutton Sessay Parish Tithe Map

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3.69. The northern area of Sessay Park parcel contained a former lane leading from Sessay with long rectangular fields aligned along it. These could be classed as 'strip fields' and could have a medieval origin. The map also shows the field boundaries as having trees present, illustrated by black dots. The 1770 map depicts the extant farmsteads Sessay Park within Sessay Park parcel, and the Grade II Listed Woodend and Urchin Head (Fig. 5: **50**) within Briar Hill parcel. The farmstead that comprises the Grade II Listed Throstle Nest within the southern area of Briar Hill parcel is not present on this map.

3.70. The next available map is the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10). The whole of Sessay Park parcel and a large portion of Briar Hill parcel of the Site is located within this parish. The Tithe Map illustrates that the Site is mixture of both arable and pasture, but none of the previous field names allude to a former use or archaeological remains. The majority landowner is the Lord Viscount Downe with a number of tenants (Appendix 4), in particular:

- James Fouse who occupied Woodend within the western part of Briar Hill parcel, which also includes the Grade II Listed Barn (NHLE:1150696);
- Joseph Duncalf who occupied the Grade II Listed Throstle Nest (NHLE: 1190704) within the southern area of Briar Hill parcel;
- Henry Duncalf who occupied Briar Hill Farm within the centre of Briar Hill parcel;
- Charles Pearson Junior who occupied the former farmstead named Urchin Head (Fig. 10: Fig: 5: **50**) which was present on the 1856 Ordnance Survey[3] but was later demolished by the 1890 Ordnance Survey (Fig. 10); and
- William Manfield who occupied Sessay Park within Sessay Park parcel of the Site (Fig. 10).

3.71. The next available maps of the Site are the 1854 and 1856 Ordnance Survey maps (Fig. 11). These depict the Site in a similar fashion to that depicted on the 1842 Tithe Map, as an expanse of agricultural land.

[3] https://maps.nls.uk/view/102344527

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FIGURE TITLE

Extract of the 1854 and 1856 Ordnance Survey Maps

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FIGURE TITLE

Extract of the 1890 Ordnance Survey Maps

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FIGURE TITLE

Extract of the 1980 Ordnance Survey Maps

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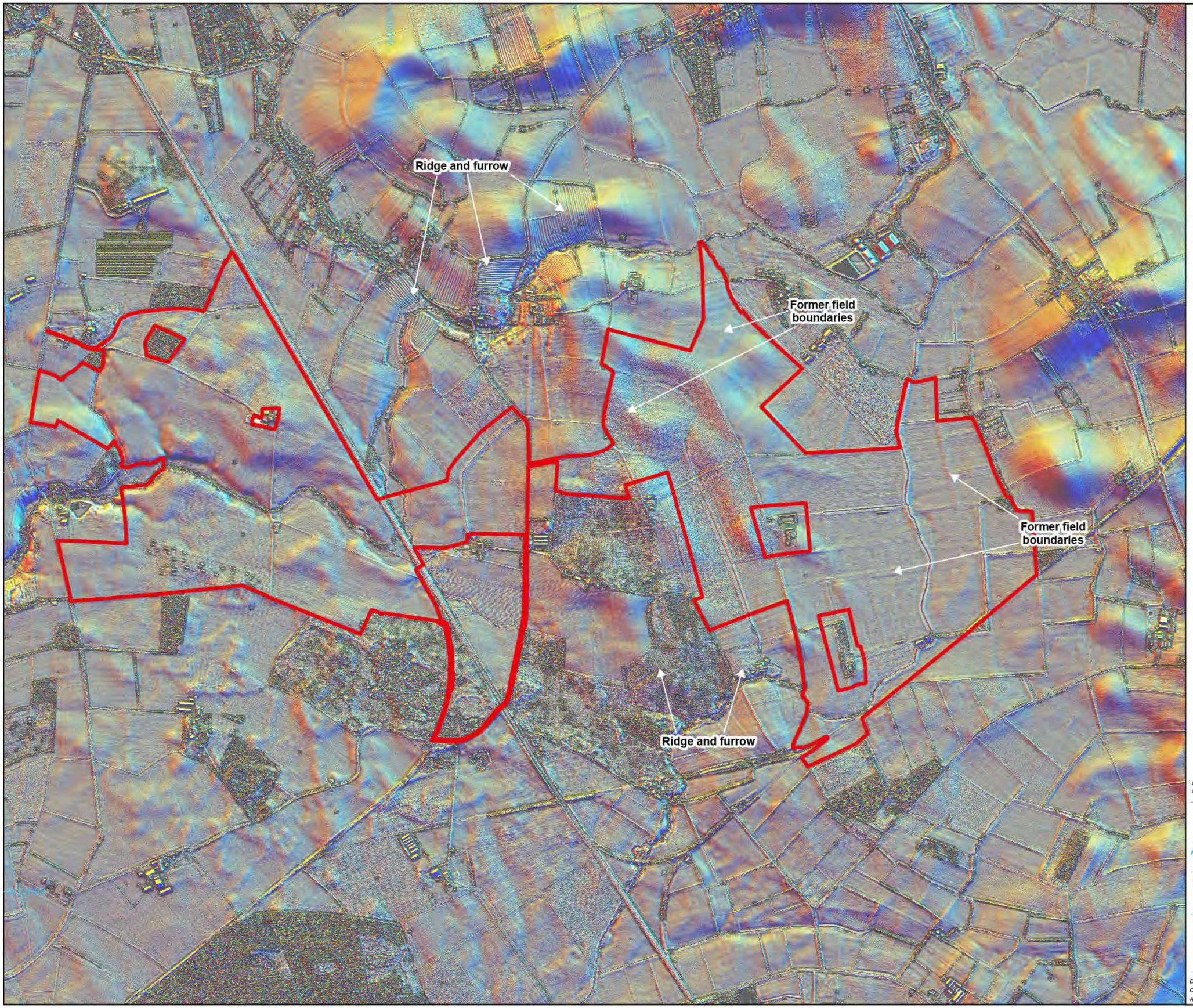

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FIGURE TITLE
LiDAR Imagery

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3.72. However, the Ordnance Survey maps provide a little more detail of the composition of the farmsteads within the Site (Grade II Listed Throstle Nest and Woodend, and modern farmsteads Sessay Park and Briar Hill Farm):

- Sessay Park within the centre of Sessay Park parcel comprises a rectangular farmstead focused upon a central courtyard. To the south-east of the farmstead is a small orchard which was removed by the 1890 Ordnance Survey map, and access to the farmstead is from a lane to the north that passes under the railway line. By the 1980 Ordnance Survey map (Fig. 13) this lane had been altered and a new access road from the west had been established.
- Wood End Farm, located within the western area of Briar Hill parcel, comprised a C-shape farmstead focused upon a central courtyard and with small garden plots and a pond to its south and west, some of which were small orchards. The farmstead remained the same until the 1980 Ordnance Survey (Fig. 13) map depicted the removal of the these small garden plots and the pond.
- Briar Hill Farm within the centre of Sessay Park parcel had a rectangular array of buildings focused upon a central courtyard with small garden plots to its south populated by orchards. This layout remained the same until 1956 Ordnance survey (Appendix 3) illustrated the apparent demolition of buildings and the construction of modern agricultural buildings and a bungalow.
- The farmstead of Throstle Nest within the southern area of Briar Hill parcel took on a C-shape with buildings focused upon a central courtyard. Small garden plots occupied by orchards were located to the north and south of the farmstead. This C-shaped had been altered by the 1956 Ordnance Survey map (Appendix 3) to form a block of buildings. In addition, depicted on the 1890 Ordnance Survey (Fig. 12) a large pond is recorded to the west of the farmstead, and seems to have been infilled post-1980.

19th century railways

3.73. Forming the south-eastern boundary of Briar Hill parcel and leading all the way to the east to the A19 is the route of the former Malton Branch of the York, Newcastle and Berwick Railway (Fig. 5: **45**) that opened in 1853 and was closed in 1964. Earthwork remains of an embankment of the former railway line were noted during the site visit,

surviving along the length of the proposed eastern access route to Briar Hill parcel (Photo 4).

3.74. An additional former railway line is located *c.*500m to the south of Sessay Park parcel of the Site (Fig. 5: **46**). This was the former York and Newcastle Railway from Pilmoor to Boroughbridge that opened 1847, which was then later closed in 1957.

3.75. The route of the Great North of England Railway Line (Fig. 5: **47**) forms the eastern boundary of Sessay Park parcel of the Site, crossing the south-east part of it, and is still in use today. Located within the south-eastern end of Sessay Park parcel was the site of the former Pilmoor Station (Fig. 5: **48**), which opened in 1847 and was closed in 1958. It is now the site of Station House.

Photo 4 The remains of the Malton Branch of the York, Newcastle and Berwick Railway, viewed from the south-west

Second World War

3.76. A number of Second World War features are recorded within the study area. Located *c.*650m to the south of Briar Hill parcel of the Site is the site of a bombing decoy at Raskelf (Fig. 5: **49**) which was built to deflect enemy bombing from Royal Air Force Dishforth Airfield, near Thirsk. This was a 'Q-type' decoy that displayed a series of lights simulating an active airfield (Dobinson 1996).

3.77. Recorded within the study area are three Second World War aircraft crash sites (Fig. 5). One was located *c.*360m to the north of Sessay Park parcel comprising the site of a Halifax bomber in November 1944; the second is the crash site of a Lancaster bomber in July 1944 *c.*1km the south of Sessay Park parcel; and, the third the crash site of a Halifax bomber in February 1944 *c.*190m to the south of Briar Hill parcel. All crew members of these crashes survived.

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The Site from the mid-19th century to the present day

3.78. Throughout the 19th and 20th centuries, the number of fields within the Site were greatly reduced with the removal of field boundaries to create larger fields for the use of modern farming techniques and machinery. These boundaries are depicted on LiDAR imagery as shallow earthworks within the Site (Fig. 14), and likely also survive as below ground remains.

3.79. Between the 1854 and 1890 Ordnance Survey maps a large wood was established within the western area of Sessay Park parcel of the Site (Fig. 11) named Clark Wood. Clark Wood remained the same throughout the 20th century, although between the 1999 Ordnance Survey map (Appendix 3) and the 2002 aerial photograph (Google Earth, not reproduced) this woodland had been for the majority removed, with fields reverting back to arable production.

3.80. No further alterations, features or changes to the Site were noted on 21st century mapping or aerial photographs.

Historic Boundaries and Historic Landscape Characterisation

3.81. The Historic Landscape Characterisation (HLC) of the Site (Fig. 15) will be discussed per area.

Briar Hill parcel

3.82. Briar Hill parcel of the Site occupies an area with three different characterisations:

- The majority of the Briar Hill parcel occupies an area defined as '*modern improved fields*'. This type of landscape comprises large irregular fields defined by erratic hedges. This is a large extensive area which has shared character through boundary loss and is modern in date, although the previous landscape character to this modern improvement is a landscape that dated to the 1750-1850 (North Yorkshire County Council 2010);
- The central and western areas of Briar Hill parcel are defined as '*unknown planned enclosure*'. These areas consist of medium sized regular fields defined by straight hedges dating to 1750 to 1850 (North Yorkshire County Council 2010); and
- The southern area of Briar Hill parcel is defined as '*parliamentary enclosure*', probably part of the Raskelf Award, and consists of medium sized regular

fields defined by straight hedges. This area was enclosed between 1834 and 1838 (North Yorkshire County Council 2010).

Sessay Park parcel

3.83. Sessay Park parcel of the Site occupies an area with four different characterisations:

- The majority of Sessay Park parcel occupies an area defined as '*modern improved fields*' dating to the late 20th century (North Yorkshire County Council 2010);
- The western area and a small part at the south-east of Sessay Park parcel is defined as '*unknown planned enclosure*' seemly to be post-medieval in character (North Yorkshire County Council 2010);
- Within the north-western area of Sessay Park parcel is a plot of '*broad-leaved woodland*' dating from 1850 to 1900 (North Yorkshire County Council 2010); and
- A small section of the western part of Sessay Park parcel is defined as '*piecemeal enclosure*', and comprises medium sized semi irregular fields defined by slightly erratic hedges dating from 1540 to 1750 (North Yorkshire County Council 2010).

3.84. Analysis of historic maps indicates limited change between the early 19th and mid-20th century with the addition of some field boundaries being removed over this period of time. The removal of many field boundaries throughout the 20th century resulted in amalgamation of these fields into large fields. Therefore, the character of the Site, for the majority, is one of later 20th century improved fields. There are pockets of landscape that were classed as 'unknown planned enclosure', and these parcels likely date to 1750 to 1850. Patches of woodland survive within the north-western area of Sessay Park parcel, which are remains of Clark Wood that was present within the Site in the 19th century.

3.85. The majority of the current field boundaries within the Site are formed by ditches, although a very limited number of these boundaries are formed by hedgerows, with one section of hedgerow along the south-western boundary of Sessay Park parcel, forming the boundary between the parishes of Sessay and Fawdington. These hedgerows were likely established in the post-medieval period, as the follow boundaries depicted on the 1770 survey of Sessay for the Viscount Downe (Fig. 9), and 1828 survey of Thormanby for Viscount Downe (Fig. 7). Hedgerows along

historic boundaries meet the criteria of ‘important’ historic hedgerows as laid out in the 1997 Hedgerow Regulations criteria for Archaeology and History (see Appendix 1).

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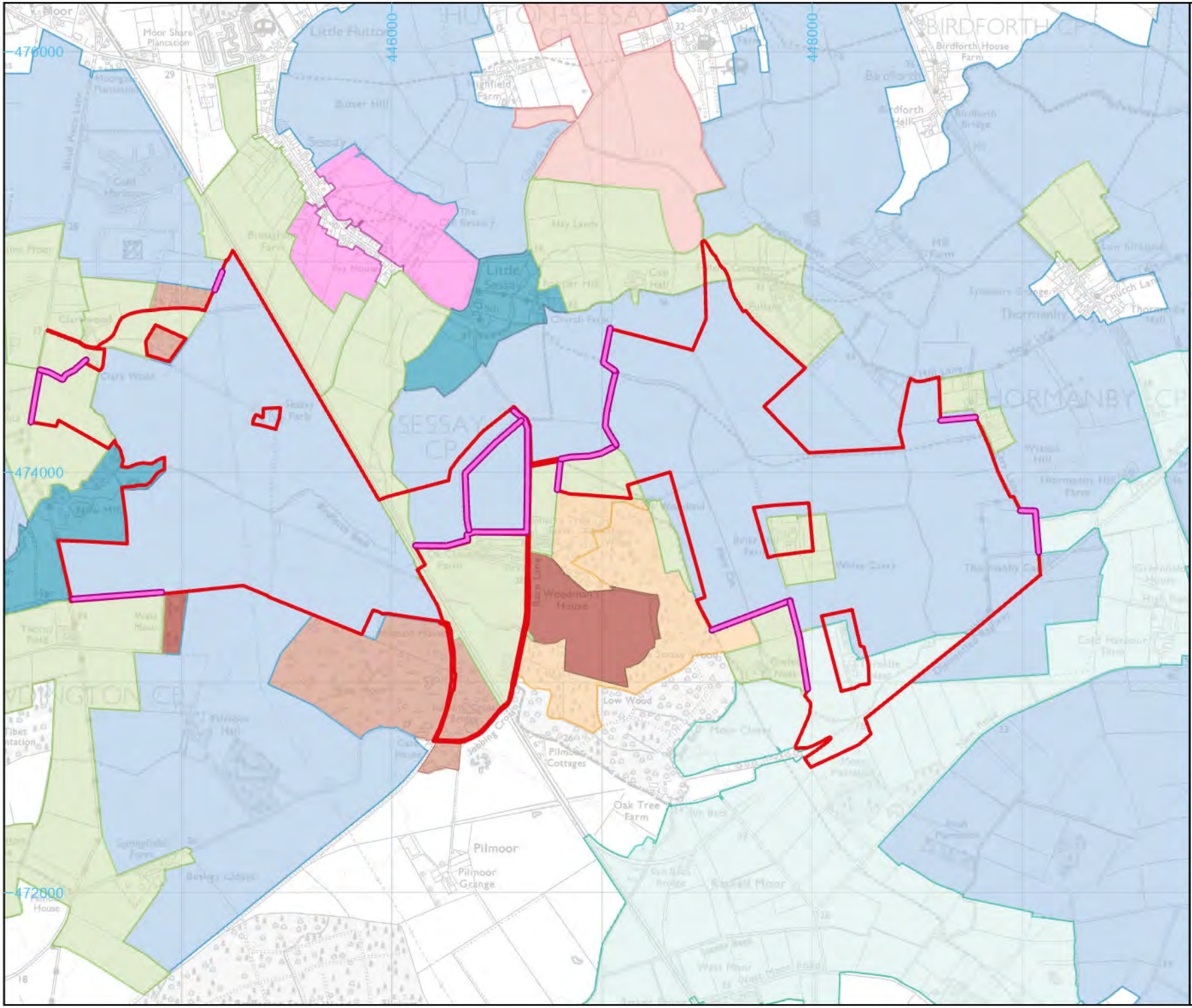

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PROJECT TITLE

Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE

Historic Landscape Characterisation and Historic Boundaries

DRAWN BY	JXS	PROJECT NO.	MK1215	FIGURE NO.
CHECKED BY	RW	DATE	24/10/2025	15
APPROVED BY	RW	SCALE @ A4	1:24,000	

4. ARCHAEOLOGICAL SIGNIFICANCE & POTENTIAL EFFECTS

Previous impacts

4.1. A review of the available cartographic, documentary and photographic evidence indicates that the Site has remained largely undeveloped throughout its documented history. As such, the majority of pre-existing impacts to any potential buried archaeological remains would be confined to upper soil horizons, deriving from earlier agricultural practices, including plough activity, fencing, and land drainage. Ploughing may have had a considerable impact upon any near-surface archaeological features, although any features present in deeper contexts may be better preserved.

Areas of low to moderate previous impacts

4.2. The majority of the pre-existing impacts to potential preservation of buried archaeological remains are likely to have occurred during the post-medieval period and the 20th century. Localised areas of impact are anticipated to have been experienced within the footprint of fence lines, ploughing and the movement of modern farming machinery through the Site. This activity may have truncated or removed the upper horizons of any underlying archaeological remains, but any ground impacts are unlikely to have been of sufficient depth to cause significant damage to any below ground archaeological remains. A greater degree of impact would have been experienced in the footprint of the post-medieval or modern boundary ditches excavated to form field boundaries and land drainage.

4.3. *Centre of fields* – fields have been subject to earlier agricultural impacts such as plough activity, fencing and land drainage. These activities are expected to have had a fairly limited impact on any underlying archaeological remains, mainly affecting the upper soil horizons.

4.4. *Field Boundaries* – the Site's external boundary, as well as the internal parcel boundaries, run closely alongside hedgerows, ditches and fence lines. These areas of the fields are less likely to have been subject to ploughing damage in the past, but potential archaeology is likely to have been impacted to some extent by the roots of the long-established hedgerows or the excavation of associated ditches and the installation of fence lines. It is also possible that the hedgerows or other boundary markers have been slightly realigned in the past, and this would have likely resulted in the truncation or removal of any potential archaeology in their footprint.

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4.5. *Vegetation* – localised, higher areas of impact are anticipated to have been experienced within the footprint of current field boundaries where these are represented by ditches and hedgerows, wooded belts, or Clark Wood that present within the western area of Sessay Park parcel of the Site. The planting and removal of Clark Wood could have truncated any remains within its footprint by rooting and the removal of tree stumps. Given the dense, established nature of the hedgerows, any potential archaeology within their footprint is likely to be heavily truncated or removed by rooting. Any field boundary ditches associated with the hedgerows, and densely vegetated wooded belt are likely to have removed any archaeological remains within their footprint.

Areas of moderate to high previous impacts

4.6. Along the south-eastern boundary of Briar Hill parcel is the former route of the Malton Branch of the York, Newcastle and Berwick Railway (Fig. 5: **45**). The route of the former railway comprises an embankment upon which the railway would have sat atop. Any archaeological remains within its footprint may have been removed or truncated by the works.

4.7. Within both areas of the Site are the routes of transmission towers and overhead power lines on telegraph poles, and within the southern area of Sessay Park parcel are numerous agricultural structures and a water tank. Any archaeological remains within the footprint of the towers' foundations would been truncated or entirely removed, as it is anticipated that the foundations extend into the natural geology, although such impacts would be localised.

The significance of known and potential archaeological remains within the Site

4.8. This assessment has identified that no designated archaeological remains are located within the Site; no *designated* archaeological remains will therefore be adversely physically affected by development within the Site.

Prehistoric and Roman remains

4.9. The majority of recorded prehistoric remains within the study area comprise findspots of worked flint and bronze artefacts dating to the Neolithic and Bronze Age. No findspots dating to these periods are recorded within the Site, although based on the limited spread of findspots throughout the study area there is a limited potential for additional similar artefacts within the Site as unstratified surface finds.

4.10. Recorded within the western area of Sessay Park parcel of the Site is the supposed location of a Bronze Age round barrow named 'Giant's Grave' (Fig. 3: **51**) near New Mills which was excavated in the 19th century. Therefore, there is the potential that further archaeological remains associated with the round barrow maybe present within this area of the Site.

4.11. Bronze Age funerary monuments are considered to be of high significance, although it is uncertain they are of Schedulable quality. Historic England's Scheduling criteria for prehistoric round barrows gives greater consideration to those that survive as good upstanding earthworks and retain archaeological potential, and especially those that form parts of groups. Other considerations that require assessment include clustering, and the relationship of the round barrows with other monuments (not necessarily contemporary ones) (Historic England 2018). Based on the evidence that there are no surviving aboveground earthworks and the mound having already been excavated, its evidential value will have likely been greatly diminished. Whilst surviving remains (if present within the Site) may be considered a heritage asset, it is unlikely, based on available information, that it would not be of the highest significance (i.e. commensurate to Scheduled Monuments)

4.12. The Iron Age and Roman periods are represented by remains recorded primarily within and to the east of Briar Hill parcel. These remains comprise settlement and findspots along the route of a Roman road to the immediate east. Therefore, based on this evidence there is a limited potential for settlement remains dating to the Roman period within both parcels of the Site. That being said, cropmarks of former field boundaries that could represent parts of a late prehistoric or Roman agricultural landscape are recorded within Briar Hill parcel. Therefore, should these undated features indeed date to these periods, there is a potential for late prehistoric and/or Roman agricultural features within the Site.

4.13. Such remains may include stray artefacts and/or agricultural features. The significance of any evidence present would be associated with its potential evidential value, on the basis of their ability to understand settlement patterns during these periods. Any such remains will contribute to the Palaeolithic to Romano-British period priorities of the Yorkshire Archaeological Research Framework (Roskams and Whyman 2007).

Modern features

4.14. The former route of the Malton Branch of the York, Newcastle and Berwick Railway (Fig. 5: **45**) that was opened in 1877 but was closed by 1947, passed through the northern area of the Site. The remains of railway raised banks are present within Briar Hill parcel (Photo 4), indicating that the remains of the railway line survive as an above ground archaeological feature. The railway line is a well-understood modern feature and has limited evidential and historical value.

4.15. The location of a former sand quarry pit and a former farmstead named Urchin Head (Fig. 5: **50**), which was later demolished by the 1890 Ordnance Survey map, were recorded within Briar Hill parcel on the 1842 Thormanby Parish Tithe Map (Fig. 10). Evidence of the farmstead was not noted on LiDAR imagery or the site visit, but during the site visit the location of the former sand pit was observed to comprise a cluster of trees with the pit having been backfilled (Photo 3). These types of features are well-understood and have limited, if any, evidential and historical value.

4.16. The significance of any modern artefacts, features or structural remains would be associated with their potential evidential value, on the basis of their ability to contribute to understanding the development and composition of the former farmsteads and agricultural activity within the Site. This evidence is unlikely to be of measurable significance and would not contribute to specific research aims set out in the Yorkshire Archaeological Research Framework (Roskams and Whyman 2007).

Agricultural features

4.17. Based on the available information, it is considered the Site was likely located within the rural hinterland of the settlements of Sessay, Little Sessay and Thormanby from the early medieval period onwards. Potential former field boundaries that were established in the 18th and 19th centuries that were depicted on the 1770 map of the Site and 1842 Thormanby and Sessay Cum Hutton Sessay Tithe Maps may survive as below ground archaeological features.

4.18. Within the study area are recorded ridge and furrow, which exist as above ground archaeological remains identified on the LiDAR imagery (Fig. 14), North Yorkshire HER and as cropmarks on aerial photographs. The LiDAR imagery of the Site does not indicate that such features survive as above ground earthworks, likely due to their levelling by modern ploughing, although ridge and furrow do survive as above ground earthworks within the study area, in particular around Little Sessay. Therefore, there

is a potential that medieval or post-medieval ridge and furrow may be present within the Site as below ground archaeological remains.

4.19. Any surviving agricultural remains, such as ridge and furrow or former field boundaries, are considered to be remains of very limited, if any, significance, and are well documented through historic aerial/satellite photography and LiDAR Imagery (and likely of insufficient interest to comprise 'heritage assets'). Any remains associated with 20th century agricultural use (such as the identified modern cultivation marks) are of no archaeological interest and would not comprise 'heritage assets'.

Historic landscape and hedgerows

4.20. The landscape that the Site, for the majority, is situated within 'modern improved fields' as stated by the Historic Landscape Characterisation, which indicates that the landscape that the Site is situated within was subject to later 20th century alterations and the removal of field boundaries to assist in facilitating modern large-scale farming. Such modern fields/landscapes would not be classed as heritage assets.

4.21. The historic boundaries of the Site date to the post-medieval period (Fig. 15), and are depicted on the 1770 survey of Sessay for the Viscount Downe (Fig. 9), on the 1828 survey of Thormanby for Viscount Downe (Fig. 7) and on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10). Hedgerows along historic boundaries meet the criteria of 'important' historic hedgerows as laid out in the 1997 Hedgerow Regulations criteria for Archaeology and History (see Appendix 1). 'Important' hedgerows are normally considered to comprise non-designated heritage assets of low heritage value. It is normally desirable to emphasise retention of such hedgerows in new development where possible; although removal of elements to facilitate suitable place-making, circulation and access is normally acceptable in heritage terms (without necessarily leading to harm to intelligibility of the hedgerow pattern of the local area)

Potential development effects

4.22. No significant known archaeological remains have been identified within the Site, and there is considered to be a low potential for any highly significant unknown archaeological remains to survive buried within the Site. It is anticipated that no highly significant archaeological remains will therefore be truncated by the proposed development.

4.23. Any disturbance or truncation (physical development effects) of archaeological remains would primarily result from groundworks associated with construction of the proposed solar farm. Such groundworks might include:

- Installation of solar panel modules;
- Installation of perimeter fencing;
- Excavation of service trenches and piling for any buildings housing equipment (inverter/substation);
- The planting of vegetation/plantations;
- Excavation and installation of concrete for the establishment of the BESS unit
- Stripping associated with the construction of access track and temporary works compounds; and
- Excavation of drainage trenches/swales..

4.24. Groundworks undertaken in relation to the proposed development, particularly the excavation of cable trenches, access routes and footings for the compound, fencing and sub-stations have the potential to result in the damage to or loss of any buried archaeological remains which may be present within their footprint.

4.25. The construction of a solar farm within the Site will take these fields out of plough and will therefore remove any below ground impacts to archaeological remains caused by ploughing. This will comply with Paragraph 3.10.101 of National Policy Statement for Renewable Energy Infrastructure (EN-3) which states: "*equally solar PV developments may have a positive effect, for example archaeological assets may be protected by a solar PV farm as the site is removed from regular ploughing and shoes or low-level piling is stipulated*" (Department for Energy Security and Net Zero 2023).

Solar Arrays

4.26. It is anticipated that the construction methodology of the scheme will entail the installation of minimally intrusive piles in order to mount the panel frames for the solar arrays. Overall, the footprint of the development – piling, topsoil stripping and excavations – is anticipated to be very limited in area (typically a fraction of any given solar park), resulting in only minor adverse effects upon most classes of archaeological features. With regard to piling, the quantity of displaced archaeological remains in the case of larger features such as ditches would be insignificant compared to that left undisturbed. For discrete or less robust buried features such as pits, postholes or stake holes, the probability that piles would be

aligned in such a way that any more than a small percentage of the features would be affected is very low, and complete avoidance is the most likely outcome.

BESS and substations

4.27. It is anticipated that greater impacts would be locally experienced within the footprint of any proposed BESS and its compound. Excavation depths of 0.5m to 1m are assumed to provide a suitable foundation for the BESS (and any associated substations), but limited impacts would be envisioned if the BESS is placed upon concrete pads. Overall it is anticipated that there would be impacts to any below ground archaeological remains within their footprint.

Service trenches, drainage and swales

4.28. It is anticipated that the trenches for any below ground cables, and the excavation of drainage and swales will have the greater potential to remove any potential archaeological remains within their footprint, as they will likely truncate the underlying geological substrate.

4.29. Due to the narrow width of the trenches of below ground utilities most of the likely archaeological features which may be encountered (such as ditches or furrows) would be preserved. This would result in only limited impacts overall on any features or deposits of archaeological interest.

4.30. The excavation of drainage and swales are likely to have a large impact upon any potential archaeological remains as their footprint is greater than a narrow service trench. Whilst these are localised impacts, any archaeological remains within their footprint are likely to be truncated or removed, depending on depths of the soil horizons and Site conditions.

Perimeter fencing

4.31. Perimeter fencing within the Site are likely to comprise wooden or metal piles. These are usually driven into the ground, therefore it is envisioned that these will have limited impacts to any below ground archaeological remains within their footprint.

Compounds

4.32. It is envisioned that localised impacts would be within the footprint of any compounds (including construction compounds) across the Site. It is anticipated that the stripping for the compound will comprise the removal of the topsoil and subsoil layers to provide a foundation for a compound. These works have the potential to result in the

disturbance or loss of any buried archaeological remains which may be present within their footprint

Access routes

4.33. In general the construction of access route through the Site would have a greater impact on any below ground archaeological remains. It is assumed that the removal of topsoil/ploughsoil and subsoil layers to create a solid foundation for an access route. Therefore it is expected that there will be localised impacts within the footprint of any route ways.

Plantations and biodiversity areas

4.34. It is uncertain is plantation and biodiversity areas will be installed as part of the proposed development, but the planting of new hedgerows/woodland is likely to impact existing topsoil and subsoil deposits only and have a minimal impact upon any below ground archaeological remains.

Historic boundaries

4.35. The assessment has identified that certain historic boundaries of the Site are post-medieval in date (Fig. 15), and are depicted on the 1770 survey of Sessay for the Viscount Downe (Fig. 9), on the 1828 survey of Thormanby for Viscount Downe (Fig. 7) and on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10). The existing important hedgerows will be preserved as part of the proposed development, except for parts of the hedgerows that will be likely removed for access routes, compounds and installation of below ground utilities/cabling. Given that these remains are of overall low heritage significance, their removal/loss would not be considered a significant impact.

Potential further investigation and mitigation

4.36. Any potential remains that may be impacted are not anticipated to be of a level of significance that would warrant their consideration as designated assets. It is therefore considered that the potential archaeological resource within the Site would not require preservation *in situ*, nor would it influence development design

4.37. However, the exception being the presence of the potential Bronze Age round barrow within the western area of Sessay Park parcel of the Site named ‘Giant’s Grave’ (Fig. 3: **51**), which could be considered archaeological remains of high funerary significance. That being said, previously in this assessment there are no surviving aboveground earthworks and the mound having already been excavated, its

evidential value will have likely been greatly diminished. Whilst surviving remains (if present within the Site) may be considered a heritage asset, it is unlikely, based on available information, that it would not be of the highest significance (i.e. commensurate to Scheduled Monuments).

4.38. As the full extent and significance of potential archaeological remains is not fully understood, further investigation within the Site will be required by the Archaeological Advisor at North Yorkshire Council, in first instance a comprehensive geophysical survey of the Site is likely to be needed to further understand the nature and extent of the recorded cropmarks within the Site for example. It is anticipated that the scope of any intrusive investigation could be limited to the areas of highest below-ground impact, i.e. any cable route trenches, buildings, drainage trenches or stripping for access routes, BESS unit, etc.

4.39. The results of the investigations will allow for appropriate mitigation measures to be defined. If potential archaeological remains are of sufficient significance to comprise non-designated heritage assets, their removal should be considered as per para. 216 of the NPPF that considers non-designated heritage assets.

4.40. The proposed development presents an opportunity to restrict further damage to the buried archaeological resource by removing the Site from arable use and therefore the effects of modern ploughing. The already limited and localised impact of the development on surviving archaeological remains would be minimal compared with the potential impacts posed by modern agricultural methods, which could lead to the continued degradation of any underlying remains. This will comply with Paragraph 3.10.101 of *National Policy Statement for Renewable Energy Infrastructure (EN-3*) which states: *"equally solar PV developments may have a positive effect, for example archaeological assets may be protected by a solar PV farm as the site is removed from regular ploughing and shoes or low-level piling is stipulated"* (Department for Energy Security and Net Zero 2023).

Site
Study Area
Conservation Area
Throstle Nest Fields (1842 Tithe Map)
Woodend Fields (1842 Tithe Map)
Grade II* Listed Building
Grade II Listed Building
Public Footpaths
Photograph Location

N

Topographic data
OS data © Crown copyright and database right [2025]

55m aOD
16m aOD

0 1km

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PROJECT TITLE
Sedgeby Solar Farm DCO
Little Sessay, North Yorkshire

FIGURE TITLE
Designated Heritage Assets and Photograph Locations

DRAWN BY	JXS	PROJECT NO	MK1215	FIGURE NO.
CHECKED BY	RW	DATE	24/10/2025	16
APPROVED BY	RW	SCALE@A3	1:24,000	

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5. THE SETTING OF HERITAGE ASSETS

5.1. This section considers potential non-physical effects upon the significance of susceptible heritage assets within the Site environs. Non-physical effects are those that derive from changes to the setting of heritage assets as a result of new development. All heritage assets included within the settings assessment are summarised in the gazetteer in Appendix 2, and shown on Figure 16. Those assets identified as potentially susceptible to non-physical impact, and thus subject to more detailed assessment, are discussed in greater detail within the remainder of this section.

The nature of solar schemes

5.2. Discussion is offered below regarding the specific nature of the change that the Proposed Development would bring about to the settings of the surrounding designated heritage assets. In general terms, the introduction of solar panels into arable or pasture land parcels will result in a notable change in character. This change can be acknowledged as being permanent, in particular regard to the experience of heritage assets (the duration being 30 years or generational). However, in the same context of landscape character and experience of heritage significance, this change is wholly reversible.

5.3. Furthermore, it must be acknowledged that the character of these features (solar panels) within the landscape is perceived very differently by different individuals. Some will perceive them as unwanted, industrial and urbanising; others will see them as important, sensitive, rural and even agricultural. When solar farms were first introduced to our landscapes, they would have seemed alien. However, the prevalence of these features within the countryside, a function of nearly 20 years of construction and operation, requires recognition that solar farms have become a more commonplace landscape character type, much in the same way we acknowledge golf courses or greenhouses/polytunnels. Furthermore, it has been recognised that beyond a certain distance, solar arrays lose definition and assume a 'washed-over' appearance. As a result, solar farms are typically perceived as blocks of faded colour within an established agricultural landscape. This is relevant to the assessment presented below only in as far as the change interacts with the experience of heritage significance.

5.4. The work is informed and underpinned by the best practice assessment methodology published in Historic England's Good Practice Advice in Planning Note 3 (HEAN) guidance on the Setting of Heritage Assets (2017). The physical and experiential setting of the assets are examined in proportionate detail, including what aspects or attributes of setting contribute positively, negatively or do not contribute to significance. As is described in HEAN 3, not all aspects of an asset's setting contribute to their significance, in other words, some elements of setting do not contribute, or the contribution is neutral. The guidance is also clear that "*the consideration of views in the planning process may be partly or wholly separate from any consideration of the significance of heritage assets"* (p. 1).

5.5. Historic England is also clear within the guidance that conserving the significance of heritage assets by taking their settings into account need not prevent change and goes on to state:

> *'many places coincide with the setting of a heritage asset and are subject to some degree of change over time' (p. 8)*

5.6. For a development to result in harm to a heritage asset it has to have the potential to impact its heritage significance negatively or to harm the way in which it is experienced. Change to the character of setting does not necessarily result in harm to its significance. Whether the change to setting has a harmful impact on the specific values which form the overall significance of an asset, is the sole matter for consideration.

Step 1: Identification of heritage assets potentially affected

5.7. Step 1 of the Second Edition of Historic England's 2017 'Good Practice Advice in Planning: Note 3' (GPA3) is to 'identify which heritage assets and their settings are affected' (see Appendix 1). GPA3 notes that Step 1 should identify the heritage assets which are likely to be affected as a result of any change to their experience, as a result of the development proposal (GPA3, page 9).

5.8. A number of heritage assets were identified as part of Step 1, as potentially susceptible to impact as a result of changes to their setting. These include:

- The Grade II* Listed Church of St Cuthbert (Fig. 16: **A**; NHLE: 1190725), a 19th century church located *c.*600m to the west of Briar Hill parcel, and *c.*880m to the east of Sessay Park parcel;

- The Grade II Listed Throstle Nest, an early 19th century farmhouse located within an area surrounded by the southern part of Briar Hill parcel (Fig. 16: **B**; NHLE: 1190704);
- The Grade II Listed Barn approximately 30m to the North of Wood End located just beyond the western boundary of Briar Hill parcel (Fig. 16: **C**; NHLE: 1150696), an early 19th century barn;
- Sessay Conservation Area located *c.*240m to the north-east of Sessay Park parcel and *c.*210m to the north-west of Briar Hill parcel (Fig. 16: **D**);
- The Grade II Listed Bridge of River Birdforth Beck (Fig. 16: **E;** NHLE: 1315231), a bridge constructed in *c.*1800 and located *c.*170m to the west of Sessay Park parcel;
- The Grade II Listed Barn at Thormanby Mill (Fig. 16: **F**; NHLE: 1315212), a 19th century barn located *c.*600m to the north-east of Briar Hill parcel;
- The Grade II* Listed Church of St Mary Magdalene (Fig. 16: **G**; NHLE: 1191364), a 12th century church located *c.*1.1km to the north-east of Briar Hill parcel; and
- The Grade II Listed Woodmans House Farmhouse (Fig. 16: **H**; NHLE: 1293638), an early 19th century farmhouse located *c.*320m to the west of Briar Hill parcel and *c.*330m to the east of Sessay Park parcel.

5.9. These assets have been identified using a combination of GIS analysis and field examination, which has considered, amongst other factors, the surrounding topographic and environmental conditions, built form, vegetation cover, and lines of sight, within the context of the assets' heritage significance.

5.10. All heritage assets assessed as part of Step 1, but which were *not* progressed to Steps 2 – 3, are included in the gazetteer in Appendix 2 of this report. A summary of these assets, and the reasons for their scoping out of further assessment, is presented below.

Grade II Listed Bridge of River Birdforth Beck

5.11. The Grade II Listed Bridge of River Birdforth Beck (Fig. 16: **E**; NHLE: 1315231) is located *c.*170m to the west of Sessay Park parcel of the Site and dates to *c.*1800. The bridge is situated within the base of the valley of the Birdforth Beck and acts as a crossing point of Blind Piece Lane over the watercourse. The bridge is located to the north of New Mills, and surrounding the bridge is a dense woodland to its east (which blocks intervisibility between the Site and the asset from this direction) and

pasture to its north, south and west. This immediate landscape forms the asset's functional and key component of its setting, and is best experienced up close whilst on the bridge itself and whilst approaching it from the north or south along Blind Piece Lane.

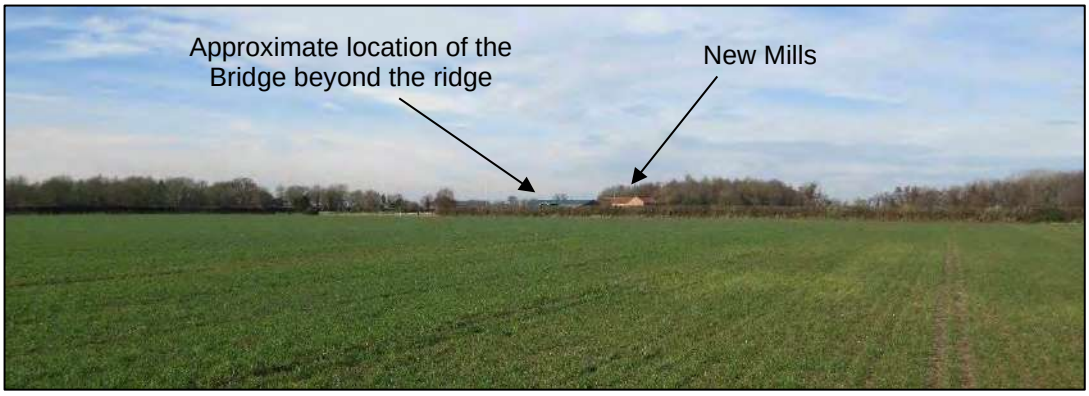

Photo 5. View northwards towards the Bridge from within the Site

5.12. The Site itself only forms the asset's wider agricultural and rural landscape and does not contribute to the asset's significance, setting or experience, nor are there any views of the asset from within the Site (Photo 5); therefore the asset is considered unlikely to be affected by the proposed development in any way and will not be assessed in further detail.

Grade II Listed Barn at Thormanby Mill

5.13. The Grade II Listed early 19th century Barn at Thormanby Mill (Fig. 16: **F**; NHLE: 1315212) is located *c.*600m to the north-east of Briar Hill parcel. The Barn is located within Mill Farm within an irregular shaped plot which is also occupied by an additional barn a farmhouse. The course of the Birdforth Beck divides the barn from the farmhouse as it flows through the farmstead. The beck is also bordered by tall and medium sized vegetation, a small wood is located to the north-west of the asset, and fields to its north-east and south-west. The asset is therefore best experienced within its plot where the historic and architectural qualities can be best appreciated as a barn. Access to the barn is afforded from a private lane from the south-east, which also provides access to a large complex of modern barns, silos and compounds of the farm which is to the north-west of the asset. This immediate and intimate setting of the barn near to a farmhouse and the Birdforth Beck forms the asset's functional and key component of its setting.

5.14. The Site, whilst forming part of the asset's wider agricultural landscape, is not historically associated with the asset, nor does it contribute to the significance,

physical setting or experience of it. The 1842 Thormanby Parish Tithe Map does not indicate that any fields that form Briar Hill parcel of the Site are associated with Mill Farm. Therefore the asset is considered unlikely to be affected by the proposed development in any way and will not be assessed in further detail.

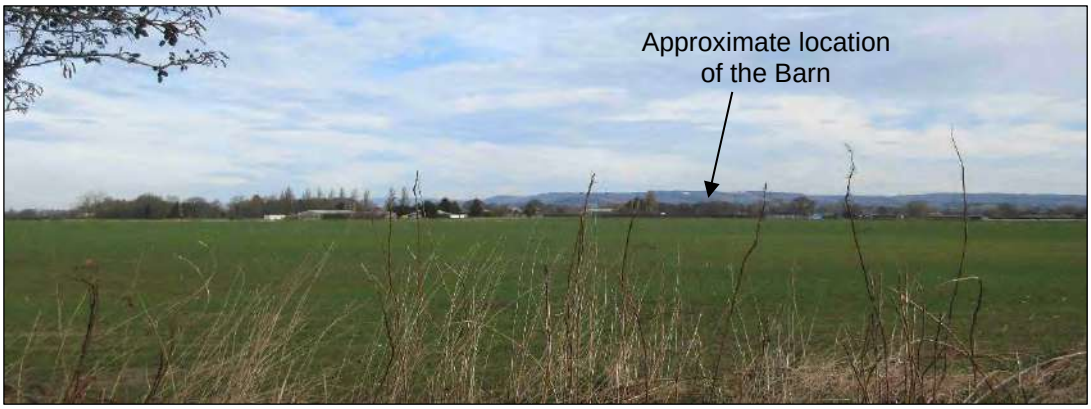

Photo 6. **View north-east towards the Barn from within the Site**

Grade II* Listed Church of St Mary Magdalene

5.15. The Grade II* Listed Church of St Mary Magdelene (Fig. 16: **G**; NHLE: 1191364) is located *c.*1.1km to the north-east of Briar Hill parcel. The church derives its significance from a number of factors stated in its listing (Historic England 2025):

- Date: the church contains a considerable amount of Norman and other early fabric;
- Architects: the well-known architects Brierley, Syme and Leckenby of York were involved in alterations to the church in 1955;
- Fixtures: window glass by Kempe, a tester of the 17th century and a font of the 14th century are among internal fixtures of special interest; and
- Historic interest: the successive phases of the church through history are clearly readable in the fabric of the church.

5.16. The church is set within a square shaped churchyard, on the northern side of Church Lane, Thormanby, bordered on its western, northern and eastern sides by tall mature vegetation, but its southern border comprises a medium sized hedgerow over which the tower and roof the church can be viewed. Access to the churchyard is from a brick and metal gateway to the south-west from Church Lane. The asset itself, whilst forming the parish church of the village of Thormanby, is located *c.*220m to the north-east of the village centre and surrounded by fields. The church tower is fairly squat and does not extend above the tall mature trees that border the churchyard, therefore

the vegetation prevents the church tower from being a prominent landmark within the landscape. Accordingly, the asset is best experienced from within its associated churchyard where its historical and architectural qualities can be best appreciated. The asset can also be appreciated in proximity from Church Lane (Photo 8).

Photo 7. **View north-east towards the Church of St Mary Magdelene**

Photo 8. **The Church of St Mary Magdelene, viewed from the south-east**

5.17. Whilst the eastern part of Briar Hill parcel of the Site is located within the Parish of Thormanby, it does not contribute to the physical setting or the experience of the Church of St Magdalene, nor can the church tower be viewed from the Site (Photo 7). The Site only forms part of the wider agricultural landscape around the village of Thormanby and has no association with the church itself. Therefore the asset is considered unlikely to be affected by the proposed development in any way and will not be assessed in further detail.

Grade II Listed Woodmans House Farmhouse

5.18. The Grade II Listed Woodmans House Farmhouse (Fig. 16: **H**; NHLE: 1293638), an early 19th century farmhouse located *c.*320m to the west of Briar Hill parcel and *c.*770m to the east of Sessay Park parcel. Woodmans House Farmhouse is set within a diamond shaped plot that is currently in use as a working farmstead. The farmhouse itself is located at the eastern end of this plot, along with it historically associated outbuildings located immediately nearby. These outbuildings and the farmhouse form a loose rectangle layout whereby they are focused upon an inner courtyard. Located to the immediate west are a number of large modern barns. This diamond shaped plot with its open green space and associated agricultural outbuildings forms the asset's crucial setting.

5.19. Its wider setting also comprises a large field situated to the south and a dense U-shaped area of woodland that surround this field and the asset to the north, east and south, which also provides a secluded setting for the farmstead. This woodland blocks all intervisibility in those directions, and vegetation and the modern built form of the farmstead also blocks views of the farmstead from Race Lane (Photo 9). Access to the farmstead is from a private lane from Race Lane to its west. The 1842 Sessay Cum Hutton Sessay Parish Tithe Map indicates that none of the fields that form the Site are associated with Woodmans House Farmhouse either.

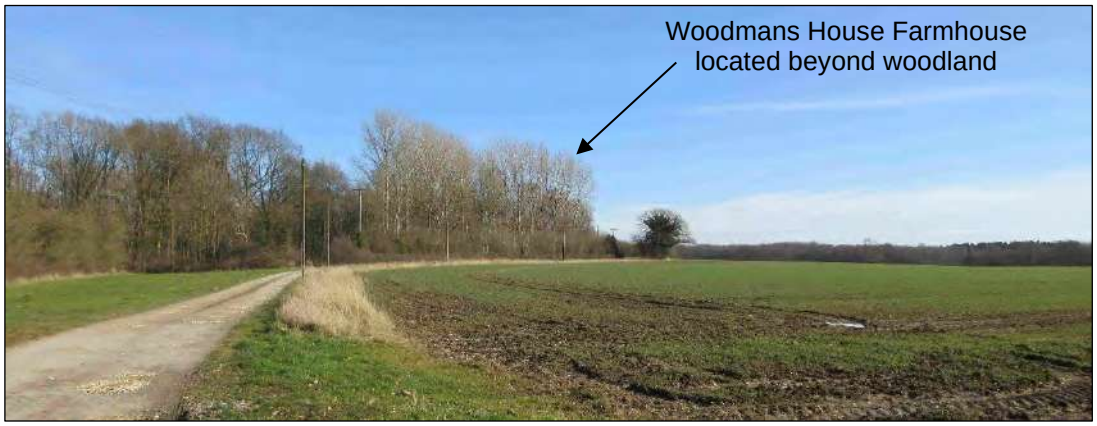

Photo 9. View east towards Woodmans House Farmhouse from Race Lane

5.20. Neither area of the Site contributes to the setting or experience of Woodmans House Farmhouse. The asset cannot be viewed from Briar Hill parcel due to the dense woodland that rings it, and the asset cannot be viewed from Sessay Park parcel due to intervening mature vegetation and built form in between. The asset is best experienced from within its diamond shaped plot and when approaching the farmstead from along its access route. Therefore the asset is considered unlikely to

be affected by the proposed development in any way and will not be assessed in further detail.

Steps 2 – 3: Assessment of setting and potential effects of the development

5.21. This section presents the results of Steps 2 to 3 of the settings assessment, which have been undertaken with regard to those potentially susceptible heritage assets identified in Step 1. Step 2 considers the contribution that setting makes to the significance of potentially susceptible heritage assets. Step 3 then considers how, if at all, and to what extent any anticipated changes to the setting of those assets, as a result of development within the Site, might affect their significance.

Grade II Listed Throstle Nest

5.22. The Grade II Listed Throstle Nest is located within an area surrounded by the southern part of Briar Hill parcel (Fig. 16: **B**; NHLE: 1190704; Photo 10). Its listing describes it as:

> *An early 19th century farmhouse with mid-19th century addition and later alterations. It has a pinkish-brown brick in Flemish garden wall bond and pantile roof. The garden front has two storeys and two bays with added bay set back on right. The central four-panel door with an overlight is flanked by 16-pane sashes on each floor, all with flat brick arches and stone sills to windows, along with dentilled eaves; end stacks. An added bay has a pent-roofed ground-floor addition with eight-pane side-sliding sash. The 20th century first floor window under segmental brick arch; central stack set forward of ridge. The outbuildings attached to left are not of special interest. To the rear the right-hand part has a blocked doorway with window to left, both under flat brick arches, and another doorway is to the right; there are inserted windows between doorways and two to first floor with dentilled eaves. A straight joint between this and left bay which has inserted doorway on left of segmental-arched window to each floor* (Historic England 2025).

5.23. The heritage significance of Throstle Nest is derived from a number of factors. Its evidential value, which substantially contributes to its significance, derives from the tangible physical remains and historic fabric of the 19th century farmhouse. The physical fabric of the farmhouse also holds aesthetic value in its architectural design, whereby craftsmanship and quality of building materials can be appreciated. The

building serves as a surviving example of historic settlement patterns and early 19th century vernacular architecture, thereby providing it with historical illustrative value.

Photo 10. Throstle Nest, viewed from the north-east

Physical Surrounds – 'What Matters and Why'

Aspect, layout and topography

5.24. Throstle Nest farmstead is positioned within a flat landscape close to Sun Beck which is located *c.*240m to its south. The asset is located on the eastern side of a rectangular shaped plot that is on a north to south orientation and bordered by overgrown and poorly maintained hedgerows and mature vegetation. Access to the farmstead is afforded from two gated points, one from the south across the Sun Beck which is its main drive way (Photo 11), and from the east along a trackway.

Photo 11. View northwards towards Throstle Nest along its main driveway

5.25. The principal elevation of the asset faces south, overlooking the overgrown garden located within the plot. To the immediate west of the asset are associated dilapidated agricultural buildings such as barns and ranges which are overgrown with vegetation. This farmstead plot forms the asset's crucial and important setting as a farmhouse to a once working farmstead. The immediate surrounding fields and the lane that

provides its access and driveway from the south make a positive contribution to the asset's immediate setting by providing it with a rural and agricultural context and a historic access route to the farmhouse.

Functional relationships

5.26. Beyond the farmstead itself, the asset has a functional relationship with sections of the surrounding agricultural landscape as indicated by land ownership recorded for the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10). This includes fields located within the southern area of Briar Hill parcel of the Site (Fig. 16). That being said, the Historic Landscape Characterisation (Fig. 15) states that the fields that surround Throstle Nest are classed as both 'modern improved fields' and 'parliamentary enclosure'. Therefore the HLC type to the north of Throstle Nest is 20th century in character, although the fields that surround the asset to its west, south and south-east were formed between 1834 and 1838 (North Yorkshire County Council 2010) reflect the fieldscape contemporary with the construction of the asset.

5.27. The relationship with these former fields, especially those located to the west, south and south-east of the asset is apparent within the landscape due to their proximity to the Throstle Nest former farmstead. Whilst this historic functional relationship can be only be ascertained from the Tithe Map, the asset is still intelligible as a historic farmhouse surrounded by fields, and those fields within the southern area of Briar Hill parcel of the Site in particular, provide a positive contribution to the physical setting of Throstle Nest.

History and change over time

5.28. Throstle Nest's setting has not been negatively impacted by the loss of its historically associated agricultural outbuildings over time. The 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10) depicts the farmhouse with an associated north to south orientated range which is still in existence today. By the 1856 Ordnance Survey map (Fig. 11) the outbuildings had expanded and abutted the farmhouse to form a central working courtyard to the immediate south-west of the asset. This arrangement has remained the same throughout the 20th and 21st centuries, with little alteration except for the addition of modern roofing for a barn.

5.29. At the time of the site visit, the farmstead along with its gardens, courtyard and outbuildings were overgrown by vegetation. Some of the visible agricultural

outbuildings are in poor condition and lack maintenance. Thus reflecting on the lack of apparent agricultural use of the plot.

Summary

5.30. In summary, sections of the Site make a positive contribution to the significance of the Grade II Listed Throstle Nest, mainly due to the representing parts of the surrounding landscape that once formed part of the asset's associated agricultural land. This functional relationship can only be ascertained by viewing the tithe apportionment on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map. Nonetheless the asset is the farmhouse of a former working farmstead that is surrounded by agricultural fields, and these former associated historic fields make a positive contribution to the asset's setting.

Experience – 'What Matters and Why'

5.31. Throstle Nest is best experienced from within its private rectangular farmstead plot, whereby its historic and architectural qualities can be best observed, along with its historically associated agricultural buildings within their existing layout. The asset can also be experienced from along its access route, which approaches the asset from the south-west where it turns a right angle to the north and leads to the farmstead (Photo 11). The asset from this position on the access route can be picked out amongst the vegetation that occupies the plot. In addition, from this position on the trackway, the historically associated fields either side of the trackway frame the plot and provide the asset with its wider rural and agricultural context.

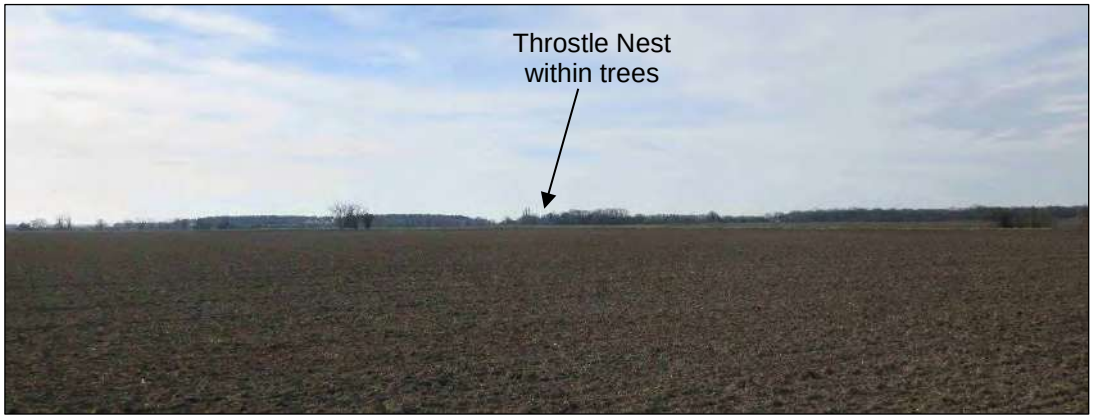

Photo 12. View south-westwards towards Throstle Nest from a public footpath within the Site

5.32. In addition, the location of Throstle Nest can be partially viewed at a great distance from a public footpath located *c.*1km to the north-east of the asset (Photo 12). From

this position, only the roof of the asset can be distinguished amongst the trees, but that being said, from this public footpath the asset is difficult to view and discern from this position as a historic building. As the asset cannot be experienced from this position, or its heritage significance embedded in its built form appreciated, at this distance, those long distance views do not contribute to significance or experience of the asset.

5.33. Due to Throstle Nest's position away from any busy roads, there is a sense of seclusion that is experienced in proximity to the asset. The only sounds that can be heard are farm machinery of Briar Hill Farm and the wind moving vegetation. Therefore the southern area of the Site makes a positive contribution to sensory experience of the asset.

5.34. It can be concluded that the fields that surround Throstle Nest make a positive contribution to the experience and significance of the asset as they are the historically associated fields (identified on the Tithe Map and the Historic Landscape Characterisation) with few obstructed views of the asset. The asset is best experienced when approaching it either from the north or south along the lane and from in front of it also, where the fields surrounding it form an agricultural backdrop.

Recommendations and considerations

5.35. Whilst the introduction of solar panels within the Site will result in a change in character of the wider surroundings of Throstle Nest, it should be noted that any change is wholly reversible. The character of solar panels within the landscape is perceived differently by the individual. Whilst some may have a negative opinion of the resulting views, visual amenity does not correlate directly with the specific significance or experience of a Listed Building, which, as has been established, is best and most acutely experienced within its immediate surroundings and from within its associated farmyard.

5.36. The Site forms an important part of the setting and experience of the Grade II Listed Throstle Nest, as previously discussed. The asset derives its significance from its immediate farmstead setting and plot, and its surrounding historically associated fields, some of which likely reflect the fieldscape of same date as the asset. The surrounding fields also form the backdrop to the asset and contribute to the experience especially when approaching the asset from its access route from the

south. Overall, the wider Site has a neutral contribution to the asset, and is not a key component of its experience or heritage significance.

5.37. It is recommended that the identified surrounding land that once formed part of the farmstead's fields are incorporated into a buffer zone around the asset, where possible. This also includes fields located on the southern side of the Sun Beck to the south of the asset that the approach to the asset is not impacted upon. Any proposed solar arrays within Briar Hill parcel that can be viewed from the asset could also be screened by quick growing vegetated boundaries to reduce intervisibility, perhaps planted along the position of former field boundaries that have been removed to reinstate the former historic landscape to some extent. If mitigation by design is employed, then it is anticipated that no harm would come as a result of the proposed development, and the overall rural character of the surrounding landscape will be retained.

Grade II Listed Barn approximately 30m to the North of Woodend

5.38. The Grade II Listed Barn approximately 30m to the North of Woodend is located beyond the western boundary of Briar Hill parcel (Fig. 6: **C**; NHLE: 1150696; Photo 13). Its listing describes it as:

> *It is an early 19th century barn with an orange-red brick in English garden wall bond with a pantile roof. It has a three-bay barn on left of a three-bay cartshed with an entrance between them to a stair up to granary over the cartshed. The pent-roofed addition on right not of special interest.*
>
> *Barn: A central slightly-projecting bay under extended roof has double board cart doors with a wood lintel below a header-brick course. To each side are three tiers of paired vents (paired slit vents below square vents set in lozenge pattern). On the right is a segmental archway to internal stone stair.*
>
> *Cart shed: three segmental arches that are divided by circular brick piers with stone imposts. Above the central arch is a board granary door flanked by small four-pane windows, all with segmental header-brick arches and dentilled eaves along with a hipped roof.*
>
> *Rear: the barn has opposing winnowing door and windows to the left. Left return has three tiers of paired slit vents. The interior has a board door and wide floorboards to the granary, which has a three collared principal rafter*

roof trusses. A 20th century shelter is attached to rear and is not included in item (Historic England 2025).

Photo 13. **The Barn, viewed from the north**

5.39. The heritage significance of the Barn is derived from its evidential value, which substantially contributes to its significance, which lies in the tangible physical remains and historic fabric of the 19th century barn. The physical fabric of the Barn also holds aesthetic value in its architectural design, whereby craftsmanship and building materials and historical interest can be experienced. The Barn serves as a surviving example of vernacular agricultural architecture, thereby providing it with historical illustrative value.

Physical Surrounds – 'What Matters and Why'

Aspect, layout and topography

5.40. The Barn at the former farmstead of Woodend is positioned within a rise in the landscape *c.*110m beyond the western boundary of Briar Hill parcel, which allows for Woodend to be elevated above the rest of Briar Hill parcel to the east.

5.41. The asset is positioned within the north-western corner of a long thin rectangular grassy plot that is bordered to the west and south-west by dense woodland, and fields to its north, east and south-east. The boundaries of the plot are bordered by fence lines and low hedgerows. Access to Woodend farmstead is afforded from a gated point to the west of the asset, which is reached via a tarmacked road that leads east from Race Lane. The principal elevation of the asset faces south, overlooking square-shaped internal farmstead courtyard.

5.42. The asset forms the northern range of a square shaped farmstead with an internal courtyard. A range that is attached to the asset's eastern wall forms the farmstead's

eastern range, a barn forms the western range, and a farmhouse is located on the southern side of the farmstead, together forming an upside-down U-shape. These additional agricultural outbuildings and the farmhouse likely date to the 19th century also. The plot was recently sold and is currently under development to convert the barns into residential dwellings. This former farmstead plot forms the asset's crucial and important setting as a Barn to a former farmstead. The immediate surrounding fields and the lane that provides its access make a positive contribution to the asset's immediate setting by providing it with a rural and agricultural context and a historic access route to the farmstead.

Functional relationships

5.43. Beyond the farmyard, the Barn has a functional relationship with the sections of the surrounding agricultural landscape as indicated by the land ownership recorded on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10). This includes fields which span within the western part of Briar Hill parcel (Fig. 16). That being said, the Historic Landscape Characterisation (Fig. 15) states that the fields that surround Barn at Woodend are classed as both 'modern improved fields' and 'unknown planned enclosure'. Therefore the landscape to the north and east of the Barn is 20th century in character, although the fields located to the north-west and south were formed between 1750 to 1850 (North Yorkshire County Council 2010) and therefore reflect the fieldscape contemporary with the construction of the Barn.

5.44. The relationship with these former fields is apparent due to their proximity to the Barn and its associated outbuilding and farmstead. Whilst this historic functional relationship can be only be ascertained from the Tithe Map, the asset is recognisable as a barn within a historic farmstead, even as the conversion works progress, and those fields within the western part of Briar Hill parcel in particular, provide a positive contribution to the physical setting of the Barn at Woodend.

History and change over time

5.45. Whilst we know a farm was established at this location by the 1770 map, with a similar layout, the asset, of 19th century date, represents next phase of development within the farmstead.

5.46. The 1770 map (Fig. 9) depicts Woodend in the same layout/arrangement as it is today, with a range of agricultural buildings forming an upside-down U-shape, with a building to south which is likely the original farmhouse. Whilst this arrangement of the

farmstead continued on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map (Fig. 10) and 19th and 20th century Ordnance Survey mapping, the original 18th century buildings were likely demolished and replaced with the 19th century buildings, which includes the asset. As such, the farmhouse is not 18th century in date but rather a farmhouse that was designed and built for the Viscount Downe; this structure is not listed.

5.47. Major changes to the farmstead were undertaken in the second half of the 20th century, with the inner courtyard infilled within modern barns and a barn built to the immediate north of the asset. These structures have been demolished as part of the recent renovations, with the 19th century ranges being retained. The inner square-shaped courtyard has been reinstated to how it was prior to the construction of modern barns.

5.48. The arrangement has been retained from the construction of the asset, and whilst current works are ongoing for conversion, the layout of the farmstead is legible and contributes to its significance as a historic farmstead.

Summary

5.49. In summary, sections of the western part of Briar Hill parcel make a positive contribution to the significance of the Grade II Listed Barn approximately 30m to the North of Woodend. This is mainly due to representing parts of the surrounding landscape which once formed part of the asset's associated agricultural land. This functional relationship can only be ascertained by viewing the tithe apportionment on the 1842 Sessay Cum Hutton Sessay Parish Tithe Map. The asset is the barn of a former farmstead that is surrounded by agricultural fields, and these former associated historic fields make a positive contribution to the asset's setting.

5.50. In addition, its immediate farmstead setting forms a key component of its setting, as modern barns that infilled the farmstead and were once located to the immediate north of the barn have been recently demolished as part of renovations to Woodend. The removal of these modern barns, renovation of the historic 19th century ranges and the reinstatement of an inner courtyard forms the asset's immediate setting.

Experience – 'What Matters and Why'

5.51. The Barn at Woodend is best experienced from within its private former farmstead plot, whereby its historic and architectural qualities can be clearly observed, along with its historically associated agricultural buildings and farmhouse within their

existing layout. The asset can also be experienced when approaching the former farmstead from the tarmacked access route from the north (Photo 13), where it turns a right angle to the east and leads towards Briar Hill Farm. The barn can be viewed in its entirety from this tarmacked lane as no vegetation blocks the visibility. In addition, from this position on the trackway, the historically associated fields to the east of the plot also frame the former farmstead and provide the asset with its wider rural and agricultural context.

Photo 14. **The Barn viewed from a public footpath to the north-west**

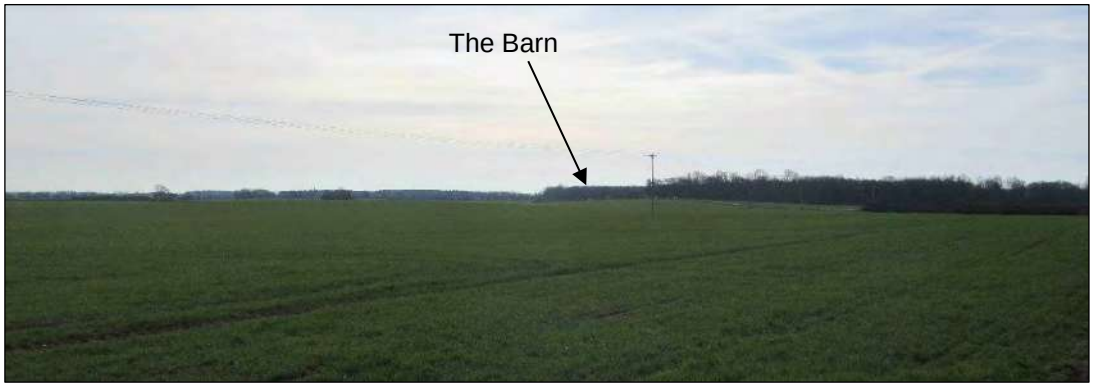

Photo 15. **The Barn viewed from a public footpath to the north**

Photo 16. **The Barn viewed from a public footpath to the north-west**

5.52. In addition, the Barn can be viewed at a distance from differing positions along two public footpaths that pass through the Site. The first is from a public footpath that crosses Briar Hill parcel from east to west between *c.*500-550m from the asset, where the barn within its farmstead can be easily viewed from the east (Photo 14), north-east (Photo 16) due to these positions being located upon slight rises in the landscape. However, the north facing elevation of the barn can be viewed (Photo 15), but this viewpoint is not as clear by the presence of woodland behind it.

5.53. The second public footpath crosses a field to the immediate north-west of the asset, where the Barn can be clearly viewed upon a slight rise in the landscape from this position (Photo 16). This public footpath then passes through the former farmstead and continues down the side of the woodland to the south, therefore allowing the barn and the farmstead to be experienced at close proximity from this footpath. Overall, views from the public footpath that approaches the asset from the north-west and through the farmstead allow for the barn to be seen in its immediate functional context and with its historic fabric and form clearly appreciable. However, views from the north on the public footpath are do not provide a viewer with the experience of the historic significance of the asset, other than being a distant farmstead with fields in between. From these closer positions the asset's immediate functional context and its historic fabric and form, along with historically associated fields can be best experienced.

5.54. Due to the Barn's position beyond the boundary of Briar Hill parcel, and away from any busy roads, there is a sense of seclusion that is experienced in proximity to the asset. The only sounds that can be heard are farm machinery of Briar Hill Farm and the wind moving vegetation. Therefore, the western area of the Site makes a positive contribution to sensory experience of the asset.

5.55. It can be concluded that the fields that surround the Barn at Woodend make a positive contribution to the experience and significance of the asset as they are the historically associated fields (identified on the Tithe Map and in HLC) with unobstructed views of the asset. The asset is best experienced when approaching it either from the north, north-west or north-east along the lane and two public footpaths also where the fields that surround it form an agricultural backdrop.

Recommendations and considerations

5.56. The Site forms an important part of the setting and experience of the Grade II Listed Barn approximately 30m to the North of Woodend, as previously discussed. The asset derives its significance from its immediate farmstead setting and plot which has had limited alterations to its layout, albeit the farmstead was established in by the 1770s, but the barn represents a later development of the farmstead, along with the demolition of modern barns to reinstate the farmstead's 19th century layout. The asset's significance also derives from its surrounding historically associated fields, some of which are likely contemporary with the asset. The surrounding fields also form the backdrop to the asset and allow for it to be experienced within its rural setting, especially when approaching the asset along nearby roads and public footpaths where the barn can be viewed up close.

5.57. It is recommended that the identified surrounding land that once formed part of the farmstead's fields is incorporated into a buffer zone around the asset, where possible. Any proposed solar arrays or infrastructure within Briar Hill parcel, beyond the historically associated fields, that can be viewed from the asset could be screened by quick growing vegetated boundaries to reduce intervisibility. Such vegetation could perhaps be planted along the position of former field boundaries to reinstate the former historic landscape to some extent. In addition, views of the asset from the two public footpaths nearby should be retained where possible in order for the asset to be viewed and enjoyed. If carefully planned mitigation by design is employed as part of the proposed development, then it is anticipated that the asset would not experience harm to its heritage significance.

Grade II* Listed Church of Cuthbert

5.58. Grade II* Listed Church of St Cuthbert (Fig. 16: **A**; NHLE: 1190725; Photo 17) is located *c.*600m to the west of Briar Hill parcel, and *c.*880m to the east of Sessay Park parcel. Its listing describes it as:

> *The church was constructed in 1847-8 by William Butterfield for Viscount Downe. It is has coursed squared stone with ashlar dressings, a graduated stone slate roof, and a shingled spire. It has a four-bay nave with a south aisle, a south porch, a west tower, and a lower two-bay chancel with north vestry. It has been constructed in an early 14th century Gothic style. It has quoins, quoined openings, a chamfered plinth and sill string to all but south*

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aisle, along with offset buttresses diagonal to tower and chancel (Historic England 2025).

Photo 17. Church of St Cuthbert, viewed from the south-west

5.59. The significance of the church is primarily derived from its historic (illustrative and associative) value through its narrative of the development of Sessey and the wider parish from the 19th century onwards, as well as aesthetic and some evidential values embodied in its physical form and the survival of fabric and elements of 19th century and modern craftsmanship by William Butterfield. Communal value also contributes to the significance of the Church, which is an important communal and ritual space for the village of Little Sessay, wherein it forms the focal point of the village.

Physical Surrounds – 'What Matters and Why'

5.60. The Church and churchyard are accessed via a Grade II Listed lychgate and a footpath from the green open space to the immediate west of the Church within the historic centre of Little Sessay (Photo 17). The Church is one of few remaining public buildings within the village alongside the primary school to the immediate north, and forms a focus within the village.

5.61. The surrounding village of Little Sessay contributes to the significance of the asset through preserving its historic and functional setting. The Church is surrounded by

five other Grade II Listed Buildings, comprising the Lychgate (NHLE: 1190741), the Bridge over the Birdforth Beck (NHLE: 1190749), a Cross (NHLE: 1150692), Sessay Church of England School (NHLE: 1150691) and the Churchyard Wall (NHLE: 1315232) that forms the boundary of the churchyard. The churchyard forms one of the key components of the asset's setting (which also includes the abovenamed Listed elements of the churchyard), as it provides immediate functional context to the Church as a space for peaceful contemplation and worship.

5.62. At the southern end of the village the roads thar enter Little Sessay converge and come together at a triangular piece of common land where Sessay Garth, Church Lane and Race Lane converge (Photo 21). This triangular parcel of land is located to the immediate west of the Grade II* Listed Church of St Cuthbert and School and contributes to their setting as it forms an area of open green space in front of it.

5.63. The presence of these assets within proximity of the Church forms contributes to the Church's setting, as the School, lychgate and were also all constructed by William Butterfield, and therefore form a cohesive group illustrating the historical development of the village. The Conservation Area of Little Sessay (discussed in detail below) defines the historic core of the village an provides immediate setting to the designated heritage asset.

5.64. In their wider setting, the Church, churchyard, and village as a whole are surrounded by a rural landscape in all directions, which also includes the winding small river valley of the Birdforth Beck that flows east to west to the immediate south of the Church. This wider agricultural land accentuates the rural nature of the Church, but has a neutral contribution to its significance by neither adding or detracting to its appearance. As religious structures, the asset has no direct historical and functional association with the agricultural land which comprises the Site.

Experience – 'What Matters and Why'

5.65. The Church and tomb monuments are best experienced from within their immediate surroundings, formed by the extent of the churchyard bordered by a tall stone wall, whereupon the historic and architectural qualities of the structures can be appreciated at close proximity. Due to the height of the windows, views outwards from within the Church (with the assumed exception of those from inside the spire) are very limited, and do not include the Site. The experience of the Church for religious devotion can

be appreciated primarily within the building, but also within the peaceful churchyard surroundings.

5.66. The presence of the churchyard, along its associated Listed boundary wall, lychgate and cross, and the flowing Birdforth Beck within its small river valley lined with vegetation to the south makes a positive contribution to the experience of the asset, as it provides an distinctive area that forms a sensory and atmospheric experience. The presence of flowing water and vegetation lining the watercourse, that is also crossed also by a Listed bridge, adds to the sensory experience and a sense of seclusion within the churchyard. As very little traffic passes through Little Sessay, these sensory experiences are extenuated.

5.67. The Church spire can be seen across the surrounding landscape, but in some places within the Site the spire can be just about perceived in the context of extant vegetation and, overhead powerlines. Views of the spire from both areas of the Site are not specifically designed, and do not represent the best available experience of the Church from within the wider landscape. Church towers are often widely visible across landscapes, but, as discussed in the Historic England guidance on settings (2017), unless such views are designed or associative, or perhaps comprise views forming an important historic approach, they are more likely to be a landscape not heritage consideration.

5.68. The Church is visible from the north-eastern area of Sessay Park parcel as it slopes downward to the railway line (Photo 18), but the spire of the Church can only be viewed from this position which rises above the village of Sessay, and the tall mature trees within it. In addition, in between the Church and Sessay Park parcel is the Great Northern Railway Line, frequented by trains which are quite loud and visually dominating, and somewhat impacts on views of the Church from this position. Therefore the Church, whilst a monument that can be seen it is not best experienced within from Sessay Park parcel of the Site.

5.69. The Church tower and spire are recognisable at a distance and can be seen from the two public footpaths that cross Briar Hill parcel of the Site (Photos 19 and 20). Whilst Both footpaths are illustrated on the 1890 Ordnance Survey Map (Fig. 12) they are not designed views from where the Church can be appreciated. When approaching the village views from these positions do not inform a viewer of the Church's historical significance within its historic village and churchyard, other than being a monument

within the wider landscape. Therefore, Briar Hill parcel of the Site also does not contribute to the experience of the asset.

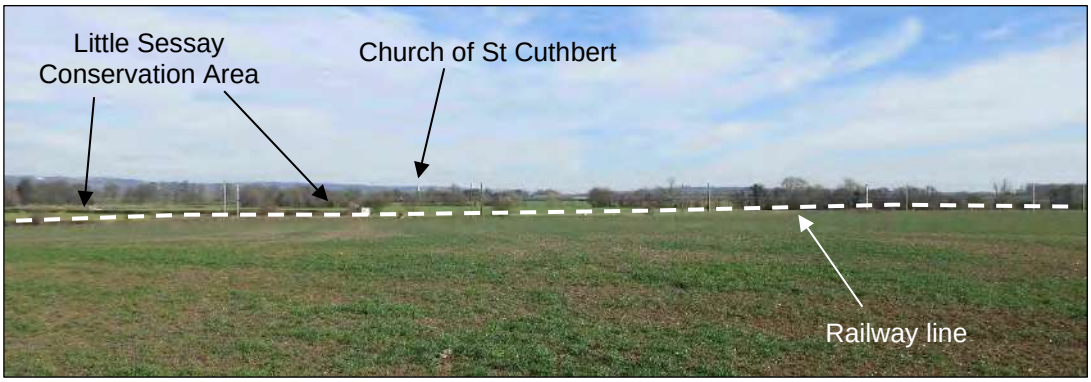

Photo 18. North-eastern view towards the Church of St Cuthbert from Sessay Park parcel of the Site

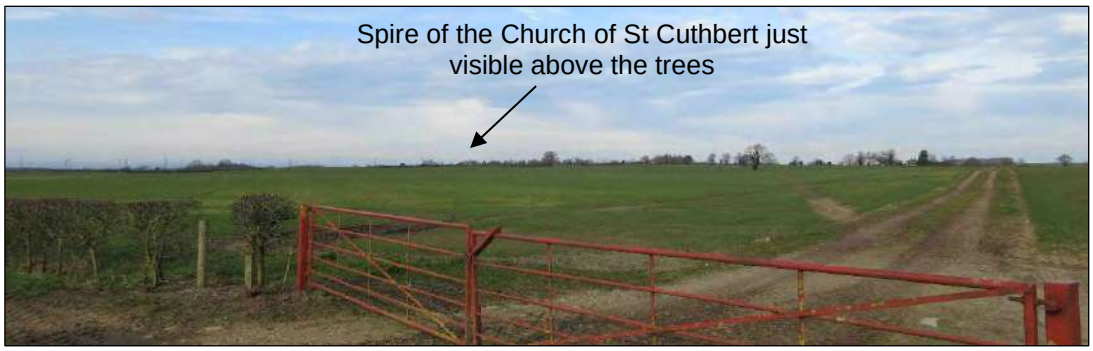

Photo 19. View north-westwards towards the Church of St Cuthbert from a public footpath within Briar Hill parcel of the Site

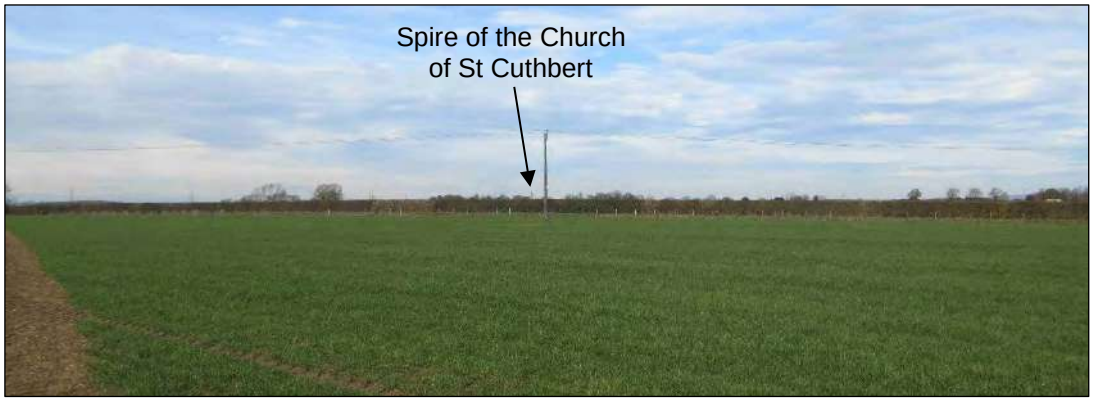

Photo 20. View northwards towards the Church of St Cuthbert from a public footpath within Briar Hill parcel of the Site

Recommendations and considerations

5.70. It has been identified that that views from the wider landscape are available of the spire, but they are not considered to be heritage consideration due to distance, lack of functional or design associations, and intervening/surrounding development.

However, retention of visibility of the spire from footpaths within the western area of Briar Hill parcel is recommended. In this respect, those views that would be closest to the asset (i.e. from edges of the Site photos 18, 20 and 29) would be retained so that experience could be maintained

5.71. The proposed development will like cause no harm to the heritage significance of the Church of St Cuthbert. The asset is best experienced up close from the green open space to the immediate west, from within its churchyard (Photo17), and approaching the asset from within the village itself (Photo 21). It is likely that the proposed development will comprise of low level solar arrays which will not compete with the height of the asset, and the public footpaths within the Site will be retained.

Little Sessay Conservation Area

Character of the Conservation Area

5.72. The Little Sessay Conservation Area is located *c.*240m to the north-east of Sessay Park parcel and *c.*210m to the north-west of Briar Hill parcel (Fig. 16: **D**) and was designated in 2017. There is a Conservation Area Appraisal that defines three individual character areas (Hambleton District Council 2017), comprising:

- Character Briar Hill parcel: The core area extends to include the former Rectory and elements of the surviving medieval landscape associated with the site of the former manor (now incorporating three farmsteads, Rooper Hill Farm, Church Farm and Village Farm). This core area could be said to represent the south side of Sessay Village;
- Character Sessay Park parcel: A distinct range of 8 estate cottages dating to the time of Butterfields engagement, indicated on the 1858 Dawney Estate Plan by Powell of Harrogate; and
- Character Area 3: Western boundary extension, extending from Village Farm north to include Churchward House and Plum Tree Cottage (probably early 19th century) which face onto the village cricket field and the former Downe House Farmhouse (mid-19th century by the York and North Midland Railway architect G. T. Andrews and listed at Grade II).

5.73. The significance of the Conservation Area lies within its historic layout and built form as sparsely populated village from the medieval period onwards, with surviving medieval features such as ridge and furrow close to the settlement, and its overall additions dating from the 19th century onwards.

5.74. The landscape setting of the Conservation Area is set out within the Appraisal (Hambleton District Council 2017) document which states that:

> *Little Sessay is located within a gently undulating landscape, interrupted by the meandering Birdforth Beck as it flows to join the nearby River Swale. Land here is carpeted by deep sandy alluvial soils, becoming Keuper Marls (layers of mudstone and siltstone) in the higher parts.*
>
> *The fertility of the land with its ready source of pure water must have contributed to the location of the manor here with the associated medieval ridge and furrow fields, to maximise crop production. This areas gentle topography allows the land to drain back into the beck. Field margins and the beck are still lined by native hedgerows and mature trees. In recent times the rich soils have contributed to the establishment of a productive fruit farm whose fields of soft fruits add to the idyllic setting of St Cuthbert's church.*

5.75. Sessay village has developed as a linear plan; most properties being set back facing on to the village street, there is a fairly consistent building line only broken in a few places until the development pattern changes at Sessay Cottage Terrace at the north-western boundary of the Conservation Area along Sessay Garth (Photos 24, 25 and 26). This includes views of the Grade II Listed Barn with attached Horse Engine House (Photo 25) and Downe House Farmhouse (Photo 26) at the north western end of the Conservation Area. Mature trees and hedgerows overshadow and reinforce boundary lines, although there is a generally open aspect to the village street, with occasional views out to the wider landscape beyond in between residential development and vegetation. Therefore the village overall has a decidedly inward facing aspect.

5.76. The centre of the village (located outside of the Conservation Area boundary to the north-west), with its cricket field and Village Hall, is open in character with extensive views out over farmland towards the White Horse at Kilburn. The northern end of the village contains mostly modern housing developments of limited character or local distinctiveness.

5.77. At the southern end of the village the street comes to a cross roads marked by a triangular piece of common land where Sessay Garth, Church Lane and Race Lane converge (Photo 21). This triangular parcel of land is located to the immediate west

of the Grade II* Listed Church of St Cuthbert and School and contributes to their setting as it forms an area of open green space in front of them. Furthermore, the Birdforth Beck passes through the south-eastern area of the Conservation Area, form a small valley that is lined with tall mature trees over which the Grade II Listed bridge passes over (Photo 22) and has medieval origins. This small valley and bridge acts as an entry point into the Conservation Area and to the church itself, and provides a scenic approach along Race Lane into the Area itself.

Photo 21. **View towards the Church of St Cuthbert and the School**

Photo 22 . **View of the Grade II Listed Bridge over the Birdforth Beck**

Photo 23. **View north towards the Grade II Listed Old Rectory**

Photo 24. **View south-eastwards down Sessay Garth**

Photo 25. The Grade II Listed Barn with attached Horse Engine House, viewed form the north-west

Photo 26. **The Grade II Listed Downe House Farmhouse**

Photo 27. **View south-eastwards over the Conservation Area to Rooper Hill**

Photo 28. View south-westwards over the Conservation Area towards Sessay Park Farm within the Site

Physical Surrounds – 'What Matters and Why'

5.78. Little Sessay is situated on the northern side of the Birdforth Beck (a low lying area of the landscape) with Roper Hill to its immediate east. This topographic siting, which would have been a key factor in the historical development of the settlement (i.e. close to a water course and crossing point cross the Birdforth Beck), makes an important contribution towards the character and appearance of the Conservation Area, and is apparent in positioning of the small village green where three roads (Sessay Garth, Church Lane and Race Lane) converge to the immediate north of the Grade II Listed bridge over the Birdforth Beck.

5.79. The surroundings of the Conservation Area are strongly rural in character, although bands of modern development along Sessay Garth separate it from its wider rural setting to the north-west. In addition to this, either side of Sessay Garth, are small irregular field plots which have been incorporated into the Conservation Area (Photos 23, 27 and 28). These field plots also contain surviving medieval ridge and furrow, which are clearly visible within the landscape and on LiDAR imagery (Fig. 14). The earthworks provide the village with an important historic context as a rural agricultural village and are a tangible link to its medieval past, thus contributing to its significance.

5.80. Through maintaining the historical landscape context within which the settlement originated and developed, this setting (the immediate surrounding fields and the settlement's position along the Birdforth Beck) is a key component of the character of the Conservation Area. It may be reasoned that a greater contribution is made by the fields surrounding the southern and eastern parts of the Conservation Area near to the Church of St Cuthbert, which contain remains of medieval ridge and furrow, and those fields recorded by the HLC as piecemeal enclosure dating from the post-

medieval period to the 18th century. Importantly none of these types of fields are located within the Site, and landscape that the Site occupies reflects more recent enclosure and late 20th century modification. Additionally the Site, which comprises agricultural land at the south-west and south-east of Little Sessay is largely within the Parish of Sessay, is more closely associated with the farmsteads located within the Site (Briar Hill Farm, Woodend, Throstle Nest and Sessay Park) than the historic core of Little Sessay.

Experience

5.81. Key views, vistas and focal points from within the Conservation Area are set out in the Appraisal (Hambleton District Council 2017), and are summarised below:

- Standing on high ground overlooking Church Farm and Rooper Hill to the immediate east of the Area there are panoramic view in all directions. To the immediate east of the Area is the prominent hill of Roulston Scar on the Hambleton escarpment, to the east is Thormanby, Pilmoor, New Mills and Fawdington and to the west lies Sessay village centre. This spot is thought by some to mark the site of a fortified encampment existing prior to the medieval manor (although this is not recorded by the HER). From this position the Site can be glimpsed but that is if a viewer is facing south away from the Conservation area, but when a viewer is looking west towards the Conservation Area the Site does not form part of the experience of the asset;
- Significant vistas and views across the landscape comprise William Butterfield's composition of St Cuthbert's Church and school from the bridge at Birdforth Beck *c.*40m to the south of the church framed by mature yews and other trees lining the beck. The stone tower and shingle spire of St Cuthbert's is also a noticeable and legible reference point within the wider landscape. When positioned on the bridge over the Birdforth Beck, a viewer is with low lying valley of the water course with the Site over the ridge behind them. Therefore the Site does not form part of this key view.;
- Trees framing the western side of the street between the Rectory and church lead the eye along a gentle curve in the street, the pavement view punctuated by the Rectory gates and eventually the school and church spire (Photo 21). An enticing and welcoming glimpse of the Rectory can be viewed from its entrance gates. The Site does not form part of this view along the Sessay Garth.

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5.82. The Conservation Area and its constituent heritage assets are best experienced from within its boundary along public route ways such as public footpaths, Church Lane, Race Lane and Sessay Garth, where the historic character of the Listed Buildings, open green spaces in front of the Grade II* Listed Church of St Cuthbert and Grade II Listed school, and surrounding assets such as the surviving medieval ridge and furrow within the surrounding field plots.

5.83. Opposite the Grade II Listed Downe House and its adjacent terrace, distant views of the White Horse of Kilburn that is located *c.*7.4km to the north-east can be seen across the village playing fields.

5.84. Based on the key views stated above from the Conservation Area Appraisal, the Site is not included within these views. All views described are from within the Conservation Area, except for those on Rooper Hill, which seem to describe views both west and east, not south-west or south towards the Site.

5.85. Briar Hill parcel of the Site is not a location from where the character and appearance of the Conservation Area, or the special architectural and historic interest of any Listed Building within it can be appreciated. This is due to the topography of the landscape and the siting of Little Sessay within a low lying area to the west of Rooper Hill. Briar Hill parcel of the Site contains public footpaths that passes through the northern area of the Site leading to Little Sessay. From specific locations along these footpaths the top of the spire of the Church of St Cuthbert can be viewed (Photos 19 and 20). It is not until a viewer passes beyond the western and north-western boundary of the Site and over the rise in the landscape that the Conservation Area, within its low point in the landscape, comes into view (Photo 29). As previously discussed with regard to the Church of St Cuthbert, the view from this position (Photo 29) has the Site to a viewer's rear, and therefore the Site is not included in this distant view. This is not a designed view of the Conservation Area, but rather an incidental one. Therefore the Briar Hill parcel of the Site does not contribute to the experience of the Conservation Area.

5.86. Sessay Park parcel of the Site is located to the south-west of the Conservation Area. From within the majority of Sessay Park parcel the Conservation Area cannot be viewed due to the undulating topography and the low lying valley of the Birdforth Beck that passes through the Site. The southern edge of the Conservation Area can be viewed, but the interior cannot be viewed, beyond the church spire (Photo 18). From

this distant position from within the Site the historic appearance and character of the Conservation Area is not intelligible. On the other hand, views from within the Conservation Area looking outwards provide a viewer with the experience of the rural context of the village. Briar Hill parcel is not included within these views (Photo 27), but the north-eastern side of Sessay Park parcel of the Site along with Sessay Park Farm is included (Photo 28). This viewpoint is not a key view and not mentioned in the Conservation Area appraisal. In addition, this viewpoint has been impacted by the presence of modern transmission towers and the railway line with its associated overhead infrastructure. Therefore, the north-eastern side of Sessay Park parcel of the Site is the only part of the Site provides a very limited contribution to the experience of the wider rural context of village.

Photo 29. Little Sessay Conservation Area viewed from the north-western boundary of the Site

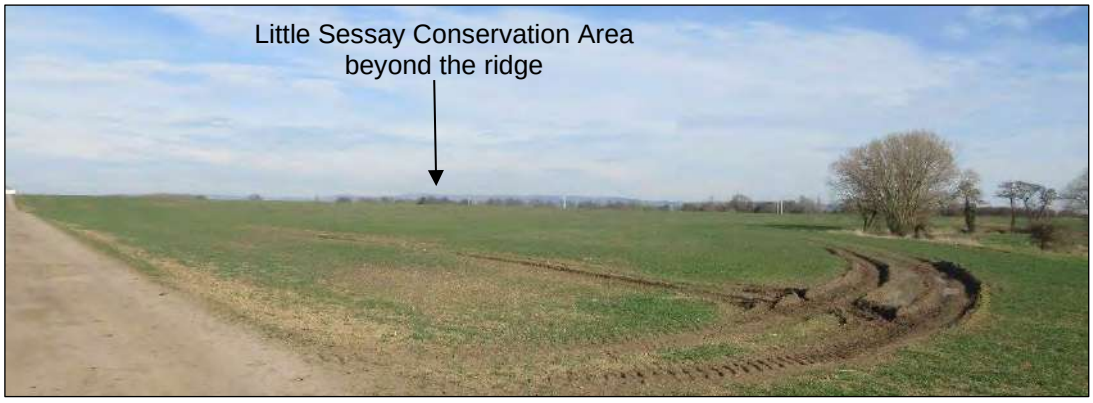

Photo 30. View north-east towards the Conservation Area from within Sessay Park parcel of the Site

Recommendations and considerations

5.87. Sessay's significance is derived from the historical, architectural value of the Listed Buildings within and the peaceful setting of the village as a whole long side the Birdforth Beck. In particular, the constituent buildings contribute to the local

vernacular and collectively provide a visual illustration of the historical development of the area.

5.88. The key views within and towards the Conservation Area as stated in the Conservation Area Appraisal (Hambleton District Council 2017) have been considered, and those which are key to Little Sessay's significance have been established, for example views down Race Lane and Sessay Garth. The Site does not form part of the key views of the Area from Rooper Hill to the east, nor does the Site block or form part of the views towards the White Horse at Kilburn *c.*7.4km to the north-east. The Site lies within the wider surrounding agricultural landscape which does not form a part of the setting which contributes to the significance of the Conservation Area, or the individual heritage assets within it. That being said, the north-eastern part of Sessay Park parcel of the Site and Sessay Park Farm can be viewed at a distance from within the Conservation Area (Photo 28). Importantly this viewpoint is not a key view not mentioned in the Conservation Area appraisal, and provides a very limited contribution to the experience of the wider rural context of village.

5.89. Whilst the introduction of solar panels within the Site will result in a change in character of the wider surroundings of the Conservation Area, it should be noted that any change is wholly reversible. The character of solar panels within the landscape is perceived differently by the individual. Whilst some may have a negative opinion of the resulting views, visual amenity does not correlate directly with the specific significance or experience of an historic village, which, as has been established, is best and most acutely experienced within the village itself. The immediate green and rural setting which encircles the village is to remain undeveloped which also includes the existing remains of medieval ridge and furrow, will ensure that the Conservation Area is still experienced, appreciated and interpreted within a generically rural setting.

5.90. The settings assessment presented has concluded that the Site is not a key element of the setting of the Conservation Area that contributes to its character and appearance. The Site is not a key element of the setting or experience of any Listed Building that contributes to the Conservation Area's special architectural and historic interest. However, it is recommended that, where possible, design measures such as buffer zones, using the undulating topography to hide elements of the development, and enhanced quick growing vegetation areas, are implemented to minimise the effect on any views.

6. CONCLUSIONS

6.1. This assessment has included a review of a comprehensive range of available sources, in accordance with key industry guidance, in order to identify known and potential heritage assets located within the Site and its environs which may be affected by the proposals. The significance of the identified known and potential heritage assets has been determined, as far as possible, on the basis of available evidence. The potential effects of the proposals on the significance of identified heritage assets, including any potential physical effects upon buried archaeological remains, and potential non-physical effects resulting from the anticipated changes to the settings of heritage assets, have been assessed. Any physical or non-physical effects of the proposals upon the significance of the heritage resource will be a material consideration in the determination of the planning application for the proposal.

Physical effects

6.2. The assessment has identified a potential for late prehistoric and Roman remains within the Site. Recorded within the western area of Sessay Park parcel of the Site is the supposed location of a Bronze Age barrow named 'Giant's Grave', that was excavated in the 19th century. A review of LiDAR imagery and aerial photographs do no indicate any upstanding mounds or cropmarks of a ring ditch within this area of the Site, however. If indeed the barrow is present within the Site, there could be further archaeological remains within its vicinity, such as additional burials or discrete features.

6.3. In addition, the assessment identified that within Briar Hill parcel there are multiple cropmarks of former field boundaries and enclosures which were given a broad date of late prehistoric to Roman, although some of the cropmarks align with former field boundaries recorded on a 1770 map of the Site. That being said, some of the cropmarks could be earlier in origin. These features are currently undated and their date and character are only based on conjecture only.

6.4. The assessment has also identified that there is also a low potential for early medieval to modern settlement remains within the Site, and a high potential for medieval or post-medieval agricultural remains. Settlement from these periods seems to have been focused upon the villages of Sessay to the north and Thormanby to the east;

therefore the Site is situated within the agricultural hinterland beyond the limits of these settlements. This notion is furthered by the presence of known recorded former field boundaries and medieval/post-medieval ridge and furrow within the Site and study area noted on aerial photographs as cropmarks, such the ridge and furrow that survive as above ground earthworks illustrated on LiDAR imagery around the settlement of Little Sessay to the north. Therefore, based on the presence of former field boundaries noted as cropmarks and ridge and furrow remains within the Site and study area, there is a high potential for similar buried archaeological remains associated with agricultural activity.

6.5. Archaeological remains comprise an important, non-renewable and finite resource, and the construction impacts associated with the proposed development would have the potential to result in permanent and irreversible loss of, or damage to, any potential buried archaeological remains which may be present within the Site. Any buried archaeological remains within the Site are unlikely to represent an absolute constraint on development, although the known and potential remains would require consideration as part of the planning process.

6.6. Any potential remains that may be impacted are not anticipated to be of a level of significance that would warrant their consideration as designated assets; however, the nature, extent and composition of any archaeological remains within the Site are currently unknown. The potential Bronze Age round barrow within the western area of Sessay Park parcel of the Site named ‘Giant’s Grave’ (Fig. 3: **51**)does not retain any aboveground earthworks and with the mound having already been excavated, its evidential value will have likely been greatly diminished. Whilst surviving remains (if present within the Site) may be considered a heritage asset, it is unlikely, based on available information, that it would be of the highest significance (i.e. commensurate to Scheduled Monuments).

6.7. As the full extent and significance of potential arch remains is not fully understood, further investigation within the Site will be required by the Archaeological Advisor at North Yorkshire Council, in first instance a comprehensive geophysical survey of the Site is likely to be needed to further understand the nature and extent of the recorded cropmarks within the Site for example. It is anticipated that the scope of any intrusive investigation could be limited to the areas of highest below-ground impact, i.e. any cable route trenches, buildings, drainage trenches or stripping for access routes etc.

Non-physical effects

No harm

6.8. This report has assessed the potential effects of the proposed development upon the significance of designated heritage assets, through the alteration of their settings, in accordance with Historic England guidance. Heritage assets identified for detailed assessment comprised the Grade II* Listed Church of St Cuthbert and the Little Sessay Conservation Area. It has been established that the proposed development would likely not alter any elements of the setting of these assets that contribute to their significance, this is partly due to the distance between the majority of the Site areas and the assets, and lines of intervisibility reduced or blocked by intervening mature vegetation or rises in the topography. However, the north-eastern area of Sessay Park parcel can be viewed from within the Conservation Area (Photo 28). This viewpoint is not a key view and not mentioned in the Conservation Area appraisal. In addition, this viewpoint has been impacted by the presence of modern transmission towers and the railway line with its associated overhead infrastructure. Therefore, the north-eastern side of Sessay Park parcel of the Site is the only part of the Site provides a very limited contribution to the experience of the wider rural context of village.

6.9. Subject to the emerging design plan and the implementation of measures such as buffer zones, using the undulating topography to hide elements of the development, and enhanced quick growing vegetation areas, then it is not anticipated that any harm would result to the significance of the Conservation Area..

Less than substantial harm

6.10. This report has also assessed the potential effects of the proposed development upon the significance of the Grade II Listed Throstle Nest and the Barn at Woodend within Briar Hill parcel of the Site, through the alteration of their settings, in accordance with Historic England guidance. It has been established that the proposed development would likely alter elements of the setting of these assets that contribute to their significance. Briar Hill parcel of the Site is relatively flat in comparison to Sessay Park parcel, and both assets can be viewed at a distance, especially from the public footpath that crosses the northern part of Briar Hill parcel. Historic mapping has also identified that certain areas of the Site were once historically associated with both Throstle Nest and the Barn, although the majority of the Site is now modern in character, based on the Historic Landscape Characterisation. Should suitable

mitigation measures be put in place such as generous buffer zones, enhanced quick growing vegetation areas, preserving the historic associated landscape and views of these assets from public route ways, then it is likely that any harm to the significance of these assets would be **Less than substantial harm (lower end)**. Such harm would need to be considered in the planning balance, as per paragraph 215 of the NPPF.

6.11. This report has been produced in accordance with paragraph 207 of the National Planning Policy Framework, the Hambleton Local Plan, and would be in line with the requirements of the 1990 Planning (Listed Buildings and Conservation Areas) Act (Section 66), and Overarching National Policy Statement for Energy (EN-1).

7. REFERENCES

Air Photo Services 1992 *Overhead Transmission Lines Picton - Shipton Option North Yorkshire Aerial Photographic Assessment*

Allen, M., Blick, N., Brindle, T., Evans, T., Fulford, M., Holbrook, N., Richards, J.D. & Smith, A. 2016 *The Rural Settlement of Roman Britain: an online resource*

Anthony Walker and Partners 1993 *A19 Thormanby By Pass. Report of Stage 2 Archaeological Investigations*

British Geological Survey 2025 *Geology of Britain Viewer, 1:50,000 geological mapping, bedrock and superficial* - https://geologyviewer.bgs.ac.uk/

Carver, G. 2013 *Pits and Place-making: Neolithic Habitation and Deposition Practices in East Yorkshire c. 4000-2500 BC*. Proceedings of the Prehistoric Society, 78, 111-134

Chartered Institute for Archaeologists 2020 *Standard and Guidance for Historic Environment Desk-Based Assessment*

Darvill, T. 2010 *Megaliths, Monuments, and Materiality.* European Megalithic Studies Group

Department for Energy Security and Net Zero 2023 National Policy Statement for Renewable Energy Infrastructure (EN-3) - https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3 (accessed 17/02/205)

Dobinson. C. 1996 *Twentieth Century Fortifications in England, Volume 3. Bombing decoys of WWII: England's Passive Air Defences, 1939-45*

Hambleton District Council 2017 *Sessay Conservation Area Appraisal: Supplementary Planning Document*

Hambleton District Council 2022 *Hambleton Local Plan*

Historic England 2010 *The Light Fantastic: Using Airborne LiDAR in Archaeological Survey*

Historic England 2008 *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*

Historic England 2015 *Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment*

Historic England 2016 *Historic England Advice Note 1: Conservation Area Designation, Appraisal and Management*

Historic England 2017 *Historic Environment Good Practice Advice in Planning: Note 3: The Setting of Heritage Assets (Second Edition)*

Historic England 2018 *Commemorative and Funerary: Scheduling Selection Guide*

Historic England 2019 *Historic England Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets*

Historic England 2022 *Planning and Archaeology: Historic England Advice Note 17* (HEAN 17)

Historic England 2025 *National Heritage List for England* https://historicengland.org.uk/listing /the-list/

Kirklees Cousins ND *Ancient Peoples in Yorkshire – Celts, Romans, Angles, Saxons and Danes* - https://kirkleescousins.co.uk/early-days/ (accessed 24/02/2025)

Klemen Zakšek, Krištof Oštir and Žiga Kokalj 2011 *Sky-View Factor as a Relief Visualization Technique. Remote Sensing 3(2): 398-415*

Kokalj, Žiga and Maja Somrak 2019 *Why not a single image? Combining Visualizations to Facilitate Fieldwork and On-Screen Mapping. Remote Sensing 11 (7): 747*

Kokalj, Žiga and Ralf Hesse 2017 *Airborne Laser Scanning Raster Visualisation: A guide to Good Practice*

MAP Archaeological Consultancy 1993 *Archaeological Evaluation. Field Walking. A19 Thormanby By-Pass*

Ministry for Housing, Communities and Local Government 2024 *National Planning Policy Framework (NPPF)*; published December 2024

Natural England 2014 *Vale of York National Character Sessay Park parcel8* - https://nationalcharacterareas.co.uk/Vale-of-York/ (accessed 03/03/2025)

North Yorkshire County Council 2010 *Historic Landscape Character. North Yorkshire, York and the Lower Tees Valley*

Planning (Listed Buildings and Conservation Areas) Act 1990 Act of UK Parliament

Powell-Smith ND *Open Domesday* https://opendomesday.org/ (accessed 24/02/2025)

Roskams, S. and Whyman, M. 2007 *Yorkshire Archaeological Research Framework: research agenda* - https://historicengland.org.uk/images-books/publications/yorks-arch-res-framework-agenda/ (accessed 24/02/2025)

Sessay Parish Council ND History of the Parish - History of the Parish. (accessed 24/02/2025)

University of Nottingham ND *Key to English Place-Names* http://kepn.nottingham.ac.uk/ (accessed 24/02/2025)

Vyner, B. 2013 *A Great North Route in the Neolithic and Bronze Age Yorkshire: The Evidence of Landscape and Monuments.* Landscapes, 8 (1), 69-84

Wardell Armstrong 2014a Eldmire Ings Solar Farm: Geophysical Surveys

Wardell Armstrong 2014b *Cold Harbour Farm, Sessay, North Yorkshire: Archaeological Evaluation Report*

Wymer, J. 1999 *The Lower Palaeolithic Occupation of Britain. Wessex Archaeology & English Heritage*

Cartographic sources

1770	Sessay survey for Viscount Downe
1770	Thormanby survey for Viscount Downe
Late 1700s?	Sessay survey for Viscount Downe
1828	Thormanby survey for Viscount Downe
1842	Thormanby Parish Tithe Map
1842	Sessay Cum Hutton Sessay Tithe Map
1854	Ordnance Survey 1:10,560
1856	Ordnance Survey 1:10,560
1890-1893	Ordnance Survey 1:10,560
1891-1892	Ordnance Survey 1:2,500
1911	Ordnance Survey 1:2,500
1912-1913	Ordnance Survey 1:10,560
1913	Ordnance Survey 1:10,560
1952	Ordnance Survey 1:10,560
1956	Ordnance Survey 1:10,000
1975-1976	Ordnance Survey 1:2,500
1980-1981	Ordnance Survey 1:10,000
1994	Ordnance Survey 1:2,500
1999	Ordnance Survey 1:10,000

Aerial photographs

May 1940	RAF/51/UK694	July 1951	RAF/540/572
Feb 1946	RAF/106G/UK/1163	Aug 1973	OS/73421
Mar 1946	RAF/106G/UK/1306	June 2011	N780 (Historic England
Apr 1946	RAF/106G/UK/1417		Aerial Photo Explorer)
June 1951	RAF/540/520	2002 – 2023	Google Earth

APPENDIX 1: HERITAGE STATUTE POLICY & GUIDANCE

Heritage Statute: Listed Buildings

Listed buildings are buildings of 'special architectural or historic interest' and are subject to the provisions of the Planning (Listed Buildings and Conservation Areas) Act 1990 ('the Act'). Under Section 7 of the Act 'no person shall execute or cause to be executed any works for the demolition of a listed building or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, unless the works are authorised.' Such works are authorised under Listed Building Consent. Under Section 66 of the Act 'In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any feature of special architectural or historic interest which it possesses'.

Note on the extent of a Listed Building

Under Section 1(5) of the Act, a structure may be deemed part of a Listed Building if it is:

(a) fixed to the building, or
(b) within the curtilage of the building, which, although not fixed to the building, forms part of the land and has done so since before 1st July 1948

The inclusion of a structure deemed to be within the 'curtilage' of a building thus means that it is subject to the same statutory controls as the principal Listed Building. Inclusion within this duty is not, however, an automatic indicator of 'heritage significance' both as defined within the NPPF (2024) and within Conservation Principles (see Section 2 above). In such cases, the significance of the structure needs to be assessed both in its own right and in the contribution it makes to the significance and character of the principal Listed Building. The practical effect of the inclusion in the listing of ancillary structures is limited by the requirement that Listed Building Consent is only needed for works to the 'Listed Building' (to include the building in the list and all the ancillary items) where they affect the special character of the Listed building as a whole.

Guidance is provided by Historic England on 'Listed Buildings and Curtilage: Historic England Advice Note 10' (Historic England 2018).

Heritage Statue: Conservation Areas

Conservation Areas are designated by the local planning authority under Section 69(1)(a) of the Planning (Listed Buildings and Conservation Areas) Act 1990 ('the Act'), which requires that '*Every local planning authority shall from time to time determine which parts of their area are areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance*'. Section 72 of the Act requires that '*special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area*'.

The requirements of the Act only apply to land within a Conservation Area; not to land outside it. This has been clarified in various Appeal Decisions (for example APP/F1610/A/14/2213318 Land south of Cirencester Road, Fairford, Paragraph 65: '*The Section 72 duty only applies to buildings or land in a Conservation Area, and so does not apply in this case as the site lies outside the Conservation Area*.').

The NPPF (2024) also clarifies in Paragraph 220 that '*Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance*'. Thus land or buildings may be a part of a Conservation Area, but may not necessarily be of architectural or historical

significance. Similarly, not all elements of the setting of a Conservation Area will necessarily contribute to its significance, or to an equal degree.

National heritage policy: the National Planning Policy Framework

Heritage assets and heritage significance

Heritage assets comprise 'a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest' (the NPPF (2024), Annex 2). Designated heritage assets include World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields and Conservation Areas (designated under the relevant legislation; NPPF (2024), Annex 2). The NPPF (2024), Annex 2, states that the significance of a heritage asset may be archaeological, architectural, artistic or historic. Historic England's 'Conservation Principles' looks at significance as a series of 'values' which include 'evidential'. 'historical', 'aesthetic' and 'communal'.

The July 2019 revision of the Planning Practice Guidance (PPG) expanded on the definition of non-designated heritage assets. It states *that 'Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of heritage significance meriting consideration in planning decisions, but which do not meet the criteria for designated heritage assets.'* It goes on to refer to local/neighbourhood plans, conservation area appraisals/reviews, and importantly, the local Historic Environment Record (HER) as examples of where these assets may be identified, but specifically notes that such identification should be *made 'based on sound evidence'*, with this information *'accessible to the public to provide greater clarity and certainly for developers and decision makers'*.

This defines *non-designated heritage assets* as those which have been specially defined as such through the local HER or other source made accessible to the public by the plan-making body. Where HERs or equivalent lists do not specifically refer to an asset as a *non-designated heritage asset*, it is assumed that it has not met criteria for the plan-making body to define it as such, and will be referred to as a *heritage asset* for the purpose of this report.

The assessment of *non-designated heritage assets* and *heritage assets* will be equivalent in this report, in line with industry standards and guidance on assessing significance and impact. They may not, however, carry equivalent weight in planning as set out within the provisions of the NPPF, should there be any effect to significance.

The setting of heritage assets

The 'setting' of a heritage asset comprises 'the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral' (NPPF (2024), Annex 2). Thus it is important to note that 'setting' is not a heritage asset: it may contribute to the value of a heritage asset.

Guidance on assessing the effects of change upon the setting and significance of heritage assets is provided in 'Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets', which has been utilised for the present assessment (see below).

Levels of information to support planning applications

Paragraph 207 of the NPPF (2024) identifies that 'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets

affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance'.

Designated heritage assets

Paragraph 202 of the NPPF (2024) explains that heritage assets 'are an irreplaceable resource and should be conserved in a manner appropriate to their significance'. Paragraph 212 notes that 'when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance'. Paragraph 213 goes on to note that 'substantial harm to or loss of a grade II listed building…should be exceptional and substantial harm to or loss of designated heritage assets of the highest significance (notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites)…should be wholly exceptional'.

Paragraph 215 clarifies that 'Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including, where appropriate, securing its optimum viable use'.

Development Plan

Policy S7: The Historic Environment

Hambleton's heritage assets will be conserved in a manner appropriate to their significance. Development which will help in the management, conservation, understanding and enjoyment of the historic environment, especially for those assets which are at risk, will be encouraged. Particular attention will be paid to the conservation of those elements which contribute most to Hambleton's distinctive character and sense of place. These include:

- The nationally significant archaeological landscapes of the Southern Magnesian Limestone Ridge including the area around the Thornborough Henges and its distinctive topography;
- The significance and archaeological remains associated with Dere Street (the Great North Road), Healam Bridge and Aiskew Roman Villa;
- The Swale and Ure Washlands and their undulating topography;
- The distinctive character of the historic market towns of Northallerton, Thirsk, Stokesley, Easingwold and Bedale, arising from the conservation areas, listed buildings and other elements of the historic environment;
- The registered battlefields at Northallerton and Myton on Swale; and
- The large numbers of deserted villages, manorial sites, monastic centres and strategically-located stone and earthwork castles.

Proposals for development that may affect a designation or non-designated heritage asset will be subject to policy 'E5: Development Affecting Heritage Assets'.

Policy E5 – Development Affecting Heritage Assets

Heritage assets and their settings

Where a heritage asset is identified, a proposal will be required to assess the potential for adverse impacts on the significance of the historic environment. Where investigations show that impacts on heritage assets or their settings, whether designated or not, are possible, a heritage statement will be required. The heritage statement must be proportionate to the asset's importance and contain sufficient detail to understand the potential impact of the proposal on their significance. Heritage statements should:

a. assess all heritage assets and their settings that would be affected, describing and assessing their significance and special interest;

b. set out how the details of the proposal have been decided upon describing how all adverse impacts will be avoided as far as possible, or if unavoidable how they will be minimised as far as possible;

c. detail how, following avoidance and minimisation, the proposal would impact on the significance and special interest of each asset;

d. provide clear and convincing justification for the proposal, especially where there is harm to the significance of a heritage asset or its setting, so that the harm can be weighed against public benefits; and

e. identify ways in which the proposal could make a positive contribution to, or better reveal the significance of, affected heritage assets and their settings.

Archaeology

A proposal for development on a site where archaeological remains may be present must be accompanied by an appropriate archaeological assessment (including a field evaluation if necessary) that must include:

f. information identifying the likely location and extent of the remains, and the nature of the remains;

g. an assessment of the significance of the remains; and

h. consideration of how the remains would be affected by the proposed development.

A proposal will only be supported where it ensures:

i. those features that contribute to the special architectural or historic interest of a listed building or its setting are preserved;

j. those elements that have been identified as making a positive contribution to the special architectural or historic interest of a conservation area and its setting are preserved and, where appropriate, enhanced, having regard to settlement character assessments and conservation area appraisals;

k. those elements which contribute to the layout, design, character, appearance or setting of a registered park and garden will not be harmed or its future restoration prejudiced;

l. the historic, archaeological or landscape interest of a registered battlefield would not be harmed or any potential for interpretation prejudiced;

m. those elements that contribute to their archaeological interest and setting of a scheduled monument or other archaeological site of national importance will be conserved; and

n. those elements which contribute to the significance of a non-designated archaeological sites will be conserved, in line with the importance of the remains. In those cases where development affecting such sites is acceptable in principle, mitigation will be ensured through preservation of the remains in situ as a preferred solution. When 'in situ' preservation is not justified, the developer will be required to make adequate provision for excavation and recording before or during development. Subsequent analysis, publication and dissemination of the findings will be required to be submitted to the Council and deposited with the Historic Environment Record.

Any harm to, or loss of, the significance of a designated heritage asset will require clear and convincing justification. Less than substantial harm to the significance of a designated heritage asset will only be supported where the harm is outweighed by the public benefits of the proposal including, where appropriate, securing its optimum viable use. Substantial harm to, or total loss of, the significance of a designated heritage asset will only be supported where it is necessary to achieve substantial public benefits that outweigh the harm caused, or in the exceptional circumstances set out in the NPPF.

Proposals which would remove, harm or undermine the significance of a non-designated heritage asset will be permitted only where a balanced judgement has been undertaken and the scale of any harm or loss to the significance of the heritage asset is justified.

Schemes that help to ensure a sustainable future for the district's heritage assets, especially those identified as being at greatest risk of loss or decay, will be supported where the public benefits outweigh any harm to the significance of the assets, including the principle of enabling development.

Good Practice Advice 1-3

Historic England has issued three Good Practice Advice notes ('GPA1-3') which support the NPPF. The GPAs note that they do not constitute a statement of Government policy, nor do they seek to prescribe a single methodology: their purpose is to assist local authorities, planners, heritage consultants, and other stakeholders in the implementation of policy set out in the NPPF. This report has been produced in the context of this advice, particularly 'GPA2 – Managing Significance in Decision-Taking in the Historic Environment' and 'GPA3 – The Setting of Heritage Assets'.

GPA2 - Managing Significance in Decision-Taking in the Historic Environment

GPA2 sets out the requirement for assessing 'heritage significance' as part of the application process. Paragraph 8 notes 'understanding the nature of the significance is important to understanding the need for and best means of conservation.' This includes assessing the extent and level of significance, including the contribution made by its 'setting' (see GPA3 below). GPA2 notes that 'a desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area, and the impact of the proposed development on the significance of the historic environment, or will identify the need for further evaluation to do so' (Page 3).

GPA3 – The Setting of Heritage Assets

The NPPF (Annex 2: Glossary) defines the setting of a heritage asset as 'the surroundings in which a heritage asset is experienced…'. Step 1 of the settings assessment requires heritage assets which may be affected by development to be identified. Historic England notes that for

the purposes of Step 1 this process will comprise heritage assets 'where that experience is capable of being affected by a proposed development (in any way)…'.

Step 2 of the settings process 'assess[es] the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated', with regard to its physical surrounds; relationship with its surroundings and patterns of use; experiential effects such as noises or smells; and the way views allow the significance of the asset to be appreciated. Step 3 requires 'assessing the effect of the proposed development on the significance of the asset(s)' – specifically to 'assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it', with regard to the location and siting of the development, its form and appearance, its permanence, and wider effects.

Step 4 of GPA3 provides commentary on 'ways to maximise enhancement and avoid or minimise harm'. It notes (Paragraph 37) that 'Maximum advantage can be secured if any effects on the significance of a heritage asset arising from development liable to affect its setting are considered from the project's inception.' It goes on to note (Paragraph 39) that 'good design may reduce or remove the harm, or provide enhancement'.

Heritage significance

Discussion of heritage significance within this assessment report makes reference to several key documents. With regard to Listed buildings and Conservation Areas it primarily discusses 'architectural and historic interest', which comprises the special interest for which they are designated.

The NPPF provides a definition of 'significance' for heritage policy (Annex 2). This states that heritage significance comprises 'The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic'. This also clarifies that for World Heritage Sites 'the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance'.

Regarding 'levels' of significance the NPPF (2024) provides a distinction between: designated heritage assets of the highest significance; designated heritage assets not of the highest significance; and non-designated heritage assets.

Historic England's 'Conservation Principles' expresses 'heritage significance' as comprising a combination of one or more of: evidential value; historical value; aesthetic value; and communal value:

- Evidential value – the elements of a historic asset that can provide evidence about past human activity, including physical remains, historic fabric, documentary/pictorial records. This evidence can provide information on the origin of the asset, what it was used for, and how it changed over time.
- Historical value (illustrative) – how a historic asset may illustrate its past life, including changing uses of the asset over time.
- Historical value (associative) – how a historic asset may be associated with a notable family, person, event, or moment, including changing uses of the asset over time.
- Aesthetic value – the way in which people draw sensory and intellectual stimulation from a historic asset. This may include its form, external appearance, and its setting, and may change over time.
- Communal value – the meaning of a historic asset to the people who relate to it. This may be a collective experience, or a memory, and can be commemorative or symbolic to individuals or groups, such as memorable events, attitudes, and periods of history. This

includes social values, which relates to the role of the historic asset as a place of social interactive, distinctiveness, coherence, economic, or spiritual / religious value.

Effects upon heritage assets

Heritage benefit

The NPPF clarifies that change in the setting of heritage assets may lead to heritage benefit. Paragraph 219 of the NPPF (2024) notes that 'Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably'.

GPA3 notes that 'good design may reduce or remove the harm, or provide enhancement' (Paragraph 28). Historic England's 'Conservation Principles' states that 'Change to a significant place is inevitable, if only as a result of the passage of time, but can be neutral or beneficial in its effects on heritage values. It is only harmful if (and to the extent that) significance is reduced' (Paragraph 84).

Specific heritage benefits may be presented through activities such as repair or restoration, as set out in Conservation Principles.

Heritage harm to designated heritage assets

The NPPF (2024) does not define what constitutes 'substantial harm'. The High Court of Justice does provide a definition of this level of harm, as set out by Mr Justice Jay in *Bedford Borough Council v SoS for CLG and Nuon UK Ltd*. Paragraph 25 clarifies that, with regard to 'substantial harm': 'Plainly in the context of physical harm, this would apply in the case of demolition or destruction, being a case of total loss. It would also apply to a case of serious damage to the structure of the building. In the context of non-physical or indirect harm, the yardstick was effectively the same. One was looking for an impact which would have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced'.

Effects upon non-designated heritage assets

The NPPF (2024) paragraph 216 guides that 'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgment will be required having regard to the scale of any harm or loss and the significance of the heritage asset'.

Hedgerows Regulations, 1997

The 1997 Hedgerows Regulations were made under section 97 of the Environment Act 1995, and introduced arrangements for Local Planning Authorities to protect 'important' hedgerows in the countryside, by controlling their removal through a system of notification. The DEFRA publication 'The Hedgerows Regulations 1997: A Guide to the Law and Good Practice' is a useful guide in this respect. The Regulations provide criteria for assessing whether a hedgerow is 'important' for the purposes of the Regulations. To qualify as 'important' a hedgerow must have existed for 30 years or more and following this must fulfil at least one of the criteria in the Schedule 1 criteria. Those for 'archaeology and history' comprise Part II, namely:

1. The hedgerow marks the boundary, or part of the boundary, of at least one historic parish or township; and for this purpose "historic" means existing before 1850.

2. The hedgerow incorporates an archaeological feature which is-
   (a) included in the schedule of monuments compiled by the Secretary of State under section 1 (schedule of monuments) of the Ancient Monuments and Scheduled Areas Act 1979**(g)**; or
   (b) recorded at the relevant date in a Sites and Monuments Record [Historic Environment Records have largely replaced Sites and Monuments Records].
3. The hedgerow-
   (a) is situated wholly or partly within an archaeological site included or recorded as mentioned in paragraph 2 or on land adjacent to and associated with such a site; and
   (b) is associated with any monument or feature on that site.
4. The hedgerow-
   (a) marks the boundary of a pre-1600 AD estate or manor recorded at the relevant date in a sites and Monuments Record or on a document held at that date at a Record Office; or
   (b) is visibly related to any building or feature of such an estate or manor.
5. The hedgerow-
   (a) is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure acts**(a)**; or
   (b) is part of, or visibly related to, any building or other feature associated with such a system, and that system-
      (i) is substantially complete; or
      (ii) is of a pattern which is recorded in a document prepared before the relevant date by a local planning authority, within the meaning of the 1990 Act(b), for the purposes of development control within the authority's area, as a key landscape characteristic

The criterion of point five is the subject of debate and differing interpretation. Some heritage professionals interpret the criterion referring to the individual Inclosure Act for the parish in which a site is located, and numerous Acts were made in the 18th century (including the 1773 Inclosure Act). However, the criterion references the Short Titles Act of 1896, and it is commonly interpreted by LPAs and heritage professionals that it thus refers to the Inclosure Act of 1845, and subsequent Acts up to the Commonable Rights Compensation Act of 1882. This latter interpretation sets a date of 1845 as the benchmark test.

'Important' hedgerows are not designated heritage assets (as defined in NPPF Annex 2). The Regulations are essentially a notification mechanism. Thus an applicant needs to notify the LPA prior to the removal, either entirely or in part, of an 'important' hedgerow. There is a prescribed form of notice set out in Schedule 4 to the Regulations, although the form an LPA uses does not have to follow this. The requirement is for sufficient information to be given to the LPA for them to consider the proposed removal.

APPENDIX 2: GAZETTEER OF SELECTED RECORDED HERITAGE ASSETS

Archaeological Remains

CA Ref	Description	Period	HER/*HEA* Ref.	Easting	Northing
1	Findspot, Sessay	Neolithic	MNY12373	446000	472000
2	Findspot, Sessay	Neolithic to Bronze Age	MNY17	444700	475200
3	Perf axe hammer (?); Stone axe	Neolithic	*55383*	448500	471500
4	Macehead and stone axes	Neolithic	*55414*	446500	472500
5	A "neolithic celt" was reportedly found amongst rubble from the house which was "once the residence of the Darells of Sessay" (probably SE 47 SE 1).	Neolithic	*55415*	446500	474500
6	A Bronze Age palstave and a Neolithic flint axe were found circa 1939. Both are apparently in the Yorkshire Museum. See also SE 47 NW 6.	Neolithic to Bronze Age	*55355*	444500	475500
7	Findspot, Sessay	Neolithic to Bronze Age	MNY16	444700	475200
8	Reported finds from Coldharbour Farm include a Bronze Age flanged axe and a flint arrowhead. See SE 47 NW 7 for a possible duplication.	Bronze Age	*55352*	444500	475500
9	Roman Road, from Thirsk to the River Tees	Roman	MNY190	446306	478849
10	Possible Roman Road, Dalton	Roman to Medieval	MNY4	444502	475656
11	Giant's Grave	Bronze Age to Iron Age	MNY89	444000	473000
12	A field system of probable Iron Age/Roman date is visible as cropmarks on air photographs.	Iron Age to Roman	*1576048*	447490	473750
13	Field System of possible Iron Age or Roman date, Briar Hill Farm - Throstle Nest, Thormanby	Iron Age to Roman	MNY185	448114	473419

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CA Ref	Description	Period	HER/*HEA* Ref.	Easting	Northing
14	A cropmark complex of field boundaries and trackways of probable Iron Age or Roman date are visible on air photographs. The cropmarks are very intermittent in nature though there appear to be associations where features abut. Most of the ditched features	Iron Age to Roman	*1571619*	450150	474300
15	A cropmark enclosure, trackway and boundaries of uncertain date, Fultons - Briar Hill Farm, Thormanby	Prehistoric to Modern	MNY184	447857	474489
16	Possible Roman building or structure with Roman finds and undated human bone	Roman	MNY167	449320	474560
17	Roman Coin hoard at Birdforth Hall	Roman	MNY58	448600	475700
18	'Roman remains' found at Burrows Hill.	Roman	*55413*	448500	471500
19	Excavation revealed foundations of a stone-built circular building, Roman tegula and pottery; Medieval potsherds. A possible moat was revealed by drainage work.	Roman	*55410*	449320	474560
20	Roman road	Roman Road	*1029995*	439861	493265
21	Little Sessay	Medieval	MNY140	446770	474850
22	Deer Park	Medieval	MNY145	445000	474000
23	Earthwork and cropmark remains of Medieval cultivation visible on aerial photographs.	Medieval	*1432097*	445450	475330
24	Park, Raskelf	Medieval	MNY163	447702	470626
26	The earthwork remains of Sessay deserted medieval village and the site of a 12th/14th century church.	Medieval	*55404*	446770	474850
27	Fawdington	Medieval	MNY117	443600	472900
28	Field Boundary, Sessay	Post-medieval to Modern	MNY4459	447730	475250

CA Ref	Description	Period	HER/*HEA* Ref.	Easting	Northing
29	Field Boundary, Sessay	Post-medieval to Modern	MNY4459	447390	475510
30	Field Boundary, Sessay	Post-medieval to Modern	MNY4459	447380	475780
31	Field Boundary, Sessay	Post-medieval to Modern	MNY4459	446920	475400
32	Field Boundary, Birdforth	Post-medieval to Modern	MNY4460	447890	475910
33	Field Boundary, Thormanby	Post-medieval to Modern	MNY4461	449180	475600
34	Field Boundary, Thormanby	Post-medieval to Modern	MNY4461	449140	475410
35	Field Boundary, Thormanby	Post-medieval to Modern	MNY4461	449090	475540
36	Field Boundary, Sessay	Post-medieval to Modern	MNY51	444900	475500
37	Field System, Sessay	Post-medieval to Modern	MNY67	445650	474810
38	Field System, Sessay	Post-medieval to Modern	MNY67	445810	476010
39	Linear cropmarks indicating drainage or possible field boundaries	Post-medieval to Modern	MNY4492	449080	472470
40	Field System, Sessay	Post-medieval to Modern	MNY67	445480	476030
41	Field System, Sessay	Post-medieval to Modern	MNY67	445700	475450
42	Field System, Sessay	Post-medieval to Modern	MNY67	446130	475330
43	Field Boundary, Sessay	Post-medieval to Modern	MNY68	445700	475450
44	Drainage Ditch, Sessay	Post-medieval to Modern	MNY183	446350	474250
45	Malton Branch of the York, Newcastle and Berwick Railway	Modern	MNY11438	463153	477211
46	Boroughbridge Branch Railway	Modern	*53582*	443687	470597

CA Ref	Description	Period	HER/*HEA* Ref.	Easting	Northing
47	Great North Of England Railway	Modern	*1375367*	441711	480472
48	Site of railway station on the Great North of England Railway opened in 1847 and closed in 1958.	Modern	*497526*	446259	473338
49	A Second World War bombing decoy at Raskelf, which was built to deflect enemy bombing from Royal Air Force Dishforth airfield. This was a 'Q-type' decoy that displayed a series of lights simulating an active airfield. It later became a decoy for Royal Ai	Second World War	*1464322*	448800	472300
50	Urchin Head farmstead	Post-medieval to Modern		447988	474027
51	Mound - possibly long or round barrow - alleged to have contained an inhumation accompanied by a weapon "like a scythe"	Bronze Age	*55424*	444500	473500
52	A Bronze Age flanged bronze axe from Sessay is in Hull Museum.	Bronze Age	*55314*	445500	475500
-	Sessay Hall Church (Site of?)	Medieval	MNY142	446680	474780
-	Sessay Hall	Medieval	MNY144	446680	474780
-	Cross, Sessay	Medieval	MNY146	446420	474710
-	Trackway, Brafferton	Undated	MNY186	445720	472700
-	Church Lane Bridge over Birdforth Beck	Medieval	MNY23520	446396	474678
-	Aircraft crash site, Halifax, Serial number LW396, near Raskelf	Second World War	MNY26903	448400	472600
-	Aircraft crash site, Lancaster, Serial number DS621, at Pilmoor	Second World War	MNY26953	444900	472300
-	Aircraft crash site,Halifax, Serial number EB220, near Sessay	Second World War	MNY27015	445300	475400
-	Milepost on east side A19, south of New Road	Modern	MNY36558	449844	472716
-	Milepost on east side of the centre of Birdforth Bridge (A19)	Modern	MNY36559	448637	475697
-	Thormanby Mill	Modern	MNY37481	448514	475029
-	Ox Close Farmhouse	Modern	MNY40437	446403	473620
-	Ridge and furrow north of Highfield Farm	Medieval to Post-medieval	MNY37079	446582	476080

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CA Ref	Description	Period	HER/*HEA* Ref.	Easting	Northing
-	Site of railway station on the Great North of England Railway opened in 1841, closed to passengers in 1958 and closed entirely in 1964.	Modern	*501065*	444631	476112
-	Discrete blocks of medieval and/or post medieval ridge and furrow are visible as earthworks and cropmarks on historic air photos. Most of these remains appear to have been levelled on more recent air photos.	Medieval to Post-medieval	*1524857*	443180	472296
-	Possible medieval ridge and furrow in the parish of Eldmire with Crakehill is visible as earthwork on historic vertical air photographs but appears to have been levelled on more recent vertical air photographs.	Medieval to Post-medieval	*1478506*	442851	475207
-	Possible Medieval field system (ridge and furrow) seen as earthworks.	Medieval to Post-medieval	*1030906*	450698	474280

Designated Heritage Assets

CA Ref	Description	NHLE Ref. / *DNY Ref.*	Grade / Designation	Easting	Northing
A	Church of St Cuthbert	1190725	II*	446425	474729
B	Throstle Nest	1190704	II	448201	473087
C	Barn approximately 30m to North of Woodend	1150696	II	447236	473863
D	Little Sessay Conservation Area	*DNY20283*	Conservation Area	446229	474892
E	Bridge over River Birdforth Beck approximately 70m to north-west of New Mills	1315231	II	444354	473876
F	Barn at Thormanby Mill	1315212	II	448541	475032
G	Church of St Mary Magdalene	1191364	II*	449592	474968
H	Woodmans House Farmhouse	1293638	II	446988	473456
-	Pilmoor Cottages	1109667	II	446683	472707
-	Sessay Church of England School and Masters House	1150691	II	446408	474759
-	Cross approximately 5m to South-East of Porch of Church of St Cuthbert	1150692	II	446419	474717
-	Manor Farmhouse	1150693	II	445565	475526
-	Barn with attached Horse Engine House on North-West side of Farmyard at Village Farm	1150694	II	445787	475103

CA Ref	Description	NHLE Ref. / *DNY Ref.*	Grade / Designation	Easting	Northing
-	Honeysuckle Cottage and Path Head	1150695	II	445423	475673
-	The Manor House	1150723	II	447475	476144
-	Milepost, a Quarter of a Mile South of New Road at NGR SE 498725	1189523	II	449844	472716
-	Lychgate to Church of St Cuthbert	1190741	II	446412	474708
-	Bridge over Birdforth Beck approximately 60m to South-West of Church of St Cuthbert	1190749	II	446397	474678
-	Wall to Front Garden of Manor Farmhouse	1190781	II	445540	475534
-	The Old Rectory	1190794	II	446156	475117
-	The Old Rectory	1257990	II	449343	474851
-	Downe House Farmhouse	1293626	II	445688	475234
-	Hall Farmhouse	1315224	II	447613	476183
-	Churchyard Wall at Church of St Cuthbert	1315232	II	446465	474740
-	Barn with Engine House and Attached Cartshed Forming South-East Range of Farmyard at Manor Farm	1315233	II	445592	475487

Selected Previous Investigations

CA Ref	Description	HER Ref	Easting	Northing
E1	Picton - Shipton Overhead Transmission Lines AP Assessment	ENY3560	448119	473994
E2	Church Farm, Little Sessay	ENY1906	446660	474500
E3	Archaeological Evaluation. Field Walking. A19 Thormanby By-Pass	ENY5904	449383	474442
E4	Eldmire Ings Solar Farm. Geophysical Surveys	ENY7450	444754	475047
E5	Hutton Sessay WWTW	ENY2752	446408	476057

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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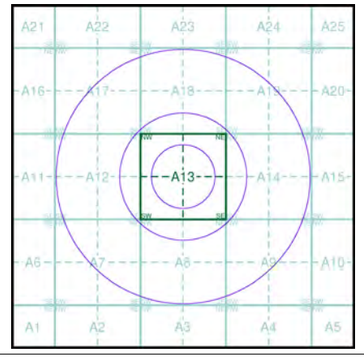
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1856	2
Yorkshire	1:10,560	1890 - 1893	3
Yorkshire	1:10,560	1913	4
Yorkshire	1:10,560	1952	5
Ordnance Survey Plan	1:10,000	1956	6
Ordnance Survey Plan	1:10,000	1975	7
Ordnance Survey Plan	1:10,000	1980 - 1981	8
10K Raster Mapping	1:10,000	1999	9
10K Raster Mapping	1:10,000	2006	10
VectorMap Local	1:10,000	2024	11

Historical Map - Slice A



Order Details

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Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 448110, 473870

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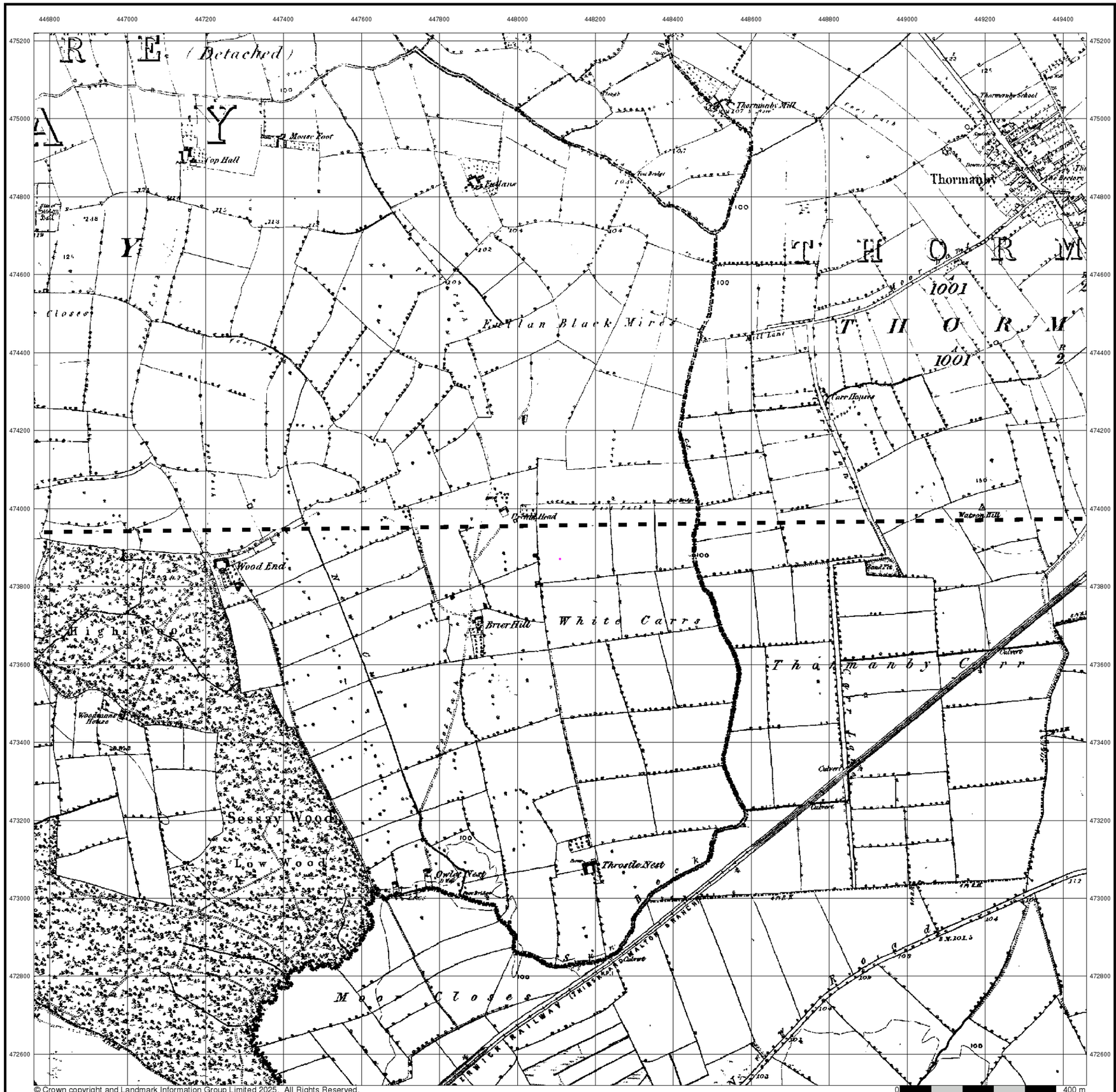
Web: www.envirocheck.co.uk



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Yorkshire

Published 1856

Source map scale - 1:10,560

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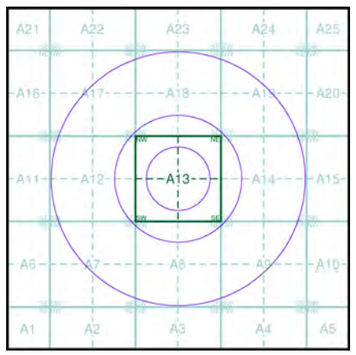
Map Name(s) and Date(s)

10400
1856
1:10,560

12100
1856
1:10,560

Historical Map - Slice A



Order Details

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Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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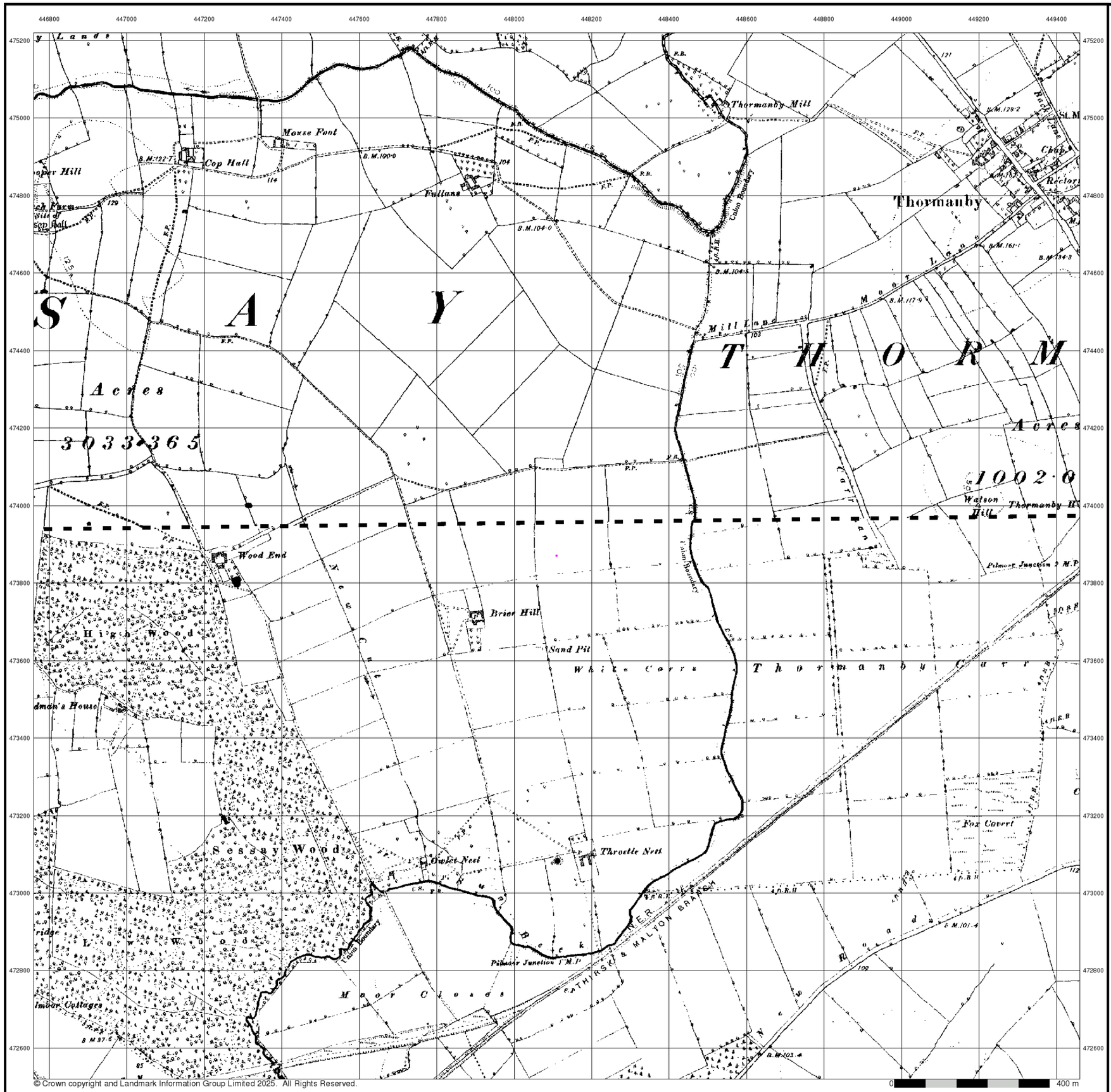

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Yorkshire

Published 1890 - 1893

Source map scale - 1:10,560

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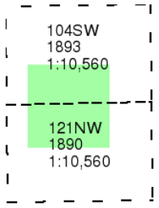
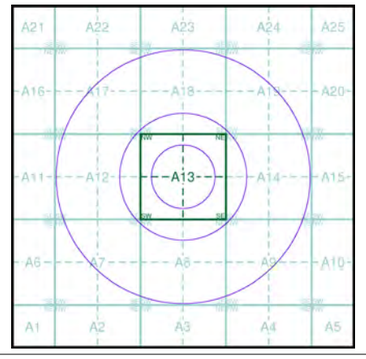
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
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Site Details

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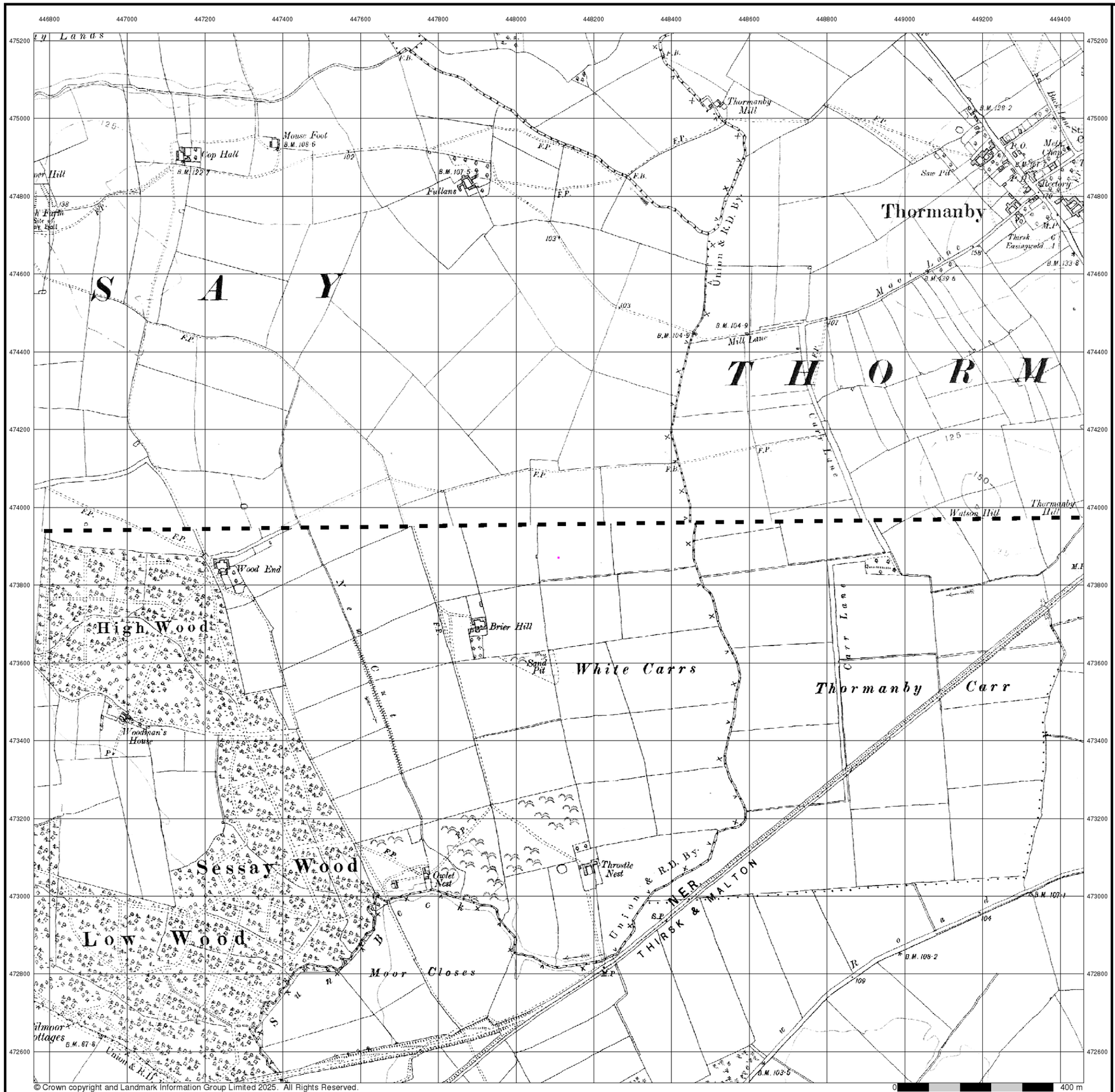

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0 400 m

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Yorkshire

Published 1913

Source map scale - 1:10,560

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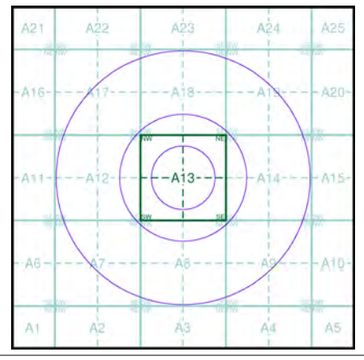
Map Name(s) and Date(s)

104SW
1913
1:10,560

121NW
1913
1:10,560

Historical Map - Slice A



Order Details

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Site Area (Ha):	0.01
Search Buffer (m):	1000

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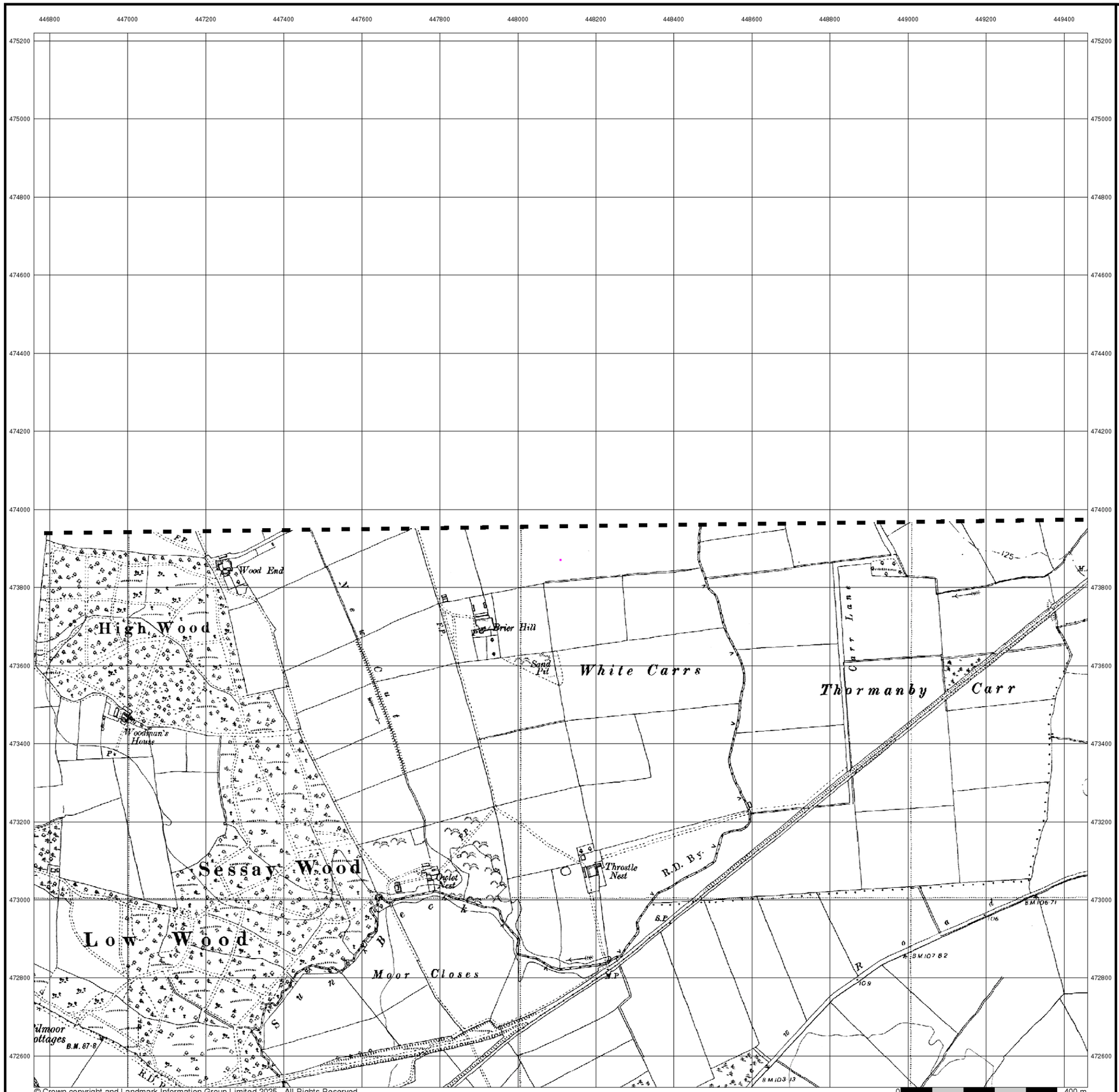

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Yorkshire

Published 1952

Source map scale - 1:10,560

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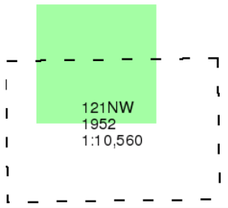
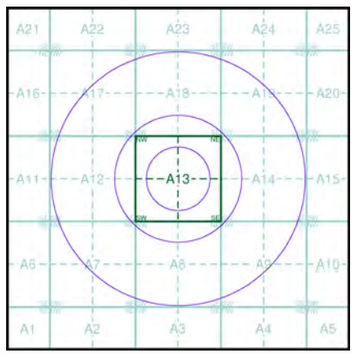
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Site Details

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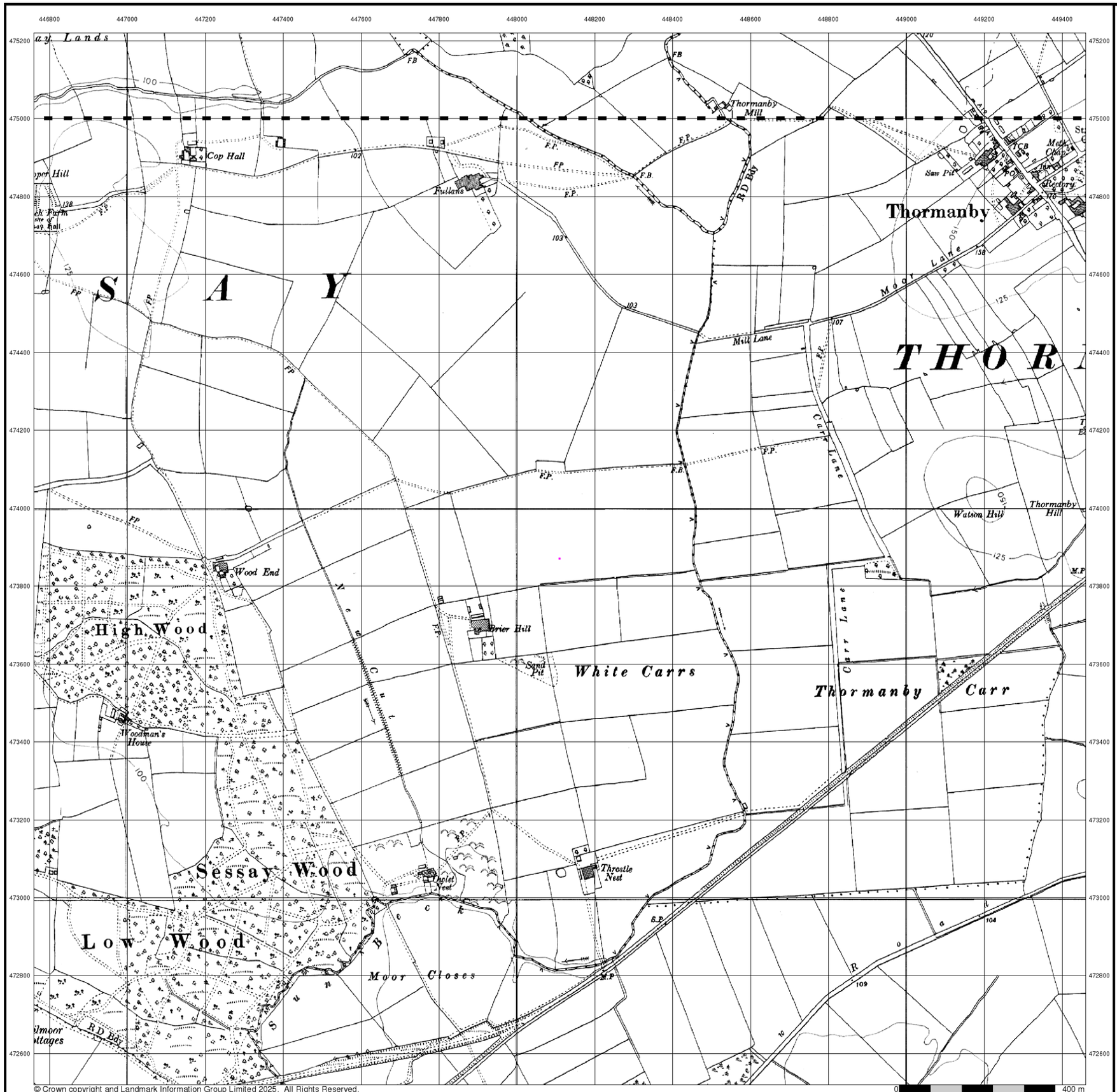

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Ordnance Survey Plan

Published 1956

Source map scale - 1:10,000

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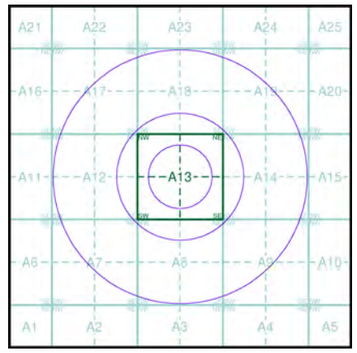
Map Name(s) and Date(s)

SE47NE
1956
1:10,560

SE47SE
1956
1:10,560

Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 448110, 473870

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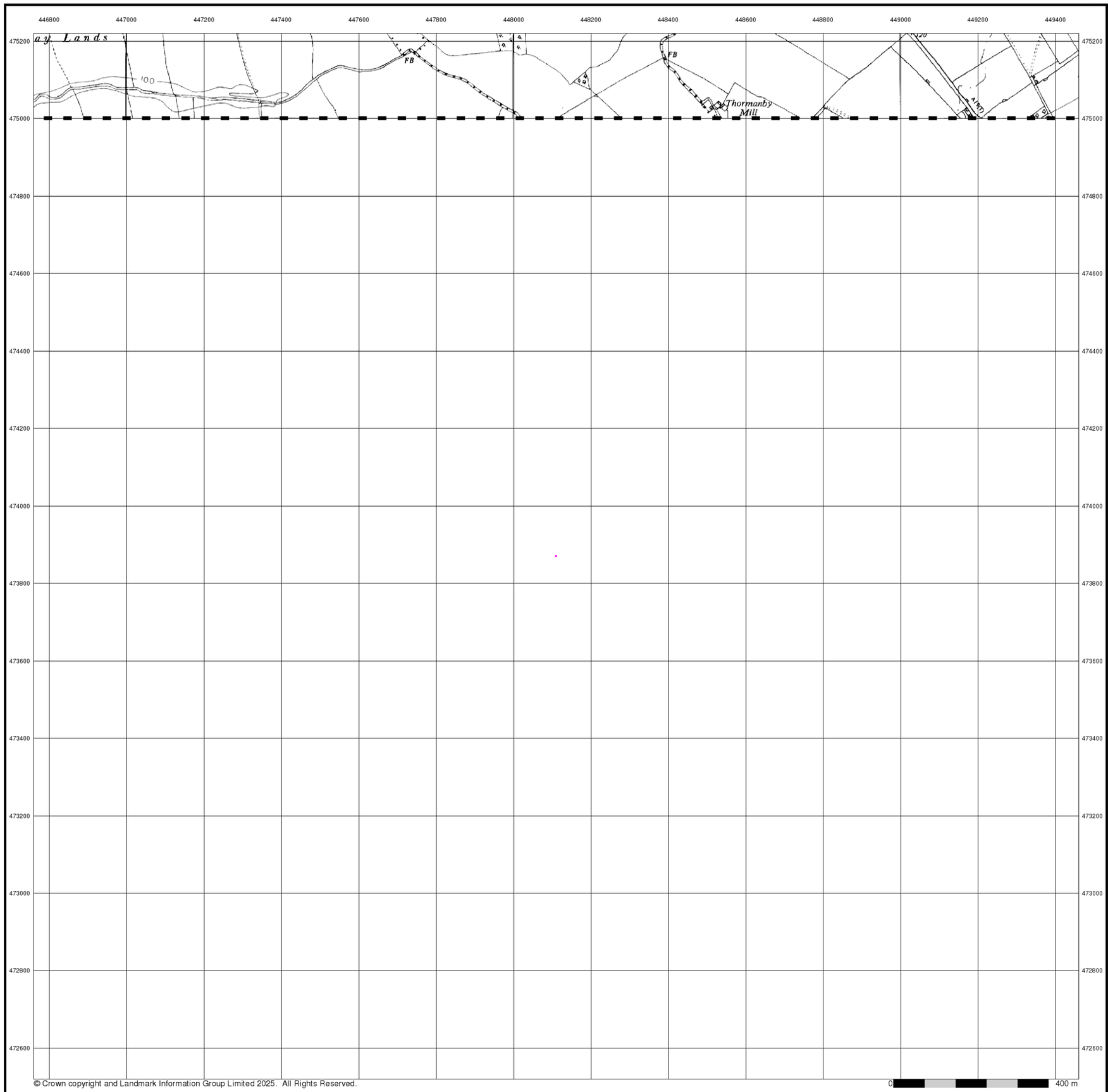

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Ordnance Survey Plan

Published 1975

Source map scale - 1:10,000

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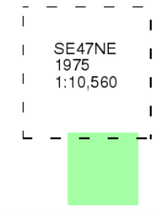
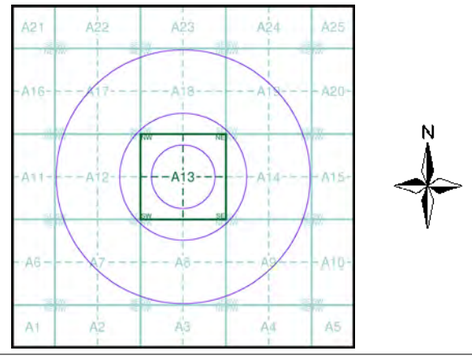
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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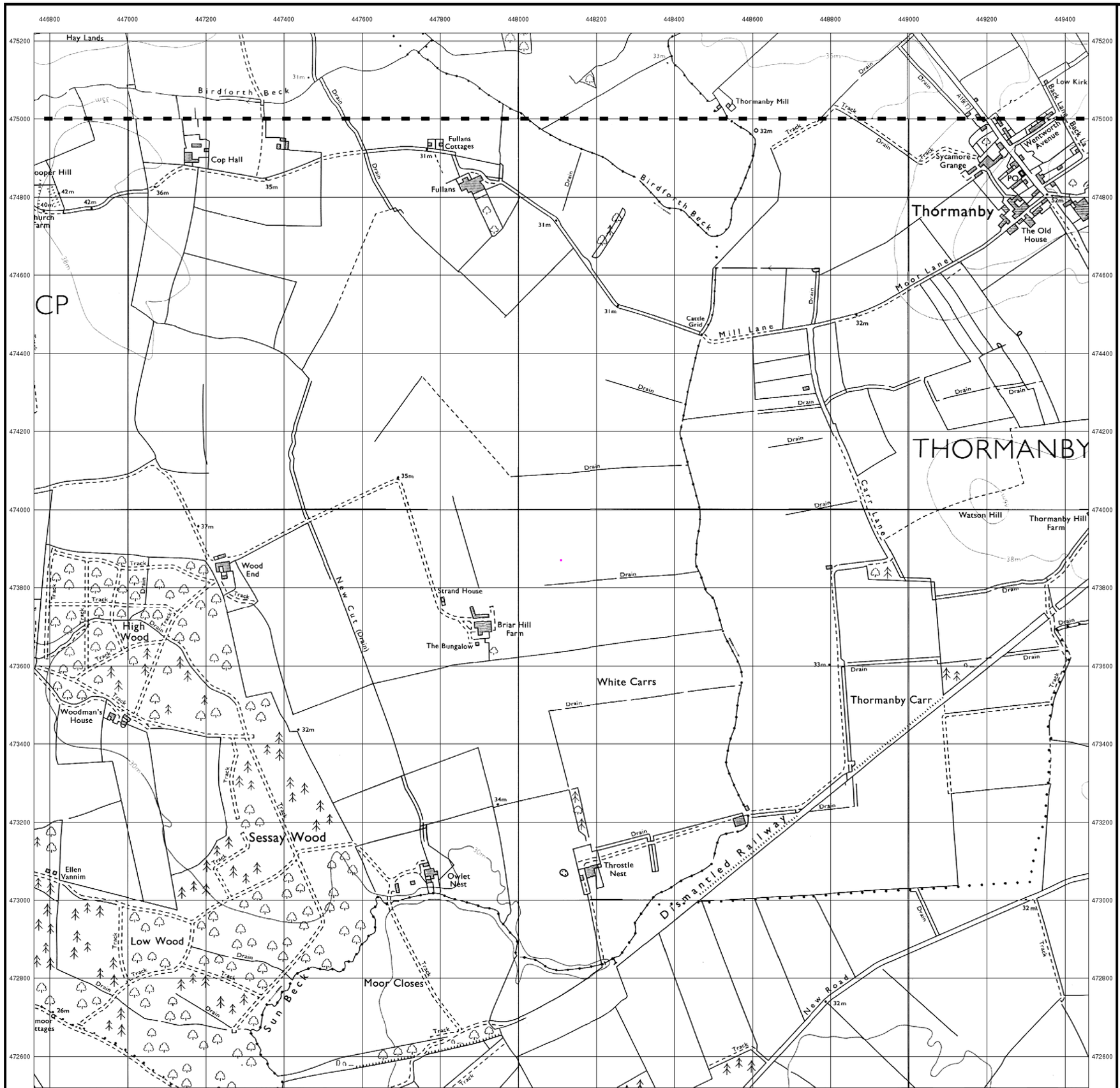

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Ordnance Survey Plan

Published 1980 - 1981

Source map scale - 1:10,000

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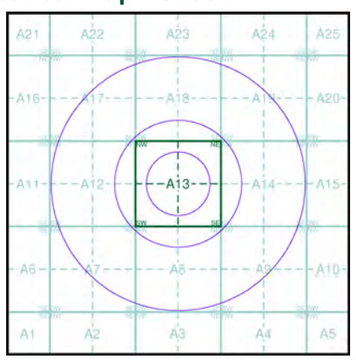
Map Name(s) and Date(s)

SE47NE
1981
1:10,000

SE47SE
1980
1:10,000

Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 448110, 473870

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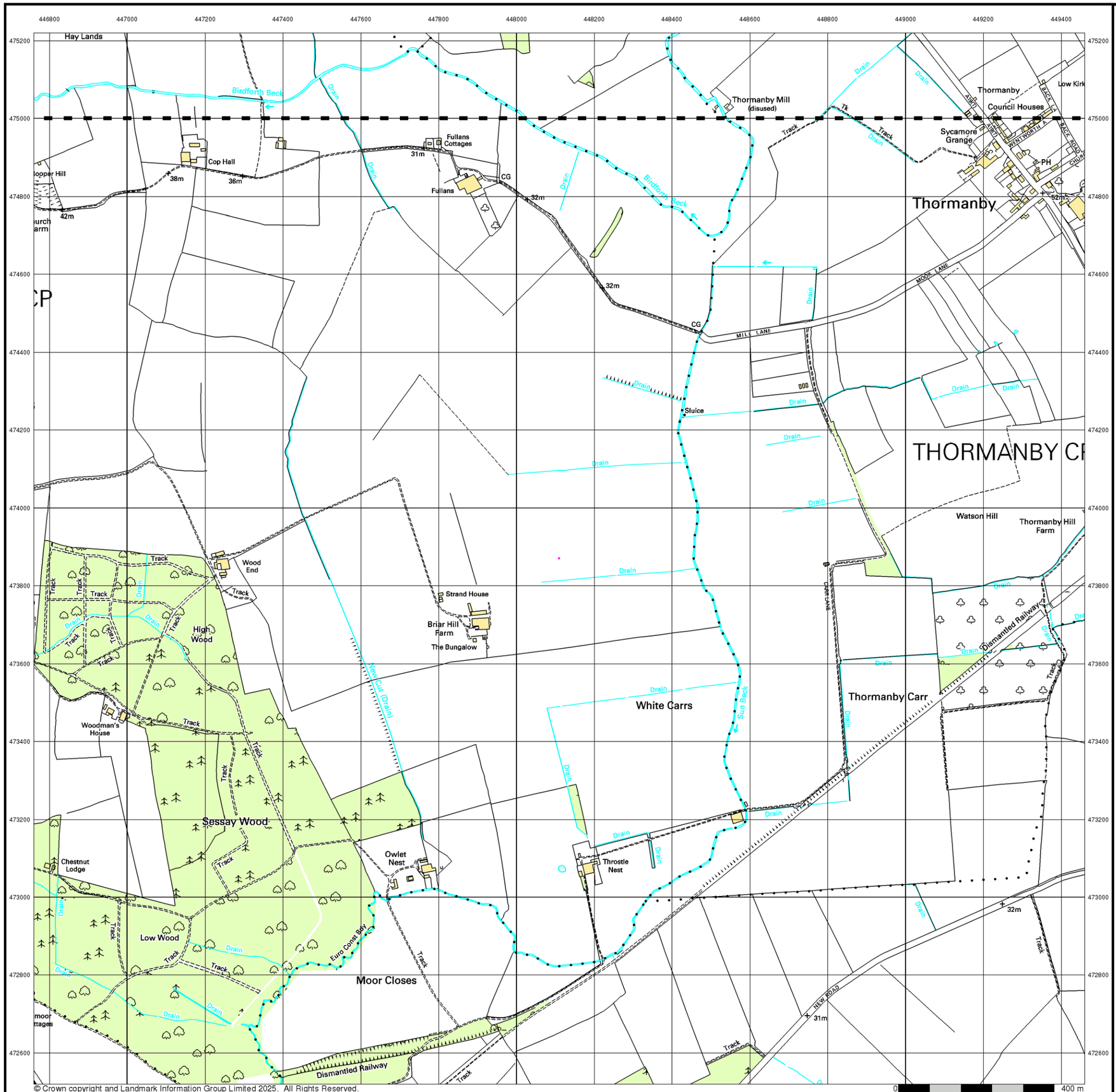

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0 400 m

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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

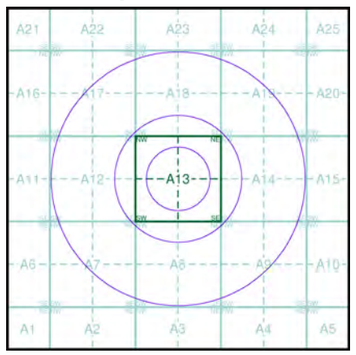
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE47NE
1999
1:10,000

SE47SE
1999
1:10,000

Historical Map - Slice A



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Search Buffer (m):	1000

Site Details

Site at 448110, 473870

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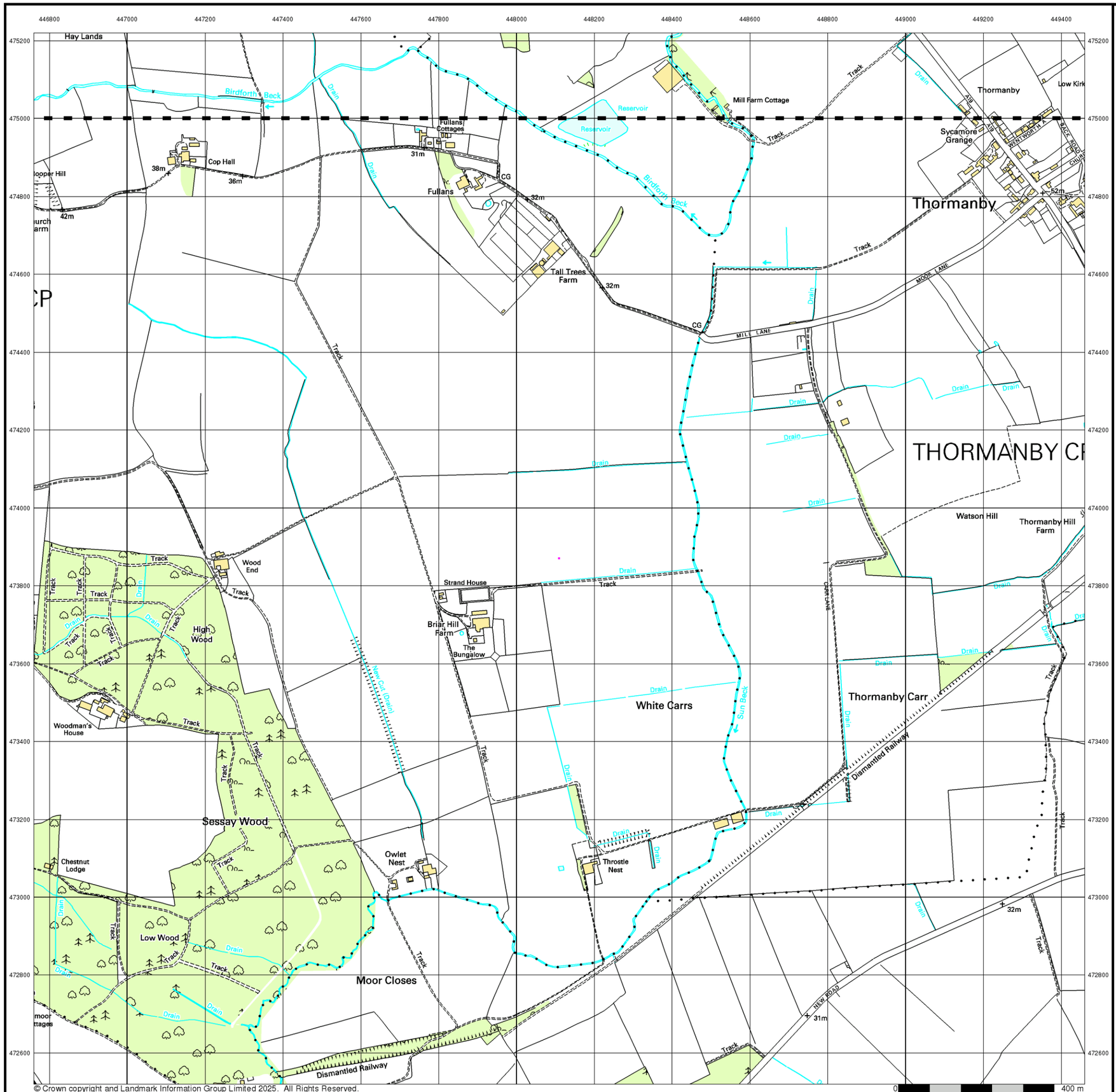

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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

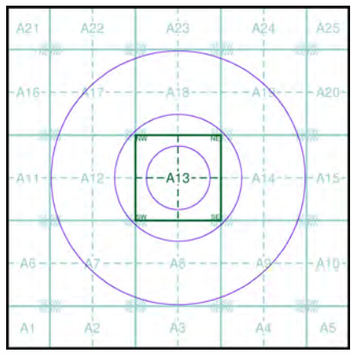
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE47NE 2006 1:10,000

SE47SE 2006 1:10,000

Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
Customer Ref:	MK1215
National Grid Reference:	448110, 473870
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 448110, 473870

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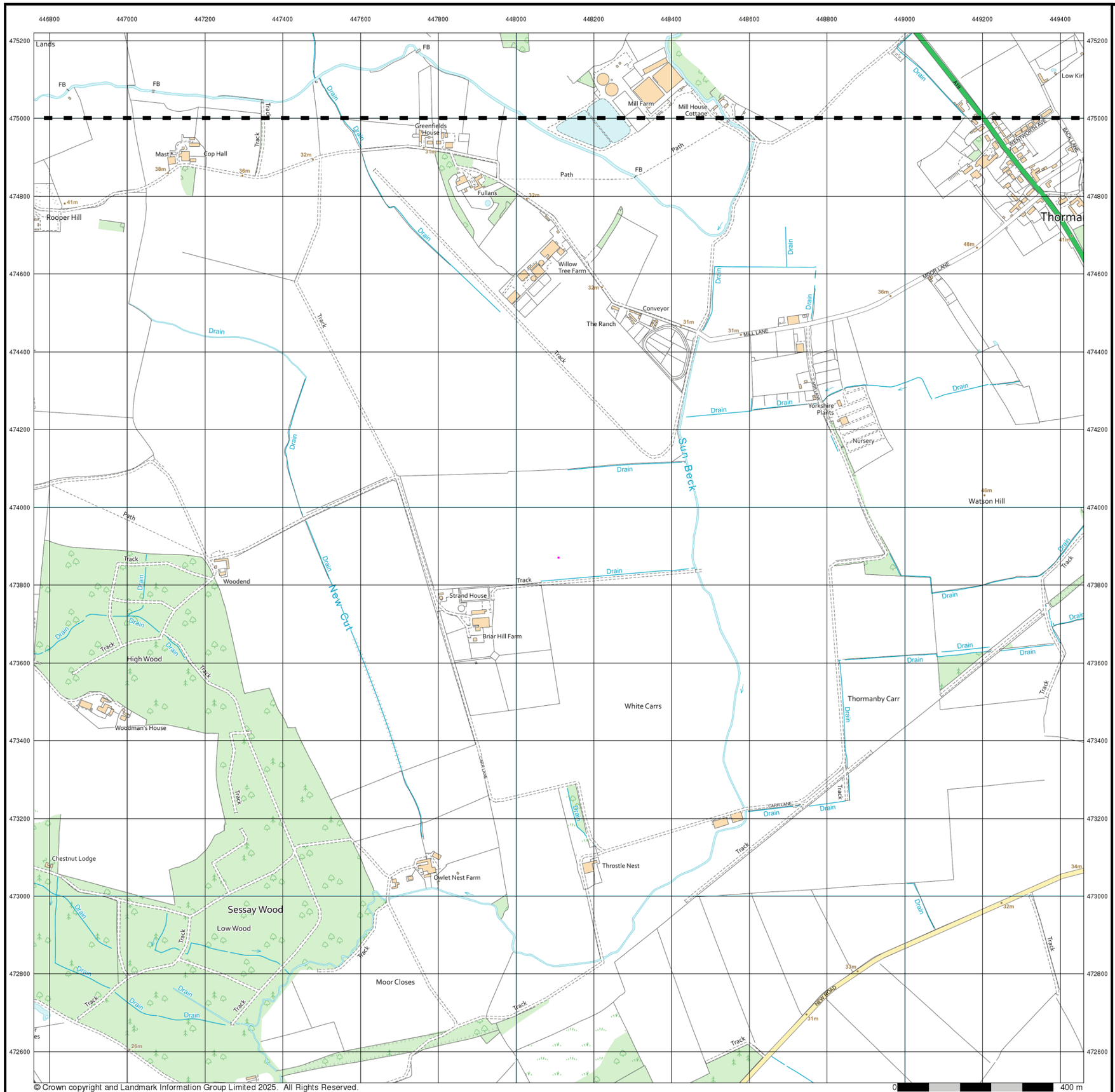

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VectorMap Local

Published 2024

Source map scale - 1:10,000

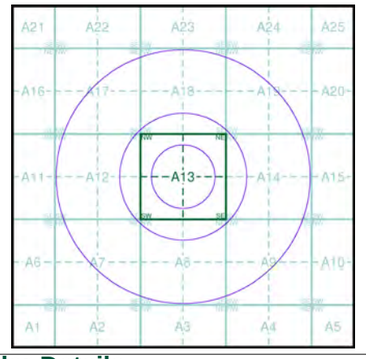
VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SE47NE
2024
Variable

SE47SE
2024
Variable

Historical Map - Slice A



Order Details

Order Number:	370876952_1_1
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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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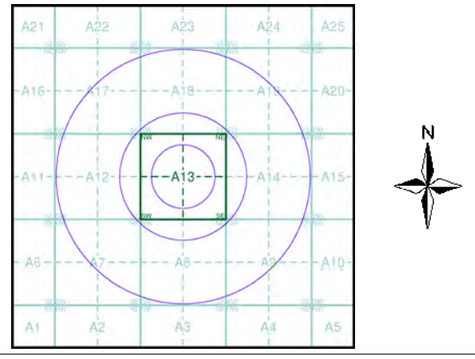
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854 - 1856	2
Yorkshire	1:10,560	1890 - 1893	3
Yorkshire	1:10,560	1912 - 1913	4
Yorkshire	1:10,560	1952	5
Ordnance Survey Plan	1:10,000	1956	6
Ordnance Survey Plan	1:10,000	1972 - 1975	7
Ordnance Survey Plan	1:10,000	1975	8
Ordnance Survey Plan	1:10,000	1980 - 1981	9
10K Raster Mapping	1:10,000	1999	10
10K Raster Mapping	1:10,000	2006	11
VectorMap Local	1:10,000	2024	12

Historical Map - Slice A



Order Details

Order Number: 370894331_1_1
Customer Ref: MK1215
National Grid Reference: 445200, 474110
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 445200, 474110

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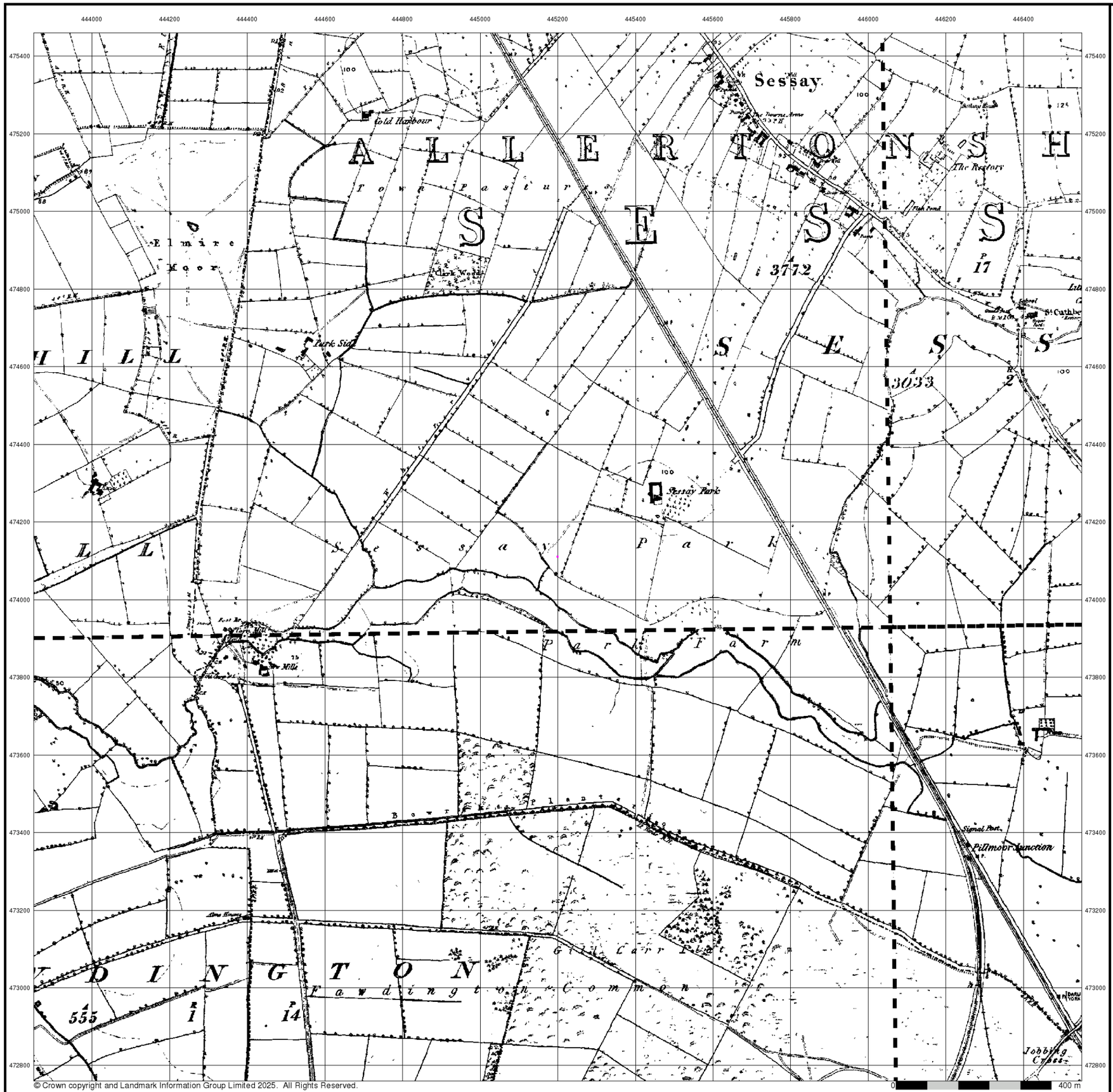

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Yorkshire

Published 1854 - 1856

Source map scale - 1:10,560

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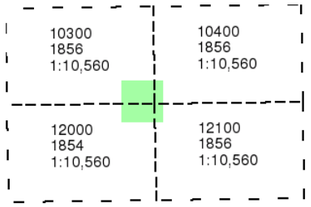
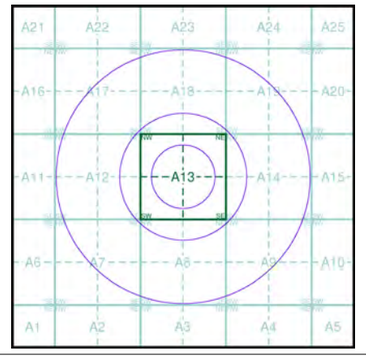
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Customer Ref:	MK1215
National Grid Reference:	445200, 474110
Slice:	A
Site Area (Ha):	0.01
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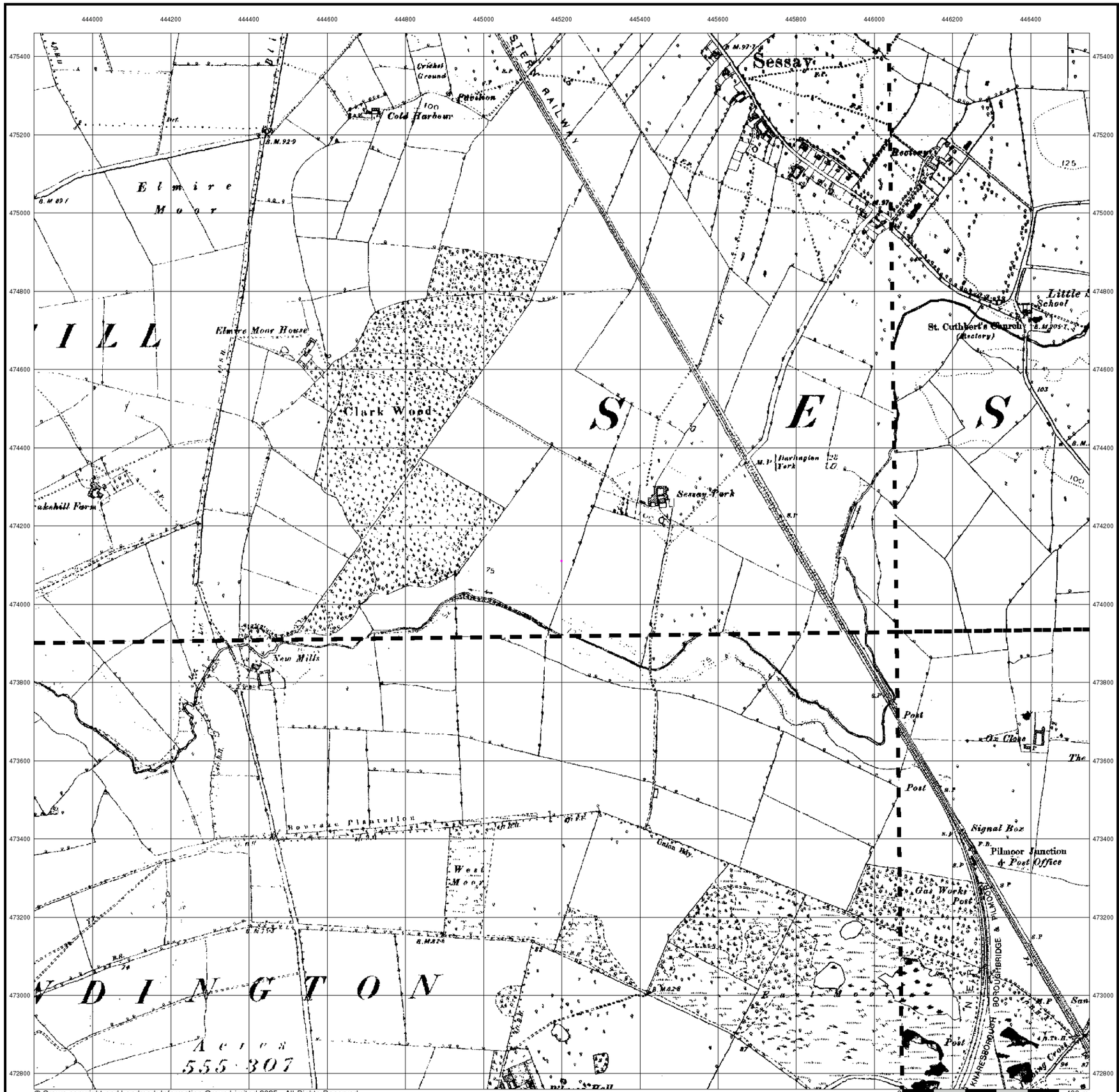

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Yorkshire

Published 1890 - 1893

Source map scale - 1:10,560

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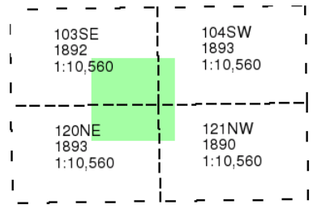
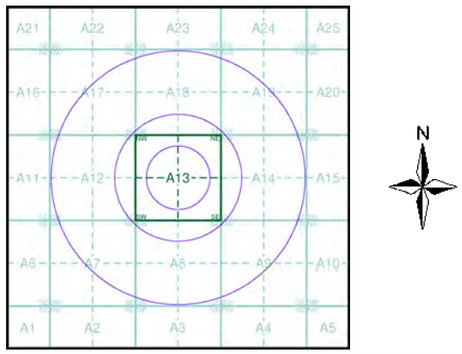
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	370894331_1_1
Customer Ref:	MK1215
National Grid Reference:	445200, 474110
Slice:	A
Site Area (Ha):	0.01
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Site Details

Site at 445200, 474110

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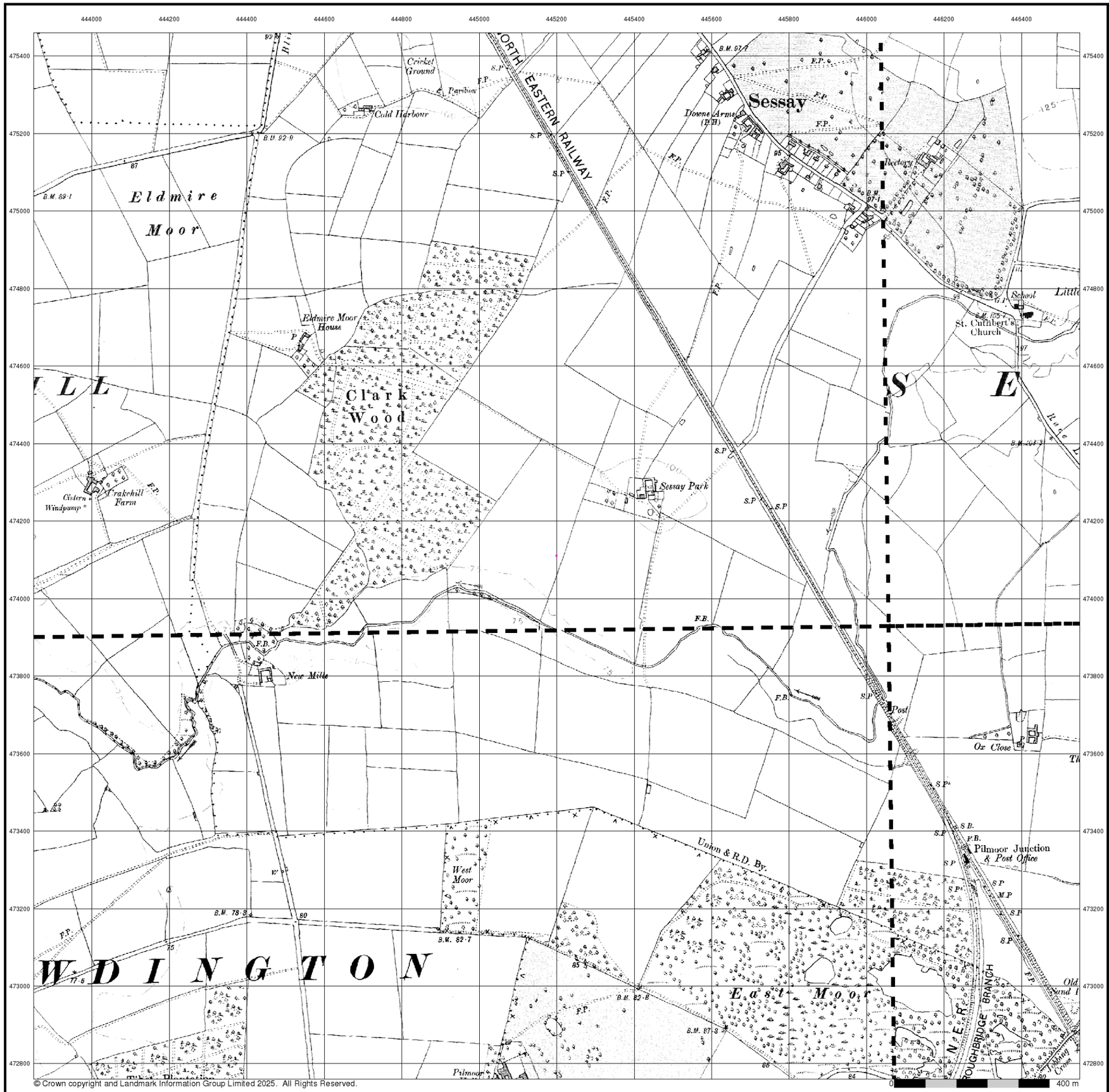

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Yorkshire

Published 1912 - 1913

Source map scale - 1:10,560

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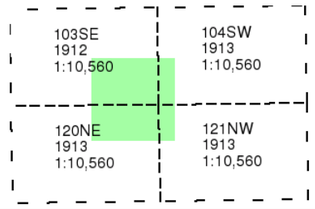
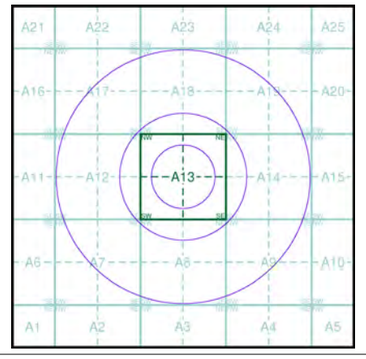
Map Name(s) and Date(s)



Historical Map - Slice A



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National Grid Reference:	445200, 474110
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Site Details

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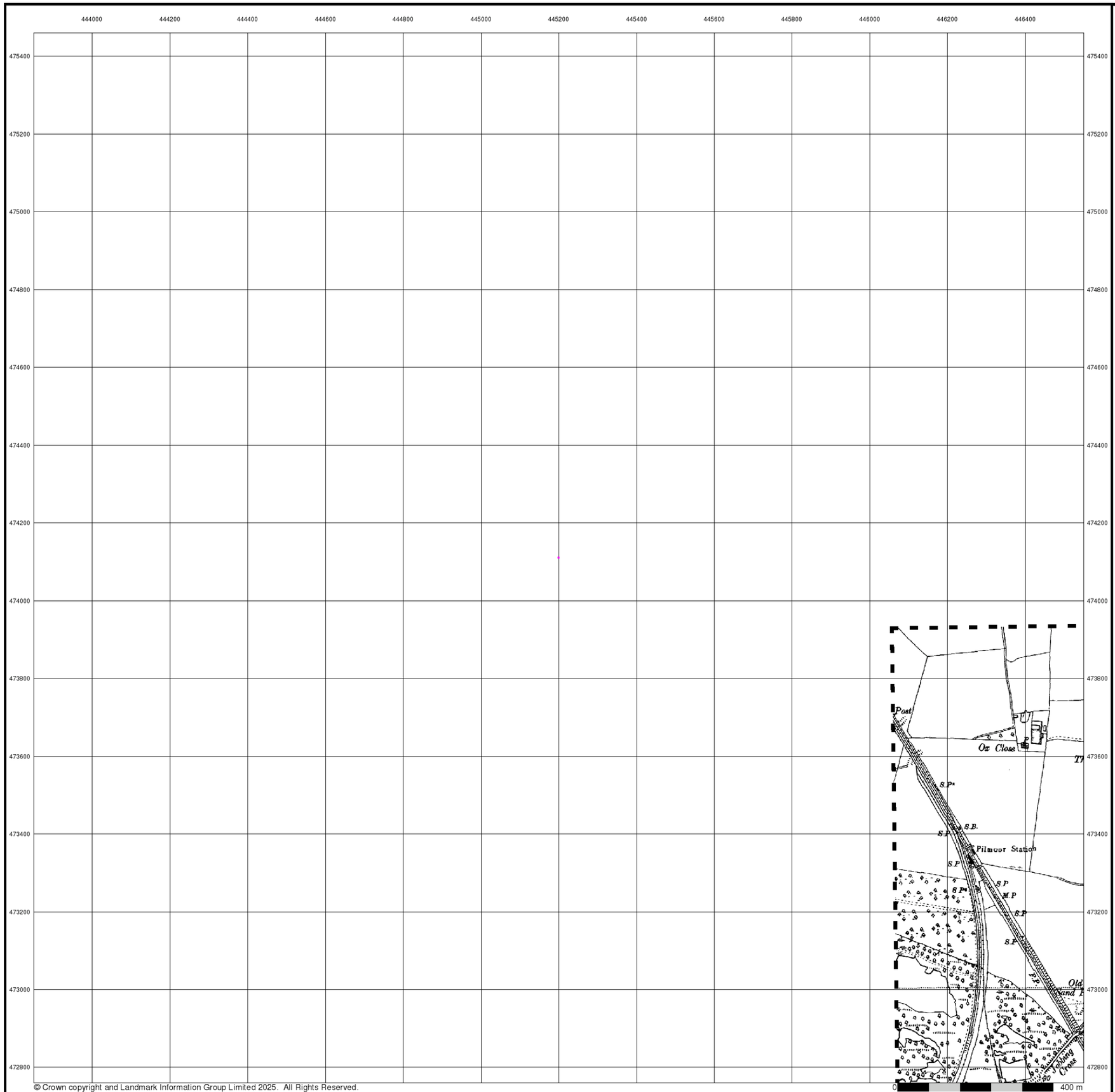

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Yorkshire

Published 1952

Source map scale - 1:10,560

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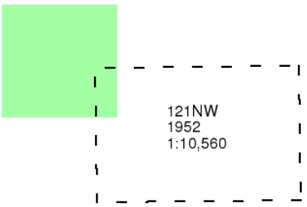
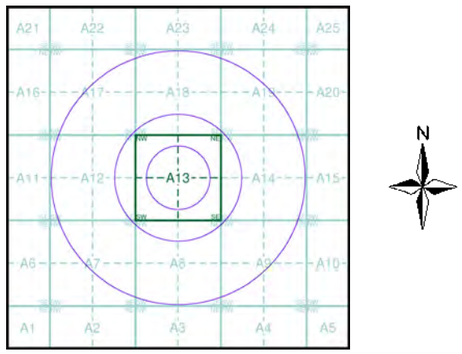


Historical Map - Slice A



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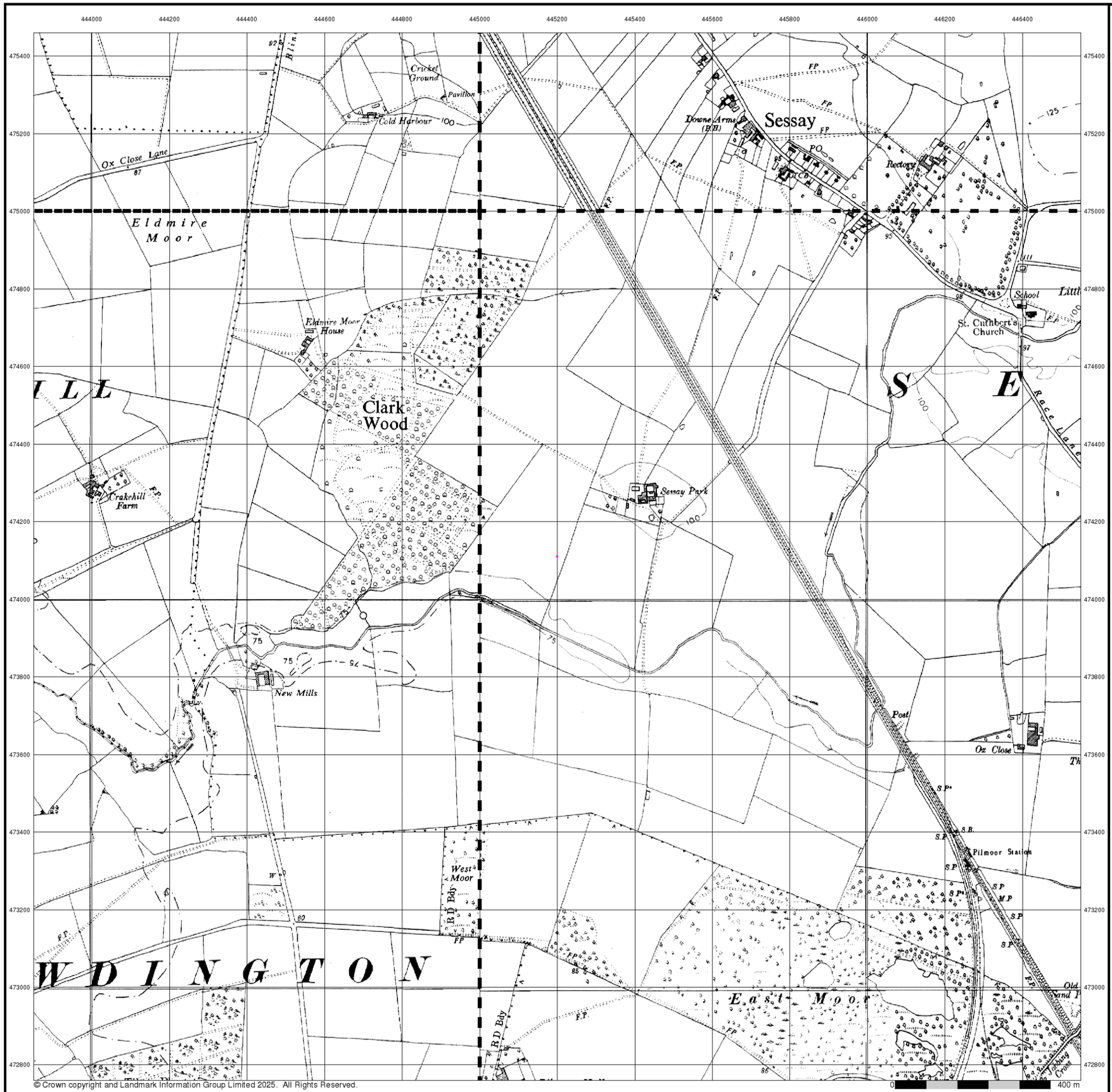

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Ordnance Survey Plan

Published 1956

Source map scale - 1:10,000

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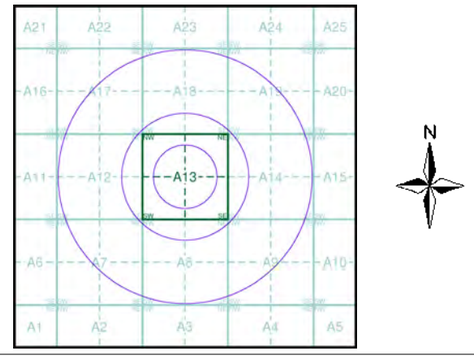
Map Name(s) and Date(s)

SE47NW 1956 1:10,560	SE47NE 1956 1:10,560
SE47SW 1956 1:10,560	SE47SE 1956 1:10,560

Historical Map - Slice A



Order Details

Order Number:	370894331_1_1
Customer Ref:	MK1215
National Grid Reference:	445200, 474110
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 445200, 474110

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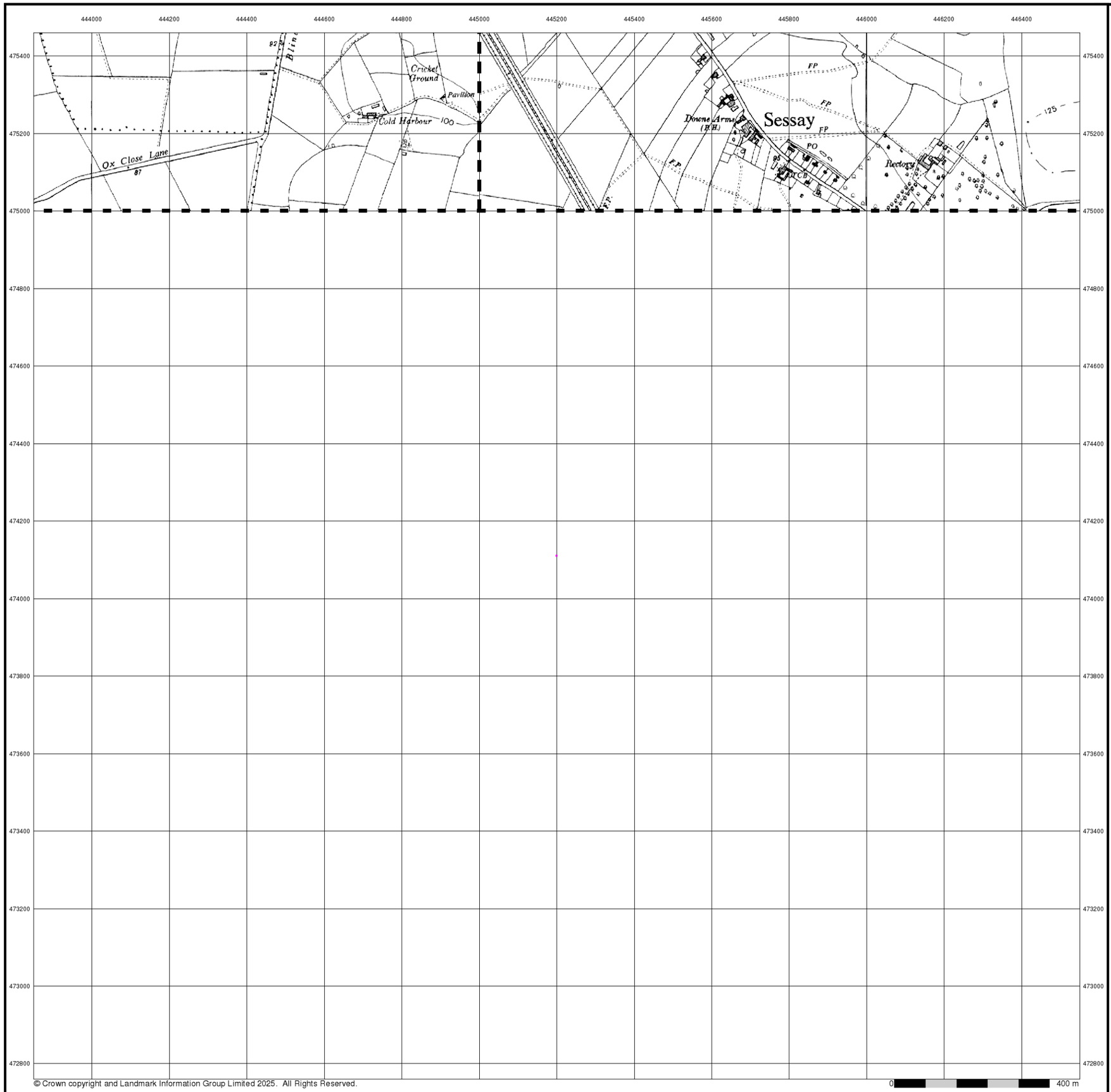

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Ordnance Survey Plan

Published 1972 - 1975

Source map scale - 1:10,000

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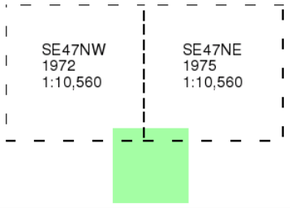
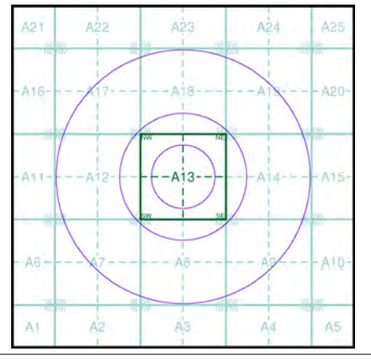
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Site Details

Site at 445200, 474110

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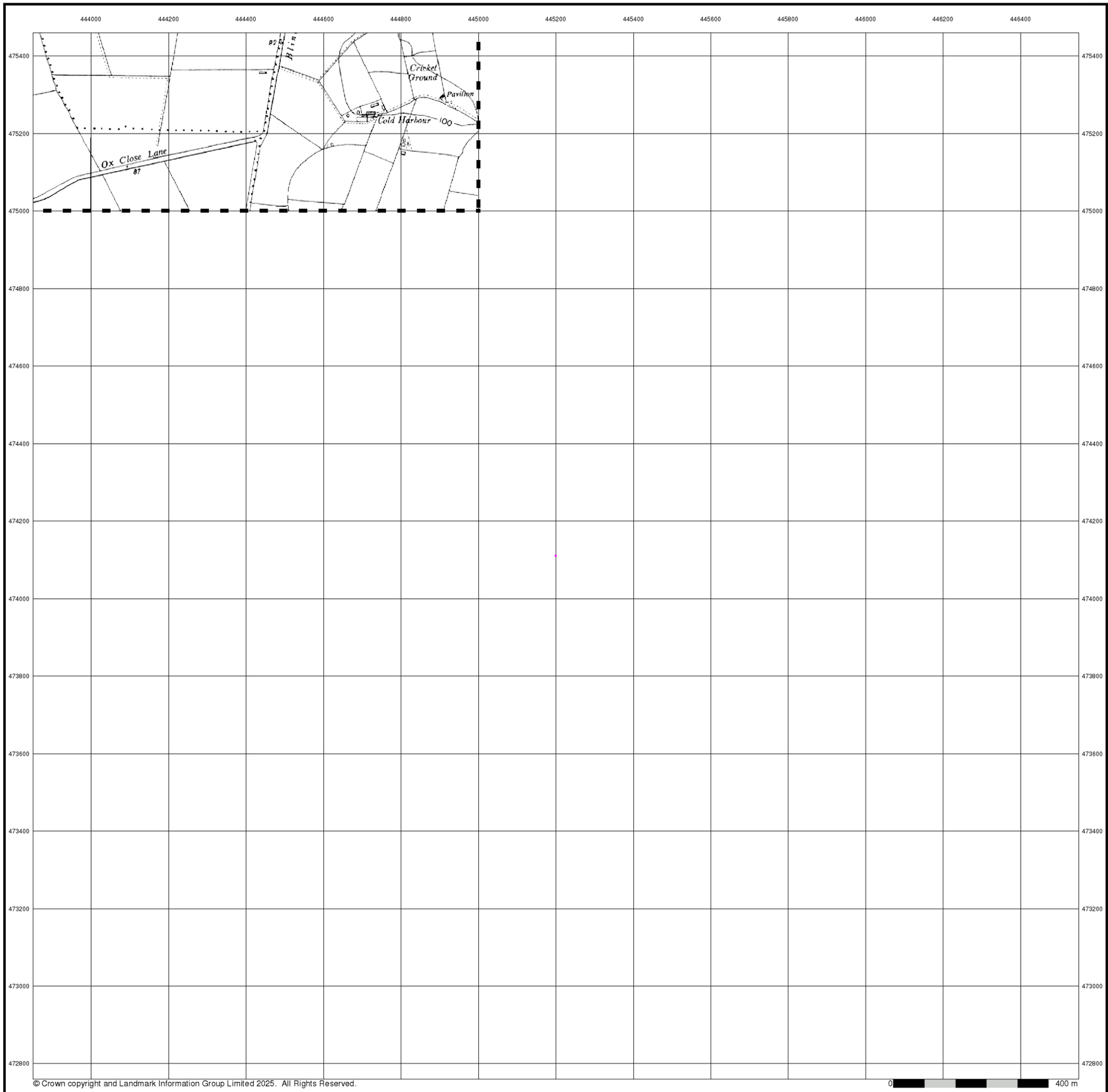

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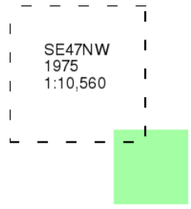
Ordnance Survey Plan

Published 1975

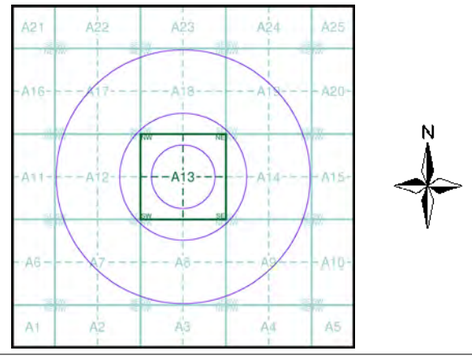
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Customer Ref:	MK1215
National Grid Reference:	445200, 474110
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 445200, 474110

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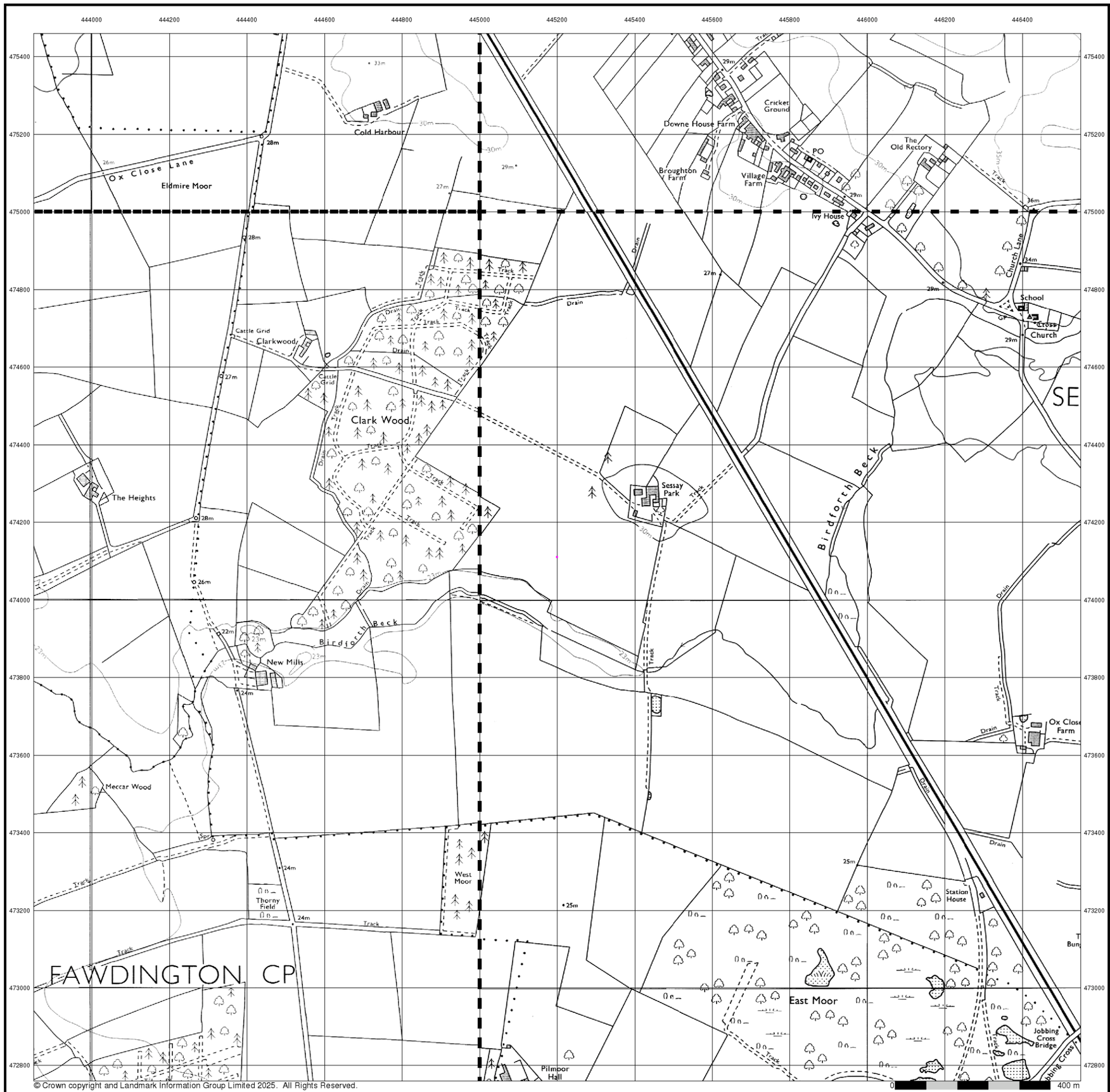

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Ordnance Survey Plan

Published 1980 - 1981

Source map scale - 1:10,000

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Map Name(s) and Date(s)

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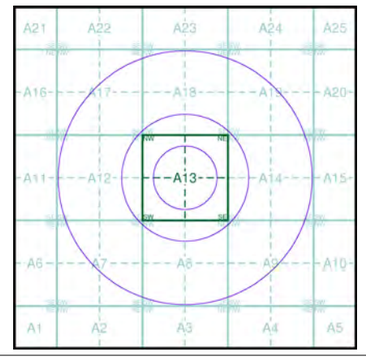
SE47SW 1980 1:10,000	SE47SE 1980 1:10,000

Historical Map - Slice A



Order Details

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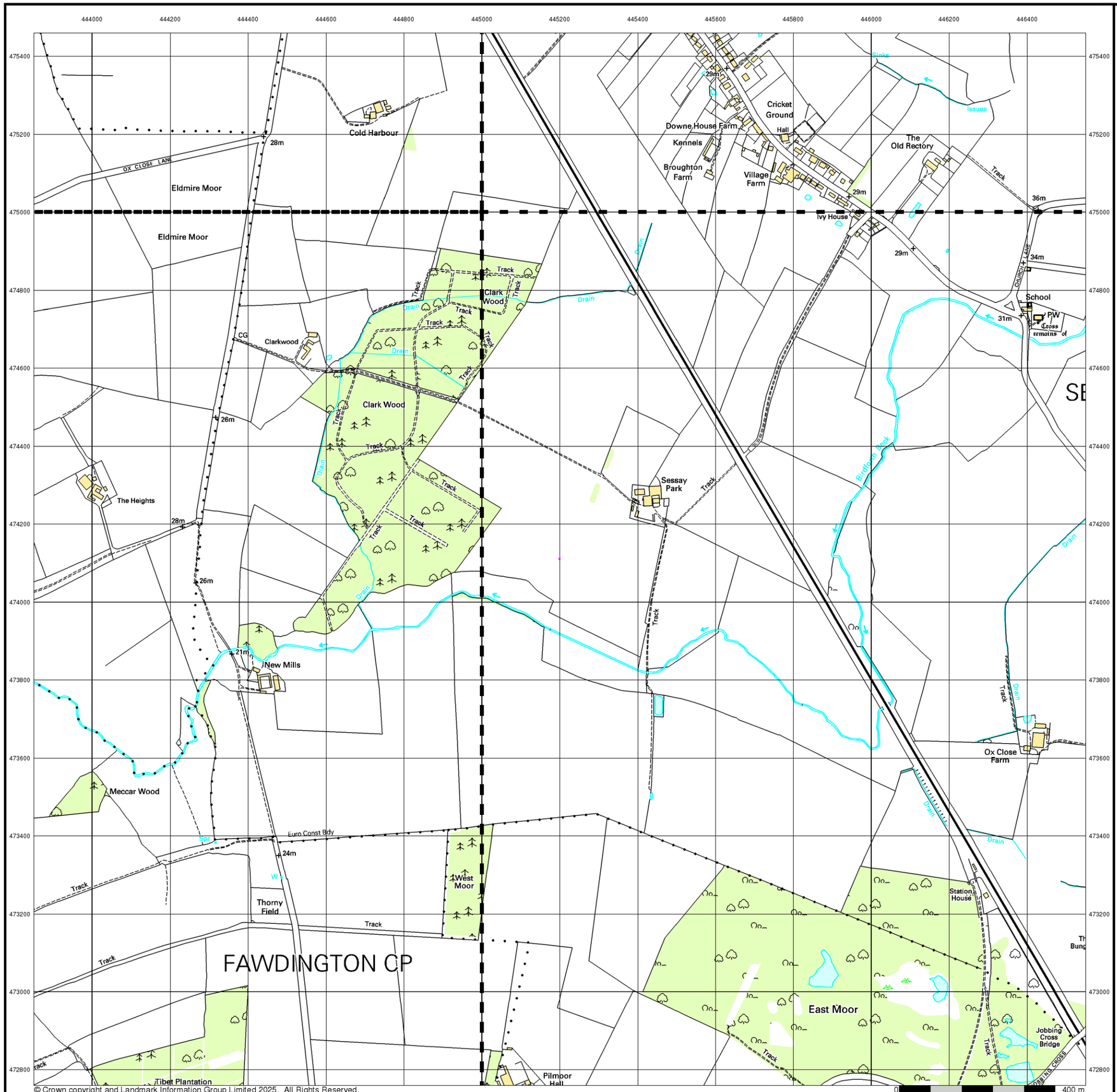

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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

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Map Name(s) and Date(s)

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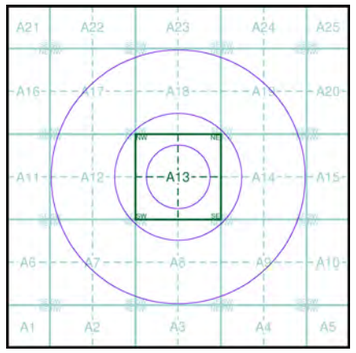
SE47SW 1999 1:10,000	SE47SE 1999 1:10,000

Historical Map - Slice A



Order Details

Order Number:	370894331_1_1
Customer Ref:	MK1215
National Grid Reference:	445200, 474110
Slice:	A
Site Area (Ha):	0.01
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Site Details

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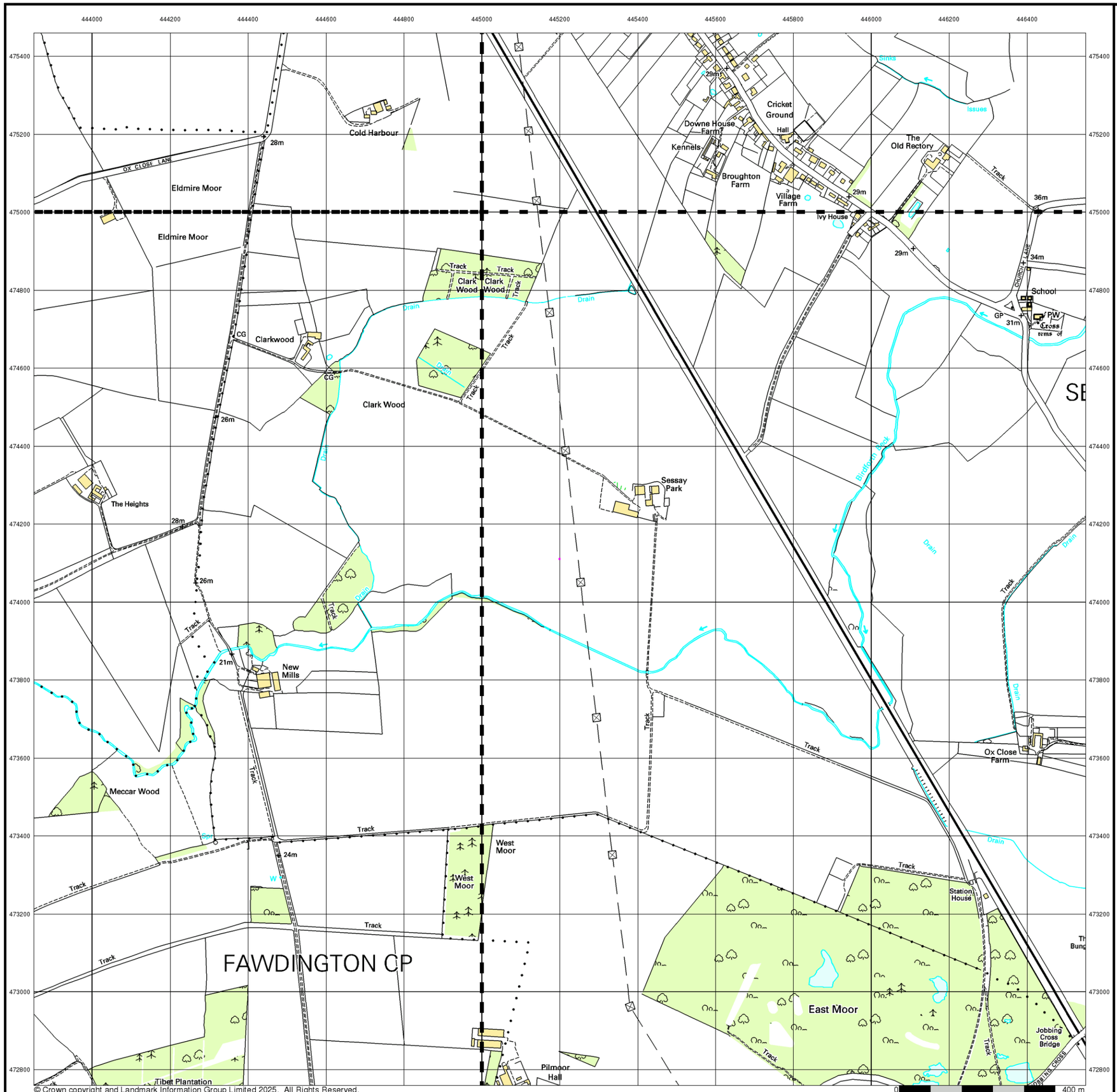

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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

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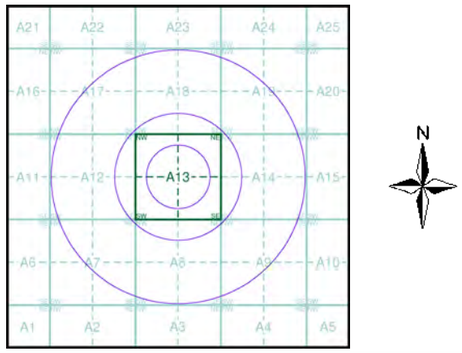
Map Name(s) and Date(s)

SE47NW 2006 1:10,000	SE47NE 2006 1:10,000
SE47SW 2006 1:10,000	SE47SE 2006 1:10,000

Historical Map - Slice A



Order Details

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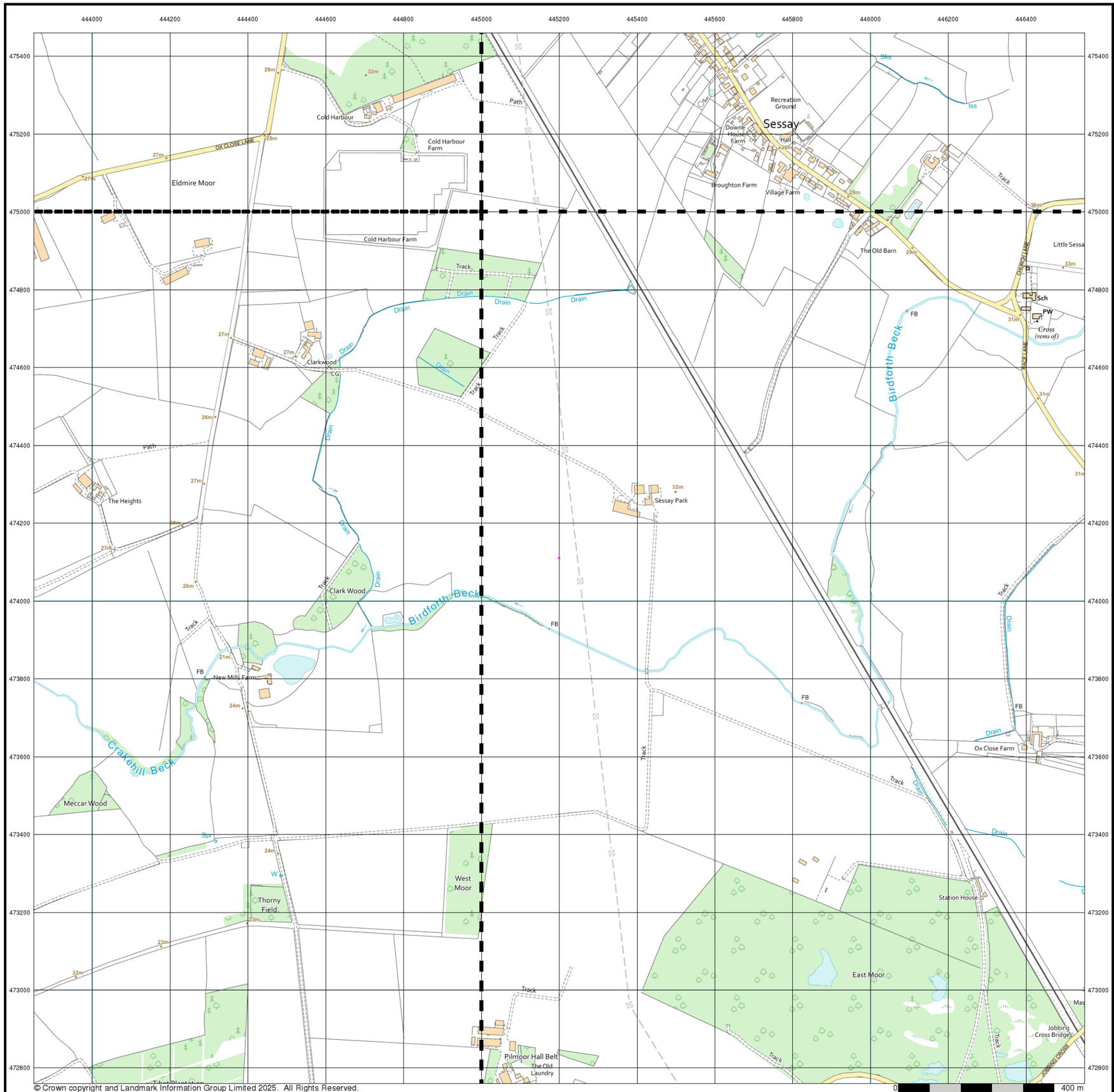

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VectorMap Local

Published 2024

Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

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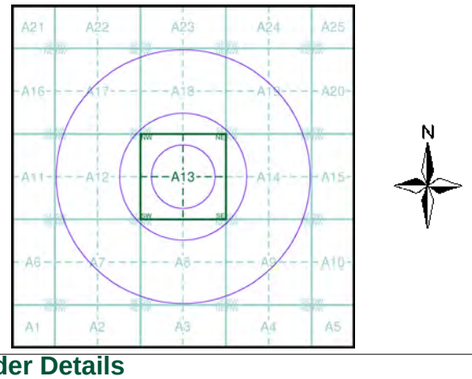
SE47SW 2024 Variable	SE47SE 2024 Variable

Historical Map - Slice A



Order Details

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Site Area (Ha):	0.01
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APPENDIX 3: HISTORIC ORDNANCE SURVEY MAPPING

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APPENDIX 4 – TITHE MAP APPORTIONMENTS

1842 Thormanby Tithe Apportionment – Briar Hill parcel

Plot	Owner	Tenant	Name	Use
51	Lord Viscount Downe	Widow Knowlton	Carr	Grass
52			Carr	Arable
53		Francis Hodgson	Carr	Arable
54			Carr	Arable
58	Rev John Higginson	Rev John Higginson	Carr	Arable
59	Lord Viscount Downe	Richard Francis Dale	Carr Allotment	Arable
60			Carr Allotment	Arable
61			Carr Allotment	Grass
62			Carr Allotment	Grass
63		William Plummer	Carr	Arable
64			Carr	Arable
65			Carr	Arable
66			Carr	Arable
67		John Plummer	Carr	Grass
68	Rev John Higginson	Rev John Higginson	Carr	Arable
69			Carr	Arable
70			Carr	Arable
71			Carr	Arable
72	Lord Viscount Downe	Widow Knowlton	Carr	Arable
73			Carr	Arable
74			Carr	Arable
75			Carr	Arable
76			Carr	Arable
77		George Robinson	Sand Hole Close	Grass
78			Little Close	Arable
79			Carr	Arable
80		William Plummer	Carr	Grass
81			Carr	Grass
82		Widow Knowlton	Carr	Arable
83			Carr	Arable
84			Carr	Arable
85			Carr	Arable
86		William Robinson	Carr	Arable
87			Carr	Arable
88			Carr	Arable
89			Carr Nook	Arable
90			Carr	Arable
92		Widow Plummer	Carr	Grass

1842 Sessay Cum Hutton Sessay Tithe Apportionment – Briar Hill parcel

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Plot	Owner	Tenant	Name	Use
465	Lord Viscount Downe	George Wilkinson	Little Closes	Arable
466			Shoulder of Mutton	Arable
470			Little Closes	Arable
471		Francis Whitwell	Homestead Garth and Orchard	Grass
472		Mary Brown Widow and William	Fullans	Arable
487			Fullans	Arable
488			Fullans	Arable
489		Robert Gray	Fullans	Arable
501			Fullans	Grass
502			Horse Pasture	Grass
503			Fullans	Grass
507			Carr	Grass
508		Charles Pearson Junior	Laverack Thorn	Arable
509			Carr	Arable
510		Henry Duncalf	Pastures	Grass
511			Pastures	Grass
512		George Wilkinson	Kitchen Close	Grass
513			Round Close	Grass
514			Middle Close	Arable
515			High Close	Arable
516		Robert Lyon	Gatenby Close	Arable
518			Taylor Close	Grass
530		James Fouse	Long Whanhams	Arable
531			Whanhams	Arable
532			Whanhams	Arable
533			Long Whanhams	Arable
534		Henry Duncalf	Newsome Close	Arable
535			Middle Stinting	Arable
536			West field	Arable
537		Charles Pearson Junior	High Close	Arable
538			High Close	Arable
539			High Close	Grass
540		Robert Gray	Longlands	Grass
541		Charles Pearson Junior	West Ends	Grass
542		Henry Duncalf	Middle Close	Arable
543			Housing Close	Grass
544		James Fouse	Low Bill Close	Arable
545			High Bill Close	Grass
546			Haddock Close	Grass
547			Scavy Carrs	Grass
548			Wood Close	Grass
549			Wood Close	Grass
556				Grass

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Plot	Owner	Tenant	Name	Use
557				Grass
558			New Close and Orchard	Arable and Grass
559			Folker	Arable and Grass
560		Henry Duncalf	Pasture and Lane	Grass
561			Pasture and Lane	Arable
562			Hills	Arable
563		Charles Pearson Junior	Three Little Closes	Arable
564			West Pasture	Arable
565			High Close	Grass
566		Robert Gray	Leases	Grass
567		Charles Pearson Junior	Pasture and Garden	Grass
568			Homestead and Garth	Grass
569		Robert Gray	Homestead Orchard and Garth	Grass
570			White Carr	Arable
571			White Carr	Arable
572			White Carr	Arable
573		Charles Pearson Junior	White Carr	Arable
574			White Carr	Arable
575			White Carr	Arable
576			White Carr	Arable
577			White Carr	Arable
578			Pasture	Grass
579			Pasture	Grass
580		Henry Duncalf	Pastures	Grass
581			Pastures	Grass
582		Charles Pearson Junior	White Carr	Arable
583			White Carr	Arable
584			White Carr	Arable
585			White Carr	Arable
586		Henry Duncalf	White Carr	Arable
587			White Carr	Arable
588			White Carr	Arable
589			White Carr	Arable
590			New Homestead Orchard	Arable
591			Old Homestead	Grass
592			Hills	Arable
593			Hills	Arable

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Plot	Owner	Tenant	Name	Use
594		James Fouse	Folker	Arable and Grass
595			Chopping Knife	Arable and Grass
600			Rough Pasture	Grass
601			Rough Pasture	Grass
607		Henry Duncalf	Forker	Grass
613		Joseph Duncalf	Oak Tree Close	Arable
614			Oak Tree Close	Arable
615			High Closes	Arable
616			High Closes	Grass
619		Henry Duncalf	Forker	Arable
620			Forker	Arable
621			Pasture	Grass
622			Pasture	Grass
623		Joseph Duncalf	Toadhole	Arable
624			Swang	Arable
625			Swang	Arable
626			White Carrs	Arable
627			White Carrs	Arable
628			White Carrs	Arable
629			White Carrs	Arable
630			White Carrs	Arable
631			White Carrs	Grass
632			Swang Garths and Homestead	Grass
633			Beck Close	Grass
634			Beck Close	Grass
635			Calf Close	Arable
636			White Carr	Grass

1842 Sessay Cum Hutton Sessay Tithe Apportionment – Sessay Park parcel

Plot	Owner	Tenant	Name	Use
720	Lord Viscount Downe	Thomas Robinson	Town Pasture	Arable
758		Lord Viscount Downe	Town Pasture	Arable
759		William Appleby	Town Pasture	Arable
804		John Pinkney	Town Pasture	Arable
805			Town Pasture	Arable
846		Hanry Clayton	Greenwood Close	Arable
847		Wiliam Rudd	Little Closes	Grass
849		Hanry Clayton	Filting Close	Arable
850			Ox Close	Arable

Plot	Owner	Tenant	Name	Use
851			Ox Close	Arable
852			Ox Close	Arable
853			Ox Close	Grass
855			House Garden & Ox Close	Arable
861		Lord Viscount Downe	Race Side	Wood
863		Hanry Clayton	Ox Close	Arable
867			Ox Close	Arable
868			Ox Close	Arable
871		George Athea	Moorshare	Arable
876			Parkshare	Arable
877			Parkshare	Arable
878			Parkshare	Arable
879			Parkshare	Arable
880		Joseph and William Duncalf	Parkshare	Grass
881			Parkshare	Arable
882			Parkshare	Arable
883			Parkshare	Arable
884			Parkshare	Arable
885			Parkshare	Arable
886		William Appleby	Parkshare	Arable
887		John Pinkney	Parkshare	Arable
888			Parkshare	Arable
889			Parkshare	Grass
890			Parkshare	Arable
891			Parkshare	Arable
892		George Athea	Parkshare	Arable
893			Parkshare	Arable
894			Mill Lane	Mill Lane Grass
895		Francis Carver	Bog Close	Arable
896			Giant's Cave	Arable
903			Robinson's Close	Grass
907			Seavy Close	Grass
908			Park Corner Close	Grass
909			Second Corner Close	Grass
910			Third Corner Close	Grass
911			Fourth	Arable

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Plot	Owner	Tenant	Name	Use
912			Bog Close	Grass
913			Fox tree Close	Arable
914		William Manfield	Rush Hill	Arable
915			Rush Hill Field	Arable
916			West Field	Grass
917			Lodge Hill	Arable
918			Lodge Field	Arable
919			Stripe	Arable
920			Long Ings	Grass
921			Sheep Pasture Hills	Arable
922			Sheep Pasture	Arable
923			Front Field	Arable
924			West Field	Arable
925			Cabbage Garth	Grass
926			Cow Stand	Grass
927			Cow Stand and Green	Grass
928			Park House and Homestead	Grass
929			Orchard	Grass
930			Heater Garth	Grass
931			Calf Garths	Grass
932			Barley Garth	Grass
933			Give Days Mowing	Arable
934		John Atkinson	Parkshare	Grass
935			Parkshare	Grass
936			Parkshare	Grass
939		Thomas Dale	Parkshare	Arable
940		John Pinkney	Parkshare	Arable
943		William Rudd	Parkshare	Arable
945		Isabella Dale Widow	Parkshare	Arable
948			Parkshare	Arable
949			Parkshare	Grass
956		Thomas Carver	Rutt Hill	Arable
957			Shoulder of Mutton	Arable
958		Henry Clayton	Parkshare	Arable
965		Thomas Carver	Cawhouse Close	Arable
966		William Manfield	Lawn Ings	Grass
969		William Manfield	Light Days Mowing	Grass
970			East Field and Bottom	Grass
971			Seven Acres	Grass

Plot	Owner	Tenant	Name	Use
973			Wood Close	Arable
974			Stack Hill	Grass
975			Great Close	Arable
976			Twf Close	Arable
977			Twf Close	Arable
978			Little Far Close	Arable
979			Great Far Close	Arable
980			Pudding Ings	Grass
981			Old end Close	Grass
982			Lawn Ings	Grass
983		Thomas Carver	Hill Close	Grass
984			First Park Close	Grass
985			First Park Close	Arable
986			Secon Park Close	Arable
987			Secon Park Close	Arable
988			Secon Park Close	Arable

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APPENDIX VIII: LONG LIST OF CUMULATIVE SITES AND PLAN

MAP REF	APP REF	SITE ADDRESS	PROPOSED DEVELOPMENT	STATUS
Sites Within a 1km Radius				
	North Yorkshire (Hambleton District)			
1	20/01758/OUT	The Bungalow Station Road Sessay North Yorkshire YO7 3BJ	Outline application with some matters reserved for three dwellings to replace existing bungalow and two residential caravans	Approved 20.01.2021
2	ZB23/02569/OUT	Land South-East of Wentworth Avenue Thormanby	Outline application with some matters reserved (considering access) for the construction of 4 dwellings including road widening and provision of two affordable houses.	Awaiting Decision
3	21/01181/FUL (APP/G2713/W/22/ 3300844)	Aldorian Main Street Sessay Thirsk North Yorkshire YO7 3BE	Construction of dwelling, double garage, new access and change of use of paddock to domestic use and alterations to the	Allowed at Appeal 19.01.2022
4	ZB23/02461/FUL	Land To The South Of Pilmoor Grange Pilmoor York North Yorkshire YO61 2QF	Installation of a solar farm comprising ground mounted solar PV panels with a generating capacity of up to 49.99MW(AC), including mounting framework, inverters, underground cabling, stock proof fence, CCTV, internal tracks and associated infrastructure, landscaping, biodiversity net gain, permanent grid connection hub and environmental enhancements for a temporary period of 50 years	Approval 29.09.2022
5	ZB25/00821/FUL	Boscar Layby Land North East Of Raskelf North Yorkshire	Construction and operation of up to a 30MW Solar PV farm, comprising ground-mounted Solar PV Arrays, 132kV DNO substation, customer substation, spares container, new access tracks, underground cabling, perimeter fencing with CCTV cameras and access gates, landscaping, temporary construction compound and all ancillary grid infrastructure and associated works.	Awaiting Decision
6	22/02832/FUL	Woodend Farm Sessay Thirsk North Yorkshire YO7 3NF	Proposed extension and part conversion of Grade 2 Listed barns into ancillary	Approved 11.04.2023

			accommodation with alterations and extension to create stables and associated animal storage for use in connection with the occupation of Wood End Farm including new horse manage, new canopy structure, alterations to the garden wall, internal alterations to the Farmhouse with single storey side extensions to create additional accommodation.	
Allocations				
No Allocations				
Sites Within a 1 - 5km Radius				
North Yorkshire (Hambleton District)				
7	ZB24/00191/FUL	Bridge Farm York Road Thirkleby North Yorkshire YO7 3AT	Construction of a livestock building with associated development including feed bins and hardstanding areas.	Approved 28.06.2024
8	ZB25/00375/FUL	Islebeck Grange Islebeck Thirsk North Yorkshire YO7 3AW	Application for the construction of a livestock building (additional drainage details received 13 May 2025)	Awaiting Decision
9	ZB23/02015/FUL (APP/U2750/W/25/ 3364658)	OS Fields 7456 And 6163 Amplecarr Husthwaite North Yorkshire	Installation of solar photovoltaic (PV) array/solar farm with associated infrastructure (as amended)	Refused / At Appeal Awaiting Decision
10	ZB23/02394/OUT	Land To The South Of Prospect Cottages Husthwaite North Yorkshire	Outline application for the erection of 20 no. dwellings (with all matters reserved except access, landscaping and layout) [Use Class C3] including demolition of existing barn and associated infrastructure	Refused / At Appeal Awaiting Decision
11	22/02090/FUL	Wildon Grange Mill Field Lane Coxwold York North Yorkshire YO61 4AF	Installation of 1000no. 500kW of ground mounted Solar PV panels (as amended: revised location plan; revised proposed layout plan; landscaping plan and BNG metric 3.1 received by the Council in November, 2022)	Approved 20.03.2023
12	ZB24/01347/REM	Land West Of Dalton Motors Dalton North Yorkshire	Application for Approval of Reserved Matters (Layout, Landscape, Scale and Appearance) in accordance with Condition 02 of	Approved 28.03.2025

			ZB24/00221/MRC (Variation of conditions attached to Planning Application Reference Number: 22/02156/OUT - Application for Outline Planning Permission [with all matters reserved except access] for the construction of 21no. dwellings)	
13	ZB24/01865/FUL	Cleveland Steel And Tubes Dalton Airfield Industrial Estate Dalton Thirsk North Yorkshire YO7 3JN	Application for change of use of agricultural land to allow for more storage	Awaiting Decision
14	ZB25/00098/FUL	Compound Dalton Airfield Industrial Estate Dalton North Yorkshire YO7 3HE	Construction of a new industrial building and associated external works	Awaiting Decision
15	22/01474/OUT	Eldmire Farm Eldmire Lane Dalton Thirsk North Yorkshire YO7 3HE	Outline application with all matters reserved except access for employment development comprising industrial uses (class B2/E(g)(iii)) and/or storage & distribution uses (class B8), including ancillary office space, with associated infrastructure and landscaping, and demolition of existing structures (additional Highways Technical Note and amended FRA and Drainage Assessment received on the 24.08.2022 and 25.08.2022 respectively)	Approved 20.06.2023
16	ZB24/00929/FUL	Eldmire Farm Eldmire Lane Dalton Thirsk North Yorkshire YO7 3HE	Full planning application for employment development comprising industrial uses (Class B2/E(g)(iii)) and/or storage & distribution uses (class B8), including ancillary office space, with associated infrastructure, landscaping and demolition of existing structures	Awaiting Decision
17	21/00331/HYB	Part OS Field 6717 Eldmire Lane Dalton North Yorkshire	Hybrid planning application seeking a) Outline planning permission for employment development comprising industrial uses (Class B2/E(g)(iii)) and/or storage or distribution uses (Class B8), including ancillary office space, with	Approved 22.12. 2021

			associated infrastructure and landscaping; and b) Full planning permission for creation of new main access and road spur with associated infrastructure	
18	22/02948/REM	Part OS Field 6717 Eldmire Lane Dalton North Yorkshire	Reserved matters (appearance, landscaping, layout and scale) for first phase of employment development pursuant to planning permission	Approved 24.07.2023
19	ZB24/00732/REM	Part OS Field 6717 Eldmire Lane Dalton North Yorkshire	Reserved matters (appearance, landscaping, layout and scale) for second phase of employment development pursuant to planning permission 21/00331/HYB	Approved 07.05.2025
20	ZB24/00402/FUL	Inspired Pet Nutrition Dalton Airfield Industrial Estate Dalton North Yorkshire	Application for an extension to the existing IPN (Inspired Pet Nutrition) Distribution Centre, to rear of existing unit	Approved 16.10.2024
21	ZB23/01248/FUL	Severfield (UK) Limited Dalton Airfield Industrial Estate Dalton Thirsk North Yorkshire YO7 3JN	Demolition of existing offices and construction of new learning academy with associated external works	Approved 05.09.2023
22	21/02643/FUL	Land At Fox Hills Off Hag Lane Raskelf North Yorkshire	Construction of 6no poultry buildings, associated infrastructure, attenuation pond, new access track and hardstanding	Approved 06.06.2023
23	ZB23/02578/FUL	OS Field 4177 Thirsk Road Easingwold North Yorkshire	Application for the construction of proposed Touring Caravan Site with 50 Touring Caravan Pitches and up to 10 tent pitches	Approved 01.08.2024
24	ZB25/00493/FUL	Land At Woodbine Farm York Road Easingwold York North Yorkshire YO61 3PQ	Proposed change of use of land at Woodbine Farm to York Birds of Prey Centre involving the construction of timber avaries a reception building and cafe, conservation room and toilet block with associated car parking, access and landscaping	Approved 12.08.2025
Allocations				
25	DAL1	OS Field 6717 Eldmire Lane Dalton North Yorkshire	DAL1: Extension to Dalton Industrial Estate, Dalton - 52 Ha	

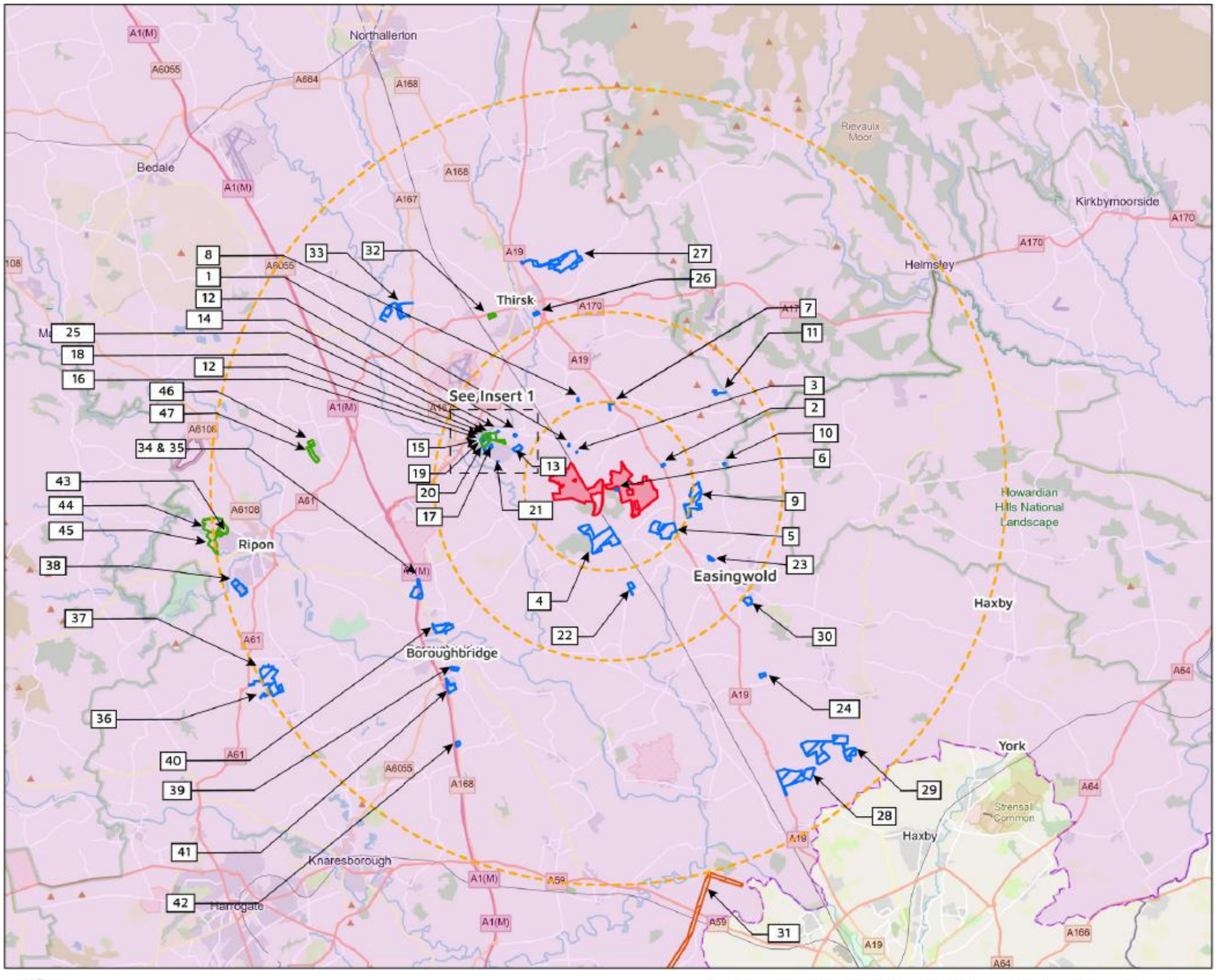
Sites Within a 5 - 15km Radius				
North Yorkshire (Hambleton District)				
26	22/01984/SCR	Land At York Road Thirsk North Yorkshire	Request for EIA Screening Opinion for proposed development of a new 74 bed hotel, Starbucks drive thru, 40,000 sqft industrial unit and 5 small industrial units	ES Not Required 08.11.22
27	ZB24/02454/HYB	OS Fields Land At Hag Lane South Kilvington North Yorkshire	Hybrid planning application consisting of, full planning application for the erection and operation of an energy storage system including associated infrastructure, engineering works, and formation of vehicular access from highway; change of use of single dwellinghouse (Hag House) from residential use (Use Class C3) to business use; and outline planning application (with all matters reserved) for the erection and operation of a transmission substation with associated infrastructure, engineering works, landscaping and internal access arrangements, including public parking and access routes.	Awaiting Decision
28	ZB24/02193/SCR	Land North Of Hall Bank Farm Amblers Lane Shipton By Beningbrough York North Yorkshire YO30 1AN	Proposal for Elements Green Overton Battery Energy Storage System and Associated Infrastructure	Environmental Statement Not Required 17.12.2024
29	ZB24/02183/SCR	Land South East And South West Of High Bohemia Farm Bull Lane Wigginton York North Yorkshire YO32 2RG	To install a solar farm array, battery energy storage system (BESS), associated infrastructure and ancillary works	Environmental Statement Not Required 29.11.2024 Application submitted ZB25/01321/FUL
30	22/02574/OUT	OS Field 0488 York Road Easingwold North Yorkshire	Outline application with some matters reserved (access) for a mixed-use development comprising a food store, petrol filing station, 45no. senior living apartments, 51no. senior living bungalows, 60-bed care home, 70 no.	Approved 13.12. 2023

			dwellings (extant), medical facilities, and the creation of green walking routes, public open space and local areas of play.	
Development Consent Order				
31	EN020024	Approximately 2km to the north west of York, extending 36km south to Monk Fryston substation	Yorkshire GREEN DCO - Route for a new 400kV and 275kV electricity transmission connection and associated development.	Development Consent Order as Made 14.03.2024
Allocations				
32	TIS1	Land Rear of 41, 69, 71, 67A and 69 Station Road, Thirsk	Residential Allocation for 110 units	
North Yorkshire (County Applications)				
33	NY/2025/0048/ENV	Former Skipton on Swale Airfield, Sandhutton, Thirsk	Proposed Anaerobic Digestion facility associated access, infrastructure, landscaping and engineering works	Awaiting Decision
North Yorkshire (Harrogate Borough)				
34	ZC23/01168/DVCMAJ	Land Comprising Field At 438285 469181 Ripon Road Kirby Hill North Yorkshire	variation of conditions 5, 13, 16 and 17 of outline planning permission 18/00123/EIAMAJ for a Motorway Service Area, vehicular over bridge, partial diversion of the A168, associated infrastructure and staff access from B6265, with lengthened slip roads, increased permissible height of the eastern dumbbell roundabout and minor amendments to the indicative design of associated infrastructure and landscape works.	Approved 13.09.23
35	HGTZC23/04592/REMMAJ	Land Adjacent To The A1(M) Between Junctions 48 And 49 Near Kirby Hill Harrogate YO51 9DP	Approval of reserved matters for access, appearance, landscaping, layout and scale of a Motorway Service Area to the west side of the A1(M) with vehicular over bridge to and from southbound carriageway and partial diversion of the A168, including associated infrastructure and staff access from B6265, allowed under planning appeal	Awaiting Decision

			APP/E2734/W/20/3245778 and accompanied by an Environmental Statement , and varied, also accompanied by an Environmental Statement, in terms of slip road lengths, permissible height of the eastern dumbbell roundabout and minor amendments to the indicative design of associated infrastructure and landscape works by Section 73 permission ZC23/01168/DVCMAJ.	
36	HGTZC24/01453/FUL	Leyton Lees Station Lane Burton Leonard Harrogate North Yorkshire HG3 3RU	Cable route to connect proposed solar farm (ref. ZC23/04361/EIAMAJ) to Wormald Green Substation	Approved 11.12.2024
37	HGTZC23/04361/EIAMAJ	Land East Of Wormald Green Wormald Green North Yorkshire	Erection of ground mounted solar farm (up to 43MW) and associated infrastructure including access to the A61, internal access tracks, customer substation, DNO building, storage container, 2no. power stations, pole mounted CCTV, fencing and landscaping.	Approved 31.07.2025
38	25/01119/DVCMAJ	Land Comprising Race Track And Inner Field Whitcliffe Lane Littlethorpe North Yorkshire	Section 73 application for the Variation of Condition 10 (order modification) of Planning Permission 21/02625/REMMAJ (Details of reserved matters for the erection of 390 dwellings, including the remaining access details, appearance, layout, scale, and landscaping pertinent to planning application ref. 16/05621/EIAMAJ, allowed at appeal (ref. APP/E2734/W/17/3181320)) to allow for solar panels on the bungalows.	Approved 09.07.2025
39	HGTZC24/01727/SCREEN	Land Comprising Field At 440067 465867 Boroughbridge North Yorkshire	Environmental Impact Assessment Screening Opinion for a proposed development of multi-use sports pitches and games areas, gym building with cafe, running and sprint tracks, cycle track, child play park, landscaping,	Env Impact Assessment Required O6.01.25

			parking and associated infrastructure	
40	25/02186/OUTMAJ	Land Comprising Field At 439417 467708 Cut Bridge To Church Lane Milby North Yorkshire	Outline planning application for the erection of up to 250 dwellings (including affordable housing), with public open space, allotments, structural planting, a sustainable drainage system (SuDS) and vehicular access points. All matters to be reserved, except for partial means of access to but not within the site	Awaiting Decision
41	HGTZC24/00007/FULMAJ	Land Comprising Field At 439839 464979 Boroughbridge North Yorkshire	Full Planning Application for the residential development of 195no. dwellings (Phase 2), including demolition of existing single dwelling, with associated access, infrastructure and landscaping	Awaiting Decision
42	HGTZC24/04226/DVCMAJ	Land Comprising OS Field 2161 Limebar Lane Marton Cum Grafton North Yorkshire	Application under Section 73 of the Town and Country Planning Act 1990 to amend the approved plans listed under condition 2 of planning consent ZC23/03087/DVCMAJ to allow the consideration of a revised office siting and car parking layout - ZC23/03087/DVCMAJ Substitution of plans approved under Condition 2 of Application Number: 21/00728/FULMAJ - Creation of an energy distribution centre / new headquarters, including erection of office building, vehicle depot, provision of LPG and oil storage tanks, and formation of car park and new vehicular access from A168	permitted
Allocations				
43	R24	Deverell Barracks, Ripon	Residential allocation for 401 units	
44	R25	Claro Barracks, Ripon	Mixed used allocation for 862 units and 20,000m^2 of commercial / employment floor space	

45	R27	aver Banks, Clotherholme Road, Ripon	Residential allocation for 63 units	
46	MB6	Land to the north of Barker Business Park, Melmerby	Allocation for 22,000m^2 of commercial floor space	
47	MB8	Land west of Barker Business Park, (larger site), Melmerby	Allocation for 52,000m^2 of commercial floor space	



Key

- Site Boundary
- Planning Applications
- Site Allocations - North Yorkshire Council
- Development Consent Order
- North Yorkshire LPA
- Site Buffer (1km, 5km & 15km)

0 5 10 20 Kilometers

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TITLE
Cumulative Sites

CLIENT
BayWa r.e. UK Limited

PROJECT
Sedgeby Solar Farm

SCALE AT A3	DATE	JOB NO.	DRWG NO.
1:165,000	July 2025	35125	G-01

Eclipse House, Eclipse Park, Sittingbourne Road
Maidstone, Kent ME14 3EN

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APPENDIX IX: TREE SURVEY

Briar Hill Farm,

Carr Lane, Sessay

Arboricultural Survey

April 2025

Report reference	157.ArbBH
Revision	2
Prepared by	Dan Brown (FdSc Arb)
Supervised and approved by	Andrew Westgarth (BSc, MSc, CEnv)
Issue date	11/04/2025

This report is valid for a period of 12 months from the issue date.

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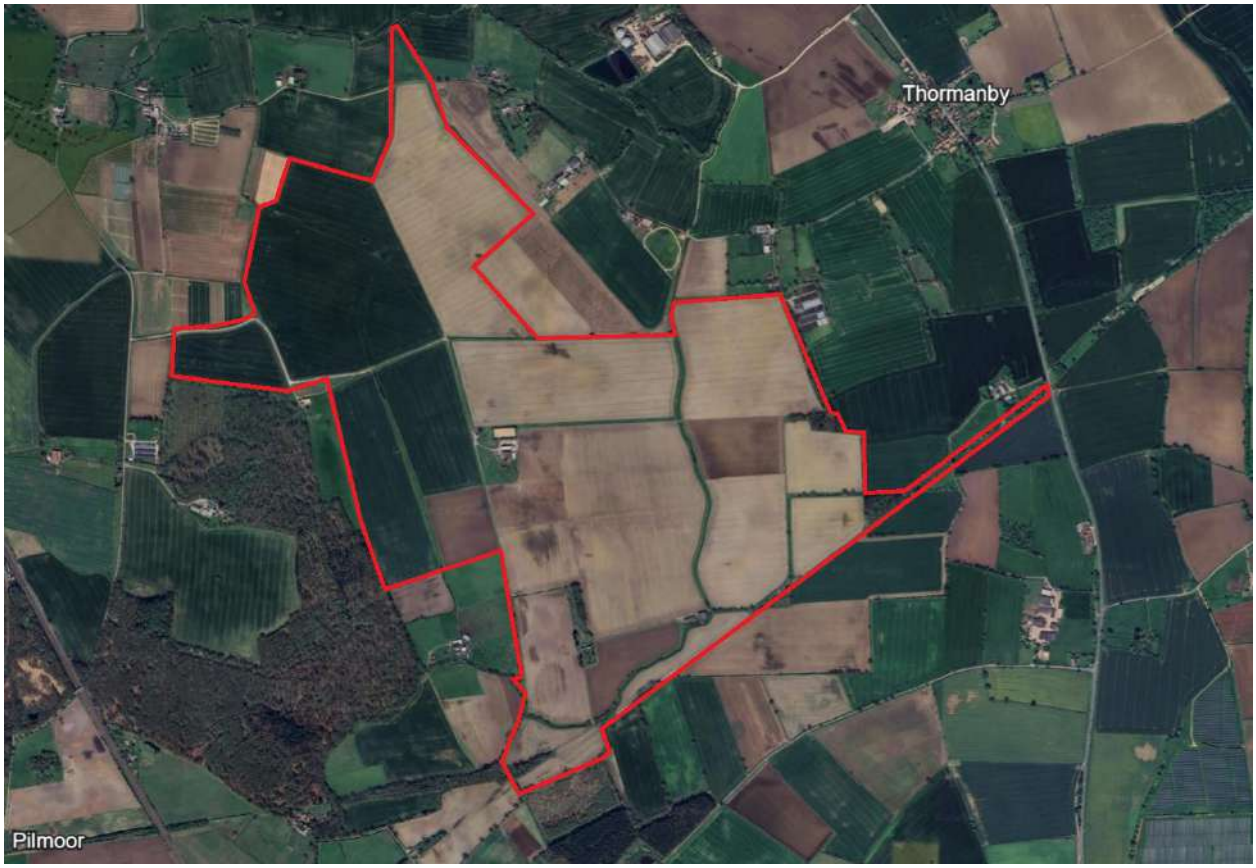
1 Introduction

1.1.1.1 This report presents the results of an Arboricultural Survey undertaken on the site at Briar Hill Farm, Carr Lane, Sessay, Little Sessay, York YO7 3NG. site is approximately 227 ha and is centred on grid reference SE 48095 73956.

1.1.1.2 The Arboricultural Survey has been undertaken to provide supporting information for proposed development of the site.

1.1.1.3 The Arboricultural Survey included a Tree Constraints Survey which was conducted on 31st January and 5th/17th/18th January by Dan Brown (FdSc Arb).

Figure 1. Site location and approx.imate site boundary (Aerial imagery dated 2025)



2 Methodology

2.1.1.1 This Arboricultural survey covers those trees or groups of trees which are considered relevant for the brief. During the survey all relevant individual trees and groups of trees located within and close to the boundary of the site were assessed.

2.1.1.2 The objective of the survey was to collect tree data relevant to the proposed works at the site and to categorise individual trees or tree groups in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'[1] based on their condition, quality and future potential.

2.1.1.3 The purpose of the categories within BS 5837:2012 is not to determine whether retention of trees is desirable, 'The purpose of the tree categorization method, which should be applied by the arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of the development occurring.' (BS 5837:2012, Section 4.5.2). This survey should therefore be regarded as an initial appraisal with observations recorded for trees within and adjacent to the site. Remedial tree works, foundation design and material specification are not covered within this report.

2.1.1.4 The location of the trees is shown within the attached Tree Constraints Plan (TCP) (Appendix 4). A detailed inspection of the trees with respect to decay, defects and hazard is not included. The tree locations are as shown on the topographical drawing supplied.

2.1.1.5 The site survey was conducted on 31st January and 5th/17th/18th January by Dan Brown (FdSc Arb) in accordance with the BS 5837:2012 methodology[1].

2.1.1.6 Information collected during the survey included species, height, stem diameter, branch spread, height of crown clearance, age class, physiological condition, structural condition, estimated remaining contribution and category grade. The survey was made at ground level using visual assessment of the tree canopy and stem. No removal of vegetation, digging or drilling was undertaken during the survey and parts of the stems of some trees remained partly obscured by vegetation.

2.1.1.7 The TCP in Appendix 4 shows the positions, canopy spreads and Root Protection Areas (RPA) of the trees included within the survey. The RPA's have been calculated in accordance with Section 4.6 of BS 5837:2012. Where significant ground constraints, such as roads, walls, buildings, water bodies are likely to restrict and influence root development, the RPA circles have been adjusted to form a polygon of equivalent area, in order to show the likely rooting area for trees subjected to significant constraints, in accordance with paragraph 4.6.2 of BS5837:2012.

2.1.1.8 When considering the layout of the site and the retention of trees, proposals should generally be kept outside of both the RPA and the canopy spreads. However, it may be possible to encroach into these with access roads, footpaths and parking areas assuming the existing ground levels can be maintained, and the appropriate construction methods are used. No liability can be accepted by Quants Environmental in respect of the trees or for events which happen after the time of the survey.

[1] British Standards Institution (BSI) BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations. Published by BSI Standards Limited 2012. ISBN 978 0 58069917 7.

3 Results

3.1.1.1 The survey results are shown in Appendix 2 (Tree Survey Results – Table 1) and Appendix 3 (Tree Constraints Plan). The trees included within this survey comprise of 239 individual trees, 63 groups of trees, 34 hedgerows and 5 woodlands.

- 51 individual trees were classified as Category A;
- 102 individual trees were classified as Category B;
- 80 individual trees were classified as Category C;
- 6 individual trees were classified as Category U;
- 3 tree groups were classified as Category A;
- 27 tree groups were classified as Category B;
- 32 tree groups were classified as Category C;
- 1 tree group was classified as Category U;
- 8 hedgerows were classified as Category B;
- 26 hedgerows were classified as Category C;
- 5 woodland groups were classified as Category A; and
- 1 woodland group was classified as Category B

3.1.1.2 The species on site consisted of Aspen *Populus tremuloides*, Austrian Pine *Pinus nigra* ssp., Blackthorn *Prunus spinosa*, Common Alder *Alnus glutinosa*, Crack Willow *Salix fragilis*, European ash *Fraxinus excelsior*, Field Maple *Acer campestre*, Goat Willow *Salix caprea*, *Hawthorn Crataegus monogyna*, Hazel *Corylus avellana*, Holly *Ilex aquifolium*, Hybrid Black Poplar *Populus* x *canadensis*, Lawson Cypress *Chamaecyparis Lawsoniana*, Lombardy Poplar *Populus nigra* var. 'Italica', Norway Spruce *Picea abies*, Oak *Quercus robur*, Silver Birch *Betula pendula*, Small-leaved Lime *Tilia cordata*, Sycamore *Acer pseudoplatanus*.

3.1.1.3 The site is currently open farmland comprising of several open fields. The site is accessible by Race Lane to the west of the site. Carr Lane is a track with runs through the site itself and is used for access to Briar hill farm and a neighbouring property. The track also connects the site to the A19 to the east of the site, although the track is currently blocked with fallen vegetation by this entrance. There are also various tracks used by the farm machinery across the site for access. It is envisaged that the tracks have likely compacted the soil, possibly hindering root growth from adjacent trees.

3.1.1.4 Sun beck runs along several of the field boundaries, with steep banks on either side of the watercourse, with some areas considered to be significant enough to restrict potential root growth of several trees on site, which have been noted in the TCP (See Appendix 4).

3.1.1.5 With the fields still in use for crops, the fields are routinely ploughed every year. Ploughing can reach to approximately 150 mm depth, and so it is envisaged that where roots are encroaching into these fields, there will not be any roots within the first 150mm depth of soil. Whilst presence of roots to this depth is unlikely, there is still potential for roots to be at a greater depth, albeit a smaller volume than stated within the estimated BS5837:2012 standards.

3.1.1.6 A Tree Preservation Order (TPO) check for the site was carried out via the interactive TPO map on the North Yorkshire Council website on March 17th 2025. No trees were found to have TPOs, and the site is not within a conservation area. An ancient woodland check was carried out via the

interactive DEFRA map, in which the woodland to the west of the site (W1) was concluded to be ancient woodland.

3.1.1.7 The prominent arboricultural features on the site are the woodland areas to the east, south and west of the site, and mature oak and ash trees which are located intermittently along the field boundaries, particularly to the south of the site. Woodlands within the site comprised of predominantly semi mature – mature trees comprising of species such as Scots pine, silver birch, oak, ash and sycamore, with understorey vegetation such as hawthorn. These trees and woodland areas have been noted for their significance through high landscape and arboricultural quality, and therefore have been classified as Category A, which included 5 woodland areas, 3 tree groups and 51 trees.

3.1.1.8 102 individual trees were classified as Category B, predominantly comprising of semi mature – mature ash, oak, alder and sycamore trees located along the borders noted for providing good landscape value, or being in good condition and form, showing good potential to become significant trees in future.

3.1.1.9 Throughout the site, many trees have been grouped together due to the likely fusion of root plates due to being self-sown so close together. RPAs have been merged to show this likely co-dependency of structural support through each root system.

3.1.1.10 Other trees have been grouped where they have similar characteristics or form continuous canopies, providing a collective landscape value. Most tree groups were classified as Category B due to good landscape value provided along the field boundaries, with groups marked down to Category C where value was lessened due to noted decline in physiological or structural condition or presenting poor shape form.

3.1.1.11 The site comprises of many ash trees with symptoms indicating ash dieback disease *Chalara fraxinea* throughout the site. Whilst not all trees are in significant decline from the disease, the assumption that the physiological decline will increase over the time has resulted in several ash trees being marked down in value, due to their potential lessened remaining time of contribution to the site.

3.1.1.12 Most hedgerows comprised of managed hawthorn at an average of 2 – 3m in height which were located along the field boundaries, with most hedgerows being classified as Category C due to lack of species diversity, intermittent gaps or general significance to the surrounding landscape. Several hedgerows were classified as Category B due to a higher visual quality due to size or fuller canopy leading to better landscape value.

3.1.1.13 A total of 6 trees and 1 group was classified as Category U due to either being dead, or being in such structural or physiological decline, that the tree was not envisaged to last longer than 10 years.

3.1.1.14 All remaining trees were concluded to be of low value due to characteristics such as poor form, young age, declining condition or having a stem diameter of under 150mm and have therefore been classified as Category C.

4 Conclusions and Recommendations

4.1.1.1 During the survey 239 individual trees, 63 groups of trees, 34 hedgerows and 4 were surveyed.

4.1.1.2 The high value tree, tree groups and hedgerows are located along the site boundaries, which will provide the main constraint for any proposed development. It is recommended that a buffer zone be considered along the site boundaries to avoid RPAs of trees which encroach into the site, utilising the open fields instead to avoid conflict with roots.

4.1.1.3 W1 is classified as an ancient woodland, and so a buffer zone of at least 15m must be implemented to avoid damage to roots.

4.1.1.4 Areas of particularly high constraint are towards the east, south and west boundaries of the site due to the woodland areas comprising of high value trees which have large RPAs encroaching into the site.

4.1.1.5 It is recommended that all Category A trees on site are retained due to their significant value, with proposed development avoiding RPAs where possible, utilising no dig construction methods where unavoidable.

4.1.1.6 Category B trees should be retained where possible, with suitable mitigation required through replacement planting where removal is unavoidable.

4.1.1.7 Where possible, all Category C trees should be retained to allow retention of existing canopy within the site, however, where removal is required, suitable replacement planting with trees of improved form will likely increase the longevity of the canopy of these trees.

4.1.1.8 Category U trees should be retained where possible, where trees are concluded to provide high ecological value through habitat potential.

4.1.1.9 All tree works are to be conducted by a qualified arborist and are to be in accordance with BS 3998:2010.

4.1.1.10 Existing tracks are recommended to be used for any proposed development to avoid further excavation within RPAs where possible. It is likely that through soil compaction, potential root growth has been hindered in these areas, and so utilising these tracks would minimise additional impact to the trees on site.

4.1.1.11 All retained trees will require protection of their RPA's and canopies during any development of the site.

4.1.1.12 An Arboricultural Tree Protection Plan and Working Method Statement should be produced prior to works commencing on site. The Arboricultural Tree Protection Plan and Working Method Statement should cover detailed methods for construction and operation within any of the RPAs in order to minimise the potential for adverse effects on these trees, e.g., digging using hand tools and supervision by a suitably qualified arboriculturist, in accordance with BS5837:2012.

4.1.1.13 During supervised work within the RPAs and canopies, if trees are considered to become unsafe e.g., due to unavoidable severance of significant roots, such trees may need to be felled by a qualified tree surgeon. Any such loss of trees should be mitigated where practicable with replacement tree planting on site, to be agreed with the Local Planning Authority. The Arboricultural Tree Protection Plan and Working Method Statement should cover compensation planting as required.

4.1.1.14 Detailed methods for construction and operation should be developed in order to minimise the potential for adverse effects on trees.

4.1.1.15 Where appropriate, all the trees to be retained should be protected with a tree protection fence in line with BS5837:2012 current recommendations.

4.1.1.16 The loss of any trees should be mitigated where practicable with suitable replacement tree planting on site, to be agreed with the Local Planning Authority. Any new landscaping should be maintained to promote longevity.

Appendix 1. Photographs

Photograph 1. T1 and T2, example of mature oak trees which are found throughout site along the field boundaries

Photograph 2. Site context photo looking east from the west boundary

Photograph 3. View of track which runs adjacent to the north boundary

Photograph 4. Example of ditch which are present along several field boundaries, restricting root potential of adjacent trees

Photograph 5. T18, the only tree located in the centre of any of the fields on site, also showing decline through ash dieback.

Photograph 6. Trees along boundary of W1 (ancient woodland) adjacent to site

Photograph 7. View of Carr Lane which runs through site area and provides access to Briar Hill Farm

Photograph 8. H32, example of higher value hedgerow

0

Photograph 9. View towards W2

Photograph 10. View along track adjacent to W3

Photograph 11. Section of G14 and G15, located on either side of track to the east of site which joins onto tthe A19

Photograph 12. View along W4

Appendix 2. Table 1 - Tree Survey Results

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T1	Oak	15	8	8	8	9	3	-	890	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	10.7	358.34
T2	Oak	15	5	9	8	10	3	-	870	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	10.4	342.41
T3	Oak	15	9	9	9	9	2	-	830	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A1	10	311.65
T4	Goat Willow	10	5	3	5	3	1	-	110,110,110,110,75,75,75	M	F	F	Coppice. Stem divides below 1.5m.self-sown tree within hedgerow	None	10+	C2	3.1	29.42
T5	Ash	15	7	7	7	7	3	-	650	M	G	F	Decay present on stem. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	7.8	191.13
T6	Ash	15	5	5	8	5	4	-	470,350*	SM	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B1	7	155.35
T7	Ash	16	10	10	9	10	5	-	700,550*	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	10.7	358.34
T8	Goat Willow	8	4	6	6	4	0	-	150,150,150,120	M	F	F	unmanag3d coppice. adjacent side of ditch	None	10+	C2	3.4	37.00
T9	Oak	18	10	10	10	10	5	-	680	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Third party tree	None	40+	A1	8.2	209.18
T10	Oak	15	10	10	10	10	4	3e	820	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A1	9.8	304.19
T11	Oak	11	7	7	7	7	1	3w	570	SM	G	G	In good condition and form. Small volume of deadwood in crown.	None	20+	B1	6.8	146.98
T12	Ash	11	8	8	8	8	3	4s	530	SM	G	F	Stem divides above 1.5m. Small volume of deadwood in crown.	None	20+	B1	6.4	127.08
T13	Hawthorn	3	1	0.5	1	0.5	0	-	140,140,140,170	M	F	F	Multiple stems at ground level.	None	10+	C1	3.6	39.64

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T14	Hawthorn	3	1	0.5	1	0.5	0	-	80,80,110,110,80,80	M	F	F	Multiple stems at ground level.	None	10+	C1	2.7	22.50
T15	Hawthorn	3	1	0.5	1	0.5	0	-	150,80,80,180	M	F	F	Multiple stems below 1.5m.	None	10+	C1	3.1	30.58
T16	Hawthorn	2	0.5	1	0.5	0.5	0	-	80,70	EM	G	F	Stem divides at ground level.	None	10+	C1	1.3	5.08
T17	Hawthorn	2	0.5	2	2	0.5	0	-	100,80	EM	G	F	Stem divides below 1.5m.	None	10+	C1	1.5	7.41
T18	Ash	18	10	11	8	9	2	4n	950	M	F	F	Declining. Unable to inspect stem due to Ivy. Ash dieback present in crown with dense epicormic growth throughout d4own	None	10+	C3	11.4	408.28
T19	Oak	7	5	5	5	5	3	2s	340	EM	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	20+	B1	4.1	52.30
T20	Oak	7	5	5	5	5	2	-	450	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. On top of banking. Adjacent to water course.	None	20+	B1	5.4	91.61
T21	Oak	18	11	10	11	10	2	4n	930	M	G	G	Epicormics on stem. Small volume of deadwood in crown. Adjacent to road.	None	40+	A1	11.2	391.27
T22	Crack Willow	4	1	8	2	5	0	-	650	M	P	P	Root plate failure. Failure of stem <5m.adjacent side of ditch	None	<10	U	7.8	191.13
T23	Oak	4	3	4	3	4	0	-	250,200	Y	F	F	Stem divides below 1.5m.	None	10+	C1	3.8	46.32
T24	Ash	8	5	5	5	5	0	2e	450*	SM	P	P	Declining. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Large volume of deadwood in crown. Ash dieback	None	<10	U	5.4	91.61
T25	Oak	14	10	10	11	11	3	-	700*	SM	G	F	Third party tree. Unable to inspect stem due to Ivy. Major deadwood in crown. On top of banking.	None	20+	B1	8.4	221.67
T26	Ash	8	5	6	6	1	0	3s	420*	SM	P	P	Declining. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Large volume of deadwood in crown. Ash dieback	None	<10	U	5	79.80
T27	Oak	8	6	6	6	6	3	4s	470*	EM	G	F	Third party tree. Small volume of deadwood in crown. On top of banking.	None	20+	B1	5.6	99.93

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T28	Ash	10	5	5	5	5	3	-	480*	EM	F	F	Declining. Third party tree. Stem divides above 1.5m. Dieback in crown >25%. Small volume of deadwood in crown. Ash dieback	None	10+	C1	5.8	104.23
T29	Crack Willow	14	7	5	7	9	3	-	640	SM	G	F	Multiple stems above 1.5m. Included bark present in fork. Small volume of deadwood in crown. On top of banking.	None	20+	B2	7.7	185.30
T30	Ash	8	5	5	7	5	0	1s	480*	SM	P	F	Unable to inspect stem due to Ivy. Dieback in crown approx. 50%. Small volume of deadwood in crown. Ash dieback present in crown.	None	<10	U	5.8	104.23
T31	Hawthorn	4	1	1	3	0.5	0	-	90,110	Y	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Suppressed form due to adjacent tree.	None	10+	C1	1.7	9.12
T32	Ash	6	5	5	0.5	7	3	-	490	EM	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown. Unbalanced crown shape. Ash dieback	None	10+	C2	5.9	108.62
T33	Ash	3	3	1	0.5	0.5	2	-	110	Y	F	F	Self-sown tree	None	10+	C1	1.3	5.47
T34	Ash	14	1	4	3	0.5	2	-	300	EM	P	P	Significant decay at base. leaning into adjacent tree	None	<10	U	3.6	40.72
T35	Ash	15	3	3	9	9	4	4w	460	SM	F	F	Stem divides above 1.5m. Dieback in crown >25%. Small volume of deadwood in crown. Ash dieback present	None	10+	C1	5.5	95.73
T36	Oak	14	10	10	10	10	3	-	540,460	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. Occlusion of rope on east stem	None	40+	A2	8.5	227.41
T37	Oak	8	7	7	3	7	3	3e	340	EM	G	F	Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	4.1	52.30
T38	Oak	8	2	7	7	5	3	3e	330	EM	G	F	Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B2	4	49.27

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T39	Oak	15	12	9	7	9	4	3n	740	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	A2	8.9	247.73
T40	Oak	15	5	11	12	9	3	2n	950	M	G	F	Stem divides above 1.5m. Included bark present in fork. Previously codominant stems at base with one stem becoming dominant. wide mouthed junction of limb	None	40+	A2	11.4	408.28
T41	Crack Willow	8	12	6	7	8	1	-	550,550	SM	F	F	Stem divides below 1.5m. Adjacent to boundary. On top of banking. Minor root plate failure	None	10+	C2	9.3	273.82
T42	Ash	14	7	8	8	7	2	-	400,300,300,400	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems at ground level. Large volume of deadwood in crown.	None	20+	B1	8.5	226.13
T43	Crack Willow	16	7	4	10	8	2	-	350,400	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems at ground level. Small volume of deadwood in crown.	None	20+	B1	6.4	128.04
T44	Crack Willow	17	7	7	7	1	2	-	400,550	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems at ground level. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	8.2	209.18
T45	Ash	14	5	5	5	5	2	-	220,200,150,150,100,000,000,000	M	F	F	Old coppice . ash dieback present	None	10+	C2	5.6	99.93
T46	Ash	14	8	8	8	7	4	-	320,400,320,300	M	G	F	old coppice	None	20+	B2	8.1	205.51
T47	Lombardy Poplar	22	3	3	3	2	0	-	1030	M	G	G	Prominent tree in area. Small volume of deadwood in crown.	None	40+	A2	12.4	479.94
T48	Oak	12	9	8	9	9	0	2s	1100	M	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Major deadwood in crown. Dense epicormic growth on stem	None	40+	A2	13.2	547.39
T49	Oak	7	5	5	5	5	1	3n	410	Y	G	G	Epicormics on stem. Small volume of deadwood in crown.	None	20+	B1	4.9	76.05
T50	Lombardy Poplar	22	4	4	4	4	0	-	1340	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	15	706.86

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T51	Lombardy Poplar	22	4	3	5	4	0	-	1050	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	12.6	498.76
T52	Lombardy Poplar	22	6	5	8	6	0	1w	1110	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown. Crack present at junction of first significant limb	None	40+	A2	13.3	557.39
T53	Lombardy Poplar	22	4	3	5	4	0	-	1030	M	G	G	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	12.4	479.94
T54	Hawthorn	5	5	5	5	5	0	-	300,200,100	M	G	F	Multiple stems below 1.5m.	None	10+	C1	4.5	63.28
T55	Ash	14	6	8	7	6	3	-	230,360,360,240	M	G	F	Multiple stems below 1.5m.oldjcoppice	None	20+	B1	7.3	167.23
T56	Oak	14	9	7	7	7	3	-	300,440	EM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	6.4	128.52
T57	Oak	14	9	9	11	9	3	-	420,570,360	EM	G	F	Major bark wounding on stem. Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	9.5	285.20
T58	Ash	24	10	12	11	12	4	-	6,001,040	M	G	G	Unable to inspect stem due to Ivy. Dieback in crown >25%.large ash tree with sparse canopy. presence of ash dieback	None	20+	A3	14.4	652.53
T59	Crack Willow	12	10	9	10	6	3	-	400,450	M	G	F	Stem divides below 1.5m. On top of banking. Adjacent to water course.	None	20+	B1	7.2	163.95
T60	Oak	14	9	9	9	9	3	-	520,380,200	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in Crown. Adjacent side of ditch	None	20+	B2	8.1	205.51
T61	Oak	14	6	9	6	9	3	3e	450*	M	G	F	Small volume of deadwood in Crown. Adjacent side of ditch	None	20+	B2	5.4	91.61
T62	Oak	14	4	7	6	6	3	3e	450*	M	G	F	Small volume of deadwood in Crown. Adjacent side of ditch	None	20+	B2	5.4	91.61
T63	Hawthorn	5	3	3	3	3	0	-	180	M	G	G	Small tree with low value	None	20+	B2	2.2	14.66

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T64	Goat Willow	17	8	8	10	5	3	-	500,500,500	M	G	G	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B2	10.4	339.27
T65	Goat Willow	8	3	1	2	6	3	-	350,350	M	G	G	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B2	5.9	110.85
T66	Ash	14	6	6	2	6	1	-	350,250,450,300	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B2	8.3	216.01
T67	Hawthorn	4	1	2	1	2	1	-	75,90	Y	F	F	Young tree in good condition	None	10+	C1	1.4	6.19
T68	Ash	15	5	8	7	8	3	-	390,360,350,280	SM	F	F	Multiple stems below 1.5m. Small volume of deadwood in crown. Ash dieback present	None	20+	B2	8.3	218.52
T69	Hawthorn	4	1	3	1	2	0	-	80,80,80,60,60	SM	G	F	Multiple stems below 1.5m.	None	10+	C1	1.9	11.87
T70	Hawthorn	4	1	3	1	2	0	-	140,75	SM	G	F	Stem divides below 1.5m.	None	10+	C1	1.9	11.44
T71	Silver Birch	15	8	10	8	7	3	-	400,300,240,380	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B1	8.1	204.29
T72	Oak	8	8	8	6	8	0	-	400,800	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m. Broken branches in crown.	None	20+	B2	10.7	361.57
T73	Sycamore	16	7	8	8	8	3	-	1150	M	G	F	Unable to inspect stem due to Ivy. Multiple stems above 1.5m. Small volume of deadwood in crown.	None	20+	A2	13.8	598.28
T74	Hawthorn	6	5	5	3	5	0	-	300,240,230,230	M	G	F	Multiple stems below 1.5m. Broken branches in crown.	None	20+	B2	6	114.46
T75	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	100,100,75	SM	F	F	Stem divides below 1.5m.flailed	None	10+	C1	1.9	11.58
T76	Hawthorn	4	2	4	4	4	0	-	280,250,180	SM	F	F	Stem divides below 1.5m.	None	10+	C1	5	78.29
T77	Hawthorn	4	2	3	3	3	0	-	140,100,100,100	SM	F	F	Stem divides below 1.5m.	None	10+	C1	2.7	22.50
T78	Hawthorn	5	2	5	5	5	0	-	200,150,100,100	SM	F	F	Multiple stems below 1.5m.	None	10+	C1	3.4	37.26
T79	Hawthorn	5	2	5	5	5	0	-	250,180,180,200	SM	F	F	Multiple stems below 1.5m.	None	10+	C1	4.9	75.68

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T80	Oak	15	12	5	12	12	1	-	800	M	G	F		None	20+	B3	9.6	289.53
T81	Oak	16	8	2	8	8	3	-	400	SM	G	F	Unable to inspect stem due to Ivy. Large volume of deadwood in crown.	None	20+	B2	4.8	72.38
T82	Common Alder	15	10	9	9	7	2	3w	1,090,550	M	G	G	Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A1	14.7	674.44
T83	Hawthorn	6	3	3	3	3	0	-	100,120,100,100	SM	G	F	Multiple stems below 1.5m.	None	10+	C1	2.5	20.14
T84	Oak	15	10	9	9	8	3	2e	720	M	G	G	Prominent tree in area. Small volume of deadwood in crown.	None	40+	A1	8.6	234.52
T85	Hawthorn	4	1	3	1	2	1	-	75,90,90	SM	G	F	Small multi stemmed hawthorn tree	None	10+	C1	1.8	9.91
T86	Hawthorn	4	1	2	2	2	1	-	75,75,75,75	SM	G	F	Small multi stemmed hawthorn tree	None	10+	C1	1.8	10.18
T87	Hybrid Black Poplar	25	3	10	15	10	4	3s	950	M	G	F	Leaning South. Small volume of deadwood in crown.	None	40+	A2	11.4	408.28
T88	Oak	4	2	2	0.5	3	0	-	120,90,150,90	Y	F	F	Multiple stems below 1.5m. Broken branches in crown.	None	10+	C1	2.8	23.93
T89	Oak	14	13	13	10	13	3	-	710,520	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	10.6	350.33
T90	Sycamore	14	9	9	9	5	3	-	530,530,290,490,210	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	11.6	420.40
T91	Ash	15	6	3	8	3	3	-	290,200,210	SM	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B1	4.9	76.05
T92	Ash	15	7	3	8	9	3	-	290,240,290,240,230	SM	G	F	Multiple stems below 1.5m. Dieback in crown >25%. Small volume of deadwood in crown. Ash dieback present	None	20+	B1	7	152.18
T93	Oak	12	6	6	6	2	3	1s	360,360	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. Natural bracing of two stems above junction	None	20+	B2	6.1	117.21

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T94	Oak	12	7	9	8	9	3	1s	700	SM	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Limb growing into canopy of adjacent tree	None	20+	B2	8.4	221.67
T95	Oak	12	8	3	8	10	3	3n	570	SM	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Limb growing into canopy of adjacent tree	None	20+	B2	6.8	146.98
T96	Oak	12	6	10	9	9	3	2w	540,530	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. Limb growing into canopy of adjacent tree	None	20+	B2	9.1	259.24
T97	Oak	8	10	9	9	6	4	2s	460,460	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. On top of banking.	None	20+	B1	7.8	191.72
T98	Oak	10	7	7	7	7	3	2s	470	SM	G	F	Unable to inspect stem due to Ivy. Broken branches in crown. On top of banking.	None	20+	B1	5.6	99.93
T99	Hawthorn	3	3	3	3	3	0	1s	100,100,75	SM	F	F	On top of banking.	None	10+	C1	1.9	11.58
T100	Oak	16	8	10	9	10	1	4n	850	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A1	10.2	326.85
T101	Goat Willow	8	7	8	8	8	0	-	440,300	M	F	F	Cavity on stem. Major bark wounding on stem. Stem divides above 1.5m.branchew rubbing in crown	None	10+	C1	6.4	128.52
T102	Goat Willow	8	7	8	1	4	0	-	120,140,150,75	M	F	F	Multiple stems below 1.5m. Suppressed form due to adjacent tree. branches rubbing in crown	None	10+	C1	3	28.05
T103	Goat Willow	8	7	7	7	6	0	-	500	M	F	F	Multiple stems above 1.5m.branchew rubbing in crown	None	10+	C1	6	113.10
T104	Oak	12	5	7	7	7	2	3s	520	SM	G	F	Small volume of deadwood in crown. Broken branches in crown. Unbalanced crown shape.	None	20+	B1	6.2	122.33
T105	Oak	8	7	9	7	9	2	3s	640,470	SM	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown. Broken branches in crown. Unbalanced crown shape.	None	20+	B1	9.5	285.20

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T106	Ash	15	2	8	8	3	4	-	570	SM	P	F	Leaning South-West. Unable to inspect stem due to Ivy. Stem divides above 1.5m. Small volume of deadwood in crown.	None	10+	C2	6.8	146.98
T107	Ash	5	4	3	2	2	2	3s	180	Y	F	F	Small ash tree with uneven crown shape	None	10+	C1	2.2	14.66
T108	Oak	12	9	7	9	9	4	3n	480	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	5.8	104.23
T109	Oak	12	7	7	9	7	4	2w	810	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	9.7	296.81
T110	Ash	15	7	7	7	7	4	3w	390,360,360	SM	G	F	Unable to inspect stem due to Ivy. Multiple stems at ground level. Small volume of deadwood in crown.	None	20+	B2	7.7	185.88
T111	Oak	16	6	7	7	4	4	4w	620	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Small volume of deadwood in crown. Failure of stem <5m.	None	20+	B2	7.4	173.90
T112	Oak	5	1	2	1	2	1	-	100	Y	F	F	Small ash tree with uneven crown shape	None	10+	C1	1.2	4.52
T113	Ash	16	5	6	8	6	2	2w	420	M	F	F	Unable to inspect stem due to Ivy. Dieback in crown >25%.presence of ash di3back	None	10+	C2	5	79.80
T114	Ash	16	8	7	8	7	2	-	400,300	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m.	None	20+	B2	6	113.10
T115	Ash	16	8	7	8	7	2	-	450	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m.	None	20+	B2	5.4	91.61
T116	Oak	3	1	5	3	5	0	-	320	SM	G	F	Uneven crown shape	None	20+	B1	3.8	46.32
T117	Oak	12	5	4	5	3	3	-	520	SM	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B1	6.2	122.33
T118	Oak	12	4	4	5	4	3	-	540	SM	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B1	6.5	131.92
T119	Ash	13	8	8	8	8	3	4n	780	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m. Small volume of deadwood in crown.	None	20+	B1	9.4	275.23

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T120	Ash	6	4	4	4	4	0	-	250,150	EM	F	F	Unable to inspect stem due to Ivy. Major bark wounding on stem. Stem divides at ground level.	None	10+	C2	3.5	38.57
T121	Ash	12	4	5	4	5	3	3n	520	M	F	F	Declining. Unable to inspect stem due to Ivy. Major bark wounding on stem.	None	10+	C2	6.2	122.33
T122	Oak	10	7	4	4	6	3	3n	530	SM	G	F	Declining. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B2	6.4	127.08
T123	Ash	14	7	9	7	7	3	3n	590	M	G	F	Unable to inspect stem due to Ivy. Multiple stems above 1.5m. Small volume of deadwood in crown.	None	20+	B2	7.1	157.48
T124	Common Alder	15	8	8	8	3	1	-	300,300,250,350,300,000,000,000	M	G	F	Unable to inspect stem due to Ivy. Fungal brackets visible on stem. Multiple stems at ground level.	None	20+	B3	10.1	319.97
T125	Ash	13	10	9	2	2	3	3e	400	SM	G	F	Leaning North-East. Epicormics on stem. Suppressed form due to adjacent tree.	None	20+	B1	4.8	72.38
T126	Ash	16	10	11	3	3	5	5w	780	SM	F	F	Declining. Leaning North-East. Fungal brackets visible on stem. Epicormics on stem. Dieback in crown approx. 50%.	None	10+	C2	9.4	275.23
T127	Hawthorn	4	2	2	2	1	0	-	100,100	EM	F	F	Stem divides below 1.5m.	None	10+	C1	1.7	8.99
T128	Hawthorn	4	2	2	2	2	0	-	220	M	G	F	Small tree with low value	None	10+	C1	2.6	21.90
T129	Oak	14	6	6	3	5	1	1e	660	M	G	F	Broken branches in crown. Primary limb failure has occurred.	None	20+	B2	7.9	197.06
T130	Oak	14	5	1	3	10	1	4w	870	M	G	F	Stem divides above 1.5m. Broken branches in crown. Primary limb failure has occurred. Failure of stem <5m.	None	20+	B2	10.4	342.41
T131	Oak	14	6	7	4	6	1	1s	720	M	G	F	Small volume of deadwood in crown. Broken branches in crown.	None	20+	B2	8.6	234.52
T132	Hawthorn	2	1	1	1	1	0	-	100	EM	F	F	Small tree with low value	None	10+	C2	1.2	4.52
T133	Oak	16	8	8	8	9	1	3e	840	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B2	10.1	319.21

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T134	Oak	14	4	5	4	4	1	3e	760	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B2	9.1	261.30
T135	Oak	16	10	7	8	7	4	4s	900	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A2	10.8	366.44
T136	Hawthorn	2	1	1	3	2	0	-	100	EM	F	F	Small hawthorn with uneven crown shape	None	10+	C2	1.2	4.52
T137	Oak	16	9	9	10	9	4	4s	920	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Cavity at base of stem.	None	40+	A2	11	382.90
T138	Oak	13	5	4	10	7	3	3s	900	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Suppressed form due to adjacent tree. Cavity at base of stem.	None	40+	A2	10.8	366.44
T139	Hawthorn	2	1	1	3	2	0	-	100	EM	F	F	Small hawthorn tree with uneven crown shape	None	10+	C2	1.2	4.52
T140	Hawthorn	2	1	1	3	2	0	-	100	EM	F	F	Small hawthorn tree with uneven crown shape	None	10+	C2	1.2	4.52
T141	Hawthorn	2	1	1	3	2	0	-	100	EM	F	F	Small hawthorn tree with uneven crown shape	None	10+	C2	1.2	4.52
T142	Oak	16	7	5	12	11	3	4s	980	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A2	11.8	434.47
T143	Hawthorn	3	1	1	2	2	0	-	200	EM	F	F	Topped at 3m previously with regrowth present	None	10+	C2	2.4	18.10
T144	Ash	14	3	7	5	3	0	4e	440	SM	F	F	Decay present on stem. Failure of stem above 10m.	None	10+	C1	5.3	87.58
T145	Ash	14	5	5	3	3	4	-	500	SM	F	F	Decay present on stem. Epicormics on stem. Damage to stem approx. 5m from ground level	None	10+	C1	6	113.10
T146	Oak	14	7	7	7	7	3	4s	1140	M	G	G	Epicormics on stem. Small volume of deadwood in crown.	None	40+	A2	13.7	587.93
T147	Oak	8	3	3	3	5	4	-	510	SM	P	P	Dead.	None	<10	U	6.1	117.67
T148	Oak	14	6	6	6	6	3	3n	520	M	G	G	Epicormics on stem. Small volume of deadwood in crown.	None	40+	A2	6.2	122.33
T149	Hawthorn	4	2	1	2	2	0	-	100,100	EM	F	F	Small tree with codominant stems	None	10+	C1	1.7	8.99
T150	Hawthorn	5	2	1	2	2	0	-	100	EM	F	F	Small tree with uneven crown shape	None	10+	C1	1.2	4.52

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T151	Oak	15	6	8	8	3	3	3e	620	M	G	F	Epicormics on stem. Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	B2	7.4	173.90
T152	Oak	14	7	7	7	10	1	-	340,460,420,350	M	G	G	Epicormics on stem. Multiple stems below 1.5m. Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	A2	9.5	283.05
T153	Oak	14	6	8	8	3	0	2e	650	M	G	F	Epicormics on stem. Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B2	7.8	191.13
T154	Oak	14	6	2	8	7	0	3s	470	M	G	F	Epicormics on stem. Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape. Occluded fence wire	None	20+	B2	5.6	99.93
T155	Oak	16	9	9	9	2	2	-	520,530	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. Interesting form	None	20+	A2	8.9	249.07
T156	Oak	16	9	4	11	12	4	4s	620,990	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A2	14	617.16
T157	Oak	15	6	6	12	12	1	3w	950	M	G	G	Epicormics on stem. Small volume of deadwood in crown.	None	40+	A2	11.4	408.28
T158	Hawthorn	6	1	3	2	3	0	-	250,190	SM	F	F	Stem divides below 1.5m.	None	10+	C1	3.8	44.60
T159	Hawthorn	3	1	1	1	1	0	-	75	SM	F	F	Stem divides below 1.5m.	None	10+	C1	0.9	2.54
T160	Oak	8	2	5	5	3	3	-	320,420	SM	F	F	Stem divides below 1.5m. Small volume of deadwood in crown. Cavity on main stem. Failure of stem above 5m.	None	10+	C2	6.3	126.12
T161	Hawthorn	5	1	3	3	5	0	-	140,260,220	M	F	F	Multiple stems below 1.5m.	None	10+	C1	4.4	61.26
T162	Hawthorn	6	1	5	5	5	0	-	330,240,350,280	M	G	F	Stem divides below 1.5m.	None	20+	B2	7.3	166.13
T163	Oak	14	7	7	7	7	3	4w	600	SM	G	F	Stem divides above 1.5m. Small volume of deadwood in crown.	None	20+	B1	7.2	162.86
T164	Oak	5	2	4	3	4	1	-	250	EM	G	G	Uneven crown shape	None	10+	C1	3	28.27

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T165	Oak	14	6	8	7	2	1	3w	620	SM	G	F	Small volume of deadwood in crown. Unbalanced crown shape. Occluded fence	None	20+	B1	7.4	173.90
T166	Oak	17	6	7	11	7	4	5w	710	M	G	F	Cavity on stem. Major bark wounding on stem. Small volume of deadwood in crown. Occluded fence wire	None	20+	B2	8.5	228.05
T167	Oak	17	9	5	12	10	2	4w	720	M	G	G	Small volume of deadwood in crown.	None	40+	A2	8.6	234.52
T168	Oak	17	8	8	8	8	2	2w	1160	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A2	13.9	608.74
T169	Oak	17	9	9	9	9	2	3s	800	M	G	F	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	9.6	289.53
T170	Oak	17	5	6	5	5	2	3s	800	M	G	F	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	9.6	289.53
T171	Oak	17	9	9	9	9	4	4s	1060	M	G	F	Small volume of deadwood in crown. Occluded fence wire	None	40+	A2	12.7	508.30
T172	Oak	17	8	8	2	8	4	4s	810	M	G	F	Small volume of deadwood in crown. Branch failures present throughout crown. Occluded fence wire	None	40+	A2	9.7	296.81
T173	Hawthorn	4	3	3	2	2	1	-	200,250	SM	F	F	Stem divides below 1.5m.	None	10+	C1	3.8	46.32
T174	Oak	5	0.5	2	0.5	0.5	1	-	190	Y	F	F	Young oak tree with uneven crown shape	None	10+	C1	2.3	16.33
T175	Oak	8	3	3	3	3	3	3e	420	EM	F	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	10+	C1	5	79.80
T176	Oak	8	3	3	0.5	3	1	-	280	EM	F	F	Stem divides above 1.5m.	None	10+	C1	3.4	35.47
T177	Oak	2	1	1	1	1	0	-	80	Y	G	F	Young tree in good condition	None	10+	C1	1	2.90
T178	Hawthorn	2	1	1	1	1	0	-	100	Y	G	F	Young tree in good condition	None	10+	C1	1.2	4.52
T179	Oak	17	11	11	11	11	4	3n	770,740	M	G	G	Epicormics on stem. Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A1	12.8	516.01
T180	Oak	17	10	10	10	10	4	4n	1130	M	G	G	Epicormics on stem. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	13.6	577.66
T181	Hawthorn	3	2	1	2	2	0	-	200,90,80	EM	F	F	Multiple stems at ground level.	None	<10	C2	2.8	24.56

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T182	Oak	5	4	1	4	4	0	1n	400	Y	F	F	Stem divides above 1.5m. Unbalanced crown shape.	None	10+	C1	4.8	72.38
T183	Ash	16	8	5	8	8	2	-	510,400	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	7.8	189.96
T184	Ash	16	8	9	5	8	4	4e	800	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A2	9.6	289.53
T185	Oak	17	8	8	8	8	4	4e	970	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	11.6	425.65
T186	Oak	17	7	7	9	7	5	2s	750	M	G	G	Small volume of deadwood in crown. Cavities present on limbs. Significant d3cay on first significant branch near junction to stem	None	40+	A1	9	254.47
T187	Oak	17	5	1	1	4	3	3n	420	SM	G	F	Small volume of deadwood in crown. Unbalanced crown shape. Cavity at base of stem.	None	10+	C1	5	79.80
T188	Oak	10	9	5	2	5	2	-	540,380	EM	G	F	Stem divides below 1.5m. Unbalanced crown shape.	None	20+	B1	7.9	197.06
T189	Oak	12	5	7	7	7	4	2w	480	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B1	5.8	104.23
T190	Ash	17	7	7	7	7	4	4n	580	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B2	7	152.18
T191	Lombardy Poplar	20	3	3	3	3	3	-	1050	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m. Cavity at base of stem.	None	10+	C2	12.6	498.76
T192	Lombardy Poplar	20	3	3	3	3	3	-	830	M	G	F	Unable to inspect stem due to Ivy.	None	10+	B2	10	311.65
T193	Austrian Pine	16	6	6	6	6	1	3s	580	SM	G	G	Unable to inspect stem due to Ivy.	None	20+	B2	7	152.18
T194	Austrian Pine	16	2	7	7	8	1	3w	610	SM	G	G	Unable to inspect stem due to Ivy.	None	20+	B2	7.3	168.33
T195	Lombardy Poplar	20	3	3	3	3	3	-	890	M	G	F	Unable to inspect stem due to Ivy.	None	10+	B2	10.7	358.34

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T196	Lombardy Poplar	12	1	1	1	1	0	-	250	Y	F	F	Young Lombardy poplar in good condition	None	10+	C1	3	28.27
T197	Hawthorn	3	1	1	2	1	0	-	250,100	EM	F	F	Stem divides below 1.5m.	None	10+	C1	3.2	32.74
T198	Austrian Pine	16	5	5	5	5	1	3s	430	SM	G	G	Unable to inspect stem due to Ivy.	None	20+	B2	5.2	83.65
T199	Austrian Pine	16	13	13	5	8	1	3w	800	SM	G	G	Unable to inspect stem due to Ivy.	None	20+	B2	9.6	289.53
T200	Austrian Pine	16	6	7	6	6	0	4s	750	SM	G	G	Unable to inspect stem due to Ivy.	None	20+	B2	9	254.47
T201	Lombardy Poplar	19	3	2	3	3	1	3w	650	SM	G	G	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	20+	B2	7.8	191.13
T202	Austrian Pine	16	8	9	6	8	0	3w	950	SM	G	G	Unable to inspect stem due to Ivy.	None	40+	A2	11.4	408.28
T203	Oak	14	6	6	6	6	2	4w	560	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	6.7	141.87
T204	Silver Birch	16	7	10	7	7	3	3e	620	M	G	F	Unable to inspect stem due to Ivy. Multiple stems above 1.5m. Small volume of deadwood in crown.	None	20+	B1	7.4	173.90
T205	Hawthorn	3	4	3	4	1	0	-	290	M	F	F	Unable to inspect stem due to Ivy.	None	10+	C1	3.5	38.05
T206	Silver Birch	17	11	11	8	9	0	1s	850	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	10.2	326.85
T207	Hawthorn	5	0.5	3	3	3	0	-	240,220,200,100	EM	G	F	Multiple stems below 1.5m.	None	20+	B2	4.7	70.58
T208	Oak	16	10	10	10	10	3	3e	960	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	40+	A2	11.5	416.92
T209	Hawthorn	6	3	3	6	3	0	-	100,200,180,140	SM	G	F	Multistemmed tree with uneven crown shape	None	10+	C1	3.8	46.04
T210	Oak	16	12	9	15	14	3	3s	1240	M	G	F	Leaning South-West. Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A1	14.9	695.59
T211	Oak	16	7	9	5	7	4	3w	830	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	20+	B1	10	311.65

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T212	Aspen	16	11	9	9	11	3	1s	720	SM	G	F	Unable to inspect stem due to Ivy. Old fungal bracket at base of stem	None	20+	B2	8.6	234.52
T213	Aspen	16	6	8	5	8	4	3n	450	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.	None	20+	B2	5.4	91.61
T214	Aspen	16	6	9	8	8	4	3s	500	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.	None	20+	B2	6	113.10
T215	Oak	18	10	10	6	10	3	4e	970	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	A2	11.6	425.65
T216	Oak	18	6	10	11	10	3	3w	1050	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	A2	12.6	498.76
T217	Common Alder	8	2	8	4	2	1	-	180,180	EM	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m.	None	10+	C2	3.1	29.42
T218	Oak	16	10	12	14	12	3	3n	800,720	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A1	12.9	523.77
T219	Hawthorn	5	3	2	3	3	0	-	200,280	EM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides at ground level.	None	10+	C2	4.1	53.53
T220	Hawthorn	5	4	2	4	3	0	-	200,320	EM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides at ground level.	None	10+	C2	4.5	64.30
T221	Hazel	6	4	2	2	2	0	-	100	M	G	F	Coppice.	None	20+	B2	1.2	4.52
T222	Hawthorn	5	2	1	0.5	2	0	-	75,75	M	G	F	Stem divides at ground level.	None	10+	C1	1.3	5.08
T223	Field Maple	8	4	2	4	4	0	2n	280	SM	G	F	Unable to inspect stem due to undergrowth.	None	20+	B1	3.4	35.47
T224	Oak	17	6	3	2	3	0	-	550	SM	F	F	Failure of stem above 10m.	None	20+	B2	6.6	136.85
T225	Oak	20	6	2	1	14	4	-	600	M	G	F	Failure of stem above 10m.	None	20+	B2	7.2	162.86
T226	Oak	20	8	6	6	8	0	-	670	M	G	F	Uneven crown shape	None	20+	B2	8	203.08
T227	Sycamore	8	6	6	4	7	4	-	400	SM	G	F	Uneven crown shape	None	20+	B2	4.8	72.38

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T228	Oak	8	6	10	8	5	4	-	830	SM	G	F	Primary limb failure has occurred.	None	20+	B2	10	311.65
T229	Sycamore	6	3	4	4	4	4	-	250	SM	G	F	Uneven crown shape due to adjacent tree	None	20+	B2	3	28.27
T230	Oak	20	5	5	5	5	4	-	500	SM	G	F	Primary limb failure has occurred.	None	20+	B2	6	113.10
T231	Hawthorn	6	3	4	3	1	0	-	200	M	F	F	Uneven crown shape	None	20+	C1	2.4	18.10
T232	Hawthorn	6	3	4	3	3	0	-	200	M	F	F	Uneven crown shape	None	20+	C1	2.4	18.10
T233	Oak	20	8	3	2	3	4	-	420	SM	G	F	Primary limb failure has occurred.	None	20+	B2	5	79.80
T234	Hawthorn	6	4	4	3	1	0	-	290	M	F	F	Uneven crown shape	None	20+	C1	3.5	38.05
T235	Hawthorn	6	4	4	3	3	0	-	200	M	F	F	Uneven crown shape	None	20+	C1	2.4	18.10
T236	Oak	20	14	8	0.5	10	4	-	630	SM	G	F	Stem divides above 1.5m. Primary limb failure has occurred.	None	20+	B2	7.6	179.55
T237	Oak	12	7	8	6	8	1	1w	860	M	G	F	Small volume of deadwood in crown. Adjacent to boundary.	None	20+	B1	10.3	334.59
T238	Hawthorn	3	0.5	2	0.5	2	0	-	110,100,140	M	F	F	Multiple stems below 1.5m. Unbalanced crown shape.	None	10+	C1	2.4	18.83
T239	Oak	6	4	6	4	4	1	1s	400	EM	G	F	Small volume of deadwood in crown. Adjacent to boundary.	None	20+	B1	4.8	72.38
G1	Common Alder	10	9	9	9	9	1	1w	440	M	G	F	Four trees planted close together	None	20+	B2	5.3	87.58
G2	Common Alder	12	4	4	4	4	0	-	100 - 550	M	G	F	Unable to inspect stem due to undergrowth. Multiple stems below 1.5m.	None	20+	B2	6.5	133.88
G3	Ash	12	7	7	7	7	0	-	200 - 570	M	P	F	Declining. Stem divides below 1.5m.	None	20+	U	6.8	144.93
G4	Hawthorn, Field Maple	9	2	2	2	2	4	-	250	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.	None	20+	B2	3	28.27
G5	Crack Willow	15	8	11	11	7	3	-	480 - 760	SM	G	F	Group of 4 trees adjacent to ditch. decay present on most stems near ground bevel	None	20+	B2	5.8	104.23
G6	Hazel	3	2	2	2	0.5	0	-	60,60,60,60,60,60,60	SM	F	F	Coppice. On top of banking.	None	10+	C2	1.9	11.44

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G7	Ash	14	9	7	7	7	2	-	450	SM	F	F	Unable to inspect stem due to Ivy. All trees with ash dieback	None	10+	C2	5.4	91.61
G8	Ash	14	7	6	2	5	3	-	300	EM	F	F	Group of four stems all with ash dieback present	None	10+	C2	3.6	40.72
G9	Ash	14	2	12	12	1	3	-	320	EM	F	F	Crown distorted due to group pressure. Ash dieback present	None	10+	C2	3.8	46.32
G10	Hawthorn	3	1	1	1	1	0	-	200	SM	F	F	Small group of hawthorn trees	None	10+	C2	2.4	18.10
G11	Crack Willow	17	8	8	8	8	3	-	450	M	G	F	Unable to inspect stem due to Ivy. Some trees showing decline. Deadwood present in all trees within group.	None	20+	B2	5.4	91.61
G12	Lawson Cypress	20	9	9	9	9	0	-	510,250,250,250	M	G	G	Two large cypress trees by entrance from A19	None	20+	B2	8	202.47
G13	Hawthorn	5	3	3	3	3	0	-	75,100	M	G	G	Line of hawthorn along track	None	20+	B2	1.5	7.07
G14	Hawthorn, Crack Willow, Sycamore	10	3	3	3	3	0	-	300	SM	G	F	Area of trees along north banking to track	None	10+	B2	3.6	40.72
G15	Hawthorn, Crack Willow, Silver Birch, Sycamore, Oak	10	3	3	3	3	0	-	250	SM	G	F	Area of tree along south of track	None	10+	B2	3	28.27
G16	Goat Willow	14	4	6	8	8	3	-	400	SM	G	F	Group of trees with no significant features but in good condition and form	None	20+	B2	4.8	72.38
G17	Ash	15	7	7	7	7	3	-	300 - 590	SM	G	F	Group of trees with no significant features but in good condition and form	None	20+	B2	7.1	158.01
G18	Ash	15	7	7	7	7	3	-	380	SM	F	F	Small volume of deadwood in crown. Deadwood present in all trees within group. All trees within group showing poor condition. Ash dieback present	None	10+	C2	4.6	65.33
G19	Hawthorn	3	2	2	2	2	0	-	100	SM	F	F	Group of small trees with no significant value	None	10+	C2	1.2	4.52
G20	Blackthorn	3	1	1	1	1	0	-	90	SM	F	F	Group of small trees with no significant value	None	10+	C2	1.1	3.66
G21	Hawthorn	4	3	3	3	3	0	-	180	SM	F	F	Five trees with small crowns and no significant features	None	10+	C2	2.2	14.66

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G22	Norway Spruce, Oak	16	4	4	4	4	3	-	400	SM	G	F		None	20+	B2	4.8	72.38
G23	Common Alder	12	7	7	7	7	0	-	300 - 850	M	G	F	Group of alder trees, prominent large multi stem trees within group	None	20+	B2	10.2	324.55
G24	Hawthorn	4	3	3	3	2	0	-	210	SM	F	F	Suppressed form due to adjacent tree.	None	10+	C2	2.5	19.95
G25	Ash	15	8	8	8	7	4	-	420	SM	P	F	Unable to inspect stem due to Ivy. Deadwood present in all trees within group. All trees showing ash dieback symptoms	None	10+	C2	5	79.80
G26	Ash	16	6	7	7	8	6	-	350	SM	G	F	Unable to inspect stem due to Ivy. Deadwood present in all trees within group. Four trees	None	20+	B2	4.2	55.42
G27	Ash	10	4	3	3	3	3	-	240	SM	G	F	Unable to inspect stem due to Ivy. Deadwood present in all trees within group. Four trees	None	10+	C2	2.9	26.06
G28	Ash	16	6	6	7	6	4	-	350	SM	G	F	Unable to inspect stem due to Ivy. Deadwood present in all trees within group. Four trees	None	10+	C2	4.2	55.42
G29	Goat Willow	11	7	7	7	7	1	-	400	SM	F	F	Group of multistem trees with no significant value	None	10+	C2	4.8	72.38
G30	Common Alder	16	6	6	6	6	4	-	300	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	20+	B2	3.6	40.72
G31	Ash	16	6	8	6	8	4	-	420	SM	F	F	LIne of ash trees all showing decline from ash dieback. sparse crowns and ivy clad stems	None	10+	C2	5	79.80
G32	Hawthorn	6	2	2	2	2	0	-	200	SM	F	F	Group of small trees with no significant value	None	10+	C2	2.4	18.10
G33	Ash, Hawthorn, Holly	14	2	2	2	2	0	-	200	SM	F	F	Group of small trees with no significant value	None	10+	C2	2.4	18.10
G34	Oak, Ash	16	8	8	8	8	3	-	650	M	G	F	Branches encroaching upon building.	None	20+	B2	7.8	191.13
G35	Ash	15	7	7	7	7	4	-	450	M	F	F	Unable to inspect stem due to Ivy. Two trees with shared root plate. both showing response to ash dieback with loss of crown and responsive growth in crown	None	10+	C2	5.4	91.61

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G36	Ash	15	8	8	8	8	3	-	480	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Two trees with shared root plate.	None	20+	B2	5.8	104.23
G37	Silver Birch, Goat Willow	16	7	7	7	7	3	-	520	SM	G	F	Deadwood present in all trees within group. Four trees in proximity sharing root plate	None	20+	B2	6.2	122.33
G38	Hawthorn, Silver Birch, Ash	14	3	3	3	3	0	-	250	EM	F	F	mixture of self-sown trees and hawthorn hedgerow. ash trees showing physiological decline	None	10+	C2	3	28.27
G39	Hawthorn	2	1	1	1	1	0	-	100	EM	F	F	Small tree with no significant features	None	10+	C2	1.2	4.52
G40	Oak	16	6	6	7	5	3	-	600	M	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Two trees sharing root plate	None	20+	B2	7.2	162.86
G41	Oak	17	12	10	11	6	2	-	760	M	G	G	Small volume of deadwood in crown. Two large oaks fused at base	None	40+	A2	9.1	261.30
G42	Hawthorn	3	1	1	1	1	0	-	200	EM	F	F	Small tree with no significant features	None	<10	C2	2.4	18.10
G43	Common Alder	14	5	5	5	5	4	-	380	SM	G	F	Deadwood present in all trees within group.	None	20+	B2	4.6	65.33
G44	Common Alder	14	5	5	5	5	4	-	400	SM	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B2	4.8	72.38
G45	Ash	17	6	9	11	10	4	-	700 - 780	M	G	G	Two large trees fused at base. one of the trees is an old coppice	None	40+	A2	9.4	278.06
G46	Common Alder	8	4	4	2	4	0	-	350	SM	G	F	Unable to inspect stem due to undergrowth.	None	20+	B2	4.2	55.42
G47	Hawthorn	3	3	3	3	0.5	0	-	200	EM	F	F	Group of small trees with no significant value	None	10+	C2	2.4	18.10
G48	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	100	SM	F	F	Group of small trees with low value	None	10+	C2	1.2	4.52
G49	Holly	8	3	3	3	3	0	-	350	SM	G	F	Group of small trees with no significant value	None	20+	B2	4.2	55.42
G50	Oak	3	3	3	3	3	0	-	190	Y	G	G	Group of small trees with no significant value	None	10+	C2	2.3	16.33
G51	Oak	4	2	2	2	2	0	-	200	Y	G	G	Group of small trees with no significant value	None	10+	C2	2.4	18.10
G52	Aspen	16	4	7	7	7	3	-	400	SM	G	F	Unable to inspect stem due to Ivy. Shared root plate. damage to north tree stem	None	20+	B1	4.8	72.38

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G53	Common Alder	15	8	8	8	8	4	-	600	M	G	G	Alder tree with good landscape value due to good form.	None	40+	A2	7.2	162.86
G54	Holly	6	2	3	2	2	0	-	320	SM	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.	None	10+	C2	3.8	46.32
G55	Hazel	6	2	2	2	2	0	-	100	M	G	F	Coppice. Line of trees forming visual screen.	None	20+	B2	1.2	4.52
G56	Holly	12	5	5	5	5	0	-	400	SM	G	F	Line of trees forming visual screen.	None	20+	B2	4.8	72.38
G57	Hazel	6	1	1	1	1	0	-	300	SM	G	F	Coppice. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Line of trees forming visual screen.	None	20+	B2	3.6	40.72
G58	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	120	SM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	1.4	6.51
G59	Ash, Hawthorn	4	3	3	3	3	0		200	EM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	2.4	18.1
G60	Ash, Hawthorn	4	3	3	3	3	0		200	EM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	2.4	18.1
G61	Hawthorn, Sycamore, Hazel	4	3	3	3	3	0		250	EM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	3	28.27
G62	Hawthorn, Sycamore, Hazel	4	3	3	3	3	0		200	EM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	2.4	18.1
G63	Hawthorn, Sycamore, Hazel	4	3	3	3	3	0		200	EM	F	F	Trees along boundary of felled woodland area, canopies encroaching into field	None	10+	C2	2.4	18.1
W1 (Ancient woodland)	Oak, Beech, Sycamore, Silver birch, Scots Pine	8	6	10	8	5	4	-	200 - 830	SM	G	F	Primary limb failure has occurred on several trees	None	20+	B2	10	311.65
W2	Sycamore, Oak, Hawthorn, Scots Pine, Norway Spruce, Silver Birch, Crack Willow, Ash	24	10	7	12	7	4	-	500 - 1060	M	G	G	Woodland area comprising of good range of species. larger trees along extent of area with hawthorn understorey	None	20+	A2	12.7	508.30
W3	Hybrid Black Poplar, Scots Pine, Oak, Sycamore	25	3	10	15	10	4	-	500 - 1040	M	G	F	Leaning South. Small volume of deadwood in crown.	None	40+	A2	12.5	489.30

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
W4	Silver Birch, Sycamore ,Oak, Hawthorn, Goat Willow	17	3	3	3	3	3	-	400 - 1160	M	G	G	Predominantly slender birch and large mature oak trees. hawthorn understorey	None	40+	A2	13.9	608.74
H1	Hawthorn, Blackthorn, Hazel, Holly, Field Maple	2	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Hedgerow managed at 2m height	None	10+	C2	0.9	2.54
H2	Small-leaved Lime	2.5	0.5	0.5	0.5	0.5	0	-	150	M	G	F	Section of managed lime hedgerow. mature trees as old coppice within lime	None	20+	B2	1.8	10.18
H3	Hawthorn, Blackthorn, Holly	2	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Hedgerow managed at 2m height	None	10+	C2	0.9	2.54
H4	Hawthorn, Blackthorn, Holly, Hazel	2	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Hedgerow managed at 2m height	None	10+	C2	0.9	2.54
H5	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Boundary hedgerow managed at 1.5 m	None	10+	C2	0.9	2.54
H6	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow at 1.5m. small section taller due to proximity to pole	None	10+	C2	0.9	2.54
H7	Hawthorn	5	2	2	2	2	0	-	200*	M	G	F	Hedgerow on adjacent side of drainage ditch	None	20+	B2	2.4	18.10
H8	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	100	SM	G	F	Unable to inspect stem due to Ivy.	None	20+	B2	1.2	4.52
H9	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H10	Hawthorn	1	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H11	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H12	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
H13	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H14	Hawthorn	1	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H15	Hawthorn, Holly	2	0.5	0.5	0.5	0.5	0	-	75	SM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H16	Hawthorn, Field Maple	2	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H17	Hawthorn, Field Maple	1	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H18	Hawthorn, Field Maple	3	0.5	0.5	0.5	0.5	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H19	Hawthorn, Holly, Oak	3	0.5	0.5	0.5	0.5	0	-	240	EM	G	F	Managed hedgerow, small mix of species	None	20+	B2	2.9	26.06
H20	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	90	M	F	F	Hedgerow along boundary with intermittent gaps	None	10+	C2	1.1	3.66
H21	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	90	M	F	F	Hedgerow along boundary with intermittent gaps	None	10+	C2	1.1	3.66
H22	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	150	SM	F	F	Managed hedgerow	None	10+	C2	1.8	10.18
H23	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	100	SM	F	F	Managed hedgerow	None	10+	C2	1.2	4.52
H24	Hawthorn	6	1	1	1	1	0	-	150	M	G	F	Line of trees forming visual screen.	None	20+	B2	1.8	10.18
H25	Hawthorn	3	1	1	1	1	0	-	200	M	G	F	Unable to inspect stem due to Ivy. Flailed hedgerow	None	20+	B2	2.4	18.10
H26	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H27	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H28	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	100	M	G	F	Managed hedgerow	None	20+	B2	1.2	4.52
H29	Holly, Hawthorn	4	1	1	1	1	0	-	75	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H30	Holly, Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75- 200	EM	F	F	Managed hedgerow	None	10+	C2	0.9	2.54
H31	Hawthorn, Hazel, Oak	3	0.5	0.5	0.5	0.5	0	-	100 - 200	SM	F	F	Managed hedgerow	None	10+	C2	1.2	4.52

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
H32	Holly, Hawthorn	6	1	1	1	1	0	-	100 - 200	SM	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Line of trees forming visual screen.	None	20+	B2	2.4	18.10
H33	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	100	EM	F	F	Managed hedgerow	None	10+	C2	1.2	4.52
H34	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	200	M	F	F	Managed hedgerow	None	10+	C2	2.4	18.10

Key

***** - Denotes estimated measurement where access to tree stems was restricted or not accessible

Tree/ Group Ref No. – tree/group number, to be recorded on tree survey plan where necessary.

Species – common and scientific names where possible.

Height – overall height of tree in metres.

Stem Dia – stem diameter, in millimetres at 1.5m above adjacent ground level (on sloping ground to the taken on the upslope of the tree base)

Branch spread – in meters taken at the four cardinal points to derive an accurate representation of the crown (to be recorded on the tree survey plan where necessary). # - Refer to TCP for canopy spread

FSB – First significant branch at height and in direction. Where significant branch does not occur or there are multiple branches, this has been noted (-).

Height of cc – height of crown clearance – in meters above adjacent ground level to inform on ground clearance, crown stem ratio and shading.

Age class – young (Y), early mature (EM), semi mature (SM), mature (M), over mature (OM) and veteran (V).

Physiological condition – e.g. presence of crown decline, disease, discolouration of leaves - good (G), fair (F), poor (P) and dead (D).

Structural condition – e.g. collapsing, the presence of decay and any physical defect - good (G), fair (F), poor (P) and dead (D)

Management recommendations – including further investigations of suspected defects that require more detailed assessment and potential wildlife habitat.

ERC – estimated remaining contribution – in years e.g. less than 10, 10-20, 20-40, more than 40.

Cat grade – category grade – U or A to C, to be recorded in plan on the tree survey plan where possible.

RPA – Root protection area calculated from BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations in sq/m. Where indicated, dimensions of radius of circle or sides of square based around centre point of trunk calculated for design purposes.

Appendix 3. Table 2 - Cascade Chart for the Quality Assessment[2]

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse including those that will become unviable after removal of other category U trees (e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate, or irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees supressing adjacent trees of better quality. *Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve.*			See Table 1
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g., the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran or trees or wood pasture).	See Table 1
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in Category A, but were downgraded because of impaired condition (e.g., presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing groups or woodlands, such that they attract a higher collective rating than they might attract as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	See Table 1
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of <150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	See Table 1

[2] The British Standards Institute 2012, Page 9 – Table 1.

Appendix 4. Tree Constraints Plan

Notes

Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
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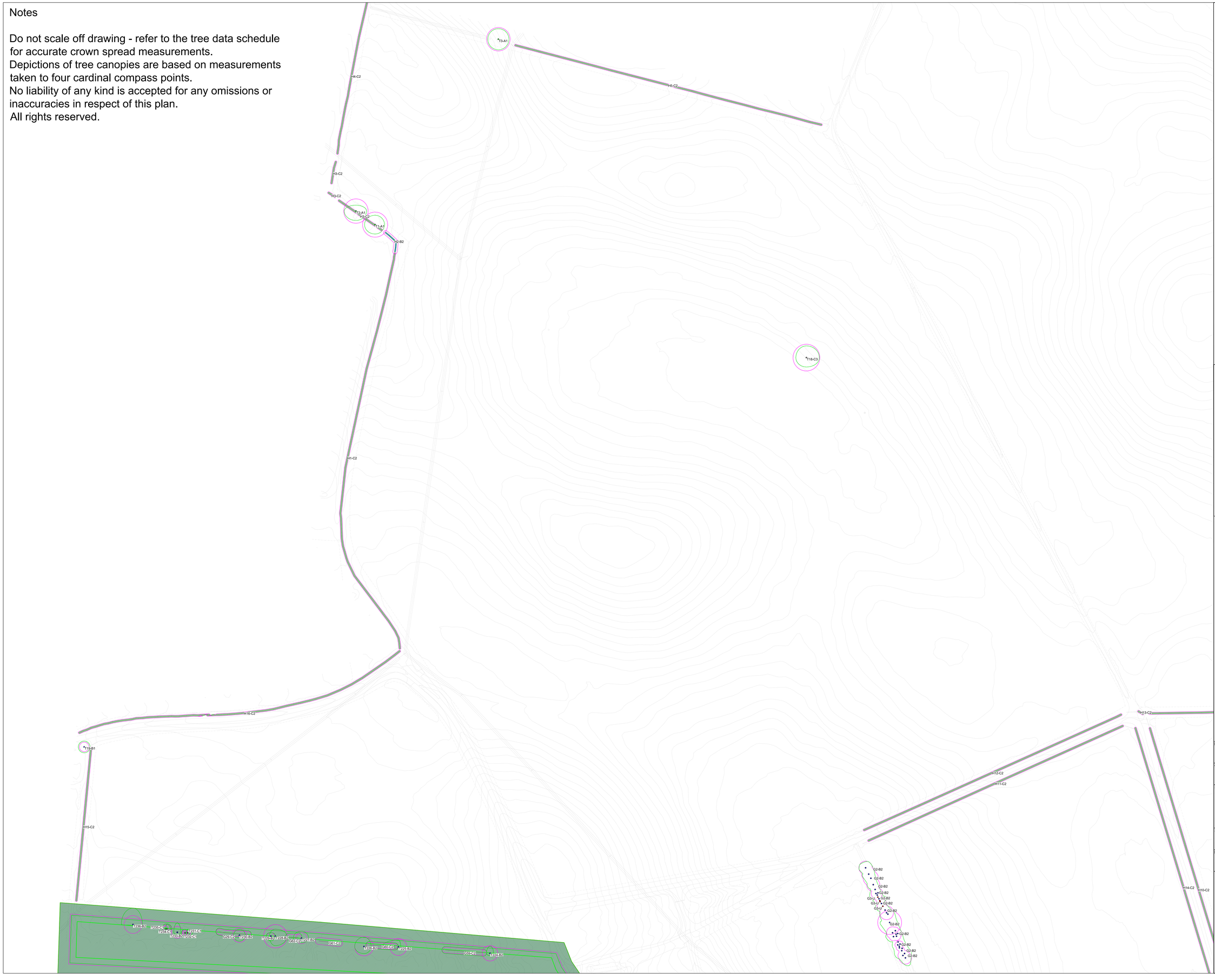
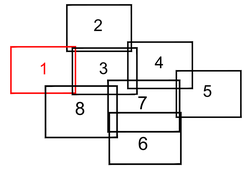


Key

- Trees — Showing Canopy extents, category colour and tag number (with category). (T1-B)
- Category A — Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- Category B — Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C — Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.
- Category U — Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
- Tree Groups — Shown as dashed centre/boundary line. Colour represents category (see above)
- BS 5837:2012 Root Protection Area
- Default BS 5837:2012 Root Protection Area before adjustment due to site constraints
- Ancient Woodland Buffer Zone (15M)

Sheet Key



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Drawing Title
Tree Constraints Plan

Client
BayWa r.e.

Site/Project
Thormanby Solar
Briar Hill

Scale/Sheet	Date		
A0 1-1000	11/04/2025		
Drawing No	**Rev**	**Drawn By**	**Chked By**
157.TCP	2	DB	AW

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Notes

Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
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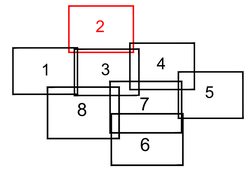

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T12-B1
T18-C3
T13-C1
T14-C1
T15-C1
T16-C1
T17-C1
G1-B2
G1-B2
G1-B2
T22-U
T23-C1
T24-U
T25-U
T26-U
H13-C2
H5-C2
H12-C2
H11-C2
G2-B2
G2-B2
G2-B2
G2-B2
G2-B2
G3-U
G2-B2
G3-U
G2-B2
G2-B2
G2-B2
G2-B2
G2-B2
G2-B2
H14-C2
H10-C2
H3-B2
H31-C2
H31-C2
H31-C2
H31-C2
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Default BS 5837:2012 Root Protection Area before adjustment due to site constraints

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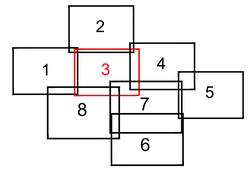

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H20-C2
H20-C2
H20-C2
G10-C2
H21-C2
T36-A2
T37-B1
T38-B2
T39-A2
T40-A2
T41-C2
G10-C2
G10-C2
H22-C2
H22-C2
T42-B1
T44-B1
G11-B1
G11-B1
G11

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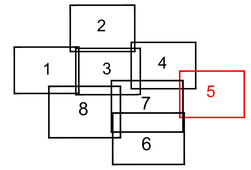

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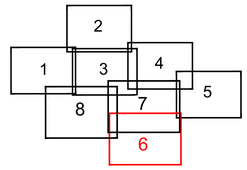

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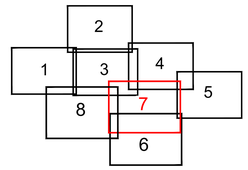

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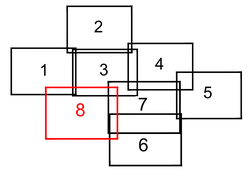
BS 5837:2012 Root Protection Area

Default BS 5837:2012 Root Protection Area before adjustment for site constraints

Ancient Woodland Buffer Zone (15M)

Sheet Key



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Sessay Park,

Sessay

Arboricultural Survey

May 2025

Report reference	157.ArbSP
Revision	1
Prepared by	Dan Brown (FdSc Arb)
Supervised and approved by	Andrew Westgarth (BSc, MSc, CEnv)
Issue date	09/05/2025

This report is valid for a period of 12 months from the issue date.

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1 Introduction

1.1.1.1 This report presents the results of an Arboricultural Survey undertaken on the site at Sessay Park, Blind Piece Lane, nearest postcode YO7 3NP. site is approximately 175 ha and is centred on approximate approximate grid reference SE 4536 7403.

1.1.1.2 The Arboricultural Survey has been undertaken to provide supporting information for proposed development of the site.

1.1.1.3 The Arboricultural Survey included a Tree Constraints Survey which was conducted on multiple dates through January and February 2025 by Dan Brown (FdSc Arb).

Figure 1. Site location and approximate site boundary (Aerial imagery dated 2025)

2 Methodology

2.1.1.1 This Arboricultural survey covers those trees or groups of trees which are considered relevant for the brief. During the survey all relevant individual trees and groups of trees located within and close to the boundary of the site were assessed.

2.1.1.2 The objective of the survey was to collect tree data relevant to the proposed works at the site and to categorise individual trees or tree groups in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'[1] based on their condition, quality and future potential.

2.1.1.3 The purpose of the categories within BS 5837:2012 is not to determine whether retention of trees is desirable, 'The purpose of the tree categorization method, which should be applied by the arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of the development occurring.' (BS 5837:2012, Section 4.5.2). This survey should therefore be regarded as an initial appraisal with observations recorded for trees within and adjacent to the site. Remedial tree works, foundation design and material specification are not covered within this report.

2.1.1.4 The location of the trees is shown within the attached Tree Constraints Plan (TCP) (Appendix 4). A detailed inspection of the trees with respect to decay, defects and hazard is not included. The tree locations are as shown on the topographical drawing supplied.

2.1.1.5 The site survey was conducted on multiple dates through January – February by Dan Brown (FdSc Arb) in accordance with the BS 5837:2012 methodology[1].

2.1.1.6 Information collected during the survey included species, height, stem diameter, branch spread, height of crown clearance, age class, physiological condition, structural condition, estimated remaining contribution and category grade. The survey was made at ground level using visual assessment of the tree canopy and stem. No removal of vegetation, digging or drilling was undertaken during the survey and parts of the stems of some trees remained partly obscured by vegetation.

2.1.1.7 The TCP in Appendix 4 shows the positions, canopy spreads and Root Protection Areas (RPA) of the trees included within the survey. The RPA's have been calculated in accordance with Section 4.6 of BS 5837:2012. Where significant ground constraints, such as roads, walls, buildings, water bodies are likely to restrict and influence root development, the RPA circles have been adjusted to form a polygon of equivalent area, in order to show the likely rooting area for trees subjected to significant constraints, in accordance with paragraph 4.6.2 of BS5837:2012.

2.1.1.8 When considering the layout of the site and the retention of trees, proposals should generally be kept outside of both the RPA and the canopy spreads. However, it may be possible to encroach into these with access roads, footpaths and parking areas assuming the existing ground levels can be maintained, and the appropriate construction methods are used. No liability can be accepted by Quants Environmental in respect of the trees or for events which happen after the time of the survey.

[1] British Standards Institution (BSI) BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations. Published by BSI Standards Limited 2012. ISBN 978 0 58069917 7.

3 Results

3.1.1.1 The survey results are shown in Appendix 2 (Tree Survey Results – Table 1) and Appendix 3 (Tree Constraints Plan). The trees included within this survey comprise of 334 individual trees, 61 groups of trees, 13 hedgerows and 7 woodlands.

- 73 individual trees were classified as Category A;
- 118 individual trees were classified as Category B;
- 128 individual trees were classified as Category C;
- 15 individual trees were classified as Category U;
- 5 tree group were classified as Category A;
- 27 tree groups were classified as Category B;
- 27 tree groups were classified as Category C;
- 2 tree groups were classified as Category U;
- 2 hedgerows were classified as Category B;
- 11 hedgerows were classified as Category C;
- 5 woodland groups were classified as Category A; and
- 2 woodland groups were classified as Category B

3.1.1.2 The species on site consisted of predominantly common alder *Alnus glutinosa*, Austrian Pine *Pinus nigra* ssp., beech *Fagus sylvatica* Blackthorn *Prunus spinosa*, Common Alder *Alnus glutinosa*, Crack Willow *Salix fragilis*, European ash *Fraxinus excelsior*, Field Maple *Acer campestre*, Goat Willow *Salix caprea*, *Hawthorn Crataegus monogyna*, Hazel *Corylus avellana*, Holly *Ilex aquifolium*, Hybrid Black Poplar *Populus* x *canadensis*, Lawson Cypress *Chamaecyparis Lawsoniana*, Norway Spruce *Picea abies*, Oak *Quercus robur*, Silver Birch *Betula pendula*, Small-leaved Lime *Tilia cordata*, Sycamore *Acer pseudoplatanus*.

3.1.1.3 The site comprises of several open fields used for arable farming. The site is split into two areas by Birdforth Beck which cuts across the middle of the site. To the north is predominantly open fields used for crops, with the farm buildings situated towards the centre of the area. The south of the site is predominantly occupied by poultry farming, adjacent to the south boundary of the site and access track. The site has three main access points, with one to the northwest and southwest towards Blind Piece Lane, and one further access to the southeast towards Jobbing Cross. The railway line to the east runs along most of the east boundary to the site, only separated by woodland further towards the southeast corner.

3.1.1.4 To the north and northwest of the site along the site boundaries there are drainage ditches with significantly steep bankings which are concluded to have restricted potential root growth of W2, W3, W4 and G4 which have been noted in the TCP (See Appendix 4).

3.1.1.5 With the fields still in use for crops, the fields are routinely ploughed every year. Ploughing can reach to approximately 150 mm depth, and so it is envisaged that where roots are encroaching into these fields, there will not be any roots within the first 150mm depth of soil. Whilst presence of roots to this depth is unlikely, there is still potential for roots to be at a greater depth, albeit a smaller volume than stated within the estimated BS5837:2012 standards.

3.1.1.6 A Tree Preservation Order (TPO) check for the site was carried out via the interactive TPO map on the North Yorkshire Council website on April 5th 2025. Three woodland areas (W1,W4 and W7) were concluded to be under a TPO (ref 1984/01 ID A1A,A1B,A2). The woodland to the south of the site (W5) falls under a Site of Special Scientific Interest (SSSI).

3.1.1.7 The prominent arboricultural features on the site are the woodland areas located along the boundaries to the site as well as one woodland further into the site which is along the existing access (W1). The woodland areas comprise predominantly of mature trees with a wide range of species such as oak, ash, birch, beech, Scots pine and Norway spruce. Most woodlands were classified as Category A due to comprising of arboricultural significance such as large mature oak and ash trees, providing good arboricultural value and habitat value through characteristics such as large volumes of deadwood, cavities, cracks etc. W2 and W3 were classified as Category B due to comprising of smaller and younger trees but still providing good landscape value to the surrounding area.

3.1.1.8 73 individual trees and 5 tree groups were classified as Category A, comprising predominantly of large mature trees located along the field boundaries, particularly towards the south and west boundaries of the site, as well as being located along Bird forth beck, particularly to the west of crossing point between the two areas of the site.

3.1.1.9 118 individual trees were classified as Category B, predominantly comprising of semi mature – mature ash, oak, alder and sycamore trees located along the borders noted for providing good landscape value, or being in good condition and form, showing good potential to become significant trees in future.

3.1.1.10 27 groups of trees were classified as Category B. Throughout the site, many trees have been grouped together due to the likely fusion of root plates due to being self-sown so close together. RPAs have been merged to show this likely co-dependency of structural support through each root system. Other trees have been grouped where they have similar characteristics or form continuous canopies, providing a collective landscape value. Most tree groups were classified as Category B due to good landscape value provided along the field boundaries, with groups marked down to Category C where value was lessened due to noted decline in physiological or structural condition or presenting poor shape form.

3.1.1.11 The site comprises of ash trees with symptoms indicating ash dieback disease *Hymenoscyphus fraxineus* throughout the site. Whilst not all trees are in significant decline from the disease, the assumption that the physiological decline will increase over the time has resulted in several ash trees being marked down in value, due to their potential lessened remaining time of contribution to the site.

3.1.1.12 Most hedgerows comprised of well managed or newly planted hawthorn at an average of 2m in height which were located along the field boundaries, with most hedgerows being classified as Category C due to lack of species diversity, intermittent gaps or general significance to the surrounding landscape. Two hedgerows were classified as Category B due to a higher visual quality due to size or fuller canopy leading to better landscape value.

3.1.1.13 A total of 15 individual trees and 2 tree groups were classified as Category U due to either being dead or being in such structural or physiological decline, that the tree was not envisaged to last longer than 10 years.

3.1.1.14 All remaining trees were concluded to be of low value due to characteristics such as poor form, young age, declining condition or having a stem diameter of under 150mm and have therefore been classified as Category C.

4 Conclusions and Recommendations

4.1.1.1 During the survey 334 individual trees, 61 groups of trees, 13 hedgerows and 7 woodlands were surveyed.

4.1.1.2 The high value tree, tree groups and hedgerows are located along the site boundaries and Birdforth Beck which runs across the middle of the site, which will provide the main constraint for any proposed development. It is recommended that a buffer zone be considered along the site boundaries and trees along the beck to avoid RPAs of trees, utilising the open fields instead to avoid conflict with roots.

4.1.1.3 Woodland areas which will be of particularly significant constraint to site development are situated to the north, south and west extents of site, with W1, W4 and W7 being protected under a TPO, and W5 under a SSSI. Proposed development is recommended to avoid any encroachment into these RPAs due to the significance of these woodlands.

4.1.1.4 It is recommended that all Category A trees on site are retained due to their significant value, with proposed development avoiding RPAs where possible, utilising no dig construction methods where unavoidable.

4.1.1.5 Category B trees should be retained where possible, with suitable mitigation required through replacement planting where removal is unavoidable.

4.1.1.6 Where possible, all Category C trees should be retained to allow retention of existing canopy within the site, however, where removal is required, suitable replacement planting with trees of improved form will likely increase the longevity of the canopy of these trees.

4.1.1.7 Category U trees should be retained where possible, where trees are concluded to provide high ecological value through habitat potential.

4.1.1.8 All tree works are to be conducted by a qualified arborist and are to be in accordance with BS 3998:2010.

4.1.1.9 Existing tracks are recommended to be used for any proposed development to avoid further excavation within RPAs where possible. It is likely that through soil compaction, potential root growth has been hindered in these areas, and so utilising these tracks would minimise additional impact to the trees on site.

4.1.1.10 All retained trees will require protection of their RPA’s and canopies during any development of the site.

4.1.1.11 An Arboricultural Tree Protection Plan and Working Method Statement should be produced prior to works commencing on site. The Arboricultural Tree Protection Plan and Working Method Statement should cover detailed methods for construction and operation within any of the RPAs in order to minimise the potential for adverse effects on these trees, e.g., digging using hand tools and supervision by a suitably qualified arboriculturist, in accordance with BS5837:2012.

4.1.1.12 During supervised work within the RPAs and canopies, if trees are considered to become unsafe e.g., due to unavoidable severance of significant roots, such trees may need to be felled by a qualified tree surgeon. Any such loss of trees should be mitigated where practicable with replacement tree planting on site, to be agreed with the Local Planning Authority. The Arboricultural Tree Protection Plan and Working Method Statement should cover compensation planting as required.

4.1.1.13 Detailed methods for construction and operation should be developed in order to minimise the potential for adverse effects on trees.

4.1.1.14 Where appropriate, all the trees to be retained should be protected with a tree protection fence in line with BS5837:2012 current recommendations.

4.1.1.15 The loss of any trees should be mitigated where practicable with suitable replacement tree planting on site, to be agreed with the Local Planning Authority. Any new landscaping should be maintained to promote longevity.

Appendix 1. Photographs

Photograph 1. Entrance to site from Northwest corner, W2 and W3 on either side.

Photograph 2. Example of steep bankings providing constraint to potential root growth to the northwest of the site

Photograph 3. View across W1, along existing track to site farm

Photograph 4. View towards W4 along drainage ditch

Photograph 5. View along railway track which run alongside the east border

Photograph 6. Context photograph of site area from north boundary

Photograph 7. View of W5 with track leading towards poultry farm

Photograph 8.View along W6 extent, track alongside boundary

Photograph 9. View towards W7

Photograph 10. View of trees along Birdforth Beck from the east

Photograph 11. Further context photograph of trees along Birdforth Beck

Photograph 12. Context photograph of site towards poultry farm

Photograph 13. Mature ash tree along Birdforth Beck, example of many Category A trees found along the site boundaries and beck.

Appendix 2. Table 1 - Tree Survey Results

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T1	Beech	12	4	4	3	3	3	-	480	EM	F	F	Cavity on main stem. Failure of stem above 5m.Adjacent to track	None	10+	C1	5.8	104.23
T2	Beech	6	0	0	1.5	3	3	-	200	Y	G	F	Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T3	Oak	16	8	8	8	10	3	-	660	M	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	7.9	197.06
T4	Oak	15	5	6	6	5	4	-	550*	EM	G	F	Small volume of deadwood in crown. Unbalanced crown shape. Inaccessible due to other side of ditch. pruned for line clearance	None	20+	B1	6.6	136.85
T5	Beech	12	6	4	6	5	4	-	550*	EM	G	F	Small volume of deadwood in crown. Unbalanced crown shape. Failure of stem above 5m.Inaccesible due to other side of ditch. pruned for line clearance	None	20+	B1	6.6	136.85
T6	Oak	12	5	5	5	5	3	2w	320*	EM	G	F	In good condition and form. Small volume of deadwood in crown. Failure of stem above 5m.Inaccesible due to other side of ditch	None	20+	B1	3.8	46.32
T7	Oak	14	7	5	7	5	3	2n	450*	EM	G	F	In good condition and form. Ivy on tree. Stem divides above 1.5m. Small volume of deadwood in crown. Inaccessible due to located on other side of ditch.	None	20+	B1	5.4	91.61
T8	Oak	8	6	6	6	6	3	-	520	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	20+	B1	6.2	122.33
T9	Oak	12	6	6	6	6	1	-	400,400,360	M	G	G	In good condition and form. Multiple stems below 1.5m. Small volume of deadwood in crown. Old coppice	None	20+	B1	8.1	203.68
T10	Ash	12	6	6	4	3	1	-	75,75,75,75,200,140	M	G	G	Multiple stems below 1.5m. Small volume of deadwood in crown. Unbalanced crown shape. Old coppice	None	20+	B1	3.4	37.26
T11	Oak	4	3	2	3	1	1	-	140,200,75	EM	G	F	Multiple stems below 1.5m. Unbalanced crown shape.	None	10+	C1	3.1	29.42
T12	Hawthorn	5	2.5	2.5	2.5	2.5	0	-	100,80	Y	G	F	Stem divides below 1.5m. Poor included union of codominant stems. Adjacent to water course.	None	10+	C1	1.5	7.41

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T13	Oak	7	6	5	6	5	0	-	370,200,90	EM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown. Unbalanced crown shape. Adjacent to water course.	None	10+	C1	5.2	83.65
T14	Oak	9	6	8	6	8	3	-	480,440	SM	G	F	Stem divides above 1.5m. Poor included union of codominant stems. Small volume of deadwood in crown.	None	20+	B1	7.8	191.72
T15	Oak	9	5	5	5	5	3	2e	330	EM	G	G	Self-sown tree along hedgerow.	None	10+	C1	4	49.27
T16	Goat Willow	5	6	6	2	6	0	-	75	SM	F	F	Multiple stems below 1.5m. Unbalanced crown shape. South side of canopy flailed	None	10+	C1	2.8	25.41
T17	Hawthorn	4	1	1	2	1	0	-	100,75,60	Y	F	F	Multiple stems below 1.5m.	None	10+	C1	1.7	8.74
T18	Hawthorn	4	1	1	0.5	1.5	0	-	100,75,90,75	Y	F	F	Multiple stems below 1.5m.	None	10+	C1	2.1	13.23
T19	Hawthorn	3	0.5	0.5	2	1	0	-	75,75,75,60	Y	F	F	Multiple stems below 1.5m.	None	10+	C1	1.7	9.25
T20	lime	4	2	2	2	2	1	-	75,75,60,60,50	Y	F	F	Stem divides below 1.5m.	None	10+	C1	1.7	9.51
T21	Hawthorn	4	3	2	4	1	0	-	75,75,90,60	EM	F	F	Stem divides below 1.5m.	None	10+	C1	1.8	10.31
T22	Silver Birch	15	3	5	5	3	1	1w	350,400	SM	G	F	Stem divides below 1.5m.	None	20+	B1	6.4	128.04
T23	Elder	6	5	1	1	5	0	-	200,150,150	EM	F	F	Multiple stems below 1.5m.	None	10+	C1	3.5	38.57
T24	Hawthorn	5	1	3	4	3	0	-	120,120,120	SM	F	F	Stem divides below 1.5m.	None	10+	C1	2.5	19.57
T25	Hawthorn	4	2	2	2	1	1	-	75,60	Y	F	F	Small tree with low value.	None	10+	C1	1.2	4.17
T26	Hawthorn	4	2	2	2	0.5	1	-	80	Y	F	F	Small tree with low value.	None	10+	C1	1	2.90
T27	Goat Willow	5	5	2	5	3	0	-	120,120,120,80,80	EM	F	F	Multiple stems below 1.5m.	None	10+	C1	2.8	25.41
T28	Sycamore	17	3	3	3	3	3	-	380	SM	G	G	Adjacent to water course. Narrow crown	None	20+	B1	4.6	65.33
T29	Common Alder	16	6	6	7	5	3	-	300,400,350,450,460,80	M	G	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides below 1.5m. Adjacent to water course. Old coppice	None	20+	A3	10.7	359.14
T30	Common Alder	16	4	6	4	4	1	-	290,330,440,120,180	M	G	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Adjacent to water course. Old coppice	None	20+	B1	7.9	195.87
T31	Common Alder	16	4	4	5	3	3	-	250,230	SM	G	F	Stem divides below 1.5m. Poor included union of codominant stems. Adjacent to water course.	None	10+	B1	4.1	52.30

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T32	Common Alder	16	1	3	5	3	3	-	240,150,90,110	SM	G	F	Declining. Stem divides below 1.5m. Poor included union of codominant stems. Adjacent to water course.	None	10+	C1	3.8	45.46
T33	Common Alder	14	4	6	5	3	4	-	420,160,80,80,100	M	F	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides below 1.5m. Small volume of deadwood in crown. Adjacent to water course.	None	20+	B1	5.7	101.64
T34	Crack Willow	18	10	10	10	10	3	-	610,620	M	G	P	Stem divides at ground level. Damage to base of stem east not occluded resulting in large wound. Spreading crown	Reduce height and retain as habitat stem	10+	C3	10.4	342.41
T35	Common Alder	15	3	5	2	2	3	-	250,250,250,250	SM	F	F	Multiple stems below 1.5m. Dieback in crown >25%.	None	10+	C1	6	113.10
T36	Common Alder	15	3	4	1	1	2	-	680	M	P	P	Suckers around stem base. >75% loss of crown. Significant decline. fruiting bodies of k.deusta present at base	None	<10	U	8.2	209.18
T37	Common Alder	10	2	5	3	3	1	-	590,100,75,75,75,75	M	F	F	Upper crown declining, with dead limbs present. Suckers at base which have grown large	None	10+	C3	7.4	172.22
T38	Common Alder	13	4	5	3	4	1	-	330,200,340,330	M	G	F	Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B2	7.3	168.89
T39	Common Alder	13	5	6	3	4	3	-	390,380,340,200,75	M	G	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B2	8.1	207.34
T40	Common Alder	8	1	1	3	3	3	2s	200	EM	F	F	Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T41	Common Alder	8	2	0	4	4	3	2s	200	EM	F	F	Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T42	Common Alder	14	4	6	7	3	3	-	390,340,120	M	G	F	Unable to inspect stem due to undergrowth. Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B1	6.4	127.56

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T43	Common Alder	14	3	3	7	6	3	-	390,340,120	M	F	G	Small volume of deadwood in crown. Upper crown in decline	None	20+	B1	6.4	127.56
T44	Hawthorn	4	1	1	1	1	1	-	180,90	M	F	F	Stem divides below 1.5m. Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.28
T45	Common Alder	4	2	1	0.5	1	1	-	90	Y	F	F	Leaning North-East. Suppressed form due to adjacent tree.	None	10+	C1	1.1	3.66
T46	Sycamore	10	3	2	2	4	2	3w	280,90,90	EM	G	F	Leaning West. Suckers around stem base. Multiple stems below 1.5m.	None	20+	B1	3.7	42.92
T47	Common Alder	13	3	2	5	5	2	3n	520	M	G	F	Leaning South-West. Broken branches in crown. Unbalanced crown shape.	None	20+	B1	6.2	122.33
T48	Ash	4	0.5	2	0.5	0.5	0.5	-	90	Y	F	F	Suppressed form due to adjacent tree.	None	10+	C1	1.1	3.66
T49	Common Alder	10	2	3	5	3	1	-	480	M	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	5.8	104.23
T50	Common Alder	3	1	0.5	2	2	0.5	-	80,100	EM	F	P	Poor shape & form. Low vitality. Stem divides below 1.5m.	None	10+	C1	1.5	7.41
T51	Common Alder	3	0	0	3	1	1	-	100	EM	F	P	Failure of main stem at 1m with primary limb left as remaining crown	None	10+	C1	1.2	4.52
T52	Hawthorn	5	3	2	3	3	0	-	120,90,75,90	M	F	F	Multiple stems below 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	<10	C1	2.3	16.33
T53	Common Alder	13	1	2	1	1	1	-	420	M	P	P	Leaning East. Suckers around stem base. Significant decline with minor response growth	None	<10	U	5	79.80
T54	Common Alder	8	4	3	3	3	3	-	250,250	SM	G	F	Stem divides below 1.5m. Poor included union of codominant stems. One stem failed just above 1.5m	None	20+	B1	4.2	56.69
T55	Hawthorn	4	0.5	0.5	0.5	0.5	0	-	90	Y	F	F	Suppressed form due to adjacent tree.	None	10+	C1	1.1	3.66

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T56	Common Alder	3	1	0.5	0.5	1	1	-	110	EM	F	F	Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	1.3	5.47
T57	Hawthorn	1.5	0.5	0.5	0.5	0.5	0.5	-	75	EM	F	F	Topped at 1.5 m	None	10+	C1	0.9	2.54
T58	Hawthorn	5	2	2	2	0.5	0	-	90,90	EM	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m.	None	10+	C1	1.5	7.30
T59	Common Alder	14	3	5	4	3	1	-	630,380	M	P	P	Unable to inspect stem due to undergrowth. Suckers around stem base. Multiple stems below 1.5m.Tree in significant decline with minimal response growth	None	<10	U	8.8	245.06
T60	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	Suppressed form due to adjacent tree.	None	10+	C1	0.9	2.54
T61	Common Alder	15	3	3	1	3	1	-	440	M	P	P	Unable to inspect stem due to undergrowth. Suckers around stem base. Tree in significant decline with minimal response growth	None	<10	U	5.3	87.58
T62	Ash	14	2	3	3	3	2	-	200,110	EM	G	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Suppressed form due to adjacent tree.	None	10+	C1	2.7	23.52
T63	Common Alder	14	4	3	1	1	3	3s	450	M	F	P	Declining. Decay present on stem. Fungal brackets visible on stem. Cavity on stem. Suckers around stem base.	None	<10	U	5.4	91.61

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T64	Common Alder	10	2	2	5	3	1	2n	280	SM	F	F	Small volume of deadwood in crown. Broken branches in crown. Suppressed form due to adjacent tree.	None	10+	C1	3.4	35.47
T65	Common Alder	15	6	5	3	4	4	-	430	M	G	G	Leaning North-East. Small volume of deadwood in crown.	None	20+	B1	5.2	83.65
T66	Common Alder	15	4	4	4	4	4	-	440	M	G	G	Small volume of deadwood in crown.	None	40+	A1	5.3	87.58
T67	Hawthorn	4	0.5	0.5	0.5	0.5	0	-	110	Y	F	F	Suppressed form due to adjacent tree.	None	10+	C1	1.3	5.47
T68	Ash	15	1	1	2	1	3	3s	220	EM	F	G	Unbalanced crown shape.	None	20+	B1	2.6	21.90
T69	Ash	10	1	1	2	1	3	-	200	EM	F	G	Stem divides above 1.5m. Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T70	Hawthorn	4	0.5	1	1	0.5	1	-	220	EM	F	F	Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	2.6	21.90
T71	Common Alder	16	7	7	6	6	4	-	690,700	M	G	G	Prominent tree in area. Stem divides at ground level. Small volume of deadwood in crown.	None	40+	A1	11.8	437.14
T72	Common Alder	15	3	4	5	5	2	3s	340,180	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	4.6	67.06
T73	Common Alder	15	3	3	2	1	2	3s	340,180	SM	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	4.6	67.06
T74	Common Alder	16	8	3	5	5	3	3s	630	SM	G	G	Suckers around stem base.	None	20+	B1	7.6	179.55

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T75	Ash	15	7	5	4	5	2	-	410,320	SM	G	F	Stem divides below 1.5m. Poor included union of codominant stems. Small volume of deadwood in crown.	None	20+	B1	6.2	122.33
T76	Ash	16	4	4	4	4	2	4s	300	SM	G	G	Unbalanced crown shape.	None	20+	B1	3.6	40.72
T77	Common Alder	8	1	3	5	1	1	2s	380	M	F	F	Failure of stem above 5m.	None	10+	B3	4.6	65.33
T78	Common Alder	16	6	6	6	6	3	3s	500,480	M	G	G	Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides below 1.5m.	None	40+	A1	8.3	217.26
T79	Ash	14	4	4	4	2	3	3n	320	EM	F	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	10+	C1	3.8	46.32
T80	Ash	14	5	2	4	3	2	3s	290	SM	G	F	Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	3.5	38.05
T81	Ash	20	8	8	8	8	3	3w	890	M	G	F	Prominent tree in area. Major deadwood in crown. Cavities present on limbs.	None	40+	A1	10.7	358.34
T82	Common Alder	15	7	2	3	7	3	3n	650,680	M	G	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides at ground level. One of the codominant stems has failed at 4m	None	40+	A2	11.3	400.58

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T83	Hawthorn	3	0.5	0.5	0.5	1	0	-	120	M	F	F	Stem divides below 1.5m.Stem failure at 1m	None	10+	C1	1.4	6.51
T84	Crack Willow	17	9	9	7	7	1	3s	840	M	G	F	Prominent tree in area. Multiple stems above 1.5m. Small volume of deadwood in crown.	None	40+	A2	10.1	319.21
T85	Common Alder	10	4	2	4	3	2	3n	450	SM	F	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Small volume of deadwood in crown. Unbalanced crown shape.	None	10+	C1	5.4	91.61
T86	Sycamore	15	5	6	7	6	2	3s	760	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	9.1	261.30
T87	Sycamore	10	4	5	5	1	1	3s	450	M	P	P	Decay present on stem. Cavity on stem. >75% loss of crown. Broken branches in crown.	None	<10	U	5.4	91.61
T88	Sycamore	10	7	6	2	3	2	-	630,340,340	M	G	F	Decay present on stem. Major bark wounding on stem. Multiple stems at ground level.	None	20+	B1	9.5	284.48
T89	Hawthorn	4	1	2	0.5	1	0	-	75,75	Y	F	F	Stem divides below 1.5m. Poor included union of codominant stems.	None	10+	C1	1.3	5.08
T90	Sycamore	6	1	1	1	1	1	-	160	Y	F	F	Unbalanced crown shape. Suppressed form due to adjacent tree.	None	10+	C1	1.9	11.58

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T91	Crack Willow	18	12	12	2	2	3	4e	540	M	G	F	Leaning North-East. Small volume of deadwood in crown. Broken branches in crown. Wound present from tear out 2m up stem. Subsequent decay present	None	20+	B1	6.5	131.92
T92	Crack Willow	20	3	12	12	8	5	3s	820	M	G	G	Leaning East. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	9.8	304.19
T93	Crack Willow	20	12	12	4	3	2	-	500,410	M	G	P	Decay present on stem. Cavity on stem. Stem divides below 1.5m.Stress fracture near base of south stem	None	10+	C1	7.8	189.37
T94	Crack Willow	20	12	12	12	2	4	3s	420,540,420	M	G	F	Unable to inspect stem due to undergrowth. Major bark wounding on stem. Epicormics on stem. Multiple stems at ground level.	None	20+	B2	9.6	291.70
T95	Crack Willow	20	8	2	8	6	3	6s	560	M	G	F	Epicormics on stem. Suckers around stem base. Broken branches in crown. Large volume of deadwood in crown.	None	20+	B1	6.7	141.87
T96	Crack Willow	6	8	1	1	2	4	-	130,200	Y	F	F	Stem divides at ground level. Suppressed form due to adjacent tree.	None	10+	C1	2.9	25.84
T97	Crack Willow	20	15	8	12	15	4	-	340,340,360,200,330,000,000,000	M	G	G	Prominent tree in area. Multiple stems below 1.5m.	None	40+	A2	10.8	366.44

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T98	Common Alder	8	6	6	6	6	2	2w	520	M	G	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	6.2	122.33
T99	Hawthorn	2.5	0.5	1	1	1	0	-	80,80,80	M	F	F	Major bark wounding on stem. Multiple stems below 1.5m. Poor included union of codominant stems. Flailed at 2m	None	10+	C1	1.7	8.74
T100	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75,75,75	M	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems below 1.5m.	None	10+	C1	1.6	7.65
T101	Hawthorn	3	1	2	2	2	0	-	90,90,90	M	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems below 1.5m.	None	10+	C1	1.9	11.01
T102	Crack Willow	17	12	12	1	3	4	-	580,700	M	G	F	Leaning North. Stem divides below 1.5m. Poor included union of codominant stems. Broken branches in crown. Primary limb failure has occurred.	None	20+	B1	10.9	373.80

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T103	Common Alder	14	4	3	4	2	2	4s	280,440	SM	G	F	Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides below 1.5m. Failure of stem above 5m.	None	20+	B1	6.3	123.27
T104	Common Alder	15	5	3	4	4	3	e3s	490	SM	G	F	Unable to inspect stem due to Ivy. Suckers around stem base.	None	20+	B1	5.9	108.62
T105	Common Alder	15	5	4	5	3	3	e3s	520	SM	G	F	Unable to inspect stem due to undergrowth. Cavity on stem. Suckers around stem base.	None	20+	B1	6.2	122.33
T106	Common Alder	15	3	6	6	2	2	4n	520	SM	G	F	Unable to inspect stem due to undergrowth. Cavity on stem. Suckers around stem base.	None	20+	B1	6.2	122.33
T107	Ash	20	10	10	10	6	3	-	690	M	G	G	Prominent tree in area. Small volume of deadwood in crown.	None	40+	A1	8.3	215.38
T108	Crack Willow	3	2	1	1	1	1	-	90	Y	F	F	Self-sown sapling suppressed by adjacent tree	None	10+	C1	1.1	3.66
T109	Hawthorn	5	1	3	1	1	0	-	75,90,90,110	EM	F	F	Multiple stems below 1.5m. Poor included union of codominant stems. Unbalanced crown shape. Suppressed form due to adjacent tree.	None	10+	C1	2.2	15.32

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T110	Sycamore	5	1	2	2	3	0	-	230	EM	F	F	Poor shape & form. Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	2.8	23.93
T111	Common Alder	12	4	1	5	5	3	3w	460	SM	G	F	Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	5.5	95.73
T112	Ash	5	1	2	3	0.5	1	-	180	Y	F	F	Poor shape & form. Suppressed form due to adjacent tree.	None	10+	C1	2.2	14.66
T113	Common Alder	17	2	8	4	1	2	2s	470	SM	G	F	Leaning East. Unable to inspect stem due to undergrowth. Suckers around stem base. Unbalanced crown shape.	None	20+	B1	5.6	99.93
T114	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	140	M	F	F	Poor shape & form. Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	1.7	8.87
T115	Ash	16	5	6	6	1	2	2s	280	EM	G	F	Leaning East. Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	20+	B1	3.4	35.47
T116	Ash	20	10	10	10	10	3	3e	450,530	M	F	F	Stem divides at ground level. Large volume of deadwood in crown. Cavities present on limbs. Ash dieback present indicated through tip dieback	None	20+	B2	8.3	218.52

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T117	Hawthorn	6	4	4	2	4	0	-	240	M	G	F	Leaning South. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	2.9	26.06
T118	Ash	12	5	3	2	5	1	3n	220	EM	G	F	Suppressed form due to adjacent tree. Fused to larger tree at base of stem	None	20+	C1	2.6	21.90
T119	Ash	20	7	7	12	6	3	3s	600	M	F	F	Large volume of deadwood in crown. Ash dieback symptoms present	None	20+	B1	7.2	162.86
T120	Ash	16	6	5	5	5	2	-	320,280	SM	G	F	Stem divides below 1.5m. Poor included union of codominant stems. Small volume of deadwood in crown.	None	20+	B1	5.1	81.71
T121	Ash	16	5	5	5	5	3	4n	320	SM	G	F	Major bark wounding on stem. Small volume of deadwood in crown. Broken branches in crown.	None	20+	B1	3.8	46.32
T122	Ash	17	6	4	4	4	3	-	300,200	SM	G	F	Stem divides at ground level. Poor included union of codominant stems. Small volume of deadwood in crown.	None	20+	B1	4.3	58.96
T123	Ash	8	2	1	2	1	1	-	140	Y	F	F	Unbalanced crown shape. Suppressed form due to adjacent tree.	None	10+	C1	1.7	8.87
T124	Ash	17	4	5	5	5	4	-	300,290,220	SM	G	F	Stem divides below 1.5m. Poor included union of codominant stems.	None	20+	B1	5.7	100.79
T125	Common Alder	17	5	2	2	6	5	12 n	400	M	G	F	Leaning North-West. Dominant stem has failed with small stem remaining intact	None	20+	B1	4.8	72.38

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T126	Common Alder	16	1	1	1	1	6	-	380	EM	G	F	Poor shape & form. Major bark wounding on stem. Small volume of deadwood in crown.	None	10+	C1	4.6	65.33
T127	Sycamore	17	6	4	2	4	1	-	380	SM	G	F	Stem divides above 1.5m. Unbalanced crown shape. Suppressed form due to adjacent tree.	None	10+	C1	4.6	65.33
T128	Common Alder	17	4	4	4	1	5	6s	570	SM	F	F	Declining. Unable to inspect stem due to Ivy. Dieback in crown approx. 50%. Small volume of deadwood in crown.	None	10+	C1	6.8	146.98
T129	Sycamore	16	5	3	2	5	2	4s	280	EM	G	F	Broken branches in crown.	None	20+	B1	3.4	35.47
T130	Common Alder	5	0.5	0.5	0.5	0.5	0	-	500	M	F	P	Epicormics on stem. Stem divides at ground level. Failure of stem above 5m.No canopy. failed stem at 1 m	None	10+	C1	6	113.10
T131	Common Alder	16	6	4	1	4	8	-	420	SM	G	F	Leaning North. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B1	5	79.80
T132	Common Alder	17	6	6	7	6	3	4s	590	M	G	G	Prominent tree in area. Suckers around stem base.	None	40+	A1	7.1	157.48
T133	Common Alder	17	8	7	8	2	3	4s	630	M	G	G	Prominent tree in area. Suckers around stem base. Small volume of deadwood in crown.	None	40+	A2	7.6	179.55

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T134	Crack Willow	18	11	11	11	11	3	-	500,520,580	M	G	F	Multiple stems at ground level. Small volume of deadwood in crown. West stem with fracture at 4m next to wound.	None	20+	B2	11.1	387.91
T135	Crack Willow	18	11	8	10	11	4	5s	870	M	G	F	Uprooted tree	None	<10	U	10.4	342.41
T136	Crack Willow	18	2	8	8	5	4	4e	540,260	M	G	F	Uprooted tree	None	<10	U	7.2	162.32
T137	Ash	15	5	3	3	5	1	2w	360	EM	F	G	Unbalanced crown shape. Lesions present on stem. tip dieback indicating presence of ash dieback	None	10+	C1	4.3	58.63
T138	Common Alder	15	4	5	5	4	1	3s	250,410,200	SM	G	F	Suckers around stem base. Multiple stems at ground level. Poor included union of codominant stems.	None	20+	B2	6.2	122.33
T139	Common Alder	8	0.5	0.5	0.5	0.5	4	-	330	SM	F	F	Poor shape & form. Dieback in crown approx. 50%.	None	10+	C1	4	49.27
T140	Hawthorn	6	0.5	1	0.5	0.5	1	-	100,100,75	M	F	F	Unable to inspect stem due to Ivy. Multiple stems at ground level.	None	10+	C1	1.9	11.58
T141	Hawthorn	7	2	2	2	2	0	-	200,350,250,75	M	F	F	Unable to inspect stem due to Ivy. Multiple stems at ground level.	None	10+	C1	5.8	104.23
T142	Hawthorn	4	2	2	2	2	0	-	75,75,90,80	M	F	F	Unable to inspect stem due to Ivy. Multiple stems at ground level.	None	10+	C1	1.9	11.58

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T143	Hawthorn	4	1	1	1	0.5	0	-	80,80	Y	F	F	Stem divides below 1.5m. Unbalanced crown shape. Suppressed form due to adjacent tree.	None	10+	C1	1.4	5.78
T144	Hawthorn	8	3	2	2	1	1	2n	75,100	Y	G	F	Poor shape & form. Suppressed form due to adjacent tree.	None	10+	C1	1.5	7.07
T145	Hawthorn	10	5	3	5	5	0	-	250,250	M	G	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m.	None	20+	B1	4.2	56.69
T146	Hawthorn	10	7	7	2	1	4	-	380	M	G	F	Leaning South-East. Unable to inspect stem due to undergrowth. Stem divides below 1.5m.	None	20+	B1	4.6	65.33
T147	Ash	15	6	6	6	3	3	3s	350,340	SM	F	F	Stem divides below 1.5m. Bark included union of codominant stems. Ash dieback symptoms present	None	20+	B2	5.9	107.73
T148	Common Alder	14	5	3	4	3	2	-	320,320,140	SM	F	F	Declining. Unable to inspect stem due to Ivy. Multiple stems at ground level. Adjacent to water course.	None	10+	C1	5.7	101.64
T149	Common Alder	6	3	2	4	1	1	-	190	EM	F	F	Small volume of deadwood in crown. Suppressed form due to adjacent tree.	None	10+	C1	2.3	16.33
T150	Common Alder	15	6	6	6	1	3	-	280,240,320	M	G	F	Unable to inspect stem due to Ivy. Multiple stems below 1.5m. Adjacent to water course.	None	20+	B2	5.9	107.73

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T151	Common Alder	15	1	4	5	2	4	-	330	SM	G	F	Unable to inspect stem due to undergrowth.	None	20+	B1	4	49.27
T152	Common Alder	9	3	3	1	2	1	-	350,180	M	P	F	Stem divides below 1.5m. Dieback in crown approx. 50%. Large volume of deadwood in crown.	None	<10	U	4.7	70.23
T153	Hawthorn	2	1	1	1	1	0	-	80,90,75	SM	F	F	Multiple stems at ground level. Adjacent to water course.	None	10+	C1	1.7	9.12
T154	Ash	10	2	4	3	2	3	3e	180	EM	F	G	Unbalanced crown shape. Crown distorted due to group pressure.	None	10+	C1	2.2	14.66
T155	Hawthorn	4	0.5	1	0.5	0.5	0	-	80,60	EM	F	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Adjacent to water course.	None	10+	C1	1.2	4.52
T156	Hawthorn	4	0.5	1	0.5	0.5	0	-	80,75	EM	F	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Adjacent to water course.	None	10+	C1	1.3	5.47
T157	Common Alder	8	3	3	4	4	3	-	280,290	SM	G	F	Poor shape & form. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Small volume of deadwood in crown.	None	10+	C1	4.8	73.47

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T158	Common Alder	8	3	3	5	3	3	3s	300	SM	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B2	3.6	40.72
T159	Common Alder	10	3	3	5	4	3	3e	280	SM	G	F	Unable to inspect stem due to undergrowth. Stem divides above 1.5m. Small volume of deadwood in crown.	None	20+	B2	3.4	35.47
T160	Common Alder	4	1	0.5	4	3	0	-	140	SM	F	F	Poor shape & form. Unable to inspect stem due to Ivy.	None	10+	C1	1.7	8.87
T161	Common Alder	3	3	1	0.5	5	2	2n	220	M	F	F	Poor shape & form. Primary limb failure has occurred. Failure of stem <5m.	None	10+	C1	2.6	21.90
T162	Crack Willow	4	1	1	0.5	1	0	-	80	Y	F	F	Small tree with low value.	None	10+	C1	1	2.90
T163	Common Alder	15	3	4	7	5	2	-	280,400	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m.	None	20+	B2	5.9	107.73
T164	Common Alder	15	6	3	2	2	3	-	300	M	G	F	Leaning North. Unable to inspect stem due to Ivy.	None	20+	B2	3.6	40.72
T165	Common Alder	15	7	4	6	2	3	-	450	M	G	F	Leaning North. Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	20+	B2	5.4	91.61

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T166	Common Alder	15	2	4	6	5	3	-	340,340,250	M	G	F	Leaning South. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems at ground level. Small volume of deadwood in crown.	None	20+	B2	6.5	132.90
T167	Hawthorn	5	0.5	2	2	0.5	0	-	200	EM	F	F	Unable to inspect stem due to Ivy. Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T168	Hawthorn	5	0.5	2	2	0.5	0	-	200	EM	F	F	Unable to inspect stem due to Ivy. Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10
T169	Common Alder	15	4	7	7	6	1	-	360,280	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Adjacent to water course. At bottom of banking.	None	20+	B2	5.5	94.07
T170	Sycamore	10	2	2	4	3	2	-	220	EM	F	F	Unable to inspect stem due to Ivy. Unbalanced crown shape. Adjacent to water course. At bottom of banking.	None	10+	C1	2.6	21.90
T171	Sycamore	15	3	3	5	4	2	-	320	SM	F	G	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides above 1.5m. Adjacent to water course. At bottom of banking.	None	20+	B2	3.8	46.32

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T172	Ash	19	7	7	7	7	2	-	650	M	G	G	In good condition and form. Prominent tree in area.	None	40+	A1	7.8	191.13
T173	Oak	20	10	10	11	12	2	-	920	M	G	G	Prominent tree in area. Large volume of deadwood in crown.	None	40+	A1	11	382.90
T174	Oak	12	0.5	8	9	2	3	-	380	EM	G	F	Suppressed form due to adjacent tree.	None	20+	B1	4.6	65.33
T175	Common Alder	14	6	5	10	10	3	-	280,280,280,320	M	G	F	Multiple stems below 1.5m. Adjacent to water course. At bottom of banking.	None	20+	A1	7	152.71
T176	Common Alder	10	1	6	6	6	0	-	350	SM	G	F	Stem divides above 1.5m. Failure of stem <5m.	None	20+	B1	4.2	55.42
T177	Crack Willow	6	2	2	1	2	0	-	80	Y	F	F	Unable to inspect stem due to undergrowth. Adjacent to water course.	None	10+	C1	1	2.90
T178	Hawthorn	6	1	3	4	3	1	-	340	M	G	F	Leaning South. Ivy on tree. Unable to inspect stem due to undergrowth. Epicormics on stem.	None	20+	B1	4.1	52.30
T179	Hawthorn	7	2	3	3	3	1	-	340	M	G	F	Poor shape & form. Leaning South. Ivy on tree. Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Epicormics on stem.	None	10+	C1	4.1	52.30
T180	Hawthorn	7	1	3	4	3	1	-	340	M	G	F	Leaning South. Ivy on tree. Unable to inspect stem due to undergrowth. Epicormics on stem.	None	20+	B1	4.1	52.30
T181	Oak	5	2	2	2	2	1	-	200	Y	G	G	Third party tree	None	20+	B1	2.4	18.10

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T182	Black pine	5	3	3	3	3	0	-	250	EM	P	P	Dead. Uprooted tree fallen into site from adjacent land	None	<10	U	3	28.27
T183	Black pine	5	3	3	2	2	0	-	250	EM	G	G	Third party tree	None	20+	B1	3	28.27
T184	Oak	16	9	6	9	6	4	-	870	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	10.4	342.41
T185	Oak	14	9	7	9	7	4	-	870	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	10.4	342.41
T186	Oak	10	9	7	9	7	3	-	770,350	M	G	G	Epicormics on stem. Stem divides below 1.5m. Small volume of deadwood in crown. Adjacent to road.	None	40+	A1	10.2	323.78
T187	Oak	10	4	4	6	6	1	2w	510	SM	G	F	Unbalanced crown shape.	None	40+	A1	6.1	117.67
T188	Oak	10	4	4	6	6	1	3s	350	SM	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape. Suppressed form due to adjacent tree.	None	20+	B1	4.2	55.42
T189	Hawthorn	1.5	0.5	1	0.5	1	0	-	75	M	F	F	Topped at 1.5 m	None	10+	C1	0.9	2.54
T190	Oak	15	7	10	10	10	5	3w	1060	M	G	G	Stem divides above 1.5m. Included bark present in fork. Small volume of deadwood in crown.	None	40+	A1	12.7	508.30
T191	Oak	15	5	8	10	8	5	4w	1090	M	G	G	Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A1	13.1	537.48

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T192	Oak	12	7	6	7	4	4	4w	840	M	G	G	Small volume of deadwood in crown. Unbalanced crown shape.	None	40+	A1	10.1	319.21
T193	Hawthorn	4	0.5	2	2	2	0	-	350	M	F	F	Adjacent to road.	None	10+	C1	4.2	55.42
T194	Oak	3	0.5	3	2	3	0	1s	250	Y	G	F	Poor shape & form. Adjacent to road.	None	10+	C1	3	28.27
T195	Hawthorn	2	0.5	3	2	2	0	-	100,150,100	M	G	F	Multiple stems at ground level.	None	20+	B1	2.5	19.20
T196	Oak	15	6	7	7	7	4	-	670,510	M	G	G	Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A1	10.1	320.73
T197	Oak	3	1	1	1	1	2	-	120	Y	F	F	Unable to inspect stem due to undergrowth.	None	10+	C1	1.4	6.51
T198	Oak	15	3	0.5	7	7	1	-	540	M	G	F	Unbalanced crown shape. Suppressed form due to adjacent tree.	None	20+	B1	6.5	131.92
T199	Oak	15	6	9	7	5	4	3e	720	M	G	G	Small volume of deadwood in crown.	None	40+	A1	8.6	234.52
T200	Oak	15	8	8	8	8	4	3s	790,600	M	G	G	Stem divides below 1.5m.	None	40+	A1	11.9	445.18
T201	Oak	15	6	7	7	7	4	5s	600	M	G	G	Stem divides below 1.5m.	None	40+	A1	7.2	162.86
T202	Hawthorn	6	1	3	1	3	0	-	120,75,75	M	F	F	Poor shape & form. Multiple stems below 1.5m.	None	10+	C1	1.9	11.58
T203	Hawthorn	2	1	0.5	2	2	0	-	75,75	M	F	F	Poor shape & form. Stem divides below 1.5m.	None	10+	C1	1.3	5.08
T204	Common Alder	15	7	6	4	7	5	-	470,520,220	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.	None	40+	A2	8.8	244.39

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T205	Common Alder	16	7	10	7	6	3	-	450,300,700	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Multiple stems at ground level.	None	40+	A1	10.6	354.32
T206	Common Alder	15	4	3	4	3	4	-	440	SM	G	G	In good condition and form. Unable to inspect stem due to undergrowth. Suckers around stem base. Small volume of deadwood in crown.	None	40+	A1	5.3	87.58
T207	Hawthorn	3	0.5	1	0.5	1	2	-	75,75,75,75	M	F	F	Multiple stems at ground level. Topped at 3m	None	10+	C1	1.8	10.18
T208	Common Alder	15	7	6	6	5	4	5s	540,520	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A2	9	254.47
T209	Hawthorn	3	0.5	1	1	1	0	-	75,80	M	F	F	Poor shape & form. Stem divides below 1.5m.	None	10+	C1	1.3	5.47
T210	Common Alder	3	1	0.5	0.5	0.5	0	-	530	M	F	P	Suckers around stem base. Failure of stem <5m.	None	10+	C1	6.4	127.08
T211	Common Alder	16	9	9	4	9	4	-	670,670	M	G	F	Dieback in crown >25%. Small volume of deadwood in crown.	None	40+	A2	11.4	406.56
T212	Common Alder	4	1	0.5	2	4	2	-	200	EM	G	F	Poor shape & form. Suppressed form due to adjacent tree.	None	10+	C1	2.4	18.10

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T213	Common Alder	15	6	6	5	5	4	-	460,300,280	M	F	F	Suckers around stem base. Multiple stems below 1.5m. Dieback in crown >25%. Failure of stem <5m.	None	20+	B2	7.4	171.66
T214	Hawthorn	3	0.5	1	1	1	0	-	120,100,75	M	F	F	Small tree with low value.	None	10+	C1	2.1	13.54
T215	Common Alder	10	6	5	6	4	3	3s	410,400	M	F	F	Stem divides below 1.5m. Dieback in crown approx 50%. Large volume of deadwood in crown. Unbalanced crown shape.	None	10+	C1	6.9	148.53
T216	Common Alder	12	2	3	2	3	2	3w	380	M	G	F	Unable to inspect stem due to undergrowth. Epicormics on stem. Suckers around stem base. Small volume of deadwood in crown.	None	20+	B1	4.6	65.33
T217	Hawthorn	5	0.5	3	1	3	0	-	90,100,80,80	M	G	F	Poor shape & form. Multiple stems at ground level. Small volume of deadwood in crown. Unbalanced brown shape due to pruning.	None	10+	C1	2.1	14.01
T218	Common Alder	12	5	3	4	5	4	-	350,350,350	M	G	F	Suckers around stem base. Multiple stems below 1.5m. Small volume of deadwood in crown. Failure of stem above 5m.	None	20+	B1	7.3	166.13
T219	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	100	Y	F	F	Suppressed form due to adjacent tree. Failure of stem <5m.	None	10+	C1	1.2	4.52

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T220	Common Alder	15	2	3	5	5	3	-	350,260	M	G	F	Leaning North. Unable to inspect stem due to Ivy. Stem divides below 1.5m.	None	20+	B2	5.2	86.00
T221	Common Alder	15	8	8	8	4	4	5n	600,650	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides at ground level. Unbalanced crown shape.	None	20+	B2	10.6	354.32
T222	Ash	21	10	10	10	10	4	5s	800,680	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Stem divides below 1.5m. Bark included union of codominant stems. Small volume of deadwood in crown.	None	40+	A2	12.6	498.76
T223	Hawthorn	5	1	2	1	0.5	0	-	120,90	Y	F	F	Poor shape & form. Stem divides below 1.5m.	None	10+	C1	1.8	10.18
T224	Hawthorn	5	1	2	1	0.5	0	-	100	Y	F	F	Poor shape & form. Unable to inspect stem due to Ivy. Limbs pruned with no new growth present. Unbalanced brown shape due to pruning.	None	10+	C1	1.2	4.52
T225	Common Alder	16	7	4	7	6	3	3w	550,590	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Suckers around stem base. Stem divides below 1.5m.	None	20+	B2	9.7	294.62

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T226	Sycamore	10	2	3	1	1	1	-	220	Y	F	F	Unbalanced crown shape.	None	10+	C1	2.6	21.90
T227	Sycamore	10	2	3	1	1	1	2e	200	Y	F	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Unbalanced crown shape.	None	10+	C1	2.4	18.10
T228	Sycamore	5	2	3	1	1	1	-	190	Y	F	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Unbalanced crown shape.	None	10+	C1	2.3	16.33
T229	Ash	14	5	6	5	4	3	-	260,300	SM	G	F	Ivy on tree. Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	4.8	71.30
T230	Sycamore	5	1	5	2	2	1	-	250	EM	G	F	Poor shape & form. Suppressed form due to adjacent tree. Unbalanced crown shape due to pruning.	None	10+	C1	3	28.27
T231	Ash	16	4	3	5	5	6	-	520	M	P	F	Declining. Unable to inspect stem due to Ivy. >75% loss of crown.	None	<10	U	6.2	122.33
T232	Common Alder	7	2	2	4	4	1	-	250	SM	F	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Suppressed form due to adjacent tree.	None	10+	C1	3	28.27
T233	Hawthorn	5	4	1	1	1	0	-	140	SM	F	F	Adjacent tree leaning on tree resulting in lean north	None	10+	C1	1.7	8.87

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T234	Common Alder	8	6	6	1	4	3	-	340	SM	F	F	Partially uprooted supported by leaning on adjacent tree	None	10+	C1	4.1	52.30
T235	Common Alder	5	2	1	2	4	1	-	160	EM	F	F	Unbalanced crown shape.	None	10+	C1	1.9	11.58
T236	English Elm	13	4	5	3	2	0	-	220	EM	F	G	Unable to inspect stem due to Ivy. Suckers around stem base. Small volume of deadwood in crown.	None	10+	C1	2.6	21.90
T237	Sycamore	10	1	5	4	5	1	-	240	EM	F	F	Unable to inspect stem due to undergrowth. Unbalanced crown shape.	None	10+	C1	2.9	26.06
T238	Hawthorn	8	2	2	1	3	0	-	100,100,90	M	F	F	Unable to inspect stem due to Ivy. Multiple stems below 1.5m.	None	10+	C1	2	12.77
T239	Hawthorn	3	2	2	1	0	0	-	100,100,90	M	F	F	Leaning North-East. Unable to inspect stem due to Ivy.	None	10+	C1	2	12.77
T240	Common Alder	16	5	5	7	5	3	-	540,300,220	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Epicormics on stem. Suckers around stem base. Multiple stems at ground level.Self-sown hawthorn tree as understorey	None	20+	B2	7.9	194.68
T241	Hawthorn	5	1	1	1	1	0	-	90,75	EM	F	F	Stem divides below 1.5m.	None	10+	C1	1.4	6.19
T242	Hawthorn	5	1	1	1	1	0	-	90	EM	F	F	Small tree with low value.	None	10+	C1	1.1	3.66

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T243	English Elm	18	3	5	6	5	0	-	440	M	P	P	Dead.	None	<10	U	5.3	87.58
T244	English Elm	6	0.5	0.5	0.5	0.5	1	-	80	Y	F	F	Suppressed form due to adjacent tree.	None	10+	C1	1	2.90
T245	Crack Willow	18	11	9	7	8	3	4n	540	M	G	F	Leaning north with buckling at point of lean present approx. 1.5m from ground level.	None	20+	B2	6.5	131.92
T246	Hawthorn	5	1	1	1	1	2	-	320	EM	F	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	10+	C1	3.8	46.32
T247	Common Alder	19	8	8	8	1	3	4n	820	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Broken branches in crown. Unbalanced crown shape.	None	40+	A2	9.8	304.19
T248	Common Alder	19	9	6	9	6	3	4n	900	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Broken branches in crown.	None	40+	A2	10.8	366.44
T249	Hawthorn	6	2	3	2	2	1	-	75,80,90	EM	F	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m.	None	10+	C1	1.7	9.12
T250	Common Alder	18	7	5	8	7	4	3w	840,350	M	G	F	Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A2	10.9	374.62
T251	Common Alder	6	0	0	0	0	0	-	680	M	P	P	Unable to inspect stem due to Ivy. Suckers around stem base. Failure of stem above 5m.	None	<10	U	8.2	209.18

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T252	Common Alder	19	7	7	7	7	4	3e	680,680	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Epicormics on stem. Suckers around stem base. Stem divides below 1.5m.	None	40+	A2	11.5	418.66
T253	Ash	19	8	12	8	8	4	4n	650	M	G	G	Prominent tree in area. Ivy on tree. Small volume of deadwood in crown.	None	40+	A1	7.8	191.13
T254	Common Alder	16	5	2	5	6	4	4s	380	M	F	F	Declining. Unable to inspect stem due to Ivy. Dieback in crown >25%.	None	10+	C1	4.6	65.33
T255	Common Alder	16	13	3	1	1	4	4s	380	M	P	P	Uprooted tree	None	<10	U	4.6	65.33
T256	Ash	16	8	7	3	9	4	4w	580	M	G	G	Leaning North. Stem divides above 1.5m. Small volume of deadwood in crown.	None	40+	A2	7	152.18
T257	Ash	6	2	2	1	1	0	-	80,80,75	EM	F	F	Stem divides below 1.5m.	None	10+	C1	1.6	8.37
T258	Common Alder	17	8	5	6	6	4	3n	350,350,380	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Stem divides below 1.5m. Small volume of deadwood in crown.	None	40+	A2	7.5	176.15
T259	Ash	14	2	6	5	4	3	-	320	SM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Suppressed form due to adjacent tree. Primary limb failure has occured..	None	20+	B2	3.8	46.32

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T260	Ash	20	10	9	6	7	3	-	620	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Small volume of deadwood in crown.	None	40+	A2	7.4	173.90
T261	Common Alder	6	0	0	0	0	0	-	840	M	P	P	Dead. Unable to inspect stem due to Ivy. Cavity at base of stem.	None	<10	U	10.1	319.21
T262	Common Alder	17	6	3	4	6	3	4w	520	M	G	G	Unbalanced crown shape.	None	40+	A1	6.2	122.33
T263	Common Alder	17	5	6	3	5	4	-	480,460,460	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Suckers around stem base. Multiple stems below 1.5m. Small volume of deadwood in crown.	None	20+	B2	9.7	295.35
T264	Sycamore	21	6	5	6	6	3	3e	950	M	G	G	Prominent tree in area. Good landscape value.	None	40+	A1	11.4	408.28
T265	Sycamore	21	6	7	7	7	3	4s	780	M	G	G	Prominent tree in area. Good landscape value. Small volume of deadwood in crown.	None	40+	A1	9.4	275.23
T266	Sycamore	17	5	3	6	6	3	4s	660	M	F	F	Decay present on stem. Stem divides below 1.5m. Failure of stem <5m.Rot present at junction of stems	None	20+	B2	7.9	197.06
T267	Common Alder	16	1	1	7	7	3	-	350	SM	G	F	Leaning South-West. Suppressed form due to adjacent tree.	None	20+	B2	4.2	55.42

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T268	Sycamore	17	6	3	7	3	3	4s	630	M	G	F	Epicormics on stem. Suckers around stem base. Small volume of deadwood in crown.	None	20+	B2	7.6	179.55
T269	Sycamore	16	6	2	2	7	3	-	750	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	20+	B2	9	254.47
T270	Ash	21	11	9	8	9	2	-	900	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	10.8	366.44
T271	Ash	20	7	2	11	11	2	-	940	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	11.3	399.73
T272	Ash	20	7	4	7	6	2	-	890	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	10.7	358.34
T273	Ash	20	9	10	7	8	2	3e	1150	M	G	F	Prominent tree in area. Unable to inspect stem due to Ivy. Stem divides above 1.5m. Small volume of deadwood in crown. Broken branches in crown.	None	40+	A2	13.8	598.28

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T274	Sycamore	15	4	2	3	5	0	-	350	SM	G	F	Epicormics on stem. Small volume of deadwood in crown. Squirrel damage in crown.	None	20+	B1	4.2	55.42
T275	Sycamore	16	6	5	7	4	4	-	690	M	G	G	Unbalanced crown shape.	None	20+	B1	8.3	215.38
T276	Sycamore	17	3	3	3	3	4	-	350	SM	G	F	Unable to inspect stem due to Ivy.	None	20+	B1	4.2	55.42
T277	Sycamore	19	6	4	7	5	3	-	630	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	40+	A2	7.6	179.55
T278	Sycamore	19	6	4	7	5	3	-	450	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	40+	A2	5.4	91.61
T279	Sycamore	19	6	4	7	5	3	-	540	M	G	F	Unable to inspect stem due to Ivy. Stem divides above 1.5m.	None	40+	A2	6.5	131.92
T280	Ash	8	6	3	1	3	3	-	200,130,100	SM	G	F	Poor shape & form. Multiple stems below 1.5m.	None	10+	C1	3.1	30.35
T281	Sycamore	5	3	2	0.5	1	1	-	220	EM	F	F	Poor shape & form. Failure of stem <5m.	None	10+	C1	2.6	21.90
T282	Hawthorn	6	1	0.5	5	6	0	-	320,200	M	G	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m.	None	20+	B2	4.5	64.30
T283	Sycamore	15	6	1	2	1	1	-	320	SM	G	F	Unbalanced crown shape.	None	20+	B2	3.8	46.32
T284	Hawthorn	8	3	0.5	0.5	0.5	1	-	190	EM	F	F	Suppressed form due to adjacent tree.	None	10+	C2	2.3	16.33

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T285	Sycamore	17	3	2	7	7	3	4s	320,330	SM	F	G	Leaning South. Stem divides at ground level. Bark included union of codominant stems. Small volume of deadwood in crown.	None	20+	B2	5.5	95.73
T286	Ash	20	14	11	14	14	2	-	760,800	M	G	G	Stem divides below 1.5m. Bark included union of codominant stems. Small volume of deadwood in crown.	None	40+	A2	13.2	550.38
T287	Sycamore	17	5	4	6	4	3	3n	510	SM	G	G	In good condition and form.	None	20+	A3	6.1	117.67
T288	Sycamore	19	6	4	7	5	3	-	540	M	G	F	Unable to inspect stem due to Ivy. Cavity at base of stem.	None	20+	B2	6.5	131.92
T289	Sycamore	19	6	4	7	5	3	-	590	M	G	F	Unable to inspect stem due to Ivy. Cavity at base of stem.	None	20+	B2	7.1	157.48
T290	Sycamore	19	6	4	7	5	3	-	520	M	G	F	Unable to inspect stem due to Ivy. Cavity at base of stem.	None	20+	B2	6.2	122.33
T291	Sycamore	15	3	3	3	3	2	-	340	M	G	F	Unable to inspect stem due to Ivy.	None	20+	B2	4.1	52.30
T292	Hybrid Black Poplar	17	14	14	1	1	3	-	540	M	G	P	Cavity at base of stem.	None	10+	C2	6.5	131.92
T293	Hybrid Black Poplar	17	5	15	15	15	3	-	1150	M	G	G	Prominent tree in area. Leaning South.	None	40+	A3	13.8	598.28
T294	Sycamore	9	4	3	1	2	1	-	310	EM	F	F	Epicormics on stem. Suppressed form due to adjacent tree.	None	10+	C1	3.7	43.47

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T295	Ash	19	6	3	5	4	3	-	380,320	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B1	6	111.74
T296	Sycamore	19	6	4	6	7	3	-	310,440,430,200,200	M	G	F	Stem divides below 1.5m. Small volume of deadwood in crown.	None	20+	B2	8.9	251.09
T297	Sycamore	19	7	6	7	3	4	-	620	M	G	G	Stem divides above 1.5m.	None	40+	A2	7.4	173.90
T298	Sycamore	19	7	1	7	7	4	-	450,450	M	G	G	Epicormics on stem. Stem divides below 1.5m.	None	40+	A2	7.6	182.99
T299	Ash	3	2	0.5	1	0.5	0	-	200	EM	F	F	Failure of stem <5m.	None	10+	C1	2.4	18.10
T300	Sycamore	15	3	1	6	3	1	-	320,200	SM	G	F	Stem divides below 1.5m.	None	20+	B2	4.5	64.30
T301	Common Alder	17	5	1	2	5	6	-	250	SM	G	F	Unbalanced crown shape.	None	20+	B2	3	28.27
T302	Sycamore	8	3	0.5	0.5	0.5	1	-	210	EM	F	F	Suppressed form due to adjacent tree.	None	10+	C2	2.5	19.95
T303	Hawthorn	12	3	3	6	4	1	-	280,200,220	M	G	F	Multiple stems below 1.5m. Bark included union of codominant stems.	None	20+	B2	4.9	75.31
T304	Sycamore	17	5	4	6	4	3	3n	430,350,250	SM	F	G	Stem divides at ground level. Exudation at base of junction	None	20+	B2	7.3	167.23
T305	Common Alder	7	4	1	2	2	0	-	290	SM	G	F	Poor shape & form. Unable to inspect stem due to undergrowth. Suckers around stem base. Unbalanced crown shape.	None	10+	C1	3.5	38.05
T306	Sycamore	20	6	5	4	7	2	-	600,740	M	G	F	Stem divides below 1.5m. Bark included union of codominant stems.	None	40+	A2	11.4	410.86

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
T307	Sycamore	19	6	4	7	6	4	-	680,680,440,430	M	G	F	Cavity on stem. Multiple stems at ground level.	None	40+	A2	13.7	589.99
T308	Sycamore	20	4	7	9	3	2	-	820	M	G	G	Small volume of deadwood in crown.	None	40+	A2	9.8	304.19
T309	Common Alder	16	6	6	6	6	3	-	480,420,350	M	G	F	Multiple stems below 1.5m. Failure of stem above 5m.	None	40+	A2	8.7	239.76
T310	Oak	19	7	9	9	9	1	3w	1190	M	G	F	Prominent tree in area. Large volume of deadwood in crown. Major deadwood in crown.	None	40+	A2	14.3	640.63
T311	Oak	2.5	0.5	0.5	0.5	0.5	1	-	90	Y	G	G	Hedgerow tree in good condition	None	10+	C1	1.1	3.66
T312	Oak	10	7	9	9	9	1	1s	1060	M	G	F	Good landscape value. Epicormics on stem. Small volume of deadwood in crown. Oak burrs present resulting in interesting form of tree	None	40+	A2	12.7	508.30
T313	Oak	19	8	7	8	8	1	3e	1180	M	G	F	Prominent tree in area. Good habitat value. Decay present on stem. Cavity on stem. Large volume of deadwood in crown. Major deadwood in crown.	None	40+	A3	14.2	629.91
T314	Oak	3	2	2	1	2	0	-	100	Y	G	G	Young tree with good form	None	10+	C1	1.2	4.52
T315	Oak	4	2	3	2	3	2	-	250	EM	G	G	Unable to inspect stem due to undergrowth.	None	20+	B1	3	28.27
T316	Oak	3	2	3	2	3	2	-	200	EM	G	G	Unable to inspect stem due to undergrowth.	None	20+	B1	2.4	18.10
T317	Oak	4	3	3	3	3	2	-	300	EM	G	G	Unable to inspect stem due to undergrowth.	None	20+	B1	3.6	40.72
T318	Ash	19	7	7	7	7	3	-	1,000	M	G	F	Prominent tree in area. Major deadwood in crown. Wound on stem not fully occluded to south	None	40+	A2	12	452.39
T319	Ash	10	4	4	4	4	1	-	300	EM	G	F	Unable to inspect stem due to Ivy. Small volume of deadwood in crown. Adjacent to road.	None	20+	B1	3.6	40.72
T320	Oak	18	7	7	7	7	3	-	1050	M	G	F	Large volume of deadwood in crown. Major deadwood in crown. Adjacent to road.	None	40+	A2	12.6	498.76
T321	Oak	15	8	8	8	8	3	-	1040	M	G	F	Unable to inspect stem due to undergrowth. Broken branches in crown. Large volume of deadwood in crown.	None	40+	A2	12.5	489.30

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
													Major deadwood in crown. Adjacent to road.					
T322	Oak	17	8	4	8	8	3	3e	1020	M	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown. Adjacent to road.	None	40+	A2	12.2	470.67
T323	Oak	14	8	4	8	8	3	-	820	M	G	F	Small volume of deadwood in crown.	None	40+	A2	9.8	304.19
T324	Ash	16	8	2	8	8	3	-	600	M	G	F	Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B2	7.2	162.86
T325	Ash	16	8	3	8	3	3	-	520	M	G	F	Ivy on tree. Unable to inspect stem due to undergrowth. Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape. Primary limb failure has occurred.	None	20+	B2	6.2	122.33
T326	Ash	16	8	8	8	6	3	-	620	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Stem divides above 1.5m. Small volume of deadwood in crown. Unbalanced crown shape.	None	20+	B2	7.4	173.90
T327	Ash	12	6	6	6	6	1	-	560	M	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B2	6.7	141.87
T328	Ash	12	9	9	9	9	1	-	580	M	G	F	Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	20+	B2	7	152.18
T329	Hybrid Black Poplar	5	1	2	1	0.5	0	-	100,80	Y	G	F	Unable to inspect stem due to undergrowth. Self-sown hedgerow tree	None	10+	C1	1.5	7.41
T330	Ash	20	8	8	8	8	2	-	940	M	G	F	Prominent tree in area. Stem divides above 1.5m. Small volume of deadwood in crown. Cavity present on primary limb.	None	40+	A2	11.3	399.73
T331	Oak	16	11	11	11	11	1	-	1,220	M	G	F	Prominent tree in area. Good habitat value. Cavity on stem. Broken branches in crown. Major deadwood in crown. Primary limb failure has occurred.	None	40+	A2	14.6	673.34
T332	Oak	12	8	8	8	8	1	-	900	M	G	F	Good habitat value. Third party tree. Cavity on stem. Major deadwood in crown. Primary limb failure has occurred.	None	40+	A3	10.8	366.44
T333	Oak	16	11	13	7	9	2	-	1,550	M	G	F	Good landscape value. Stem divides above 1.5m. Small volume of deadwood in crown. Primary limb failure has occurred. Branch failures present throughout crown. Large stemmed tree likely two trees which have fused stems previously. north stem	None	40+	A2	15	706.86

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
													has cavity present above junction on west side					
T334	Oak	16	8	8	8	8	0	-	750	M	G	F	Small volume of deadwood in crown. Broken branches in crown. Large stemmed tree likely two trees which have fused stems previously. north stem has cavity present above junction on west side	None	40+	A2	9	254.47
G1	Ash, Hawthorn	15	2	2	2	2	3	-	250*	EM	G	G	Line of trees along top of ditch on adjacent side to field. good visual screen	None	20+	B2	3	28.27
G2	Oak	14	7	7	7	7	3	-	450*	EM	G	F	In good condition and form. Part of linear group. Small volume of deadwood in crown. Inaccessible due to located on other side of ditch. third party trees forming continuous canopy	None	20+	B2	5.4	91.61
G3	Ash, Hawthorn	15	6	6	6	6	3	-	350*	EM	G	G	Line of trees along top of ditch on adjacent side to field. good visual screen0	None	20+	B2	4.2	55.42
G4	Hawthorn	5	2	2	2	2	4	-	200	SM	G	F	Unable to inspect stem due to undergrowth. Line of larger hawthorn stems along hedgerow	None	10+	C2	2.4	18.10
G5	Hawthorn	5	2	2	2	2	4	-	200	SM	G	F	Unable to inspect stem due to undergrowth. Line of larger hawthorn stems along hedgerow	None	10+	C2	2.4	18.10
G6	Sycamore, Birch, Hawthorn, Ash	16	4	4	4	4	3	-	300 - 550	SM	G	G	Area of trees along track to the south east. Predominantly multistem hawthorn with larger trees set further back away from the track.	None	20+	B2	6.6	136.85
G7	Hawthorn, Birch, Oak	15	1	1	1	1	3	-	500	SM	G	G	Area of trees along embankment adjacent to railway. canopy encroaching onto site.	None	20+	B2	6	113.10
G8	Oak, Hawthorn, Hazel	7	2	2	2	2	0	-	100	Y	F	F	Self-sown trees along embankment	None	10+	C2	1.2	4.52
G9	Common Alder	15	3	3	3	3	3	-	290	SM	F	F	Area of alders along banking. ivy clad stems and deadwood in crowns present	None	10+	C2	3.5	38.05
G10	Common Alder	13	3	3	5	3	1	-	320	SM	F	F	Five alder trees in a row along banking all showing form of decline and decay.	None	10+	C2	3.8	46.32
G11	Common Alder	8	3	3	3	3	2	-	340	SM	G	F	Small volume of deadwood in crown. Broken branches in crown. Three alders forming continuous canopy. dead stem within group	None	20+	B2	4.1	52.30
G12	Sycamore	10	1	1	1	1	2	-	120	Y	F	F	Three self-sown trees all with suppressed forms	None	10+	C2	1.4	6.51
G13	Sycamore, Ash	10	2	2	2	2	0	-	100	Y	F	F	Suckers from old stump and self-sown saplings	None	10+	C2	1.2	4.52
G14	Crack Willow, Hawthorn	18	10	10	10	10	2	-	420	M	F	F	Area of slender willow trees with multi stem hawthorn as understorey	None	20+	B2	5	79.80

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G15	Sycamore, Common Alder	20	8	6	8	6	3	3w	720	SM	G	F	Large volume of deadwood in crown. Two trees fused at base	None	40+	A1	8.6	234.52
G16	Hawthorn	5	0.5	1	1	1	0	-	140	Y	F	F	Poor shape & form. Three self-sown hawthorn along banking	None	10+	C2	1.7	8.87
G17	Hawthorn, Common Alder	5	2	2	2	2	0	-	160	Y	F	F	Small clump of self-sown trees	None	10+	C2	1.9	11.58
G18	Hawthorn	3	2	2	2	2	0	-	160	M	F	F	Unable to inspect stem due to Ivy. Some trees showing decline.	None	10+	C2	1.9	11.58
G19	Hawthorn	4	2	2	3	2	0	-	240	M	F	F	Unable to inspect stem due to Ivy. Some trees showing decline.	None	10+	C2	2.9	26.06
G20	Common Alder	15	7	4	6	4	3	-	490	SM	F	F	Unable to inspect stem due to Ivy. Some trees showing decline. Deadwood present in small number of trees within group. Dead stems present.	None	20+	C2	5.9	108.62
G21	Common Alder	15	4	6	7	6	3	-	420	SM	G	F	Suckers around stem base. Deadwood present in all trees within group. Three trees in clump	None	20+	B2	5	79.80
G22	Crack Willow	14	6	3	6	3	3	3s	330,340	M	G	F	Multiple stems below 1.5m.Two trees fused at base. Larger tree of the two has poor union of codominant stems with crack present	None	20+	B1	5.7	101.64
G23	Crack Willow	15	4	7	6	7	3	-	280	M	G	F	Area of ten willow trees along banking forming continuous canopy	None	20+	B2	3.4	35.47
G24	Hawthorn	4	4	3	1	3	0	-	120	SM	F	F	Unable to inspect stem due to Ivy. Adjacent to water course.	None	10+	C2	1.4	6.51
G25	Common Alder	14	2	5	5	5	2	-	380	SM	G	F	Deadwood present in all trees within group. Adjacent to water course. Two trees close to base of each other forming continuous canopy	None	20+	B2	4.6	65.33
G26	Hawthorn	4	0.5	1	0.5	0.5	0	-	90	EM	F	F	Unable to inspect stem due to undergrowth. Stem divides below 1.5m. Adjacent to water course.	None	10+	C1	1.1	3.66
G27	Ash ,Sycamore, Hawthorn	9	4	4	4	4	2	-	240	SM	G	F	Unable to inspect stem due to Ivy. Line of trees along banking	None	20+	B2	2.9	26.06
G28	Common Alder	15	1	4	3	1	1	-	110 - 350	M	G	F	Unable to inspect stem due to undergrowth. Three trees in bundle adjacent to drainage course	None	20+	B2	4.2	55.42
G29	Hawthorn	6	2	2	2	2	0	-	270	M	G	F	Line of trees forming visual screen. On top of banking.	None	20+	B2	3.2	32.98
G30	Common Alder	14	4	4	5	5	2	-	340,220	M	G	F	Unable to inspect stem due to undergrowth. Suckers around stem base. Two trees fused at base	None	20+	B2	4.9	74.20

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G31	Common Alder	15	5	7	5	7	2	-	410	M	G	F	Small volume of deadwood in crown. Suppressed form due to adjacent tree. Three self-sown trees in proximity	None	20+	B2	4.9	76.05
G32	Common Alder	13	5	4	7	5	0	-	360	Y	F	F	Group of four alder trees with uneven crown shape	None	10+	C1	4.3	58.63
G33	Hawthorn	4	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	Line of trees forming visual screen.	None	10+	C2	0.9	2.54
G34	Oak, Ash ,Hawthorn, Common Alder	15	2	2	2	2	3	-	550,350	M	G	F	Area of trees along banking. Large volume of coppiced alder present	None	40+	A2	7.8	192.31
G35	Common Alder	9	3	3	2	3	1	-	150	EM	F	F	Unable to inspect stem due to undergrowth. Some trees showing decline.	None	10+	C2	1.8	10.18
G36	Hawthorn	4	1	1	1	1	0	-	100	M	F	F	On top of banking. Area of dense vegetation and self-sown saplings	None	10+	C2	1.2	4.52
G37	Oak, Hawthorn	19	12	12	12	12	4	-	500 -1200	M	G	G	Area of large mature oak trees with hawthorn understorey	None	40+	A2	14.4	651.44
G38	Hawthorn, Common Alder, Sycamore	16	2	2	2	2	2	-	350	M	F	F	Area of trees along beck in various condition with ivy covered stems. larger stems on side closest to beck	None	20+	B2	4.2	55.42
G39	Hawthorn	7	4	4	4	4	1	-	350	M	F	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Small volume of deadwood in crown.	None	10+	C2	4.2	55.42
G40	Larch, Wild Cherry, Scots Pine, Hazel	6	4	4	4	4	2	-	200	EM	G	G	Plantation in third party site. good range of species	None	20+	B2	2.4	18.10
G41	Scots Pine, Silver Birch, Field Maple	3	1	1	1	1	0	-	75	Y	G	G	Young plantation on third party land	None	10+	C2	0.9	2.54
G42	Oak	6	5	3	3	2	1	-	300	EM	G	F	Poor shape & form. Two third party trees along private track	None	20+	B2	3.6	40.72
G43	Oak, Silver Birch, Common Alder	6	1	1	1	1	2	-	90	Y	G	F	Young plantation	None	20+	B2	1.1	3.66
G44	Oak	16	6	9	6	6	4	-	650	M	G	F	Small volume of deadwood in crown. Two trees likely fused at base	None	20+	A2	7.8	191.13
G45	Oak	3	0.5	3	3	3	0	-	200	Y	F	F	Trees along existing track. poor shape form due to pruning	None	10+	C2	2.4	18.10
G46	Hawthorn, Goat Willow	6	1	1	1	1	2	-	120	Y	F	F	Group of self-sown trees, young	None	10+	C2	1.4	6.51
G47	Common Alder	15	5	5	4	2	4	-	120 - 320	SM	G	F	Three trees in proximity	None	20+	B2	3.8	46.32
G48	Common Alder	12	3	5	5	4	0	-	200 - 370	SM	G	F	Suckers around stem base. Three trees growing close at base	None	20+	B2	4.4	61.93
G49	Common Alder	14	6	6	6	3	4	-	200 - 520	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Epicormics on stem. Suckers around stem base. Three trees in proximity. largest stem 520	None	20+	B2	6.2	122.33

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
G50	Common Alder	14	6	9	7	7	4	-	530	M	G	F	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth. Epicormics on stem. Suckers around stem base. Three trees in proximity. 530, 500, 480	None	20+	B2	6.4	127.08
G51	Common Alder	8	11	11	0	3	0	-	450	M	P	P	two trees uprooted.	None	<10	U	5.4	91.61
G52	Hawthorn	6	3	3	3	3	0	-	90	Y	F	P	Unable to inspect stem due to Ivy. Unable to inspect stem due to undergrowth.1 ash 3 hawthorn	None	10+	C2	1.1	3.66
G53	Common Alder	15	6	5	3	2	4	-	230	SM	G	G	7 trees forming line along banking edge. ivy on sone trees in group restricting inspection	None	20+	B2	2.8	23.93
G54	English Elm	10	3	3	5	5	3	-	200	EM	P	P	8 dead stems in group	None	<10	U	2.4	18.10
G55	Common Alder	15	4	6	5	1	1	-	250	EM	F	F	Suppressed form due to adjacent tree. Three trees sharing root plate.	None	10+	C2	3	28.27
G56	Common Alder	17	7	4	5	4	4	-	350	M	G	F	Unable to inspect stem due to Ivy. Self-sown group in bundle 250 to 350 dm	None	20+	B2	4.2	55.42
G57	Hawthorn	4	1	1	1	1	0	-	75	Y	F	F	Group of young hawthorn trees	None	10+	C2	0.9	2.54
G58	Hawthorn	6	2	2	2	2	0	-	80,80,75	SM	F	F	Unable to inspect stem due to Ivy. Multiple stems below 1.5m.	None	10+	C2	1.6	8.37
G59	Common Alder	16	4	3	4	3	2	-	350	M	G	F	three trees fused at base	None	20+	B2	4.2	55.42
G60	Sycamore	20	7	4	7	7	3	-	450	SM	G	F	Small volume of deadwood in crown. Deadwood present in small number of trees within group.	None	40+	A2	5.4	91.61
G61	Hawthorn	4	1	1	1	1	0	-	200	M	F	F	Area of planted hawthorn along boundary. dense canopy	None	10+	C2	2.4	18.10
W1 (TPO ref 1984/01	Spruce sp., Scots Pine, Oak, Sycamore	18	#	#	#	#	#	-	450 - 950	SM-M	G	G	mixed species woodland with mixture of self-sown saplings, to mature trees. stem diameters ranging from 200 to 450 on average. number of windblown trees throughout. area of larger trees to 5he north east. old coppices present. presence of honey fungus along east bo7ndary amongst oaks	None	40+	A2	11.4	408.28
W2	Ash, Beech, Norway Spruce, Sycamore	16	#	#	#	#	#	-	250	EM	G	G	woodland area to south of track by site entrance. culvert drainage ditch at approx. 2m depth along east side providing	None	20+	B2	3	28.27

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
													constraint for roots. Outer edge of woodland predominantly multistem Ash and sycamore					
W3	Ash, Beech, Norway Spruce, Sycamore	16	#	#	#	#	#	-	250	EM	G	G	woodland area to north of track by entrance. culvert drainage ditch at approx. 2m depth along east side providing constraint for roots. Outer edge of woodland predominantly multistem Ash and sycamore	None	20+	B2	3	28.27
W4 (TPO ref 1984/01)	Ash, Oak, Sycamore, lime, Western hemlock, Elm	18	#	#	#	#	#	-	440,790	M	G	G	large woodland to north of site. drainage ditch along south of woodland approx. 2m depth restricting roots. outer edge trees approx. 200mm diameter with larger trees within	None	40+	A2	10.8	369.70
W5 (SSSI)	Oak, Beech, Birch, Ash	22	#	#	#	#	#	-	400 -1200	M	G	G	mature woodland to south of site with track running alongside	None	40+	A2	14.4	651.44
W6	Black pine	19	#	#	#	#	#	-	350 - 920	M	G	G		None	40+	A2	11	382.90
W7 (TPO ref 1984/01)	Sycamore, Norway Spruce, Oak, Beech	20	#	#	#	#	#	-	400 - 820	M	G	G	woodland area to the west. good divers8ty and well managed. ditch along east extent	None	20+	A2	9.8	304.19
H1	Hawthorn, Sycamore ,Ash, Oak	6	2	2	2	2	3	-	200	M	F	F	mature hedgerow. small number of dead stems. intermittent gaps along line	None	10+	C2	2.4	18.10
H2	Hawthorn	3	0.5	0.5	0.5	0.5	0	-	200	M	G	G	managed hedgerow flailed at 3m. previously maintained as coppice in small sections	None	20+	B2	2.4	18.10
H3	Hawthorn	3	0.5	2	2	2	0	-	75	EM	F	F	hedgerow along ditch	None	10+	C2	0.9	2.54
H4	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	hedgerow along track kept maintained	None	10+	C2	0.9	2.54
H5	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75	SM	F	F	managed hedgerow at 2m	None	10+	C2	0.9	2.54
H6	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	M	F	F	managed hedgerow at 1.5 m	None	10+	C2	1.8	10.18
H7	Blackthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	Newly planted hedgerow	None	10+	C2	0.9	2.54
H8	Hawthorn	8	3	3	3	3	0	-	250	M	G	F	old field boundary hedgerow	None	20+	B2	3	28.27
H9	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	M	F	F	managed hedgerow along boundary. intermittent gaps along line	None	10+	C2	0.9	2.54
H10	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	managed hedgerow	None	10+	C2	0.9	2.54
H11	Hawthorn	1.5	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	managed hedgerow	None	10+	C2	0.9	2.54

Tree / Group ref.no	Species	Height	Crown Spread (m)				Crown clearance	FSB	Stem diameter (mm)	Age class	Phys. Condition	Struct. Condition	Comments	Recommendations	ERC	Cat Grade	Radius of Nominal Circle	RPA SqM
			N	E	S	W												
H12	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	managed hedgerow	None	10+	C2	0.9	2.54
H13	Hawthorn	2	0.5	0.5	0.5	0.5	0	-	75	Y	F	F	previously managed hedgerow at 1.5 m, with regrowth present	None	10+	C2	0.9	2.54

Key

***** - Denotes estimated measurement where access to tree stems was restricted or not accessible

Tree/ Group Ref No. – tree/group number, to be recorded on tree survey plan where necessary.

Species – common and scientific names where possible.

Height – overall height of tree in metres.

Stem Dia – stem diameter, in millimetres at 1.5m above adjacent ground level (on sloping ground to the taken on the upslope of the tree base)

Branch spread – in meters taken at the four cardinal points to derive an accurate representation of the crown (to be recorded on the tree survey plan where necessary). # - Refer to TCP for canopy spread

FSB – First significant branch at height and in direction. Where there is more than one significant branch at the same height, this has been noted (-).

Height of cc – height of crown clearance – in meters above adjacent ground level to inform on ground clearance, crown stem ratio and shading.

Age class – young (Y), early mature (EM), semi mature (SM), mature (M), over mature (OM) and veteran (V).

Physiological condition – e.g. presence of crown decline, disease, discolouration of leaves - good (G), fair (F), poor (P) and dead (D).

Structural condition – e.g. collapsing, the presence of decay and any physical defect - good (G), fair (F), poor (P) and dead (D)

Management recommendations – including further investigations of suspected defects that require more detailed assessment and potential wildlife habitat.

ERC – estimated remaining contribution – in years e.g. less than 10, 10-20, 20-40, more than 40.

Cat grade – category grade – U or A to C, to be recorded in plan on the tree survey plan where possible.

RPA – Root protection area calculated from BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations in sq/m. Where indicated, dimensions of radius of circle or sides of square based around centre point of trunk calculated for design purposes.

Appendix 3. Table 2 - Cascade Chart for the Quality Assessment[2]

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse including those that will become unviable after removal of other category U trees (e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate, or irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees supressing adjacent trees of better quality. *Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve.*			See Table 1
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g., the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran or trees or wood pasture).	See Table 1
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in Category A, but were downgraded because of impaired condition (e.g., presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing groups or woodlands, such that they attract a higher collective rating than they might attract as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	See Table 1
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of <150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	See Table 1

[2] The British Standards Institute 2012, Page 9 – Table 1.

Appendix 4. Tree Constraints Plan

Key

Trees
Showing Canopy extents, category colour and tag number (with category).

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category C
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

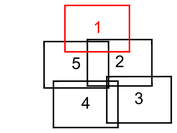
Category U
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.

Tree Groups
Shown as dashed centre/boundary line. Colour represents category (see above)

BS 5837:2012 Root Protection Area

Default BS 5837:2012 Root Protection Area before adjustment due to site constraints

Sheet Key



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Drawing Title
Tree Constraints Plan

BayWa r.e.

Site/Project
Thormanby Solar
Sessay Park

Scale/Sheet	Date		
A0 1-1000	08/05/2025		
Drawing No	**Rev**	**Drawn By**	**Chked By**
157.TCPSP	1	DB	AW

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Key

T1-B

Trees
Showing Canopy extents, category colour and tag number (with category).

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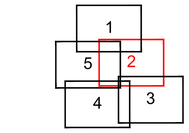

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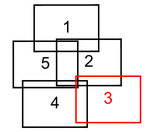

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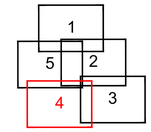

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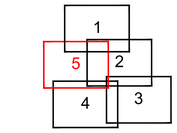

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