Request for EIA Screening Opinion

Rose Cottage Solar

Chint Solar

52 Grosvenor Gardens, London, SW1W 0AU

Prepared by:

SLR Consulting Limited

The Tun, 4 Jackson's Entry, Edinburgh, EH8 8PJ

SLR Project No.: 425.VT2915.00001

4 July 2025

Revision: 02

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	2025-06-16	G Walton	S Cockell	G Spowage
2.0	4 July 2025	S Cockell	S Cockell	G Spowage

Table of Contents

Tables in Text

Introduction

Chint Solar (hereafter referred to as 'the Applicant') intends to submit a planning application under the Town and Country Planning Act (1990) for the proposed installation of a solar photovoltaic (PV) array (the 'Proposed Development') on land at Rose Cottage, west of Thurstaston within the Wirral Council area.

Prior to the submission of a planning application the Applicant hereby requests an Environmental Impact Assessment (EIA) Screening Opinion from Wirral Council.

Proposed Development Description

The Proposed Development is anticipated to consist of the installation of a ground mounted solar PV array and associated infrastructure with an estimated export capacity of 26 MW.

The site covers an area of around 27 hectares (ha). The panels will have a maximum height of 3.5 m. It is proposed that the solar array will operate for a temporary period of 35 years. The Site will be fully restored to agricultural use after the decommissioning process.

The development includes a private wire connection, which consists of an underground cable running north of the site to a 33 kV connection starting from the on-site substation and the south end of the cable route.

EIA Directive and Regulations

The Proposed Development is a generating station with an export capacity of under 50MW and, therefore, falls under the Directive implemented in England by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as 'the EIA Regulations').

As an industrial installation for the production of electricity with an area of development exceeding 0.5 ha, the Proposed Development falls under Schedule 2 of the EIA Regulations. However, for a development to require a full EIA, there must be potential for significant environmental effects. Schedule 3 of the EIA Regulations outlines the selection criteria for determining whether a development will have significant environmental impacts, including consideration of the size and location of the development and the types and characteristics of the potential impacts.

The following must accompany a request for a Screening Opinion:

1) A plan sufficient to identify the land:
2) A description of the development, including in particular-
    a) A description of the physical characteristics of the development and, where relevant, of demolition works;
    b) A description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected;
3) A description of the aspects of the environment likely to be significantly affected by the development;
4) To the extent the information is available, a description of any likely significant effects of the proposed development on the environment resulting from-
    a) The expected residues and emissions and the production of waste; where relevant; and
    b) The use of natural resources, in particular soil, land, water, and biodiversity; and

5) Such other information or representations as the person making the request may wish to provide or make, including any features of the proposed development or any measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.

This EIA Screening Report and associated figures fulfils this requirement.

Location and Nature of the Site

Figure 1 illustrates the location of the Site. The Site is located in Merseyside, entirely within the Wirral Council administrative area. The Site is situated approximately 180 m west of the village of Thurstaston, and approximately 270 m south-east of the southern extents of the village of Caldy. Major roads near the Site include the A540, situated about 480 m to the east, and the M53, approximately 4.2 km to the east.

Covering around 27 hectares, the Site comprises agricultural land with four arable and pastoral fields of varying shapes and sizes, all defined by hedgerows. An access road cuts through the Site, connecting to Station Road to the east. Two of the fields lie to the north of the access road and two to the south. The northernmost field contains a small pond surrounded by trees. The Site is centred at Ordnance Survey (OS) Grid Reference SJ 23972 84154.

Characteristics of Proposed Development

The Proposed Development would consist of solar PV array with an estimated installed capacity of 26 MW covering an area of up to 27 ha, as shown on **Figure 2**. The solar PV panels will be installed on simple metal frames, with an indicative maximum height of 3.5 m above ground level. The layout will also include inverters, transformers, a substation and associated infrastructure.

The Proposed Development would utilise natural resources to generate clean green renewable energy. Based on the average electricity consumption per household of 2.7 MWh/year (Ofgem, 2024) and assuming generation of 26 MW, the Proposed Development would generate enough power to supply approximately 8,600 households.

The solar PV panel layout will be determined following site surveys and a design iteration process. A sufficient buffer distance will be placed around specific features to minimise any impact.

The construction of the Proposed Development would give rise to limited potential for waste. Waste generated through the construction period would be appropriately managed by a Construction Environmental Management Plan (CEMP). There would be no waste produced during operation. The CEMP will be produced to detail the appropriate measures to reduce and control the environmental impact associated with the construction phase of the Proposed Development.

An indicative Site layout is shown in **Figure 2** and an indicative overview of the final design is provided below:

- Solar PV array;
- Inverters;
- Transformers;
- On-site substation;
- Temporary construction compound;
- Internal access tracks;

- Security fencing up to 2.5 m high;
- CCTV cameras; and
- Landscape and biodiversity enhancement

Planning Policy Context

In May 2019, the UK Government declared a 'climate and environment emergency' and, as a result, set the target to bring all greenhouse gas emissions to be net-zero by 2050. Within the National Planning Policy Framework (NPPF), it is clear that planning must facilitate the transition to a renewable and low carbon economy and help deliver the aims of the UK Government. In December 2020, the UK Government published the Energy White Paper 'Powering our Net Zero Future', indicating onshore wind and solar will be key building blocks of the future generation mix along with the offshore wind.

The UK Government's recent British Energy Security Strategy document (April 2022) states that the UK Government *"will continue supporting the effective use of land by encouraging large scale [solar PV] projects to locate on previously developed, or lower value land, where possible, and ensure projects are designed to avoid, mitigate, and where necessary, compensate for the impacts of using greenfield sites".*

The Proposed Development has the potential to contribute to these targets with increased production of energy from renewable sources. A Planning Statement will accompany the Planning Application, making reference to key national policies and the Local Development Plan (LDP) policies and criteria.

Wirral Local Plan (2021)

Wirral Council declared an Environment and Climate Emergency in July 2019 and through this committed to action to address the ecological and climate crisis. There is evident support for renewable energy and low carbon developments within its Local Development Plan (LDP), as evidenced below:

Policy WS 8.7: Stand-alone Renewable and Low Carbon Energy Schemes

Development proposals for renewable and low carbon energy schemes will be supported in appropriate locations, with particular emphasis on the use of decentralised energy networks and in identified areas of opportunity subject to national Green Belt policy.

Current Status of the Wirral Local Plan

The Wirral Local Plan 2021 to 2037 is currently under preparation and has not yet been adopted. The Submission Draft was submitted for independent examination on 26 October 2022. The plan aims to guide development in the borough, focusing on regeneration, housing, and sustainable growth. Despite the plan not being adopted it is still a material consideration.

Baseline Conditions and Potential Impacts

This section outlines the environmental baseline and characteristics of any potential impacts that may be caused by the Proposed Development. **Figure 3** displays the environmental designations and key constraints out to 5 km.

Ecology and Biodiversity

Baseline Conditions

The Site is not situated within any designated sites with ecological/ornithological qualifying features. There are several designations that lie within 5 km of the Site, which are presented in **Table 1** below. Several sites are also under 200 m from the Site.

Designated Sites

Table 1: Ecology and Biodiversity

Designation Name	Designation Type	Distance from Site	Reason for Designation
The Dee Estuary	Special Protection Area (SPA)	205 m south-west	The site is of major importance for waterbirds, offering key winter feeding and roosting areas for internationally important ducks and waders. In summer, it supports nationally significant tern breeding colonies and is also important for migrating waders and post-breeding Sandwich terns.
	Ramsar site	205 m south-west	For reasons stated above.
	Special Area of Conservation (SAC)	205 m south-west	Primary qualifying Annex 1 habitats include intertidal mudflats and sandflats, pioneer Salicornia saltmarsh, and Atlantic salt meadows. Seven additional Annex 1 habitats are also present but are not the main reason for SAC designation.
	Site of Special Scientific Interest (SSSI)	205 m south-west	The site supports internationally important wintering waterfowl, nationally and internationally significant waterfowl and tern species, diverse intertidal and transitional habitats, sandstone cliffs with maritime vegetation, nationally scarce plants, and the rare sandhill rustic moth (*Luperina nickerlii gueneei*).
Dee Cliffs	SSSI	120 m south	Herb-rich neutral grassland, marl pits and clay grassland bank habitat.
Thurstaston Common	SSSI	50 m north-east	The site is the largest and best lowland heath in Merseyside, with diverse heath habitats, rare plants, and breeding and wintering birds including tawny owl, redpoll, and linnet.
	Local Nature Reserve (LNR)	65 m north-east	
The Dungeon	SSSI	1.2 km south-east	A small, wooded ravine with geological interest.

Designation Name	Designation Type	Distance from Site	Reason for Designation
Heswall Dales	LNR	2.1 km south-east	Similar to Thurstaston common, this site is of botanical interest, supporting dry lowland heath, with occasional wetter areas; some birch-oak woodland has developed within the site and wetter tree species are present along the stream in the east of the dale.
	SSSI	1.8 km north-west	
Hilbre Islands	LNR	4.2 km north-west	Red sandstone island within the Dee Estuary; important roosting habitat during high tide for the breeding and wintering bird population along the estuary.

Habitats

An extended UK Habitat Classification (UK Hab) survey of the Site was carried out in June 2024. The Site was walked-over and the habitats were described with reference to the UK Hab Habitat Definitions (The UK Habitat Classification Working Group, 2023).

The Site is formed by four arable fields and the margins of one arable field and pasture grassland field in the north. Narrow strips of modified grassland are present in some of the margins of the field margins. Native hedgerows are present along field boundaries; there is one pond within and four ponds directly adjacent to the Site.

Species

The preliminary ecological assessment (PEA) considered the Site's potential to support protected and notable species, including badger, bats, otter, great crested newt, reptiles, and breeding and wintering birds. Further surveys were undertaken in response to the findings of the PEA:

- eDNA survey for great crested newts: ponds within 250 m of the Site (completed in 2024).
- Breeding bird characterisation survey of the Site (completed, one full season in 2024).
- Wintering bird survey of the Site and adjacent fields (data obtained for one season autumn 2024 to spring 2025, a second season of surveys is proposed autumn 2025/ spring 2026).

The results of the further surveys are summarised below:

- Great crested newt presence is confirmed from the onsite pond and one offsite pond, adjacent the Site boundary via eDNA survey.
- Terrestrial habitat that could be used by great crested newt is present within the Site (the most suitable habitat are hedgerows, hedgerow margins, pond margins; the arable fields are of low suitability).
- The Site supports a typical farmland bird assemblage with breeding and foraging habitat within arable fields and boundary hedgerows. The majority of breeding bird

activity is within the field boundaries; there are also skylark territories within the open arable fields (estimated up to nine territories); waterfowl (including mallard and teal) have been recorded on the ponds.

- The Site is identified as a site with moderate potential to be Functionally Linked Land (FLL) for passage and wintering birds linked to The Dee Estuary SPA (Natural England, 2021).
- One season of passage/wintering bird survey has been undertaken and a second season of survey is programmed to be undertaken during the forthcoming autumn passage/winter/spring passage periods 2025/26.
- The interim survey results confirm that qualifying/assemblage bird species (in relation to The Dee Estuary SPA) have been recorded from the Site, however, for the majority of species the level of use is very low and irregular. So far only pink-footed goose has been recorded in higher numbers during the survey work.

Other ecological receptors considered during the PEA have been scoped out of further assessment, summaries are provided below:

- The Site offers some habitat suitable for foraging and commuting bats; this is mainly along the hedgerows and in the vicinity of the ponds, both those within and adjacent to the Site, and small blocks of woodland adjacent to the Site.
- The hedgerow and ponds will be retained with buffers, and habitat enhancement measures, primarily around field margins, will be embedded into the design of the proposed development. Given this approach, the need for bat survey has been scoped out.
- No evidence of badger activity was recorded. The Site is considered to have limited suitability for reptiles; the most suitable areas of habitat will be retained and protected. No evidence of other protected species was recorded.

Landscape and Visual

It is noted that the Site falls within designated Green Belt. Whilst this is not strictly a landscape designation, an assessment of the effects of the Proposed Development on the landscape including the open countryside, would form part of a Landscape and Visual Appraisal (LVA) to accompany a planning application for the Proposed Development.

The Site is wholly located within National Character Area (NCA) 59: Wirral, which extends along the west of the peninsula formed by the Mersey and Dee estuaries. The NCA is characterised by a low-lying, gently rolling platform that is punctuated by low sandstone outcrops.

It is also located within the Landscape Character Areas (LCA) 1b: Dee Estuarine Edge, as defined within the Wirral Landscape Character Assessment (October 2019). LCA 3c: Irby and Pensby Sandstone Hills, and 6a: Dee Estuary, are in proximity to the Site.

The Wirral Unitary Development Plan (2020) identifies four Areas of Special Landscape Value (ASLV). The Site is located within the Dee Coast, including Heswall Dales, Thurstaston Common and Royden Park ASLV. This ASLV was originally designated as a heritage landscape within the Merseyside Structure Plan (1980) and considered to ‘make an important and positive contribution to the distinctive attractiveness of the peninsula’.

The settlements of Thurstaston village lying to the north-east and Caldy village to the north-west are both under 1 km from the Site. No Public Rights of Way (PRoW) cross through the Site. The Proposed Development would introduce new infrastructure (solar panels) into an urban fringe landscape currently utilised for agricultural purposes. It is acknowledged that

there will be some landscape and visual effects arising as a result of the Proposed Development.

Based on initial analysis, the main visual receptors of the Proposed Development are likely to be users of the Caldy Golf Club and residents of the southern edge of Caldy, users of the green space at Thursaston Hill and the Wirral Way as well as users of the Wirral Country Park and Caravan Park. **Appendix 1** shows the baseline photography undertaken to capture winter photography for the proposed viewpoints.

Mitigation for landscape and visual effects typically takes the form of tree planting and hedgerow enhancement to reduce the extents of visibility. The opportunities to mitigate the landscape and visual effects of the Proposed Development will be limited owing to its relatively broad extent across an upland plateau. The potential to mitigate landscape and visual effects will, therefore, relate to the layout across the Site and how that affects the extent of visibility across the surrounding area. The low level of the solar panels, set at a maximum of 3.5 m above ground level, combined with the sloping landform that surrounds the upland plateau, will limit the extent of visibility and potentially reduce the need for further mitigation.

In light of the limited potential for landscape and visual effects to arise as a result of the Proposed Development, we are of the opinion that landscape and visual effects would not need to be assessed by way of an EIA.

Archaeology and Cultural Heritage

There are no World Heritage Sites, Registered Battlefields, Registered Parks and Gardens or Grade I Listed Buildings located within the Site or within 1 km.

There are four Scheduled Monuments (SM) within 5 km of the Proposed Development, these are listed below:

- Irby Hall SM - ~1.2 km north-east of the Site;
- Grange Beacon SM - ~1.5 km north-west of the Site;
- Standing cross in the churchyard of the Church of the Holy Cross at Woodchurch SM - ~4 km north-east of the Site; and
- Site of church and churchyard at Overchurch 875m north west of Upton Hall SM, ~4.5 km north of the Site.

The following Conservation Areas (CA) are situated within 1 km:

- Thurstaston CA - ~200 m east of the Site; and
- Caldy CA - ~280 m north-west of the Site.

There are 13 Listed Buildings (LB) within 1 km of the Site with the majority of these sited within the village of Thurstaston. Former barn and granary to Dawpool Farm Grade II LB is the closest to Site lying ~270 m to the east.

A Historic Environment Desk Based Assessment (HEDBA) has been undertaken (**Appendix 2**). This assessment has not identified a high potential for archaeological remains dating before the post-medieval period within the Site. Any potential post-medieval remains are likely limited to agricultural activity. Evidence of earlier occupation is restricted to a possible prehistoric flint assemblage and some short-lived features, which, although not confirmed, align with patterns observed in the wider area. The significance of any such remains has been evaluated based on the gathered baseline data and in accordance with the requirements of paragraph 207 of the National Planning Policy Framework (NPPF, 2024). Should remains be present, they are unlikely to be of sufficient significance to prevent

development. Any adverse impacts on such heritage assets should be considered in line with paragraph 216 of the NPPF (2024).

The HEDBA also reports that the Site does not contribute to the character or appearance of Thurstaston CA and therefore, the Proposed Development would be anticipated to result in no harm to the CA. The assessment, therefore, concluded that the Proposed Development will not result in any harm to any designated heritage assets through physical disturbance or setting change.

Consultation will be undertaken with the local authority archaeological advisor, and any potential direct or indirect effects on identified cultural heritage receptors in the vicinity could be assessed as part of the planning process without the need for an EIA.

Geology, Hydrology and Hydrogeology

The bedrock beneath the Site and the wider area is primarily Wilmslow Sandstone Formation which is composed of red-brown to brick-red, fine- to medium-grained, generally pebble-free, cross-bedded sandstones, with sporadic siltstones.

The River Dee runs 500 m south of the Site. Review of the Environment Agency (EA) flood map for planning shows the Site is entirely within Flood Zone 1, i.e., very low flood risk from rivers and the sea. A Flood Risk and Drainage Assessment (FRDA) will be undertaken to inform the suitable siting and design of flood-sensitive infrastructure such as the on-site substation and to identify a suitable drainage strategy for the Site.

All necessary mitigation and enhancement measures would be included in the scheme design. No significant flood risk and drainage impacts are predicted, therefore it is concluded that EIA is not required for the assessment of flood risk and drainage.

Transport and Access

Access is proposed from the south-east via Station Road. The Site is adjacent to the A540 to the north. The Site benefits from excellent access to the wider road network (A540, A551, M53) which will be an advantage during construction. Therefore, it is suitable in its current state for all the traffic and transport required for the construction, operation and decommissioning of the Proposed Development.

Nevertheless, a high-level Transport Statement will be undertaken, including consultation with local road officers and estimation of construction loads/trip numbers to assess the potential impact of construction traffic on the local road network. It appears likely that the construction phase will have a short-term impact on the immediate road network due to increased traffic. However, the Proposed Development's potential impact on the surrounding road network is likely to be minimal.

No significant transport and access impacts are predicted, therefore it is concluded that EIA is not required for the assessment of transport and access.

Noise

The nearest receptors are adjacent to the northern and eastern boundaries with the closest being sited approximately 170 m north-east of the Site within the village of Thurstaston. Considering the baseline noise from the proximity to the A540 motorway, the noise generated during the construction of the Proposed Development is unlikely to cause any significant adverse effects to any of these receptors and can be suitably managed via good construction practices and implementation of a Construction Environmental Management Plan (CEMP).

The operational phase of the Proposed Development will produce essentially no noise from on-site infrastructure except for the substation, which will be appropriately sited and designed to ensure no significant noise impacts. Therefore, it is not anticipated that the Proposed Development would have any significant impact on noise-sensitive receptors. The Applicant does not propose to undertake a noise assessment to support the planning application.

Air Quality

Construction-related air quality impacts (e.g. dust and emissions from construction plant) would be controlled though the implementation of standard mitigation measures set out in a CEMP for the Proposed Development. The Applicant does not propose to undertake an air quality assessment to support the planning application.

Glint and Glare

Glint and glare in this context are the effects of reflected sunlight causing harm or discomfort to a sensitive receptor. A glint can be defined as the momentary receipt of a bright light and a glare can be defined as the receipt of a bright light over an extended or continuous period of time.

The glass used in solar PV panels is specifically designed to absorb as much sunlight as possible to convert to electricity. Consequently, the panels have a lower level of reflectivity (potential for glare) than many other man-made and natural features such as conventional windows, polytunnels, glasshouses, water, snow, etc.

Any impacts from glint and glare are not expected to be significant and therefore would not need to be assessed by way of an EIA Report chapter.

Land Use and Soil

An Agricultural Land Classification (ALC) survey (**Appendix 3**) was undertaken in March 2024. The Site comprises 5.1 ha of Grade 3a agricultural land representing ~18% of the land on the Site, this land is the lowest quality of what is considered best and most valuable (BMV) agricultural land. The majority of the land is Grade 3b representing 22.6 ha or ~80% of the total land on the Site.

The Proposed Development is a temporary land use and all solar panels will be removable at the end of the nominal design life of 35 years. When the Proposed Development is no longer required all the components and above ground structures would be removed from the Site, any excavated areas would be made good, and the land within the Site could be returned to agricultural use. Mitigation planting would remain when the solar farm is decommissioned.

After having had a long period of soil and biodiversity regeneration, it is anticipated that the quality of the soil and biodiversity content will be significantly improved over the current status. In addition, all the planting associated with screening and biodiversity net gain would remain after decommissioning. Therefore, this is not considered a significant impact and EIA is not required to assess land use.

Cumulative Developments

According to the UK Renewable Energy Planning Database and a search of Wirral Council planning portal in May 2025, there are no solar farms within 5 km to the Site.

The Murrayfield Hospital which lies 3.9 km to the east is the closest cumulative development which has a solar installation consisting of 0.17 MW of roof and ground mounted solar

panels covering an area of 0.08 ha. This is considered to be too small to have a cumulative impact on the Proposed Development and therefore would not be included within assessments.

Proposed Assessments

On the basis that the Wirral Council agree with the conclusions of this report and advise an EIA is not required, it is proposed that detailed technical environmental reports as well as a Planning Statement will accompany the planning application, to ensure that Wirral Council has sufficient information to determine the application. The following sections highlight the proposed environmental and technical assessments which would support the planning application.

Ecology and Biodiversity

Assessment Methodology and Mitigation Measures

Ecology Desk Study

A data trawl was undertaken in 2024 via RECORD, the Biodiversity Information System for Cheshire, Halton, Warrington and Wirral. The request included non-statutory designated sites, such as Local Wildlife Sites (LWS), and any protected species within a 2 km radius.

The MAGIC website (http://www.magic.gov.uk/) was accessed which identified a number of statutory and non-statutory designated sites within 5 km of the Site, including The Dee Estuary SPA, SAC, Ramsar Site, and SSSI.

The Site is within the Impact Risk Zone (IRZ) of these designated sites; there is a requirement for the LPA to consult with Natural England for ‘all planning applications’ in this IRZ.

Further information has been reviewed as part of the desk study including a Natural England report (Natural England, 2021) which identifies functionally linked land in the local area; and a review of available Wetland Bird Survey (WeBS) data[1] for any local monitored sites, which is ongoing.

Habitats

Habitat surveys (using UK Hab methodology) were undertaken in 2024. The survey was extended to include an assessment of the Site’s potential to support protected species. This was used to refine the scope of additional survey work required (for great crested newt and birds).

Great Crested Newt

All accessible ponds onsite and within 250 m, which held water, were assessed for their potential to support great crested newt using the Habitat Suitability Index (HSI) scoring method, a quantitative means of evaluating habitat quality for great crested newt. This was carried out in early June 2024.

[1] WeBS monitors the UK's internationally important non-breeding waterbirds providing data for population and trends in abundance and distribution across a network of sites. There are WeBS counts sites local to the Site: Thurstaston Fields includes the Site and a wider block of the surrounding farmland; this is one of several Dee Estuary WeBS sectors.

An environmental DNA (eDNA) survey of all accessible ponds within 250m of the Site was then undertaken in early June 2024. This involves collecting water samples for lab-based analysis. Testing water samples for eDNA is an effective way to determine great crested newt presence or likely absence.

Breeding Birds

One full season of breeding bird data was collected during 2024. Breeding territories within the Site were mapped over six visits between April and June 2024.

Wintering Bird

One season of passage and wintering bird survey data has been collected during winter 2024/2025; this has involved twice-monthly visits from September 2024 to March 2025. During each survey visit all birds observed were recorded and notes on species number and behaviour were made. A second season of survey is planned over the forthcoming winter period.

Biodiversity Net Gain

A baseline biodiversity calculation has been undertaken of the Site in 2024 to understand the baseline site value and to inform the Proposed Development design layout.

A post-development calculation will be made as the design evolves to determine whether a 10% gain can be achieved within the Site. Habitat enhancement measures primarily around will be embedded into the design of the proposed development which will contribute to the delivery of biodiversity gain.

Impact Assessment and Mitigation Measures

An Ecological Impact Assessment (EcIA) will be undertaken with reference to industry guidance (CIEEM, 2024). This will identify ecological features with potential to be affected and will assess the impacts on these features as a result of the Proposed Development. The EcIA will also identify any mitigation and compensation measures necessary, and will describe the significance of residual impacts. The EcIA will be informed by the results of the desk study and baseline surveys described above. It will also take into account the results of consultation and will consider the application of the NPPF mitigation hierarchy.

The EcIA will also identify minor impacts which need to be considered primarily in relation to legal compliance.

Impacts on wintering birds are likely to require detailed consideration. This will be considered in the EcIA. Given the proximity of the Dee Estuary SPA, and the possible value of the site as functionally linked land, possible impacts on birds will also need to be considered in detail through Habitats Regulations Assessment (HRA). The survey data (including next season's wintering bird survey data), and desk study data will be used to inform the EcIA and HRA.

In addition to the EcIA, a Report to Inform an Appropriate Assessment[2] (RIAA), will be prepared and provided to the LPA for consideration as part of the HRA. Both documents will consider the need for mitigation and compensation measures.

Based on the current survey data, a focus of the assessment will be to consider impacts on pink-footed geese. The forthcoming season's survey data, and desk study data (i.e. relevant

[2] Appropriate Assessment is the second stage of Habitats Regulations Assessment, after Screening (Stage 1). HRA can include other subsequent stages, but these are only required where an impact on the integrity of the European Site (i.e the Dee Estuary SPA) could not be avoided through mitigation or compensatory measures.

WeBS data), and the results of consultation, will be used to refine and confirm the scope of the assessment.

Although neither pond will be impacted by the Proposed Development, it is likely that a mitigation licence for great crested newt will need to be obtained from Natural England to ensure legal compliance. This is due to the potential for temporary impacts to terrestrial habitat during the construction phase of the Proposed Development. District Level Licencing schemes are not currently available in this location, so a standard licence would be required. Enhancement of terrestrial habitats (such as field margins and habitat surrounding the ponds) can be embedded into the design of the proposed development. With mitigation in place a significant residual impact is likely to be avoided.

Mitigation measures for permanent impacts to breeding birds will need to be considered within an EcIA. Enhancement measures for breeding birds, primarily around field margins, will be embedded into the design of the proposed development.

Embedded design mitigation will also consider the habitat requirements of other species and will be linked to the need to deliver biodiversity gain (see below).

Impacts on breeding birds are possible during the construction phase will be need managed to ensure legal compliance; it is likely that this will be through the implementation of a Construction Environmental Management Plan (CEMP). The CEMP will also include other standard precaution measures to avoid impacts on wildlife, such as avoiding the risk of lighting impacts on bats and other wildlife during the construction phase

The Statutory Biodiversity Metric (SBM) will be used with the survey data to calculate baseline value of the Site and a range of scenarios will be considered to inform design to help meet biodiversity gain requirements. The SBM will subsequently be used to calculate a post-development score. Where possible, any relevant local priorities will be factored into the design and calculations. The results will be described in a Biodiversity Gain Report.

A Habitat Management and Monitoring Plan (HMMP) will then be prepared (NB this document can be prepared after planning consent is obtained). This will describe measures that will be implemented to enhance biodiversity within the site, including habitat creation / native planting, and other features to be created within the Site.

Landscape and Visual

An LVA will be undertaken to establish a full landscape and visual baseline and identify potential effects arising as a result of the Proposed Development. The LVA will be prepared in accordance with published best practice, namely the Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and IEMA 2013 (GLVIA3) and associated technical guidance notes published by the Landscape Institute.

The LVA will consider the potential effects upon:

- landscape fabric and landscape character;
- the special qualities of any landscape designations; and
- visual receptors including residential, transport, and recreational receptors.

Although linked, landscape and visual effects are considered separately. Landscape effects derived from changes in the landscape fabric, which may result in changes to the character, whereas visual effects are the effect of these changes as experienced by people (visual receptors). Landscape and visual effects are also classified into two categories, those experienced during the construction phase (temporary or short term) and those during the operational phase of the development (residual or long term).

A landscape mitigation strategy will be developed which will be complimentary to the ecological and other environmental mitigation requirements. The appraisal of effects will take all proposed mitigation into account cognisant of the establishment period for any new planting.

Based on a preliminary analysis it is proposed to set the study area as 2 km offset from the Site boundary. Preliminary site evaluations suggest that visibility will be restricted to a range of about 1 km.

The LVA will be supported by plans, Zone of Theoretical Visibility (ZTV) and visualisations as necessary. The specific scope of the LVA, including proposed viewpoints and visualisations, will be agreed with the Wirral Council.

The LVA is proposed to be supported by ten viewpoints representative of visual receptors in the LVA study area. The proposed viewpoints are shown on the ZTV in **Figure 4** and listed below:

Table 2: Viewpoints

Viewpoint Number	Description	Easting	Northing	Distance and direction from Site
1a	View from the Nest Café, Thurstaston	324060	383844	>10 m to the south-west
1b	View from the Nest Café, Thurstaston	324060	383844	>10 m to the south-west
1c	View from the Nest Café, Thurstaston	324060	383844	>10 m to the south-west
2	View from Caldy Golf Club Car Park	323508	384484	~125 m to the north-west
3a	View from Station Road, Thurstaston	323924	383632	~172 m to the south
3b	View from Station Road, Thurstaston	323924	383632	~172 m to the south
4	View from Wirral Circular Trail	323420	383885	~143 m to the south-west
5	View from Wirral Country Park	323798	383389	~296 m to the south-east
6	View from Station Road on southern edge of Thurstaston	324547	384095	~307 m to the east
7	View from junction of Footpath 15 and Telegraph Road	324093	384929	0 m to the north
8	View from Thurstaston Hill lookout point:	324487	384663	~332 m to the east
9	View from Footpath 43, by burial ground	324972	383832	~806 m to the east
10	View from footpath within Glasspool Sports Facility	323819	385227	~400 m to the north-west

Archaeology and Cultural Heritage

The Historic Environment Desk Based Assessment (HEDBA), otherwise known as a Heritage Statement, provides sufficient detail on the known and potential heritage assets within the site and study area and provides an assessment of both potential physical and setting effects by the Proposed Development on the significance of those heritage assets identified. However, consultation will be undertaken to confirm whether any further reporting is necessary to support the full planning application.

Geology, Hydrology and Hydrogeology

A desk study review will be undertaken to identify watercourse and aquifer sensitivity, and any potential contamination risks to the site hydrology and hydrogeology. A Flood Risk and Drainage Assessment (FRDA) will be completed in line with the Environment Agency requirements, including a range of works to evaluate the risk to the site from flooding and identify appropriate mitigation measures. This will include a site walkover to consider:

- general topography and fall across the Site;
- comparative analysis of proposed locations/layout of infrastructure against mapped areas of surface water flood risk;
- confirmation of any areas of erosion/deposition;
- confirmation of any watercourses, surface water flow paths and drainage infrastructure not identified on available mapping;
- photos of watercourses to show the channel, banks, floodplain, and any culverts or structures; and structural information: details of any structures, such as culverts, bridges, and weirs, which may influence water levels.

Information received from the site walkover, alongside consultation with the Wirral Council will be used to specify the scope of further assessment works. A FRDA and the Council's SuDS proforma will accompany the planning application.

Transport and Access

The Applicant proposes to submit a high-level Transport Statement with the planning application, indicating the proposed construction and maintenance routes and access. The Proposed Development is expected to have minimal impact on the adjacent and wider road network and no significant effects are predicted.

The scope of the Transport Statement would be agreed with officers in Wirral Council. It is expected that it would cover:

- A description of existing transport network around the Proposed Development.
- A summary of the access arrangements for the Proposed Development.
- A summary of the likely number of vehicle movements that would be generated during the construction of the Proposed Development and comment on the scale of increase of those movements against baseline traffic data from an Automatic Traffic Counter (ATC) traffic survey.
- A summary of measures proposed to manage traffic generated during construction that would form the basis of a Construction Traffic Management Plan (CTMP), the satisfactory submission of which could be a condition of any consent.

Noise

As outlined above, the Proposed Development would likely have no impact on noise-sensitive receptors subject to appropriate siting and design of the substation and control of construction-phase noise through good construction practices and implementation of a CEMP. Therefore, the Applicant does not propose to undertake a noise assessment.

Air Quality

It is not anticipated that the Proposed Development would have any discernible effects on air quality. The Applicant does not propose to undertake an Air Quality Assessment. Construction-related air quality impacts (e.g., dust and emissions from construction plant) would be controlled though the implementation of standard mitigation measures set out in a CEMP for the Proposed Development.

Glint and Glare

A G&G technical report will be submitted with the application. This will consist of the following scope:

- Review the proposed layout of the solar PV system, including module orientation, tilt and total capacity (MW).
- Review nearby ground-based receptors of proposed development (e.g. roads and dwellings) in line with UK guidance.
- Review nearby air-based receptors of the proposed development (e.g., airports, airfields and air traffic control towers), in line with UK guidance.
- Engage with local stakeholders where necessary (e.g. with local airfields to understand flight path details required for modelling G&G impacts).
- Identify all receptors required for assessment.
- Utilise appropriate methodology and technology to identify and characterise the magnitude, duration and times of day/month that glint and glare is subjected to receptors.
- Identify potential mitigation strategies for any receptors adversely affected by glint & glare arising from the project (e.g., design considerations and screening techniques).

Land Use and Soil

As described above there is not likely to be any significant impacts on land use and therefore it will not be necessary to undertake a land use assessment. Following pre-application advice an Agronomy Assessment will support the planning application in the form of a Soil Management Plan.

Summary of Proposed Technical Studies

In summary, the following technical studies and reports will be provided in support of the planning application:

- Ecological Impact Assessment (including species survey reports)
- Biodiversity Net Gain Calculations
- Landscape and Visual Appraisal
- Historic Environment Desk Based Assessment

- Flood Risk Assessment and Drainage Assessment
- Transport Statement
- Glint and Glare Assessment
- Agricultural Land Classification Survey
- Agronomy Assessment

These technical reports will be collated as appendices to a Supporting Environmental Information Report (SEIR) which will describe the Site and the Proposed Development, and summarise the conclusions of each assessment. A Planning Statement will also be submitted in support of the planning application, this will include an assessment of alternative options to support the argument that the Proposed Development meets the criteria for very special circumstances.

Conclusions

This request for an EIA Screening Opinion has considered the characteristics of the Proposed Development in line with Schedule 3 of the EIA Regulations – the location of the Site, the environmental sensitivity of the Site and surrounding area, potential environmental effects and mitigation measures – and concludes that significant effects on the environment (both individually and cumulatively) are not anticipated and, therefore, the Proposed Development does not constitute EIA development.

The proposal is for a development that will make a valuable contribution to United Kingdom's statutory 'Net Zero' carbon and emissions reduction targets, and a significant contribution to energy supply and security, and is in a suitable location such that there are not likely to be significant effects on the environment.

All assessments will be subject to further discussion with relevant consultees and the Applicant will provide Wirral Council with sufficient information to evaluate and determine the application. This is predicated on an approach that assumes good practice mitigation which will be implemented throughout the design, construction and operation of the Proposed Development, and therefore significant adverse residual effects on the environment are considered unlikely.

We would be grateful if Wirral Council could confirm whether the proposed scope of works is acceptable and provide an EIA Screening Opinion for the Proposed Development.

Yours sincerely,

Sophia Cockell

Senior EIA Consultant, SLR Consulting

Encs:

Figure 1: Site Location Plan

Figure 2: Indicative Site Layout

Figure 3: All Constraints Within 5 km

Figure 4: ZTV and Viewpoints

Appendix 1: LVA Photosheets

Appendix 2: Historic Environment Desk Based Assessment

Appendix 3: Agricultural Land Classification

References

CIEEM (2024) *Guidelines for ecological impact assessment in the UK and Ireland: terrestrial, freshwater, coastal and marine*. Version 1.3. Winchester: Chartered Institute of Ecology and Environmental Management.

European Commission (2014). Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment. Available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0052

Natural England (2021) *Identification of Functionally Linked Land supporting Special Protection Areas (SPAs) waterbirds in the North West of England.* Natural England Commissioned Report NECR361.

UK Government (2017). The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Available online at: https://www.legislation.gov.uk/uksi/2017/571/contents/made

Wirral Council (2025). Wirral Local Plan 2022 to 2040 Available online at: https://www.wirral.gov.uk/planning-and-building/local-plans-and-planning-policy/wirrals-development-plan/wirral-local-plan

Figures

322600 322800 323000 323200 323400 323600 323800 324000 324200 324400 324600 324800 325000 325200

385400 385200 385000 384800 384600 384400 384200 384000 383800 383600

B-5140

Benty Farm

Thurstaston Hill

Sch

CH

Caldy Golf Club

Thurstaston

MP

Rec

Dawpool Farm

Dawpool Nature Reserve

Thurstaston Hall

Church Farm

Station Road

Caravan Park

Shore Cottage

The Dungeon

0 1 Kilometers

N

LEGEND

Site Boundary

Liverpool

St Asaph

Chester

Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

CHiNT

SLR

ROSE COTTAGE SOLAR FARM

SCREENING REQUEST

FIGURE 1

Site Location Plan

Scale 1:8,000 @ A3

Date JUNE 2025

7079-2915 Rose Cottage Constraints

© Crown copyright [and database rights] (2024) 0100031673 OS OpenData.

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

323200 323400 323600 323800 324000 324200 324400 324600

384800 384600 384400 384200 384000

Thurstaston Hill

CH

ldy Golf Club

Thurstaston

Dawpool Farm

Dawpool Nature Reserve

23

Caravan Park

Station Road

Thurstaston Hall

52

0 1

Kilometers

N

LEGEND

- Site Boundary
- Indicative Access Track
- Indicative Grid Connection Route
- Solar Development Area

Liverpool

St Asaph

Chester

Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

CHINT

SLR

ROSE COTTAGE SOLAR FARM

SCREENING REQUEST

FIGURE 2

Indicative Site Layout

Scale 1:5,000 @ A3

Date JULY 2025

7079-2915 Rose Cottage Constraints

© Crown copyright [and database rights] (2024) 0100031673 OS OpenData.

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

LEGEND

- 🟥 Site Boundary
- ⬚ 5 km Buffer
- 🟩 Flood Alert Areas
- 🟦 Surface Water Areas
- — Watercourses
- 🟧 Conservation Areas
- 🟩 Country Parks
- ● Scheduled Monuments

Listed Buildings

grade

- ▲ II
- ▲ II*
- 🟩 Green Belt
- 🟪 Countryside/RoW Act Access Land
- – – King Charles III Coast Path
- 🟪 RSPB Reserves
- ▨ Sites of Special Scientific Interest
- 🟩 Local Nature Reserves
- ▨ Special Protection Areas
- ▨ Special Areas of Conservation
- 🟥 Ramsar

Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

CHINT

SLR

ROSE COTTAGE SOLAR FARM

SCREENING REQUEST

FIGURE 3

Constraints within 5 km

Scale	Date
1:44,000 @ A3	JUNE 2025

7079-2915 Rose Cottage Constraints

© Crown copyright [and database rights] (2024) 0100031673 OS OpenData.

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.

0785-ZTV.qgz

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

ROSE COTTAGE SOLAR

FIGURE 4

Zone of Theoretical Visibility - Including screening

KEY

- Site Boundary
- Distance radii from Site Boundary (1, 2 and 3km)
- Proposed Viewpoints
- Woodland (Modelled at 15m)
- Building (Modelled at 7.5m)

Zone of Theoretical Visibility (3.5m to tops of panels)

- Panels may be visible

© Crown copyright, All rights reserved. 2022 License number 100020565 | Contains Ordnance Survey data © Crown copyright and database right 2022

Projected Coordinate System: British National Grid

DATE	BY	PAPER	SCALE	QA	REV
May 2025	TD	A3	1:25,000	CS	-

Appendices

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324060E 383844N
Ground Height:	30.66m AOD
Direction of Centre of View: ²	272°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	13:12
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 1a: View from the Nest Café, Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324060E 383844N
Ground Height:	30.66m AOD
Direction of Centre of View: [2]	2°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	13:12
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 1b: View from the Nest Café, Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324060E 383844N
Ground Height:	30.66m AOD
Direction of Centre of View: ²	92°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	13:12
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 1c: View from the Nest Café, Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323508E 384484N
Ground Height:	29.09m AOD
Direction of Centre of View: ²	166.2°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	10:12
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 2: View from Caldy Golf Club Car Park
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:
1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323924E 383632N
Ground Height:	30.01m AOD
Direction of Centre of View: ²	332.35°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	12:26
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 3a: View from Station Road, Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:
1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323924E 383632N
Ground Height:	30.01m AOD
Direction of Centre of View: ²	62.35°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	12:26
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 3b: View from Station Road, Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323420E 383885N
Ground Height:	23.3m AOD
Direction of Centre of View: [2]	61.8°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	12:54
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 4: View from Wirral Circular Trail
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323798E 383389N
Ground Height:	28.5m AOD
Direction of Centre of View: [2]	4.2°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	12:37
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 5: View from Wirral Country Park
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:
1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324547E 384095N
Ground Height:	45m AOD
Direction of Centre of View: ²	295.6°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	13:52
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 6: View from Station Road on southern edge of Thurstaston
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:
1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324093E 384929N
Ground Height:	42.48m AOD
Direction of Centre of View: [2]	196.2°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	11:48
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 7: View from junction of Footpath 15 and Telegraph Road
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324487E 384663N
Ground Height:	91.08m AOD
Direction of Centre of View: ²	231.8°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	12:06
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 8: View from Thurstaston Hill lookout point
EXISTING VIEW

Date April 2025	By AW
Image Size 820 x 222mm	QA SB
Paper Size 841 x 297mm	Rev 0
0785_Photo-sheets	

Notes:

1) This visualisation is a cylindrical projection panorama; It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	324972E 383832N
Ground Height:	71.78m AOD
Direction of Centre of View: [2]	282.85°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	13:37
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 9: View from Footpath 43, by burial ground
EXISTING VIEW

Date	By
April 2025	AW
Image Size	QA
820 x 222mm	SB
Paper Size	Rev
841 x 297mm	0

0785_Photo-sheets

Notes:

1) This visualisation is a cylindrical projection panorama. It provides landscape and visual context only.
2) All directions given as bearings relative to Grid North (BNG).
3) Location map scale: 1:50,000.

Contains Ordnance Survey data © Crown copyright and database right 2024

Viewpoint Information:

Grid Reference:	323819E 385227N
Ground Height:	32.65m AOD
Direction of Centre of View: [2]	171.6°
Horizontal Field of View:	90°
Vertical Field of View:	24°
Viewing Distance:	522mm

Photography Information:

Camera:	Canon EOS 6D Mark II
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	07/02/2025
Photography Time:	11:39
Enlargement Factor:	approx. 96%

STEPHENSON HALLIDAY
Planning, Landscape & Environment
an RSK company

Rose Cottage Solar Farm

Viewpoint 10: View from footpath within Glasspool Sports Facility
EXISTING VIEW

Historic Environment Desk Based Assessment

Rose Cottage Solar, Thurstaston, The Wirral

Chint Solar UK Management Ltd

Prepared by:

SLR Consulting Limited

5th Floor, 35 Dale Street, Manchester, M1 2HF

SLR Project No.: 425.VT2915.00001

May 2025

Revision: 01DRAFT

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	28 May 2025	AS	CLD	CLD
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Chint Solar UK Management Ltd (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

Executive Summary

SLR Consulting Limited was commissioned by Chint Solar UK Management Ltd to prepare a Historic Environment Desk-Based Assessment (HEDBA) in relation to a proposed development comprising the construction of a solar farm on land north of Station Road, Thurstaston, The Wirral. This report comments on the evolution of the historic environment both within the Site and in its wider surroundings and identifies known and potential heritage assets within the Site, and beyond the Site boundary, which may potentially be affected by the development proposals. Both physical and non-physical (i.e., as a result of change to setting) effects upon the significance of those heritage assets are then assessed.

The Site does not contain any designated heritage assets, nor does it contribute positively to the significance of designated heritage assets within the study area. The proposed development is not anticipated to result in any harm to any heritage assets outside of the Site area as a result of a change to setting.

On heritage grounds, the development therefore conforms with the relevant provisions of the NPPF (2024), The Planning (Listed Buildings and Conservation Areas) Act 1990 and local plan policy.

This assessment has identified a limited potential for archaeological remains to be present within the Site. Should any remains be present, they would be unlikely to be of high enough significance to preclude development; the most likely remains evidenced from the baseline being relate to a potential prehistoric flint assemblage and/or short lived features of prehistoric date and the potential buried remains of post medieval agricultural activity.

Overall, the proposals are considered to be consistent with the provisions of the Scheduled Monuments and Archaeological Areas Act (1979), the NPPF (2024), and local plan policy.

Table of Contents

Appendices

Acronyms and Abbreviations

DBA	Desk-based Assessment
GIS	Geographic Information System
HER	Historic Environment Record
HEAAME	Historic England's Aerial Archaeology Mapping Explorer
HLC	Historic Landscape Characterisation
HS	Heritage Statement
NGR	National Grid Reference
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
PPG	Planning Practice Guidance
UK	United Kingdom

1.0 Introduction

1.1 In April 2025, SLR Consulting was commissioned by Chint Solar UK Management Ltd to prepare a Historic Environment Desk Based Assessment (HEDBA) in relation to a proposed development at land north of Station Road, Thurstaston, The Wirral, (NGR SJ 23955 84208) (hereafter referred to as 'the Site'; **Plate 1**).

The Site

1.2 The Site is located 385m west of the village centre of Thurstaston and 1.1km south-east of the centre of Caldy, on the Wirral.

1.3 The *c*.28.80 hectare (ha) Site encompasses four land parcels under arable use (**Appendix D photos 1- 8**). The cable route extends from the main body of the Site north along the western boundary of a field before turning north-west through horse pasture where it meets Telegraph Road. The Site is bound by agricultural land in all directions apart from Caldy golf course which abuts the northern part of the Site and the Wirral County Park Caravan campsite which abuts the Site to the south-west. Station Road is present to the south from which access is proposed.

Proposed Development

1.4 The proposed scheme comprises the construction and operation of a ground mounted PV solar farm, associated infrastructure including substation and landscaping and security fencing.

Scope of Report

1.5 This report presents the results of an HEDBA prepared in respect to heritage assets of an archaeological and built heritage nature. It identifies sensitive heritage assets within the Site and its vicinity, and discusses their significance, in accordance with the NPPF (2024) paragraph 207. The potential effects of development are discussed in accordance with terminology of the NPPF.

Standards

1.6 This HEDBA has been prepared in accordance with all relevant legislation, policy and guidance, including the NPPF (2024), the Chartered Institute for Archaeology Standard and Guidance for Historic Environment Desk-based Assessment (2020), Historic England's Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017), and Historic England's Statements of Heritage Significance (2019).

Plate 1: The Site

2.0 Methodology

2.1 Terminology to be referenced with due regard to the NPPF and the policy background against which this assessment has been prepared are presented within **Appendix A** and **Appendix B** of this report.

Baseline Procurement

Search Area

2.2 The search area for Historic Environment Record (HER) datasets referenced by this report is a 1km buffer of the Site boundary which comprises the footprint of development and its locality. This is considered sufficient to determine archaeological potential.

2.3 For the purposes of preliminary assessment and the identification of assets potentially sensitive to setting change, a study area of 1km from the Site boundary was selected. This is considered suitable in respect to the nature of the proposals and the topography of the area, albeit professional judgement has been applied to a fluid search area where necessary.

Sources Consulted

2.4 The following sources were consulted:

- Historic England's GIS datasets for all assets of an archaeological nature (Scheduled Monuments) included on the National Heritage List for England (NHLE) (see **Appendix C**);
- Merseyside Historic Environment Record (HER) (see **Appendix C**);
- Historic cartographic sources, including tithe and Ordnance Survey mapping;
- Historic England's Aerial Archaeology Mapping Explorer, for mapped archaeological earthworks and other features identified by the aerial investigation unit;
- aerial photography held by online depositories, e.g., Historic England, Cambridge Air Photos (CAP), and the National Collection of Aerial photography (NCAP);
- Historic England's Aerial Photo Explorer, for digitised photographs from the Historic England archive;
- the Environment Agency's library of open access LiDAR data (Digital Surface Model, Digital Terrain Model (DTM) and point cloud);
- the Cheshire Archives and Wirral Archives' online catalogue for any relevant historic documentation;
- Wirral online planning application portal, for relevant documentation submitted in relation to proximate applications; and
- grey literature relating to excavations within, and within proximity to, the Site.

HER Data

2.5 A proportionate level of HER data, sufficient to inform the assessment of archaeological potential, significance and potential impact presented in this report, was obtained from Merseyside County Council (HER search number **CME3404**). The HER data was reconciled and analysed within the context of the objectives of the present assessment and is presented within **Appendix C** and **Appendix E, Figures 2 & 3.**

2.6 Whilst all of the HER data received has been reviewed and considered, not all HER records (sites and events) are discussed further within this report, only those that are of relevance to the determination of potential, significance, and potential impact.

LiDAR Assessment Review

2.7 Digital terrain model (DTM) and digital surface model (DSM) LiDAR data, at 1m resolution, was processed using QGIS software. Multiple hill-shade and shaded-relief models were created, principally via adjustment of the following variables: azimuth, height, and ‘z-factor’ or exaggeration. The models created were analysed. Identified features are discussed in the relevant places within this report. The LiDAR is presented in **Appendix E, Figure 4**.

Site Walkover

2.8 A Site inspection was undertaken in May 2025 in order to assess the Site within its wider landscape context and the setting of heritage assets, identify any evidence for previous disturbance, and examine any known or suspected archaeological features, see **Appendix D**. Observations are discussed in the relevant places within this report.

Field Evaluation

2.9 NPPF (paragraph 207) references a potential necessity for evaluation fieldwork. It is anticipated that for this Site, evaluation fieldwork could be postponed as a condition to consent. This reflects the baseline evidence which does not predict the presence of remains which would preclude development.

3.0 Archaeological Baseline

3.1 This section sets out the archaeological baseline relative to the Site in order to identify known archaeological heritage assets and to inform an understanding of the potential impacts.

3.2 The resources for assessment include HER data (**Appendix C**), a LiDAR assessment, and a Site walkover survey (**Appendix D**).

3.3 Alongside secondary and primary material included in this section, these sources are considered to provide an extensive and robust baseline on which to consider archaeological potential/risk.

Designated heritage assets

3.4 There are no designated heritage assets of an archaeological nature within the Site boundary or within the 1km study area.

Geology & Topography

3.5 The Site lies on the Wirral Peninsular, on a south-west-facing slope of a sandstone ridge which overlooks the Dee Estuary. The highest point of the Site (on its eastern side) lies at 40m above Ordnance Datum (aOD) with the lowest point (on the western side) at 25m aOD.

3.6 The solid geology across the majority of the Site comprises Wilmslow Sandstone Formation. The overlying deposits are recorded as till.[1]

3.7 The soils across the lower areas of the Site comprise slightly acid loamy and clayey soils with impeded drainage which supports a wide range of pasture and woodland types.[2]

Previous Fieldwork

3.8 No previous fieldwork has occurred within the Site or its immediate vicinity. None of the investigations recorded within the 1km study area found any significant archaeological features or deposits.

3.9 Excavation at The Dungeon 985m east of the Site (National Museums Liverpool Field Archaeology Unit 2012) recorded flint artefacts of possible Mesolithic date (HER MME10640).

3.10 In 1965, excavations at Thurstaston castle mound (HER MME10642) 535m east of the Site revealed no archaeological evidence, indicating that the mound was a natural feature (Bromborough Society 1965).

[1] BGS Geology Viewer https://geologyviewer.bgs.ac.uk/?_ga=2.256512643.927847385.1736857267-730843868.1736857267 [accessed 14.05.25]

[2] Cranfield University Soilscapes LandIS - Land Information System - Soilscapes soil types viewer [accessed 14.05.25]

3.11 Post medieval pottery (HER MME432) was found by fieldwalking Rectory Field, 700m east of the Site. The field was walked following metal detecting discoveries. Only post medieval pottery was found. Finds included some Slipware (17th century), some black glaze (17th century), several 18th century sherds and a few 19th century domestic sherds.

Chronological Background

3.12 The following provides a summary of the known archaeological potential of the Site as drawn from the sources listed in Section 2.0. Non-Designated HER data is listed in **Appendix C** and presented in **Appendix E, Figures 2 & 3**.

Prehistoric (up to 750 BC)

3.13 The Wirral holds evidence of prehistoric activity dating back to the Mesolithic. One of earliest settlement sites known in Britain, is located at Greasby, 2.3km north of the Site, dating between 8300 BC and 8500 BC. At Irby, 1.3km east of the Site, excavations found significant occupation evidence from the middle Bronze Age onwards.

3.14 Whilst the HER records a flint arrowhead (HER MME344) within the Site, the accompanying record states it was found at Thurstaston Hill (260m north of the Site), on one of the sandy pathways. It is dated between the Mesolithic to Early Bronze Age, although the description indicates it is a barbed and tanged arrowhead, indicating a Bronze Age date. Several other worked flints have also been found at Thurstaston Hill, dating to the Mesolithic, Neolithic and Bronze Age periods (HER MME354 & MME330). A polished flint axe or chisel, attributed to the Neolithic, has also been found at Thurstaston Hill (HER MME331).

3.15 Elsewhere, early Neolithic to late Bronze Age flints have been recorded 930m east (HER MME452), 970m north (HER MME363) and 995m south-east of the Site (HER MME322).

3.16 A fragment of a Bronze Age socketed axe was recovered by a metal detectorist near to the shore, 890m west of the Site (HER MME170).

3.17 Possible prehistoric pottery of late Bronze Age or early Iron Age date was recovered 80m west of the Site (HER MME351).

3.18 The HER also records several flint assemblages of unknown date throughout the study area, but which may be attributed to the prehistoric period (HER MME10647, MME425, MME426, MME325, MME326, MME345, MME254, MME10645, MME10639, MME10640 and MME364).

Iron Age/Romano British (750 BC- AD 410)

3.19 No Iron Age or Romano British HER assets are recorded within the Site.

3.20 A stone head found on Thurstaston Common, 625m north of the Site, may originate from the Iron Age or Romano British period (HER MME362).

3.21 Numerous Roman finds have been found 730m east of the Site through metal detecting, comprising brooches (HER MME429, MME424, MME444-448, MME451 & MME352), coins (HER MME442, MME430, MME443, MME449 & MME454), a pin (HER MME431) and weight (HER MME450). These are notably focused higher up on the sandstone ridge at

Thurstaston, in proximity to the projected route of a Roman road, Margary's road No. 670 Chester to the Wirral, which is recorded 600m to the east of the Site (HER MME15199).

3.22 Possible earthworks of small enclosures are recorded 740m north of the Site, which may date to the Iron Age period or later (HER MME365).

Early Medieval (AD 410 – 1066) and Medieval

3.23 Archaeological evidence for the early medieval period within Britain has historically been sparse, with more reliance on documentary sources and place name evidence. There is no evidence for early medieval activity within the Site.

3.24 The village of Thurstaston to the east has its origins within the early medieval period (HER MME17358). The place name has been interpreted as of Norse origin, translation as Thorstein's farm, and is thought to relate to the Viking expulsion from Dublin in 902 and the subsequent settlement in Wirral led by Hingamund (Ingimundr) permitted by Ehtelfrida (Aethelflaed) before 907. The village of Thingwall, 3.4km east of the Site, is known to have been the location of a Viking administration centre.

3.25 A fragment of an Anglo-Saxon small, long brooch was found by metal detector 865m east of the Site (HER MME428). It is thought to date to AD 500-575.

3.26 Pottery of medieval or later (post medieval) date has been recorded within the south of the Site (HER MME247). No further information is available. Medieval findspots comprising pottery, coins, a seal matrix and coin weight are generally noted across the study area (HER MME436, MME342, MME350, MME248 & MME257).

3.27 The Domesday Book records ‘Turstanetone’ as held by Robert Rodelent and by William from him. It had two hides and four ploughs. In the demesne there was one plough and two oxmen. There were four villeins and four bordars with one and a half ploughs. Evidence of medieval structures within the village, such as the west wing of Thurstaston Hall (NHLE 1075371), which is the earliest part of the building dating back to the 13th century, remain extant. The village is centred around the Grade II* hall and Church of St Bartholomew (also Grade II*, NHLE 1115782), which stands in proximity to the site of an earlier church, mentioned c.1125 (HER MME327).

3.28 The clearance of Wirral's woodland during the medieval period provided the conditions for heathland to develop on areas such as Thurstaston Common, located at Thurstaston Hill, 50m north of the Site.

3.29 Located at Thurstaston Hill, 50m north of the Site, an inscription carved into a section of sloping bedrock has been recorded which dates to around 1500 (HER MME346). Other examples elsewhere suggest that it could possibly relate to stone quarrying activity.

3.30 It is likely that where not quarried, the land surrounding Thurstaston including the Site, would have been utilised for agriculture during the medieval period. Ridge and furrow is noted by the HER across the search area including adjacent to the Site (HER MME20686).

Post Medieval and Industrial (1485 - modern)

3.31 The evidence for activity within the search area is overwhelmingly biased to the post medieval and Industrial periods with houses and farm buildings recorded within Thurstaston, with supplementary evidence derived from the Caldy and Thurstaston Tithe maps and apportionments. Any relevant sites shown on **Figure 3** are referred to below. There are no HER assets of this date recorded within the Site.

3.32 The area was historically dominated by agriculture and fishing, with the former port of Dawpool located 600m south-west of the Site (HER MME251). Dawpool was a former fishing village located 320m east of the Site, which later became incorporated into the adjacent parish of Thurstaston.

3.33 During the 19th century, Dawpool and Thurstaston became a desirable place to live with the development of Dawpool estate by Thomas Henry Ismay**,** a shipowner who owned the White Star Line, a prominent British shipping company known for its luxury passenger liners including the RMS Titanic. Ismay bought the 390-acre estate in 1877 and demolished the existing house (335m east of the Site) and brought in Richard Norman Shaw to design a replacement in 1882-6 (HER MME334). The house served as an officers' hospital during the First World War. It was demolished in 1927. Surviving accompanying estate buildings include a model farm known as Dawpool (MME22175 - MME22178) which include the Grade II listed buildings of farmhouse (NHLE 1242398), cattle sheds (NHLE 1075379) and former barn and granary (NHLE 1075372), all built for the original estate 1860-1865. Constructed for Thomas Ismay's estate, is a surviving lodge house (NHLE 1343519) also listed at Grade II.

3.34 The Site is located across the Tithe maps of Caldy (1844) and Thurstaston (1847) (**Plate 2**). The maps illustrate the Site comprising 11 parcels of land (fully or in part) within landscape typical of parliamentary enclosure. Scattered ponds across each field are noted, likely former marl pits. The accompanying tithe apportionment (**Table 1**) provides details of the land within the Site. The parcels within the Thurstaston parish were part of the landholding to Dawpool Farm.

Table 1: Tithe Apportionments

Plot No.	Owner	Occupier	Field Name	Land Use
Caldy Tithe (1844)				
152	Charles Colquett Goodwin	Robert Bithell	Hoole hay	pasture
154			Lower caldy hay	
155			Great caldy hay	arable
157		William Rutter	Further croft	arable
158			Garden croft	arable
160			Top croft	arable
161			Garden	-
Thurstaston Tithe (1847)				
4		In hand	Five acres	-

Plot No.	Owner	Occupier	Field Name	Land Use
9	Joseph Hegan esquire		Buckleys meadow	-
10			Crolands	-
13			The Nooks	-

3.35 The subsequent OS map of 1881 displays a loss of field boundaries within the landscape and the Site due to the amalgamation of the earlier land parcels (**Plate 3**). Some ponds have been lost whilst new ones have been formed.

3.36 No change within the Site is noted on the 1899 and 1836 OS maps (**Plates 4 & 5**). Adjacent to the south-west of the Site, the Hooton and West Kirby Railway Line had been constructed (HER MME18218).

3.37 The only change within the Site shown on the 1956 OS map (**Plate 6**) is the division of one of the fields to the south of Station Road into two.

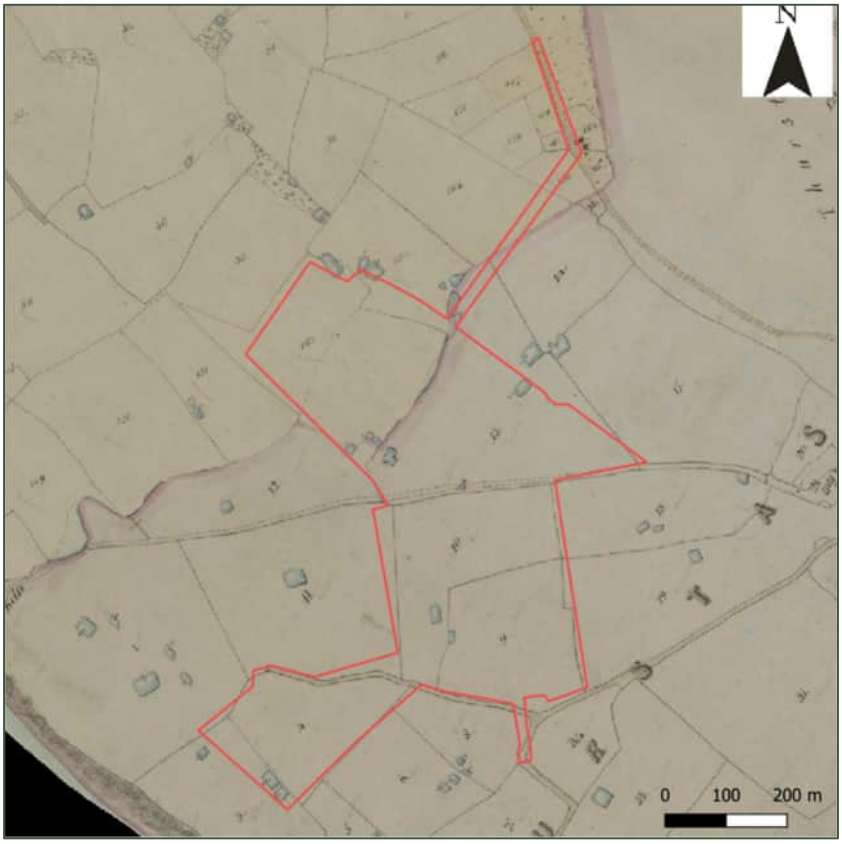


Plate 2: Tithe Maps Of Caldy (1844) and Thurstaston (1847)

Plate 3: Ordnance Survey map (1881)

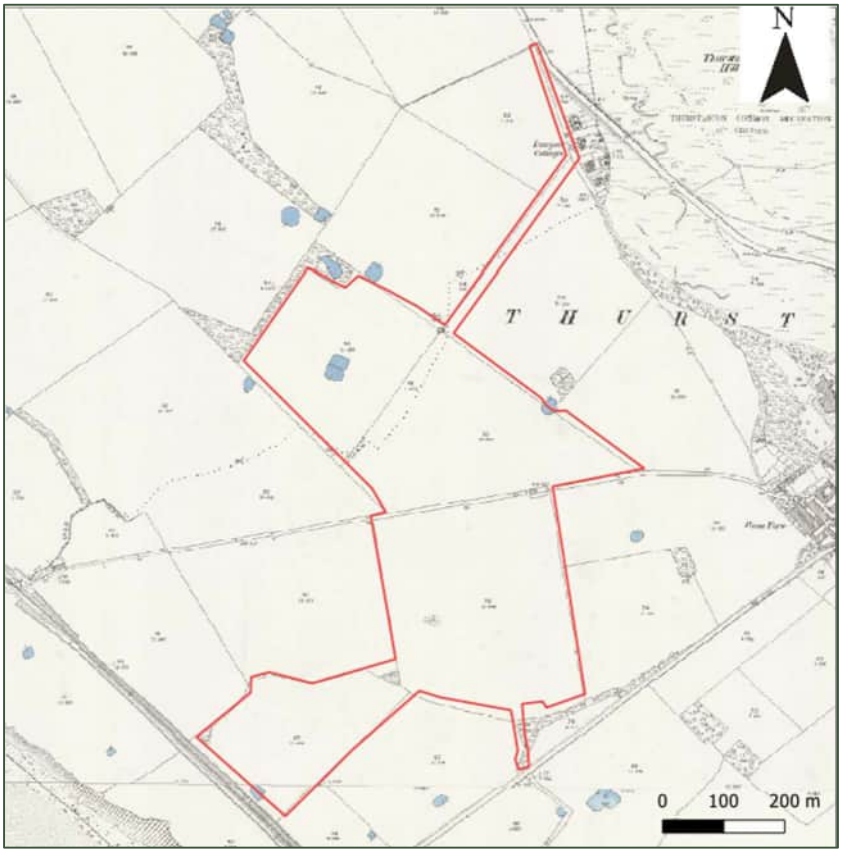


Plate 4: Ordnance Survey map (1899)

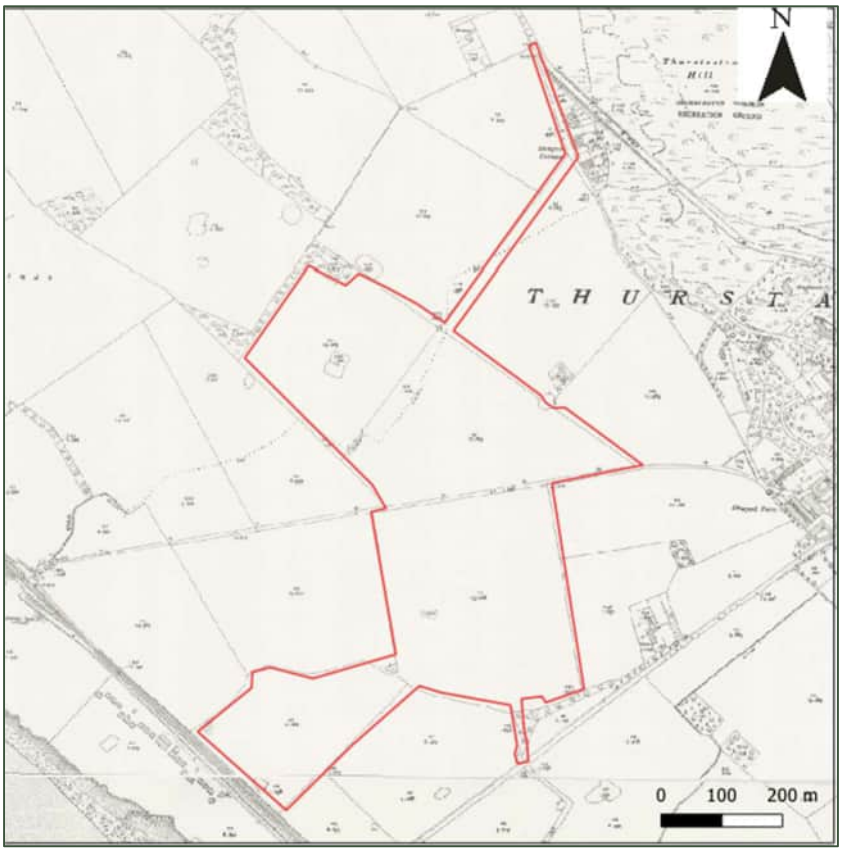


Plate 5: Ordnance Survey map (1936)

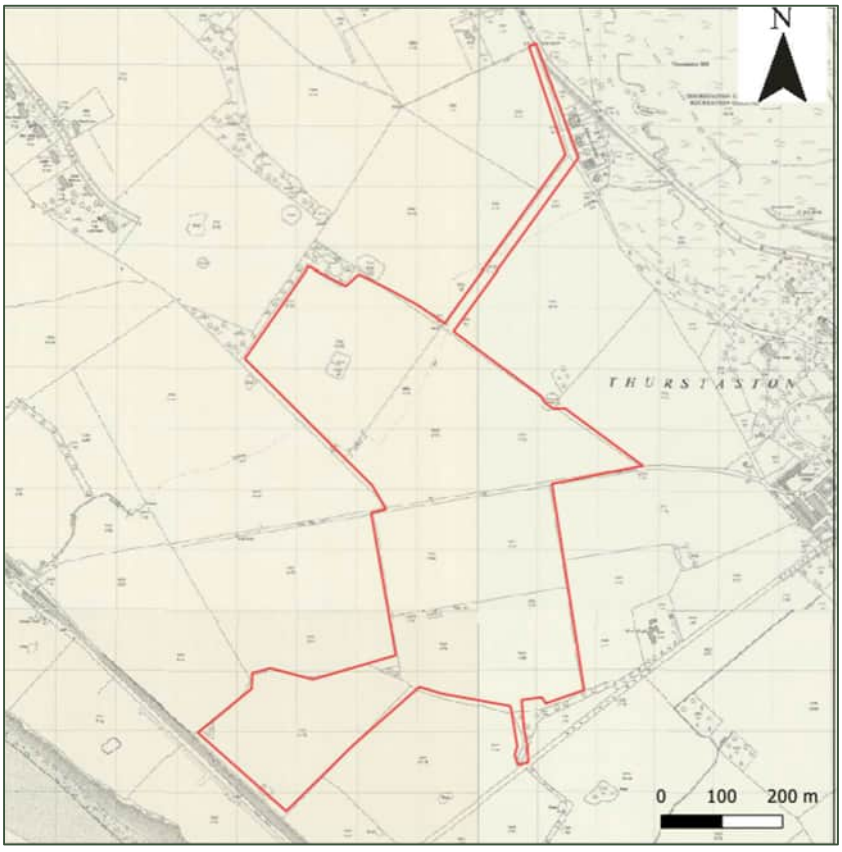


Plate 6: Ordnance Survey map (1956)

Plate 7: Google aerial photography (2000)

Plate 8: Google aerial photography (2005)

Plate 9: Google aerial photography (2018)

Plate 10: Google aerial photography (2025)

3.38 Available aerial photography from 1945 onwards was viewed. [3] The 2005 Google Earth photograph (**Plate 8**) showed a possible field boundary within the central northern field, which is also noted on Historic England's Aerial Archaeology Mapping Explorer (HEAAME), recorded as possibly medieval/ post medieval in date.[4] Generally, the aerial photographs showed the presence of ridge and furrow across the Site, also noted on HEAMME, with most dated to the post medieval although one instance of a possible medieval/ post medieval date. HEAMME also noted a possible post medieval trackway within the central southern field on a NE-SW orientation, visible on the 2018 Google Earth photograph (**Plate 9**).

3.39 LiDAR data from 2023 has been downloaded from the DEFRA portal for this assessment. The data was then processed and enhanced to enable the visualisation of any potential archaeological feature(s). The visualised LiDAR data shown in **Appendix E, Figure 4** comprises a hillside model. Whilst ridge and furrow was visible across the area, no archaeological anomalies have been detected within the LiDAR data.

Summary potential

3.40 Based on an understanding of the baseline provided above and any sequential events which may have affected potential from preceding periods the summary potential for remains to be extant within the boundary of the Site is as follows.

3.41 **Prehistoric** – low to medium – whilst there are no records within the Site (HER MME344 seems erroneously located and appears to be located north of the Site) the Wirral contains significant evidence for prehistoric activity from the Mesolithic period onwards. A medium potential is referenced in respect to a flint assemblage and short lived features which are possible given the baseline evidence from historic fieldwalking and chance finds. Furthermore, the topography of the Site on the slope of the ridge overlooking the estuary may indicate that the area was favourable for activity of a transient nature at least (to exploit the resources of the estuary). More persistent or permanent settlement would be expected on the higher ground of the ridge itself, away from the Site. .

3.42 **Iron Age/ Roman** – low – finds have been recorded within the search area which could indicate a possible settlement further to the east of the Site in the proximity of Thurstaston higher up on the ridge and in proximity to a Roman road. There is no evidence for any activity within the Site itself which was downslope of the ridge and some distance from the road. Any archaeology would be anticipated to relate to finds deposited through casual loss.

3.43 **Early medieval** – negligible – there is no evidence for early medieval activity within the Site. It likely lay beyond the focus of early settlement.

3.44 **Medieval** – low to medium – it is likely that the Site comprised the surrounding hinterland to Thurstaston and therefore there is a potential for some agricultural activity extending into pastoral/common land with ridge and furrow of this date within the Site being minimal.

[3] https://historicengland.org.uk/images-books/archive/collections/aerial-photos/record/raf_106g_uk_626_rs_4050

[4] https://historicengland.maps.arcgis.com/apps/webappviewer/index.html?id=d45dabecef5541f18255e12e5cd5f85a&mobileBreakPoint=300

3.45 **Post-Medieval / Industrial** – high – it is considered that there is a high potential for post-medieval and modern agricultural remains to be present within the boundary of the Site.

4.0 Archaeology: Statement of Significance & Effects

4.1 This section discusses the significance of the known and potential archaeological remains identified within the Site. The heritage significance of, and potential harm to, assets as a result of changes to their setting is discussed separately in Section 6.

Significance

Prehistoric

4.2 Should prehistoric remains be present, their significance would be dependent on their character and survival. Remains comprising a flint assemblage and short-lived cut features would be considered to evidence transient hunting activity in the vicinity of the Dee Estuary and would be of archaeological interest through their evidencing of prehistoric exploitation of the resources of the estuary. Their level of archaeological interest would however only be low (local).

Roman

4.3 Any Roman assemblage within the Site would be anticipated to be related to casual loss, albeit the Roman road and any associated settlement in the vicinity of the Site are some distance from the Site. Their level of archaeological interest of such an assemblage would be low (local) only.

Medieval and Post Medieval

4.4 It is likely that, the Site was under agricultural use from at least the medieval period, albeit the medieval use was likely predominantly pastoral.

4.5 Agricultural remains, if present would most likely comprise former medieval/ post medieval ridge and furrow or field boundaries. Whilst remains of medieval ridge and furrow and field boundaries would hold limited archaeological interest through their representation of medieval land divisions, their interest would be negligible to low. Post medieval agricultural remains including post medieval ridge and furrow would be unlikely to retain sufficient archaeological interest to be considered heritage assets.

Development Effects

Previous On-Site Activity

4.6 The Site has continued to be used as agricultural land from the latter half of the post-medieval period into the modern period, and it is likely that the Site has been subjected to varying degrees of ploughing, either through drainage schemes, or the establishment of improved pasture. Such activity is likely to have had a limited impact upon any potential buried remains of archaeological interest.

Potential Effects

4.7 Ground disturbance associated with works may comprise:

- Soil stripping (for access tracks, site compound, and buildings [e.g., power station, monitoring room]).
- Construction of foundations for buildings.
- Cable trenches.
- Piling.
- Landscaping.

4.8 The nature of the proposed development is such that below ground impacts are unlikely to be significant over a large area, with areas of isolated greater impact relating to any service corridors or building footprints. Where the solar arrays are proposed, the impact of isolated piles (if used to support PV tables) upon the significance of any archaeological remains (if present) would be negligible, in that the greater extent, legibility, and archaeological interest of any such remains would be preserved.

4.9 Typically, displacement piles are used to support solar array tables, which typically result in minimal sediment displacement and can be removed with limited removal of soil (e.g., Historic England 2019: 23 – 24); the typical methodology for removal involves vibrating the pile free of the soil, which ensures minimal soil displacement or removal. While localised contamination of archaeological features might be introduced by piling, it is highly probable that extensive sections of uncontaminated deposits will survive, where present, thus allowing future scientific analysis (palaeoenvironmental assessment, scientific dating, etc.).

4.10 While harm to smaller isolated features (cremations, small pits, flint assemblages etc.), if present, would be greater, the probability of a pile encountering such a feature is very low. Such an assessment is supported by government's National Policy Statement for Renewable Energy Infrastructure (EN-3), 2024, publication which allows that archaeological impacts from solar farms are generally limited (Paragraph 2.10.109).

4.11 It is anticipated that further pre-determination archaeological investigation/ mitigation works would be disproportionate to the Site potential and anticipated level of physical development impact and would therefore not be required. Further work if required, should be undertaken as a condition to consent and focused on areas associated with proposed buildings where truncation impacts relative to the footprint of potential remains could have a greater effect.

5.0 Heritage Baseline

5.1 This assessment includes assets selected as per the search parameters set out in section 2.2. These are listed in **Appendix C** and shown in **Appendix E, Figure 1**.

5.2 Appendix C sets out an assessment of all designated assets within 1km of the Site. Assets considered to be potentially sensitive to change either through visual and/or contextual change are taken forward for assessment.

5.3 Field observations to assist in this exercise were undertaken in April 2025 (**Appendix D, Photos 1- 11**) to determine the necessity for the assessment of an asset's significance in accordance with *Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (Historic England 2017) and *Statements of Heritage Significance* (Historic England 2019).

5.4 In summary, the assets identified for further assessment comprise:

- Church of St Bartholomew (Grade II* listed, NHLE 1115782);
- Thurstaston Hall (Grade II* listed, NHLE 1075371); and
- Thurstaston Conservation Area.

5.5 The following assessment is proportionate, in line with the requirements of Paragraph 207 of the NPPF, with the significance of any identified heritage assets and the likely impact of the proposed development. In *Statements of Heritage Significance* (Historic England 2019, pp. 11 – 15) it is confirmed that it is *"important that the level of detail given in a statement of heritage significance is proportionate to the impact of the proposal"*, and that *"an analysis of the setting of the heritage asset is only needed where changes to the setting by the proposal would affect the significance of the heritage asset or how that significance is appreciated."*

6.0 Heritage: Statements of Significance & Effects

6.1 Proportionate statements of significance are provided for all assets considered to be potentially sensitive to change.

6.2 The heritage interests pertaining to the potentially sensitive assets, and the contribution of those interests to the assets' significance are described under the terms presented in the NPPF. These are 'architectural', 'archaeological', 'artistic' and 'historic', as appropriate. The contribution of setting towards understanding the interest of the asset is set out. This has been undertaken in order to understand the nature of any impact to assets through setting change.

Church of St Bartholomew (Grade II* listed, NHLE 1115782)

Significance

6.3 The church holds national significance as a Grade II* listed building.

6.4 The listing description states that the church has been designated at Grade II* for the following principal reasons:

- *Architectural quality: Its exterior design possesses an acute attention to detail and proportion; producing a church with a sense of monumentality despite its small size.*
- *Designer: It was designed by the nationally renowned architect, John Loughborough Pearson, one of the leading church architects of the C19, and is an excellent example of his work.*
- *Interior quality: The richly decorated, quadripartite-vaulted interior demonstrates Pearson's particular area of skill and expertise in vaulting, and achieves grandeur on a small scale with lofty proportions and a clearly defined progression of space.*
- *Interior features: The striking interior incorporates numerous high quality features, including a traceried stone chancel screen, ornate alabaster reredos, alabaster and marble pulpit, an encaustic tiled and marble sanctuary floor, and some stained glass by Clayton & Bell, using superior quality materials and craftsmanship.*
- *Historic interest: One of the church's principal patrons was Thomas Henry Ismay, founder and chairman of the White Star Line. Ismay's personal friend, the eminent late C19 architect Richard Norman Shaw designed later features for the church, including an elaborate organ case (1905) and a timber-framed lych gate (1900), both in Ismay's memory.*

Contribution of Setting to Significance

6.5 The church is located within Thurstaston village, within an enclosed churchyard. The church's significance is embodied predominantly within its physical fabric and internal spaces, and its associated churchyard which provides its immediate setting, where its historic and architectural interests are best expressed and appreciated.

6.6 The following aspects of the asset's setting are considered to make a contribution to its significance and the ability to appreciate that significance.

- The designed interior of the church which provides an enclosed setting from which to enjoy and appreciate the function and designed elements of the church which facilitate worship, be they in fabric or layout.

- Its associated churchyard which is defined by a stone wall and hedge and which through which entrance is controlled by a lych gate. This arrangement clearly provides for a defined enclosure within which the church sits.

Potential Development Effects

6.7 The church is located 465m east of the Site. Views are possible of the church spire from areas within the Site. The body of the church and churchyard are hidden from view by intervening vegetation and buildings and a visit to the church confirmed a lack of visibility from the churchyard.

6.8 The Site does not contribute to the significance of the church nor to its important setting elements which are restricted to its internal spaces and the churchyard within which it sits. The important setting elements detailed above would not be affected by the proposed development. The proposals would not detract from an appreciation of the asset nor from its historic and architectural interests and its important setting elements which contribute to its significance would be sustained. Whilst views of the spire are possible from across the Site, these views are not designed views and do not contribute to its principal reasons for designation. [5]

6.9 Therefore, the proposed development would be anticipated to result in **no harm** to the listed building.

Thurstaston Hall (Grade II* listed, NHLE 1075371)

Significance

6.10 The hall holds national significance as a Grade II* listed building.

6.11 Its significance is derived from its historic and architectural interests, incorporating an original medieval hall, built of sandstone and probably dating from the 1400s. The central range, built of brick on a stone base with stone dressings, dates from c.1680 and exemplifies the Baroque style. Over its grand, pedimented entrance are the arms of the Whitmore family, long term owners of the Hall. The east range made of stone and added in 1836, mirrors the west range. To the rear is a collection of outbuildings, no longer serving their original function.

[5] 'Being tall structures, church towers and spires are often widely visible across land- and townscapes but, where development does not impact on the significance of heritage assets visible in a wider setting or where not allowing significance to be appreciated, they are unlikely to be affected by small-scale development, unless that development competes with them, as tower blocks and wind turbines may. Even then, such an impact is more likely to be on the landscape values of the tower or spire rather than the heritage values, unless the development impacts on its significance, for instance by impacting on a designed or associative view.' (Historic England 2015: 7).

6.12 The historic and architectural interests of the building which contribute to its high significance derive from its physical representation of architectural evolution from the late 1500s through to the 19th century. It also encapsulates the social and cultural history of its owners and high society through time.

Contribution of Setting to Significance

6.13 The building is located within wider wooded grounds which enclose the hall. It is orientated north-west to south-east with its principal façade facing north overlooking lawns towards its entrance gate and beyond, the village green.

6.14 The following aspects of the asset's setting are considered to make a contribution to its significance and the ability to appreciate that significance.

- It's well defined entrance through a clearly defined gateway which controls access to the entrance front.
- Its historic grounds which provide a landscape in which the house sits and which provide for an intimate and close space from where the historic and architectural interests of the asset can be best understood and appreciated.
- Its group value with the associated outbuildings within the estate which provide architectural interest and cohesion and illustrate the development of the estate.
- Its internal spaces and private areas which allow for the enjoyment of the interior of the house and appreciation of its internal features.

Potential Development Effects

6.15 The hall is located 535m east of the Site. There is no visibility between the Site and the asset, it is well hidden behind the woodland within its private grounds. The house's principal elevation is north, with the Site distantly located to the west, out of any key lines of sight.

6.16 There are no shared historical, spatial or functional associations between the asset and the Site and the Site is not considered to contribute to any of its important setting elements. Furthermore, the important setting elements detailed above would not be affected by the proposed development. The proposals would not detract from an appreciation of the asset nor from its historic and architectural interests and its important setting elements which contribute to its significance would be sustained.

6.17 Therefore, the proposed development would be anticipated to result in **no harm** to the listed building.

Thurstaston Conservation Area

Significance

6.18 Thurstaston Conservation Area was designated in 1981 with the aim of conserving the historic settlement, with its church, hall and traditional farm buildings grouped round the green.

6.19 The summary of its special character has been described within Thurstaston Conservation Area Appraisal & Management Plan (Donald Insall Associates Ltd 2007) as:

- *Ancient settlement dating from the pre Norman period.*
- *Retains the quintessential features of an historic small English hamlet with Manor house, church, farm houses and farm buildings grouped loosely around a public 'green'.*
- *A quiet and picturesque location, it became a place where the wealthy could live and define a lifestyle far removed from the grime and clamour of port and city.*
- *Here a few extremely rich individuals sought to recreate a medieval idyll by constructing a new church in the style of the C13th, a new model farm, and new baronial hall (Dawpool House).*
- *Private residential grounds in the northern and western parts of the Conservation Area are camouflaged by the wood.*
- *The church is the focal point of the Conservation Area and a fine mid C19 recreation of C13 style by an eminent Victorian architect.*
- *The dominant feature of the Hall, although 'multi period', is its late C17 façade and entrance gate way which has survived as a remarkably intact and relatively rare example of its type.*
- *Dawpool farm, old school house and lodge to the former Dawpool residence (Zone D) form a fine tightly knit group of buildings from the 1860s to 1880s. The use of common building materials (red sandstone) and common architectural style based on late medieval and Jacobean precedents reinforce the cohesion of the group. The 'model' farm buildings are excellent examples of their period.*
- *The historic farm houses and barns within the south side of the Conservation Area (Zone A and C) are vernacular in character based on a rural tradition rather than designed to a 'period style'.*
- *The mid to later C20 residences which characterise the north part of the Conservation Area (Zone E) are generally hidden from public view.*
- *The existing sandstone boundary walls and close cut hedges add to the rural character of the area.*
- *Remaining areas of cobbled surface, rough 'un-metalled' tracks and soft verges which support wild flora are all important to maintaining the area's rural appearance.*
- *The wooded private residential grounds which make up the northern and western parts of the Conservation Area and the open fields to the east make a positive contribute to the wider landscape of west Wirral.*
- *Thurstaston Hall dates from the middle ages and has archaeological potential within the grounds and also concealed within existing building fabric.*
- *There is some evidence to suggest that there may have been a substantial house on the east side of the 'green' with a pleasure garden on the wooded knoll above, possibly C18. This could be the subject of further investigation.*

Contribution of Setting to Significance

6.20 The appraisal notes that Thurstaston has a '*notably rural setting*', with Thurstaston Common to the north-east and open agricultural pasture surrounding everywhere else, with particular emphasis being placed on landscape features and buildings immediately to the east, it being

noted within the appraisal that these are of particular importance to its setting and add further visual and historic interest.

6.21 Several views and vistas are identified within the appraisal that contribute to the character and appearance of the Conservation Area. The majority of these are internal views of the green and landmark buildings within the village centre.

6.22 One of the only specified vistas of importance outside of the Conservation Area boundary is the '*vista, from above the village looking down to across the fields to the church with the Dee estuary and Welsh hills beyond,* [which] *is picturesque and provides a defining image of the west Wirral landscape.*' (**Appendix D, Photo 11**).

6.23 The following aspects of the Conservation Area's setting are considered to make a contribution to its character and appearance and the ability to appreciate its significance. Where italicised, this is taken from the summary of its special character set out within the appraisal (Donald Insall Associates Ltd 2007).

- *The vista, from above the village looking down to across the fields to the church with the Dee estuary and Welsh hills beyond, is picturesque and provides a defining image of the west Wirral landscape.*
- *The views, within the Conservation Area across the 'green' towards the church and hall, and over the adjacent fields, still retain a strong rural character. They also show the sensitivity of the changes brought about in the mid C19 to the notions of the picturesque and an idealised concept of the 'medieval'.*
- The church, hall and green provide the historic focal point of the Conservation Area.
- The landscape features and buildings immediately to the east of the Conservation Area boundary which are of particular importance to its setting and add further visual and historic interest.
- Its immediate agricultural setting which grounds the village within a rural setting.

Potential Development Effects

6.24 In respect to the above aspects of the Conservation Area's setting which are considered to make a contribution to its character and appearance, only the final bullet point relates potentially to the Site. All other elements of setting would be wholly conserved with no potential affects through the proposed development. Specifically the Site is not present within any important views or vistas (**Appendix D, Photo 11**).

6.25 In respect to the Conservation Area's wider agricultural backdrop, the western boundary of the Conservation Area lies c.180m east of the Site boundary. This distance along with intervening boundary vegetation, some intervening modern development and topography which impedes inter-visibility is considered to limit any effect that the proposals would have on an appreciation of an agricultural setting. The fields abutting the Conservation Area would be unaffected and no views of the Site are possible from public areas of the Conservation Area. Furthermore the 'gateway' experience into the Conservation Area from Telegraph

Road and Station Road would be unaffected with an appreciation of an agricultural backdrop retained in proximity to the Conservation Area.

6.26 Overall, the Site does not contribute to the character or appearance of the Conservation Area and the important setting elements detailed above would not be affected by the proposed development. The proposals would not detract from an appreciation of the asset nor from its character and appearance and its important setting elements which contribute to its significance would be sustained.

6.27 Therefore, the proposed development would be anticipated to result in **no harm** to the Conservation Area.

7.0 Conclusions

7.1 The proposed development will not result in any harm to any designated heritage assets through physical disturbance or setting change. The development thus conforms with the relevant provisions of the NPPF (2024), The Planning (Listed Buildings and Conservation Areas) Act 1990 and Local Plan Policy.

7.2 This assessment has not recorded a high potential for archaeological remains predating the post medieval period to be present within the Site. The possible post medieval remains are associated with agriculture remains only. The evidence for earlier activity relates to a possible prehistoric flint assemblage alongside possible short lived features which cannot be discounted referencing a general trend for this in the wider area. The significance of any potential remains has been assessed in accordance with the baseline gathered and with regard to the requirements of the NPPF (2024) paragraph 207. Should any such remains be present, they would be unlikely to be of high enough significance to preclude development. Any adverse effects to such assets should be weighed in the balance under the terms of the NPPF (2024) paragraph 216.

7.3 Overall, the proposals are considered to be consistent with the provisions of the Scheduled Monuments and Archaeological Areas Act (1979), the Planning (Listed Buildings and Conservation Areas) Act (1990), Section 66(i), the NPPF, paragraphs 207-221, and Local Plan Policy.

8.0 Bibliography

- Bromborough Society. (1965) *Bromborough Society Report. No. 33: 11*
- DCLG. (2014) *Planning Practice Guidance*
- Donald Insall Associates Ltd. (2007) *Thurstaston Conservation Area Appraisal & Management Plan*
- Historic England. (2017) *The Setting of Heritage Asset Historic Environment Good Practice Advice in Planning Note 13*
- Historic England. (2019) *Statement of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12*
- Historic England. (2025) *National Heritage List for England* downloadable GIS data
- Hoskins, W.G., (1981) *The Making of the English Landscape*. Book Club Associates, London.
- Ministry of Housing, Communities and Local Government. (2024) *National Planning Policy Framework*
- Museum of London. (2011) *Merseyside Historic Characterisation Project Wirral Report*
- National Museums Liverpool Field Archaeology Unit. (2012) *Archaeological Excavations at an Early Prehistoric Hunter-Gatherer Camp at Greasby, Wirral*

Historic Mapping

- Tithe map of Caldy (1844)
- Tithe map of Thurstaston (1847)
- Ordnance Survey maps, 1881-onwards

Satellite Imagery

- Google Earth, 2000-onwards

Appendix A Significance and the Assessment of Effects

A.1 Assessment of Heritage Significance

With reference to the policy contained within the NPPF 2024, the significance of heritage assets can be described in terms relating to their designated status. This essentially equates to assigning a descending level of significance as set out below.

1) **Designated heritage assets of the highest significance (importance)** are identified in Paragraph 213 of the NPPF as comprising Grade I and II* Listed buildings, Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, World Heritage Sites and Registered Battlefields and non-designated heritage assets of archaeological interest which are demonstrably of equivalent significance to Scheduled Monuments (as identified in footnote 75 of the NPPF).
2) **Designated heritage assets of less than the highest significance (importance)** are identified in Paragraph 213 of the NPPF as comprising Grade II Listed buildings and Grade II Registered Parks and Gardens.
3) **Non-designated heritage assets** are defined within the Planning Practice Guidance (PPG) as *'buildings, monuments, Sites, places, areas or landscapes identified by plan-making bodies as having a degree of significance meriting consideration in planning decisions, but which do not meet the criteria for designated heritage assets'*.[6]

However, whilst acknowledging that assets have varying levels of designated status (as set out above), understanding the effect of a proposal rests on achieving an understanding of where the 'significance' of an asset lies and the effect of the proposed development on this 'significance'. The NPPF defines 'significance' as:

> *… 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. Significance derives not only from a heritage asset's physical presence, but also from its setting.*

The NPPF glossary and the PPG provides a definition for these interests as:

- **Archaeological interest:** *'there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.'*
- **Architectural and artistic interest:** *'These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, like sculpture.'*
- **Historic interest:** *'An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.'*

[6] MHCLG, *PPG*, paragraph 039, reference ID: 18a-039-20190723.

The guidance, *Statements of Heritage Significance: Analysing Significance in Heritage Assets, Historic England Advice Note 12* (Historic England 2019), concurs with the use of this terminology and methodology, both of which are thus adopted for the purposes of this report.

With specific regard to the assessment of impacts to designated heritage assets as stated within the NPPF "*significance derives not only from the physical fabric of a heritage asset but also from its setting*" (MHCLG 2024, Annex 2, 78).

In respect of identifying the importance of setting to the identified significance of a heritage asset, Historic England's good practice guidance presented in *Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)* (Historic England 2017) will be utilised; specifically, the five-step approach to assessment:

- **Step 1** – Identify which heritage assets and their settings may be affected;
- **Step 2** – Assess the degree to which settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated;
- **Step 3** – Assess if any change to the setting identified would affect the appreciation/ understanding of an asset's significance (there may be no change);
- **Step 4** – Explore ways to maximise enhancement and avoid or minimise harm;
- **Step 5** – Make and document the decision and monitor outcomes.

A non-exhaustive list provided within the document (Historic England 2017, p. 11) identifies themes such as:

- physical surroundings:
  - topography;
  - aspect;
  - functional relationships and communications;
  - history and degree of change over time; and
- sense of enclosure, seclusion, intimacy, or privacy:
  - experience;
  - views from, towards, through, across and including the asset;
  - intentional inter-visibility with other historic assets and natural features; and
  - sense of enclosure, seclusion, intimacy, or privacy.

A.2 Assessment of Effects

An understanding of the presence / absence of heritage assets, their designated status and their significance provided by the above approach allows for a detailed and justifiable determination of how proposals would affect the archaeology and heritage resource. Once an understanding of significance has been achieved, the effect of proposals can be gauged on the basis of how the proposed development would affect the significance of the asset.

Potential development effects to designated heritage assets are discussed in terms of harm to significance. As clarified in the High Court, preservation does not mean no change; it

specifically means no harm.[7] This is echoed in *Managing Significance in Decision-Taking in the Historic Environment Historic Environment Good Practice Advice in Planning: 2* (Historic England 2015, 9), which states that *"Change to heritage assets is inevitable but it is only harmful when significance is damaged"*.

Where harm is identified, the NPPF, references the following levels of harm with respect to **designated heritage assets**:

- **'Substantial harm or total loss'**

  Being a level of harm that would "have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced; and

- **'Less than substantial harm'**

  Being any lesser level of harm than that defined above; recent case law has confirmed that this includes any level of harm (not considered substantial) regardless of its quantification, e.g., the finding of a 'negligible' level of harm must still be treated as less than substantial harm and be weighed in the balance under paragraph 215.

With reference to the broad parameters referenced above, the PPG provides that the category of harm identified for any given asset be 'explicitly identified', and that the extent of that harm be 'clearly articulated'.[8] For purposes of this assessment, this can be done with reference to a *'spectrum'*, e.g., at the lower / upper end of the spectrum of less than substantial.

- **The NPPF does not provide that harm to non-designated heritage assets be categorised as 'substantial' or 'less than substantial', only that the scale of any harm or loss is articulated.**

The assessment of anticipated development effects can thus be seen to have been undertaken in accordance with a robust methodology, formulated within the context of current best practice, the relevant policy provisions, and key professional guidance.

[7] *R (Forge Field Society) v Sevenoaks District Council* [2014] EWHC 1895 (Admin).

[8] MHCLG, *PPG*, paragraph 018, reference ID: 18a-018-20190723.

Appendix B Policy and Legislation

B.1 Statute

Designated heritage assets protected by statutory legislation comprise Scheduled Monuments, Protected Wrecks, Listed Buildings and Conservation Areas.

Nationally significant archaeological sites, monuments and structures are protected under the **Ancient Monuments and Archaeological Areas Act (1979)**.

Listed Buildings and Conservation Areas are protected under the **Planning (Listed Building and Conservation Areas) Act (1990)**. In relation to development proposals, the legislation states that:

> *… 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 features of special architectural or historic interest which it possesses.* (**Section 66**).

With regards to Conservation Areas, it states that:

> *… with respect to any buildings or other land in a Conservation Area, of any [functions under or by virtue of] any of the provisions mentioned in subsection (2), special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.* (**Section 72**).

B.2 Planning Policy

National Planning Policy Framework (2024)

Applicable national policy comprises the National Planning Policy Framework (2024), and specifically the following paragraphs:

Paragraph 207, which states 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. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a Site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.*

Paragraphs 212 and **213**, which provide for designated heritage assets, and state respectively 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; and*
>
> *Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:*

a) *grade II listed buildings, or grade II registered parks or gardens, should be exceptional;*

b) *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 214, which relates to instances of 'substantial harm', and states that:

Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

a) *the nature of the heritage asset prevents all reasonable uses of the Site; and*

b) *no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*

c) *conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and*

d) *the harm or loss is outweighed by the benefit of bringing the Site back into use.*

Paragraph 215, which relates to instances of 'less than substantial harm', and states 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.

Paragraph 216, which relates to non-designated heritage assets, and 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.

Local Planning Policy

The Site lies within the Wirral district in Merseyside. Relevant historic environment policies can be found within the Wirral Local Plan 2022 to 2040 (proposed to be adopted March 2025):

Policy WD 2 Heritage Assets

Protecting Heritage Assets

A. Development proposals which preserve or enhance Wirral's historic environment will be supported.

B. Development proposals which have the potential to impact upon a heritage asset or its setting must be accompanied by proportionate evidence set out in a Heritage Impact Assessment.

C. Harm or loss to designated heritage assets and their settings will not be permitted unless there is clear and convincing justification in line with national policy. Proposals

likely to cause substantial harm to or loss of the significance of a heritage asset or its setting will only be permitted where:

1. there are exceptional circumstances to clearly justify substantial harm or loss to a grade II Listed Building or grade II Registered Park or Garden; or
2. there are wholly exceptional circumstances to clearly justify substantial harm or loss to a Scheduled Monument or equivalent archaeological asset, a grade I or grade II* Listed Building or Registered Parks and Gardens, or World Heritage Sites; and
3. the development is necessary to achieve substantial public benefits, which would clearly outweigh the harm or loss, or all the following apply:
    i. the nature of the heritage asset prevents all reasonable uses of the site; and
    ii. no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
    iii. conservation by grant funding of some form of not for profit, charitable or public ownership is demonstrably not possible; and
    iv. the harm or loss is outweighed by the benefit of bringing the site back into use.

D. Development proposals likely to cause less than substantial harm to the significance of the heritage asset or its setting will only be supported where it is clearly demonstrated that the harm will be outweighed by the public benefits of the proposal, including where appropriate securing optimum viable use.

E. Development proposals will be supported where they seek to retain and enhance a non-designated heritage asset. Where harm would result to a non-designated asset a balanced judgement will be take having regard to the scale of any harm or loss and the significance of the heritage asset.

Improvements to Heritage Assets

F. Proposals to enhance the environmental performance of heritage assets will be supported where a sensitive approach to design and specification has taken into account the significance of the asset and that any conflict between the conservation of the asset and the proposal is avoided or minimised. Any works should be undertaken based on a thorough understanding of the building's historic significance and demonstration of the buildings environmental performance. Planning applications should be accompanied by an assessment of the buildings current fabric and energy performance and that expected on completion of the works.

Conservation Areas

G. Development proposals that preserve or enhance the character or appearance of Wirral's Conservation Areas will be supported. Proposals will be assessed using, where relevant, the applicable Conservation Area policy, any Conservation Area appraisals, management plans and /or master plans for the area which have been approved by the Council. Demolition will only be supported within a Conservation Area as part of approved plans for the redevelopment or treatment of the site, where the proposals are compatible with the wider objectives of Conservation Area designation.

H. New proposals for development shall have integrity and authenticity, and respect the form, mass, materials and character of the existing context. If a traditional design is proposed, this should be based on a thorough understanding of the style, and fully detailed. Poorly designed pastiche will not be permitted.

Archaeological Assets

I. Development proposals will be supported where they provide an opportunity to better understand and record non-designated archaeological sites of local interest. When considering development proposals that affect a non-designated site of archaeological interest any of the following will be required depending upon the nature of the proposal and asset:

    1. a desk study,
    2. ground survey,
    3. recording of the asset,
    4. ongoing site monitoring during the construction period.

Appendix C Heritage Assets and Settings Assessment Sift

Table 3:1- Heritage Assets – Settings Assessment Sift

Reference	Status	Description	Distance from Site	Sifting	
				In/Out	Rationale
1115782	Grade II* Listed Building	Church of St Bartholomew	465m east	**In**	Due to high status and potential sensitivity to change within its setting. Further detail in **Section 6**.
1075371	Grade II* Listed Building	Thurstaston Hall	535m east	**In**	Due to high status and potential sensitivity to change within its setting. Further detail in **Section 6**.
-	Conservation Area	Thurstaston	180m east	**In**	Due to distance, visibility and potential sensitivity to change within its setting. Further detail in **Section 6**.
1242748	Grade II* Listed Building	Hillbark	855m north	Out	The significance of the asset is derived from its architectural and historic interests and from its surrounding private estate grounds. There are no shared historical, spatial or functional associations between the asset and the Site and the Site is not considered to contribute to any of its setting elements. The Site will not impact nor be visible with the asset, due to intervening vegetation and topography. As such the significance of the asset is sustained.
1075370	Grade II Listed Building	Tower of former Church of St Bartholomew	475m east	Out	The asset is located within the enclosed churchyard which also contains the Grade II* Church of St Bartholomew. Its remaining significance, as the surviving extent of the former church, is embodied predominantly within its physical fabric and internal space, and its associated churchyard which provides its immediate setting, where its historic and architectural interests are best expressed and appreciated. Given the lack of impact to its setting and relationship with the church and village, the significance of the asset is sustained.
1075372 1075379 1115685 1242398	Grade II Listed Buildings	Dawpool Farm - Former barn and granary, Former cattle sheds, The Clock Tower, The Old Farm	250m east	Out	The significance of the listed buildings at Dawpool Farm is principally derived from their architectural and historic interests as a model farmstead which retains historic fabric. They originally formed the home farm to Dawpool Hall, no longer extant. Agricultural land immediately surrounding the buildings provide a backdrop to the farmstead, contributing to an understanding of its historic function. Whilst part of the Site historically was within the farm's landholding, this is no longer the case and the historical ownership and functional associations are referenced within documents only, and are not necessarily legible within the landscape, with modern farm buildings now intervening. Proposed development

Reference	Status	Description	Distance from Site	Sifting	
				In/Out	Rationale
					would not impact on the principal interests of the farmstead nor its setting elements of importance, namely its group of farm buildings which reflect 19th century trends and its immediate agricultural backdrop. The significance of the farmstead is sustained.
1115752	Grade II Listed Building	Sundial	515m east	Out	The sundial is located within St Bartholomew's churchyard. The Site will not impact nor be visible with the asset. Given the lack of impact to its immediate environs, the significance of the asset is sustained.
1320283	Grade II Listed Building	Gate piers to north of Thurstaston Hall	435m east	Out	The significance of the asset is principally derived from its architectural interest and historic interest, dating to 1733. They serve as the entrance access to Thurstaston Hall and have group value with the hall and estate buildings. Their setting comprises the estate and their position adjacent to the green in the historic centre of Thurstaston. The Site will not impact nor be visible with the asset, hidden behind intervening vegetation. Given the lack of impact to its immediate environs and relationship with Thurstaston hall, the significance of the asset is sustained.
1343517	Grade II Listed Building	Old School House	350m east	Out	The asset's significance is derived from its historic and architectural interests. It is located along Station Road, within the Dawpool estate, for which it has group value with. Given the lack of impact to its setting and relationship with the estate and village as a former school house, the significance of the asset is sustained.
1343519	Grade II Listed Building	South Lodge with attached gates and gate piers	325m east	Out	The significance of the asset is principally derived from its architectural interest and historic association being constructed for Thomas Henry Ismay of Dawpool estate. As a service buildings to Dawpool estate it has group value with the surviving estate buildings. Its setting comprises the remaining estate and its immediate roadside environs, from where access is gained into the estate. The Site will not impact nor be visible with the asset, hidden behind intervening vegetation. Given the lack of impact to its local roadside environs and relationship with Dawpool estate, the significance of the asset is sustained.
1463779	Grade II Listed Building	Thurstaston War Memorial	470m east	Out	The significance of the asset is derived from its historic and architectural interests and spatial group value with Thurstaston Hall, and Church of St

Reference	Status	Description	Distance from Site	Sifting	
				In/Out	Rationale
					Bartholomew in whose churchyard it is located. Given the lack of impact to these aspects, the significance of the asset is sustained.
-	Conservation Area	Caldy	280m east	Out	The significance of the asset is principally derived from its internal architectural and historic structures and features comprising its focus of the grouping of older buildings around the church and manor, and the early 20th century residential developments in all directions. The majority of the space is strongly enclosed with public spaces limited to the streets and roads and a small number of green areas. The overall appearance of the Conservation Area from the surrounding landscape is of one large wooded area with individual roofs and gables appearing through the greenery. The Site will not impact the character and appearance of the asset. Given the lack of impact to its setting, the significance of the asset is sustained.

Table 3:2- Historic Environment Record (HER) – Monuments

HER Ref. No.	Name	Monument Type	Period
MME10176	Site of a milepost, Telegraph Road	Milepost	Post Medieval
MME10177	Site of Thurstaston railway station	Railway station	Post Medieval
MME10637	Site of Lever Holiday Camp, Station Road	Holiday camp; army camp	Modern
MME10638	Earthwork enclosure	Earthwork; enclosure; ditch; bank (earthwork)	Undated
MME10639	Flint arrowhead, Thurstaston beach	Findspot	Undated
MME10640	Flints	Findspot	Undated
MME10641	Nos. 163 and 165 Thurstaston Road	House	Post Medieval
MME10642	A natural mound previously thought to be a motte and bailey castle	Natural feature	Undated
MME10643	Sutton's Farm, Church Lane	House	Post Medieval
MME10644	Former shippon, Sutton's Farm, Church Lane	Cow house; house	Post Medieval
MME10645	Flint objects, Thurstaston Common	Findspot	Undated
MME10646	Benty Farm, School Lane	House	Post Medieval
MME10647	Flints, 120m north east of the Rectory, Telegraph Road	Findspot	Undated
MME10970	Nos. 4-6 East Farm Mews, Column Road	Cow house; barn; house	Post Medieval
MME10971	A well, East Farm Mews, Column Road	Well	Post Medieval
MME10972	No. 3 East Farm Mews, Column Road	House	Post Medieval
MME10973	No. 2 East Farm Mews, Column Road	House	Post Medieval
MME10974	No. 1 East Farm Mews, Column Road	Pigsty; outbuilding; house	Post Medieval
MME15199	Possible route of a Roman road from Chester to Great Meols	Road	Roman
MME16038	Second World War decoy control bunker, Thurstaston Dungeon	Decoy site shelter	Modern
MME16190	Milepost, Montgomery Hill,	Milepost	Post Medieval
MME16249	Finger post, Caldy Road	Finger post	Modern
MME16265	Finger post, Thurstaston Road	Finger post	Modern
MME16541	Finger post, Church Lane	Finger post	Post Medieval
MME16946	George V Wall Box, Thurstaston Hall	Wall box	Post Medieval
MME170	Bronze Age Socketed Axe, Caldy Village Shore	Findspot	Prehistoric
MME17358	Thurstaston	Settlement; windmill	Early Medieval
MME17359	Site of The Rectory, Telegraph Road	Vicarage	Post Medieval
MME18218	Route of Hooton and West Kirby Railway Line	Railway	Post Medieval
MME18885	No. 10 Links Hey Road	House	Modern
MME18886	No. 8 Links Hey Road	House	Modern
MME18916	Lych gate to St Bartholomew's churchyard, Church Lane	Lych gate	Post Medieval
MME18917	East Warren Lodge, Station Road	Gate lodge	Post Medieval
MME18918	Nos. 1-3 Dawpool Cottages	House	Post Medieval

HER Ref. No.	Name	Monument Type	Period
MME191	Possible location of a medieval windmill	Windmill	Medieval
MME20299	Second World War pillbox, Caldy Road	Pillbox	Modern
MME20488	Site of Thurstaston Hall's gas works	Gas works	Post Medieval
MME20686	Ridge and furrow	Ridge and furrow	MEDIEVAL
MME21498	Site of a landing stage, Thurstaston beach	Landing stage	Post Medieval
MME22064	Caldy Cottage, Montgomery Hill	House	Post Medieval
MME22068	White Barn, Montgomery Hill	House	Post Medieval
MME22069	Site of cottages, Montgomery Hill	House	Post Medieval
MME22170	Site of a house, Dawpool Cottages	House	Post Medieval
MME22172	St Bartholomew's churchyard, Church Lane	Churchyard	MEDIEVAL to 21ST CENTURY
MME22173	Site of a house, Hill Farm, Thurstaston Road	House	Post Medieval
MME22174	Site of a Second World War emplacement	Building?	Modern
MME22175	Nos. 3-5 Dawpool Farm, Station Road	Farm building; house	Post Medieval
MME22176	No. 6 Dawpool Farm, Station Road	Farm building; house	Post Medieval
MME22177	Outbuilding at Dawpool Farm, Station Road	Farm building; outbuilding	Post Medieval
MME22178	Nos. 20-23 Dawpool Farm, Station Road	Farm building; house	Post Medieval
MME22179	Site of a house, Station Road	House	Post Medieval
MME22180	Site of a house, Station Road	House	Post Medieval
MME22181	Site of a house, Church Lane	House	Post Medieval
MME22182	Site of a house, Church Lane	House	Post Medieval
MME22183	Site of a building, Church Lane	House?; barn?	Post Medieval
MME22184	Site of a barn, Church Lane	Barn	Post Medieval
MME22185	Outbuilding, Church Lane	Outbuilding	Post Medieval
MME22186	Site of a public house	Building; public house	Post Medieval
MME22187	Site of a house	House	Post Medieval
MME22256	Site of a house, Thurstaston Road	House	Post Medieval
MME22257	Elm Cottage, Thurstaston Road	House	Post Medieval
MME244	Site of Second World War Anti Aircraft Battery, Mersey H28	Heavy anti aircraft battery	Modern
MME247	Pottery	Findspot	Medieval
MME248	Pottery	Findspot	Medieval
MME249	Site of a lime kiln	Lime kiln	Post Medieval
MME250	Location of Dawpool(e)/ Dalpool(e)/Dalpool Town	Settlement; nonconformist meeting house	Post Medieval
MME251	Site of Dawpool or Redbank	Jetty	Medieval
MME253	Lead weight or spindle whorl, Thurstaston shore	Findspot	Undated
MME254	Flint	Findspot	Undated
MME255	Ridge and furrow, Croft Drive East	Ridge and furrow	Medieval

HER Ref. No.	Name	Monument Type	Period
MME256	Undated copper alloy object	Findspot	Undated
MME257	Pottery	Findspot	Medieval
MME260	No. 173 Caldy Road	House	Post Medieval
MME319	Site of a lime kiln	Lime kiln	Post Medieval
MME322	Flint scraper	Findspot	Prehistoric
MME325	Chert arrowhead, Thurstaston Hill	Findspot?	Undated
MME326	Flint chisel, Thurstaston Common Recreation Ground	Findspot	Undated
MME327	Site of the medieval church of St Bartholomew, Church Lane	Church	Medieval
MME330	Bronze Age barbed and tanged arrowhead, Thurstaston Hill	Findspot	Prehistoric
MME331	Polished flint axe or chisel, Thurstaston Hill	Findspot	Prehistoric
MME334	Site of Dawpool, Station Road	House; auxiliary hospital	Post Medieval
MME336	Nos. 1 and 2 Grangewood Cottages, Church Lane	Vicarage; house	Post Medieval
MME337	Hillside Farm, School Lane	House	Post Medieval
MME338	Hill Barn West and Hill Barn East, Hill Farm, Thurstaston Road	Barn; house	Post Medieval
MME339	Barn at Hall Farm, Church Lane	Date stone; barn	Post Medieval
MME341	Probable garden feature mound, Thurstaston Hall	Garden feature?	Post Medieval
MME342	Medieval coin weight, Rectory Field, Telegraph Road	Findspot	Medieval
MME343	Hollingside, Thurstaston Hall	Coach house; house	Post Medieval
MME344	Flint arrowhead, Thurstaston Hill	Findspot	Prehistoric
MME345	Flint objects, Thurstaston Common	Findspot	Undated
MME346	Inscription, Thurstaston Hill	Graffiti; masons mark	Medieval
MME349	Brickfield, Thurstaston Common	Brickfield	Post Medieval
MME350	Two medieval silver pennies	Findspot	Medieval
MME351	Possibly prehistoric pottery, northwest of Dawpool Cottages	Findspot	Prehistoric
MME352	Roman trumpet brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME354	Mesolithic, Neolithic and Bronze Age worked flints, Thurstaston Hill	Findspot	Prehistoric
MME356	Site of a dovecote, Frankby Mere	Dovecote	Post Medieval
MME361	Site of a tithe barn, Hill Bark, Royden Park	Tithe barn	Post Medieval
MME362	Stone head, Thurstaston Common	Findspot	Iron Age/ Roman
MME363	Flint found at Frankby Mere	Findspot	Prehistoric
MME364	Flint objects, Thurstaston Common	Findspot	Undated
MME365	Possible Iron Age or Early Medieval earthworks, Thurstaston Common	Earthwork?	Iron Age
MME365	Possible Iron Age or Early Medieval earthworks, Thurstaston Common	Earthwork?	Iron Age
MME365	Possible Iron Age or Early Medieval earthworks, Thurstaston Common	Earthwork?	Iron Age

HER Ref. No.	Name	Monument Type	Period
MME365	Possible Iron Age or Early Medieval earthworks, Thurstaston Common	Earthwork?	Iron Age
MME367	Site of Hillbark, Royden Park	House	Post Medieval
MME423	Post medieval coins, Rectory Field, Telegraph Road	Findspot	Post Medieval
MME424	Roman headstud brooch, Smithy Field, Telegraph Road	Findspot	Roman
MME425	Flints, 180m south east of the Rectory, Telegraph Road	Findspot	Undated
MME426	Flint core, Rectory Field, Telegraph Road	Findspot	Undated
MME428	Anglo-Saxon small long brooch, Rectory Field, Telegraph Road	Findspot	Early Medieval
MME429	Roman headstud brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME430	Two Roman coins, Rectory Field, Telegraph Road	Findspot	Roman
MME431	Roman small disc-headed pin, Rectory Field, Telegraph Road	Findspot	Roman
MME432	Post medieval pottery, Rectory Field, Telegraph Road	Findspot	Post Medieval
MME433	Enclosure, Rectory Field, east of Telegraph Road	Enclosure	Undated
MME435	Late 18th century silver plated buckle, Rectory Field, Telegraph Road	Findspot	Post Medieval
MME436	Late medieval latten or brass seal matrix, Rectory Field, Telegraph Road	Findspot	Medieval
MME439	Lead weight, Rectory Field, Telegraph Road	Findspot	Post Medieval
MME440	Lead weight, Rectory Field, Telegraph Road	Findspot	Undated
MME441	Small lead seal, Rectory Field, Telegraph Road	Findspot	Undated
MME442	Roman coins, Rectory Field, Telegraph Road	Findspot	Roman
MME443	Roman coin, Rectory Field, Telegraph Road	Findspot	Roman
MME444	Roman trumpet brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME445	Roman headstud brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME446	Roman dolphin brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME447	Three Roman brooches, Rectory Field, Telegraph Road	Findspot	Roman
MME448	Two Roman brooches, Rectory Field, Telegraph Road	Findspot	Roman
MME449	Roman Coin, Rectory Field, Telegraph Road	Findspot	Roman
MME450	Possible lead weight, Rectory Field, Telegraph Road	Findspot	Roman
MME451	Roman headstud brooch, Rectory Field, Telegraph Road	Findspot	Roman
MME452	Worked flints, fields east of Telegraph Road	Findspot	Prehistoric

HER Ref. No.	Name	Monument Type	Period
MME454	Roman coin, Rectory Field, Telegraph Road	Findspot	Roman

Appendix D Photographs

Photo 1: The Site, south-west field, looking south

Photo 2: The Site, south-west field, looking north. Ridge and furrow (post medieval) visible across the field. View north to Thurstaston (spire of St Bartholomew visible)

Photo 3: The Site, south-west field, looking north-west. Ridge and furrow (post medieval) visible across the field. View north-west across the rest of the Site

Photo 4: The Site, central southern field, looking north. No archaeological features observed.

Photo 5: The Site, central southern field, looking east towards Caldy Conservation Area (no views due to wooded areas across the Conservation Area).

Photo 6: The Site, central northern field, looking south-east. No archaeological features observed.

Photo 7: The Site, central northern field, looking west towards Thurstaston, views limited to tip of spire of St Bartholomew only due to intervening vegetation.

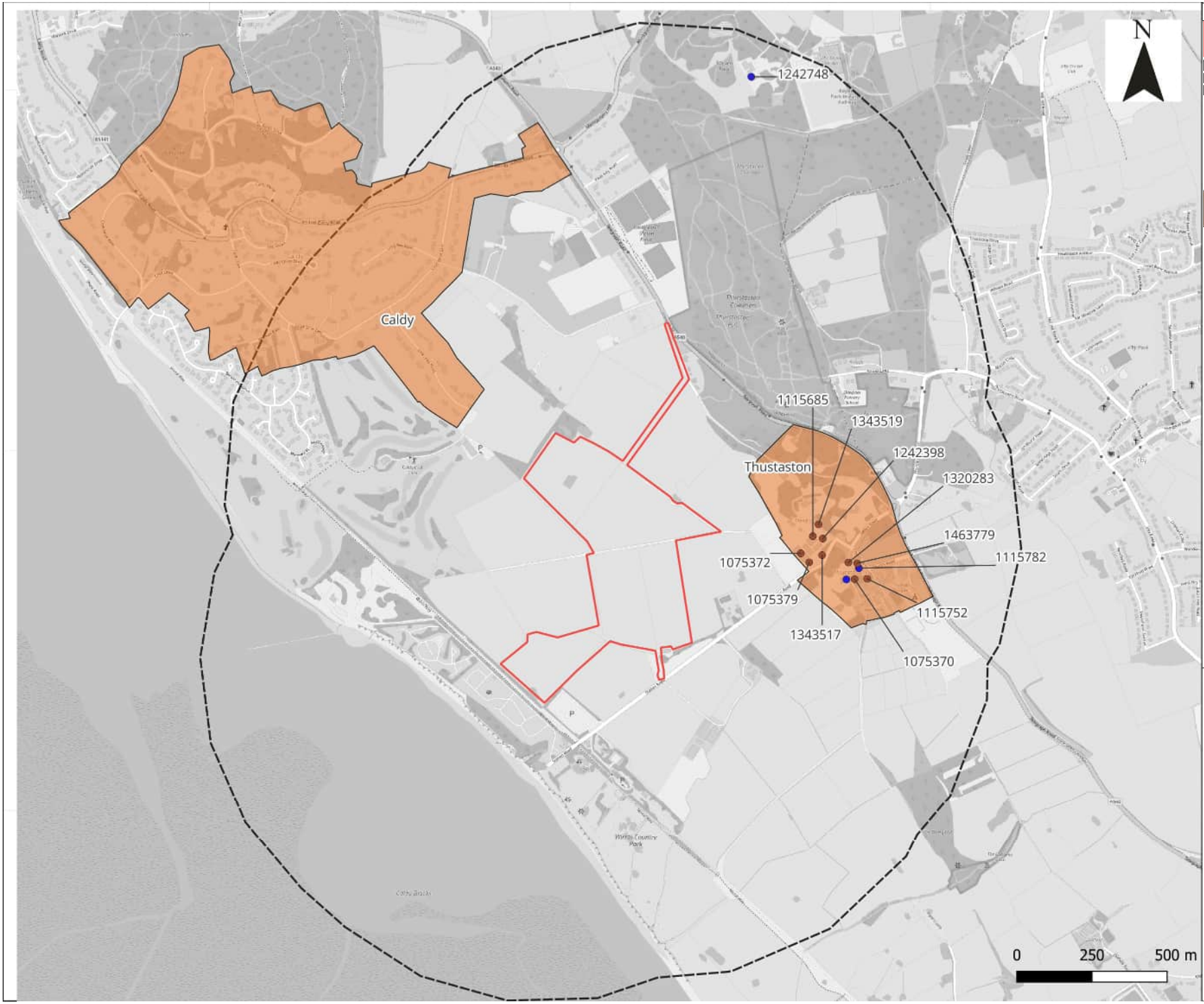
Photo 8: The Site, north-west field, looking north. No archaeological features observed.

Photo 9: Cable route to the north. No archaeological features observed.

Photo 10: Terminus of cable route looking east. No archaeological features observed.

Photo 11: Vista identified within Thurstaston Conservation Area Appraisal from Telegraph Road looking down to across the fields to the church with the Dee estuary and Welsh hills beyond. No views of the Site possible

Appendix E Figures



LEGEND

- Site Boundary
- Study Area

Listed Building

- Grade II*
- Grade II

- Conservation Areas

SLR
2nd and 3rd FLOORS
15 MIDDLE PAVEMENT
NOTTINGHAM
NG1 7DX
T: +44 (0) 115 964 7280
www.slrconsulting.com

Rose Cottage Solar, Thurstaston, The Wirral

HEDBA

Designated Heritage Assets

Figure 1

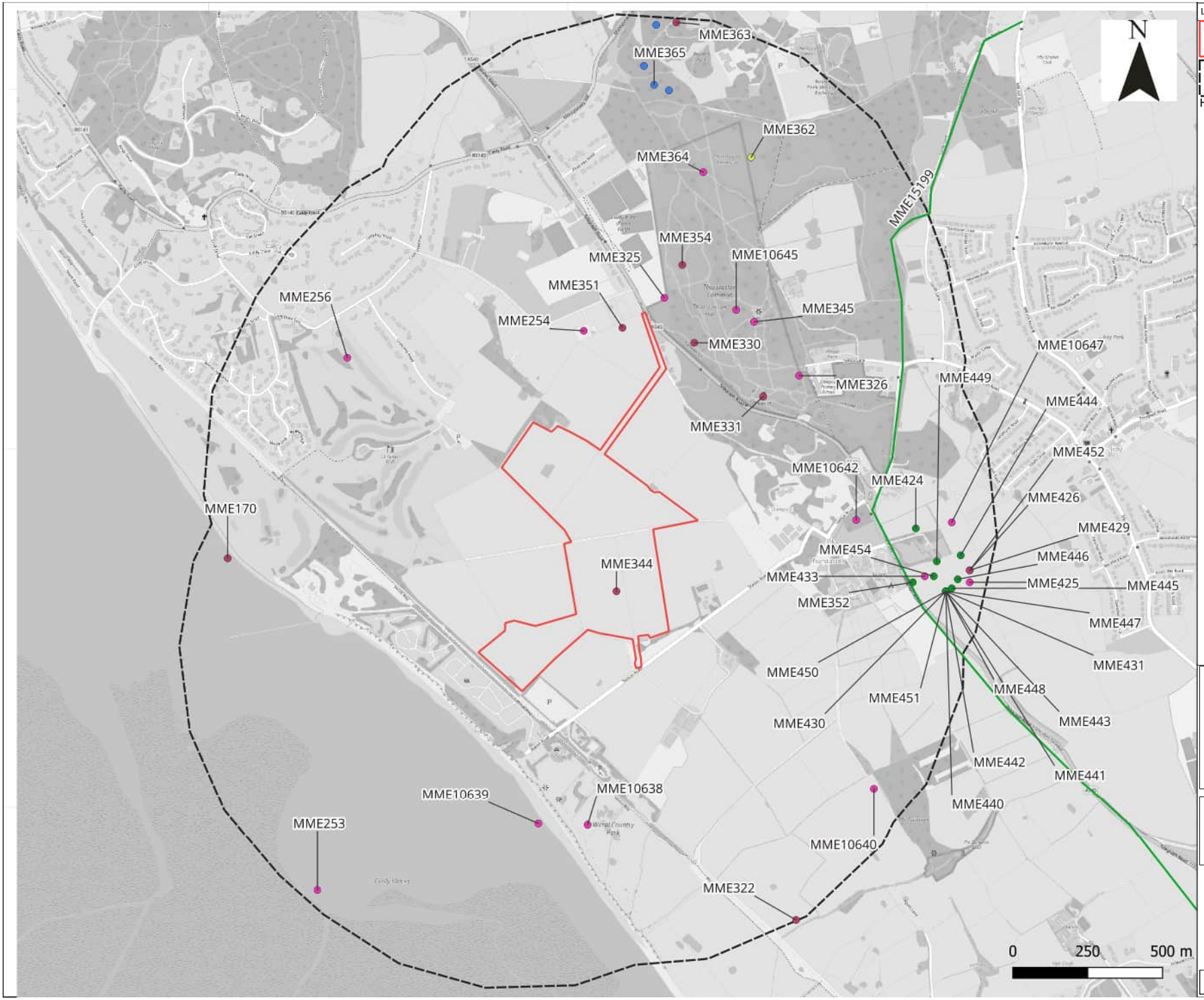
Scale 1:10000@A3

Date May 2025

00000.00000_Drawing _1

© Crown copyright [and database rights] 2000 0100031673

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.



LEGEND

- Site Boundary
- Study Area

HER Asset

- Prehistoric
- Iron Age
- Iron Age/ Roman
- Roman
- Undated

SLR
2nd and 3rd FLOORS
15 MIDDLE PAVEMENT
NOTTINGHAM
NG1 7DX
T: +44 (0) 115 964 7280
www.slrconsulting.com

Rose Cottage Solar, Thurstaston, The Wirral

HEDBA

Non-Designated Heritage Assets
Prehistoric to Roman

Figure 2

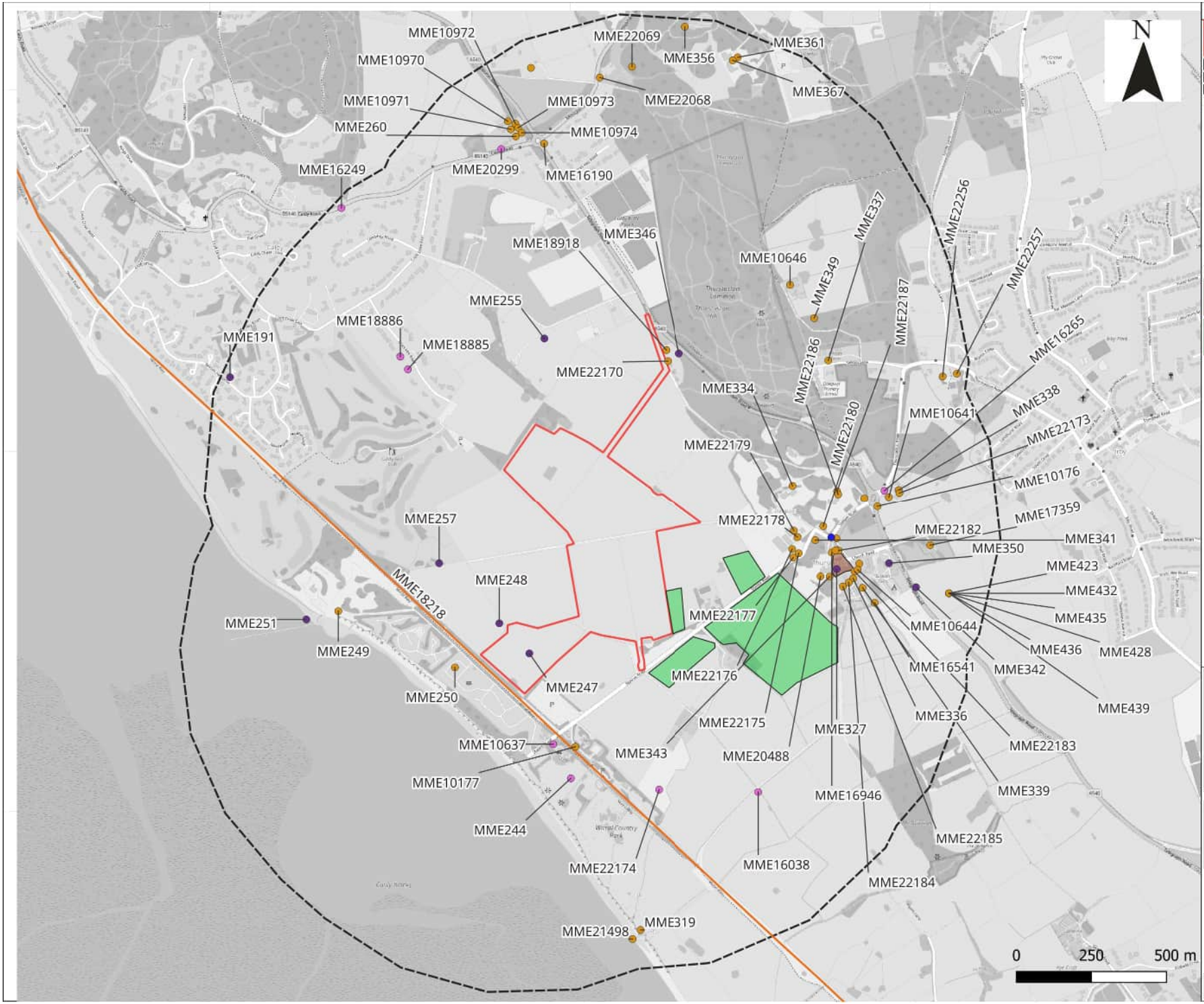
Scale 1:10000@A3

Date May 2025

00000.00000_Drawing _2

© Crown copyright [and database rights] 2000 0100031673

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.



SLR
2nd and 3rd FLOORS
15 MIDDLE PAVEMENT
NOTTINGHAM
NG1 7DX
T: +44 (0) 115 964 7280
www.slrconsulting.com

Rose Cottage Solar, Thurstaston, The Wirral

HEDBA

Non-Designated Heritage Assets
Early Medieval to Modern

Figure 3

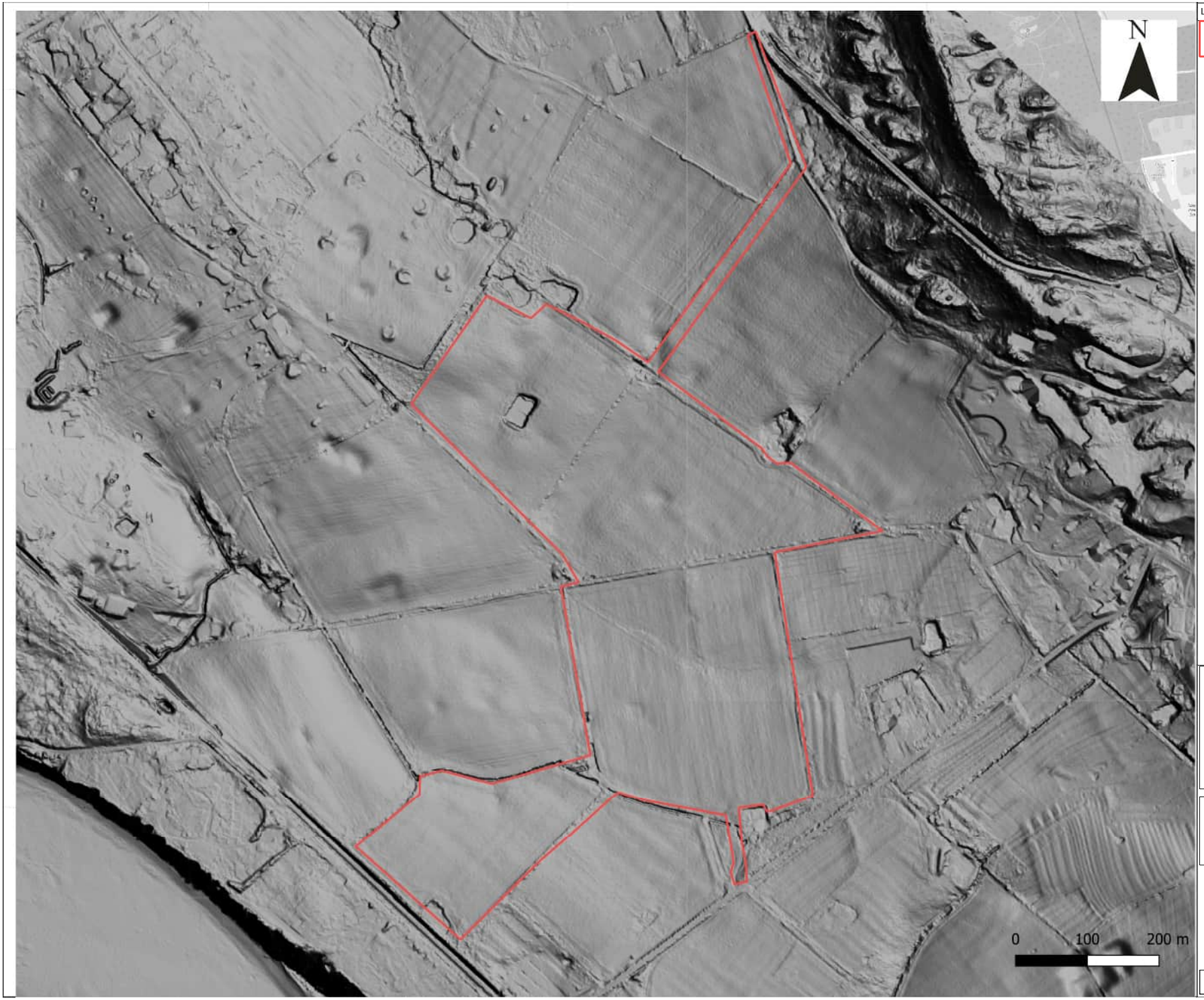
Scale 1:10000@A3

Date May 2025

00000.00000_Drawing_3

© Crown copyright [and database rights] 2000 0100031673

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.



LEGEND

Site Boundary

SLR
2nd and 3rd FLOORS
15 MIDDLE PAVEMENT
NOTTINGHAM
NG1 7DX
T: +44 (0) 115 964 7280
www.slrconsulting.com

Rose Cottage Solar, Thurstaston, The Wirral

HEDBA

LiDAR

Figure 4

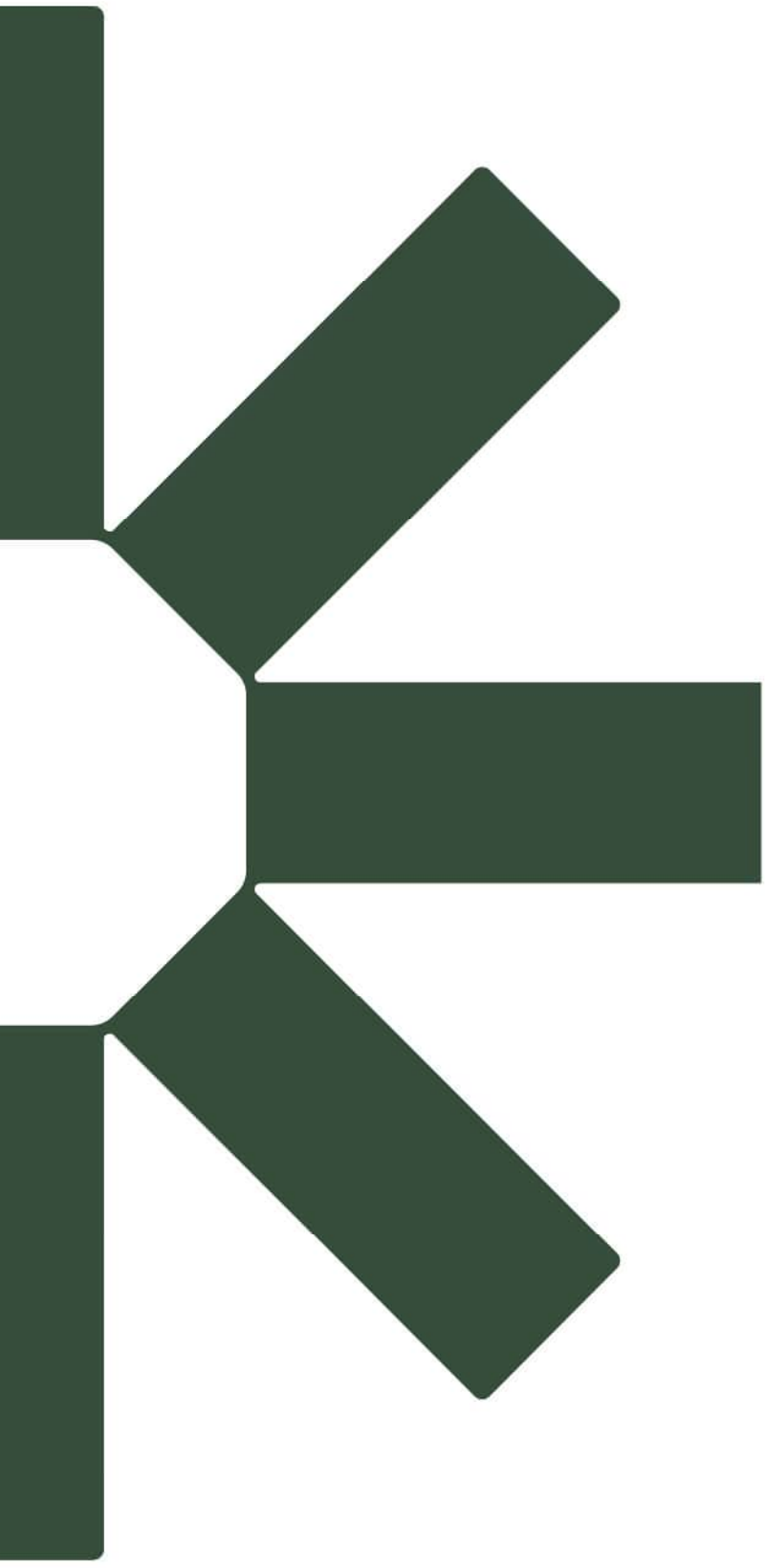
Scale 1:5000@A3

Date May 2025

00000.00000_Drawing_3

© Crown copyright [and database rights] 2000 0100031673

© This drawing and its content are the copyright of SLR Consulting Ltd and may not be reproduced or amended except by prior written permission. SLR Consulting Ltd accepts no liability for any amendments made by other persons.



Making Sustainability Happen

AGRICULTURAL QUALITY OF LAND AT THURSTASTON

Report 2306/1

13th March 2024

Land Research ASSOCIATES
www.lra.co.uk

AGRICULTURAL QUALITY

OF LAND AT THURSTASTON

M W Palmer, PhD, MISoilSci, CSci

Report 2306/1
Land Research Associates Ltd
Tapton Park Innovation Centre,
Brimington Road,
Chesterfield
S41 0TZ
www.lra.co.uk

13th March 2024

SUMMARY

An agricultural land quality survey has been undertaken of 28.2 ha of land at Thurstaston, Wirral in March 2024.

The soils of the site are fine loams over clay with restricted drainage. Land quality is limited to Subgrade 3b or 3a quality by wetness/workability.

1.0 Introduction

1.1 This report provides information on the agricultural quality of 28.2 ha of land at Thurstaston, Wirral. The report is based on a survey of the land in March 2024.

SITE ENVIRONMENT

1.2 The survey area comprises four fields, bordered to the south-west by a railway line, to the north-west and south-east by woodland, and on other sides by adjoining agricultural land. The land is very gently undulating, at an average elevation of approximately 30 m AOD.

1.3 At the time of survey the land was under winter cereal crops.

PUBLISHED INFORMATION

1.4 British Geological Survey 1:50,000 scale information records the underlying geology as Devensian glacial till over Wilmslow Formation sandstone.

1.5 The National Soil Map (published at 1:250,000 scale) records the land as Salwick Association, mainly comprising loamy soils formed in reddish glacial till[1].

[1] Ragg, J.M., *et al.,* (1984). *Soils and their Use in Midland and Western England,* Soil Survey of England and Wales Bulletin No. 12, Harpenden.

2.0 Soils

2.1 A soils and agricultural land quality survey was carried out in March 2024 in accordance with MAFF (1988) Agricultural Land Classification guidelines[2]. It was based on observations at intersects of a 100 m grid, giving a density of one observation per hectare. During the survey, soils were examined by hand augerings and pits to a maximum depth of 1.0 m. A log of the sampling points and a map (Map 1) showing their location is in an appendix to this report.

2.2 The soils were found to comprise mainly sandy clay loam or medium clay loam topsoil, over slowly permeable reddish clay. Across the majority of the site some depth of permeable loamy upper subsoil is present with the underlying clay mainly found within 45 cm; in places a deeper loamy upper layer was encountered. The soils show evidence of seasonal waterlogging (greyish, brownish or ochreous mottles and pale ped faces) to shallow depth. In places the upper layers are coarser (sandy loam texture).

2.3 Example soil profiles are described from pits at observation points 9 and 17 (see Map 1) in an appendix to the report.

ASSESSMENT OF DRAINAGE

2.4 Land with slowly permeable clay at shallow depth (<48 cm) is judged poorly-draining: Soil Wetness Class IV. Other land with a greater depth of permeable material but evidence of natural waterlogging at shallow depth is determined to be imperfectly to moderately freely-draining (Soil wetness Class III or II).

[2]MAFF, (1988).*Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

3.0 Agricultural land quality

3.1 To assist in assessing land quality, the Ministry of Agriculture, Fisheries and Food (MAFF) developed a method for classifying agricultural land by grade according to the extent to which physical or chemical characteristics impose long-term limitations on agricultural use for food production. The MAFF ALC system classifies land into five grades numbered 1 to 5, with grade 3 divided into two subgrades (3a and 3b). The system was devised and introduced in the 1960s and revised in 1988.

3.2 The agricultural climate is an important factor in assessing the agricultural quality of land and has been calculated using the Climatological Data for Agricultural Land Classification[3].

3.3 The relevant site data for an average elevation of 30 m and a central point at grid reference SJ 240,841 is given below.

- Average annual rainfall: 739 mm
- January-June accumulated temperature >0°C 1430 day°
- Field capacity period (when the soils are fully replete with water) 176 days
- Summer moisture deficits for: wheat: 97 mm, potatoes: 86 mm

3.4 The survey described in the previous section was used in conjunction with the agro-climatic data above to classify the site using the revised guidelines for ALC issued in 1988 by MAFF[4]. There are no overriding climatic limitations at this locality.

SURVEY RESULTS

3.5 The agricultural quality of the land is primarily determined by wetness/workability. Other factors have been assessed but do not affect the land grade. Land of grade 3 has been identified.

Subgrade 3a

3.6 The land mapped in the south-east of the site has moderately high topsoil clay content and imperfect to moderately free drainage (Soil Wetness Class III or II). This combination means that the land is usually too wet for winter and early spring machinery land access, although late spring (as well as autumn sowings) are usually possible.

[3]Meteorological Office, (1989).*Climatological Data for Agricultural Land Classification*.
[4]MAFF, (1988).*Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*.

3.7 A small number of observations with lesser or greater degree of limitation are included as they are judged to represent natural variation and are allocated to the average degree of limitation of this land.

Subgrade 3b

3.8 This land has moderately high topsoil clay content and poor drainage (Soil Wetness Class IV). This combination means that the land is usually too wet for spring machinery land access, and arable cropping is therefore largely limited to autumn sowings.

3.9 A small number of observations with slightly lesser or greater wetness limitation are included within this grade area: these are small patches of natural variation which could not be accurately mapped (or managed) separately; these are judged to be most appropriately assigned to the average degree of limitation of the surrounding land (Subgrade 3b).

Other land (non-agricultural)

3.10 This comprises a pond and a farm track bisecting the site east to west.

Grade areas

3.11 The land grades are shown on Map 2 and the areas occupied shown below.

Table 1: Areas occupied by the different land grades (ha)

Grade/subgrade	*Area (ha)*	*% of the land*
Subgrade 3a	5.1	18
Subgrade 3b	22.6	80
Other land	0.5	2
Total	28.2	100

APPENDIX

DETAILS OF OBSERVATIONS

MAPS

Land at Thurstaston: Soils and ALC survey – Details of observations at each sampling point

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling	(°)	Class	Grade	Main limitation
1	0-24	HCL	<5	24-90+	C(r)fmn	xxx				2	IV	3b/4	W
2	0-25	HCL	<5	25-60+	C(r)fmn	xxx				1	IV	3b/4	W
3	0-25	MCL	<5	25-70+	C(r)	xxx				1	IV	3b	W
4	0-23	SCL	<5	23-60	SCLfmn	xxx	60+	Waterlogged (stopped)		1	II/III	3a	W
5	0-21	SCL	<5	21-28	SCL	xxx	28-80+	SC(r)	xxx	1	IV	3b	W
6	0-28	SCL	<5	28-43	HCL	xxx	43-90+	C(r)fmn	xxx	2	IV	3b	W
7	0-26	MCL	<5	26-60+	HCL	xxx				1	IV	3b	W
8	0-27	SCL	<5	27-48	SCL	xxx	48-90+	HCL	xxx	2	III/IV	3a/3b	W
9	0-31	SCL	<5	31-38	HCL/SCL	xxx	38-100+	C(r)	xxx	2	IV	3b	W
10	0-25	SCL	<5	25-37	HCL	xxx	37-90+	C(r)fmn	xxx	3	IV	3b	W
11	0-30	MSL	<5	30-58	MCL	xxx	58-75 75+	HCL Stopped on stones	xxx	1	III	3a	W
12	0-32	SCL	<5	32-40	SCL	xxx	40-55 55+	MSL topsoil(dist) Stopped	-	2	-	-	-
13	0-32	slstSCL	<5	32-47	SCL	xxx	47-74 74+	HCL/C Stopped on stones	xxx	1	IV/III	3b/3a	W
14	0-31	slstSCL	<5	31-90+	C(r)	xxx				2	IV	3b	W
15	0-32	SCL	<5	32-90+	C(r)fmn	xxx				2	IV	3b	W
16	0-27	MCL	<5	27-39	HCL/SCL	xxx	39-90+	C(r)	xxx	0	IV	3b	W
17	0-30	SCL	<5	30-50	SCL	xxx	50-100+	C(r)	xxx	1	IV	3b	W
18	0-29	SCL	<5	29-53	SCL(dist?)	xxx	53-80+	SC(r)	xxx	1	III	3a	W
19	0-22	SCL	<5	22-33	SCL	xxx	33-90+	C(r)fmn	xxx	1	IV	3b	W
20	0-24	SCL	<5	24-41	SCL	xxx	41-90+	C(r)	xxx	1	IV	3b	W
21	0-26	SCL	<5	26-42	SCL	xxx	42-90+	C(r)	xxx	0	IV	3b	W
22	0-33	SCL	<5	33-48	SCL	xxx	48-90+	C(r)	xxx	1	III/ IV	3a/3b	W
23	0-22	MCL	<5	22-90+	C(r)	xxx				1	IV	3b	W
24	0-22	MCL/SCL	<5	22-32	SCL	xxx	32-90+	C(r)	xxx	1	IV	3b	W
25	0-39	SCL	<5	39-59	SCL	xxx	59-90+	C(r)	xxx	1	III	3a	W
26	0-27	MCL	<5	27-32	SCL	xxx	32-90+	C(r)	xxx	1	IV	3b	W

Soil log key

Gley indicators[1]

o	unmottled
x	1-2% ochreous mottles and brownish matrix (or a few to common root mottles (topsoils))[3]
xx	>2% ochreous mottles and brownish matrix and/or dull structure faces (slightly gleyed horizon)
xxx	>2% ochreous mottles and greyish or pale matrix (gleyed horizon) or reddish matrix and >2% greyish, brownish or ochreous mottles and pale ped faces
xxxx	mottles or f-m concentrations (gleyed horizon) dominantly blueish/greenish matrix, often with some reddish mottles (gleyed horizon)

Texture[2]

C – clay
ZC - silty clay
SC - sandy clay
CL - clay loam (H-heavy, M-medium)
ZCL - silty clay loam (H-heavy, M-medium)
SZL - sandy silt loam (F-fine, M-medium,C-coarse)
LS - loamy sand (F-fine, M-medium, C-coarse)
SL - sandy loam (F-fine, M-medium, C-coarse)
S - sand (F-fine, M-medium, C-coarse)
SCL - sandy clay loam
P - peat (H-humified, SF-semi-fibrous, F-fibrous)
LP - loamy peat; PL - peaty loam

Limitations:

W - wetness/workability
D - droughtiness
De - depth
F - flooding
St – stoniness
G - gradient
T – topography/microrelief
C - Climate

Suffixes & prefixes:

o - organic

(vsl, sl, m, v, x)**st** – (very slightly, slightly, moderately, very, extremely) **stony**[6]

(vsl, sl, m, v, x)**ca**
(very slightly, slightly, moderately, very, extremely) **calcareous**[7]

Slowly permeable layers[4]

a depth underlined (e.g. <u>50</u>) indicates the top of a slowly permeable layer

A wavy underline (e.g. <u>50</u> indicates the top of a layer borderline to slowly permeable

Wetness Class[5]

I (freely drained) to VI (very poorly drained)

Other abbreviations

fmn - ferri-manganiferous concentrations
dist - disturbed soil layer; chky - chalky
R – bedrock (CH – chalk, SST – sandstone LST – limestone, MST – Mudstone)
r-reddish, gn – greenish

[1]Gley indicators in accordance with Hodgson, J.M., 1997. Soil Survey Field Handbook (third edition). Soil survey technical monograph No. 5
[2]Texture in accordance with particle size classes in Hodgson (1997)
[3] Occasionally recorded in the texture box
[4]Permeability is estimated for auger borings and must be confirmed by full pit observations in accordance with the definitions in: Revised Guidelines for grading the quality of Agricultural Land (Maff 1988)
[5]Soil Wetness Classes are defined in Hodgson (1997)
[6]stoniness classes as defined in Hodgson (1997)
[7]calcareous classes as defined in Hodgson (1997)

Grades shown as intergrade e.g. **3a**/3b are close to the grade boundary. The estimate of which side of the boundary the grading falls is the shown first (in bold here)
grades in brackets eg. (3a) raised by one grade due to calcareous topsoil

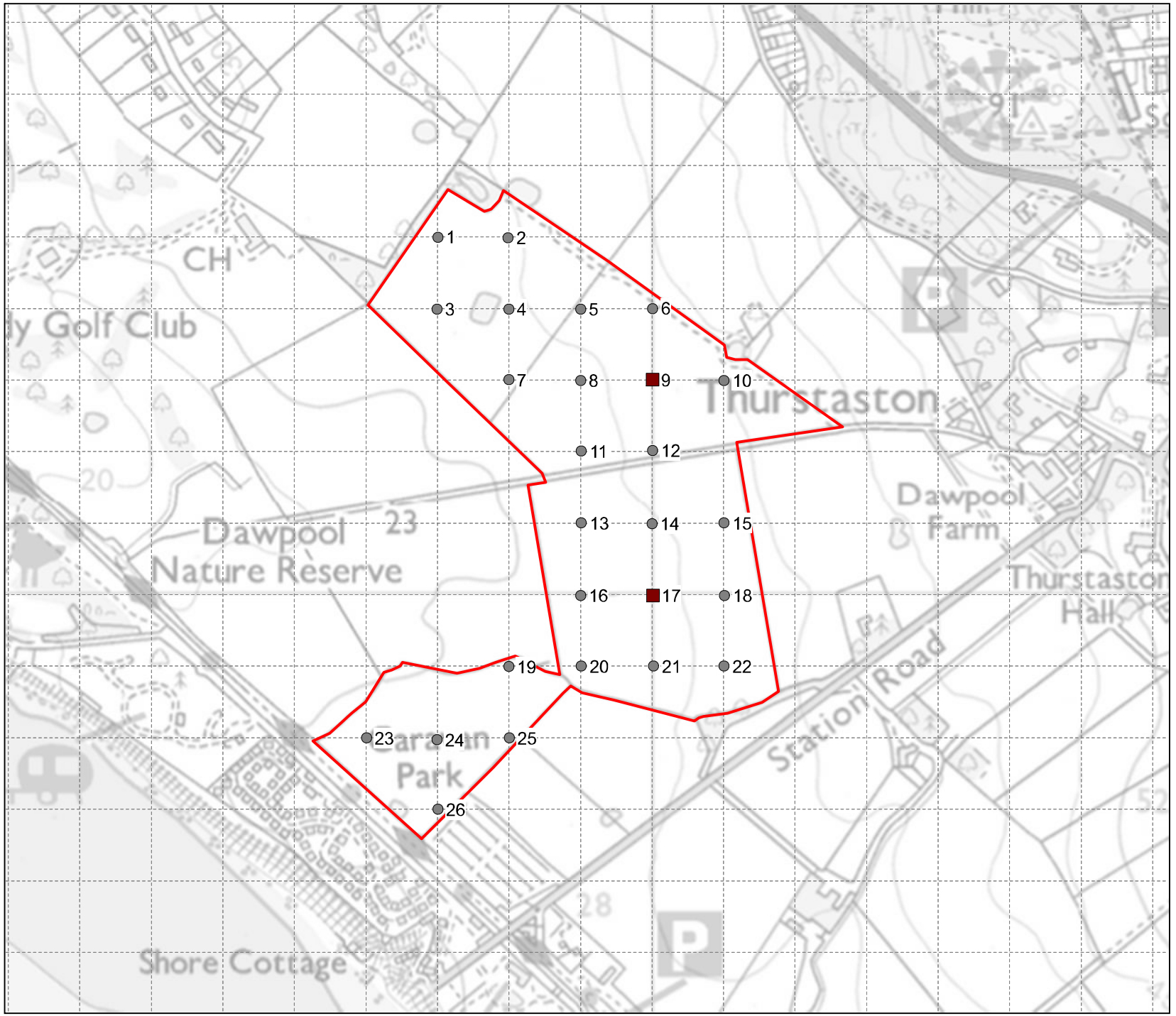
SOIL PIT DESCRIPTIONS

Observation 9

0-31 cm	Brown (7.5YR 4/2) sandy clay loam; 1-2% mixed hard stones; moderately developed coarse subangular blocky structure; friable; clear smooth boundary to:
31-38 cm	Light yellowish brown (2.5Y 6/4) heavy clay loam/sandy clay loam with 30% distinct medium yellowish brown (10YR 5/8) mottles; very slightly stony; moderately developed very coarse sub-angular blocky structure; firm; 1% very fine root channel pores; gradual smooth boundary to:
38-100 cm+	Reddish brown (2.5YR 4/4) clay with 2-3% fine black ferri-manganiferous concentrations, 20% faint fine yellowish red (5YR 5/8) mottles and pale red (2.5Y 6/2) ped faces; very slightly stony; weakly developed very coarse prismatic structure; very firm; <0.5% macropores.

Observation 17

0-30 cm	Dark greyish brown (10YR 4/2) sandy clay loam; 2-3% mixed hard pebbles; moderately developed medium subangular blocky structure; friable; clear smooth boundary to:
30-50 cm	Greyish brown (10YR 5/2) sandy clay loam with 5% distinct fine yellowish brown (10YR 5/8) mottles; very slightly stony; moderately developed coarse sub-angular blocky structure; friable; clear smooth boundary to:
50-100 cm+	Reddish brown (5YR 5/3) clay with 15% distinct fine reddish yellow (5YR 6/8) mottles and 2-3% fine black ferri-manganiferous concentrations, and pale red (2.5Y 6/2) ped faces; very slightly stony; weakly developed very coarse angular blocky structure; very firm; <0.5% macropores.



KEY

- Auger observations
- Pits
- Site boundary

Site:

Thurstaston

Map title:

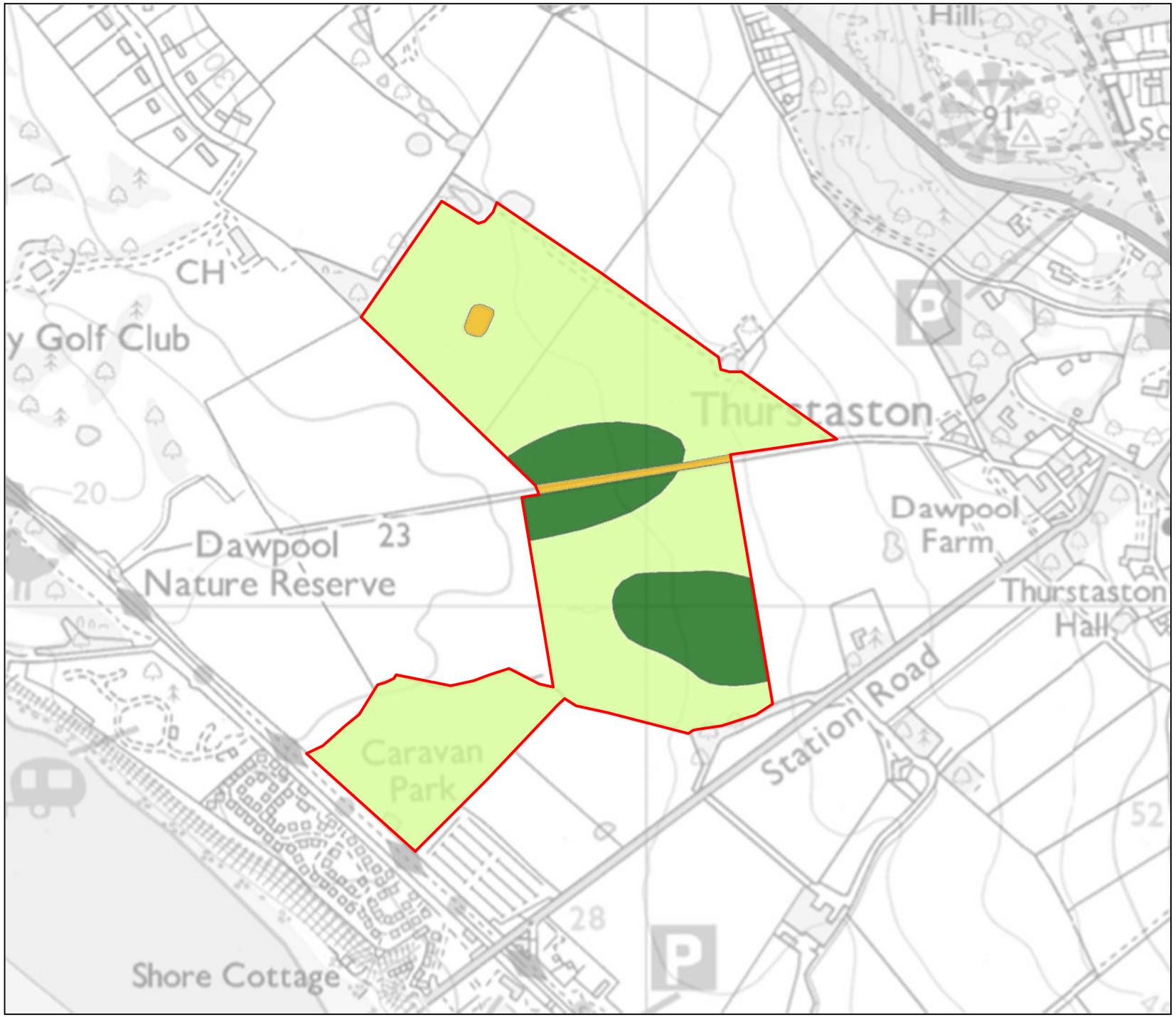
MAP 1
Observations

Land Research Associates

Tapton Innovation Centre
Brimington Road
Chesterfield
S41 0TZ
www.lra.co.uk

Date:12/03/2024

Scale: 1:7,500



KEY

- Subgrade 3a
- Subgrade 3b
- Other land
- Site boundary

Site:

Thurstaston

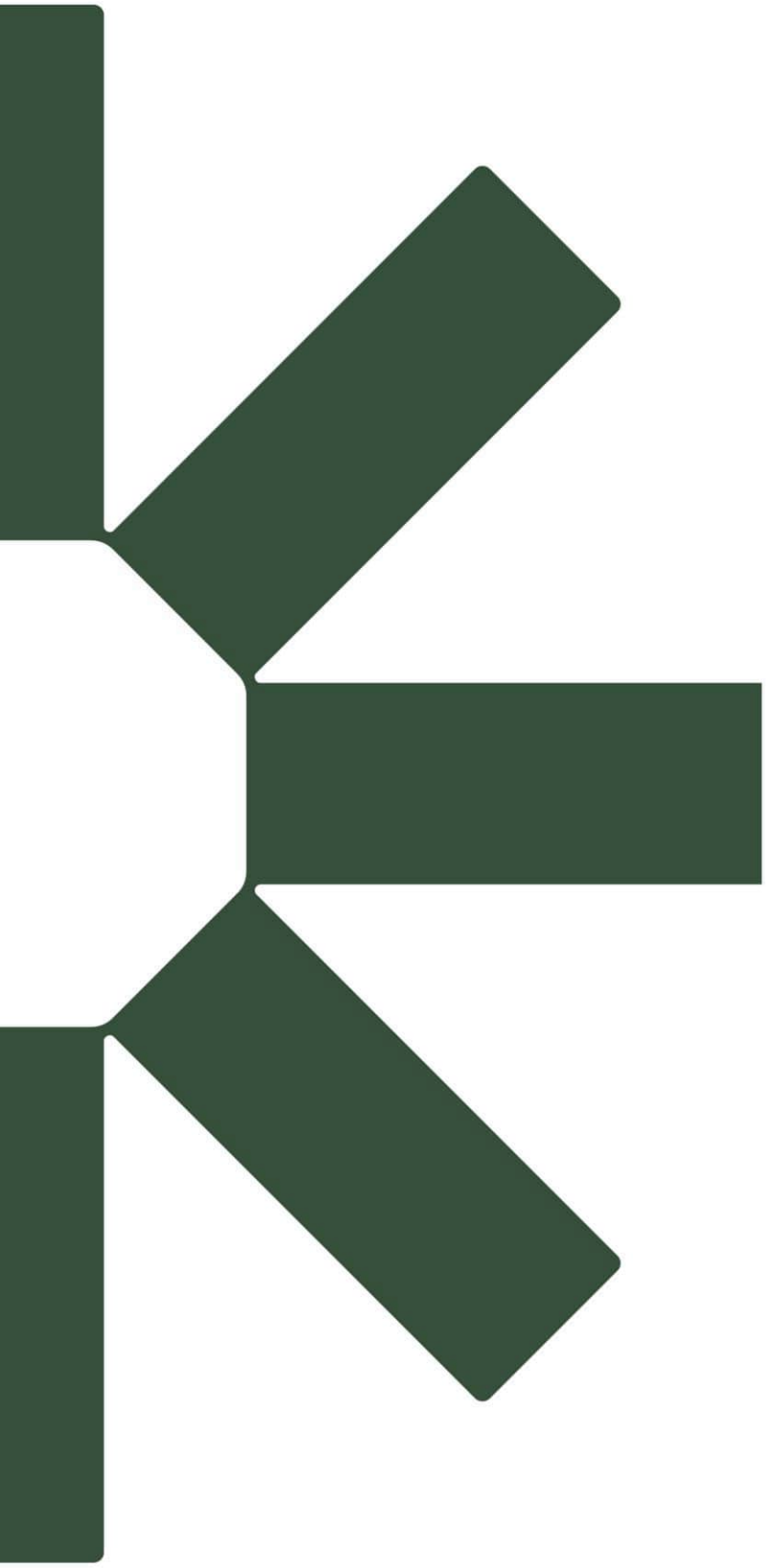
Map title:

MAP 2
Agricultural Land
Classification

Land Research Associates
Tapton Innovation Centre
Brimington Road
Chesterfield
S41 0TZ
www.lra.co.uk

Date:12/03/2024

Scale: 1:7,500



Making Sustainability Happen