

**Written Scheme of Investigation for
a historic building recording
Level 2 and topographic survey
at Sketchley Lane
Burbage, Hinckley
Leicestershire
November 2023**

Author: Lauren Wilson and James Ladocha

Illustrator: Sofia Turk



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Accession Number: X.A126.2023

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Project Manager: Lauren Wilson

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SITE NAME: Sketchley Lane, Burbage, Hinckley
EVENT NUMBER: X.A126.2023
NATIONAL GRID REF: SP 42296 91925
CLIENT: Persimmon Homes
DATE: November 2023
CONTRACTOR: MOLA Northampton
Kent House
30 Billing Road
Northampton,
NN1 5DQ

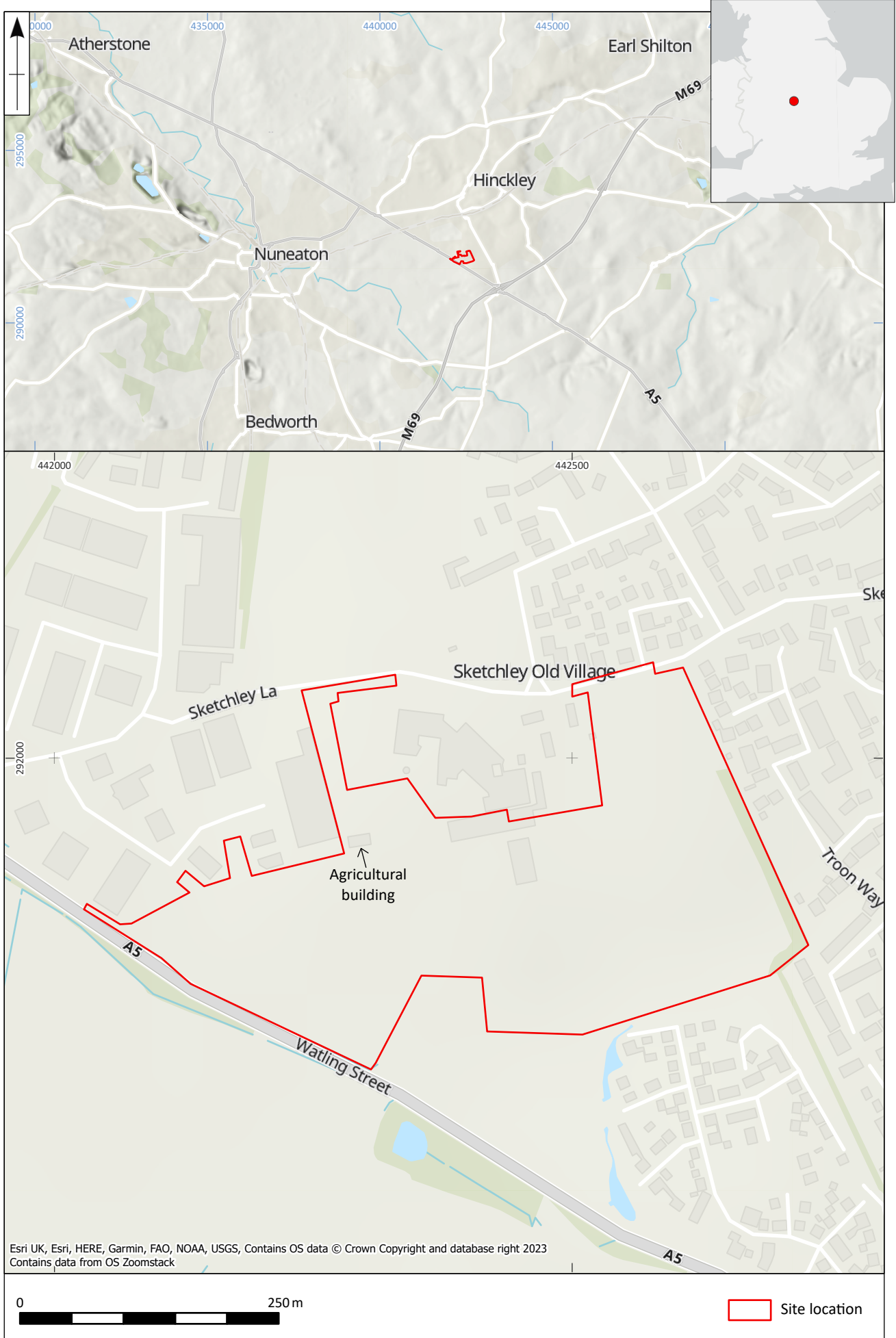
1 INTRODUCTION

- 1.1 Museum of London Archaeology (MOLA) has been commissioned by Persimmon Homes to undertake a programme of archaeological historic building recording to Level 2 and topographic survey at Sketchley Lane, Burbage, Leicestershire (Fig 1). The archaeological works are being carried out as a condition on outline planning permission for a residential development on the site comprising up to 150 dwellings.
- 1.2 This document constitutes a Written Scheme of Investigation (WSI) for the programme of historic building recording and sets out the proposed methodologies, resources and programme for the assessment, recording and analysis of historic fabric. It has been prepared by MOLA specifically to conform to the Historic England guidance document: *Understanding Historic Buildings; a guide to good recording practice* (HE 2016a, Section 5.2). This document has been prepared in compliance with current best archaeological practice as defined in the Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2022) and *Standard and Guidance for the Investigation and Recording of Standing Buildings or Structures* (CIfA 2020a) as well as the Historic England procedural document *Management of Research Projects in the Historic Environment (MoRPHE)* (HE 2015).
- 1.3 An accession number has been requested and will be used as the site code: X.A126.2023

2 BACKGROUND

2.1 Location, topography and geology

- 2.1.1 The site is located on the outskirts of Hinckley in the county of Leicestershire, within the suburb of Sketchley and Burbage (Fig 1). The site comprises a series of agricultural fields with modern farm complex to the north, and a brick agricultural building to the west which is the subject of the building recording element of this project. There is an industrial estate complex to the west, housing developments to the east, the A5 stretches along the south-western boundary and to the north is Sketchley Lane. The border with the county of Warwickshire lies along the south-western edge of the site, in line with the A5.
- 2.1.2 The British Geological Survey (BGS) indicates that the local bedrock geology comprises Mercia Mudstone formation overlain in part by superficial deposits of sand and gravel in the higher parts of the site, and clay and silt on the lower parts to the south-west (BGS 2023).
- 2.1.3 The present topography mirrors the changes in underlying geology, with the north-eastern corner of the site standing at 115m above Ordnance Datum (aOD), sloping down to 105m aOD to the south-west.



Scale 1:5,000

Site location Fig 1

2.2 Archaeological and historical background

- 2.2.1 The existing Heritage Statement prepared by The Environmental Dimension Partnership (EDP 2021) covers a brief assessment of some of the archaeological and historical background of the area. In combination with the geophysical survey and trial trench evaluation undertaken in 2019 (SUMO 2019 and Oxford Archaeology 2019) it makes it possible to assess the survival of archaeological remains. Prehistoric survival has low potential within the site itself, and what is present in the wider area is focused on higher ground, on geological conditions focused to the north-east. The site lies directly adjacent to the Roman road of Watling Street (current A5), but the evaluation only recovered a single sherd of Roman pottery, redeposited in a later feature. Ridge and furrow earthworks have been previously identified on the site, and this is the reason for the current topographic survey which forms part of this project. The medieval historic core of Sketchley lies to the immediate north of the site, and the deserted settlement of Stretton Baskerville is location 370m to the south-west of the site recorded in Domesday. The site therefore likely formed part of the rural landscape between nearby settlements during this period.
- 2.2.2 A set of cartographic sources (not illustrated here) starting in the mid-19th century reveal the site comprised agricultural fields up until the modern period. The 1903 Ordnance Survey map appears to be the earliest source to depict the existing agricultural building that forms part of the building recording element of this project.

3 AIMS AND OBJECTIVES

- 3.1 The historic building recording will be carried out to a **Level 2**, in accordance with the Historic England guidance document *Understanding Historic Buildings; a guide to good recording practice* (HE 2016a).
- 3.2 A Level 2 historic building recording forms a descriptive record of a building. The Historic England guidelines state that a Level 2 will be created by examining both the exterior and interior, photographing and describing these elements. The examination will show the development through analysis and conclusions reached, but will not discuss in great detail the evidence on which this is based.
- 3.3 The main objective of the building recording is initially to fulfil the need for a survey of the built heritage assets within the site. This will address the buildings' structural and architectural detail and archaeological evidence, to produce a descriptive record of the building/s which will be sufficient in mitigating the built heritage conditions attached to the planning consent relating to built-heritage assets. Additional aims of the investigation are to:
- to undertake a photographic record of the building/s. The photographic record will include detailed and general shots of the interior and exterior fabric, where this can be safely done,
 - to analyse and describe the fabric of the buildings before the commencement of the proposed work with the aim of elucidating use and development,
 - to report the results in a suitable form, publish a summary, register the report through the Historic England OASIS form, HER and with the LPA in due course.
- 3.4 The project will be undertaken within the priorities established by the *West Midlands Regional Research Framework* (Watt 2011). Specific research objectives will be drawn as relevant depending upon the results of the evaluation, but the topographic survey may well fit into the study of rural settlement from the medieval period due to the known presence

of ridge and furrow across the site.

4 METHODOLOGY

4.1 Physical investigation

- 4.1.1 Physical investigation of the building will be carried out on site, prior to works commencing and during and/or after alteration works. This aspect of the investigation will be selective, aimed at elucidating significant details regarding construction, use and development.

4.2 Written Records

- 4.2.1 Handwritten notes will be taken on site to record the findings of the on-site analysis of the building. These will be notes on the fabric, form, functions and evident past changes to the building. All handwritten notes will be included in the digital material to be archived.
- 4.2.2 The Project Manager and Site Supervisor will be responsible for ensuring that the written record will be submitted to the archive and comply with the standard and guidance for archaeological investigation of standing buildings or structures as stated by the Chartered Institute for Archaeologists (CIfA 2020a).

4.3 Drawn Records

- 4.3.1 No measured survey drawings have been supplied to MOLA by the client. Sketch plans will be made on site in order to provide photographic location plans as illustrations to the report.
- 4.3.2 Any hand drawn records will conform to the conventions and procedures laid out in the Historic England guidance (HE 2016b).

4.4 Photographic records

- 4.4.1 The record will include photographs taken both externally and internally as required using large format DSLR cameras at a minimum of 20 megapixels. The photographic record will include general views of the building within its setting, its external appearance, and the overall appearance of internal spaces.
- 4.4.2 Lighting equipment may be required if the structure does not have a suitable electricity supply at the time of recording and a scale bar will be used if possible.

4.5 Documentary research

- 4.5.1 Provision will be made for brief initial documentary research in order to enable the overall research aims to be realised but will not be in-depth or complete. This will be limited to online resources, and the existing Heritage Statement prepared by The Environmental Dimension Partnership (EDP 2021). Research may include, as required, published comparative material to help identify and date the fixtures, fittings, materials, techniques and decoration in the building.

4.6 Topographic survey

- 4.6.1 A topographical surveying of the preserved ridge and furrow earthworks will be carried out using a Unmanned Aerial Vehicle (UAV) to enable rapid and effective data collection. This will be achieved through the creation of a 3D model, created by collecting sets of massively overlapping vertical images, captured by flying in a strict parallel line pre-planned flight path over the site at a constant height above ground level (between 50m and 60m altitude). The UAV to be used features a 20 megapixel RGB camera and is equipped with a RTK module. This RTK module results in a hovering accuracy in both planes of ± 0.1 m, and allows for centimetre level survey accuracy by accurately geolocating the captured imagery without requiring ground control points. The UAV camera lens has a focal length of 24mm and a sensor of 20 megapixels (4/3 CMOS), and will capture imagery in jpeg and RAW format. To produce a model with good accuracy, the UAV survey must have multiple viewpoints and adequate overlap (minimum 60% front overlap and 75% side overlap).
- 4.6.2 The captured imagery is then subjected to processing using digital photogrammetric software. The processing also ingests coordinates from temporary ground control points (GCPs) that are identified within the images, to scale, geo-locate and provide independent accuracy checks of the resultant 3D model. These are 0.8m squared tough vinyl squares which are pegged to the ground. Between 5 and 9 of these will be well distributed over the area of interest, depending on terrain and obstacles. The GCPs will be measured using survey grade differential GPS providing an expected absolute accuracy of 2-3cm XY and 4-5cm in Z.
- 4.6.3 A Digital Terrain Model (DTM) will be produced from the 3D model, which can be visualised in various ways to best represent the ridge and furrow earthworks. These outputs will form the basis of the subsequent analysis and interpretation of the data to be included in the report.

5 POST-EXCAVATION, REPORTING AND ARCHIVE

- 5.1 Following the completion of fieldwork, the assessment of the site records will lead to a report in accordance with the *Management of Research Projects in the Historic Environment (MoRPHE)* (HE 2015) *Understanding Historic Buildings: a guide to good recording practice* (Historic England, 2016a) and *ClfA Standard and Guidance: for the archaeological investigation and recording of standing buildings or structures* (ClfA 2020a).
- 5.2 The report will include a summary of the work undertaken and the aims and methods employed during the course of the recording. This will form an analytical record incorporating an introductory description followed by an account of the building's development and use, citing the documentary archive material used as evidence for the conclusions drawn. The text will be supported by the use of illustrations and photographs.
- 5.3 A copy of the report, clearly marked DRAFT, will be provided to the client on conclusion of the project. The Historic Environment Record (HER) will be issued with two copies of the report (one bound 'hard copy' and one digital), according to individual county requirements.
- 5.4 In accordance with *The Transfer of Archaeological Archives to Leicestershire County Council Museum Collections* (Leicestershire County Council Museum Collections 2022), paper records for building recording projects are not accepted with Leicestershire County Council Museums, and instead the project will be fully digitally archived and any paper records created as a result of the project will be scanned and then destroyed.

- 5.5 Following completion of the fieldwork and reporting, born-digital data, such as reports, digital photographs, database and GIS data, with appropriate metadata, will be deposited with a CoreTrustSeal Repository, currently the Archaeology Data Service (ADS), making the archive publicly accessible, as required by the county archiving standard (Leicestershire County Council Museum Collections 2022). All projects conducted by MOLA contain an Online Access to the Index of Archaeological Investigations (OASIS V) registration form in the front pages of the report. This data is used to keep the online database up to date with the most recent projects conducted by MOLA. When completed and approved the digital report will be uploaded to OASIS for submission to the ADS website. Digital archiving will follow the guidelines outlined in MOLA's *Digital Data Management Policy and Procedures* (MOLA forthcoming).

6 KEY PERSONNEL AND TIMETABLE

- 6.1 MOLA is a ClfA registered organisation, under the overall management of **Guy Hunt BA FSA MCIfA, Chief Executive Officer**.
- 6.2 The project will be carried out under the management of **Lauren Wilson, BA MA ACIFA, Head of Buildings Archaeology**. The fieldwork will be supervised by one of MOLA's qualified and experienced supervisors supported by Project Assistants drawn from MOLA's team of permanent and temporary staff.
- 6.3 The fieldwork is due to commence in November 2023 and is planned to take one day.

7 HEALTH AND SAFETY

- 7.1 A site specific risk assessment and safety plan (RAMS) will be prepared before the start of the project and will be updated throughout the project if appropriate. All site staff are inducted in the site-specific risk assessment and made aware of potential hazards before they commence the works on site.
- 7.2 MOLA is a responsible employer and all work is conducted in accordance with MOLA's established Health and Safety Policy. This provides a practical framework for the implementation of the Health and Safety at Work Act 1974, the management of Health and Safety at Work regulations 1992 and other relevant legislation.

8 BIBLIOGRAPHY

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MOLA Northampton

November 2023

APPENDIX 1: DATA MANAGEMENT PLAN

Project details				
Project Manager	Lauren Wilson			
Project Name	Sketchley Lane, Burbage			
Project Finance Code	P23-613			
Accession Code	X.A126.2023			
Project stages covered	Building recording and topographic survey			
Related Policies	-			
Version control				
Version	Author(s)	Date:	Status	Summary of Changes
1	L Wilson	November 2023	Draft	-
Data Collection/Creation				
Data to be Collected/Created	All file formats created will meet the standards set out in MOLA's Data Management Procedure and Fieldwork Manual.			
	The recording of the building and the phases encountered will be made as paper records on site. Paper notes will be made to record features of interest, digital photos, drawings, sketch plans, as appropriate. The data will be entered into the site's ORACLE CDE database.			
	Overall photographic shots of the site will be taken, with detailed shots being made of individual features as appropriate. The photographic record will consist of high-quality digital uninterpolated images of at least 12 megapixels. Digital photographs intended for archive purposes will comply with best practice i.e. high quality non-proprietary raw files (DNG) or TIFF images.			
	The documentary archive for this phase of works will consist of: - Text: PDF/A documents comprising completed site report, WSI - Databases: ORACLE dataset - Survey data: GIS / DXF files - Illustration files: AutoCAD DWG, PDF/A, GIS files - Photogrammetry model from topographic survey: Wavefront OBJ file accompanied by source raster images.			
	This will be submitted to ADS at the completion of the project as a single archive.			

How Data will be Collected/Created	The data will be created according to MOLA's <i>Fieldwork Manual</i>, MOLA'S <i>Data Management Procedure</i>, and in accordance with project specific agreements with the Senior Planning Archaeologist. Drawings will be created by hand on polyester drawing film, using 4H/6H Staedtler Mars Lumograph pencils. These scanned MOLA's Archives Team and/or digitised using AutoCAD to standards set out in Data Management Procedure. The building recording photographic record will consist of high-quality digital uninterpolated images taken using a camera with an APS-C or larger sensor. The UAV imagery will be captured using a 20-megapixel camera with 4/3 CMOS sensor. Digital photographs intended for archive purposes will comply with best practice i.e. high quality non-proprietary raw files (DNG) or TIFF images. File structure will be created automatically by Union Square Knowledge Management System, and is thus controlled.
Relations	N/A
Documentation and Metadata	
Metadata	Metadata will be created to the standard set out in MOLA's <i>Data Management Procedure</i> . Metadata tables will be updated throughout the course of the project and will be archived along with the digital data at the end of the project.
Documentation	The data will be accompanied by the site report, site paper archive, polyester film sheets, databases and processed illustrations as PDFs.
Ethical and Legal Compliance	
Data Security Issues	The dataset may contain commercially sensitive data. MOLA will not make data available to any persons outside of the previously detailed project team without discussion with Leicestershire County Council Museums.
Intellectual Property Rights	The copyright of any written, graphic or photographic records and reports will rest with MOLA. The data and reports created by any external specialists will be MOLA Copyright; this will be managed through their contracts. Other data not owned by MOLA, such as OS data, HER datasets or historic maps, will be used under license and any downloaded data will be deleted from MOLA systems at the end of the term of the license agreement. Once the results of the work are deemed to have entered the public domain, Leicestershire County Council will have permission to use the report for the purposes of the Historic Environment Record which may include limited photocopying by third parties.
Data Storage	
Storage and Backup	All data collected digitally will be backed up at the end of each day on the MOLA server. Quality assurance processes will include records being checked in the office by Team Leaders prior to scanning. Any amendments will be made prior to scanning such as cross referencing.

	MOLA will retain a back-up of the digital data of the project for a minimum of five years following the deposition of the site archive, in accordance with MOLA's <i>Digital Management Procedure</i>. Paper archives and documentation will form one archive that will be deposited ultimately in Leicestershire County Council Museums.
Access and Security	Data recording platforms used including tabletop computers and laptops will be password protected to prevent un-authorised access. Data will be made available to the project team through the Union Square knowledge management system and controlled via password access, maintained and managed by MOLA IT support.
Selection and Preservation	
Preservation Plan	The physical and digital archives will be constructed in accordance with local and national guidelines, and specifically with reference to MOLA's Physical and Digital Data Retention/Discard policies. Discarded data that has been identified for deletion will be recorded as such within the metadata and site records, as appropriate. The physical site archive will be stored at MOLA Office, 30 Billing Road, Northampton upon completion of the historic building recording fieldwork. Upon completion of full analysis, the physical project archive will be retained by MOLA for six months then destroyed as Leicestershire County Council Museums do not accept building recording deposits. The digital site archive comprising the report, database, digital photographs and survey data will be archived with the ADS. Further archiving decisions will be made in discussion with the Senior Planning Archaeologist and ADS at project completion stage.
Data Sharing	
Data Sharing Plan	During the course of the project, site data will need to be shared with external persons for the acquisition of specialist reporting. External specialists will be given access to copies of data and not original documentation. The data generated from this project will be made publicly available through submission to the Archaeological Data Service (ADS) as a digital archive and the finished report will be submitted to the Online Access to the Index of archaeological investigations (OASIS). The file types submitted will comply with ADS digital archiving guidance in order to ensure maximum compatibility and access. Proposals for publication and dissemination of the archaeological remains are at this stage restricted to Grey Literature style report.
Data Sharing Restrictions	There are no known restrictions on the use of this data after project completion although data will be kept confidential during the course of the project.
Responsibilities and Resources	

Responsibilities	In the absence of a dedicated Digital Data Officer, the Project Manager and the Senior Archaeological Archivist are responsible for ensuring the data management plan is followed.
Resources	Guidance on digital data will be given throughout the project by Peter Rauxloh (Chief Digital Officer) and James Ladocha (Geomatics Manager), supported by MOLA IT staff. The costs of deposition of the digital archive will be an additional cost to the project budget.
References	Brown, D H, 2011 <i>Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation</i>, Second edition, Archaeological Archives Forum ClfA 2020b <i>Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives</i>, Chartered Institute for Archaeologists MGC 1992 <i>Standards in the museum care of archaeological collections</i>, Museums and Galleries Commission SMA 1993 <i>Selection, retention and dispersal of archaeological collections</i>, Society of Museum Archaeologists Leicestershire County Council Museum Collections 2022 <i>The Transfer of Archaeological Archives to Leicestershire County Council Museum Collections</i>, Leicestershire County Council Walker, K, 1990 <i>Guidelines for the preparation of excavation archives for long term storage</i>, United Kingdom Chartered Institute for Conservation



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