

HS2 PHASE 1 NORTH ENABLING WORKS CONTRACT (EWC)

HERITAGE & ARCHAEOLOGY



GEOGRAPHIC EXTENT

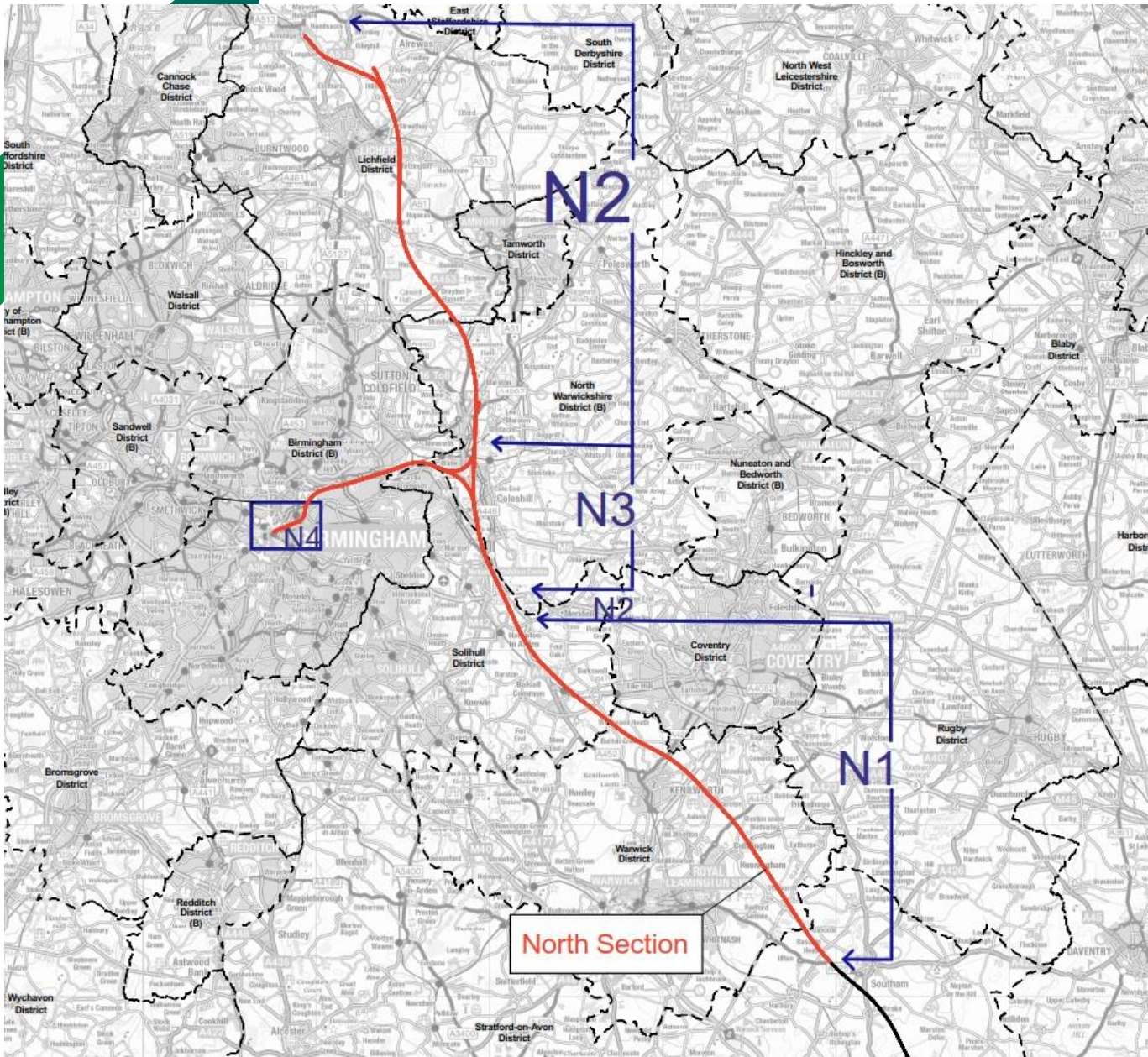
PHASE 1 NORTH

GEOGRAPHIC EXTENT



- ❖ Approximately 68.6km from north to south
- ❖ Extends 13.6km west into Birmingham
- ❖ Passes through Warwickshire, West Midlands and Staffordshire

GEOGRAPHIC EXTENT



- ❖ N1: Long Itchington Wood Tunnel to Delta Junction
- ❖ N2: Delta Junction to WCML Tie-In
- ❖ N3: Birmingham Interchange Station
- ❖ N4: Curzon Street Station

COMPOSITION OF TIER 1 JV

HS2 ENABLING WORKS DESIGN JV TEAM
ARCHAEOLOGICAL INVESTIGATION WORK
PACKAGES
ORGANOGRAM

LM WP Project Manager
LM Design Manager

WP 14, WP 22, WP 29 & WP38

WP Design
Manager

Lead Design Project
Manager

WP Planner
WP Document
Manager

Historic Environment
Technical Lead

Historic Environment
WP Leads

Supporting
Disciplines

Discipline Team

Discipline Team
Members
CAD



RESEARCH & DESIGN

LANDSCAPE FOCUSSED STRATEGY

❖ Considered Approach

- Assessing work requirements and risk to programme against the principles of the GWSI: HERDS

❖ Time Critical

❖ Programme Driven

❖ De-risking

RESEARCH & DESIGN

REVIEW OF DESIGN

- ❖ Heritage Asset 'Period-Type' Density Mapping
 - ❖ LiDAR Survey Review
- ❖ Geophysical Survey Review
 - ❖ Landscape Studies
 - Historic Settlement Landscape Study
 - Railway & Industrial Infrastructure Study
 - Palaeolithic Geological Landscape Study
 - Civil War Battlefield DDBA
- ❖ Historic Building Appraisals

RESEARCH & DESIGN

NON-INTRUSIVE WORKS: LANDSCAPE FOCUSSED STRATEGY

Heritage Asset
Density Mapping

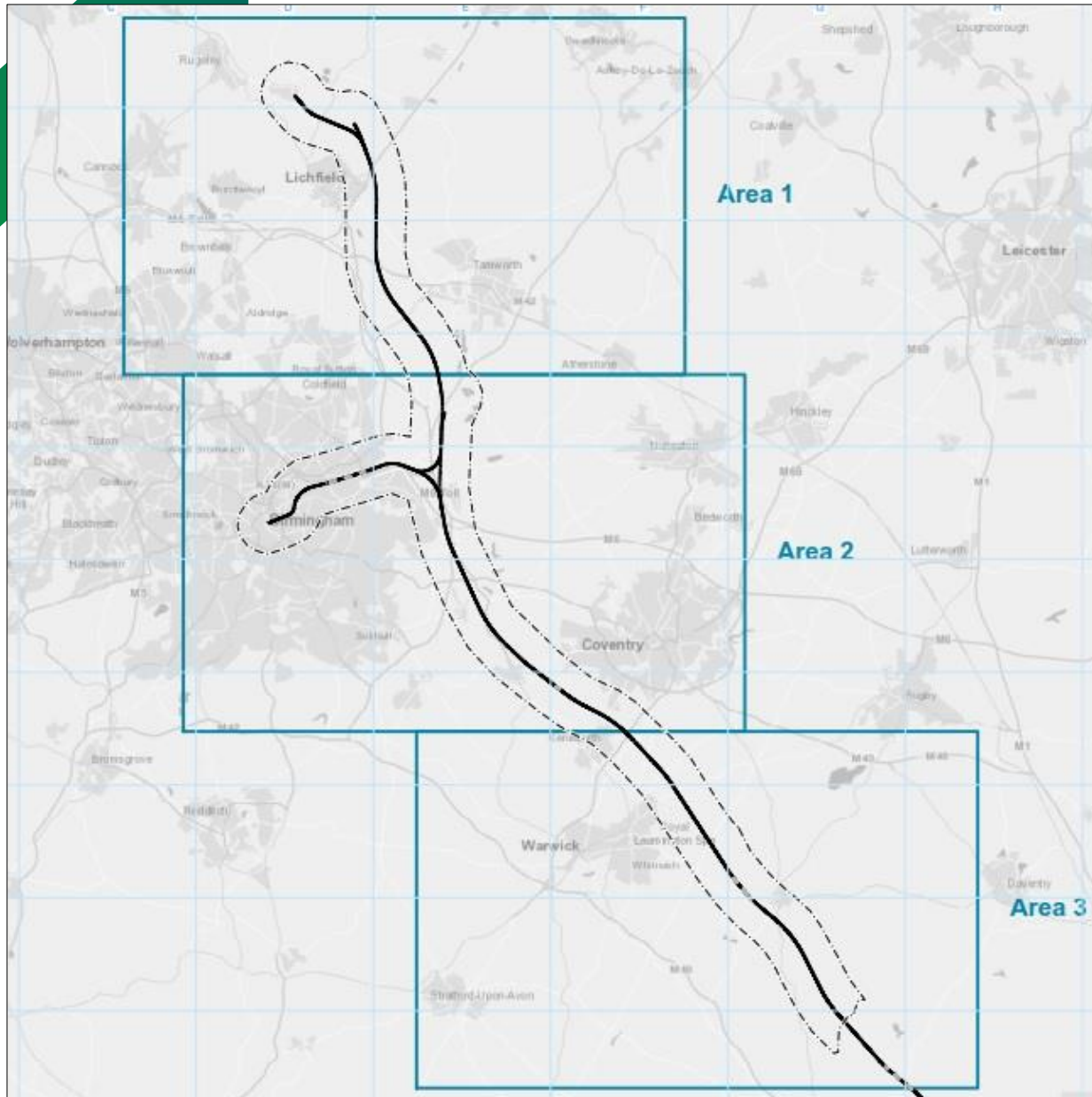
Geophysical
Survey Review
&
LiDAR Survey
Review

Landscape
Studies

Historic
Building Appraisals

RESEARCH & DESIGN

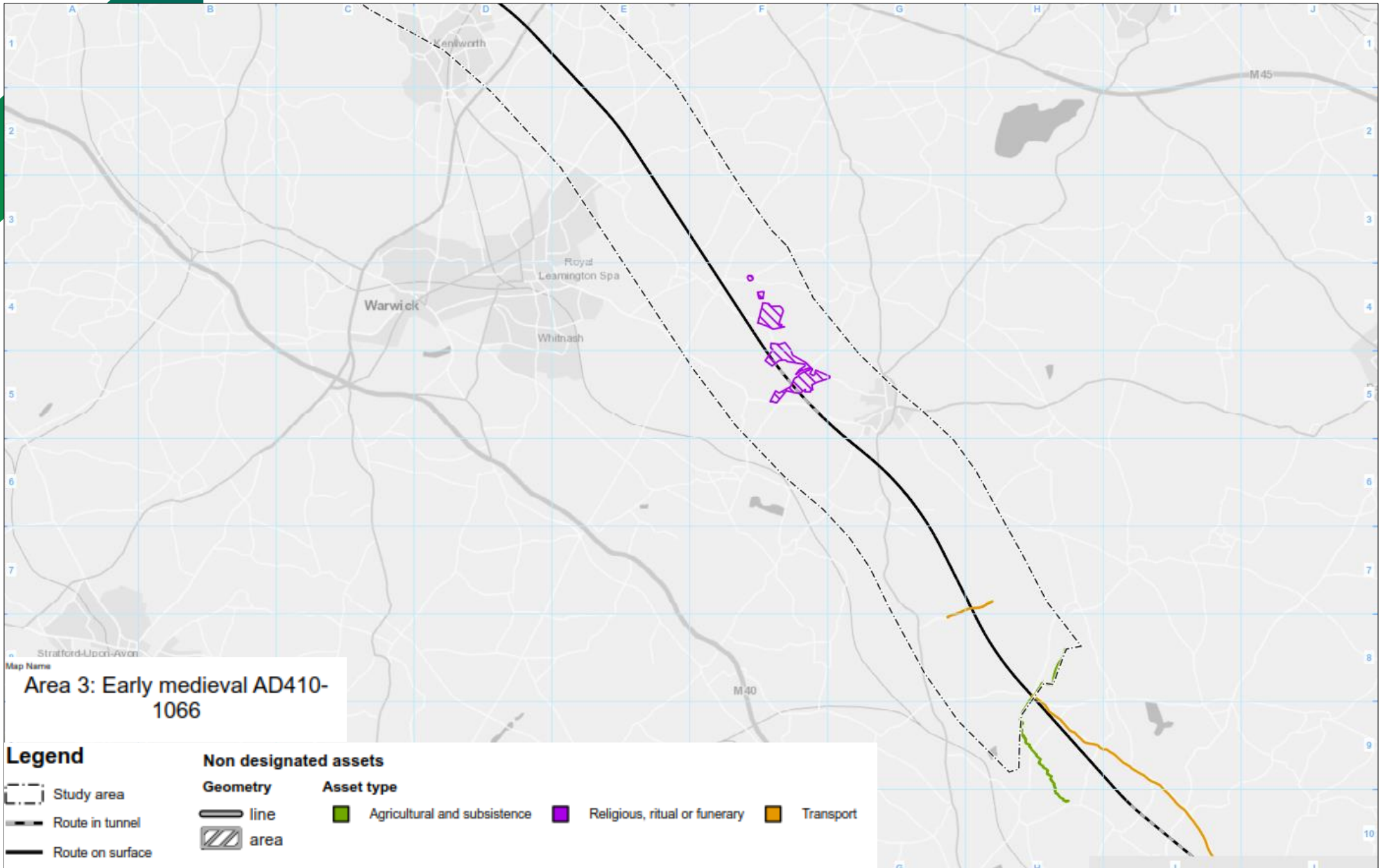
HERITAGE ASSET DENSITY MAPPING



- ❖ Produced by MOLA, with expertise in the production of numerous similar county-wide assessments
- ❖ HER assets assigned a chronological period
- ❖ Also assigned a type (e.g. domestic, industrial, transport, defence, etc.)
- ❖ Provides an overview of activity by period
- ❖ Patterns of human activity may be identified when overlain with other GIS data (e.g. geology, topography, hydrology mapping)

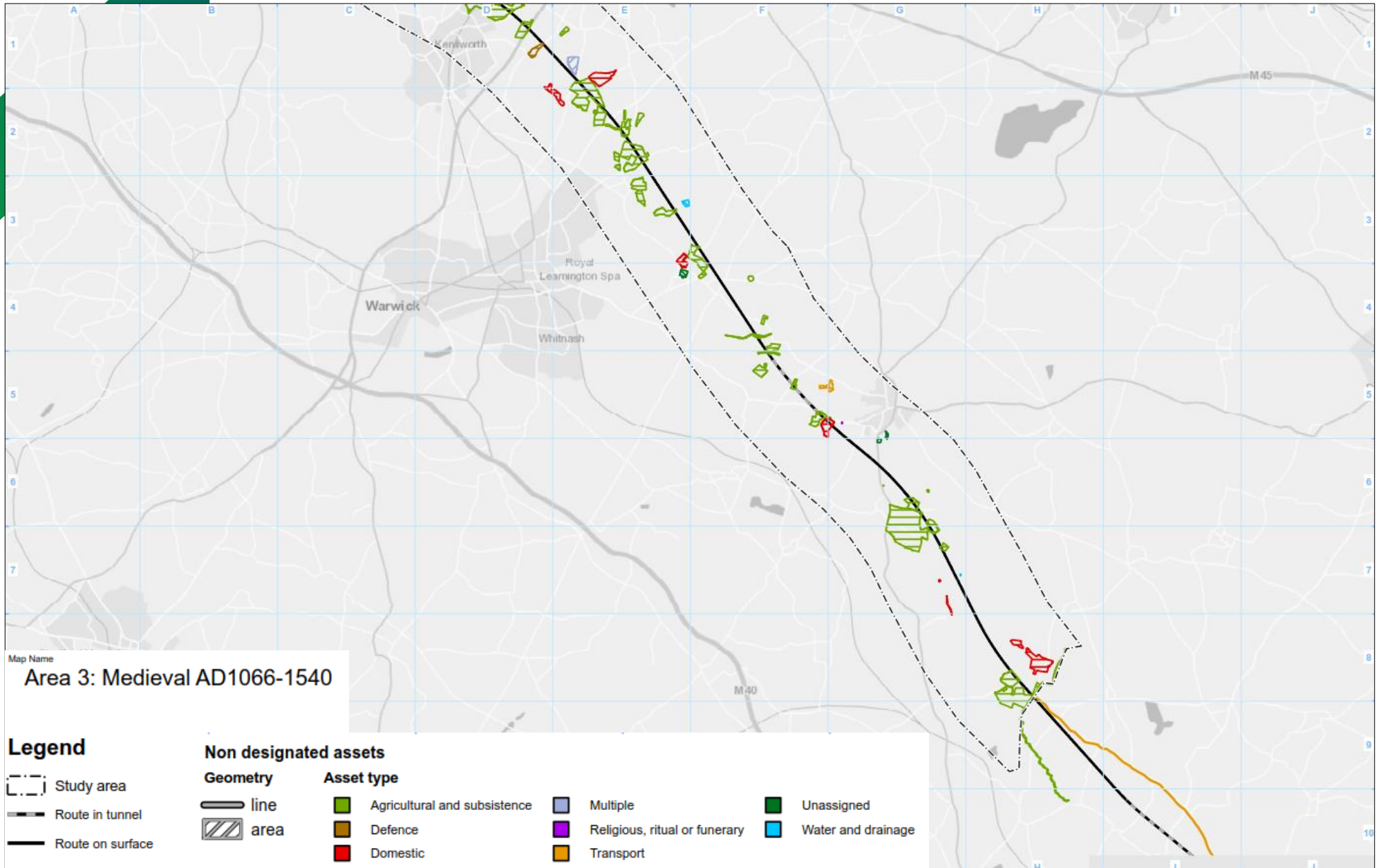
RESEARCH & DESIGN

HERITAGE ASSET DENSITY MAPPING



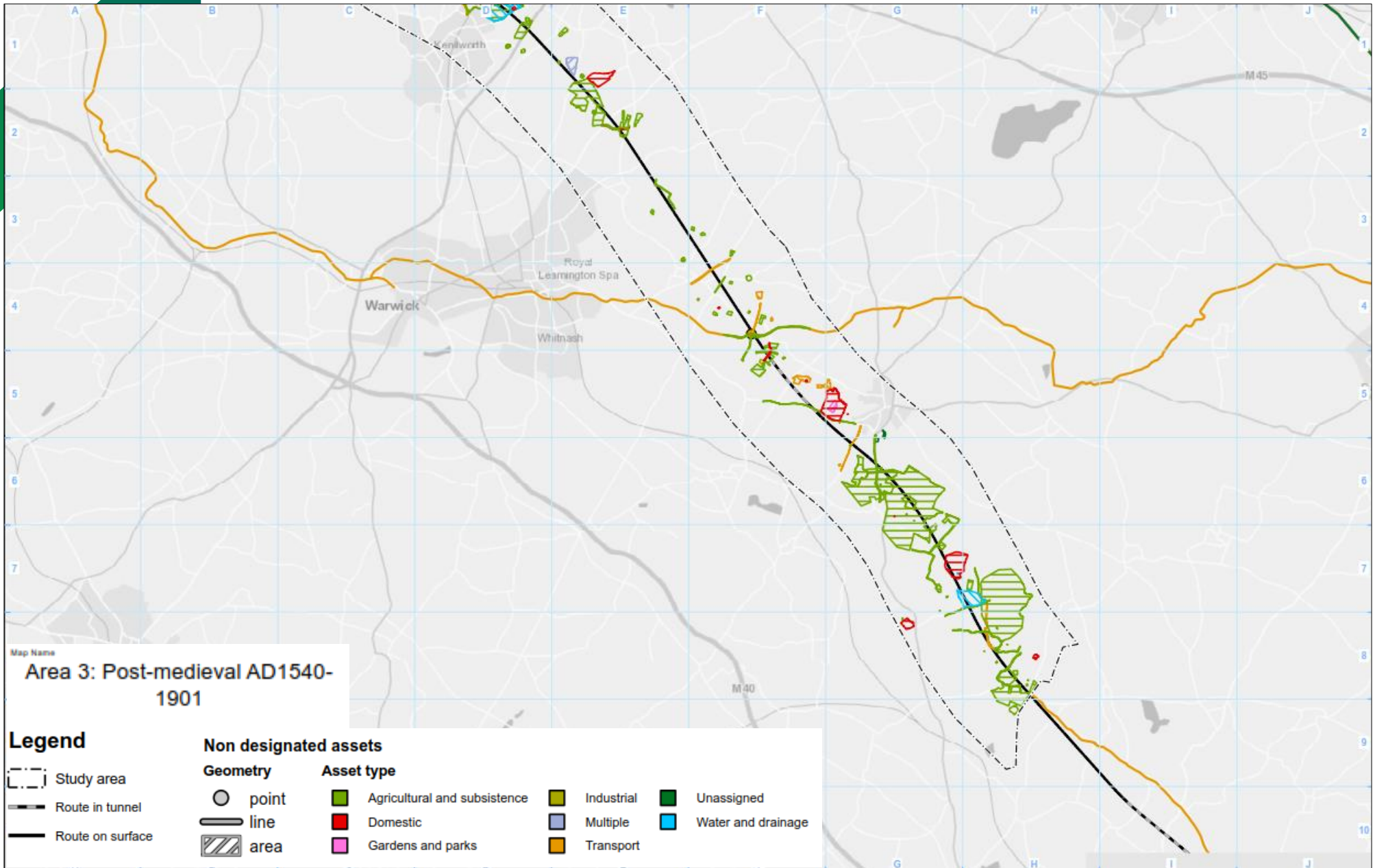
RESEARCH & DESIGN

HERITAGE ASSET DENSITY MAPPING



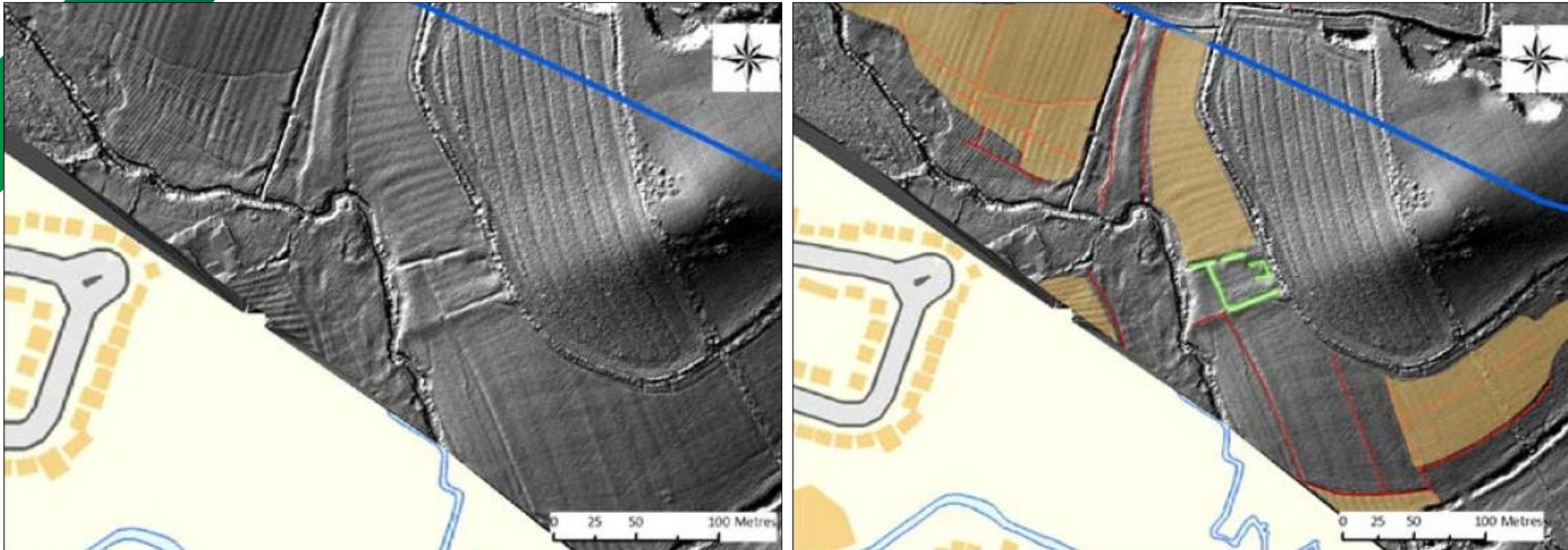
RESEARCH & DESIGN

HERITAGE ASSET DENSITY MAPPING



RESEARCH & DESIGN

LIDAR SURVEY REVIEW

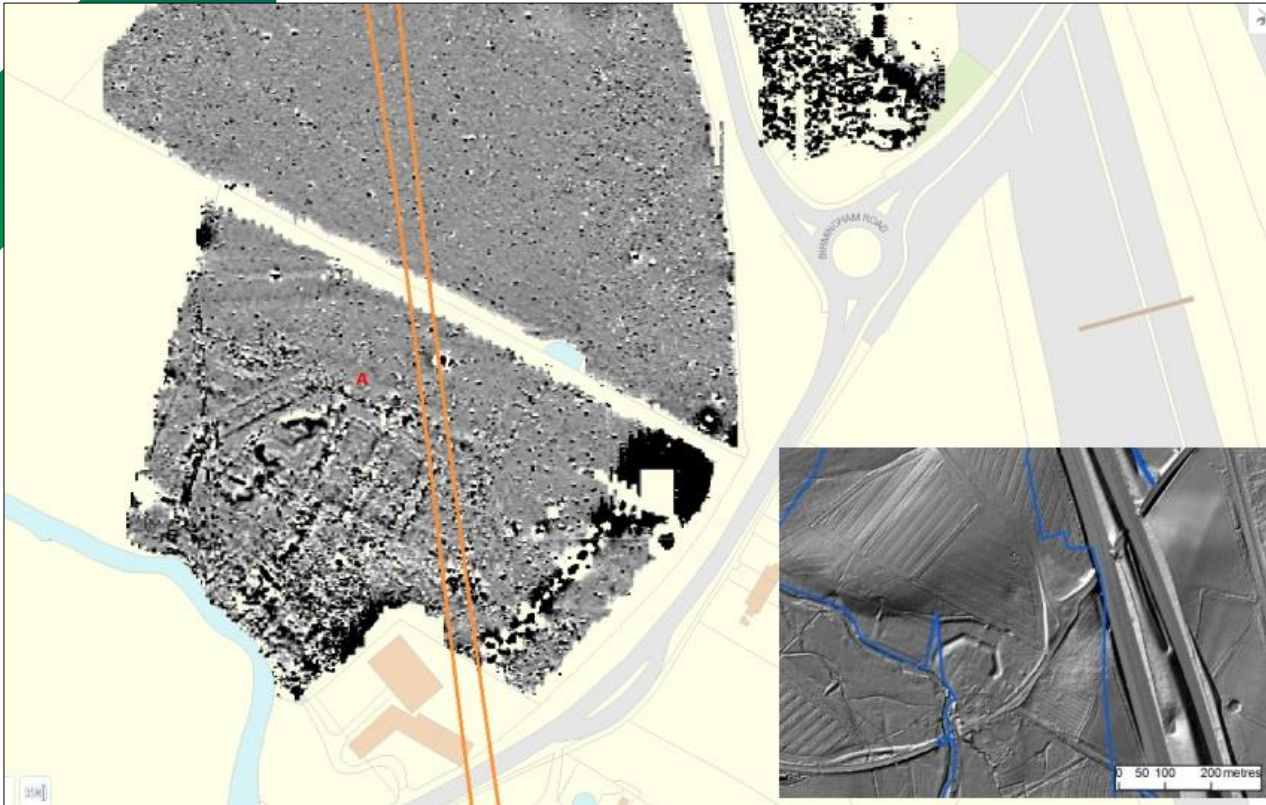


SE of Millburn Grange: Possible moated site (green) and surrounding ridge and furrow (orange), and former field boundaries (red) ¹

- ❖ Advice provided by leading expert to assess previous surveys and determine if additional processing offers a significantly greater understanding of the historic environment

RESEARCH & DESIGN

GEOPHYSICAL SURVEY REVIEW



Advice provided by leading expert assessing sites against criteria to determine;

- ❖ whether geophysical survey is informative and required, and if so;
- ❖ the most appropriate methodology, and;
- ❖ any caveats to the chosen methodology

Moated site [A], moat visible as earthwork. Anomalies corresponding with earthwork and possible internal features described in DBA / LiDAR results (insert).

Incomplete dataset in the report, full dataset shown on GIS viewer.

Detectable limits of the moated site appear to have been defined—it is suggested that the River Cole to the south may form part of the moat. Further survey to the south is precluded by surface obstructions (buildings).

No clear archaeological responses identified in surveys immediately to the north (CN021 and CN022). No definitive archaeological responses appear to extend westwards out of the survey area, but some faint trends may correspond to LiDAR features, so survey in the field to the west would be based on any further assessment of the significance of the LiDAR results.

RESEARCH & DESIGN

GEOPHYSICAL SURVEY REVIEW

Anglo-Saxon	Closely spaced magnetometry for areas of burning etc. and pits.
Medieval / DMVs / SMVs:	Where earthworks are extant geophysical techniques are not always best suited – requires careful evaluation of what is expected from technique.
R + F – extant:	Magnetometry (aligned along furrows if possible) can identify earlier features below.
R + F – no earthworks:	Magnetometry – mapping and defining extent.
Post medieval – modern:	Magnetometry in the first instance unless conditions are unsuitable. Targeted Resistivity survey or GPR survey for appropriate features.
Buried building remains (any date):	Resistivity, GPR.
Extant buildings:	GPR to investigate suspected voids, cellars, crypts etc.
Park and formal gardens:	Can be difficult depending on the nature of the surviving features; GPR, resistivity should be considered.
Ancient Woodlands.	Difficult for most geophysical techniques.
Geology (alluvium)	Alluvium greater than 2m in depth may require use of Caesium Vapour Magnetometers.
Geology (clay soils)	Generally not suitable for GPR.

Advice provided by leading expert assessing sites against criteria to determine;

- ❖ whether geophysical survey is informative and required, and if so;
- ❖ the most appropriate methodology, and;
- ❖ any caveats to the chosen methodology

RESEARCH & DESIGN

NON-INTRUSIVE WORKS: LANDSCAPE FOCUSSED STRATEGY

Heritage Asset
Density Mapping

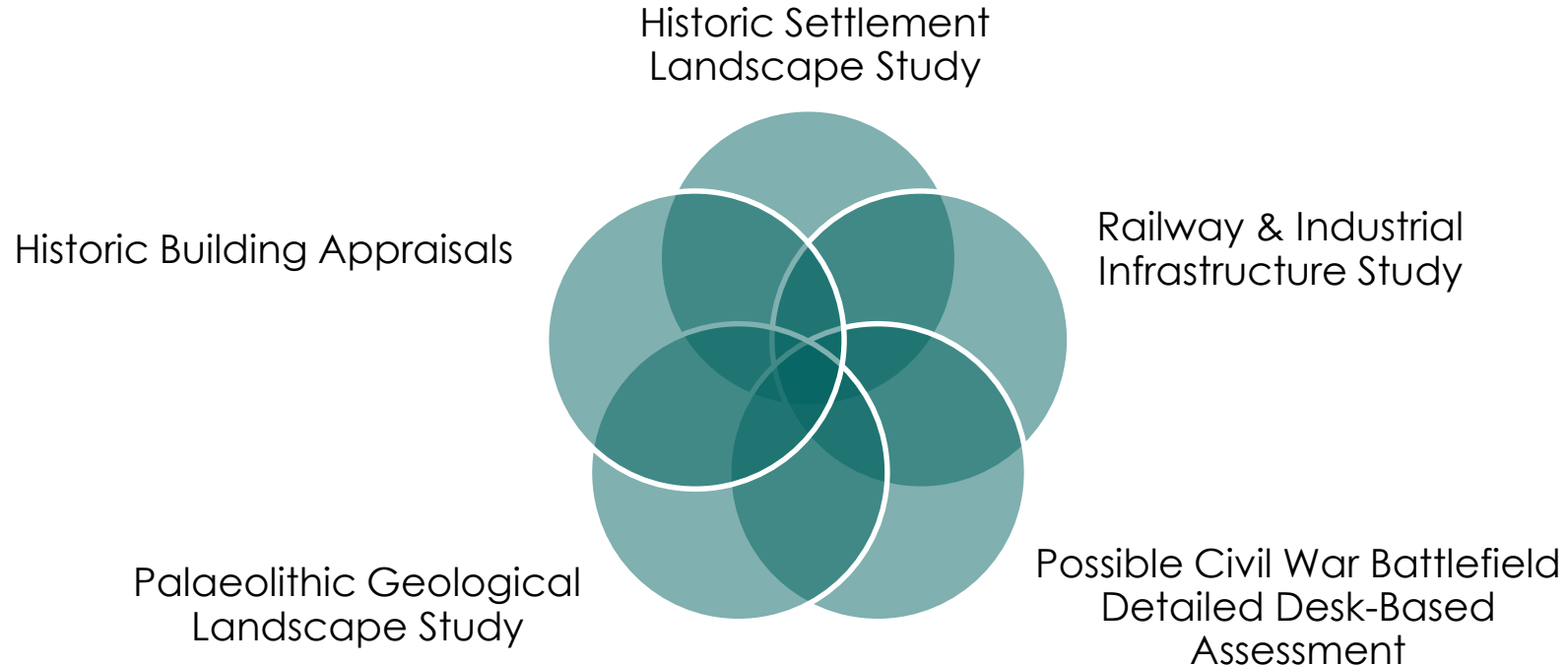
Geophysical
Survey Review
&
LiDAR Survey
Review

Landscape
Studies

Historic
Building Appraisals

RESEARCH & DESIGN

NON-INTRUSIVE WORKS: LANDSCAPE FOCUSSED STRATEGY



RESEARCH & DESIGN

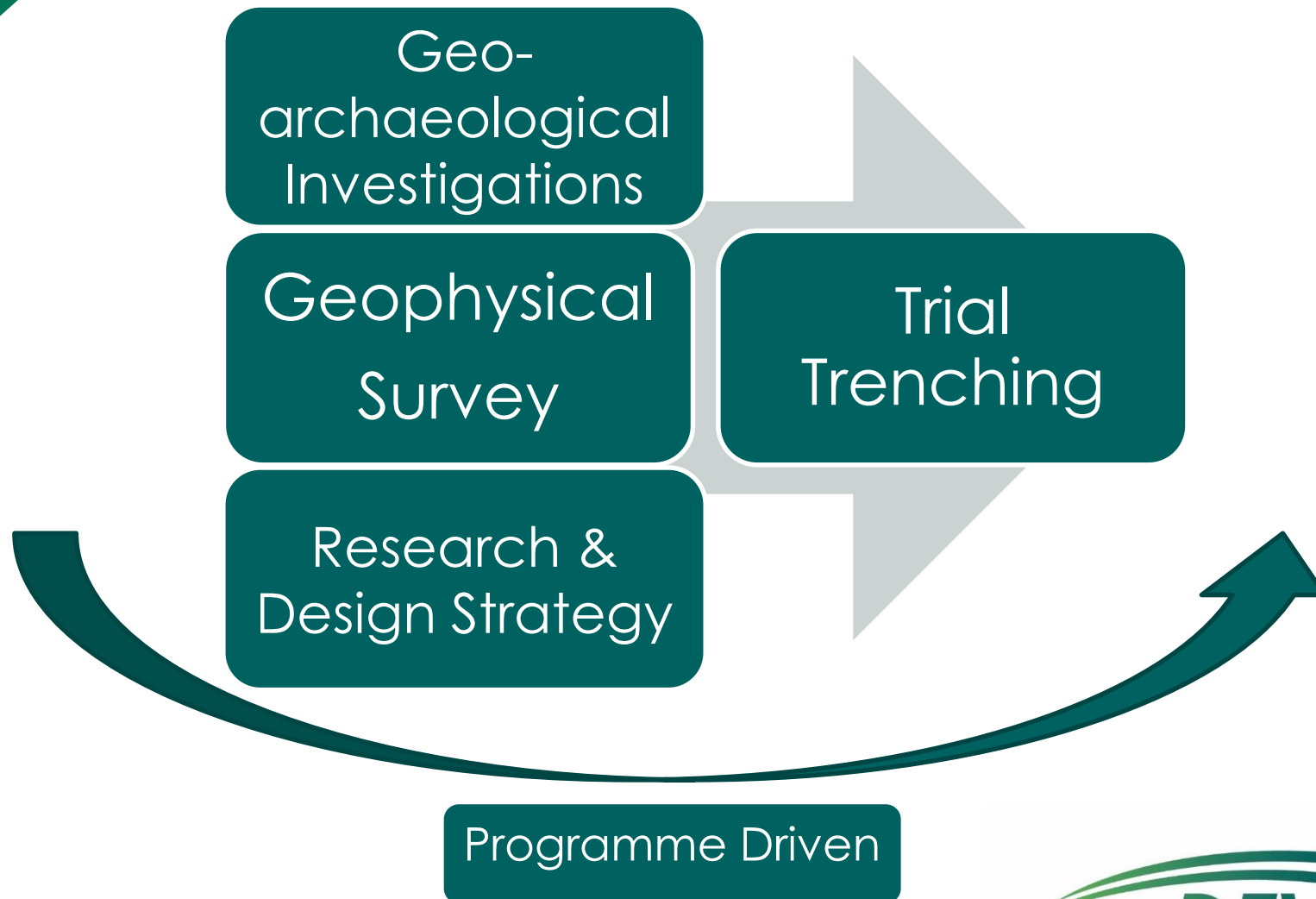
HISTORIC BUILDING APPRAISALS

Asset Type	Works Required
Listed buildings	<p><u>Works within Act Powers (Schedule 18 – Table 1 & 2):</u></p> <ul style="list-style-type: none">Site WalkoversHistoric Building RecordingsSetting StudiesMethod StatementsStatements of SignificanceSalvage Schedules (in the case of demolitions) <p><u>Other Potential Works (Works outside Act powers):</u></p> <ul style="list-style-type: none">Listed Buildings ConsentOther works as required, from above list
Non-designated buildings	<p>A range of activities, including;</p> <ul style="list-style-type: none">Site WalkoversHistoric Building RecordingsSetting StudiesSalvage Schedules (in the case of demolitions) <p>Further information on works is dependent on the Schedule of Built Heritage Assets</p>

- ❖ Area North contains 4 listed buildings in Schedule 18, Table 1, and 17 in Table 2
- ❖ Schedule 18 contains provision for the disapplication and modification of controls relating to listed buildings
- ❖ Disapplication of requirement for listed building consent applies to:
 - Works to demolish, alter or extend listed buildings in Table 1;
 - Works to maintain or restore the character of the listed buildings in Table 2

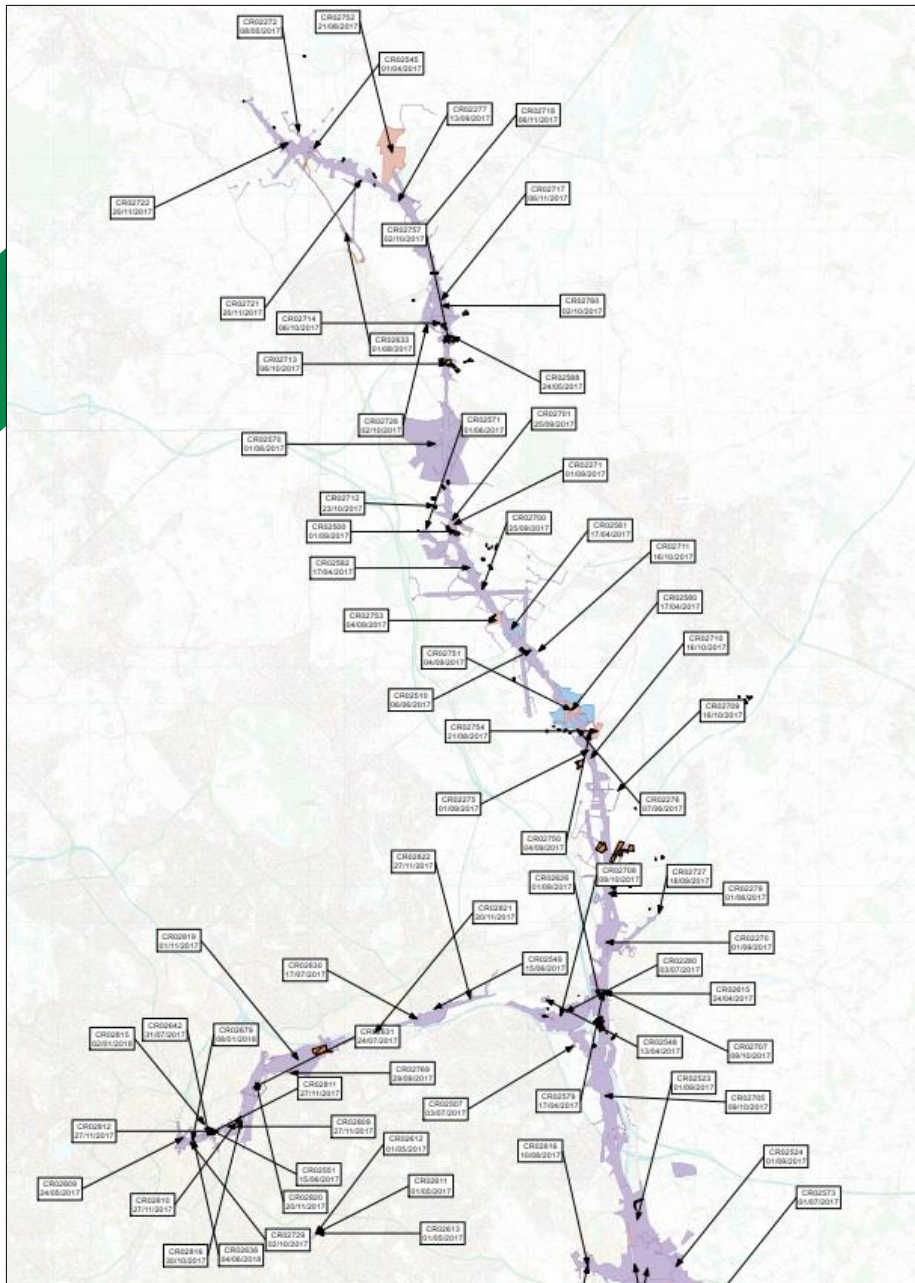
Design and management of historic building appraisals is being provided by leading expert

INTRUSIVE INVESTIGATIONS

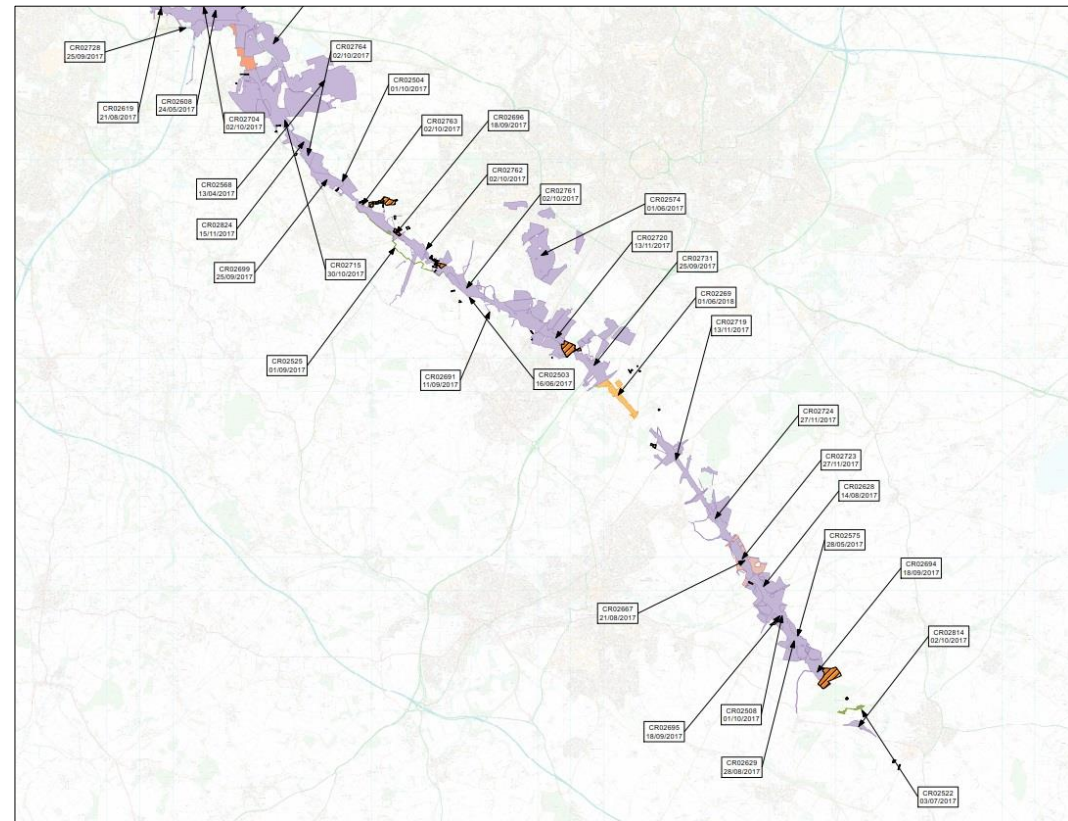


SCHEMATIC PROGRAMME

SCHEDULE 2 ACCESS



Northern section



Southern section

Legend



KEY LOCATIONS

ARCHAEOLOGY & BUILT HERITAGE

ARCHAEOLOGY

OVERVIEW

- ❖ Assessment of the EIA identified 131 assets of 'High Value', ranging from the prehistoric to post-medieval periods
- ❖ The above identified assets were also categorised by the impact of the works:
 - High adverse effect – 18
 - Moderate adverse effect – 13
 - Minimal/No adverse effect - 100
- ❖ Key sites of interest identified by the EIA are characterised by, amongst others:
 - Ancient woodlands and/or river deposits
 - Medieval moats and manorial sites
 - Post-medieval agricultural/industrial listed buildings
 - Post-medieval burial ground

There is a potential lack of representation for prehistoric and Roman assets, possibly due to a lack of research or investigation in the region, or as a result of bias towards the historic period

- ❖ This provides a basis for performing further land analysis, including heritage asset density mapping and landscape studies

ARCHAEOLOGY

PARK STREET BURIAL GROUND



1751 Jeffrey's Engraved Map



1889 Ordnance Survey map



1927 Ordnance Survey map

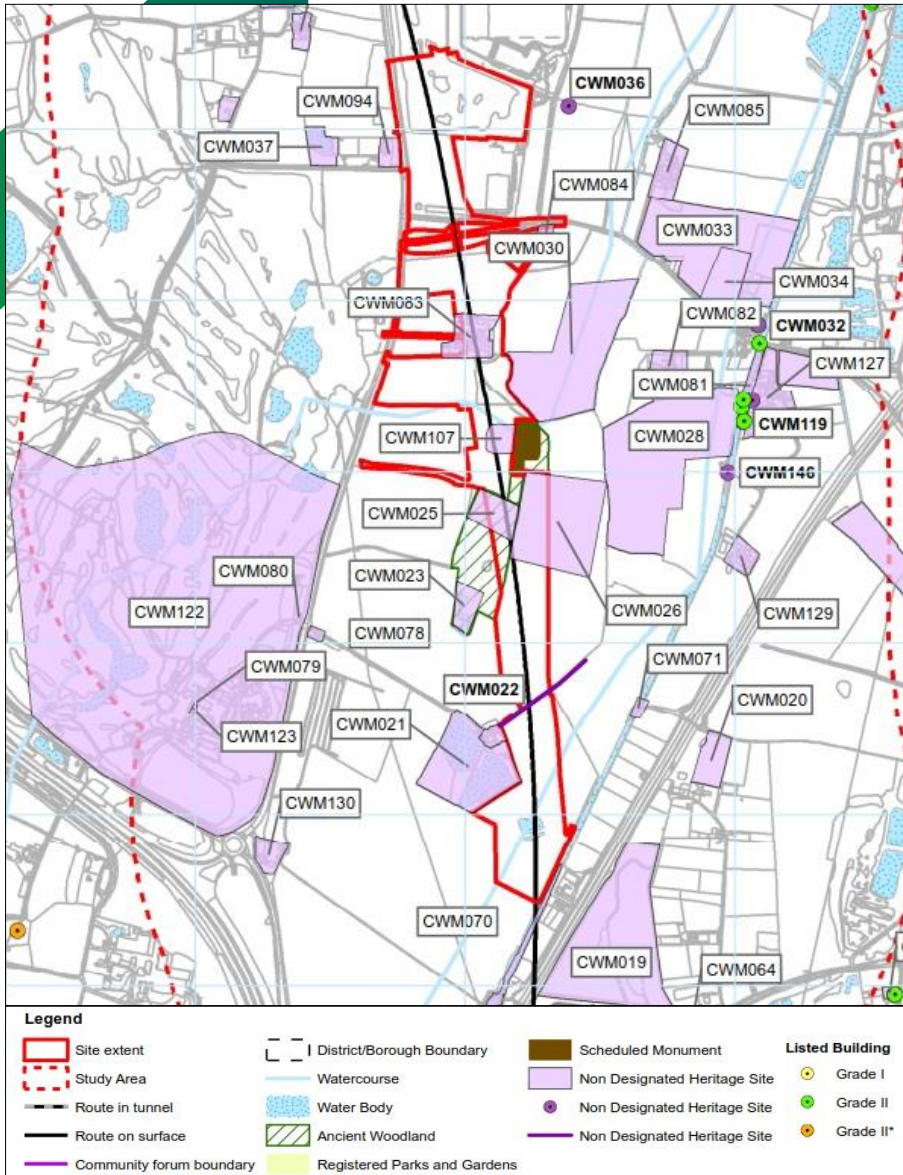


Park Street Trial Trenching Plan

- ❖ St. Martin in the Bullring overflow burial ground
- ❖ In use from 1810 to 1873, with the last recorded burial in 1893
- ❖ Pre-evaluation estimation of approximately 7,000-15,000 burials

ARCHAEOLOGY

NORTH WOOD



- ❖ Ancient woodland to be partially removed during works
- ❖ This asset contains a Scheduled Monument medieval double moated site, within 2m of Proposed Scheme extent
- ❖ This asset is also within a wider medieval landscape including a manorial complex, ridge and furrow earthworks, fishponds, and a mill
- ❖ Works will separate these assets from the wider historic landscape

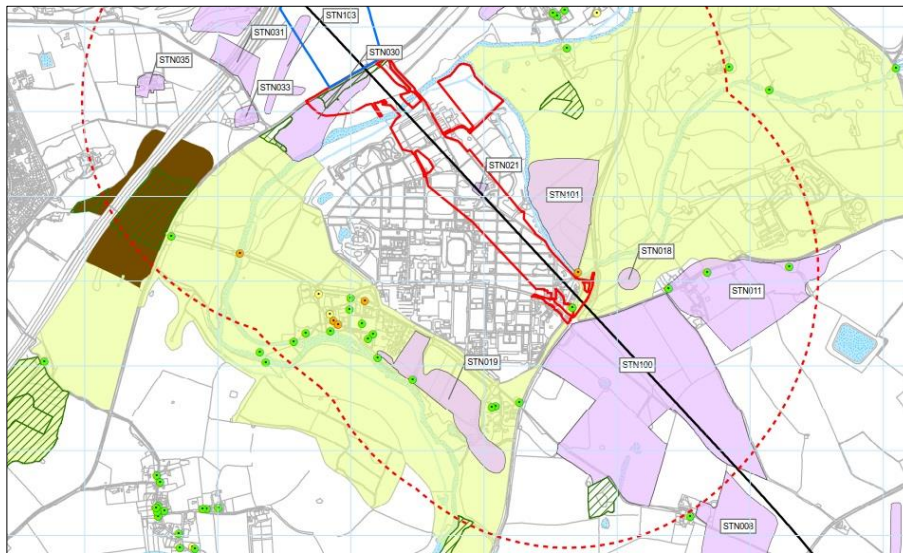
North Wood and surrounding heritage assets

ARCHAEOLOGY

STONELEIGH ABBEY



1886 Ordnance Survey map



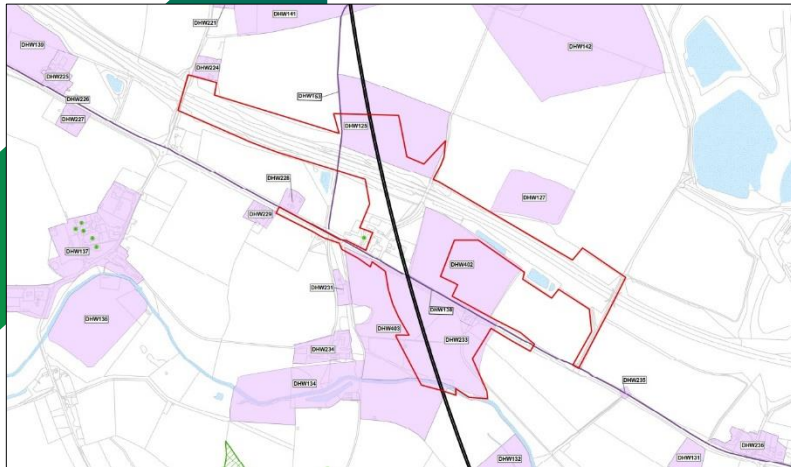
Legend	
Site Extent	Scheduled Monument
Study Area	Non Designated Heritage Site
Route in tunnel	Extents required for survey
Route on surface	Areas planned for surveys
Community forum boundary	Areas surveys completed
District/Borough Boundary	Ancient Woodland
Watercourse	Registered Parks and Gardens
Water Body	

Stoneleigh Park and surrounding heritage assets

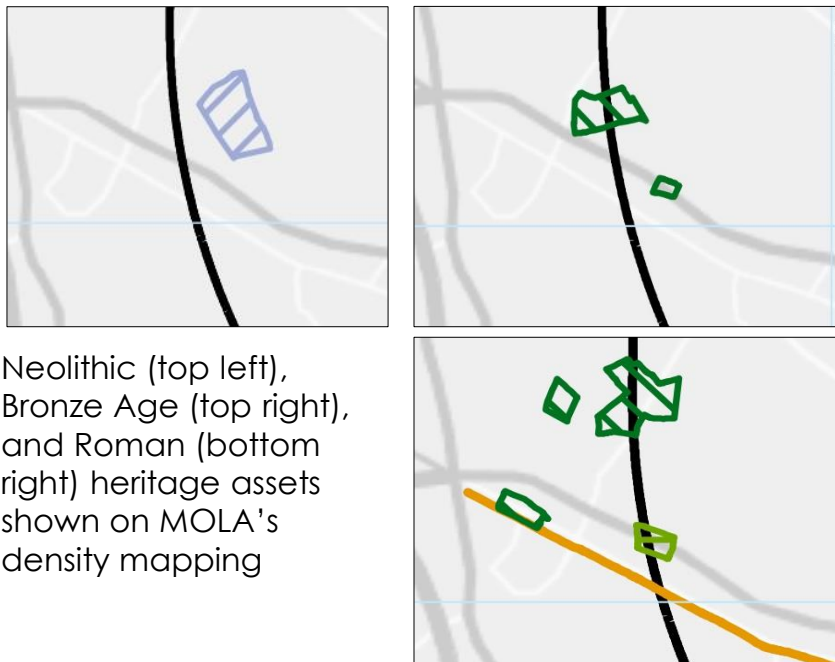
- ❖ Grade I mansion incorporating remains of a Cistercian abbey founded in 1154
- ❖ Stoneleigh Abbey comprises c 365ha, including a Grade II* registered park and garden, a deer park, and plantations
- ❖ Contains several groups of Grade I, II* and II listed buildings
- ❖ Closely associated with listed buildings and Scheduled Monuments of Stare Bridge (Grade I) and Stoneleigh Bridge (Grade II)
- ❖ The works will affect the relationship between the assets and wider estate, although recent developments in the area negate the impact somewhat

ARCHAEOLOGY

WATLING STREET



Watling Street and surrounding heritage assets



Neolithic (top left),
Bronze Age (top right),
and Roman (bottom
right) heritage assets
shown on MOLA's
density mapping

Asset type	
	Agricultural and subsistence
	Transport
	Unassigned
	Multiple

- ❖ Known Bronze Age activity in the immediate vicinity through the discovery of pit alignments, and a probable burnt mound
- ❖ A probable Iron Age settlement site also present in the area
- ❖ Closely associated and aligned with the Roman Watling Street, with significant potential for roadside settlement activity
- ❖ Archaeological investigations in the area have revealed pits, postholes and ditches dating from the Bronze Age to medieval period

ARCHAEOLOGY

HINTS CUTTING/ATTLEBORO FARM



1899 Ordnance Survey map



1951 Ordnance Survey map

- ❖ This site covers an approximate area of 30ha, immediately adjacent to the HS2 railway corridor
- ❖ A DDBA identified potential for remains dating from the Palaeolithic to post-medieval periods:

including:

- ❖ Lower and Middle Palaeolithic remains in alluvial deposits associated with Black-Bourne Brook
- ❖ Bronze Age and Iron Age settlement remains
- ❖ Romano-British remains, with the site in close proximity to Watling Street
- ❖ Medieval remains, including a deer park and possible mills

ARCHAEOLOGY

LAVENDER HALL



1899 Ordnance Survey map



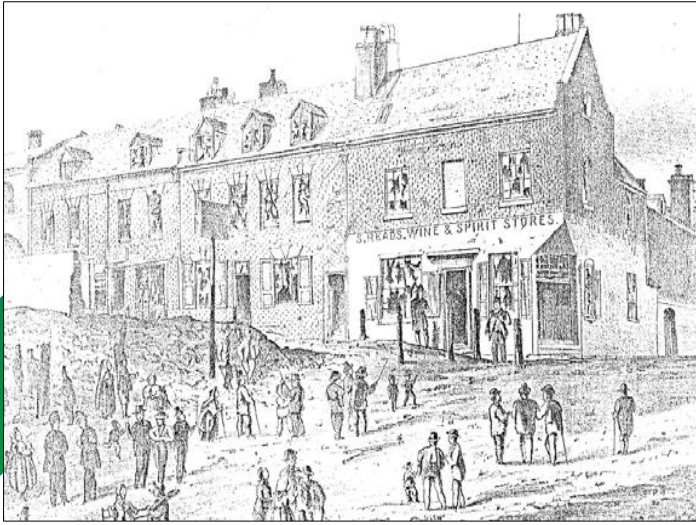
1951 Ordnance Survey map



Grade II listed 17th century barn

- ❖ Area used for agricultural practices (ridge and furrow) from 1150 onwards
- ❖ In the post-medieval period several farmsteads developed, and were later modified, around Lavender Hall and Ram Hall
- ❖ The 16th century Lavender Hall (Grade II*) and an associated 17th century barn (Grade II) are still standing
- ❖ An example of an early surviving manor house, with multi-period landscape use

BUILT HERITAGE



1867 illustration of Grade II Fox and Grapes Public House, Park Street



1838 section of Grade II railway bridge over Digbeth Branch Canal, into Curzon Street Station

- ❖ 90 Listed Buildings in Area North
- ❖ Approximately 100 non-designated historic buildings
- ❖ Dating from medieval to modern periods
- ❖ Examples represent residential and agricultural buildings in Warwickshire and Staffordshire, and provide evidence of pre- and post- industrial Birmingham, amongst many others



Grade II Dalehouse Farmhouse, Warwickshire

COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT

Engagement of Local Interest Groups

- Contribution to encompassing landscape studies

Creation of Community Research Hubs

- Desk/web-based research (e.g. Galaxy Zoo)
- Data collection and processing (e.g. geophysics, fieldwalking, finds cataloguing)
- Specific 'interest group focussed' research sessions

Community Progress Updates

- Hosting meetings, seminars and drop-in events
- Producing and disseminating information through newsletters and postal leaflets
- Regular communications with Local Authorities

Open Days and Temporary Exhibitions

- Presenting archaeological material and research directly to the community
- Mobile stands (e.g. buses/street stands across Birmingham)

Stakeholder Engagement

- Working alongside Birmingham City Council regarding the creation of a 'Heritage Legacy' for Park Street Burial Ground
- A planned blessing service to be undertaken by St. Martin's in the Bullring prior to any intrusive works at Park Street Burial Ground