

WP 029(B) Historic Environment Works – River Leam to Stoneleigh Park – Enabling Works North Contract

Location Specific Written Scheme of Investigation for Trial Trenching

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1 Executive Summary

- 1.1.1 This Location Specific Written Scheme of Investigation (LSWSI) sets out the methodology, deliverables, programme, health, safety and environmental requirements, resources and interfaces necessary to deliver an archaeological evaluation as defined in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ -EV-PLN-NS01_NL03-029003-C02). The project plan established the scope, aims, objectives, techniques, deliverable contribution to the Generic Written Scheme of Investigation Historic Environment Research and Delivery strategy (GWSI:HERDS) and reporting mechanism for trial trenching investigation.
- 1.1.2 Production of this LS-WSI follows the Guidance as outlined in Technical Standard – Specification for Historic Environment Project Plans and Location Specific Written Schemes of Investigation (Doc No: HS2-HS2-EV-STD-000-000036) and Technical Standard – Specification for Historic Environment Investigations (Doc No: HS2-HS2-EV-STD-000-000035). Reference is also made to other guidance as specified in the GWSI HERDS (Doc No: HS2-HS2-EV-STR-000-000015-P04). The structure of this LS-WSI follows the Technical Standard – Specification for Historic Environment Project Plans and Location Specific Written Schemes of Investigation (Doc No: HS2-HS2-EV-STD-000-000036; section 3). Other relevant guidance is noted throughout the remainder of this document.
- 1.1.3 The trial trench investigation site ('the Site') lies between the River Leam and Stoneleigh Park section of the wider HS2 Scheme which includes the following Design Element Statement (DES) areas required for the proposed;
- (139 – L2) - River Avon Viaduct;
 - (139 – S2) - Stoneleigh Park North Accommodation Overbridge;
 - (137 – L1) - Stoneleigh Park Retaining Wall;
 - (138 – S1) - B4113 Stoneleigh Road Green Overbridge;
 - (137 – L3) - Stonehouse Cutting;
 - (137 – L2) - Cubbington Embankment;
 - (137 – S1) - A445 Leicester Lane Overbridge;
 - (137 – S2) - Furzen Hill ATS;

- (136 – L1) - Cubbington Cutting;
- (136 – S2) - Coventry Road Overbridge;
- (135 – S2) - B4453 Rugby Road Overbridge;
- (134 – L2) - Cubbington Cutting;
- (134 – S1) - Mill Lane (Footpath W129d) Accommodation Green Overbridge;
- (135 – S1) - Footpath W130 Overbridge;
- (134 – L1) - Lower Grange Cutting;
- (133 – L2) - Lower Grange Embankment.

1.1.4 The Site covers approximately 4.7km between the River Leam (HS2 Chainage 133800) and Stoneleigh Park (HS2 Chainage 138600) and covers approximately 127ha of land crossing Construction Land Requirement (CLR) parcels; CR02137, CR02202, CR02203, CR02204, CR02206, CR02252, CR02544, CR02628, CR02719, CR02724, CR02736, CR02737, CR02741, CR02742, CR02828, CR02878, CR02904 and CR02919.

1.1.5 The survey is required to help identify the location, extent, survival and significance of known and potential heritage assets related to two areas of potential Late Iron Age and/or Romano-British settlement, the periphery of Stareton deserted medieval village (DMV), a possible medieval water mill as well as to examine the character of the wider medieval landscape. The objective of the investigations are to gain information about the archaeological potential of the site and to contribute to Specific Objectives set out in the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015-P04; see below). The outcome of the investigations will be used to inform future decision-making on the requirement for further archaeological investigation at the Site, or where appropriate, inform the development of mitigation by design.

1.1.6 Specifically, and as outlined in the Project Plan for Trial Trenching between the River Leam to Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02), the trial trenching programme aims to identify the location, extent, survival and significance of known and potential heritage assets within the Site boundaries. The trial trenching programme aims to contribute to the following specific HERDS Knowledge Creation objectives, as outlined in Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015-P04; section 6.6):

- KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area distinctiveness, or is this due to variation in geology or investigative techniques?
- KC14: Identify sequences of environmental change for the Late Upper Palaeolithic – Early Mesolithic transition through investigation of sites in the Colne Valley and other locations along the route.
- KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in landscape organisation and enclosure?
- KC16: Investigate the degree of continuity that existed between Late Bronze Age and Iron Age communities in term of population, mobility and subsistence strategies.
- KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route.
- KC23: Identify evidence for late Roman occupation and attempt to identify any continuity in settlement patterns between the end of the Romano-British period and the Early Medieval period.
- KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes.
- KC33: Investigate the development of water mills from the Anglo-Saxon period through to the modern period. How did the technology of milling change, and what are the implications for farming practice?
- KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter and their contribution to settlement desertion.
- KC36: How were Medieval and later woodlands managed and exploited and what evidence do they preserve for earlier land use?
- KC40: Identify patterns of change within medieval rural settlement from the 11th to mid-14th century.

1.1.7 The way in which the trial trenching aims to contribute to aforementioned KC's is outlined in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington

Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-Co2; Section 3.1, Table 2).

2 Site Location, extent and condition

- 2.1.1 The Site covers seven Archaeological Character Sub-Zones (ASZ's) located over approximately 127ha of land along a route 4.7km in length. The landscape at the River Leam at the southern end of the section is relatively flat at c.50.0m AOD (Above Ordnance Datum) from where it rises quickly to the south of Cubbington to a height of c.95.00m AOD before plateauing until North Cubbington Wood, after which the ground gradually descends back to a height of c.60.00m and remains relatively flat from the A445 Leicester Lane north. The area of investigation broadly comprises arable fields subdivided by hedgerows, rural buildings, farmsteads and a combination of small copses and larger woodland within the county of Warwickshire (Figures 1 & 2).
- 2.1.2 The area of investigation is situated within Dunsmore Archaeological Character Area (ACA 3) and Dunsmore Archaeological Character Area (ACA 1) within Community Forum Area 17: Offchurch to Cubbington (CFA 17), and the Avon Valley Archaeological Character Area (ACA 2) of Community Forum Area 18: Stoneleigh to Burton Green (CFA 18). These Archaeological Characterisation Areas have been further subdivided into the seven ASZ's which are:

2.2 Leam Floodplain (CFA17-06)

- 2.2.1 Situated along the northern bank of the River Leam, this area comprises two pastoral fields and includes parts of CLR parcels CR02724 and CR02202 (site centred 435810 267525) rising from a height of c.50m AOD (above ordnance datum) to c.55m AOD to the north and northwest. Ridge and furrow of probable medieval origin (OFC036) has been mapped running into this area from the northwest and points towards an ongoing agricultural landscape usage. To the east of the centreline (c.300m), partly within a wooded copse (CR02202), is the proposed site of the demolished Weston Mill and Bridge (OFC038) which may have existed as early as AD1316. A wooden bridge of later post-medieval date is still present and is thought to respect the original placement.

2.3 Leam NW (CFA17-07)

- 2.3.1 Situated to the immediate northwest of CFA17-06, the Leam NW characterization zone is orientated roughly southwest to northeast and centred at NGR 435750 267680. The area comprises two arable fields associated with parts of CLR parcels CR02724 and CR02202 with the land rising gradually to the northwest from a height of c.55m AOD up to a height of c.60m AOD. The area is

mapped as being wholly underlain by river gravel deposits and as having been used for agriculture from at least the early post-medieval period. Ridge and furrow earthworks (OFC036) are known running through the southwest part of the investigation area. The two arable fields are separated by a northwest to southeast aligned historic hedge line (OFC037) that demarcates the Cubbington/Weston-under-Watherley parish boundary which is considered to be of considerable age. The current hedge construction is thought to be a later post-medieval reworking.

2.4 Upper Leam NW (CFA17-08)

- 2.4.1 The area of trial trenching addresses two large arable fields to the northwest of CFA17-07 and includes parts of CLR parcels CR02203, CR02204, CR02724 and CR02736. Site centred NGR 435545 267935. The area of interest is defined by a long rising slope to the northwest away from the River Leam rising from around 60m AOD (above ordnance datum) to c.75m AOD. The current landscape is defined by large fields which display evidence of having been expanded by a number of earlier piecemeal enclosures and small rectilinear arable fields. The area is believed to have been in continual agricultural usage for several centuries with ridge and furrow being present thought to be of medieval origin (OFC036). To the west of the archaeological trial trenching a mid-19th century L-shaped building range set within a post-enclosure farmland known as Lower Grange is noted (OFC035). As above, the east limit of the investigations lies along the Cubbington/Weston-under-Watherley parish boundary which may be of considerable age, although the current hedge line is post-medieval in date (OFC037).

2.5 Dunsmore Plateau (CFA17-09)

- 2.5.1 The trial trenching addresses an area of land located to the east of Cubbington. The southern section is separated into two by South Cubbington Wood before crossing Rugby Road (B4453). It then continues north and is limited by Coventry Road with North Cubbington Wood making up the eastern limit of the investigations. The characterisation area crosses parts of 13 separate arable fields separated by a combination of intermittent hedgerows, lanes, drainage gullies and woodland made up of CLR parcels CR02204, CR02206, CR02719, CR02724, CR02736, CR02741, CR02919 and CR02923. The area is centred at NGR 435000 268830 and rises from the south up to a height of c.100m AOD around the southern limit of South Cubbington Wood where it remains roughly level. To the immediate northwest of North Cubbington Wood the ground then descends again towards Coventry Road to a height of c.85m AOD. The area is mapped as a plateau of glacial soils that have been utilised for managing woodland since at least the medieval period.
- 2.5.2 Bytham River (OFC041) and the River Bytham (STN004) prehistoric site was found around South Cubbington Wood which revealed evidence of a Middle Pleistocene river system along with several

hand axes, stone tools and faunal remains associated with the Lower Palaeolithic. To the north of Rugby Road, six fields containing ridge and furrow have been highlighted between Cubbington and North Cubbington Wood (OFCo47/STN098), whilst a seventh field of ridge and furrow placed on a different alignment has been noted to the immediate east of Cubbington Church of England Primary School (OFCo42) with another, eighth patch of ridge and furrow noted to the southeast of Mill Lane (OFCo44).

2.6 Bytham River (CFA17-10)

- 2.6.1 Orientated in a broadly east to west direction to the immediate south of Furzon Hill Farm to the west of Weston Wood and northwest of North Cubbington Wood, bisected by Leicester Lane (A445) with Cubbington Heath Farm being present in its southwest corner (NGR 434000 269635). The characterisation area follows the projected route of the River Bytham with the area being used predominantly for agriculture and includes CLR parcels CR02544, CR02719, CR02741 and CR02848. At the northeast edge of the investigation area medieval and post-medieval field boundaries and route ways have been highlighted, associated with Furzon Hill Farm (STN099).

2.7 Bytham River (CFA18-01)

- 2.7.1 To the immediate northeast of the above, CFA18-01 comprises a wedge-shaped study area which is limited to the east by Weston Wood and to the west by Cotton Mill Spinney. As with the characterization area above, this is bisected by Leicester Lane (A445) and its junction with Coventry Road towards to east. Furzon Hill Farm (STN001), a 19th century farmstead and barn, located in the lee of these two roads. Located over four CLR parcels; CR02544, CR02719, CR02742, CR02904 and centred NGR 434420 270165. The area is segregated into 22 arable fields separated by fragmented hedgerows, copses, a couple of ponds and dispersed farmsteads. In the immediate south and east of Furzon Hill Farm is ridge and furrow (STN002) of probable medieval date. The associated field boundaries are also believed to be of medieval/post-medieval date (STN099). Further historic field boundaries along the parish boundary (STN005/OFCo52) are also noted. To the west of this, parallel to Leicester Lane, is the Leicester Lane cottage (STN006), an extant two-bay cottage now known as Heathfield. In the field to the immediate west and northwest of this cottage lay further medieval/post-medieval ridge and furrow associated with Stonehouse Farm (STN008).

2.8 Upper SE slopes of Avon Valley (CFA18-02)

- 2.8.1 Located in the lee between Leicester Lane (A445) to the south and to the immediate southeast of Stoneleigh Road (B4113) and Stoneleigh Park, CFA18-02 is characterised as grazing land utilised

for agriculture located across CLR parcels CR02137, CR02252, CR02719, CR02742, CR02828, CR02904, and CR02966. The fields are segregated by a combination of mature trees, intermittent hedge lines and a pond to the west, site centred at NGR 433330 270795. The study area is broadly level at c.60m AOD rising imperceptibly to the southeast to a height of c.65m AOD as it approaches Leicester Lane. To the southwest of the area to be evaluated and Grovehurst Park, earthworks of what are believed to be medieval fishponds associated c.800m to the southwest of Stoneleigh Abbey have been noted (STN019). Around the area to the immediate south and southeast of Stareton are earthworks of ridge and furrow and house platforms of what has been interpreted as a possible deserted medieval village (STN011). To the southeast of Stonehouse Farm is a single field of ridge and furrow of medieval or early post-medieval date (STN008) whilst to the north of this within woodland associated with Brick Kiln Spinney and Decoy Wood, historic land boundaries are mapped (STN 100).

- 2.8.2 At the northern end of Grovehurst Park, three 18th century properties are mapped (STN020) centred at NGR 432630 270845. Mary Lodge, situated on the corner between Stoneleigh Road and an unnamed road leading to Grovehurst Park, is designed as a neo-Tudor style property. To the southwest of this Kennels House is a red brick cottage as well as the Kennel Keepers Cottage. In the northeast corner of CFA18-02 a group of 18th and 19th century cottages make up the small village of Stareton (STN010). To the northwest of this LIDAR data highlighted earthworks near the River Avon which have been interpreted at this stage as a post-medieval windmill site (STN018).

2.9 Geology

- 2.9.1 The underlying solid geology is mapped at the south of the route as Mercia Mudstone, formed approximately 201 to 252 million years ago in hot desert conditions during the Triassic Period and is present from the River Leam to roughly where the route crosses Coventry Road. At which point the geology becomes a combination of Siltstones, Mudstones and Sandstone associated with the Tarporley Siltstone formation dating to between roughly 242 to 250 million years ago in the Triassic Period by lacustrine depositing sediments in thinly laminating beds in a landscape dominated by lakes. To the southeast of Leicester Lane this is overlain by a thin band of Mercia Mudstone orientated roughly northeast to southwest and acts to cover the interface between the above and Sandstone of the Helsby Sandstone Formation, deposited between 242 and 247 million years ago in the Triassic Period in a landscape dominated by rivers. This continues north until HS2 chainage c.138000 after which the hard geology changes to the Ashow Formation, a combination of Mudstone and Sandstone laid down in a landscape dominated by rivers roughly 272 to 299 million years ago in the Permian Period.

- 2.9.2 The overlying superficial geology is likewise relatively complex with a relatively geographically thin band of alluvium flanking the River Leam partially overlying sands and gravels of the second terrace gravels of the River Leam deposited up to three million years ago, becoming thinner to the northwest as the ground rises relatively steeply until the Mercia Mudstone is directly exposed. Atop the plateau sand and gravels again overlie the Mercia Mudstone where a relatively geographically thin band of the Baginton Sand and Gravels Formation is present orientated roughly northeast to southwest. This is overlain to the northwest by Ice Age Diamicton associated with the Thrussington Member which is itself partially overlain to the northwest by Clays and Silts of the Boworth Clay Member intermixed with Sands and Gravels of the Wolston Sands and Gravel Member.
- 2.9.3 To the north and northwest this is partly sealed by a Pleistocene Till where it crosses the route of Rugby Road. The above demonstrating the dynamic and complex results of Glacial and Interglacial deposition within the landscape. This continues to the north with the small ridge present running roughly northeast to southwest to the west of Furzon Farm being mapped as an outcrop of Sand and Gravel associated with the Dunsmore Gravel Member within the wider Pleistocene Till which continues north almost to the line of Coventry Road. To the immediate northwest of this is mapped further Sands and Gravels of the Baginton Sands and Gravels Formation which thins onto the Helsby Sandstone Formation to the south of Leicester lane. No further superficial Geology is mapped as being present north of this point within the areas of investigation.
- 2.9.4 The soils mapped as being present across the area of investigation are somewhat less complicated with slowly permeable, seasonally wet slightly acid but base-rich loamy and clayey soils (Landis Ref: SS18) being present from the River Leam to the base of the slope after which the soils are mapped as changing to a slightly acid loam and clay rich soils with impeded drainage (Landis Ref: SS8), reverting back to SS18 once the plateau has been reached to the area around Coventry Road. To the north and northwest of this the soils are mapped as being a free draining slightly acid and loam rich soil (Landis Ref: SS6) which continues to the limit of the current area of investigation.

3 Overview of Project Plan

- 3.1.1 This LS-WSI has been prepared to provide the necessary specification and site specific information to enable the delivery of the archaeological evaluation defined in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (1EW04-LMJ-EV-PLN-NS01_NL03-029003-Co2). As outlined in Section 4 the Project Plan defines

the scope of the trial trenching, outlines the aims of the evaluation and how they will contribute to the specific objectives laid out in the GWSI: HERDS, and describes the proposed deliverables and reporting mechanisms. The Project Plan should be referred to for detailed information on these matters (see Appendix 15.1).

4 Scheme design elements

- 4.1.1 The trial trenching will be undertaken in accordance with specific guidance produced by HS2, namely the Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) and the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS; HS2-HS2-EV-STR-000-000015-P04).
- 4.1.2 The Trench plan layout; and numbering of the trenches has been specified by the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02).
- 4.1.3 It is proposed to excavate 261 no. evaluation trenches across the site, each measuring 50.0m in length by 2.0m in width, and their maximum depth will be no more than 1.20m. The trenches have been positioned to provide a representative sample of the site area whilst, where applicable, targeting possible archaeological anomalies identified in the geophysical survey. The locations of all trenches are provisional and subject to confirmation of the locations of any utilities and services present on the Site.
- 4.1.4 The trenches are listed in the table below. All trenches have been assigned a Unique ID in accordance with the Employer's Asset Information Management System (AIMS), and follow the numbering outlined in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02).

Table 1 Schedule of Trial Trenches

Trench No.	Length	Width	Max. Depth	Objectives / Comments
TR001	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-C02; Para. 4.3.7)
TR002	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-C02; Para. 4.3.7)

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TR003	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR004	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR005	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR006	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR007	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR008	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR009	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR010	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR011	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR012	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR013	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR014	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR015	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR016	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR017	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR018	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)

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TR019	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR020	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR021	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR022	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR023	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR024	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR025	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR026	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR027	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR028	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR029	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR030	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.10)
TR031	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR032	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR033	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR034	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.8)

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TR035	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.9)
TR036	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.10)
TR037	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR038	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR039	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.10)
TR040	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR041	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR042	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR043	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR044	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR045	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.10)
TR046	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR047	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR048	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR049	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR050	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.10)

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TR051	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR052	50m	2.0m	>1.20m	Random trench location
TR053	50m	2.0m	>1.20m	Random trench location
TR054	50m	2.0m	>1.20m	Random trench location
TR055	50m	2.0m	>1.20m	Random trench location
TR056	50m	2.0m	>1.20m	Random trench location
TR057	50m	2.0m	>1.20m	Random trench location
TR058	50m	2.0m	>1.20m	Targeted trench location on geophysical linear
TR059	50m	2.0m	>1.20m	Random trench location
TR060	50m	2.0m	>1.20m	Random trench location
TR061	50m	2.0m	>1.20m	Targeted trench location on geophysical linear
TR062	50m	2.0m	>1.20m	Random trench location
TR063	50m	2.0m	>1.20m	Random trench location
TR064	50m	2.0m	>1.20m	Random trench location
TR065	50m	2.0m	>1.20m	Random trench location
TR066	50m	2.0m	>1.20m	Random trench location
TR067	50m	2.0m	>1.20m	Random trench location
TR068	50m	2.0m	>1.20m	Random trench location
TR069	50m	2.0m	>1.20m	Random trench location
TR070	50m	2.0m	>1.20m	Targeted trench location on geophysical linear
TR071	50m	2.0m	>1.20m	Random trench location
TR072	50m	2.0m	>1.20m	Targeted trench location on geophysical linear

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TR073	50m	2.0m	>1.20m	Random trench location
TR074	50m	2.0m	>1.20m	Random trench location
TR075	50m	2.0m	>1.20m	Random trench location
TR076	50m	2.0m	>1.20m	Random trench location
TR077	50m	2.0m	>1.20m	Random trench location
TR078	50m	2.0m	>1.20m	Targeted trench location on geophysical linear
TR079	50m	2.0m	>1.20m	Random trench location
TR080	50m	2.0m	>1.20m	Random trench location
TR081	50m	2.0m	>1.20m	Random trench location
TR082	50m	2.0m	>1.20m	Random trench location
TR083	50m	2.0m	>1.20m	Random trench location
TR084	50m	2.0m	>1.20m	Random trench location
TR085	50m	2.0m	>1.20m	Random trench location
TR086	50m	2.0m	>1.20m	Random trench location
TR087	50m	2.0m	>1.20m	Random trench location
TR088	50m	2.0m	>1.20m	Random trench location
TR089	50m	2.0m	>1.20m	Random trench location
TR090	50m	2.0m	>1.20m	Random trench location
TR091	50m	2.0m	>1.20m	Random trench location
TR092	50m	2.0m	>1.20m	Random trench location
TR093	50m	2.0m	>1.20m	Random trench location
TR094	50m	2.0m	>1.20m	Random trench location

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TR096	50m	2.0m	>1.20m	Random trench location
TR097	50m	2.0m	>1.20m	Random trench location
TR098	50m	2.0m	>1.20m	Targeted trench location on geophysical linear
TR099	50m	2.0m	>1.20m	Random trench location
TR100	50m	2.0m	>1.20m	Random trench location
TR101	50m	2.0m	>1.20m	Random trench location
TR102	50m	2.0m	>1.20m	Random trench location
TR103	50m	2.0m	>1.20m	Random trench location
TR104	50m	2.0m	>1.20m	Random trench location
TR105	50m	2.0m	>1.20m	Random trench location
TR106	50m	2.0m	>1.20m	Random trench location
TR107	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR108	50m	2.0m	>1.20m	Random trench location
TR109	50m	2.0m	>1.20m	Random trench location
TR110	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR111	50m	2.0m	>1.20m	Random trench location
TR112	50m	2.0m	>1.20m	Random trench location
TR113	50m	2.0m	>1.20m	Random trench location
TR114	50m	2.0m	>1.20m	Random trench location
TR115	50m	2.0m	>1.20m	Targeted trench location on geophysical anomaly
TR116	50m	2.0m	>1.20m	Random trench location
TR117	50m	2.0m	>1.20m	Random trench location

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TR118	50m	2.0m	>1.20m	Random trench location
TR119	50m	2.0m	>1.20m	Random trench location
TR120	50m	2.0m	>1.20m	Random trench location
TR121	50m	2.0m	>1.20m	Random trench location
TR122	50m	2.0m	>1.20m	Random trench location
TR123	50m	2.0m	>1.20m	Random trench location
TR124	50m	2.0m	>1.20m	Random trench location
TR125	50m	2.0m	>1.20m	Random trench location
TR126	50m	2.0m	>1.20m	Random trench location
TR127	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR128	50m	2.0m	>1.20m	Random trench location
TR129	50m	2.0m	>1.20m	Random trench location
TR130	50m	2.0m	>1.20m	Random trench location
TR131	50m	2.0m	>1.20m	Random trench location
TR0132	50m	2.0m	>1.20m	Random trench location
TR 133	50m	2.0m	>1.20m	Random trench location
TR134	50m	2.0m	>1.20m	Random trench location
TR135	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR136	50m	2.0m	>1.20m	Random trench location
TR137	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR138	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)

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TR139	50m	2.0m	>1.20m	Random trench location
TR140	50m	2.0m	>1.20m	Random trench location
TR141	50m	2.0m	>1.20m	Random trench location
TR142	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR143	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7 & 4.3.9)
TR144	50m	2.0m	>1.20m	Random trench location
TR145	50m	2.0m	>1.20m	Random trench location
TR146	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR147	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.7)
TR148	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR149	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR150	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR151	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR152	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR153	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR154	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR155	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR156	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)

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TR157	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR0158	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR 159	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR160	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR161	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR162	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR163	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR164	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR165	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR166	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR167	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR168	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR169	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR170	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR171	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR172	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)

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TR173	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR174	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR175	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR176	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR177	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR178	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR179	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR180	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR181	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR182	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR183	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR184	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR185	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR186	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR187	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR188	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)

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TR189	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR190	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR191	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR192	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR193	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR194	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR195	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR196	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR197	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR198	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR199	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR200	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR201	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR202	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR203	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR204	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)

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TR205	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR206	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR207	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.9 & 4.3.11)
TR208	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR209	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR210	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR211	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR212	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR213	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR214	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.11)
TR215	50m	2.0m	>1.20m	Random trench location
TR216	50m	2.0m	>1.20m	Random trench location
TR217	50m	2.0m	>1.20m	Random trench location
TR218	50m	2.0m	>1.20m	Random trench location
TR219	50m	2.0m	>1.20m	Random trench location
TR220	50m	2.0m	>1.20m	Random trench location
TR221	50m	2.0m	>1.20m	Random trench location
TR222	50m	2.0m	>1.20m	Random trench location
TR223	50m	2.0m	>1.20m	Random trench location

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TR224	50m	2.0m	>1.20m	Random trench location
TR225	50m	2.0m	>1.20m	Random trench location
TR226	50m	2.0m	>1.20m	Random trench location
TR227	50m	2.0m	>1.20m	Random trench location
TR228	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.8)
TR229	50m	2.0m	>1.20m	Random trench location
TR230	50m	2.0m	>1.20m	Random trench location
TR231	50m	2.0m	>1.20m	Random trench location
TR232	50m	2.0m	>1.20m	Random trench location
TR233	50m	2.0m	>1.20m	Random trench location
TR234	50m	2.0m	>1.20m	Random trench location
TR235	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.8)
TR236	50m	2.0m	>1.20m	Random trench location
TR237	50m	2.0m	>1.20m	Random trench location
TR238	50m	2.0m	>1.20m	Random trench location
TR239	50m	2.0m	>1.20m	Random trench location
TR240	50m	2.0m	>1.20m	Random trench location
TR241	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR242	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR243	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)

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TR244	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR245	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR246	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR247	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR248	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR249	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR250	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR251	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR252	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR253	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR254	50m	2.0m	>1.20m	Random trench location
TR255	50m	2.0m	>1.20m	Random trench location
TR256	50m	2.0m	>1.20m	Random trench location
TR257	50m	2.0m	>1.20m	Random trench location
TR258	50m	2.0m	>1.20m	Random trench location
TR259	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR260	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)
TR261	50m	2.0m	>1.20m	Targeted trench location (See Project Plan 1EW04-LMJ-EV-PLN-NS01_NL03-29003-Co2; Para. 4.3.12)

Code 1 - Accepted

- 4.1.5 The utility data provided has demonstrated that a number of trenches will need to be moved since the production of the Project Plan. Trenches 40, 42, 43, 46 & 50 (CR02544 & CR02719) are to be moved due to the presence of a high voltage overhead cable. Likewise Trenches 93, 94, 98, 102, 103, 108, 110, 116, 122 – 124, 129, 130 & 135 need to be moved due to overhead services. Finally Trenches 244, 246 & 249 need to be moved due to high voltage electricity.
- 4.1.6 In addition to this, further trenches will need to be altered due to various ecological constraints. Please note that at the time of writing the ecological walkovers had not been completed and it is possible that further restrictions in addition to the ones below may be encountered.
- 4.1.7 Trenches 31 – 32 (CR02252) are located in woodland and need to be moved or excavated at a later date. Trenches 191, 192 (CR02204) and Trench 201 (CR02736) are all located within close proximity of South Cubbington Wood and will need to be moved a minimum 20m further away than their current location.
- 4.1.8 Trenches 4, 32, 175, 192 and 251 (CR02204, CR02724 & CR02252) are all believed to be located near potential bat roosts and need to be moved to ensure that they are outside a 30m exclusion zone. Likewise Trenches 127, 138 and 221 (CR02719, CR02736 & CR02741) need to be relocated due to their proximity to probable badger sets.
- 4.1.9 Great-Crested Newt (GCN) has been identified as being present in close proximity to much of the site and the following trenches have been identified as lying within a 250m radius of a known GCN pond and will require close liaison with the LMJV ecologist before the trenches are undertaken. Trenches 1-12, 15, 19-22, 24-26, 36, 39, 58-60, 63-73, 76-81, 84-92, 95, 96, 114-116, 121-123, 128-130, 135, 137, 139-142, 144-148, 174, 176, 177, 180, 184, 185, 188-192, 216, 217, 221, 223-226, 228-241, 244, 248 and 255-257.
- 4.1.10 The on-site works associated with the trial trenching evaluation will be as follows:
- Setting Out;
 - Mechanical excavation;
 - Hand Excavation and Fieldwork Recording; and
 - Environmental Sampling (as relevant).
- 4.1.11 The off-site works associated with the trial trenching will be as follows:
- Environmental Sample Processing and Assessment;

- Artefact Processing and Assessment; and
- Reporting and Archiving.

4.1.12 The applicable methodologies and standards for these activities will be as follows:

- Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02);
- Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035; Section 3);
- All other Technical Standards as outlined in Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035; Section 1.2).

4.1.13 Where relevant, the trial trenching will also reflect other best practice guidance e.g.:

- Archaeology Data Service/Digital Antiquity guides to good practice.
- Chartered Institute for Archaeologists (2014) Code of Conduct.
- Chartered Institute for Archaeologists (2014) Standard and guidance: archaeological field evaluation.
- Chartered Institute for Archaeologists (2014) Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives.
- Historic England (2006) Management of research projects in the historic environment.

5 Programme

5.1.1 The proposed programme of works is given in the table below:

Table 2 Programme

Activity	Start date
Commencement of Evaluation	December 2018: Subject to access agreements and instruction limited works may be carried out with mobile site set ups ahead of the main evaluation programme
Completion of Evaluation	February/March 2019

Reporting and Post-excavation Assessment	March/April 2019
Archiving	April/May 2019

6 Methodology

- 6.1.1 The trial trenching will be conducted according to the detailed methodology laid out in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (1EW04-LMJ-EV-PLN-NS01_NL03-029003-Co2 – See Appendix 15.1). This covers the methodology for all parts of the investigation, setting out (Section 4.3.16 – 4.3.19), mechanical excavation (Section 4.3.20 – 4.3.25), fieldwork recording (Section 4.3.26 – 4.3.36), human remains (Section 4.3.37 – 4.3.42), environmental sampling (Section 4.3.43 – 4.3.55), preservation in situ (Section 4.3.56), backfilling (Section 4.3.57 – 4.3.58), and post-investigation reporting and archiving (Section 5.1.1-5.1.4). The work will also adhere to Technical Standard: Archaeology and Built Heritage Approach to Ground Investigation (Doc No: HS2-HS2-EV-STD-000-000038).
- 6.1.2 The following sections address wider issues of methodology and project delivery.

6.2 Site set-up process

- 6.2.1 HS2 will have full consent to undertake the trial trenching within the Site (as defined by the red line boundary), although ownership of the land remains with the landowners. The Employer will manage landowner liaison and will notify the landowners in advance that the archaeological works are taking place. The Employer will also fully compensate the landowners for any damage caused to crops and fences during the trial trenching. It is therefore assumed that interaction between the landowners and the Archaeological Contractor will not take place or be minimal, although should negotiation and interaction with landowners be required it will be undertaken by senior and experienced members of the Archaeological Contractor's field team, supported by management. Communication and engagement with third parties will use the Employer's communication protocols set out in the Community Relations Strategy.
- 6.2.2 To undertake the proposed investigations eight temporary welfare stations will be established to provide welfare, office and storage space to the archaeological contractors. These will be located to the south of Stoneleigh Road, North of Leicester Lane, Furzen Hill Farm, North of Rugby Road, South of Rugby Road, Weston Hill Farm and Lower Grange Farm.

6.3 Details of site access

- 6.3.1 **Temporary Welfare Station 1 (South of Stoneleigh Road):** is to be accessed through an existing large farm gate in to the grounds of Stoneleigh Park on the south side of Stoneleigh Road. A tarmacadam farm track in good condition runs roughly northwest to southeast and the site compound is to be built to the side of this to minimise disturbance. This compound will be used to access Trenches 1 – 30 & 36, 39, 45 & 50 (34 trenches), although it should be noted that Trenches 31 & 32 are unlikely to be undertaken at this time.
- 6.3.2 **Temporary Welfare Station 2 (North of Leicester Lane):** Is to be accessed off Leicester Lane (A445) and is part of the access road to Stonehouse Farm. The access itself is concrete although the compound area itself will be placed in the earthen field, as such matting will be required for both the compound and parking area. This compound will be used to access Trenches 33-35, 37, 38, 40 – 44, 46 – 49, 51 – 73, 76 – 80, 84 – 86, 89 – 91 & 95 (49 trenches).
- 6.3.3 **Temporary Welfare Station 3 (South of Leicester Lane):** Due to limited access to the fields from the Furzen Hill Farm Temporary Welfare Station this area will need to be accessed to the west of Temporary Welfare Station 2 and will be entranced through an existing farm gate into a ploughed field, as such matting will be required. This compound is to be used to access Trenches 114 – 116, 121 – 124 & 128 – 136 (16 trenches).
- 6.3.4 **Temporary Welfare Station 4 (Furzen Hill Farm):** is to be accessed to the west of Coventry Road through either the farm compound itself or through an existing field gate, dependant on land owner. The compound is to be placed within ploughed fields and matting will be required. This compound is to be used to access Trenches 74, 75, 81 – 83, 87, 88, 92 – 94, 96 – 113, 119, 120, 125 – 127, 137 – 138, 140, 142 – 145 & 147 (42 trenches).
- 6.3.5 **Temporary Welfare Station 5 (North of Rugby Road):** is to be accessed to the north of Rugby Road, ideally through the access to be created by the Employer as part of their enabling works. Should this not be possible then an existing farm gate is present although traffic management would be required during the site establishment due to the speed of the road. The compound and parking area is to be placed within a ploughed field and as such matting will be required. This compound is to be used to access Trenches 139, 141, 146, 148 – 175, 178, & 262 – 275 (45 trenches).
- 6.3.6 **Temporary Welfare Station 6 (South of Rugby Road):** is to be accessed off the south side of Rugby Road through an existing bell mouth and farm access. Matting will be required for the parking and compound area. This compound is to be used to access Trenches 176, 179 – 188, 190 and 191 (12 trenches).

- 6.3.7 **Temporary Welfare Station 7 (Weston Hill Farm):** is to be accessed off the unnamed Weston Hill Farm access track to the south of Rugby Road at the west edge of Weston-under-Wetherley. A number of public footpaths transects the working area. This compound is to be used to access Trenches 177, 189, 192 – 200, 202, 207 & 208 (14 trenches).
- 6.3.8 **Temporary Welfare Station 8 (Lower Grange Farm):** is to be accessed via the Lower Grange Farm concrete access track located off Mill Lane to the immediate southeast of Cubbington. Although access to the farm area is along concrete and tarmac track surfaces matting will be required to reach the compound area itself and the welfare station and associated car parking will require matting also. This compound will be utilised to investigate Trenches 201, 203 – 206 & 209 – 261 (58 trenches).
- 6.3.9 The order in which these trenches are undertaken will be dependant on land access, ecological issues, health and safety concerns and confirmation of methodologies provided by DJV, but at the time of writing it is intended for two teams to work in tandem moving welfare compounds as required. See COPA works GANNT in the River Leam to Stoneleigh Park Method Statement for details (Appendix 15.2).

6.4 Details of plant and methodology for its use

- 6.4.1 The current work programme intends to use two 360 tracked excavators c.20 tonnes in size and if required, a single 3CX back-axled hoe JCB and will be fitted with a toothless ditching bucket. The 360 tracked excavators will be delivered to site and moved between compounds on a low loader.
- 6.4.2 All machine excavation will be carried out under the constant supervision of a suitably qualified and experienced archaeologist. Deposits will be removed in spits, the depths of which will be determined by the supervising archaeologist. Each spit will be examined carefully in order to assist in the retrieval of archaeologically significant artefacts. Machine excavation will cease at the top of the first significant archaeological horizon, and the Archaeological Contractor will ensure that a 'clean' machined surface is exposed. Spoil will be stored a minimum of 1m away along the edges of excavated trenches, topsoil being kept separate from subsoil. The storage of excavated material will be in accordance with the Contractor's environmental protection requirements, as set out in their Environmental Management Plan.
- 6.4.3 Prior to backfilling the trenches any necessary protection measures for archaeological remains, below ground infrastructure, services and/or utilities will be implemented. Generally, all backfill material will comprise the material excavated from the trench returned in an appropriate order. The Contractor will liaise with LMJV to ensure all backfilled material consists of non-toxic,

uncontaminated, non-putrescible, natural and inert material which will be compacted and (if necessary) tested (dynamic compaction test or other). Original surface conditions will be reinstated to the required standard. The excavations and backfilling will comply with Technical Standard – Agriculture, Forestry and Soils Route-wide Soil Resource Plan (HS2-HS2-EV-STD-000-000008). A photographic condition survey will be carried out at each trench location prior to excavation and after backfilling of the trench.

- 6.4.4 All plant movements across the Site (see above) will be supervised by an appropriately experienced archaeologist acting as banks person, who will be present at all times during the movements (as outlined in the project Method Statement; Appendix 15.2).

6.5 Main Work Packages

- 6.5.1 It is expected that the works will be undertaken from December 2018 through to January 2019 in a single programme assuming no issues arise which may cause delays.

6.6 Provision for unexpected remains

- 6.6.1 As outlined in Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NS03-029003-Co2) a number of earlier investigations indicate the character of the archaeological remains that may be expected to be found on site.
- 6.6.2 Preliminary research carried out as part of the 2013 Phase One Environmental Statement (ES) included general geophysical, hyperspectral and LIDAR surveys along the route. In addition, information was collected from the EWC North Studies including the Historic Settlement landscape Study (HSLDDBA; Doc No: 1EW04-LMJ-EV-REP-N000-029001), the Heritage Asset Density mapping, Railway & Industrial Landscape Study (Doc No: 1EW04-LMJ-EV-REP-N000-029002) and the Geoarchaeological Desk-Based Assessment (GDBA; Doc No: 1D037-EDP-EV-REP-000-000031).
- 6.6.3 The above concluded that Palaeolithic archaeology and Palaeoenvironmental remains associated with the former River Bytham have the potential to be present bisecting the area of investigation. In addition to this, Mesolithic and later prehistoric activity have the potential to be present across the site with particular focus in proximity of the River Leam and River Avon and the gravel outcrops.

- 6.6.4 Geophysical survey across the land area revealed potential for Iron Age and/or Romano British settlement comprising enclosure ditches, pits and penannular gullies focused to the southeast of South Cubbington Wood and again to the south of Leicester Road.
- 6.6.5 A combination of historic mapping and documentary evidence as recorded in the Cubbington DDBA along with the results of the geophysical survey and LIDAR noted the presence of Stareton deserted medieval village (DMV) along with a number of former built heritage structures such as barns and isolated farmsteads along much of the route and a late post-medieval plant nursery towards the north of the investigation area. Ridge and furrow was also noted over much of the route, finally map regression and documentary evidence suggested the location of a former water mill abutting the River Leam.
- 6.6.6 However, the following classes of remains may be considered 'unexpected' for this location based on the current knowledge:
- Extensive human burials;
 - Significant and extensive structural remains;
 - Significant and extensive waterlogged remains (leather, timber etc.).
- 6.6.7 In all three instances, disturbance of these remains will be kept to a minimum during the evaluation. To allow for detailed investigation at a later stage.
- 6.6.8 For human remains, the provisions outlined in the Project Plan for Trial Trenching between the River Leam and Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-Co2; Section 4.3.37 – 4.3.42; Appendix 15.1) and in Burial Grounds, Human Remains and Monuments Procedures (HS2-HS2-EV-PRO-0000-000008) will be followed. Should human remains be encountered the Archaeological Contractor will immediately inform DJV, who will in turn inform HS2 within 24 hours of discovery, so that these procedures can be implemented. Visible grave goods will be recorded and lifted before the end of the working day to minimise potential disturbance or degradation of the artefacts. Where this is not achievable the Archaeological Contractor should liaise with the Employer to ensure that adequate security is provided.
- 6.6.9 Other best practice guidance would also be utilised, such as Guidance for the Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England (Church of England/Historic England, 2005), and Human Bones from Archaeological Sites: Guidelines for producing assessment documents and analytical reports (Historic England, 2004).

- 6.6.10 Any in situ structural remains would be fully recorded for the extent that they are exposed; brick and stone samples may be taken if potentially diagnostic of date or function. The Employer or the Employer's Project Manager would be fully informed of the presence of extensive structural remains and of their assessed significance.
- 6.6.11 Waterlogged organic materials would be dealt with in line with Historic England's guidance documents, Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation (2012), Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood (2010), and Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation (2011).

6.7 Treasure

- 6.7.1 In the event of the discovery of 'treasure' as defined below, the Treasure Act 1996 will apply to works for Phase One of HS2 and the Archaeological Contractor shall comply with it. The Treasure Act defines 'Treasure' as:
- any object at least 300 years old when found which is not a coin but has metallic content of which at least 10 per cent by weight is precious metal;
 - When found, is one of at least two coins in the same find which are at least 300 years old at that time and have that percentage of precious metal; or
 - When found, is one of at least ten coins in the same find which at least 300 years old at that time.
 - Any object at least 200 years old designated as treasure by the Secretary of State under section 2(1) of the Treasure Act 1996.
 - Any object that would have been 'Treasure Trove'.
 - Any object found with any of the above.
- 6.7.2 The Treasure (Designation) Order 2002 extends the definition of treasure to include:
- Finds of least two base metal objects (other than coins) of prehistoric date; and
 - Any object (other than a coin) of prehistoric date with any precious metal content.
- 6.7.3 All finds falling within the definitions of treasure shall be reported immediately to the Contractor's Historic Environment Manager who will inform the Employer. All subsequent works must be

undertaken in accordance with the relevant legislative requirements of the Treasure Act and all necessary measures taken to comply with those requirements and any project specific requirements will be implemented.

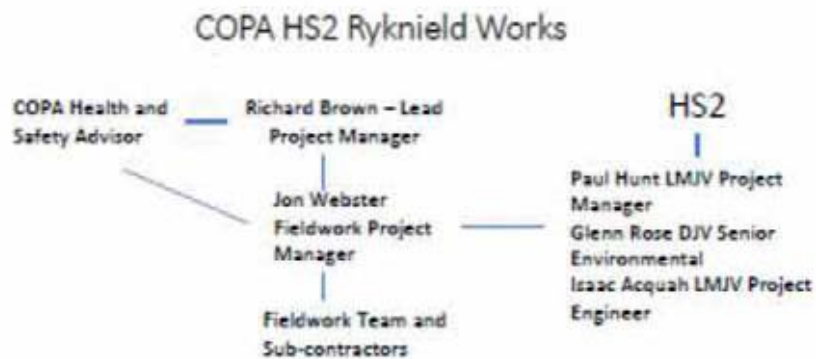
- 6.7.4 To protect the finds from theft, the Archaeological Contractor shall record the finds and remove them to a safe place. Where recording and removal is not feasible or appropriate on the day of discovery, the Archaeological Contractor shall ensure, on liaison with the Contractor's Historic Environment Manager that adequate site security is provided by the Contractor.
- 6.7.5 Subject to the Provisions of the Treasure Act 1996, all material that is defined as Treasure is vested in the franchisee or, if none, the Crown.

6.8 Provision of sampling facilities to support requirements established by Project Plans

- 6.8.1 The on-site sampling methodologies will follow the recommendations as set out in the Project Plan for Trial Trenching between River Leam to Stoneleigh Park, east of Leamington Spa, Warwickshire (Doc No: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02; Sections 4.3.43 to 4.3.55).
- 6.8.2 The off-site processing and assessment of all palaeoenvironmental samples will be conducted at the most appropriate of the Archaeological Contractor's in-house sampling facilities.

7 Delivery Interfaces

- 7.1.1 COPA's contractors interface and communication plan for the works is based on the following flow diagram.



- 7.1.2 The Archaeological Contractor will liaise with DJV regarding the works programme and quality assurance of the archaeological works. In the event of potential delays to programme, the Archaeological Contractor will issue an Early Warning Notice (EWN) via CEMAR.
- 7.1.3 The Archaeological Contractor will have direct communication with LM on contractual matters and non-archaeological quality assurance; DJV will be informed of any EWNs raised in the course of the works.
- 7.1.4 All communication regarding archaeological results, and any proposed alteration to scope and method will be communicated to DJV who will review this information and liaise with HS2 on behalf of LM.
- 7.1.5 The trial trenching will be supervised by a suitably qualified and experienced Project Officer appointed by the Archaeological Contractor. All parties will follow the Employer's protocols for Intra- and Inter-project communication.
- 7.1.6 Details of the Contractor's design, programme and Health and Safety policy are located in the Construction Phase Plan (CPP) – Enabling Works North Contract (Doc No: 1EW04-LMJ-HS-PLN-N000-000003).

8 Health, Safety and Environment

- 8.1.1 The Archaeological Contractor will undertake the works in accordance with the Employer's route wide health and safety requirements (Safe at Heart) and, if applicable, the Contractor's health and safety requirements for specific locations.
- 8.1.2 The Archaeological Contractor will be solely responsible for Health and Safety during the trial trenching, and a Method Statement for the evaluation has been produced (see Appendix 15.2). All work will also be undertaken in accordance with the Archaeological Contractor's Site Safety Policy and Procedures (COPA 2018).
- 8.1.3 All site staff will be fully inducted and will read and sign the method statement before commencing work on site.

8.2 Site access and construction traffic

- 8.2.1 Specific risks have been identified regarding delivery of plant and plant movements between different parts of the Site (Appendix 15.2). It will be necessary to load / unload plant at each of the eight Temporary Welfare Stations. All loading / unloading of plant and all plant movements will be supervised by a minimum of one suitably experienced appointed banksperson.
- 8.2.2 Although multiple plant movements are envisaged, these have been planned to minimise the impact of construction traffic on the local infrastructure will be minimal.

8.3 Agriculture and Ecology

- 8.3.1 Should crops be present, all attempts will be made to limit damage. Plant will be tracked around the edges of fields and along existing trackways and 'tramlines' within crops, and where this is practicable within the allocated land available. However, it is acknowledged that the trenching will inevitably cause damage to any crops present within the red line boundary of the Site. The Employer will fully compensate the landowners for any such loss.
- 8.3.2 No areas outside the red line boundary of the Site will be tracked over by plant unless this has been specifically authorised by the Employer.
- 8.3.3 No hedgerows or fences will be uprooted to facilitate site access unless this has been specifically authorised by the Employer.
- 8.3.4 The ecological constraints below have been provided via the forthcoming environmental appraisal and constraints Plans (Doc No: 1EW04-LMJ-EV-RIA-NS01_NL03-029002-P01). Although it should

be noted that at the time of writing the ecological walk overs had not been completed and further restrictions may be required.

- 8.3.5 Trenches 31 – 32 (CR02252) are located in woodland and need to be moved or excavated at a later date. Trenches 191, 192 (CR02204) and Trench 201 (CR02736) are all located within close proximity of South Cubbington Wood and will need to be moved a minimum 20m further away than their current location.
- 8.3.6 Trenches 4, 32, 175, 192 and 251 (CR02204, CR02724 & CR02252) are all believed to be located near potential bat roosts and need to be moved to ensure that they are outside a 30m exclusion zone. Likewise Trenches 127, 138 and 221 (CR02719, CR02736 & CR02741) need to be relocated due to their proximity to probable badger sets.
- 8.3.7 Great-Crested Newt (GCN) has been identified as being present in close proximity to much of the site and the following trenches have been identified as lying within a 250m radius of a known GCN pond and will require close liaison with the LMJV ecologist before the trenches are undertaken. Trenches 1-12, 15, 19-22, 24-26, 36, 39, 58-60, 63-73, 76-81, 84-92, 95, 96, 114-116, 121-123, 128-130, 135, 137, 139-142, 144-148, 174, 176, 177, 180, 184, 185, 188-192, 216, 217, 221, 223-226, 228-241, 244, 248 and 255-257.

8.4 Plant noise

- 8.4.1 It is anticipated that plant noise will be minimal, to further reduce potential disturbance plant movement will be restricted to being within site working hours and all vehicles will be switched off when not in active use. It is not anticipated that a mechanical breaker will be used on any part of the site.
- 8.4.2 The Archaeological Contractor will ensure that all staff working in the vicinity of plant are provided with appropriate ear protection.

8.5 Utilities

- 8.5.1 All known utilities present along the route as referenced on the ASite search engine have been mapped by COPA (Doc No. WP029B – RA2 – 000001 – 000007). Based on these the following has been noted.
- 8.5.2 Trenches 40, 42, 43, 46 & 50 (CR02544 & CR02719) are to be moved due to the presence of a high voltage overhead cable. Likewise Trenches 93, 94, 98, 102, 103, 108, 110, 116, 122 – 124, 129, 130

& 135 need to be moved due to overhead services. Finally Trenches 244, 246 & 249 need to be moved due to high voltage electricity.

- 8.5.3 Finally a high pressure gas main has been mapped running roughly west to east past Leicester Road. All works have been designed to avoid this but it will need to be tracked across to access six trenches at the northern limit of proposed compound 4 (Furzen Hill Farm). Appropriate actions and a task specific risk assessment will be carried out and approved before this is undertaken.

8.6 UXO

- 8.6.1 At the southern limit of the investigation, accessed by Compound 8 (Lower Grange Farm), a moderate UXO hazard has been identified as the site had been used as a bomb decoy site for Coventry during World War II. An appropriate methodology for work in this area will be agreed with DJV and LMJV ahead of works and LMJV are to provide suitable coverage and a task specific risk assessment before mechanical excavation begins in that area (Trenches 253-256). The rest of the route has been mapped as having a low UXO risk, although a single bomb impact crater has been noted to the south of Leicester Lane (Unexploded Ordnance Study; 0615-ZET-GT-REP-000-000001).

8.7 Site safety and security

- 8.7.1 Each welfare station will be secured via heras fencing and will be manned by a suitable security team outside normal working hours and when no working presence is present at a welfare location. Trenches are generally located in secure fields which are not to be accessed by the public, where pedestrian routes are present, then these will be segregated from the working area by Netlon barrier fencing. Individual trenches and deep excavations will be fenced off with Netlon barrier fencing as appropriate to site specific risks or concerns.

8.8 Local community, general public, neighbouring properties and businesses

- 8.8.1 It is not anticipated that the trial trenching will cause significant disruption to the local community or neighbouring properties and business, as most of the works will be on secured agricultural land and no interaction with the public is expected. Public footpaths are present throughout the route and interaction with these are expected from all compounds to access the trenching areas.
- 8.8.2 The erecting and dismantling of Temporary Welfare Area 4 (Furzen Hill Farm), along with daily traffic associated with this area may be required to transit through the farm yard itself, dependant

on the access granted at the times of works. Should this be required close liaison with the land owner will be maintained to ensure minimal disturbance.

- 8.8.3 Given the distances between most of the trenches and residential areas, it is not anticipated that plant noise will be problematic for the local community.
- 8.8.4 All plant movements will be undertaken with a mind to minimising disruption to local traffic and infrastructure and all site traffic will switch off when not in active use.
- 8.8.5 Health and Safety procedures will be in place to minimise the risk to any member of the public who enters the Site during the trial trenching (Appendix 15.2).

9 Information Management

- 9.1.1 GIS deliverables will be provided in accordance with the Employer's Cultural Heritage GIS Specification (Doc No: HS2-HS2-GI-SPE-000-000004). CAD files will be GIS compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables will be supplied in GIS format.
- 9.1.2 Mapping and spatial data deliverables will conform to the Employer's Cultural Heritage GIS Standard (Doc No: HS2-HS2-GI-STD-000-000010) and other associated referenced documents.
- 9.1.3 The Employer's standard template for reporting as set out in Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035; Section 4.4) will be followed.

10 Site Monitoring and engagement

- 10.1.1 DJV will arrange, convene and attend monitoring site visits. HS2 Historic Environment Team may convene monitoring visits with limited notice.
- 10.1.2 The Archaeological Contractor will provide weekly progress reports to DJV for dissemination to LM and HS2.
- 10.1.3 DJV will inform the Archaeological Advisors for Warwickshire County Council that the Trial trenching will take place at least one week in advance of the commencement of fieldwork.
- 10.1.4 DJV will arrange and convene monitoring site visits by external consultees, as appropriate. These may include:
- Historic England;

- The Archaeological Advisors at Warwickshire County Council's Historic Environment Service;
- Relevant local interest groups; and
- Relevant and acknowledged specialists in such fields as geophysical survey and archaeological science.

10.1.5 Communication and engagement with third parties will use the Employer's communication protocols set out in the Employer's Community Relations Strategy.

11 Quality Assurance Processes

11.1.1 The three parent companies of COPA all have Chartered Institute for Archaeologists (CIfA) accreditation as a Registered Organisation (RO) and their supervisory staff to have an appropriate and relevant level of demonstrable experience for the specific task in question, i.e. full or associate members of the CIfA, or an equivalent demonstrable professional standing.

11.1.2 All members of the Archaeological Contractor's site team are expected to be suitably qualified, experienced and competent professionals. All site operatives will hold a current and valid CSCS qualification to at least 'Operative' level.

11.1.3 Fieldwork will be monitored by the Archaeological Contractor's Project Manager responsible for the project, under the general supervision of the Archaeological Contractor's senior management.

11.1.4 All archaeological works will be delivered in accordance with the standards and guidance set out in the following documents:

- High Speed Rail (London–West Midlands) Environmental Minimum Requirements.
- High Speed Rail (London–West Midlands) Environmental Minimum Requirements Annex 3: Heritage Memorandum (Document No. CS755 02/17).
- High Speed Rail (London–West Midlands) Environmental Minimum Requirements Annex 1: Code of Construction Practice (Document No. CS755 02/17).
- HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Document No. HS2-HS2-EV-STR-000-000015-P04).
- HS2 Technical Standard: Specification for Historic Environment Investigations. (Document No. HS2-HS2-EV-STD-000-000035).

- HS2 Technical Standard: Historic Environment Physical Archive Procedure (Document No. HS2-HS2-EV-STD-000-000039).
- HS2 Technical Standard: Historic Environment Digital Data Management and Archiving Procedure (Document No. HS2-HS2-EV-STD-000-000040).
- HS2 Cultural Heritage GIS Specification (Document No. HS2-HS2-GI-SPE-000-000004).
- Historic England, 2008. Geophysical Survey in Archaeological Field Evaluation.
- Chartered Institute for Archaeologists (CIfA), 2014a. Code of Conduct.
- CIfA, 2014b. Standard and Guidance for Archaeological Trial Trenching.
- English Heritage, 2006. Management of Research Projects in the Historic Environment (and associated guides and project planning notes).

11.1.5 The following specialists will be used, as required:

Table 3 COPA Post Excavation Specialists.

Specialism	Senior Specialist	Junior Specialist
Finds		
Lithics	Ed McSloy Mike Donnelly, Barry Bishop	Ella Egberts
Small Finds	Märit Gaimster, Ed McSloy Ian Scott, Leigh Allen	Toby Martin
Numismatics	Ed McSloy, Paul Booth	Murray Andrews
Glass	Ed McSloy, Chris Jarrett	Ian Scott
Worked bone	Ed McSloy, Märit Gaimster, Leigh Allen	
Prehistoric pottery	Richard Massey, Grace Jones, Ed McSloy, Lisa Brown	
Roman pottery	Richard Massey, Grace Jones, Ed McSloy, Paul Booth, Edward Biddulph, Katie Anderson	Alice Lyons, Eniko Hudak
Post-Roman pottery	Ed McSloy, John Cotter, Chris Jarrett, Bernie Seddon	Lucy Robinson
CBM	Leigh Allen, Kevin Hayward,	Cynthia Poole, Jon Cotter, Amparo Valcarcel Estors, Jackie Sommerville
Clay Tobacco Pipe	Chris Jarrett	John Cotter
Fired clay	Kevin Hayward	Cynthia Poole,
Querns etc	Kevin Hayward, Ed Mcsloy	Ruth Shaffrey
Architectural stonework	Kevin Hayward, Julian Munby	
Petrology	Kevin Hayward	
Leather		
General finds work		Steve Wadeson, Katie Marsden
Environmental		
Zooarchaeology	Kevin Rielly, Karen Deighton, Lee Broderick	Martyn Allen

Small mammals	Kevin Rielly, Karen Deighton, Rebecca Nicholson	
Fish bone	Kevin Rielly, Karen Deighton, Rebecca Nicholson	
Charred plant remains	Sarah Cobain, Sarah Wyles	Julia Meen, Rachel Fosberry, Kathryn Turner
Waterlogged plant remains	Sarah Cobain, Sarah Wyles	Mairead Rutherford, Kathryn Turner
Pollen		Mairead Rutherford, Kathryn Turner
Marine mollusca	Sarah Wyles, Rebecca Nicholson	Kathryn Turner
Terrestrial mollusca	Sarah Wyles, Liz Stafford	
Wood	Sarah Cobain	
Charcoal	Sarah Cobain, Sarah Wyles	Kathryn Turner
Geoarchaeology	Sarah Cobain	Liz Stafford, Carl Champness
General Environmental Finds Work		Andy Donald, Kathryn Turner
Human Skeletal Remains		
Osteo-archaeologists	Louise Loe, Helen Webb, Lauren McIntyre, Mark Gibson, Natasha Dodwell, Zoe Ui Choileain, Sharon Clough, James Langthorne, Aileen Tierney	

- 11.1.6 The trial trenching assessment report will be checked and reviewed by a suitably qualified and experienced Project Manager or a member of the Senior Management Team before it is issued to DJV. On receipt of comments, the final report will be checked and reviewed again prior to its reissue.
- 11.1.7 All of the Archaeological Contractors work will be assured by DJV on behalf of the Employer.

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12 Fieldwork Sign-off Sheet

Historic Environment Fieldwork Sign-off Sheet			
Work Package Reference	029(B)		
Historic Environment Investigation Type	Trial Trenching		
Contractor	COPA		
Fieldwork conducted by (site director)		Dates	
Summary of results			
Document References			
Project Plan: 1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02			
LS-WSI:			
Compiled by	Name	Date	Signature
Checked by	Name	Date	Signature
Approved by	Name	Date	Signature

Code 1 - Accepted

13 References and Glossary of Terms

13.1.1 The following terms have been used in this report:

- **Archaeological Contractor** – the organisation undertaking the evaluation on behalf of the Contractor.
- **Contractor** – LM JV: the body responsible for the terms and conditions, policies, procedures and payments.
- **Employer** – HS2 Ltd.
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combined historic environment investigation programme of assessment, evaluation and further investigation.
- **Project Manager** – acts as administrator of the contract, handling certification, compensation events etc., with an obligation to act fairly and impartially as an agent of the Contractor. An office-based manager who is the client's principle point of contact and who has overall responsibility for the project budget and delivery.
- **Project Plans** – specification document for each specific package of activity (e.g. a survey, desk based assessment, excavation, recording project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget and timeframe.
- **Works** – the specific historic environment assessment, evaluation or further investigation works at each location.

13.1.2 The following documents are referred to:

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Title	Reference
HS2 Phase One Environmental Statement and Supplementary Environmental Statements	Volume 5 Appendix:
CFA17 Offchurch to Cubbington	CH – 001 – 017, ES 3.5.2.17.4
	CH – 002 – 017, ES 3.5.2.17.5
	CH – 003 – 017, ES 3.5.2.17.6
	CH – 004 – 017, ES 3.5.2.17.7
HS2 Phase One Environmental Statement and Supplementary Environmental Statements	Volume 5 Appendix:
CFA18 Stoneleigh to Burton Green	CH – 001 – 018, ES 3.5.2.18.4
	CH – 002 – 018, ES 3.5.2.18.5
	CH – 003 – 018, ES 3.5.2.18.6
	CH – 004 – 018, ES 3.5.2.18.7
Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
Cultural Heritage GIS Standard	HS2-HS2-GI-STD-000-000010
Technical Standard – Temporary Works	HS2-HS2-CV-STD-000-000005
Burial Grounds, Human Remains and Monuments Procedures	HS2-HS2-EV-PRO-000-000008
Technical Standard – Agriculture, Forestry and Soils Route-wide Soil Resource Plan	HS2-HS2-EV-STD-000-000008
Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy	HS2-HS2-EV-STR-000-000015-P04
Technical Standard - Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Technical Standard: Specification for Project Plans and Location Specific Written Scheme of Investigations	HS2-HS2-EV-STD-000-000036
Technical Standard: Historic Environment Physical Archive Procedure	HS2-HS2-EV-STD-000-000039
Technical Standard: Archaeology and Built Heritage Approach to Ground Investigation	HS2-HS2-EV-STD-000-000038

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Technical Standard: Historic Environment Digital Data Management and Archiving Procedure	HS2-HS2-EV-STD-000-000040
Historic Environment Standard Report Template	HS2-HS2-PM-TEM-000-000004
Project Plan for Trial Trenching between the River Leam and Stoneleigh Park	1EW04-LMJ-EV-PLN-NS01_NL03-029003-C02
Geoarchaeological Project Plan	1EW04-LMJ-EV-PLN-N000-029009
Geoarchaeological Desk-Based Assessment (GDBA)	1D037 – EDP – EV – REP – 000 - 000031
Detailed Desk-Based Assessment of land at Cubbington (DDBA)	1D037 – ESP – EV – REP – 030 – 000037
Geophysical Survey Results, Warwickshire	P1N – ATK – EV – REP – 000 – 000037
Heritage Asset Density Mapping, Railway & Industry landscape Study	1EW04-LMJ-EV-REP-N000-029002
Historic Settlement Landscape Study (HSLDDBA)	1EW04-LMJ-EV-REP-N000-029001
HS2 Unexploded Ordnance Desk Study	0615-ET-GT-REP-000-000001
WP 02ga Historic Environment Works – Historic Settlement landscape Detailed Desk-Based Assessment	1EW04 – LMJ – EV – REP – N000 – 029001
Construction phase plan. Enabling works North Contract	1EW04 – LMJ – HS – PLN – N000 - 000003
Environmental appraisal and constraints	1EW04 – LMJ – EV – RIA – NS01_NL03 – 029002 (Draft)
Employers Community Relations Strategy	IMS 11.1.1
Employer's protocols for Intra- and Inter-project Communication	IMS 12.1.1
HS2 Phase 1 Enabling Works Site Safety Policy and Procedures. COPA 2018	N/A

Document no.: 1EW04-LMJ-EV-MST-NS01_NL03-029001

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Safe at heart: Supply chain health and safety standard	N/A
British Geological Survey, Geology of Britain viewer, http://mapapps.bgs.ac.uk/geologyofbritain/home.html	N/A
Church of England/ Historic England 2005 – Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England	N/A
Health and Safety Executive 2013 – Avoidance of Danger from Overhead Electricity Lines (GS6, 4 th edition)	N/A
Historic England 2004 – Human Bones from Archaeological Sites: Guidelines for Producing Assessment Documents and Analytical Reports	N/A
Historic England 2007 – Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record	N/A
Historic England 2010 – Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood	N/A
Historic England 2011 – Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation	N/A
Historic England 2012 – Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation	N/A
Landis. Cranfield Soil and Agrifood Institute Soilscales viewer, www.landis.org.uk/soilscales/	N/A

Document no.: 1EW04-LMJ-EV-MST-NS01_NL03-029001

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14 Figures

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Figure 2 River Leam to Stoneleigh Park Heritage Assets	See p.41 of Project Plan (1EW04 – LMJ - EV – PLN – NS01_NL03 – 029003 – C02)
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Figure 4 River Leam to Stoneleigh Park Trench Plan 1/5	See p.43 of Project Plan (1EW04 – LMJ - EV – PLN – NS01_NL03 – 029003 – C02)
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Figure 6 River Leam to Stoneleigh Park Trench Plan 3/5	See p.45 of Project Plan (1EW04 – LMJ - EV – PLN – NS01_NL03 – 029003 – C02)
Figure 7 River Leam to Stoneleigh Park Trench Plan 4/5	See p.46 of Project Plan (1EW04 – LMJ - EV – PLN – NS01_NL03 – 029003 – C02)
Figure 8 River Leam to Stoneleigh Park Trench Plan 5/5	See p.47 of Project Plan (1EW04 – LMJ - EV – PLN – NS01_NL03 – 029003 – C02)

15 Appendix

15.1 Project Plan



Making the Right Choice

WP 029(B) Historic Environment Works – River Leam to Stoneleigh Park – Enabling Works North Contract

Project Plan for Trial Trenching

Document Number: 1EW04-LMJ-EV-PLN-NS01_NL03-029003

Revision	Author	Checked by	Approved by	Date	Reason for revision
C01	Jesse Johnson DJV	Harry Clarke DJV	Alastair Hancock DJV	06-07-18	Issued for acceptance
C02	Jesse Johnson DJV	Glenn Rose DJV	Alastair Hancock DJV	07-09-18	Issued for acceptance
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Table 2: Contribution to Specific Objectives

Table 3: Record of stakeholder engagement in preparation of the Project Plan

1 Executive Summary

- 1.1.1 This High Speed 2 (HS2) North Section Phase One 'Project Plan' details the methodology and approach for trial trenching at part of the HS2 route located north-east of Leamington Spa in central Warwickshire. The trenched area, or "evaluation area", is 4.7km long, covers approximately 127 ha, and is situated between the River Leam (HS2 Chainage 133800) in the south-east and Stoneleigh Park (HS2 Chainage 138600) in the north-west.
- 1.1.2 The evaluation area is required as part of the construction land requirements for the enabling works and subsequent main works. The enabling work and main works will entail ground disturbance which may have an impact on the historic environment (i.e. known or possible buried heritage assets/archaeological remains and above ground heritage assets/structures of historic interest).
- 1.1.3 Trial trenching is required to examine the presence, nature, date, extent, survival, significance and contribution to Generic Written Scheme of Investigation Historic Environment Research and Delivery Strategy (GWSI: HERDS) Specific Objectives of known or potential sub-surface heritage assets which may be affected by the enabling works and subsequent main works.
- 1.1.4 The trial trenching will focus on examination of known heritage assets comprising two areas of potential Late Iron Age or Romano British settlement, the periphery of Stareton deserted medieval village (DMV), a possible medieval water mill and will also examine the character of the medieval landscape. The trial trenching is designed to inform further contingency trial trenching, and provide the basis for defining subsequent mitigation strategies where known or unexpected archaeology has potential to contribute to HERDS Objectives.
- 1.1.5 Works within this Project Plan are permitted by the High Speed Rail (London-West Midlands) Act (the Act), which provides powers for the construction and operation of HS2 Phase One, and the Heritage Memorandum, which sets out how historic environment (including heritage assets and their setting) will be addressed during the design and construction of HS2 Phase One.
- 1.1.6 The Project Plan uses results of previous investigations to define the trial trenching strategy and, where appropriate, the targeting of trial trenches. It follows on from preliminary research carried out as part of the 2013 Phase One Environmental Statement (ES) including geophysical, hyperspectral and LIDAR survey. It also uses information from completed EWC North studies including Historic Settlement Landscape Study (HSLDDBA) (1EW04-LMJ-EV-REP-N000-029001), Heritage Asset Density Mapping, Railway & Industry Landscape Study (1EW04-LMJ-EV-REP-N000-029002), and Geoarchaeological Desk Based Assessment (GDBA: 1D037-EDP-EV-REP-000-000031).
- 1.1.7 The ES concluded that Palaeolithic archaeological and palaeoenvironmental remains associated with the former River Bytham could be present, and that evidence of the

Mesolithic and later prehistoric periods may be sparsely spread throughout the landscape, with potential for these periods increasing slightly in proximity to the River Leam and River Avon. The GD8A and DD8A examining the Cubbington area supported the ES conclusion that potential Palaeolithic remains may be located in proximity to the former River 8ytham and Mesolithic and later prehistoric remains in proximity to the River Leam.

- 1.1.8 Geophysical survey revealed an area of potential Iron Age and/or Romano-British settlement comprising possible enclosure ditches, penannular gullies and pits focussed to the south east of South Cubbington Wood. A less coherent focus of possible later prehistoric or Romano-British activity was also identified by the geophysical survey to the south of Leicester Road.
- 1.1.9 The Cubbington DD8A identified potential for medieval agricultural remains associated with the settlement of Cubbington to extend into the evaluation area and the ES noted the presence of earthworks associated with Stareton DMV to the north east. The HSLDD8A identified former built heritage, mostly field barns and isolated farmsteads, within or close to the evaluation area, a possible moated site was also identified at the south and the site of a late post medieval plant nursery toward the north of the evaluation area.
- 1.1.10 The previous work suggests that the main potential is for Iron Age/early Romano-British settlement evidence, remains associated with Stareton deserted medieval settlement, and medieval and post-medieval agricultural evidence; including ridge and furrow earthworks, former field boundaries and small scale rural industry, including a former water mill.
- 1.1.11 The purpose of this Project Plan is to:
- outline the scope and aims of archaeological field evaluation and how it will contribute to specific research objectives, in accordance with the Generic Written Scheme of Investigation Historic Environment Research and Delivery Strategy (GWSI: HERDS);
 - outline the approach and methodology to be employed. These details will be covered comprehensively in the Local Specific Written Scheme of Investigation (LS-WSI); and
 - set out the proposed deliverables and reporting mechanisms.
- 1.1.12 The baseline information shows that the trial trenching will contribute to GWSI: HERDS Specific Objectives addressing Romano-British and Medieval settlement, landscape and infrastructure. The trenching also has the potential to reveal unknown archaeological features of other periods and may therefore contribute to other GWSI: HERDS Specific Objectives, in particular those examining the prehistoric and early medieval periods. The GWSI: HERDS Specific Objectives guiding the Project Plan are listed below:
- KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area distinctiveness, or is this due to variation in geology or investigative techniques?

- KC14: Identify sequences of environmental change for the Late Upper Palaeolithic– Early Mesolithic transition through investigation of sites in the Colne Valley and other locations along the route.
- KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in landscape organisation and enclosure?
- KC16: Investigate the degree of continuity that existed between Late Bronze Age and Iron Age communities in terms of population, mobility and subsistence strategies.
- KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with regard to the different settlement types encountered along the route.
- KC23: Identify evidence for late Roman occupation and attempt to identify any continuity in settlement patterns between the end of the Romano-British period and the Early Medieval period.
- KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes.
- KC33: Investigate the development of water mills from the Anglo Saxon period through to the modern period. How did the technology of milling change, and what implications has this for farming practice?
- KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter and their contribution to settlement desertion.
- KC36: How were medieval and later woodlands managed and exploited and what evidence do they preserve for earlier land use?
- KC40: Identify patterns of change within medieval rural settlement from the 11th to mid-14th century.

2 Location / Site Background

2.1 Baseline

- 2.1.1 This Project Plan has been prepared in accordance with guidelines set out in *HS2 Technical Standard - Specification for historic environment project plans* and location specific written schemes of investigation (HS2-HS2-EV-STD-000-000036).

- 2.1.2 The evaluation area is located in Warwick District, Warwickshire, and runs for c.4.7km between the north bank of the River Leam in the south-east (HS2 Chainage 133800) and Stoneleigh Park in the north-west (HS2 Chainage 138600). It is centred on National Grid Reference (NGR) 434604, 269367 and includes c.127ha of rural land, typically comprising large rectilinear agricultural fields bounded by hedgerows.
- 2.1.3 The evaluation area will be subject to enabling works and subsequent main works as part of Phase One of HS2, and constitutes the following Construction Land Requirement (CLR) parcels: CR02137, CR02203, CR02204, CR02206, CR02252, CR02544, CR02628, CR02719, CR02736, CR02737, CR02741, CR02742, CR02828, CR02878 and CR02919. The work will entail ground disturbance which would potentially have an impact on any archaeological remains that may be present.
- 2.1.4 The evaluation area is situated within the Dunsmore Archaeological Character Area (ACA 3) of Community Forum Area 17 (CFA17), and the Dunsmore Archaeological Character Area (ACA 1) and Avon Valley Archaeological Character Area (ACA 2) of CFA 18; summarised as heathland and river valley landscapes, utilised for agriculture and possibly attractive for sparse settlement from the prehistoric period onwards.
- 2.1.5 The ACAs were split further within the ES; therefore the evaluation area is located within the following Archaeological Character Sub-Zones:
- CFA17-08: Upper Leam (NW): The upper slopes of the Leam Valley to the north-west of the river, in continuous agricultural use for several centuries;
 - CFA17-09: Dunsmore Plateau: An area of glacial soils, utilised for managed woodland since the medieval period;
 - CFA17-10: Bytham River: Part of the projected route of the former River Bytham, in continuous agricultural use for several centuries;
 - CFA18-01: Bytham River: Mostly flat or gently rising open landscape, utilised for agriculture; and
 - CFA18-02: Upper SE slopes of Avon Valley: Valley with grazing land, utilised for agriculture.
- 2.1.6 The archaeological works detailed in this project plan comprise 'Trial Trenching', which is intended to identify, investigate and record known archaeological remains, and where present, unknown archaeological remains in order to clarify their nature, date, significance and the contribution they can make to HERDS Specific Objectives.
- 2.1.7 A project plan for sample archaeological test pitting is currently being prepared to enhance the work detailed in this project plan. The test pitting will examine select areas located within

the Archaeological Character Sub-Zones for the presence of prehistoric and early medieval evidence, which is often difficult to define with trial trenching.

- 2.1.8 Table 1 lists the archaeological investigations that have been carried out at the evaluation area to date, with the key outcomes.

Table 1: Previous investigations at the evaluation area

Description	Summary of results
LiDAR and Hyperspectral data carried out as part of the ES (CH-004-017 and CH-004-018).	The LiDAR survey of Offchurch and Cubbington (CH-004-017) identified several medieval and/or post-medieval/modern features at the south of the evaluation area, including ridge and furrow (WA17.18 and WA17.19), boundary ditches within woodland (WA17.20 and 17.23), field boundaries (WA17.16, WA17.24) and possible quarries or ponds (WA17.17, WA17.22). Additional features were identified by the LiDAR survey of Stoneleigh, Kenilworth and Burton Green (CH-004-018), at the north of the evaluation area. This included further evidence of medieval and post/medieval activity, such as ridge and furrow (WA18.3–WA18.5 and WA18.8), field or woodland boundaries (WA18.2, WA18.6 and WA18.10), and ponds (WA18.1 and WA18.7).
Geophysical Survey carried out as part of the ES (CH-004-017)	Geophysical survey was carried out at the south of the evaluation area (WSI-CFA17-006/009). It identified parallel linear anomalies, suggesting pre-medieval agricultural activity in the form of ridge and furrow. A small number of discrete anomalies of possible archaeological origin were also identified during this survey.
Geophysical Survey carried out as part of the HS2 Phase One Enabling Works based upon the Project Plan for Geophysical Survey: Area 2 (1EW04-LMJ-EV-PLN-NS01_NL02-029000)	Geophysical survey was completed between 14 th February and 2 nd March 2018 at the central and northern thirds of the evaluation area, covering c.103.3 ha. The survey revealed a possible area of settlement activity immediately south-east of South Cubbington Wood, where enclosure ditches, penannular gullies and pits appear to be present. Isolated linear trends and discrete anomalies situated in the north-east of the site were also interpreted as potential archaeological features, but none appear to identify concentrations of archaeological activity.
Historic Settlement Landscape Study carried out as part of the HS2 Phase One Enabling Works based upon the Detailed Desk Based Assessment for Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001)	A route-wide historic settlement study was undertaken to examine the later medieval and post-medieval landscapes. The two most significant features identified were a mill (id 105) and a possible moated site (id 99), both within the south of the evaluation area. Other features within or close to the evaluation area include non-extant isolated farmsteads (id 103, 108) a non-extant building at Stareton (id 521), a medieval/post-medieval place name "The Pingle" (id 597) and a late 19 th century plantnursery (id 110).

2.2 Site Conditions

Topography and Geology

- 2.2.1 The evaluation area rises from c.60m AOD at the River Leam (in the south) to c.100m at South Cubbington Wood, then descends gradually to c.60m AOD at Stoneleigh Park (in the north).

- 2.2.2 According to British Geological Survey (BGS) online mapping data the underlying bedrock geology comprises, from south to north: Mercia Mudstone Group, Tarporley Siltstone Formation, Helsby Sandstone Formation, Ashow Formation Mudstone and Sandstone, and Kenilworth Sandstone Formation.
- 2.2.3 The BGS records the superficial geology at the south of the evaluation area as river terrace deposits, with a thin east-west aligned strip of alluvium flanking the River Leam. The area surrounding South Cubbington Wood exhibits varied superficial geology associated with the former River Bytham and later glacial deposits, including Baginton Sand and Gravel Formation, Thrussington Member till and diamicton, Wolston Member glacial deposits, Wolston Sand and Gravel Formation, Mid-Pleistocene till, and Dunsmore sand and gravel. Superficial geological deposits are not recorded north of Coventry Road, beyond a thin strip of alluvium intersecting Leicester Lane at the west of the evaluation area, and a small area of river terrace deposits situated immediately north of Leicester Lane at the east of the evaluation area.

Summary of Archaeological Potential and Significance

- 2.2.4 The evaluation area does not contain any nationally designated (protected) heritage assets, such as world heritage sites, scheduled monuments, listed buildings or registered parks and gardens. The closest nationally designated heritage asset is the Grade II* registered park and garden of Stoneleigh Abbey (National Heritage List/NHL Ref: 1000377), located immediately north of the evaluation area. The park forms part of a country estate surrounding a listed mansion house (Stoneleigh Abbey, Grade I. NHL Ref: 1035149) and its Grade II listed East Lodge (NHL ref: 1035170); some of the mansion house buildings incorporate elements of medieval monastic buildings from which the estate name is derived. The listed buildings are located c.700m to the north of the evaluation area.
- 2.2.5 Other listed buildings and structures in proximity to the evaluation area include Stonehouse Farm (Grade II: NHL ref: 134948), two Grade II listed houses in Stareton Village (NHL refs: 10351 ; 110240) and the dual designated scheduled monument and Grade II* listed Stare Bridge (NHL Scheduling ref: 100570; NHL Listing ref: 110390). The closest Conservation Area (CA) comprises the historic core of Cubbington which is located c.20m west.
- 2.2. The ES and Warwickshire Historic Environment Record (HER) identify thirteen non-designated heritage assets within the evaluation area, (the possible extent of these assets as mapped by the ES and HER is shown on Figure 2). The complete list of assets are presented in Appendix 8. Those of particular significance comprise, from north to south:
- OFCo41/STNo04: Bytham River/River Bytham: Middle Pleistocene river system which has revealed Lower Palaeolithic finds (several hand axes, stone tools and faunal remains);

- OFCo37: Cubbington/Weston-under-Wetherley parish boundary: Important post-medieval hedgerow marking the parish boundary, which may be of considerable age;
- OFCo38: Weston Mill and bridge: site of a demolished watermill, which may have existed as early as AD131. The wooden bridge is extant and may have first been constructed during the post-medieval period.

2.2.7 The HER records a total of 18 archaeological investigations in the landscape surrounding the evaluation area, but none within it. The investigations are shown on Figure 3, and those within 500m are listed in Appendix C. The most significant of the previous investigations comprise:

- EWA9839: Site visit to Stoneleigh Abbey gardens and deer park, Stoneleigh by J Lovie c199;
- EWA922 : 1-2 Stareton Cottages, Stareton, Warwickshire: An Archaeological Watching Brief; and
- EWA7480: Observations of ridge-and-furrow at Cubbington Primary School.

2.2.8 The following sections summarise the archaeological and heritage potential of the evaluation area by period.

Palaeolithic (500,000 - 10,000BP) and Mesolithic (8,500 - 4,000BP)

2.2.9 Evidence of Palaeolithic activity is not recorded within the evaluation area. However, the ancient River Bytham crosses the centre of the evaluation area and the ES has identified the River Bytham as an area of high potential for Lower and Middle Palaeolithic archaeological and palaeoenvironmental remains.

2.2.10 The projected route of the River Bytham is within Geoarchaeological Character Zone (GCZ) 30/Enhanced Study Area (ESA) 3 'River Bytham' of the Geoarchaeological Desk-based Assessment (GD8A) (1D037-EDP-EV-REP-000-000031). The GD8A examined results of archaeological and palaeoenvironmental studies located close to the HS2 Phase One Route and emphasised the potential for River Bytham deposits to yield Palaeolithic archaeological and palaeoenvironmental evidence. The closest recorded example of this potential is at Waverley Wood Farm Pit, c.2. km east of the evaluation area, where a Palaeolithic site of national and potentially international importance has been identified. Finds comprised a concentration of Lower Palaeolithic artefacts, the remains of a straight-tusked elephant and organic deposits associated with the gravels of the ancient Bytham River. These finds have been dated to c. 500,000 Before Present (BP).

2.2.11 The GD8A also identified potential river terrace deposits and Holocene alluvium within the evaluation area at GCZ 29 (Offchurch to Cubbington 'River Leam') and c.100m north of the evaluation area at GCZ 31 (Cubbington to Stoneleigh 'River Avon'). The areas close to the rivers may have been a focus of activity during the Mesolithic and the alluvial deposits could

include waterlogged remains and palaeoenvironmental evidence of this and later prehistoric periods.

Neolithic (4,000 - 2,400BC)

- 2.2.12 There is no evidence of Neolithic activity within the evaluation area, and this period is rarely represented in the archaeological record of the wider area. However, this may reflect longstanding agricultural use and a consequent lack of recent archaeological investigation rather than an absence of activity.
- 2.2.13 In the wider region Neolithic monuments – such as long barrows, causewayed enclosures and chambered tombs – have occasionally been identified from cropmarks located on the gravel terraces of the Midlands river valleys, although proximity to the rivers means that the cropmarks are sometimes partially obscured by later alluvium (HERDS Section 11: Period-based resource assessment).
- 2.2.14 The available evidence suggests that the southern end of the evaluation area in proximity to the River Leam, or the northern end of the evaluation area close to the River Avon may be the most likely areas to yield any Neolithic remains.

Bronze Age (2,400 - 750BC)

- 2.2.15 There is no evidence of Bronze Age activity within the evaluation area, and the period is rarely represented in the archaeological record of the wider area. However, this may reflect longstanding agricultural use and a consequent lack of recent archaeological investigation rather than an absence of activity.
- 2.2.1 The closest evidence of the period comprises a number of Bronze Age worked stone tools identified within the DD8A for Cubbington (HER Reference: MWA1489) which were recovered c.750m west of the north-west of the evaluation area. In the wider area a Bronze Age barrow cemetery (L8S095) is recorded c.3.5km to the south east at Print Wood and burnt mounds have been discovered in proximity to water courses.
- 2.2.17 The available evidence suggests limited potential for presence of Bronze Age activity to be identified across the evaluation area, with slightly greater potential in proximity to water courses.

Iron Age (750BC - 43AD)

- 2.2.18 Iron Age evidence is not recorded within, or in close proximity to the evaluation area. The absence of evidence may result from longstanding agricultural use and a consequent lack of archaeological work as the region has a known increase in settlement activity during this period (HERDS Section 11: Period-based resource assessment).
- 2.2.19 Evidence which may date to this period has recently been identified by geophysical survey completed as part of EWC North; the survey shows possible enclosure ditch potential.

penannular gullies and pits at an area situated immediately south-east of South Cubbington Wood. The form of the features suggests a Late Iron Age date, although they could date to earlier or later periods.

2.2.20 Geophysics results to the south of Leicester road (see area of trench 135) also suggest possible late prehistoric settlement activity. However, the plan form of the magnetic anomalies here is less coherent than those discussed in the previous section (2.2.19) and could originate from geological variation, archaeological remains of later periods, or relatively recent ground disturbance.

2.2.21 In the wider area, cropmark sites (OFC009, OFC014 and OFC028), located 1km south-east of the evaluation area, have the potential to date to this period.

Romano-British (AD43 - 410)

2.2.22 Romano-British evidence is not recorded at the evaluation area although a potential enclosed settlement identified by geophysical survey to the south east of Cubbington Wood, see section 2.2.19, could date to this period.

2.2.23 In the wider area geophysical survey completed to the south of the River Leam has defined two rectilinear enclosed settlements, which probably identify Romano-British activity. In addition a scheduled Romano-British settlement/villa estate is located at Glasshouse Wood, c.1.8km to the north-west of the evaluation area, and Fosse Way Roman road c.2km to the south. Heritage asset density mapping completed for EWC North recorded further Romano-British settlement located near Crewe Farm, slightly to the east of the scheduled settlement/villa at Glasshouse Wood.

Early Medieval / Anglo Saxon (AD410 - 1066)

2.2.24 Early medieval evidence has not been recorded within the evaluation area and the ES interpreted the potential for presence of remains of this period to be uncertain. However, this may reflect longstanding agricultural use and a consequent lack of recent archaeological investigation rather than an absence of activity.

2.2.25 The names of a number of surrounding villages and hamlets have an Anglo-Saxon derivation, including Hunningham (OFC040), Cubbington (OFC043), Weston under Wetherley (OFC049) and Stareton (STN011). Weston under Wetherley is located c.1.3km east and Cubbington is located c.300m west of the evaluation area (Figure 2), both settlements are listed in the Domesday Survey of AD 1086 and will therefore have been founded by the latter part of the early medieval period.

2.2.2 The manorial system, which formed the basis of subsequent medieval agrarian society, developed during the latter part of this period. The closest known manorial site of the subsequent medieval period is at Cubbington, c. 300m west of the evaluation area. The Domesday Survey lists relatively large areas under plough and significant areas of meadow in

the holdings of Cubbington and Weston under Wetherley. The documentary evidence and the recorded extents of now removed ridge and furrow field systems (see section 2.2.29), suggests land use at much of the evaluation area during the latter part of this period.

- 2.2.27 Areas of heath and ancient woodland, including South and North Cubbington Woods and Weston Wood are located partly within, but mostly to the east of the evaluation area (see Figure 2). Potential field boundaries and ridge and furrow has been identified by LiDAR and hyperspectral survey within parts of this woodland and this suggests that much of it may have been established during the late medieval or post medieval periods, but it may incorporate small areas of woodland and spinney recorded by the Domesday Survey. During this period woodland was a source of raw material, fuel and was often used as seasonal swine pasture.

Medieval (AD1066 - 1540)

- 2.2.28 The ES identified potential for medieval agricultural remains within the evaluation area due to the proximity of surrounding medieval villages including Weston under Wetherley (OFCo49), Cubbington (OFCo43) and the deserted medieval village of Stareton (STNo11).
- 2.2.29 In the wider area the ES records earthworks near Cubbington which have been interpreted as evidence of shrinkage of the village during this period. Medieval land use within the evaluation area is evidenced by an area of extant ridge and furrow earthworks (STNo08) of an open field system located toward the north of the evaluation area; dispersed areas of ridge and furrow identified from aerial photographs, LiDAR and hyperspectral survey (OFCo3, OFCo47, STNo02); and by geophysical survey results which show widespread parallel magnetic anomalies consistent with the presence of sub-surface remnants of truncated ridge and furrow.
- 2.2.30 The deserted medieval settlement of Stareton (STNo11) is defined by earthworks, including possible house platforms, which are located immediately east of the northern end of the evaluation area.
- 2.2.31 The site of Weston Mill (OFCo38) which may date to the 14th century, or earlier, may be partly located within the southern-end of the evaluation area.
- 2.2.32 A possible moated site (id 99) has been identified by EWC North Historic Settlement Landscape DD8A (HSLDD8A: 1EW04-LMJ-EV-REP-No00-029001) is also located toward the south of the evaluation area.

Post Medieval (AD1540 - 1901) and Modern (1901 - present)

- 2.2.33 The focus of post-medieval remains will lie in agricultural use of the area and is likely to mainly comprise evidence of 18th century and later enclosure of the agricultural landscape and exploitation of available resource for small rural industries.

- 2.2.34 Agricultural activity of the post-medieval period is evidenced by former field boundaries identified by LiDAR and hyperspectral survey at the south (ES ref. OFC037), centre (ES ref. STN099) and north (ES ref. STN100).
- 2.2.35 The HSLDD8A (1EW04-LMJ-EV-REP-N000-029001) recorded evidence comprising former field boundaries, and the sites of field barns. In addition, field names recorded on late 17th century mapping, such as "The Pingle" (id 597), "Brick Kiln Close" (id 59) located to the south of Leicester Road and "Cole Pits" (id 27) toward the north of the evaluation area, suggest small scale enclosure, perhaps assarting, and the presence of rural industrial activity. The study also identified a non-extant late post medieval plant nursery (id 110) at the north of the evaluation area.
- 2.2.3 The evaluation area has remained in agricultural use throughout the modern period, although infrastructure has been improved, Cubbington has expanded, and the National Agricultural Centre was constructed at Stoneleigh Park, immediately north of the evaluation area.

Proposals

- 2.2.37 The proposed works across the route are outlined in the HS2 Design Element Statement (DES). The DES specifies the following works within the evaluation area:
- (139-L2) - River Avon Viaduct;
 - (139-S2) - Stoneleigh Park North Accommodation Overbridge;
 - (137-L1) - Stoneleigh Park Retaining Wall;
 - (138-S1) - 84113 Stoneleigh Road Green Overbridge;
 - (137-L3) - Stonehouse Cutting;
 - (137-L2) - Cubbington Embankment;
 - (137-S1) - A445 Leicester Lane Overbridge;
 - (137-S2) - Furzen Hill ATS;
 - (13 -L1) - Cubbington Cutting;
 - (13 -S2) - Coventry Road Overbridge;
 - (135-S2) - 84453 Rugby Road Overbridge;
 - (134-L2) - Cubbington Cutting;
 - (134-S1) - Mill Lane (Footpath W129d) Accommodation Green Overbridge;
 - (135-S1) - Footpath W130 Overbridge;

- (134-L1) – Lower Grange Cutting;
- (133-L2) – Lower Grange Embankment.

2.2.38 The construction elements above will comprise the following specific works:

- Infrastructure Mitigation Earthworks across the site;
- Areas of Mitigation Planting across the site;
- Areas of Temporary Earthworks Stockpiling across the site;
- Seven New Attenuation Pond across the site;
- Five Satellite Construction Compounds;
- One Electricity Substation immediately north of Leicester Lane.

Archaeological Implications

2.2.39 Since the evaluation area has not previously been developed, the majority of archaeological remains are likely to lie immediately below the ploughsoil, mostly as negative features cut into the underlying superficial geology. Due to the longstanding agricultural use of the evaluation area, it is probable that any shallow archaeological remains will have been affected by modern ploughing. This generally reworks the upper 0.3m (0.4m for crops such as potatoes). The bases of cut features such as pits and ditches, and structural footings potentially survive intact.

2.2.40 The works listed in sections 2.2.37 and 2.2.38 will damage or remove any potential below ground archaeology. The types of potential impact from construction are summarised below.

Soil removal

2.2.41 It is assumed for the purposes of this report that soil will be removed across the route of HS2. Soil removal will occur at the north and south of the evaluation area prior to construction and landscaping of embankments. Soil removal will probably be less comprehensive at areas subject to other permanent works, such as ecological mitigation or diversion of utilities. Other soil stripping will occur in advance of use of areas designated for temporary works such as access routes, compounds and topsoil storage. Soil removal would potentially truncate or destroy any archaeological remains present through machine excavation, rutting and compaction resulting from movement of plant.

Earthworks

2.2.42 Work associated with construction of embankments at the north and south of the evaluation area may damage or remove archaeological remains.

- 2.2.43 The section of HS2 at the centre of the evaluation area will be constructed in deep cuttings. Excavation of the cuttings will entirely remove any shallow archaeological remains that might have survived the preliminary topsoil strip. The cuttings also have the potential to impact deeply buried remains of the Palaeolithic period as they will be excavated through deposits partly associated with the former River Bytham.
- 2.2.44 It is unlikely that the presence or absence of Palaeolithic remains will be determined by the shallow trial trenching set out in this document and HERDS Objectives relevant to possible Palaeolithic remains will be addressed through alternative methodologies. Initial work will comprise preparation of a geoarchaeological deposit model as set out in a separate project plan (1EW04-LMJ-EV-PLN-N000-029009)

Pond Excavation

- 2.2.45 The assumed excavation depths for attenuation ponds and associated drainage ditches is between 1.5–2.0m below ground level (mbgl). These depths would partially or completely remove any archaeological assets from within their footprint.

Planting

- 2.2.46 The works include Landscape Mitigation Planting, which may include introduction of hedgerows, stands of woodland and areas of woodland edge. Ground intrusion from the proposed tree planting and subsequent root action is assumed to reach a depth of 1.0–1.5mbgl, removing or disturbing significantly any archaeological remains at the location of the planting.

2.2.47 *Site Fencing*

There may be localised impacts resulting from the construction of the foundation posts for the hanging posts of fence gates and end struts. The level of impact is assumed to be around 1.0–1.5m deep, potentially disturbing archaeological assets within their footprint.

3 Aims and specific objectives

- 3.1.1 The aim of this Project Plan is to:

- Define the aims and scope of the programme of field evaluation (trial trenches) and how the work will contribute to specific objectives, in accordance with the GWSI: HERDS;
- Outline the overall approach and methodology to be employed; and
- Set out the proposed deliverables and reporting mechanisms.

- 3.1.2 All historic environment work on HS2 is guided by the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) for HS2-

HS2-EV-STR-000-000015). Its purpose is to establish the objectives and mechanisms for designing and carrying out all historic environment related investigations, so that the work has specific aims, rather than an approach of simply mitigating impacts in order to collect information.

- 3.1.3 The aim of the field evaluation is to determine, as far as reasonably possible, the presence, nature, date, extent, survival and significance of the archaeological resource within the evaluation area, primarily in relation to previously identified GWSI: HERDS research objectives, so that, if necessary, a suitable archaeological mitigation strategy can be put in place to reduce or offset any adverse effects arising from proposed ground disturbance.

Contribution to GWSI: HERDS Objectives

- 3.1.4 The GWSI: HERDS document provides a comprehensive list of Specific Objectives for the historic environment for the whole HS2 Phase One North Section. This Project Plan has identified those objectives which are relevant for the field evaluation.
- 3.1.5 The identified Specific Objectives have been selected based on information collated to date (see Section 2). The identified Specific Objectives may be revised relative to the results of the evaluation. For example, unexpected archaeological remains may be encountered which could contribute to other Specific Objectives. If other Specific Objectives are identified during the evaluation, the scope of works shall be updated to address those Objectives.
- 3.1. Table 2 sets out the Specific Objectives of the works. Through delivery of these works, and the addressed aims set out in the table, the trial trenching will create knowledge and outputs that would contribute to these Specific Objectives.

Table 2 GWSI: HERDS Specific Objectives and evaluation strategy aims

GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area distinctiveness, or is this due to variation in geology or investigative techniques?	The GD8A recognises river terrace and alluvial deposits at the south (River Leam) and north (River Avon) of the evaluation area as having potential to preserve archaeological and palaeoenvironmental evidence of the prehistoric periods.	Trial trenching has the potential to identify Mesolithic, Neolithic and Early Bronze Age evidence. The trenches located close to the rivers may also reveal waterlogged deposits containing archaeological evidence and palaeoenvironmental information from prehistoric periods.
KC14: Identify sequences of environmental change for the Late Upper Palaeolithic-Early Mesolithic transition through investigation of sites in the Colne Valley and other locations along the route	Prehistoric activity is not previously recorded at the evaluation area but a recent geophysical survey has identified two areas, including a possible small enclosed settlement to the south east of South Cubbington Wood, which may include Bronze Age settlement activity. In the wider area there are finds of Neolithic pits, and a number of Bronze Age flints (HER ref. MWA1489) were	Results would enhance understanding of the prehistoric landscape of the evaluation area and provide information to inform predictive modelling of the location of other early prehistoric sites.

GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
	recovered c.750m west of the north-west evaluation area.	
KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in landscape organisation and enclosure?	Although there is no previous known later prehistoric activity, a recent geophysical survey has identified two areas, including a possible small enclosed settlement to the south east of South Cubbington Wood, which may include Bronze Age or Iron Age settlement activity.	<p>Trial trenching targeted on the potential settlement activity identified by geophysical survey and current 'blank' areas would aim to identify potential Late Bronze Age or Iron Age remains. Trial trenching has the potential to develop a chronological framework by attributing heritage assets to a specific period. It may be possible to examine differences in landscape use and enclosure types by period.</p> <p>Any results, positive or negative, will contribute to this objective due to the lack of current evidence for these periods.</p>
KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route.	<p>Although there is no known Romano-British activity within the evaluation area, a recent geophysical survey has identified two areas, including a possible small enclosed settlement to the south east of South Cubbington Wood, which may include Romano-British settlement activity.</p> <p>The presence of several Roman sites in the wider region and the location of the Fosse Way 2.4km to the south of the evaluation area suggests that there is a potential for Romano-British remains within the wider area.</p>	<p>Trial trenching targeted on the features identified by geophysical surveys would aim to identify Romano-British remains. Any positive Romano-British remains will contribute to the understanding of regional and cultural distinctiveness during this period.</p>
KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes	<p>Although no known evidence of early medieval activity is recorded within the evaluation area, the names of a number of surrounding villages and hamlets have an Anglo-Saxon derivation, including Stareton, Weston under Wetherley, Hunningham and Cubbington.</p> <p>The Domesday survey suggests that the evaluation area may have been largely used as arable and pasture land during Middle and Late Saxon periods.</p>	<p>Supported by an initial site walkover survey, trial trenching would aim to identify potential features associated with early medieval activity - including at an area located in proximity to Stareton DMV.</p> <p>Securely dated Saxon evidence associated with settlement or agricultural activity, will contribute to understanding of the early medieval landscape.</p>
KC33: Investigate the development of water mills from the Anglo-Saxon	The south of the evaluation area includes part of the site of a water mill	Supported by an initial site walkover survey, trial trenching would aim to

GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
period through to the modern period. How did the technology of milling change, and what implications has this for farming practice?	which may have been in existence by the 13 th century.	identify and examine features associated with medieval activity in the landscape to define their contribution to identified HERDS Objectives - including those associated with a water mill, settlement, ridge and furrow (both above ground and buried), field boundaries, woodland and small scale rural industry. Positive trenching results will contribute to our understanding of the medieval landscape, including settlement shrinkage and different forms of land management over time.
KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14 th century and thereafter and their contribution to settlement desertion	Ancient woodland is located partly within, but mostly to the east of the evaluation area. The ES identified areas of ridge and furrow and field boundaries covered by this woodland, which suggests that it may have been established during the latter part of the medieval or the post medieval period.	
KC3 : How were medieval and later woodlands managed and exploited and what evidence do they preserve for earlier land use?	Parts of the evaluation area contain truncated and extant medieval ridge and furrow and trackways which could contribute to understanding patterns of change within medieval rural settlement.	
KC40: Identify patterns of change within medieval rural settlement from the 11 th to mid-14 th century	If features associated with Stareton DMV extend in to the evaluation area it may be possible to directly examine evidence of changes within medieval settlement pattern and reasons for settlement desertion.	

4 Scope and Methodology

4.1 Introduction

- 4.1.1 The investigative fieldwork outlined in this Project Plan comprises Trial Trenching. The work has been designed to meet HS2 GWSI: HERDS Specific Objectives. The Trenches are targeted to features identified by previous surveys, including Geophysical Survey, and will also investigate 'blank' areas, where features have not previously been identified. It will determine, as far as reasonably possible, the presence, nature, date, extent, survival and significance and contribution to GWSI: HERDS Specific Objectives of archaeological remains discovered within the evaluation area.

4.2 Location Specific Written Scheme of Investigation

- 4.2.1 A Location Specific Written Scheme of Investigation (LS-WSI) will be produced. This will provide the detailed method of investigation, including survey area, access arrangements, welfare, accommodation, site safety, RAMS, etc. The LS-WSI will be approved by HS2 prior to starting work.

4.3 Trial Trench Evaluation

- 4.3.1 The aim of the evaluation will be to examine known archaeology and investigate the presence or absence of unknown archaeological features, structures, deposits, artefacts and/or ecofacts. Where present the investigation will define the character, extent, quality and preservation of archaeological remains in order to determine their contribution to Specific Objectives identified in this Project Plan, and to examine whether other Specific Objectives should be added. The results of the evaluation will inform any subsequent archaeological mitigation strategy, including design adjustment, where possible, to avoid significant remains.
- 4.3.2 There will be 21 trenches excavated during the evaluation, with their locations evidenced on Figures 4- . A 4% contingency by area will be used, with agreement of HS2 and as appropriate, for further investigation of areas of high potential where results of initial trenching have been negative, to further define and characterise targeted archaeology or discoveries of previously unknown archaeology, and for mitigation of archaeology which contributes to HERDS Specific Objectives where initial investigation has shown that it is of limited complexity and extent. All trenching will be assigned a unique ID in accordance with the Employer's Asset Information Management Systems (AIMS).
- 4.3.3 The evaluation will be carried out by a suitably qualified Archaeological Contractor. The trial trenches will generally be 50.0m long and 2.0m wide, and no more than 1.2m deep. Where deeper excavation is considered necessary, for example at areas of colluvium or alluvium, trench sides will be shored or stepped.
- 4.3.4 Trenches are positioned to provide coverage across the entirety of the evaluation area, with any areas left blank being due to logistical issues of access, space, presence of utilities, or inappropriate ground conditions for excavation. The area that is accessible for trial trenching is shown on Figures 4 to 8, it is dictated by the construction land requirements.
- 4.3.5 Other trenches have been targeted to test results of previous work, in particular trenches 193-200 and 202 examine geophysics results suggesting the presence of a late prehistoric enclosed settlement to the south-east of South Cubbington Wood; and further to the north, trench 135 (and surrounding trenches) examine an area where less convincing potential prehistoric settlement evidence may be present.
- 4.3. At the north of the evaluation area trenches 12-27 are located to the west of Stareton deserted medieval village, although the geophysics results show no obvious evidence that structural remains associated with the village extend into this area. And at the south of evaluation area, trenches 259, 200 and 201 are situated at, or close to the site of a possible medieval mill located at the north bank of the River Leam

- 4.3.7 Areas of medieval/post-medieval field boundaries/routeways and ridge and furrow at the north of the evaluation area (STN008, STN099, STN100), are examined with trenches 1-35, 37-38, 40-44 and 4 -51. Another area of field boundaries near Furzen Hill Farm (STN099) is examined with trenches 110, 107, 127, 137, 138, 140, 142-147. Six fields containing evidence of ridge and furrow between Cubbington and North Cubbington Wood (OFCo47/STN098) are examined with trenches 153, 15 -175 and 178. Further evidence for ridge and furrow is located at the south of the evaluation area near Lower Grange (OFCo3) and is examined with trench 254.
- 4.3.8 A number of trenches, including trenches 34, 228, 235, target geophysics anomalies of uncertain origin, although they may relate to relatively recent agricultural activity.
- 4.3.9 Trenches 35, 143, 207 are located over the sites of infilled field ponds identified by geophysical survey and trench 239 investigates a possible moated site identified by the HSL DD8A.
- 4.3.10 Trenches 28-30 are located within the former site of a late post medieval plant nursery and trenches 4-11, 3 , 39, 45 and 50 are situated at areas where geophysics results suggest significant superficial modern disturbance.
- 4.3.11 Trenches 148-214 are located over the projected route of the 8ytham River and have limited potential to reveal unstratified artefactual remains dating to the Palaeolithic period.
- 4.3.12 Trenches 241- 253, 259-2 1 are located on river terrace deposits and trenches 254-258 on alluvial deposits of the River Leam and have potential to reveal remains dating to the Mesolithic, Neolithic and Bronze Age. The Geoarchaeological Area Project Plan (1EW04-LMJ-EV-PLN-N000-029009), will be consulted to examine whether the trenches may encounter deep alluvial deposits, in this instance a 1.2m deep trench may not reach the horizons of archaeological interest and deeper excavations may be necessary.
- 4.3.13 The majority of the evaluation area is recorded as a low UXO hazard, except for one field located immediately north of the River Leam, which is listed as a moderate hazard due to the proximity to a former WWII bomb decoy site. The only recorded WWII bomb impact within the evaluation area is located to the south of Leicester Lane (Unexploded Ordnance Desk Study; 0 15-ZET-GT-REP-000-000001).
- 4.3.14 The locations of all trenches will be subject to confirmation of any utilities and services present in the evaluation area. Trenches may be relocated to avoid existing services and for other reasons, e.g. to avoid ecological or physical constraints.
- 4.3.15 Tasks that will be undertaken comprise:
- Set up (including welfare, compound and required fencing);
 - Mechanical excavation to remove topsoil, in order to expose potential archaeological horizons;

- Archaeological hand excavation, identification and recording of any archaeological features exposed;
- Selective environmental sampling, processing and assessment; and
- Post-investigation reporting and archiving.

Setting Out

- 4.3.1 All spatial setting out and recording shall be in accordance with The Ordnance Survey National Grid and Ordnance Survey Newlyn Datum (ODN) as defined by the OS Active GNSS network and use of a Virtual reference system. A minimum of three Permanent Ground Markers (PGM) shall be created using this system for each trench or group of geographically related trenches.
- 4.3.17 Trenches shall be set out and recorded to a minimum horizontal accuracy of +/- 0.05m. The corner points of each trench location shall be set out with Real Time Kinematic (RTK) Global Navigation Satellite System (GNSS) equipment or other suitable automated equipment referenced from the PGMs.
- 4.3.18 Surface heights shall be recorded using RTK GNSS and related to PGMs. Ordnance Survey Bench Marks (OSBM) are not to be used. Levelling accuracy shall be within 0.1m Ok: where 'k' is the total distance levelled in kilometres.
- 4.3.19 The Archaeological Contractor shall ensure that all trench or excavation limits, and significant archaeology detail are surveyed 'as dug' in relation to the project grid before leaving the evaluation area. Ground level height data to Ordnance Datum (OD) shall be recorded for each trench, along with the levels of the top of the superficial drift deposits (where present) and the top of the solid geology. Levels of key archaeological horizons and features will also be recorded.

Mechanical excavation

- 4.3.20 Trial trenches shall be excavated to the first archaeological level, the top of the natural geology or usually a maximum depth of 1.2m, if no remains of archaeological interest have been identified. Areas of deeper stratigraphy which may include or cover archaeological remains, such as colluvial or alluvial sequences, may need to be excavated to the base of the stratigraphic sequence and in this instance trenches shall be shored, or stepped and kept free of water, in order to allow appropriate investigation.
- 4.3.21 Excavation will be undertaken using a mechanical excavator with toothless ditching bucket. Machining shall be carried out under the constant supervision of the Archaeological Contractor to excavate the ground in spits. The Archaeological Contractor shall use their professional judgement to determine the appropriate depth of each spit. The Archaeological Contractor will agree any variations to the excavation methodology with DJV and shall record

this in writing for inclusion in the final report. Each spit shall be examined carefully to assist the recovery of any archaeologically significant artefacts and thus to determine when to cease machining. It is the responsibility of the Archaeological Contractor to ensure that the finished surface is machined to a suitably 'clean' state in order to identify, define and investigate any exposed archaeological deposits. If the surface is not sufficiently clean, hand cleaning of the surface will be required. Machine excavation will comply with the Employer's Technical Standard - Route wide soil resources plan (HS2-HS2-EV-STD-000-000008).

- 4.3.22 The Archaeological Contractor shall ensure that water is discharged and excavated materials from archaeological excavations are stored in accordance with the Contractor's environmental protection requirements (as set out in the package Works Information and their Environmental Management Plan) and any relevant consents for the worksite. The Archaeological Contractor shall monitor discharge rates and, if necessary, conductivity of discharge waters to ensure compliance.
- 4.3.23 Deep stratigraphy, such as colluvial or alluvial sequences, may be encountered, where this is revealed, and where feasible, trenches, or sondages shall be excavated to the base of the stratigraphic sequence, and shall be appropriately shored and kept free of water to allow 'person entry' to the excavations, i.e. to allow the Archaeological Contractor to undertake investigation and recording to fulfil the aims of the work. The Archaeological Contractor will ensure that all works undertaken in deep stratigraphy will comply with the Employer's Technical Standard – Temporary Works (HS2-HS2-CV-STD-000-000005).
- 4.3.24 Within alluvial sequences the Archaeological Contractor shall pay particular attention to establishing the vertical extent of layers of archaeological potential and shall be aware that horizons of cultural activity may be present within horizons of sterile alluvium. The Archaeological Contractor shall supervise the excavation of each trench in such a manner so as to allow a cumulative or continuous trench section face to be recorded.
- 4.3.25 Should any material be excavated that is deemed to be contaminated or potentially contaminated it shall be investigated, controlled (e.g. placed separately from clean material) and removed in accordance with the Contractor's environmental protection requirements (as set out in their Environmental Management Plan).

Fieldwork Recording

- 4.3.26 Archaeological recording shall be undertaken by the Archaeological Contractor to the general requirements as described in the GWSI: HERDS (section 7.6). A sufficient sample of the archaeological features and deposits revealed must be sampled/or fully excavated to allow the resolution of the aims and objectives of the work. Structures, features, or finds which might reasonably be considered to merit preservation *in-situ* shall not be unduly damaged.
- 4.3.27 Where areas of extensive archaeological stratification are encountered, the horizontal and vertical extent of archaeological stratification shall be assessed by the Archaeological

Contractor through implementation of an appropriate strategy including either the excavation of features cut into horizontal stratification, limited test pitting or auguring. The aim shall be to recover suitable stratigraphic, finds and environmental samples from the full, intended depth of the trench, as far as is practicable. The exact methodology may need to be designed by the Archaeological Contractor during the excavation of individual trenches and agreed with DJV and the Contractor.

- 4.3.28 Metal detectors will be used by experienced staff to scan for metallic finds during the excavation of key archaeological features or deposits.
- 4.3.29 In order to protect any waterlogged remains during the works, the Archaeological Contractor may identify a requirement for trial excavations to be allowed to refill with water overnight. In such cases, the Archaeological Contractor shall ensure that any hazards to staff or 3rd parties are minimised.
- 4.3.30 Archaeological recording is to include, as a minimum:
- At least one representative section at (1:10 or 1:20 scale) of each evaluation trench, from ground level to the base of the excavation;
 - the written record of individual context descriptions on appropriate pro-forma;
 - plans at appropriate scales (1:10, 1:20 or 1:50);
 - single context planning should be used only if appropriate (i.e. where there is a complex sequence);
 - photographs and other appropriate drawn and written records; and
 - other sections, including the half-sections of individual layers of features shall be drawn as appropriate to 1:10 or 1:20 scale.
- 4.3.31 A 'site location plan', indicating site north shall be prepared at 1:1250. Individual 'trench plans' at 1:200 (or 1:100) shall be prepared which show the location of archaeology investigated in relation to the investigation area. The location of site plans will be identified using OSG8 co-ordinates.
- 4.3.32 Section drawings shall be located on the relevant plan and OSG8 co-ordinates recorded. The locations of the PGM bench markers used and any site Temporary Bench Mark (T8M) used for the evaluation shall also be indicated.
- 4.3.33 A record of the full extent in plan of all archaeological deposits as revealed in the investigation shall be made. These plans will normally be based on digital survey data (digital planning methods shall be agreed in advance with HS2), supplemented where appropriate by hand drawn records on polyester based drawing film (at a scale of 1:10 or 1:20 unless otherwise agreed with HS2). All hand drawn information shall be digitised (or preferably generated

digitally in the first instance), and final deliverables will be supplied in an Esri format and adhere to standards set out in the (*cultural Heritage GIS Standard* (HS2-HS2-GI-SPE-000-000004). Single context planning shall be used where complex stratigraphy is encountered.

- 4.3.34 A 'Harris matrix' stratification diagram shall be employed to record stratigraphic relationships (Harris *et al.* 1993) where appropriate. This record shall be compiled and fully checked by the Archaeological Contractor during the course of the excavations. Spot dating shall be incorporated onto this diagram during the course of excavations.
- 4.3.35 Recording of structural evidence revealed below ground level will vary according to the level of special interest of the structure and its relationship to archaeological remains. Structures of little or no significance shall be noted on a site plan. Detailed drawings of important features revealed in investigations may be required in accordance with the aims and objectives of the investigation as defined in the Project Plan.
- 4.3.3 The photographic record will be in digital format, resulting in high resolution TIFF (uncompressed) images. Photographs will illustrate both the detail and context of the principal archaeological features discovered. In addition, the Archaeological Contractor shall take appropriate record photographs to illustrate work in progress. All photographic records will include information detailing: site name and number/code, date, context, scale and orientation.

Human Remains

- 4.3.37 If unexpected human remains are identified, all work must be undertaken in accordance with the *Human remains and monuments procedure* (HS2-HS2-EV-PRO-0000-000008) and the Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035).
- 4.3.38 The Archaeological Contractor shall notify DJV immediately upon discovery of unexpected human remains. DJV shall notify HS2, so that the human remains procedures can be implemented. DJVs notification to HS2 may initially be made personally or by telephone but shall be confirmed in writing (email will suffice) within 24 hours of discovery.
- 4.3.39 After notification to DJV the Archaeological Contractor will cease all works on unexpected human remains until further instruction is provided by DJV.
- 4.3.40 The Archaeological Contractor will complete any exhumation of human remains in accordance with the requirements of their recognised osteoarchaeologist. In some circumstances DJV may consult Historic England and other stakeholders for input to exhumation and sampling strategy.
- 4.3.41 Human remains, once recognised, will be metal detected immediately to determine whether any metallic grave goods are present. If possible grave goods and other obvious artefacts shall be recorded and lifted on the day of discovery to avoid the risk of vandalism and theft.

Where this is not feasible or appropriate, the Archaeological Contractor shall ensure, on liaison with the Contractor, that adequate site security is provided. As a minimum, this will require a 24-hour comprehensive security regime until sensitive remains have been recorded and lifted. This is a particular issue for rural sites and 'isolated burials'.

- 4.3.42 Human remains will be accorded due dignity, care and respect at all times. The Archaeological Contractor may need to screen the remains, dependent on their location.

Environmental Sampling

- 4.3.43 In line with The Employer's Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) an initial sampling strategy is set out below. This strategy is based on the existing information about the evaluation area, gathered from non-intrusive surveys and the HERDS objectives outlined in Table 2.
- 4.3.44 The sampling strategy, along with the HERDS Objectives outlined in Table 2 identify the key elements that should, where present, be sampled during this evaluation. However, the strategy will need to be reviewed throughout the on-site work, and where unexpected features or deposits are identified, revised accordingly to take these into account.
- 4.3.45 The purpose of sampling at the evaluation stage is to identify the range of environmental materials present, their preservation, significance and distribution.
- 4.3.4 The evidence from non-intrusive surveys for the evaluation area indicate a number of potential features which should be targeted through sampling. These include late prehistoric/ early Romano-British settlement remains south east of Cubbington Wood and south of Leicester Road, possible features associated with Stareton deserted medieval settlement widespread ridge and furrow, a possible medieval mill site located close to the River Leam, a potential moated site and evidence of post medieval enclosure. In addition, alluvial deposits associated with the River Leam may contain evidence of past environments.
- 4.3.47 Sampling will therefore target the following, where present, as a minimum:
- Archaeological features (buildings, ditches, pits, gullies, postholes) associated with late prehistoric/early Romano-British settlement, from different features spread across concentrated areas of settlement activity (to assess the concentration, distribution and survival of palaeoenvironmental material);
 - All samples will be screened for the presence of hammer-scale and other indicators of industrial processes, particularly at areas of possible burning. Where significant concentrations of industrial residues are identified, this information should be fed-back to the site, so that where necessary, further samples can be taken to help to define any areas of metalworking, or other industrial processes;
 - Floor surfaces where they survive and have not been truncated;

- Deposits representing the main phases of activity on site (to assess whether there are changes in rates of deposition, or material survival over time);
- Archaeological features associated with Stareton deserted medieval village.
- Archaeological features associated with a possible medieval mill close to the River Leam;
- Archaeological features associated with a possible medieval moated site;
- Agricultural features, such as well-preserved ridge and furrow, where this may enhance understanding of the development of the medieval and post medieval landscape;
- Alluvial sequences from deposits adjacent to the River leam, to assess the survival of palaeoenvironmental material and to inform further studies, which may comprise targeted geoarchaeological investigation.

4.3.48 Sampling will not only just target charcoal rich or wet deposits, but be undertaken on those features outlined above, taking into account advice from the Archaeological Contractor's environmental archaeologist. This will ensure that samples are recovered from a representative range of contexts, which adequately characterise past activities, and allows an assessment to be made of the extent to which they help address palaeoenvironmental and palaeoeconomic questions.

4.3.49 It is possible that unexpected deposits or features will be identified during the evaluation within the areas where non-intrusive survey has not revealed any evidence. As these are not covered in the initial sampling strategy above, the need for sampling will be assessed in terms of the specific objectives (both those in Table 2 as well as the remaining HERDS objectives), the sampling strategy updated and the features sampled accordingly.

4.3.50 All samples will be taken to address a specific question. The purpose of the sample, and the question it has been taken to address will be recorded on The Archaeological Contractor's sample record sheet.

4.3.51 Samples will be taken using ten litre plastic buckets (with lids and handles), or strong polythene bags (double bagged) secured at the neck, for the recovery of bulk 'disturbed' environmental samples. Labelling will follow guidance set out in the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035).

4.3.52 For non-waterlogged deposits bulk samples will normally be taken in the range of 40-100 litres. Where contexts have a volume of less than that stated above then 100% of the context will be sampled. Each bulk sample will only contain sediment derived from a single context. Where waterlogged deposits are encountered, samples sizes will usually be in the range of 10-20 litres, which is suitable for the recovery of macrofossils from these contexts. Samples shall be

protected at all times from temperatures below 5°C and above 25°C and from wetting and drying out due to weather exposure.

- 4.3.53 Where house floors or other buried land-surfaces are encountered and these are sampled, appropriately sized monolith or kubiena boxes will be used for the recovery of 'undisturbed' monolith samples for soil micromorphology and to sub-sample for microfossils (e.g. pollen and spores, diatoms, ostracods). Where longer sequences are sampled, contiguous column samples will be collected for the retrieval of macrofossils (e.g. molluscs, plant remains and insects). Further guidance on specialist samples is provided in the Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035 - sections 4.21.22-2)
- 4.3.54 Processing of all bulk soil samples collected for biological assessment should be completed within two weeks of collection. Processing samples at the time of fieldwork will allow this sampling strategy to be updated and refined where necessary. The preservation state, density and significance of material retrieved shall be assessed by the Archaeological Contractor's recognised specialist. Special consideration shall be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment.
- 4.3.55 The Archaeological Contractor shall be responsible for the protection of all samples and finds and for their transport (including loading and unloading) to the processing facilities or other location.

Preservation in situ

- 4.3.5 Where preservation in situ has been identified as an option for areas of the site, or it becomes clear during the evaluation that certain parts of the site might be retained in situ within the scheme design, The Archaeological Contractor will ensure that suitable samples are taken to assess the state of preservation (as set out in Historic England guidance on Preserving Archaeological remains).

Backfilling

- 4.3.57 The trenches shall be pumped dry (by the Archaeological Contractor) and any necessary protection measures for archaeological remains (in addition to those for below ground infrastructure, services or utilities) shall be completed prior to backfilling. Generally, all backfill material shall consist of non-toxic, uncontaminated, non-putrescible, natural and inert material which shall be compacted and (if necessary) tested (dynamic compaction test or other) in accordance with a specification provided by the Contractor. Surface conditions shall be reinstated to the required standard.
- 4.3.58 The Archaeological Contractor shall ensure, in liaison with DJV, that adequate protection is provided for any archaeological remains. Any specific archaeological requirements relating to

backfilling including use of materials to mark excavated depth, such as geotextiles, shall be specified by the Archaeological Contractor in the LS-WSI.

5 Post-investigation reporting and archiving

- 5.1.1 The Archaeological Contractor will produce an interim report, very briefly summarising findings of the evaluation, within five working days of the completion of fieldwork.
- 5.1.2 The Archaeological Contractor will produce a fully illustrated final report for the field evaluation, within 25 working days of the completion of fieldwork, with the following structure:
- Executive Summary;
 - Introduction, including site location and project background, aims, and GWSI: HERDS Specific Objectives (as identified in this Project Plan);
 - Baseline summary, including topography and geology, designated assets; archaeological potential and previous work(s) relevant to the archaeology of the site (e.g. DD8A, previous surveys);
 - Detailed Scope and Methodology, to include dates of fieldwork, the areas investigated at each stage and the rationale in relation to the Specific Objectives;
 - Results and observations, along with the following supporting sections:
 - Trial trench evaluation
 - Stratigraphic report
 - Finds report
 - Environmental evidence report
 - Interpretation of results against original expectations and Specific Objectives
 - Review of evaluation strategy (i.e. success and confidence rating)
 - Conclusions:
 - Statement of findings, and summary of significance
 - Assessment of achievement (or not) of the Specific Objectives
 - Recommendations and research aims for further investigation (if required), publication and dissemination proposals, including archive deposition.

- References to all primary and secondary sources consulted;
- Appendices should include illustrations, contextual summary by trench, finds reports, environmental reports, site matrices (where appropriate) and full definitions of the interpretation terms used in the report.

5.1.3 The following figures will be included in the trial trenching report:

- General plan (mandatory);
- Engineering design (mandatory);
- Site location;
- Survey extents;
- Trial trench locations;
- Survey results to include plans and section of archaeological features, deposits and sequences;
- Selected photographs of representative and/or significant features and finds.

5.1.4 If the Archaeological Contractor foresees a requirement for extension to completion of either stage of reporting they will immediately notify DJV so that extension can be discussed with HS2.

6 Dissemination

- .1.1 The project archive and finds will be deposited with the appropriate museums archive, as identified in the LS-WSI.
- .1.2 Digital and hard copies of the report will be submitted to the relevant Historic Environment Record (HER) and the National Record for the Historic Environment (NRHE) in Swindon.
- .1.3 Significant discoveries will be reported in summary in the local archaeological society journal and/or other relevant journal as appropriate.
- .1.4 In accordance with professional standard practice the Archaeological Contractor will complete an 'Online Access to the Index of archaeological investigations' ('OASIS') record.
- .1.5 A digital copy of the final report will be submitted to the Archaeological Data Service (ADS).

7 Information Management

- 7.1.1 GIS deliverables will be provided by the Archaeological Contractor in accordance with the *Cultural Heritage GIS Specification* (HS2-HS2-GI-SPE-000-000004). CAD files will be GIS

compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables must be supplied in GIS format.

7.1.2 Mapping and spatial data deliverables will conform to HS2 GIS Standards as set out in HS2-HS2-GI-STD-000-000002 and other associated referenced documents.

7.1.3 The standard template for reports (HS2-HS2-PM-TEM-000-000004) will be used.

8 Quality Assurance Processes

8.1.1 The Archaeological Contractor will liaise with DJV regarding the works programme and quality assurance of the archaeological works. In the event of potential delays to programme, the Archaeological Contractor will issue an Early Warning Notice (EWN) via CEMAR following internal approval by the Archaeological Contractor's Project Director.

8.1.2 The Archaeological Contractor will have direct communication with Contractor on contractual matters and non-archaeological quality assurance; DJV will be informed of any EWNs raised in the course of the works.

8.1.3 The works will be overseen and internally quality-assessed by the Archaeological Contractor's senior management and will be directed by the Archaeological Contractor's Project Director.

8.1.4 All parties will follow HS2 protocols for Intra- and Inter-project communication, which will consist of the following format:

- Weekly progress meetings will be held to discuss the progress of on-site works, forecasting of the works programme and to highlight any potential EWNs;
- Matters arising from progress meetings will be discussed and meeting minutes will be forwarded to all parties (Archaeological Contractor, DJV, Contractor).

8.1.5 The following interfaces are anticipated on the basis of current information:

- The Contractor (LM-JV);
- The Archaeological Consultant (DJV);
- Third party stakeholders via DJV;
- HS2 via DJV;
- Other contractors working on separate parts of the evaluation area.

8.1. Following completion of work, parts of the evaluation area will be formally signed off by DJV and HS2. Formal sign off will be through a written process utilising a fieldwork sign-off sheet submitted by the Archaeological Contractor to DJV. DJV will review and, subsequent to any required revision, will submit the sign off sheet to HS2 for final approval.

- 8.1.7 The Archaeological Contractor will submit a draft of all reports to DJV in .docx format for review. DJV will provide internal feedback and may require that the Archaeological Contractor amends documentation before acceptance. The Archaeological Contractor will subsequently provide PDF's of accepted documents to DJV, and DJV will issue all documentation to HS2. HS2 may provide feedback and require amendment to submitted documents before final approval.

9 Evidence of Engagement

- 9.1.1 Table 3 below sets out the stakeholder engagement in preparing this Project Plan.

Table 3 record of stakeholder engagement

Consultee and date	Comment	How this has been addressed in the Project Plan
Co1 Project Plan sent to Anna Stocks (Warwickshire County Archaeologist) on 07/07/2018	Awaiting comments	
Anna Stocks (Warwickshire County Archaeologist) 2 - 07-18	Meeting: Anna Stocks, HS2 and DJV to discuss trenching strategy	HERDS Objectives will be added, as appropriate, to reflect the results of trial trenching. Further phases of work will be completed to produce a predictive model for earlier prehistoric and early Anglo-Saxon periods. Select areas of identified high potential, and areas of low potential (as control) will be examined with a programme of test pitting to test the predictive model. See paragraph 2.1.
Co2 Project Plan sent to Anna Stocks (Warwickshire County Archaeologist) on 05/09/2018	Awaiting comments	

10 References

Reference	HS2 document reference no.
HS2 Technical Standard Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)	HS2-HS2-EV-STR-000-000015
HS2 Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000014

HS2 Geographic Information System Standards	HS2-HS2-GI-STD-000-000002
HS2 Unexploded Ordnance Desk Study	o 15-ET-GT-REP-000-000001
HS2 CFA17 ES Reports: Offchurch and Cubbington	Volume 5 appendix: CH-001-017, ES 3.5.2.17.4 CH-002-017, ES 3.5.2.17.5 CH-003-017, ES 3.5.2.17. CH-004-017, ES 3.5.2.17.7
HS2 CFA18 ES Reports: Stoneleigh, Kenilworth and 8urton Green	Volume 5 appendix: CH-001-018, ES 3.5.2.18.4 CH-002-018, ES 3.5.2.18.5 CH-003-018, ES 3.5.2.18. CH-004-018, ES 3.5.2.18.7
WP 029(a) Historic Environment Works - Detailed Desk-8ased Assessment Historic Settlement Landscape- Enabling Works North	1EW04-LMJ-EV-REP-N000- 029001
HS2 Report: Detailed Desk-8ased Assessment of land at Cubbington	1D037-EDP-EV-REP-030-000037
HS2 WP 029 Historic Environment Works - Area 2 - Project Plan for Geophysical Survey	1EW04-LMJ-EV-PLN- NS01_NL02-029000
HS2 Phase One Area North Asset Density Mapping Project Report - Museum of London Archaeology (MOLA)	N/A
HS2 Unexploded Ordnance Desk Study	o 15-ET-GT-REP-000-000001

11 Figures

11.1.1 The following figures are attached as Appendix A:

- Figure 1: River Leam to Stoneleigh Park Site Location
- Figure 2: Heritage assets
- Figure 3: Past investigations

- Figure 4: Trench Plan 1/5
- Figure 5: Trench Plan 2/5
- Figure : Trench plan 3/5
- Figure 7: Trench plan 3/5
- Figure 8: Trench Plan 5/5

11.1.2 The detailed proposals drawings have not been included in this Project Plan but where appropriate to informing the evaluation strategy they have been referred to in the text. Trench layout may be subject to change, for example, due to environmental and utility constraints at the evaluation area.

12 Glossary of terms

12.1.1 The following terms may have been used in this report:

- **Archaeological Contractor** - the organisation undertaking the evaluation on behalf of the Contractor.
- **Contractor**- LM JV: the body responsible for the terms and conditions, policies, procedures and payments.
- **Detailed Desk Based Assessment (DDBA)** - analytical document that builds on the information gathered previously in the Environmental Statement to address particular issues, questions or uncertainties within a given area. It may be developed to provide a more detailed understanding of the resource in an area to inform design development or construction programming.
- **DJV**- the body responsible to the Contractor for assurance of historic environment work and all communication with the Employer and other stakeholders regarding the archaeological strategy, scope and method of work.
- **Employer** - Hs2 Ltd.
- **Exhumation** - removal of human burials from an archaeological site.
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** - the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Health and Safety Compliance Manager** - The manager with responsibility for site inspections, reporting and issuing of recommendations for the Site Supervisor and Project Manager to implement.

- **Location** - a specific HS2 worksite or group of worksites that are being addressed as a combined historic environment investigation programme of assessment, evaluation and further investigation.
- **Project Manager** - acts as administrator of the contract, handling certification, compensation events etc., with an obligation to act fairly and impartially as an agent of the Contractor. An office-based manager who is the client's principal point of contact and who has overall responsibility for the project budget and delivery
- **Project Plans** - specification document for each specific package of activity (e.g. a survey, desk-based assessment, excavation, recording project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget and timeframe.
- **Senior Archaeologist** - a site-based manager provided by the Archaeological Contractor who is responsible for the direction of the works and the field team.
- **Works** - the specific historic environment assessment, evaluation or further investigation works at each location.

Acronyms

ADS	Archaeology Data Service
CLR	Construction Land Requirement
DD8A	Detailed Desk-Based Assessment
ESA	Enhanced Study Area (as part of GD8A)
ES	Environmental Statement
GD8A	Geoarchaeological Desk-Based Assessment
GIS	Geographical Information System
GCZ	Geoarchaeological Character Zone (as part of GD8A)
GWSI: HERDS	Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy
HE	Historic England (Formerly English Heritage)
HER	Historic Environment Record
HSLDD8A	Historic Settlement Landscape Study Detailed Desk Based Assessment
LLAU	Limits of Land to be Acquired or Used
LS-WSI	Location Specific Written Scheme of Investigation
MOLA	Museum of London Archaeology



Making the Right Choice

NRHE	National Record for the Historic Environment
OASIS	Online AccesS to the Index of archaeological investigationS
PDF	Portable Document Format

Code 1 - Accepted
Code 1 - Accepted

Appendix A - Figures

Code 1 - Accepted
Code 1 - Accepted

Appendix B - Heritage Assets

Asset ID	Asset Name	Asset Description
STN100	Decoy Wood Field boundaries	Medieval/post-medieval field boundaries/route ways.
STN008	Ridge and furrow earthworks at Stonehouse Farm	Remnant of medieval/post-medieval ridge and furrow immediately south of the farm.
STN00	Leicester Lane cottages	Extant post-medieval two-bay cottage, now known as Heathfield.
STN002	Ridge and furrow at Furzen Hill Farm	Two areas of medieval ridge and furrow earthworks.
STN005/OFC052	Hedgerow to south of Furzen Hill Farm	Hedgerow along historic parish boundary.
STN001	Furzen Hill Farm	19th century farmstead and barn.
STN099	Furzen Hill Farm Field boundaries	Medieval/post-medieval field boundaries/route ways
OFC047/STN098	Rugby Road ridge and furrow	Six fields containing medieval ridge and furrow between Cubbington and North Cubbington Wood.
OFC035	Lower Grange	Mid-19th century L-shaped building range within post-enclosure farmland
OFC03	Lower Grange ridge and furrow	Area of medieval ridge and furrow.

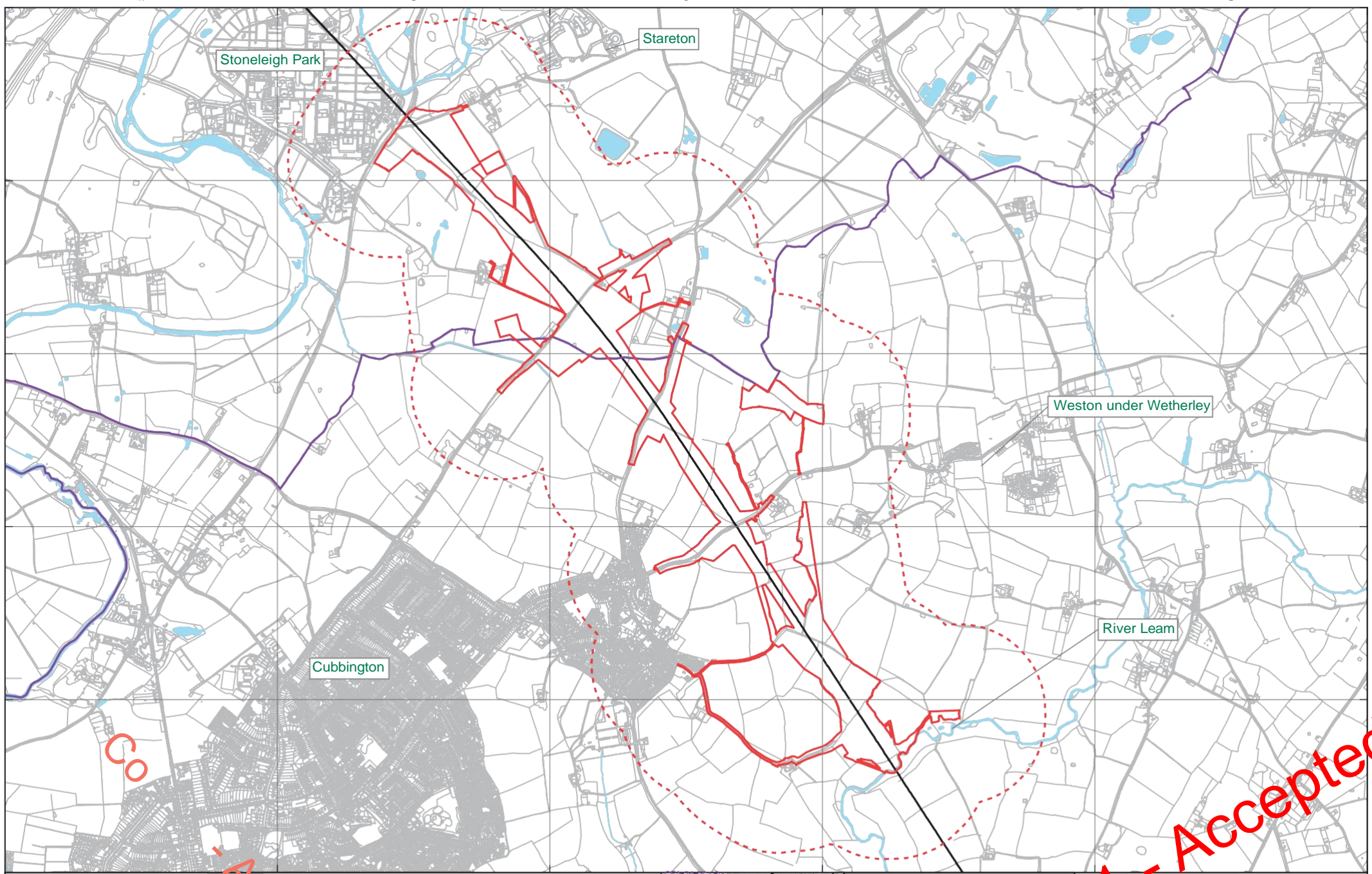
Appendix C - Archaeological Events

Event ID	Event Description
EWA7045	Tree-ring Analysis of Timber at Stoneleigh Abbey.
EWA7098	Weston/Waverley Woods.
EWA7145	Archaeological Observation at the South Garden, Stoneleigh Abbey, Stoneleigh, Warwickshire.
EWA891	Stoneleigh Abbey - The Cunnery Site Archaeological Evaluation.
EWA942	Watching Brief of Test Trenches at Stoneleigh Abbey, Stoneleigh.
EWA94 8	Tree ring sampling and analysis carried out at Cubbington (site sequence CU8-H1).
EWA9977	The Vinehouse, Stoneleigh Abbey South Garden, Archaeological Recording.
EWA7258	Site visit to Stoneleigh Estate.
EWA10134	Preliminary Archaeological Survey, The Kennels and Cunnery Sites, Stoneleigh Abbey.
EWA1017	Stoneleigh Abbey Cloister, Stoneleigh, Warwickshire: Archaeological Watching Brief and programme of archaeological recording, 1998-2001.
EWA10199	St Mary's Church, Cubbington, Warwickshire.
EWA9839	Site visit to Stoneleigh Abbey gardens and deer park, Stoneleigh by J Lovie c199 .
EWA922	1-2 Stareton Cottages, Stareton, Warwickshire: An Archaeological Watching Brief.



Event ID	Event Description
EWA7480	Observations of ridge-and-furrow at Cubbington Primary School.

Code 1 - Accepted
Code 1 - Accepted



- 2 g nd
- Route in tunnel
 - Route on surface
 - Evaluation Area
 - Study Area
 - Community forum boundary
 - District Borough boundary
 - Watercourse
 - Water Body

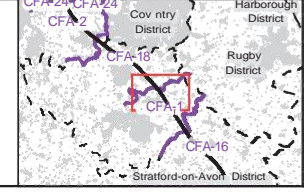
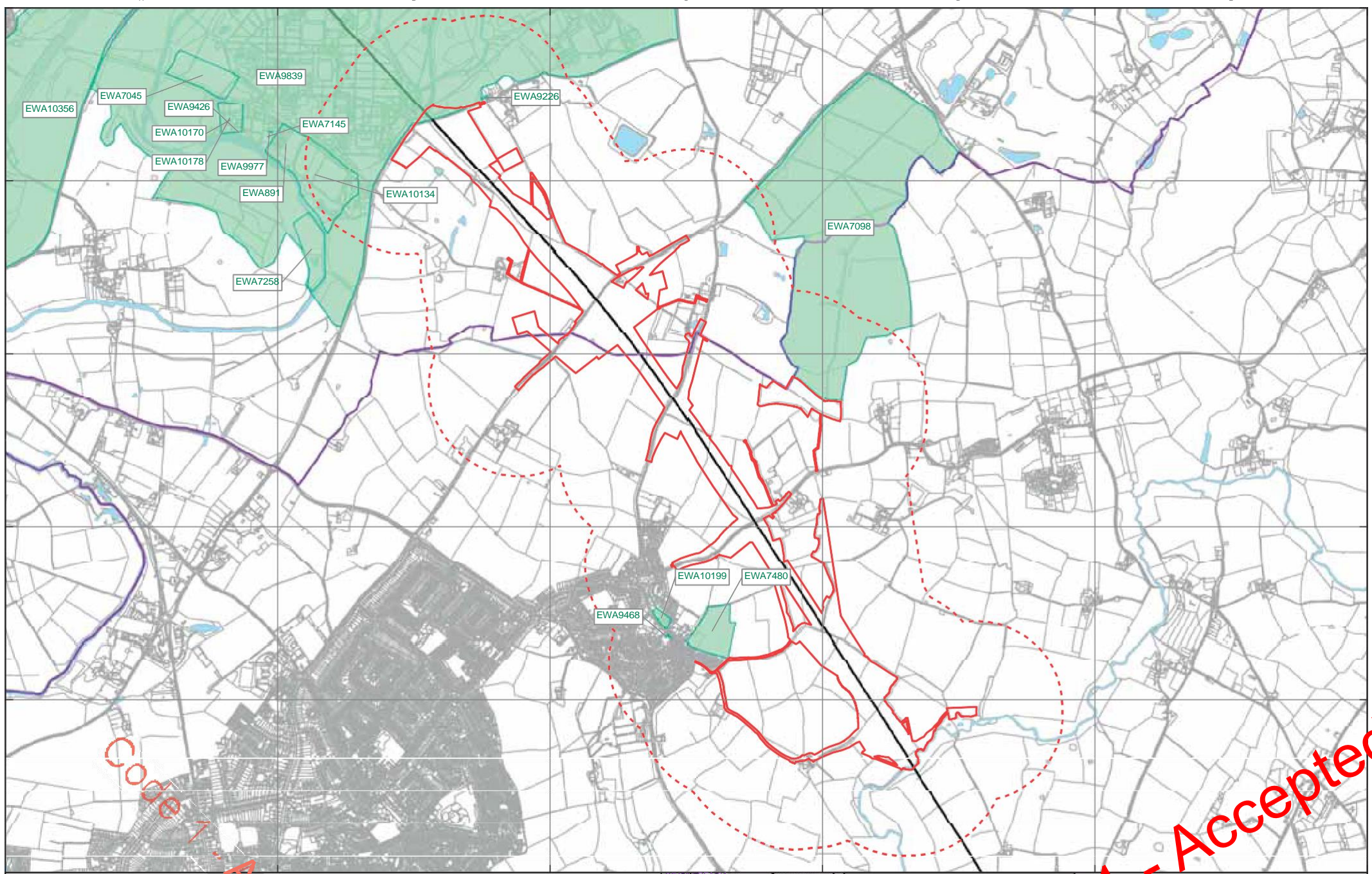


Figure 1
River Leam to Stoneleigh Park
Location Plan
Community Forum Areas CFA17 & CFA18

hs2
Registered in England. Registration number 07918.
Registered office: Island House, Bressenden Place,
London SW1E 1TA.
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Doc u b r
Scale at A3: 1:20,000
0 200 400 600 800
Metres
Dat 0 09 18



Legend

--- Route in tunnel	--- Community forum boundary	◆ Historic environment record point
--- Route on surface	--- District/Borough boundary	--- Historic environment record linear
□ Evaluation Area	--- Watercourse	■ Historic environment record area
□ Study Area	■ Water Body	□ HER Unique Reference Number (2016)

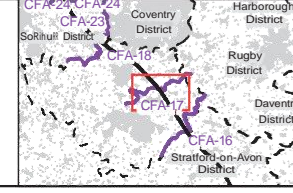


Figure 3

Map Number

Map Name

River Leam to Stoneleigh Park
Previous Investigation

Community Forum Areas CFA1 CFA1

hsl

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0 200 400 600 800
Metres

Date 05/09/1



Legend

Route in tunnel	District/Borough boundary	Building
Route on surface	Waterbody	Farmstead
Evaluation Area	Waterbody	Mill
Study Area	Trenches	Moat
Community forum boundary	Place names	Nursery

Figure 4

River Leam to Stoneleigh Park

Trench Plan 1/5

Community Forum Areas CFA17 & CFA18

Map Number

Map Name

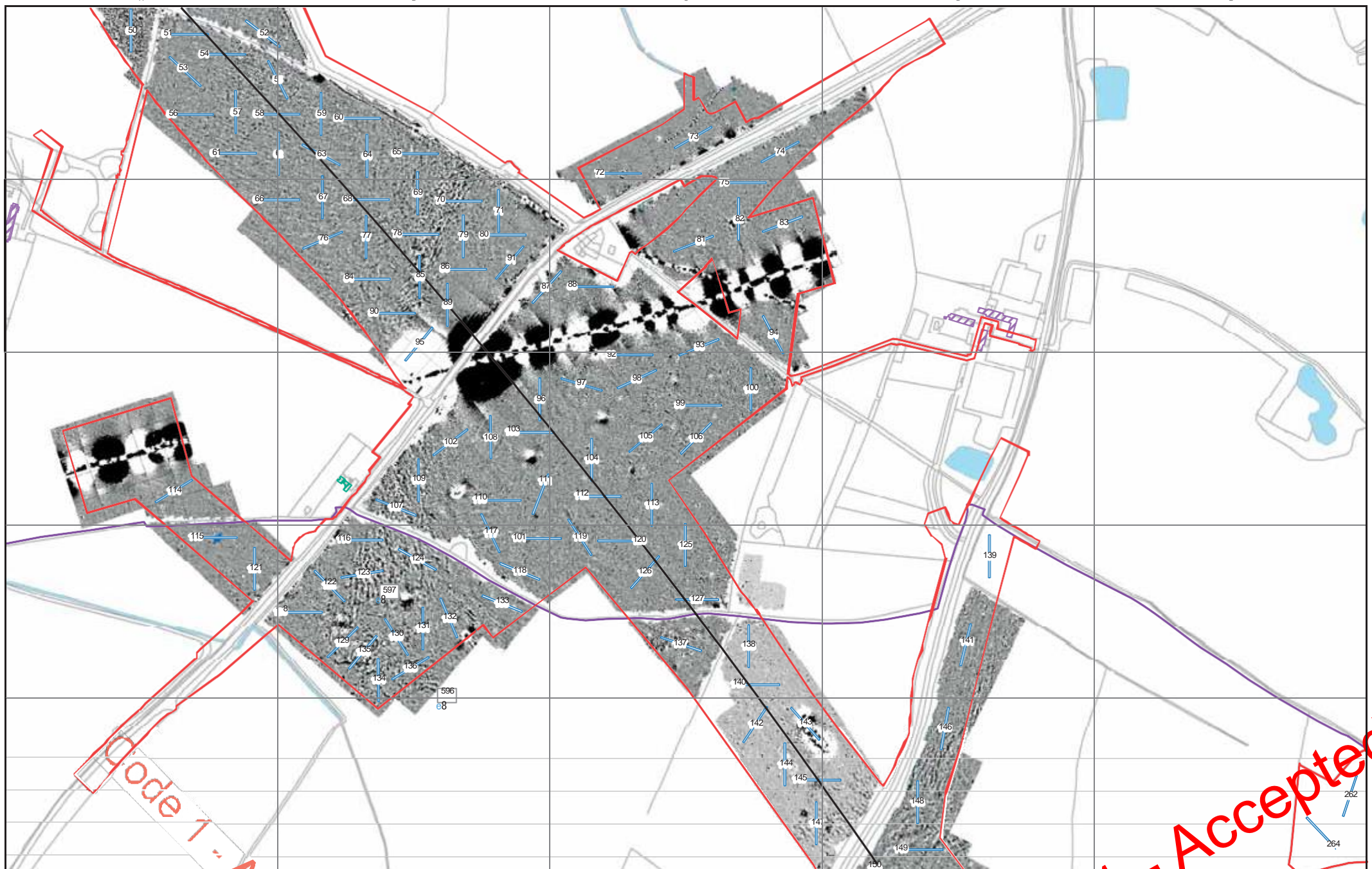
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London SW1E 5JZ.

Scale at A3: 1:4,000

0 40 80 120 160
Metres

Date: 06/09/18



2eTJ

- Route in tunnel
- Route on surface
- Evaluation Area
- Study Area
- Community forum boundary

- District/Borough boundary
- Watercourse
- Water Body
- Trenches
- Place names

- Building
- Farmstead
- Mill
- Moat
- Nursery

Figure 5

River 2eam to Stoneleigh Pa Q

Trench Plan 2/5

Community Forum Areas CFA17 & CFA18

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Doc Number: -

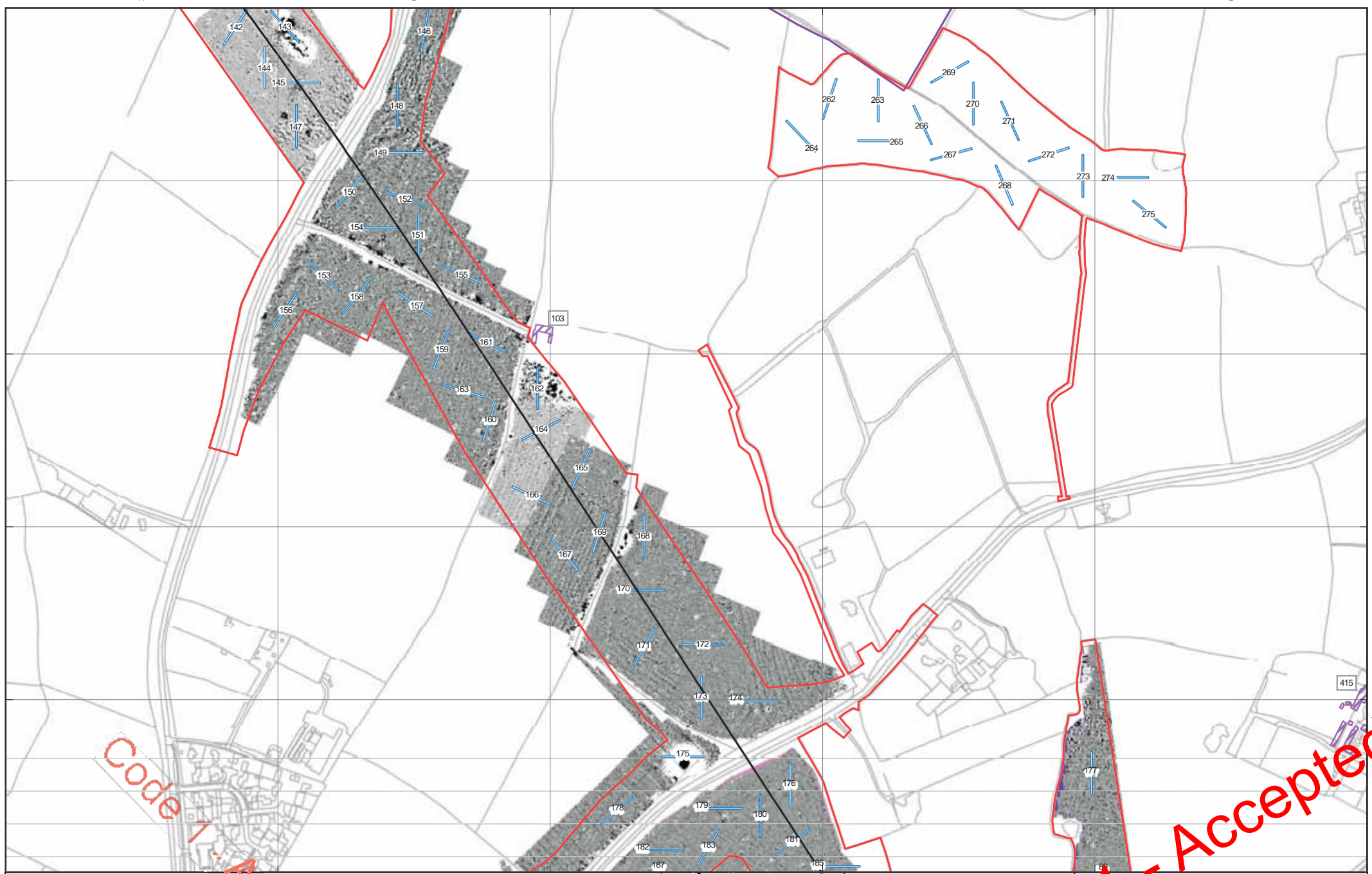
Scale at A3: 1:4,000

0 40 80 120 160
Metres

Q

De: 05/09/18

Code 1 - Accepted



Legend

Route in tunnel	Community forum boundary	Building
Route on surface	Watercourse	Armstead
Evaluation Area	Water Body	Mill
Study Area	Trenches	Moat
Community forum boundary	Place names	Nursery

Figure 6

River Leam to Stoneleigh Park
Trench Plan 3/5

Community forum areas A17 A18

Scale at A3: 1:4,000

0 40 80 120 160

Metres

Date: 07/09/18



2egetJ

--- Route in tunnel

--- Route on surface

□ Evaluation Area

□ Study Area

--- Community forum boundary

□ District boundary

--- Watercourse

□ Water Body

□ Trenches

● Place names

▨ Building

▨ Farmstead

▨ Mill

▨ Moat

▨ Nursery

Figure 7

River Leam to Stoneleigh Park

Trench Plan 41/5

Community Forum Areas CFA17 & CFA18

Map Name

hsl

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Scale at A3 1:4 000

0 50 100 Metres

De: 05U09/18



2eMeTJ Route in tunnel Route on surface Evaluation Area Study Area Community forum boundary	District Boundary Watercourse Water Body Trenches Place names	Building Farmstead Mill Moat Nursery
---	---	--

Figure 8
River 2eam to Stoneleigh Park
Trench Plan 5/5

Community Forum Areas A17, A18

Map Number
Map Name

Scale at A3: 1:4,000

Date: 05/09/18

Q

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Doc Number: -

15.2 Method Statement

Method Statement

Contract Title	River Leam to Stoneleigh, Warwickshire WP 029(B) Archaeological Evaluation
Contractor	COPA
MS No	Archaeological Evaluation Ver.1

This method statement has been developed further to the completion of the following references risk assessments:

Risk Assessment Number	Title
WP029RA2	Archaeological Trial Trenching at River Leam to Stoneleigh, Warwickshire WP 029(B) Risk Assessment Ver.1

Section 1 – General Details

Introduction
This method statement outlines the proposed methodology to be undertaken during the archaeological evaluation on land associated with River Leam to Stoneleigh Park, Warwickshire. This will include the installation of eight temporary welfare compounds as identified below as well as associated access routes and safe access/egress routes from working areas.
Scope of Works:
This method statement outlines the methodology to be employed by Cotswold, Oxford and Pre-Construct Archaeology (COPA) for the provision of eight temporary welfare stations during an archaeological evaluation of 261 trenches between south of Stoneleigh Road (HS2 chainage 138600) and the North of the River Leam (HS2 chainage 133800), Warwickshire. The details of each of the access points will be provided in detail below.
This RAMS should be read with reference to the following documents: Risk Assessment (WP029RA2) Project Plan 1EW04-LMJV-EV-PLN-NS01_NL03-029003-C02
Location of the Access of public highways (Use sketch boxes if required at back or append docs):
The location of the temporary welfare access points are at (nearest postcodes given): Access 1: Compound 1: South of Stoneleigh Road (B4113) Stoneleigh Park Access gate CV8 2XR Access 2: Compound 2: North of Leicester Lane (A445) To immediate north of access road to Stonehouse Farm CV32 6QY Access 3: Compound 3: South of Leicester Lane (A445) CV32 6QY Access 4: Compound 4: Furzen Hill Farm west of Coventry Road CV32 7UJ Access 5: Compound 5: North of Rugby Road CV32 7UH Access 6: Compound 6: South of Rugby Road CV32 7UH Access 7: Compound 7: Weston Hall Farm CV32 7UH Access 8: Compound 8: Lower Grange Farm CV32 7LE

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Code 1 - Accepted

Method Statement

See attached site layout plans.

Prepared by:	Jonathan Webster/Richard Brown		
Position held:	Project Manager/Lead Project Manager		
Signed:	Jonathan Webster	Date:	21/11/2018
Review date:			

Work Supervisor(s);	Robin Weaver (07730 762587)
Refer to Method Statement Tracking and Content Sheet- Sign off process and comments	

Section 2 – Programme of Operations

Start date / time:		(TBC) Core hours: 8am – 4pm			
Preceding Works to be Completed:		Approval of RAMS			
Duration:		2 days welfare station mobilisation per compound. Up to 10 weeks. No work may be carried outside of core hours.			
Permit required:					
Permit to Work (General)	<input checked="" type="checkbox"/>	Permit to Enter (Confined Spaces)	<input type="checkbox"/>	Permit to Dig	<input checked="" type="checkbox"/>
Hot Work Permit	<input type="checkbox"/>	Out of Hours Work Permit	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>

Code 1 - Accepted

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Section 3 – Personnel

Include details of all personnel involved in the task and any special training, skills or qualifications required

Name/ organisation	Role	Competence Details
Richard Brown COPA	Lead Project Manager (office-based)	Site Management Safety Training (SMSTS)
Tim Bradley	Senior Project manager (office-based)	Site Management Safety Training (SMSTS)
Jonathan Webster COPA	Project Manager (office-based)	Site Management Safety Training (SMSTS)
Robin Weaver COPA	Project Supervisor (site coordinator), Full time on site.	Site Supervisor Safety Training Scheme (SSSTS) First Aider (3 day course). CSCS operative level (Archaeologist Technician). GPS survey trained. CAT and Genny trained. Asbestos awareness trained. Non-native species secretariat training scheme (NNSS). Banksperson.
LK Construction	Excavator operator	CPCS Plant operative

Site Contacts list

Name	Company	Position	Email	Telephone
Richard Brown	COPA	Lead SPM		
Richard Bradley	COPA	Fieldwork SPM		
Jonathan Webster	COPA	Fieldwork PM		
Robin Weaver	COPA	Site supervisor		
Isaac Acquah	LMJV	Project Engineer		
Alastair Hancock	DJV	Historic Environment Advisor		
Isaac Acquah	LMJV	Site Agent		
Paul Hunt	LMJV	Works Manager		
Rob Arnold	LMJV	H & S Advisor		
Rebecca Cottingham	LMJV	Environmental Advisor		

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Paul Cressy	Servest	Security Manager		
Jonathan Webster	COPA	Permit-to-Dig Co-ordinator		
TBC	Servest	Security operations manager	TBC	TBC
Lloyd White	LK Construction	Plant Operations Manager		
	HS2	Enquiries	Use for members of the public who may have questions or concerns	08081 434434
	HS2	Incident Helpdesk	LMJV 'On site manager' to ring LMJV H&S manager/ or Environmental Manager/ or Security manager to escalate Incidents to HS2 helpdesk.	TBC
TBC	LMJV	General Foreman	TBC	TBC

Method Statement

List of Abbreviations used:

CoCP - Code of Construction Practice

COPA - Cotswold, Oxford and Pre-Construct Archaeology

LMJV – Lang O’Rourke and J. Murphy & Sons Joint Venture

LSWSI – Location specific written scheme of investigation

SAR - Site access review

PAS 128 – British Standards Institution standard for underground utility detection

EMR – Environmental minimum requirements

GPS – Geographical positioning system

GPR – Ground Penetrating Radar

CSCS – Construction Skills Certificate Scheme

CAT – Cable avoidance tool

CPCS – Construction Plant Certification Scheme

BORDA – British Off-Road Driving Association

NNSS – Non-Native Species Secretariat Identification Training Scheme

SSSTS – Site Safety Supervisor Training Scheme

SSMTS - Site Safety Management Training Scheme

PM/SPM – Project Manager/ Senior Project Manager

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Section 4 – Safe System of Work to be adopted

Risk assessment- Archaeological Trial Trenching at River Leam to Stoneleigh, Warwickshire WP 029(B) Ver.1.

Induction /Training and Permits

All site personnel are required to receive an LMJV HS2 Induction before accessing any sites. Records are retained at the LMJV Project Office, 6th Floor, Corner block, Two Cornwall Street, Birmingham B3 2DX. In addition to this, all site personnel and visitors will receive a site specific induction on arrival to the relevant compound area. This latter induction will highlight any site specific hazards, points of note and any other site specific health and safety requirements as appropriate. Records of all site inductions, and copies of all certificates and competence cards (CSCS) will be retained by COPA and provided to LMJV as requested.

All operatives working in the areas described in this Method Statement and Risk Assessment must be briefed on its contents prior to work beginning and on any subsequent updates or variations. Staff will be briefed daily by the COPA Project Supervisor on the projects' Point of Work Risk Assessment, appropriate PPE requirements and all specific site rules. Toolbox talks will also be held weekly. Topics will include, but not be limited to, asbestos, overhead cables and underground services, upper limb disorders, leptospirosis, slips and trips, accidents and near miss reporting, housekeeping, manual handling and spill management.

Operatives must sign the attached briefing attendance sheet in the 'Communication' section to confirm that they have been briefed and understood the contents.

Dependant on the specific details of the temporary welfare compound installations permits may be required, please see below for further details.

Permit System

Permit to work (General) – A general permit to work will be provided by LMJV once land access has been granted and will provide any specific information regarding site restrictions ie; ecology, services, UXO etc.

Permit to dig – A permit to dig will be required in areas where intrusive works may need to be undertaken to facilitate the installation of the temporary welfare compounds. This will be provided once it has been demonstrated that all known services have been traced and marked up on site, all service plans inspected and referenced, and the area has been scanned using a CAT by a suitably competent and trained operative. Note that this permit is associated with installation of compounds only and not excavation of trial trenches.

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Section 5 – General Site Requirements

Temporary Welfare Station 1: South of Stoneleigh Road (B4113) Stoneleigh Park Access gate CV8 2XR

Access & Egress



Temporary welfare station 1 is to be accessed off South of Stoneleigh Road (B4113) at the entrance gate to the fields of Stoneleigh Park.

Car parking will be sufficient for six vehicles within the main enclosure with pedestrian access to the welfare units located on its west side. Welfare will be provided by a generator powered eight man groundhog unit with male toilet facilities and drying room facilities. An office unit with associated female toilet and drying room facilities and a separate tool store (See Compound layout 001; South of Stoneleigh Road).

Temporary welfare station 1 will be utilised to undertake trenches 1 – 30 & 36, 39, 45 & 50 (34 trenches). Trenches 31 & 32 are set within a current wood and will have to wait until the wood is removed before access.

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

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Access off main carriageway:

South of Stoneleigh Road (B4113) at the entrance gate to the fields of Stoneleigh Park

Existing concrete access through standing metal gates situated in bell mouth entrance off carriageway. The visibility is in excess of 204m to the southwest and 144m to the northeast. The carriage width is approximately 8.8m. Signage will be set out to warn of site entrance.

Movement around work area

Work is to be undertaken through nine separate fields with access available through all of them via existing field entrances. Trenches 31 & 32 are set within a current wood and will need to be programmed after the wood is removed. No other restrictions are currently known to be present.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15-20 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

No Public Rights of Way are located within the working areas.

Safety of Services

No services are present within the working area. All trenches to be cat scanned as part of the permit to dig process.

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Personal Protective PPE- *see table and specification in section 10*

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

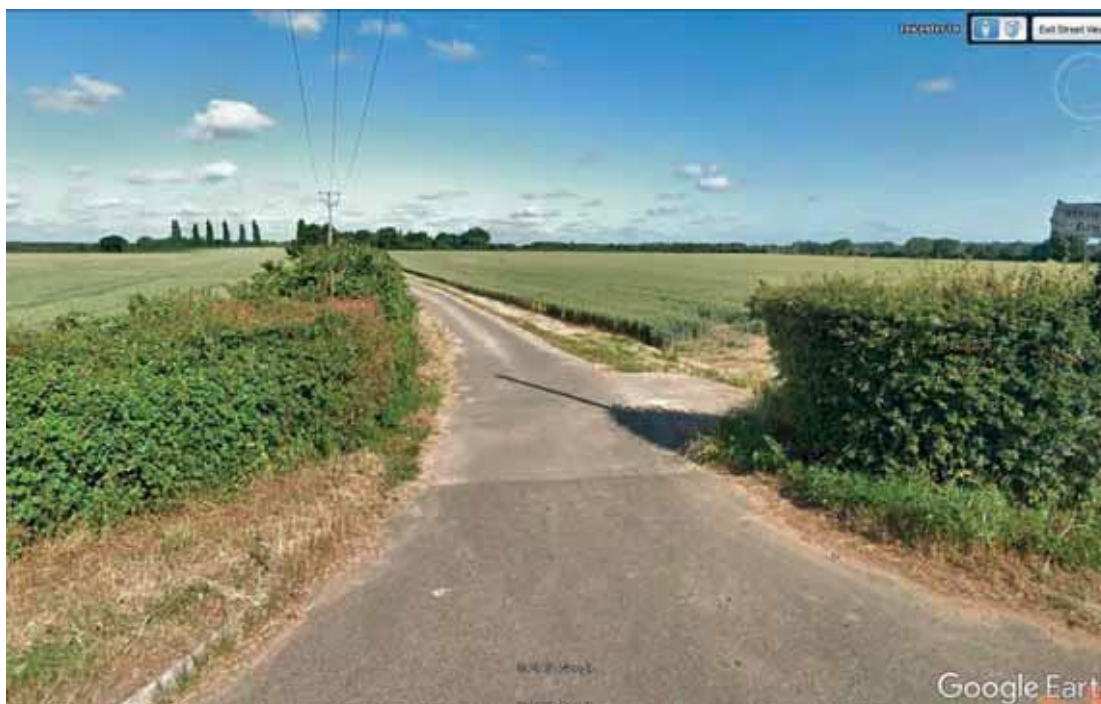
24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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Temporary Welfare Station 2: North of Leicester Lane (A445) CV32 6QY

Access & Egress



Temporary welfare station 2 is to be located immediately to the north of the access road to Stonehouse Farm North of Leicester Lane (A445).

The visibility is in excess of 350 m to the southwest and 245m to the northeast. The carriage width is approximately 8m.

Traffic management is required on installation of compound due to speed of the road. This will include signage warning of the site entrance.

Car parking will be sufficient for six vehicles within the main enclosure with pedestrian access to the welfare units located on its west side. Welfare will be provided by a generator powered eight - man groundhog unit with male toilet facilities and drying room facilities. An office unit with associated female toilet and drying room facilities and a separate tool store (See Compound layout 002).

Temporary welfare station 2 will be used to undertake 33-35, 37, 38, 40 – 44, 46 – 49, 51 – 73, 76 – 80, 84 – 86, 89 – 91 & 95 (49 trenches).

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction).
- Tool store – x1 trailer load (LK Construction) .
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction)

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Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Movement around work area

Archaeological investigations are to be undertaken across a four fields. An overhead is present at the entrance and also bisects the working area (see below). This will be an exclusion zone, should methodology on transit change then a task specific risk assessment will be produced and transit will only occur under the overhead services once suitable goalposts and fencing is established.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15-20 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

No Public Right of Ways cross the working area

Safety of Services

Overhead services:

An Overhead cable is present to the west of the southern field and west of the site entrance. The west edge of the CCB will demarcated to avoid plant coming close to this overhead. The same overhead cables turns (see plans) to the north east and crosses the site. This overhead corridor will be fenced with crossing points defined in compliance with GS6.

Personal Protective PPE- see table and specification in section 10

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	11 of 38

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First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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Method Statement

Temporary Welfare 3: South of Leicester Lane (A445) CV32 6QY

Access & Egress



Temporary welfare station 3 is to be accessed from Leicester Lane (A445).

Car parking will be sufficient for six vehicles within the main enclosure with pedestrian access to the welfare units located on its west side. Welfare will be provided by a generator powered eight man groundhog unit with male toilet facilities and drying room facilities. An office unit with associated female toilet and drying room facilities and a separate tool store (See Compound layout 003).

Temporary welfare station 3 will be utilised to undertake trenches 114, 115 & 121 north of Leicester Lane (using a JCB) and Trenches 116, 122 – 124, 128 – 136.

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

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Method Statement

Access off main carriageway:

Access is of South of Leicester Lane (A445) CV32 6QY via a field gate with hardstanding. The visibility is c250m to the north east and c150m to the southwest. The carriage width is approximately 8.8m. Signage will be set out to warn of the site entrance.

Movement around work area

The work area will be across two fields all of which are accessible through existing established field entrances. A JCB will be required to cross the road to carry out trenches 114, 115 and 121. No other restrictions are currently known.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be contained within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15-20 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

A Public Right of Way crosses the working area running NNE-SSW adjacent to the field boundary. This will be fenced off from the works.

Safety of Services

Electrical Service

Two sets of overhead cables are located in the field as well as the entrance off Leicester Lane. Fenced corridors and goal posts crossings in compliance with GS6 will be set up to prevent contact between plant and the overheads. This will include a goal post at the site entrance.

Personal Protective PPE- see table and specification in section 10

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	14 of 38

Method Statement

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided. A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	15 of 38

Method Statement

Temporary Welfare Station 4: Furzen Hill Farm west of Coventry Road CV32 7UJ



Access & Egress

Temporary welfare station 4 is to be accessed via Furzen Hill Farm off Coventry Road.

Car parking will be sufficient for six vehicles within the main enclosure with pedestrian access to the welfare units located on its west side. Welfare will be provided by a generator powered eight man groundhog unit with male toilet facilities and drying room facilities. An office unit with associated female toilet and drying room facilities and a separate tool store (See Compound layout 004).

Temporary welfare station 4 will be utilised to undertake trenches 74, 75, 81 – 83, 87, 88, 92 – 94, 96 – 113, 119, 120, 125 – 127, 137 – 138, 140, 142 – 145 & 147 (42 trenches).

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction Welfare4Hire).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Access of main carriageway:

Entrance is off the Coventry Road into Furzen Hill Farm. The entrance has hardstanding. The visibility is in excess of 220m to the north and 100m to the South. The carriage width is approximately 4.5 m.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	16 of 38

Method Statement

Movement around work area

Movement between all fields is via established field entrances with existing tracks along the edge of fields being used where direct access to the trenches is not possible.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

A Public Right of Way is located within the working areas crossing the site in a WNW-ESE direction. This will be fenced as necessary in order to separate public from the works area.

Safety of Services

Overheads

Two overheads routes are present within the site. The route corridors will be fenced and goal posts rected as crossing points in compliance with GS6.

Buried services

A gas main runs across the area. Trenches to be located outside of pipeline buffer. This will need to be demarcated and crossing point installed. The asset owner will need to be notified of the works by LMJV.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	17 of 38

Code 1 - Accepted

Method Statement

Personal Protective PPE- see table and specification in section 10

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	18 of 38

Method Statement

Temporary Working Area 5: North of Rugby Road CV32 7UH

Access & Egress



Temporary working area 5 is to be accessed through a field gate entrance adjacent to the Lumber yard entrance North of Rugby Road.

Temporary working area 5 will be utilised to undertake trenches 139, 141, 146, 148 – 175 & 178 (31 trenches). Car parking will be sufficient for six vehicles within the main enclosure with pedestrian access to the welfare units located on its west side. Welfare will be provided by a generator powered eight man groundhog unit with male toilet facilities and drying room facilities. An office unit with associated female toilet and drying room facilities and a separate tool store (See Compound layout 004).

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction Welfare4Hire).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Document Reference	Process Parent	Revision Status	Document Owner	Date	Page
WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	18 of 38

Method Statement

Access off main carriageway:

Access is via a field gate entrance adjacent to the Lumber yard entrance North of Rugby Road. The visibility is in excess of 200m to the north east and 50 m to the southwest. The carriage width is approximately 5 m. Note: LMJV are to create an access point here and this will need to be established before this area can be accessed as currently overgrown.

Access around work area

All trenches are located within five large fields and no restrictions are known once the site is accessed.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the JCB and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

Footpath north east south west across centre of working area. This will require fencing off.

Safety of Services

Overheads

Overhead cables at present at entrance to site and will require the erection of goal post entry compliant with GSG.

Personal Protective PPE- see *table and specification in section 10*

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	20 of 38

Method Statement

First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	21 of 38

Code 1 - Accepted

Method Statement

Temporary Work Area 6: South of Rugby Road CV32 7UH

Access & Egress



Temporary work area 6 is to be accessed from Rugby Road and will be utilised to undertake trenches 176, 179 – 188, 190 and 191 .

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction Welfare4Hire).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Access off main carriageway:

The visibility is in excess of 220m to the northeast and 130m to the southwest. The carriage width is approximately 5 m. Signage will be placed in order to warn of the site entrance.

Access around work area

Movement around the work area is entirely within a single field with the exception of Trench 191. To access this some scrub/hedge clearance maybe required and discussions will be held with LMJV ahead of access to the area to confirm this.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	22 of 38

Method Statement

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the JCB and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

A Public Right of Way crosses the southern part of the working area in an east-west direction and will be fenced as required to separate the working area from the public.

Safety of Services

No services within working area. Trenches will be cat scanned as part of the permit to dig process.

Personal Protective PPE- see *table and specification in section 10*

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is Robin Weaver (COPA).

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	23 of 38

Code 1 - Accepted

Method Statement

Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	24 of 38

Code 1 - Accepted

Method Statement

Temporary Working Area 7

Access 7: Compound 7: Weston Hall Farm CV32 7UH

Access & Egress



Temporary working area 7 will be accessed via Weston Hall Farm access route and utilised to undertake trenches 132 – 140 located to the south and west of the site entrance.

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction Welfare4Hire).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Access off main carriageway:

Access will be via the entrance to Weston Hall Farm which comprises a large bell mouth farm track. The visibility is 50 m to the west and 55 m to the east. The carriage width is approximately 5m. It should be noted that at present request for this access is still ongoing via LMJV and this has not been confirmed at the time of production of this document.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	25 of 38

Method Statement

Movement around work area

Once into the work area access to all areas is through existing field access points which comprise large holes through the hedge lines. Where moving between areas the plant will track along the route of the farm vehicle tracks along the edges of the fields where ever this is practicable.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

A public footpath runs along the western edge of the investigation area as well as east to west along the hedge boundaries. During the course of the works these will be fenced off as appropriate with fencing and signage displayed at either end of this route.

Safety of Services

Buried services

No services are mapped as being present within the area of works.

Personal Protective PPE- see table and specification in section 10

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is yet to be assigned and is dependant on timings for land access. At present it is to be Hayley James (COPA), this will be confirmed in the site specific risk assessment.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	26 of 38

Method Statement

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the fencing and trench area. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	27 of 38

Code 1 - Accepted

Method Statement

Temporary Working Area 8 Lower Grange Farm CV32 7LE

Access & Egress



Temporary welfare area 8 is to be accessed off Mill Lane onto the access track for Lower Grange Farm. This is followed past the farm complex and house to the edge of a field after which the route will be matted for a distance of c.385m along the route marked on the plan as a track. Matting will then be lain for the compound and carparking area which will comprise a welfare unit, an office unit, tool store and car parking for six vehicles. An additional area will be used for plant storage in proximity to the compound.

This welfare area will be used to undertake trenches 201, 203 – 206, 209 – 261 (68 trenches).

Planned vehicle movements will comprise:

Mobilisation:

- Heras fencing - x1 trailer load (LK Construction).
- Welfare units – x2 towed on site (LK Construction Welfare4Hire).
- Tool store – x1 trailer load (LK Construction).
- Mechanical excavator and fuel bowser – x1 trailer load (LK Construction).

Daily traffic:

- X1 4WD site team vehicle (off road)
- Other cars/vans (x3)

Access off main carriageway:

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WP029RA2	TBC	Rev 1	Jonathan Webster	November 18	28 of 38

Method Statement

Access will be via Lower Grange Farm Entrance track. The track width is approximately 4 m and its itself accessed from Mill Lane, a wide road with domestic housing along its northern side. As such time restrictions on the delivery of plant, welfare and movement of fieldwork teams will be kept to within reasonable hours.

Movement around work area

All investigative works are to be undertaken across three fields all of which are accessible along an extant farm tracks already present. To access the northernmost trench may require a slight widening of the current hedge access in the northeast corner of the field.

A public footpath runs along the north and northeast edge of the fields associated with trenches between 203 and 231 and a second footpath transects between trenches 259 and 260. These will be fenced off as appropriate with signage at either end ahead of intrusive works in the areas.

Mud on the road

Appropriate practicable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway in accordance with the CoCP. The primary method of cleaning will comprise dry brushing and cleaning the excavator and 4WD with hand tools before leaving the site. The whole site team will assist with the cleaning and a period of time will be allocated at the end of the working day for this purpose.

COPA have contact details for road sweepers if required. The road near the site entrance will be checked for mud on access and egress. The daily checks will be recorded in the safety file.

Welfare & Parking

Main welfare facilities and parking will be provided as discussed above and are to comprise an eight man welfare groundhog unit with seating and cooking facilities, male toilet and drying room. A powered office groundhog unit with associated female toilet and drying room and a separate iso-container tool store. These will be towed into position before the COPA team starts work. The welfare area will be situated within a Heras compound with foot access to the parking and working areas. First aid provision is to be located in the office and fire extinguishers placed in both office and welfare cabins.

Inspections

COPA will adhere to the safety requirements of the LMJV CPP.

The site will be inspected each day by the Supervisor before commencement of works, and subsequently before start of works after each rest break. The RAMS will be reviewed and updated as appropriate by following initial inspection, and as required during the project. Any variations/amendments will be communicated to the Project Manager and COPA will keep LMJV informed throughout the site works.

Plant

Plant will be supplied by LK Construction. This will most likely comprise a tracked 15 tonne mechanical excavator/or similar delivered on a low-loader lorry. All plant and driver certificates will be checked and scanned to the site safety folder by the COPA Supervisor.

Public Access

A public right of way crosses the site in a NW-SE direction.

Safety of Services

Buried services

A desktop search has been carried out and no known services are known to be present.

Overhead services

A single southwest to northeast low voltage cable transects trenches 244, 246 and 249 and these trenches will need to be moved as a result.

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Method Statement

UXO risk

A moderate UXO hazard has been identified as the site had been used as a bomb decoy site for Coventry during World War II. An appropriate methodology for work in this area will be agreed with DJV and LMJV ahead of works and LMJV are to provide suitable coverage and a task specific risk assessment before mechanical excavation begins in that area (Trenches 253-256). The rest of the route has been mapped as having a low UXO risk, although a single bomb impact crater has been noted to the south of Leicester Lane (Unexploded Ordnance Study; 0615-ZET-GT-REP-000-000001).

Personal Protective PPE- see *table and specification in section 10*

As a minimum PPE shall be: Safety Boots-steel toe cap & midsole; Orange hi-vis vest/jacket & trousers; light eye protection; safety helmet and safety gloves.

First aiders & First aid facilities

The site First Aider is yet to be assigned and is dependant on timings for land access. At present it is to be Hayley James (COPA), this will be confirmed in the site specific risk assessment.

In the event that the first aider leaves site, replacement cover will be provided.

A first aid box will be carried in the 4x4 vehicle and at the welfare station and includes eye wash facilities.

Nearest A&E

Warwick Hospital
Lakin Road
Warwick
Warwickshire
CV34 5BW

Tel: 01926 495321

Emergency arrangements in the event of an Incident

In the event of a medical emergency or incident on site, a nominated member of the field team or a security guard will;

- 1) Call 999 or 101 and notify the appropriate emergency service and First Aider to give assistance dependant on the nature of incident.
- 2) In the event of protesters –
Peaceful protest in designated area is permissible but quickly escalate in case of trespass.
Disruption to operations or aggression notify the police and the HS2 Incident Helpdesk ASAP on 0207 944 6570
Stay calm, withdraw the team ensuring the area is left in a safe condition prior to leaving.
- 3) For all other incidents:
Escalate the incident further in a timely manner to:
COPA line management/LMJV who can in turn escalate and notify their H & S Team, Environmental Team or Security Manager (LMJV). In addition, also notify the HS2 helpdesk if required and update.

Enquiries or Concerns from Members of the Public

When dealing with members of the public- please refer them to HS2 Enquiries team, on 08081 434434 or hs2enquiries@hs2.org.uk

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Method Statement

Security arrangements-

24 hr Security for the site will be provided by COPA. Security cover is required to protect the welfare units, plant and fencing. During working hours security will be provided by site staff with a single person security team present for nights. These will be based at the welfare compound and conduct roving patrols as required to ensure the safety of the compound and working areas.

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Method Statement

Section 6 – Works Methodology

Prior to work commencing

Access to the sites along the route is to be via a Schedule 2 notice agreement arranged by LMJV, who will handle contacts with the landowners.

Prior to access to the site area the team will be inducted by the COPA Supervisor at the appropriate work compound which will provide full welfare facilities. Surplus vehicles will be left there.

Sequence of Work

Activities: Week 1

Construction team to access first available compound area to install suitable car parking and welfare. Heras fencing and welfare units to be supplied and erected and appropriate signage and fire extinguishers to be placed. Once compound area is complete the construction team will move to the second available compound area to begin construction of this.

On completion of the first compound area, archaeological team 1 will be established and the project leader will provide a full induction to all persons entering the site, making a record of all associated documents required, as appropriate to their individual task. The area will be inspected and the risk assessment re-assessed. The segregation fencing of the main utilities will be checked and the proposed trenches laid out using an appropriate GPS unit within accepted tolerance ranges, and scanned by the appointed CAT scanner operator. A low loader with a suitable tracked excavator will be delivered to site and offloaded by a suitably qualified and experienced team. Once unloaded archaeological team 1 project leader will check all appropriate certification and ensure that the plant has all requirements stipulated. Once an appropriate permit to dig has been provided then the excavator will be used to undertake the archaeological investigations with top soil and sub soil being segregated and a placed in excess of 1m away from the excavation edge. Trenches, once opened will be cleaned and photographed and inspected for their archaeological potential, and any potential features investigated. Any areas deemed to be a deep excavation will be individually fenced off with netlon barrier fencing. All trenches will be inspected both 24 and 48 hours after opening to ensure that weathering of features is taken into account and a full written record of the trench will be produced as dictated by the LSWSI.

Activities: Week 2 - 10

Archaeological team 2 to begin works once the second compound area has been established and appropriate inductions have commenced and area scanned with permit to dig provided. Top soil and sub soil to be segregated and placed in excess of 1m from the excavation edge. Once opened by machine trenches will be cleaned, photographed and inspected for their archaeological potential and any possible features investigated. Any deep excavations will be fenced off by netlon barrier fencing. All trenches will be inspected periodically after this to check for weathered features and to ensure their safety. Once completed and fully recorded trenches will be backfilled by machine which upon completion will track over the spoil to ensure a neat compaction and backfill is undertaken.

Once access to additional areas is provided then the construction team will build further welfare and parking areas with plant and archaeological teams moving as appropriate. Movement of plant and teams are to be kept to the minimum required to fulfil the works and access to areas will be undertaken such that all trenches within a given area can be investigated in a single event. Restrictions such as land access and ecology will be closely monitored through communications between LMJV and COPA to ensure that all time on site is maximised and any delays are kept to a minimum.

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Code 1 - Accepted

Method Statement

Section 9- Plant and Equipment

Welfare Station 1:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 2:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 3:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Secure fuel store	To be inspected and logged	

Code 1 - Accepted

Method Statement

Netlon and pins (200m)	To be inspected and logged	
------------------------	----------------------------	--

Welfare Station 4:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 5:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 6:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	

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Method Statement

Matting sufficient for compound and car park area	To be inspected and logged	
Sheet matting for site access. c.25m in length	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 7:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Welfare Station 8:

Equipment description	Test Certificates in date (matched to equipment)	Operator details
15T tracked excavator	To be inspected and logged	CPCS to be inspected and logged
Welfare unit x 1	To be inspected and logged	
Office unit x1	To be inspected and logged	
Tool store x1	To be inspected and logged	
Heras fencing for welfare station (55 panels)	To be inspected and logged	
Matting sufficient for compound and car park area	To be inspected and logged	
Sheet matting for site access. C.385m in length	To be inspected and logged	
Secure fuel store	To be inspected and logged	
Netlon and pins (200m)	To be inspected and logged	

Method Statement

Section 10- Personal Protective Equipment (PPE)

Equipment description	Specification (e.g. type, grade)	Training required
Hard Hat	BS EN 397:1995	
Safety Boots with ankle support	EN 345	
Hi-Vis Long Sleeve Jacket	GO/RT/3297 and BS EN 471:2003 class 3 /	
Hi-Vis Trousers	GO/RT/3297 and BSEN471:2003 class 1	
Light eye protection	BS EN 166F (where F = low energy impact 45 m/s) should be used. This may take the form of safety spectacles or a visor.	
Safety Gloves	BSEN 388 4121	
Other:		

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Method Statement

Sketch box 1

See attached site layout plan and separate lift plan for matt installation.

Sketch box 2

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Code 1 - Accepted

Method Statement

Receipt Acknowledgements

Supervisor in charge of the Work

I confirm that I have read and understand the requirements of this method statement and associated risk assessments and will ensure their communication to operatives under my control and to those who may be affected by its requirements

Signed		Date	
Print name		Supervisor	

Communication

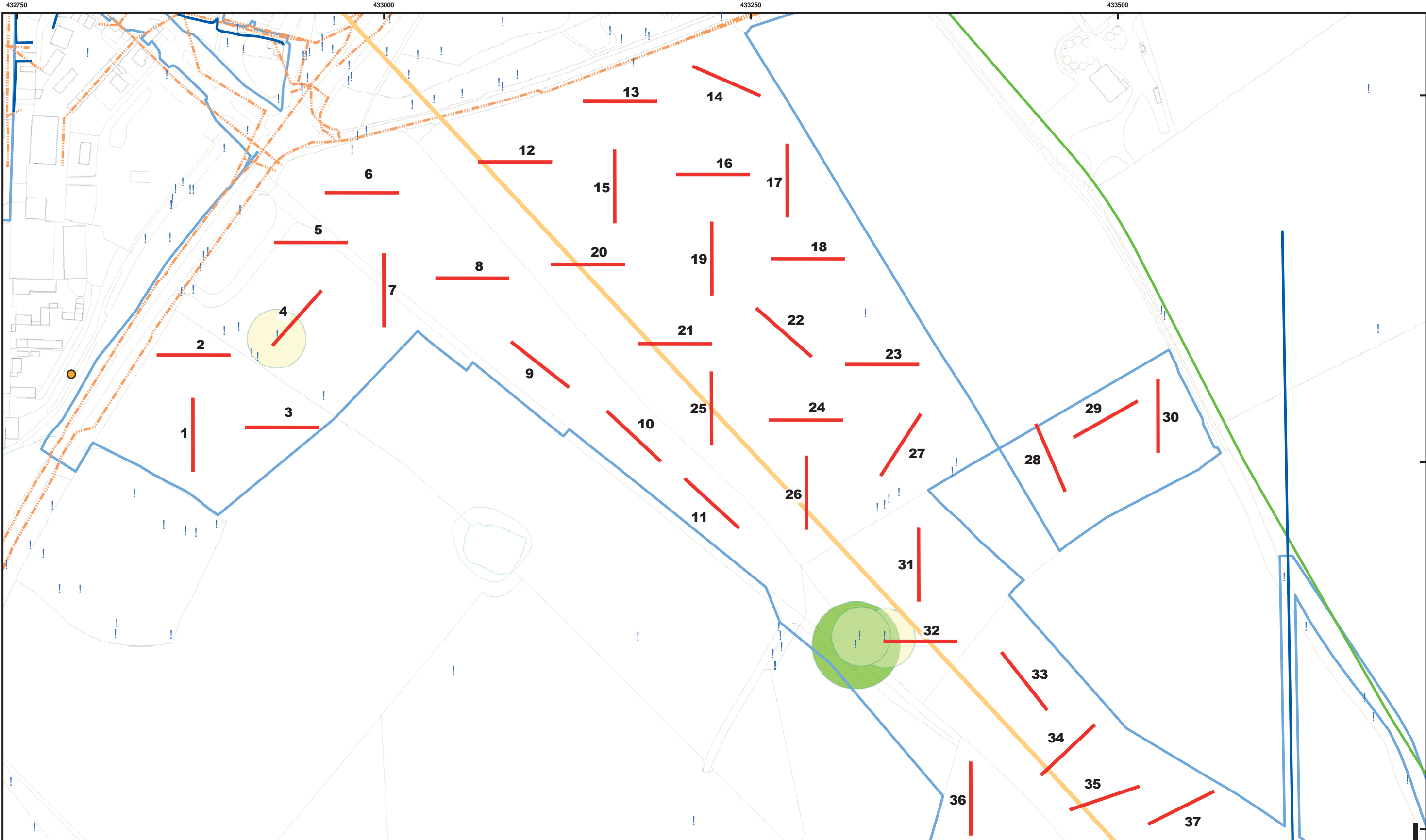
Communicate the contents of the Method Statement to all those involved or affected by the works and record their details below.

Name	Signature

NOTE:

1. If you have any doubt about any information given or contained in this Method Statement – ASK FOR CLARIFICATION.

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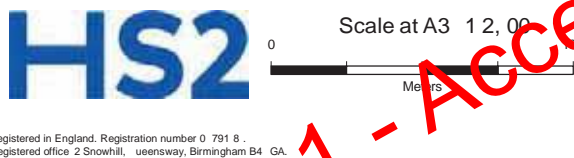
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- | | |
|--|--------------------------------------|
| PROPOSED TRENCH PLAN
(03/08/18) | BAT ROOST CONFIRMED
EXCLUSION 30m |
| HS2 ROUTE | UTI_Electrical LV Existing |
| CONSOLIDATED LAND BOUNDARY | UTI_Telecoms Masts Existing |
| ENV_Bats - Tree Roosts | UTI_Telecoms Ducts Existing |
| BAT ROOST UNCONFIRMED
EXCLUSION 20m | UTI_Water Mains Small Existing |



High Speed Two
RIVER LEAM TO STONELEIGH PAR
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 1-37)

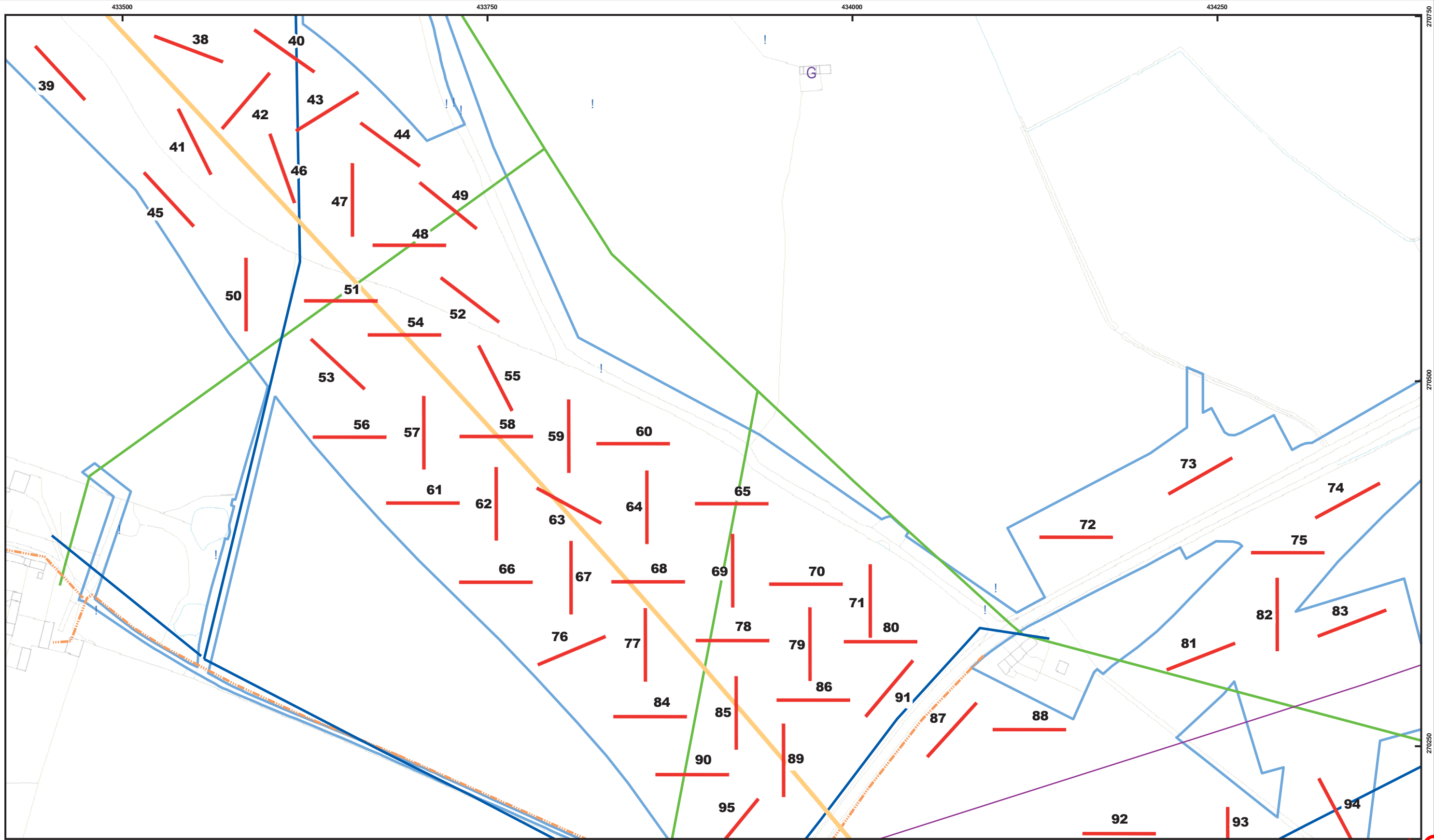
FIGURE 1



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- PROPOSED TRENCH PLAN**
(03/08/18)
- HS2 ROUTE
 - CONSOLIDATED LAND BOUNDARY
 - ! ENV_Bats - Tree Roosts
 - UTI_Electrical LV Existing
 - UTI_Telecoms Ducts Existing
 - UTI_Water Mains Small Existing



High Speed Two

RIVER LEAM TO STONELEIGH PAR
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 38-94)

FIGURE 2

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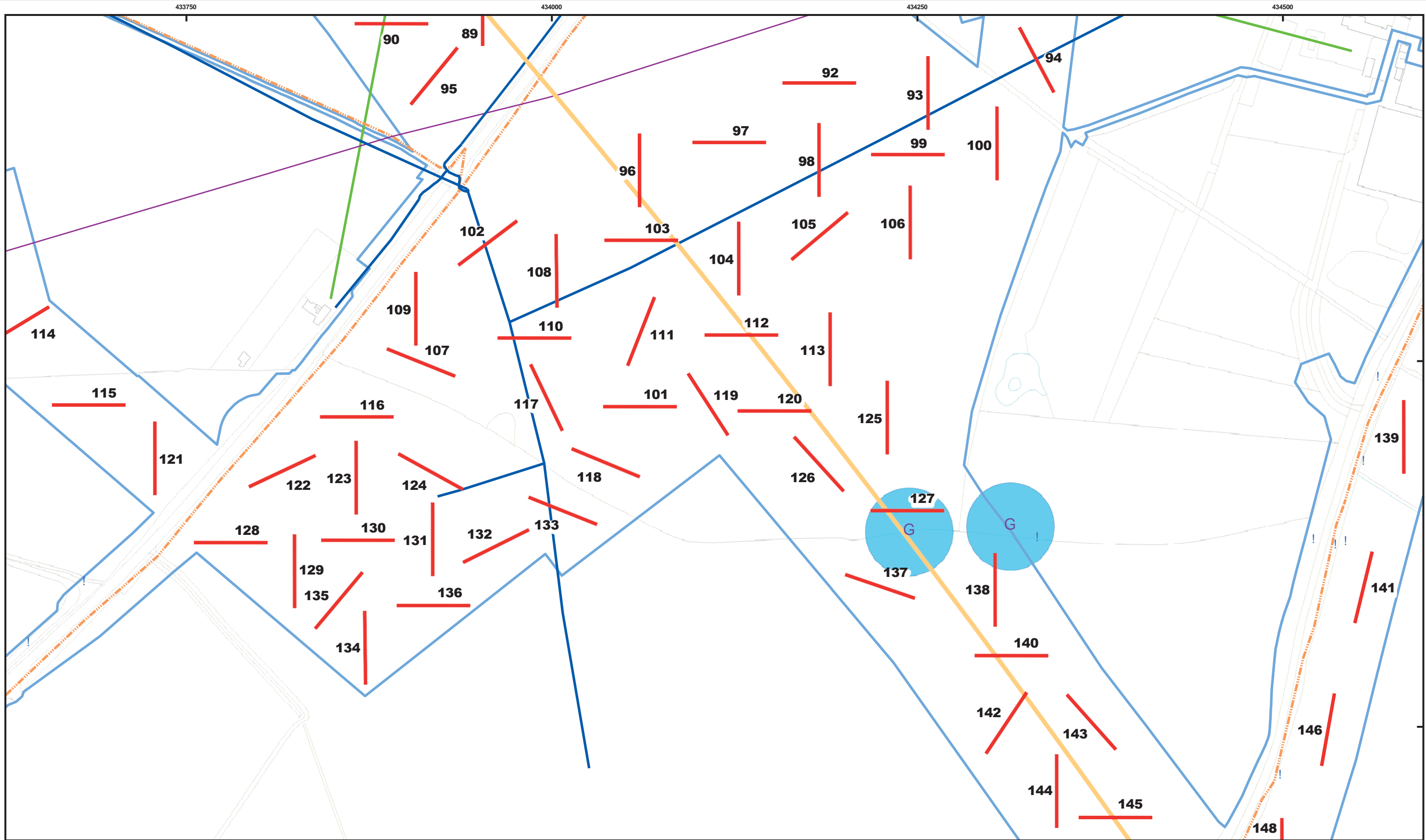
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- | | |
|---------------------------------|--------------------------------|
| PROPOSED TRENCH PLAN (03/08/18) | UTI_Electrical LV Existing |
| HS2 ROUTE | UTI_Telecoms Ducts - Existing |
| CONSOLIDATED LAND BOUNDARY | UTI_Water Mains Small Existing |
| ENV_Bats -Tree Roosts | |
| ENV_Badger Sett Locations | |
| BADGER SETT EXCLUSION 30m | |



High Speed Two
RIVER LEAM TO STONELEIGH PAR
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 89-14)
FIGURE 3

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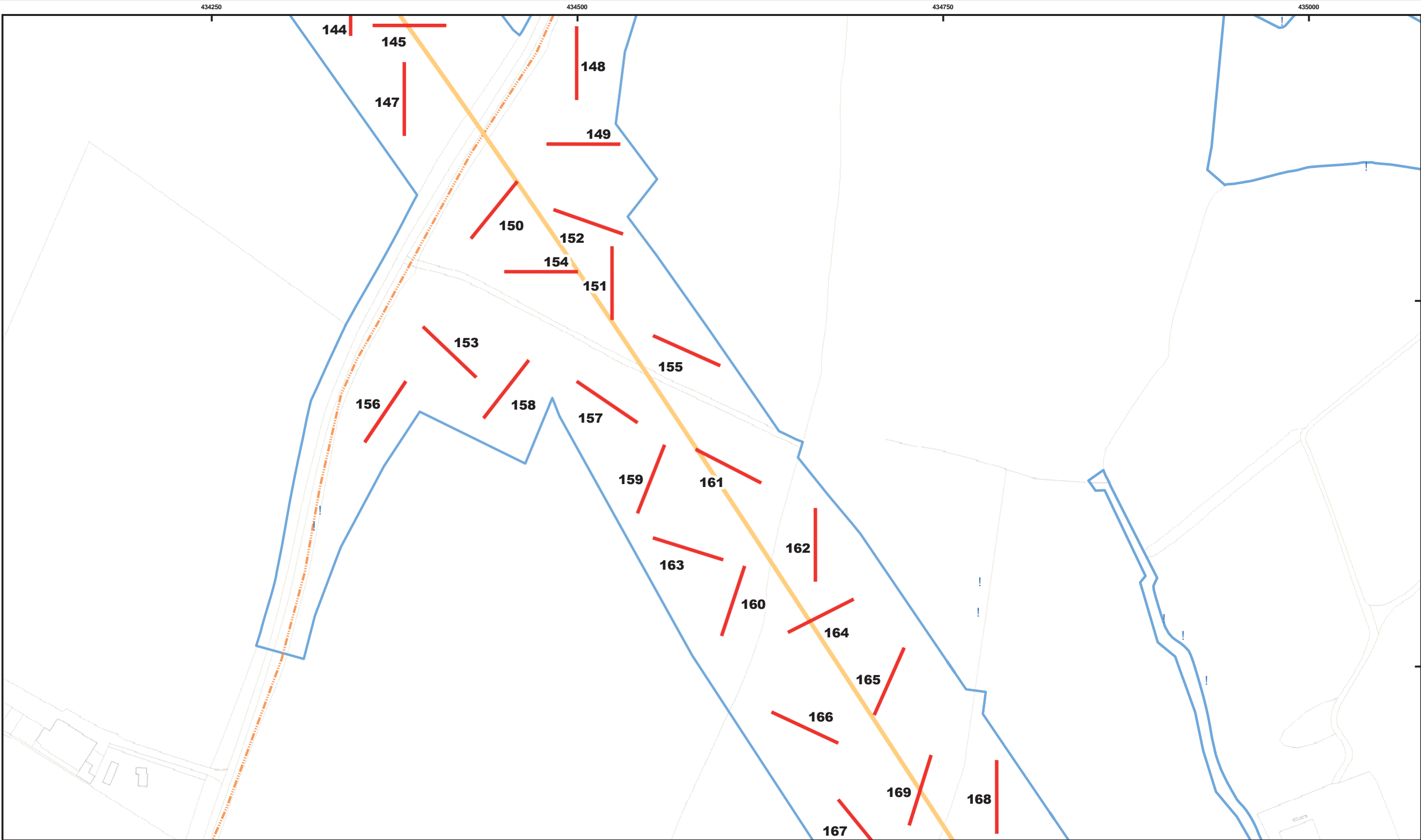
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- HS2 ROUTE
- CONSOLIDATED LAND BOUNDARY
- ! ENV_Bats - Tree Roosts
- UTI_Telecoms Ducts - Existing



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RIVER LEAM TO STONELEIGH PAR
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 14 -1 8)

FIGURE 1

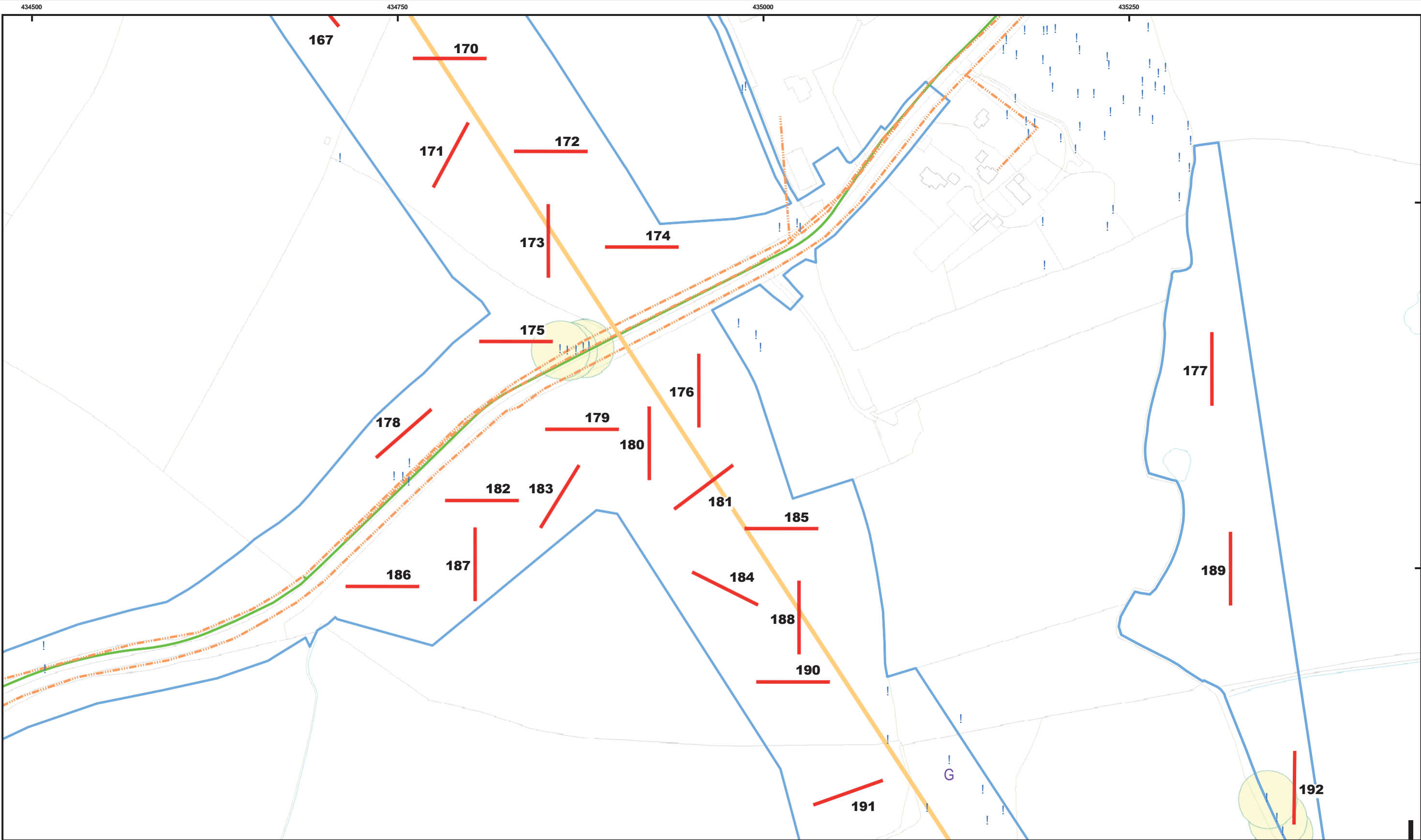
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- HS2 ROUTE
- CONSOLIDATED LAND BOUNDARY
- ENV_Bats - Tree Roosts
- ENV_Badger Sett Locations
- BAT ROOST UNCONFIRMED EXCLUSION 20m
- UTI_Telecoms Ducts - Existing
- UTI_Water Mains Small - Existing



High Speed Two
RIVER LEAM TO STONELEIGH PAR
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 170-192)

FIGURE

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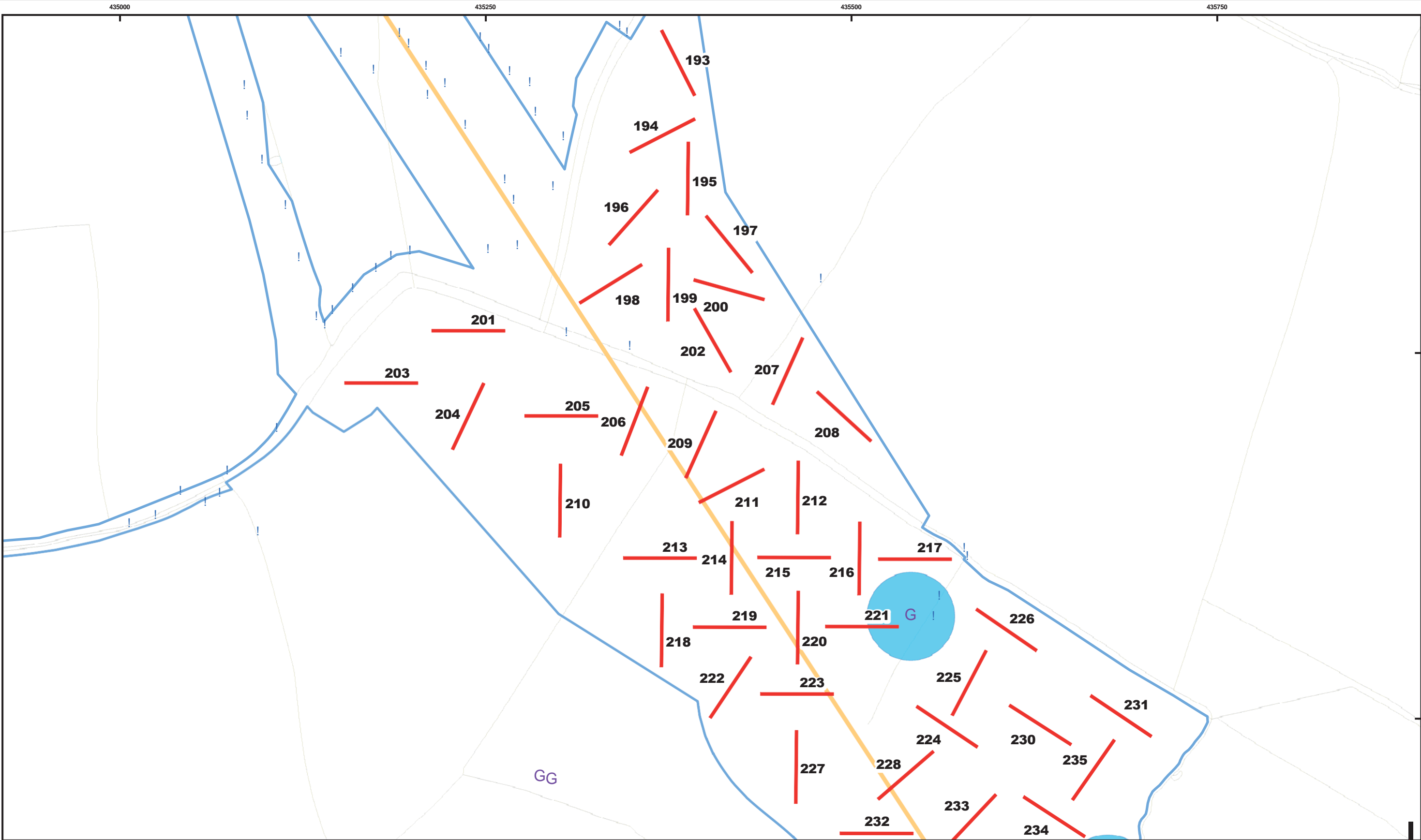
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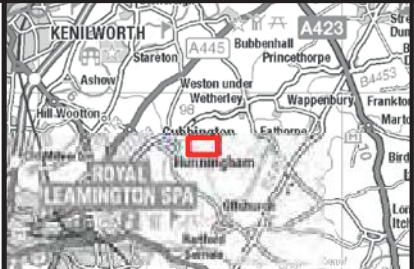
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- HS2 ROUTE
- CONSOLIDATED LAND BOUNDARY
- ENV_Bats_Tree Roosts
- ENV_Badger_Sett Locations
- BADGER SETT EXCLUSION 30m



High Speed Two

RIVER LEAM TO STONELEIGH PARK
WARWICK SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 193-222)

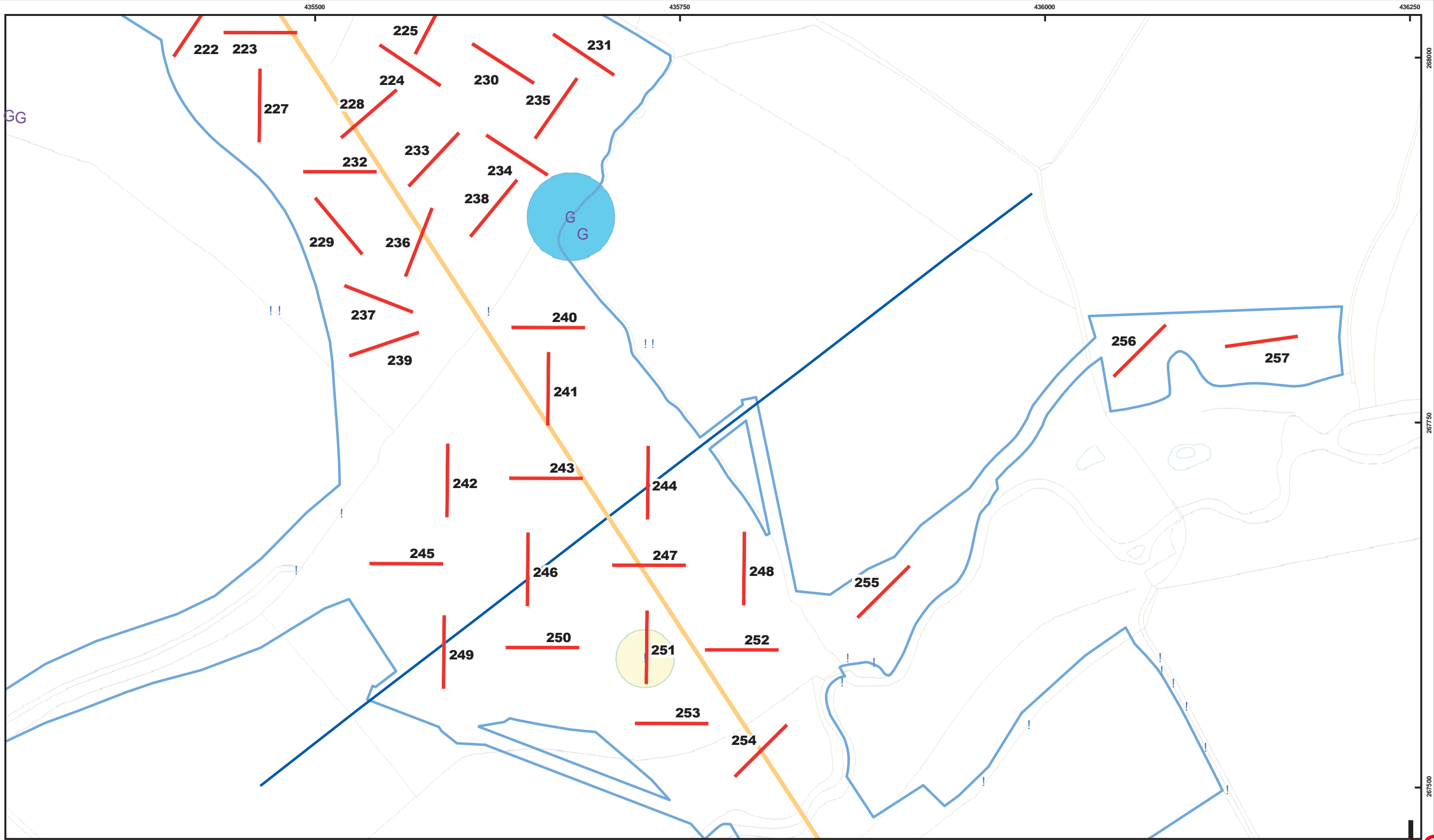
FIGURE



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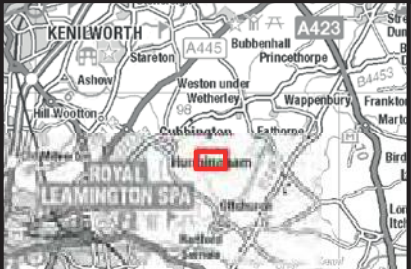
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- HS2 ROUTE
- CONSOLIDATED LAND BOUNDARY
- ENV_Bats_Tree Roosts
- ENV_Badger Sett Locations
- BAT ROOST UNCONFIRMED
- EXCLUSION 20m
- BADGER SETT EXCLUSION 30m
- UTI_Electrical LV Existing



High Speed Two
RIVER LEAM TO STONELEIGH PARK
WARWIC SHIRE
ARCHAEOLOGICAL EVALUATION
PROPOSED TRENCH LOCATIONS
WITH UTILITIES AND ECOLOGY
EXCLUSION AREAS (Trenches 223-2 7)

FIGURE 7

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