

RED BARN SOLAR FARM, WILTSHIRE

ARCHAEOLOGICAL MANAGEMENT PLAN

Project name: Red Barn Solar Farm
Location: Kington St Michael, Wiltshire
NGR: 390974 177307
CA Project: CR2061

Introduction

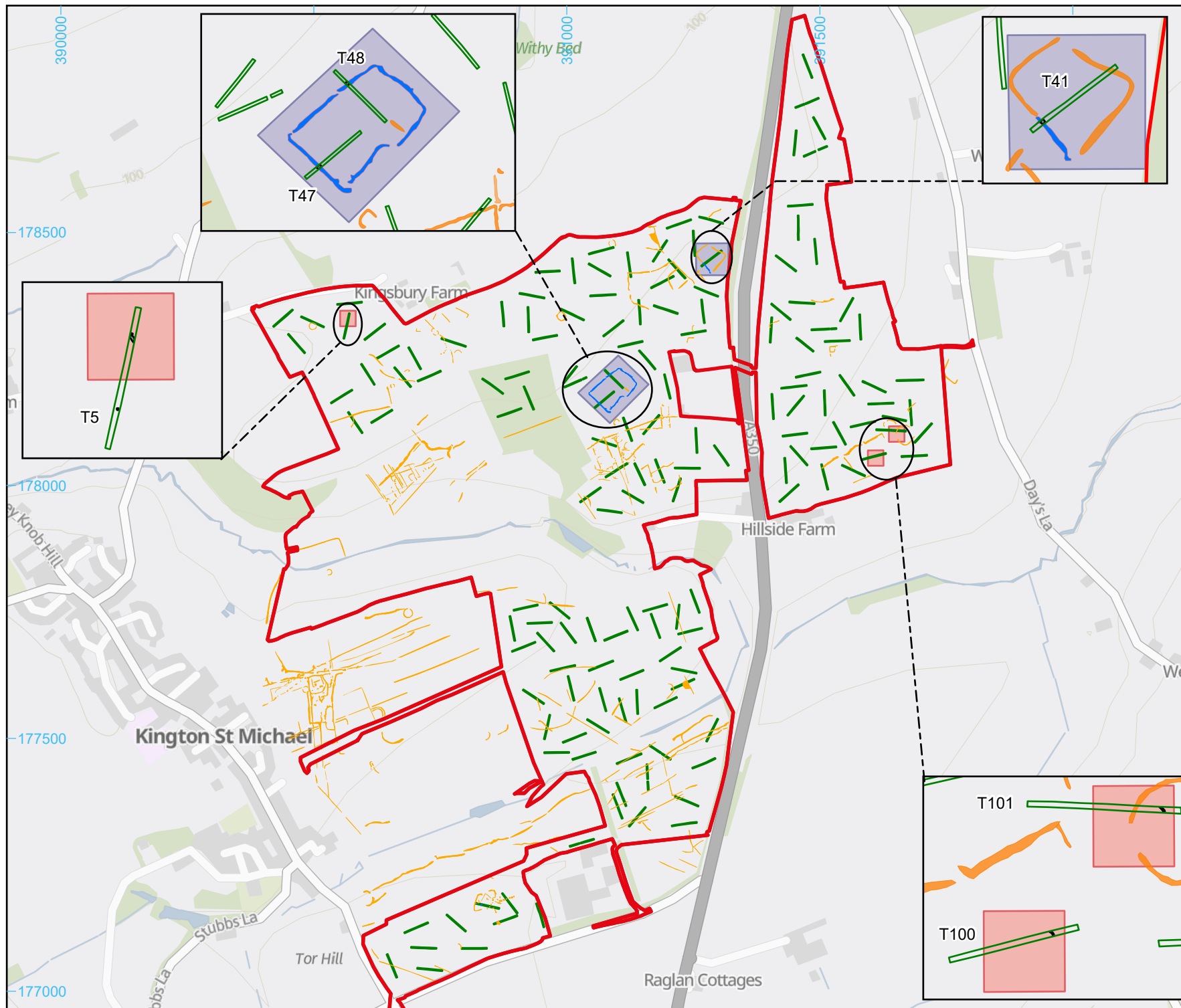
- 1.1. This Archaeological Management Plan (AMP) sets out the principles to be applied for the management of archaeological conservation and recording during the construction of the Red Barn Solar Farm, Wiltshire (henceforth, 'the Site'), specifically within the six areas which are collectively referred to here as Archaeological Sensitive Areas (ASA), as shown on Figure 1, below.
- 1.2. This document has been produced in response to Condition 7, attached to planning consent PL/2023/08481, which states that:

'No development shall commence within the application site until an Archaeological Management Plan (which shall include a setting out how the risk to ditched enclosures in trenches T47-48, T41 and T153 will be mitigated prior to and during the construction and operational phases of the development), has been submitted to and approved by the Local Planning Authority'
- 1.3. Within these three areas specified under Condition 7 (around trenches 47-48 and 41; Figure 1), a low level of impacts have been agreed, limiting the impacts to archaeological remains to piling only. Following design changes, no panels are proposed in the south-western field around trench 153. As such there will be no impacts, and no additional mitigation is required. In addition, following further consultations with the Assistant County Archaeologist for Wiltshire Council, it was agreed that no-dig solution (no impacts, through the use of concrete feet) will be utilised around three additional areas, centred on features found within trenches 5, 100 and 101 (Figure 1). On this basis, archaeological investigations are no longer required within the three areas in the vicinity of trenches 5, 100 and 101.

- 1.4. This AMP therefore discusses two different approaches for the installation of the arrays supporting the solar panels within the ASAs: Areas of Piling (where piling only, with no below ground cabling is proposed) and Areas of Concrete Feet.
- 1.5. The potential for archaeology in the three areas centred on features found within trenches 5, 100 and 101 was the only reason Condition 8 was attached to the planning permission but as any potential archaeology in these locations will now be protected given their inclusion as ASAs in this AMP, the applicant therefore requests that the condition is formally discharged.
- 1.6. In response to Condition 7 and agreement to utilise no-dig solutions for the remaining three areas, this AMP aims to demonstrate the measures that are proposed during the construction and operation to adequately protect from harm features of archaeological interest within the ASA, identified through consultation with the archaeological advisor to Wiltshire Council and by pre-determination surveys on the Site. These surveys comprised desk-based assessment (Cotswold Archaeology 2024b), geophysical survey (Magnitude Surveys 2021) and trial trench evaluation (Cotswold Archaeology 2024a).
- 1.7. The AMP has been prepared by Cotswold Archaeology, a Registered Organisation with the Chartered Institute for Archaeologists (CIfA), and in the context of industry standard guidance.

Site description

- 1.8. The proposed development Site is c. 102.76ha in extent. It includes two separate areas, either side of the A350, in proximity to Kington St Michael, c. 1.7km north of Chippenham. The Site currently comprises various parcels of agricultural land which form the eastern surroundings of Kington St Michael village, with further agricultural land to the north, south and east. It lies at c. 87m aOD (above Ordnance Datum) within its south-western extent and generally slopes up to c. 94m aOD towards the north-east.
- 1.9. The underlying bedrock geology of the Site is mapped as Cornbrash Formation - Limestone and Forest Marble – Mudstone, both of which formed during the Jurassic era (British Geological Survey 2025). This is overlain by bands of alluvial clay, silt, sand, and gravel deposits formed in the Quaternary period adjacent to a number of small watercourses which intersect the Site (*ibid.*).



- Site
- Area of Piling (Very Limited Impacts)
- Area of Concrete Feet (No Impacts)
- GP Results: Possible / Probable Archaeology
- GP Results: Archaeological Feature Confirmed by Trial Trenching
- Investigation Trench
- Cut Feature



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PROJECT TITLE
Red Barn Solar Farm, Kington St Michael,
Wiltshire

FIGURE TITLE
Site Plan with Areas of Concrete Feet and Piling, GP Results, Investigation Trenches and Identified Cut Features

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CHECKED BY	JS	DATE	15/12/2025	
APPROVED BY	JS	SCALE @ A4	1:10,000	1

- 1.10. Archaeological trial trenches within the Site encountered the natural undisturbed substrate generally at c. 0.2m – 0.4m below present ground level. In most trenches this was overlain by a subsoil of c. 0.1m – 0.2m. Alluvial or colluvial deposits measuring up to c. 0.8m in thickness were encountered in six trenches. Topsoil sealed all excavated trenches, measuring c. 0.1m – 0.2m in thickness.

Description of works

- 1.11. The proposed solar farm will provide up to 40MWac of generating capacity. The development within the Site consists of the installation of ground mounted solar photovoltaic panels, associated infrastructure and associated works including grid connection. The solar panels will cover approximately 28.1% of the Site, with a total ground disturbance of 0.15% (see Appendix 1 for the development layout plan).
- 1.12. The specific development components are as follows:
- Arrays of solar PV panels fixed on a metal framework;
 - 13 central inverter and transformer substation cabins;
 - One DNO substation, one customer substation and one customer cabin;
 - One spare parts container;
 - Internal temporary and permanent access tracks;
 - Deer-proof perimeter fencing and posts, and access gates;
 - Security cameras, and
 - Landscaping (including new pond),
 - Planting and ecological works.
- 1.13. The photovoltaic panels would be laid out in straight arrays facing south and the distance between the panels would be approximately 3m at the panels' greatest distance. The supporting posts will be driven into the ground to a depth of 1.2m . Each solar array pile cross section will most likely comprise a C-shaped profile, with a cross-section measuring approximately 50mm x 100mm, with two 12mm 'returns' to create the 'c-shape'. The thickness of each pile frame is approximately 3mm.
- 1.14. Three temporary construction compounds will be established in three different parcels of the Site, forming delivery depots, car parks and storage yards for the duration of the construction period. Internal maintenance tracks will be 4.5m wide and composed of permeable gravel / limestone.

- 1.15. The development has an operational lifespan of 40 years, following which the modules would be decommissioned and removed and the Site returned to agricultural use.

Consultation

- 1.16. This AMP has been produced at the request of Wiltshire Council. The Assistant County Archaeologist for Wiltshire Council, Tim Havard, has been engaged throughout the process of assessment and survey, agreed the ASAs and has been consulted on this AMP.

Archaeological background

- 1.17. To inform the planning application for the development, the archaeological potential of the Site was assessed through a series of surveys, comprising:
- Geophysical Survey (Magnitude Surveys 2021);
 - Trial Trench Evaluation (Cotswold Archaeology 2024a).
 - Heritage Desk-Based Assessment (Cotswold Archaeology 2024b);
- 1.18. A potential for remains of prehistoric, Roman and post-medieval date to be present within the Site was identified by the desk-based assessment. The subsequent geophysical survey identified two main areas of activity, centred on Bronze Age ring ditch and the main area of Iron Age / Roman settlement. Those areas were subsequently excluded from the Site. Further anomalies of possible archaeological origin were also identified in other parts of the survey area, although a definite interpretation for these was not possible as their forms were less defined (Magnitude Surveys 2021).
- 1.19. The trial trench evaluation entailed the excavation of 158 trenches, positioned to test geophysical anomalies and provide a representative sample of the remainder of the Site. The ring ditch and the settlement areas themselves were not investigated as they had been excluded from the development (and the Site boundary). The evaluation identified three areas of probable later prehistoric and / or Roman activity, represented by sub-rectangular enclosures of probable agricultural, rather than settlement, origin. Activity of later medieval date appeared to have been restricted almost entirely to ridge and furrow cultivation, presumably associated with the ubiquitous medieval open field tenurial system of agricultural origin. A small number of scattered and undated pits of an indeterminate function, one of which contained

quantities of seemingly heat-affected stone and clay, were also identified during the course of the evaluation.

- 1.20. The pottery assemblage recovered from excavated features indicates late prehistoric, Roman and medieval dates. In this respect, the main period of activity on the Site appears to have been during the Roman period, from the late 2nd to 4th century. The excavated evidence is indicative of agricultural activity, likely associated with the nearby settlement. The paucity of higher status building material or artefacts retrieved is to be anticipated, as trenches were situated away from the focus of settlement activity.
- 1.21. Based on the results of the above investigations, six Archaeological Sensitive Areas (ASA), focused on the areas of late prehistoric and Roman activity, were established through consultation with the Assistant County Archaeologist for Wiltshire Council (Figure 1 refers).
- 1.22. These areas coincide with the footprints and the immediate surroundings of trenches 5, 41, 47-48, 100 and 101. The reasons for the definition of such ASAs are summarized below:
- Trench 5: ASA defined around pit 506, which included two undated fills containing quantities of heat affected stones and clay;
 - Trench 41: ASA defined around ditches 4103 and 4106, likely the recuts of the same feature and whose fills contained sporadic sherd of late prehistoric pottery, two bone fragments and a residual flint flake of Mesolithic / Neolithic date;
 - Trenches 47-48: ASA defined around ditches 4702 and 4803, interpreted as parts of the same feature defining an enclosure. No dating artefacts were recovered from the associated fills, but the use of such enclosure might be associated with the late prehistoric and Roman activity identified within the Site; and
 - Trenches 100 and 101; the ASAs here were defined around two curvilinear ditches, respectively 10003 and 10103, whose fills however did not include any dating artefacts.

Archaeological Management Plan

- 1.23. The AMP applies to the above identified ASAs and will be implemented to ensure very limited or no impacts to archaeological remains within these areas. As

mentioned above, these areas include two different approaches for the installation of the arrays supporting the solar panels:

- Areas of Piling which coincide with the remains encountered trenches 41 and 47-48, measuring respectively: c. 63m by 62m, c. 108m by 83m. These areas include solar panels mounted on arrays piled through the ground surface with no below ground cabling therefore these areas will experience very limited sub-surface impacts.
- Areas of Concrete Feet which coincide with the remains recorded in trenches 5, 100 and 101. These areas measure c. 30m by 30m and include panels mounted on concrete pads to support the arrays, with no sub-surface impact.

1.24. Within the ASAs, no other subsurface impacts (beyond piling in Areas of Piling) will be allowed, including cable runs (which will be above ground), stripping for tracks, equipment etc.

1.25. The methodology for ensuring the protection of archaeological remains within these areas during the construction and operational phases of the development is set out below.

Construction

1.26. To minimise disturbance to remains within the ASA during the construction phase of the development, the following precautions will be applied:

- Prior to commencement of construction, the ASAs are to be surveyed and demarcated with temporary fencing (Heras type or similar) and signage erected to prevent unauthorised vehicle movements within the areas.
- No sub-surface excavation is to take place within the ASA.
- No vehicles should use the ASA to transit across the Site. Vehicles will be only allowed within these areas for the installation of the solar panels (in line with the agreed method). Vehicles will not enter these ASAs during inclement weather or if the ground is sufficiently wet to allow any wheel rutting to occur.
- No storage of equipment, construction materials or vehicles will take place within the ASA.
- Monitoring of the construction works within these ASAs will be undertaken by a suitably qualified archaeologist (Watching Brief). This should be carried out to ensure that no unauthorised works or works which could result in disturbance to archaeological remains are carried out within the ASAs.

- 1.27. Additionally, depending on whether the ASA are Areas of Piling or Areas of Concrete Feet, the following will apply:

Areas of Piling:

- Impacts to archaeological remains within these areas will be limited to posts for the panel installation (expected to a depth of 1.2m).
- The connection cables present in these areas will be installed to run aboveground to avoid any impact on buried archaeological remains present.

Areas of Concrete Feet:

- Within these areas, the modules will be mounted on PV tables with ballasted foundations, which may comprise a cast in situ concrete blocks, pre-cast concrete blocks or rock gabions, to provide the required structural ballast. Ballasted solutions require no ground breaking, with posts attached to steel plates weighted with concrete blocks using a twin post system. Each steel plate would typically be 960mm x 900mm.
- The connection cables present in these areas will be installed to run aboveground to avoid any impact on buried archaeological remains present.

Operation

- 1.28. While the majority of the potential impacts on the archaeological resource are associated with the construction phase of the development, it is considered that some impacts may occur during the operational phase.
- 1.29. Vehicle movements around the wider development Site during the operational phase would utilise the network of access tracks (none of which cross the ASAs). During inclement weather or if the ground is sufficiently wet to allow any wheel rutting to occur, vehicles should avoid accessing the ASAs.
- 1.30. No excavations works are anticipated during the operational phase although it may be that maintenance or replacement of any faulty equipment may occur. Any works required within the ASAs should only be undertaken in line with the guidance stated above and, if excavations are needed, following appropriate discussion with the Assistant County Archaeologist for Wiltshire Council and where necessary under archaeological supervision.

References

British Geological Survey 2025 *Geology of Britain Viewer* <https://www.bgs.ac.uk/map-viewers/geology-of-britain-viewer/>

Cotswold Archaeology 2024a *Red Barn Solar Farm and Cable Route, Kingston St Micheal, Wiltshire: Archaeological Evaluation*. CA report **CR1477_01**

Cotswold Archaeology 2024b *Red Barn Solar Farm and Cable Route, Kingston St Micheal, Wiltshire: Historic Environment Desk-Based Assessment*. CA report **CR1120_02**

Magnitude Surveys 2021 *Red Barn, Kingston St Micheal, Wiltshire: Geophysical Survey Report*. Survey Report **MSST1015**

Francesco Catanzaro, Heritage Consultant

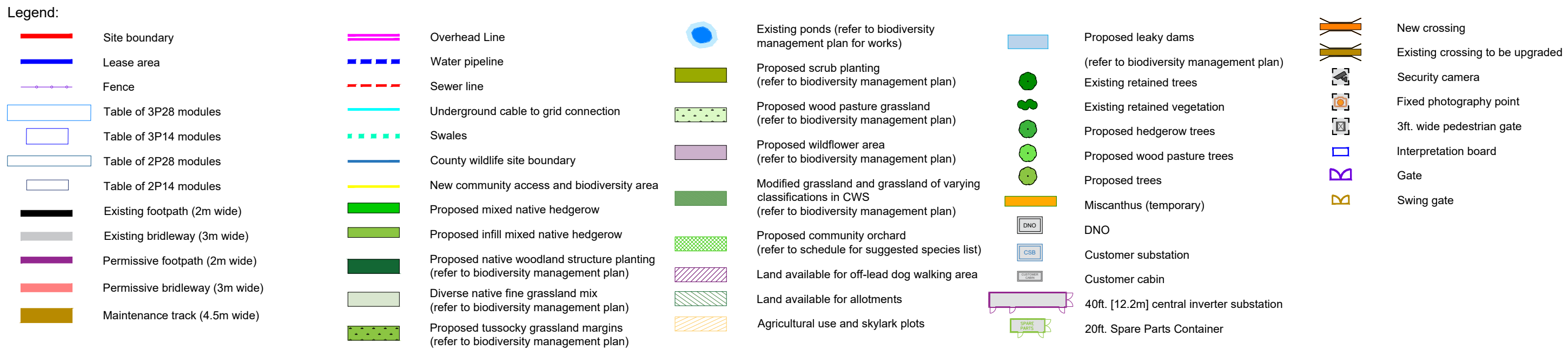
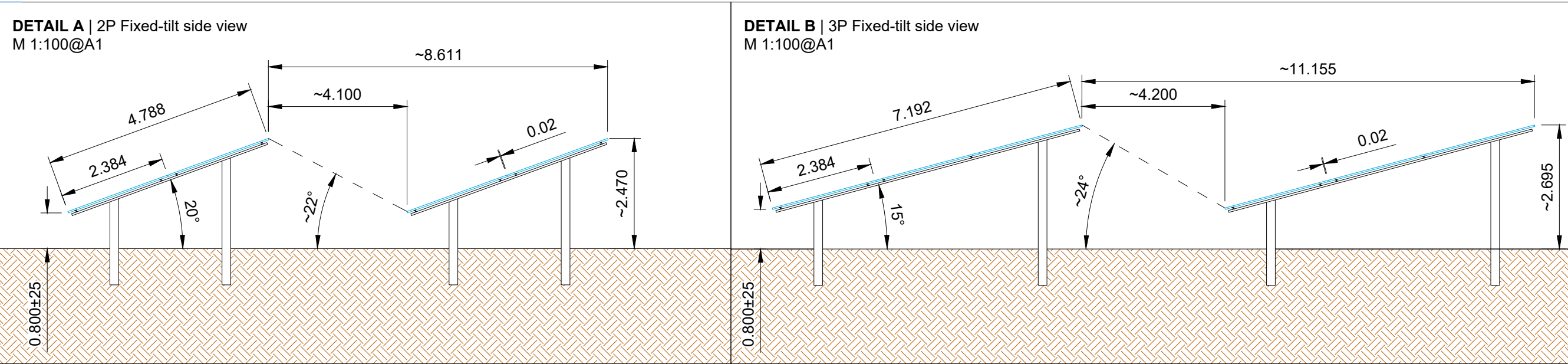
Cotswold Archaeology

21 January 2026



Appendix 1: Red Barn PV Layout Plan





- Notes:**
- All dimensions to be confirmed on site prior to installation.
 - All dimensions are indicative only and in mm unless otherwise specified.
 - Drawing based on:
"Red Barn Topo.dwg"; "Red Barn.kmz".
 - Existing hedgerows will be infilled and grown up, interspersed with new trees 3m high at outset.

System description:

Max. Export Capacity:	4000 kW
Substructure type:	Fixed-tilt system
Tilt angle:	15° (3P), 20° (2P)
Shading angle:	~24° (3P), ~22° (2P)
Azimuth from South:	Due South
Inverter model:	Siemens Sinacon PV4000
Inverter power, kVA:	4000
No. of inverters:	12
DC / AC ratio:	1.15



Location: Kington St. Michael,
Chippenhams,
United Kingdom
51°30'7.15"N 2°7'58.10"W

Title: PV Layout

Drawn: Detra Solar / SS **Checked:** RW
Scale: 1:5000@A1 **Date:** 22/01/26
Drawing No: EDR1008-101 **Rev:** AD